



# Program Implementation Plan

## Measure M Bond

San Bernardino Community College District



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## CHAPTER 1 – PROGRAM OVERVIEW

### ***Bond Program***

In February 2008, San Bernardino Community College District (SBCCD) passed a \$500M Capital Improvement bond for Measure M. Subsequently, to this allocated amount, on April 05, 2011 the SBCCD Community was sent an update from Charlie Ng, Vice-Chancellor at the San Bernardino Community College District. This update stated that due to the financial climate, the district sold bonds and funding for \$258,000,000 of the total \$500M. As a result, the district proceeded with building projects consistent with what the voters approved for San Bernardino Valley College (SBVC) and Crafton Hills College (CHC) for the allocation of the \$258,000,000. Each campus was given the process of evaluating and reprioritizing their respective projects based on this development. As a result, SBVC received \$109,806,586, CHC received \$140,641,220, the District received \$2,052,194, and \$5,500,000 was left as an allocation for Program reserves.

### ***Program Implementation***

The District and Community expect an efficient and effective delivery of the Bond Projects. A well-planned orderly system will support these goals.

**The following Program Implementation Procedures (PIP) is provided to establish the basic framework by which this program of capital improvements will be carried out.**

PIP considers various planning documents for each campus:

- Five Year Construction Plan
- Campus Master Plan
- Sustainability Plan

## CHAPTER 2 – PROGRAM OBJECTIVES AND GUIDING PRINCIPALS

### ***Introduction***

If the results are to be effective and efficient, then order, discipline, and focus are required to complete the complex sets of interconnected tasks and projects. For its foundation, the PIP uses the District's bond program objectives along with key guiding principles which are common to highly successful capital improvement programs throughout the country.

### ***Updates***

From the inception of the PIP, there is an expectation that this is a "living document" and therefore requires regular updates on an as needed basis. After the initial approval of the PIP by the Board of Trustees, all project budget, schedules and scopes will be monitored and rebalanced as necessary.

### ***Principles of PIP Development***

- Identify San Bernardino Community College District key program objectives
- Employ Best Management Practices of the design/construction industry
- Incorporate lessons learned from current program work experience
- Use the adopted missions, visions and values of the District and both Colleges as the underlying missions, visions and values of the Bond Program
- Establish metrics for success
- Assign accountability so that it is clear who is responsible to assess and redirect, as necessary, any program elements that are not meeting their established metrics.

### ***Key Objectives***

- Model Program that meets voter's expectations
- Well-defined and managed Project Scopes
- Well-defined and managed Project Budgets
- Well-defined and managed Project Schedules
- Well-defined metrics for measuring Program success
- Well-defined Program Team roles and responsibilities
- Well-defined, effective, and utilized decision-making procedures
- Community and other stakeholders fully informed of program processes and results
- Program participants educated to a common understanding of Bond Program elements
- Open and transparent reporting
- A Program which fully supports and contributes to the essential missions and ongoing operations of the District and Colleges

### ***Best Management Practices***

- Defined Organizational Structure
- Qualified Participants
- Empowered Participants
- Strategic Planning
- Checks and Balances
- Communication
- Standard Implementation Policy & Process
- Program Team Collaboration

### ***Metrics of Program Success***

The most important elements in the PIP are defining the scope, budget, and schedule for each project. All three of these elements are variables, and the success of the program depends on a careful balance and management of these variables throughout the life of the program.

- Scope is defined as the physical requirement of the project, site circulation, the number of rooms, the size of the rooms, material choices and other requirements of the space.
- Budget is the projected cost of construction, inflation, architectural, engineering, and all the other costs associated with a building program.
- Schedule is the timeline for executing the individual projects and taking into consideration all secondary effects, including any requirements for swing space, bond cash flow requirements, additional work required due to effects of primary projects, and the move in time to the additional classroom space created.

The Program's success will be measured by the specific outcomes of each project as compared to the established scope, schedules and budgets.

### ***Mission, Vision, Values***

The Program Implementation Procedures will be guided by the Mission, Vision and Values of the District and respective Campuses. Attitudes, philosophies and beliefs uniquely pattern a culture, and guide an organization's internal conduct as well as its relationship with the external world.

## CHAPTER 3 – PROGRAM STRUCTURE & DECISION-MAKING

### ***Introduction***

The Program Implementation Procedures (PIP) is the road map for the implementation of the Measure M Bond Program. In order for the Program goals to be achieved, the Program team must address all challenges in a proactive and collaborative manner. Supported by leadership, communication, organization and process, the orderly implementation of the procedure will serve to guide the Program in an efficient and cost effective manner. Integral to the structure of a successful team is the clear definition of individual roles and responsibilities, and the subsequent establishment of a thorough decision-making process and authority matrix.

### ***Principles of PIP Development***

The PIP was created by:

- Meeting with Program stakeholders for review and approval
- Adopting “lessons learned” from Measure P and M
- Applying Industry best practices

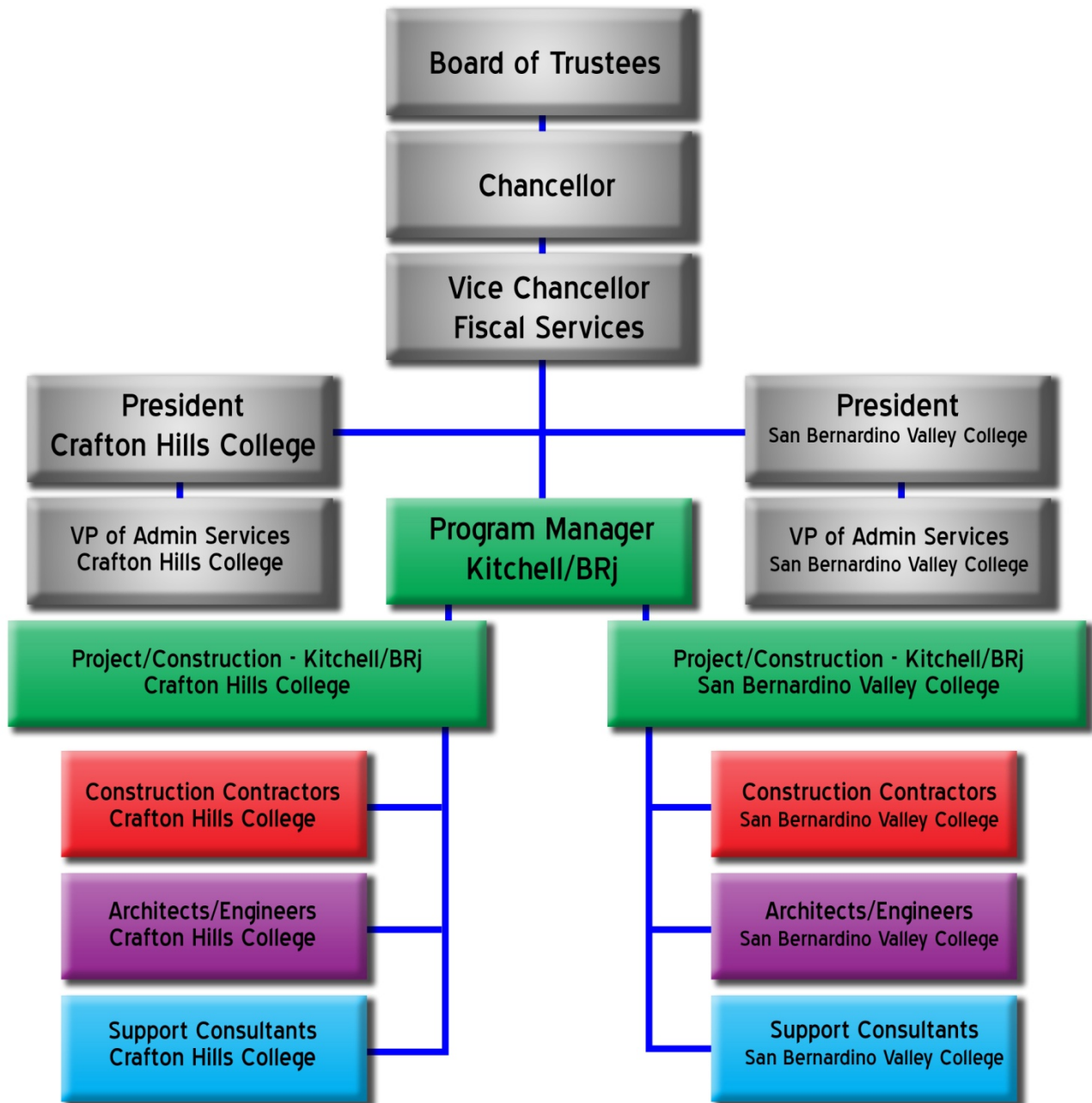
### ***Program Organizational Structure***

As a program organizational structure to support initial decisions, updates and feedback, each college has established project user groups to provide recommendations to the college Presidents. In turn the Presidents will make recommendations to the Vice Chancellor of Fiscal Services. The Vice Chancellor of Fiscal Services acts in the capacity of the Chief Financial Officer for the District. The primary goal is effective information distribution to facilitate informed decisions.



**Contents**

The Program Reporting Structure shown below identifies the established organizational lines to be followed for any necessary decision making or conflict resolution. Problems should be solved at the lowest level possible by those closest to the issue.



### ***Roles and Responsibilities***

Responsibilities for each of the team members are described generally in this PIP.

#### Board of Trustees

The elected Board of Trustees is directly responsible for setting policy regarding all district actions. Duties related to the Bond Program include:

- Initial adoption of Program Implementation Procedures
- Adoption of Campus Master Plans
- Adoption of Five-Year Capital Improvement Plan
- Approval of contract awards and contract modifications
- Approval of Bond Sales
- Approval of Project Prioritization List and Project Budgets

#### Chancellor

The Chancellor is the Chief Executive Officer of the District with overall responsibility for the management of all District affairs, including the Bond Program. As such, the Chancellor has ultimate authority and responsibility for all Program activities. The delegation of responsibilities is outlined below for each team member. Specific activities to be carried out by the Chancellor include, but are not limited to:

- Recommend Initial Program Implementation Procedures
- Reviews and approves Program Implementation Procedures
- Recommend Campus Master Plans
- Recommend Five-Year Capital Improvement Plan annually
- Recommend to award contracts and contract modifications
- Recommend approval of all budgets and expenditures for Bond Program projects
- Final arbiter of Facility Master Plan as it supports the Educational Master Plan
- Recommend Bond Sales
- Recommend Project Prioritization List and Project Budgets

#### Vice Chancellor, Fiscal Services

The Vice Chancellor is the primary administrative authority for the remainder of the Bond Program Team, with overall administrative and directive responsibility for the Program activities, including, but not limited to:

- Oversight of Capital Program
- Recommend Program Implementation Procedures
- Recommend Facilities Master Plans
- Recommend Five-Year Capital Improvement Plan annually
- Recommend contract awards
- Approve contract modifications up to \$ 50,000.00 or 10%, whichever is higher
- Approve campus change requests
- Approve Capital Program Procedures
- Communicates District's requirements
- Meets with the Program Manager on a regular basis
- State funding applications (IPP/FPP/Scheduled Maintenance)

- Recommend all bond appropriate program expenditures
- Authorized owner representative for compliance with applicable codes and regulations

Campus President (some of these duties can be delegated to the VP of Administrative Services at the President's discretion)

- Recommend approval of Program Implementation Procedures updates
- Recommend approval of Campus Facility Master Plan
- Recommend approval of Five-Year Capital Construction Plan annually
- Approve campus change requests over \$ 5,000.00
- Recommend approval of project priority list
- Ensures that Facility Master Plan supports Educational Master Plan
- Review and approve critical project milestones (project scopes, project schedules, project budgets, design milestones, furniture, fixtures, equipment)
- Selection and appointment of campus user groups
- Arbiter of campus aesthetics

Campus Vice-President of Administrative Services (some of these duties can be delegated to the Director of Facilities at the VP's discretion)

- Responsible for timely processing of appropriate information, direction, correspondence, and program documents
- Communicates with campus staff on all necessary matters relating to the bond program
- Communication with program and project managers
- Recommend project occupancy dates
- Manage internal relocations of existing campus programs, with input from Project Manager
- Facilitates and manages communication and coordination between M&O and Capital program
- Review and recommends critical project milestones (project scopes, project schedules, project budgets, design milestones, furniture, fixtures, equipment)
- Coordinate district requirements with construction team to ensure all campus communication, IT, AV, etc. is coordinated with construction schedule
- Assignment of campus personnel for required training, phasing milestones, weekly construction meetings, punch list walks, utility surveying, and commissioning
- Initiates/Recommends campus change requests, and approves campus change requests up to \$ 5,000.00
- Provides input for Campus Facility Master Plan
- Recommend Five-Year Capital Construction Plan annually
- Recommend award of contracts and contract modifications
- Provides input, recommends, and approves campus design and construction standards
- Review and recommend all construction scope changes

### Project User Groups

Each project will have a representative group that will meet with the program manager and the architect on a regular basis during the design phase of the project. This group will:

- Be appointed by the President or designee
- Provide project specific input to the design team, consistent with the Educational Plan and Facility Master Plan
- Attend and participate in project user meetings

### Project Management Firm

The Project Management Firm reports to the District's Vice Chancellor of Fiscal Services for all Program-wide services.

The Project Management Firm provides the District services in accordance with the agreement between the District and Project Management Firm for program, project, and construction management services effective as of June 1, 2012.

### Project Management Firm's Team

The PM team consists of a group of key individuals with particular program/project management skills and expertise. The PM team interacts daily with the District, Campuses, Consultants, Contractors and other stakeholders in the Program. Staff positions are as follows:

#### Program Executive:

The Program Executive provides oversight control and is the responsible agent for overall project administration.

- Manages the contract terms and conditions between the District and PM firm.
- Periodically meets with the District to ensure client satisfaction and program success.
- The Program Executive is responsible for the commitment of resources to each project within the program.

#### Program Manager:

The Program Manager is accountable for reporting program information to the Owner. The Program Manager plans, directs and ensures the effective execution of project or construction management services for the program.

Specific duties include:

- Directs, leads and is accountable for all phases of projects within the program.
- Ensures program operations are executed in accordance with program management procedures and policies.
- Maintains and ensures client satisfaction and effectively resolves complaints.
- Participates in preparation and negotiation of owner contracts and ensures delivery and adherence to contractual requirements and that all aspects of owner contracts are accomplished.

- Oversees preparation and maintenance of program budget, construction schedule and master program schedule.
- Oversees preconstruction, construction progress, team performance, and project closeout, to ensure conformance with schedule, budget and contractual requirements
- Implements and maintains effective systems of communication with appropriate stake holders to ensure constructive relationships and the adequate flow of information
- Ensures preparation and distribution of construction observation reports, progress status reports, schedules, pay applications and cost control reports
- Ensures implementation and maintenance of effective document control mechanisms for the program including as-builts, submittals and requests for information
- Maintains high quality standards, understands key process issues and ensures implementation of process improvements
- Identifies and manages risk
- Assists with strategy development
- Ensures workplace health and safety policies and procedures are clearly communicated and understood by program employees and enforces rules fairly and uniformly
- Maintains appropriate staff for effective execution of project or construction management services for the program
- The Program Manager will meet with both cabinets on a regular basis to provide updates, raise issues on projects, and give budget and schedule status.

Project Manager:

Project Managers are assigned to specific projects, and act in the capacity of district/campus extensions of staff to provide leadership and direction to each project within the constraints of the scopes, schedule and budget established in the Program. They provide daily management control and problem-solving.

Specific duties include:

- Meets regularly with the user groups to develop a clear understanding of their respective projects' needs
- Communicates project progress and coordinates project related actions with Presidents and campus representatives
- Provides management oversight of Architects performance throughout the design process
- Develops and maintains budgets and, provides support for timely decision making. They will provide ongoing reviews of project budgets and estimates, evaluate alternative project systems and delivery methods, and assist in life cycle cost analysis and value engineering. They will evaluate bids received, leading to an award recommendation, and all contractor submitted requests for change orders during construction
- Reviews and tracks project construction and recovery schedules and associated costs to achieve completion of projects within time and monies allocated

- Develops a project master schedule that coordinates the design efforts with procurement and construction schedules. The PM is responsible for working directly with all project team members to analyze, refine, and make adjustments to the master schedule as required to clearly define and control all phases of the project
- Manages preconstruction, construction progress, and project closeout to ensure conformance with schedule, budget, and contractual requirements
- Responsible for procuring and negotiating contracts with various consultants

#### Project Engineer:

PE's provide technical support to the project manager with assigned duties in the areas of scope, schedules and budgets. PE's maintain an effective and professional working relationship with Owners, Architects, Engineers, Contractors, Suppliers, etc.

Specific duties include:

- Assists in the monitoring, controlling, and updating of project schedules and budgets
- Prepares Change Order Requests and coordinates c.o. documentation
- Provides photo documentation of projects
- Provides administrative and technical support for all project documents

#### Contract Manager & Accounting Specialists

Conducts daily business activities to facilitate payment to vendors and produces reports and correspondence to document the fiscal activities of the Program.

Specific duties include:

- Processes vendor pay applications
- Tracks all cost associated with the projects and produces periodic cost status reports

#### Project Coordinator

This position provides clerical, administrative support, and all document control for a project. Ensures the field office operates efficiently and effectively.

#### Engineering and Architectural Services Group

Kitchell's in-house resource group consists of architects, engineers, programmers, schedulers and estimators who provide design and constructability review, estimating, value engineering, scheduling, and special studies, as required.

#### Project Architects/Engineers/Planners

The District employs a qualifications based selection process, and has selected architectural firms who were assigned projects based on previous similar project experience, staff availability, and ability to meet design schedule deadlines. The selection process for consultants is delineated in Chapter 12. Efforts will be made to distribute projects to firms based on experience and capacity to complete the work effectively and in a timely manner. Designers are responsible to:

- Design to an established Bid Day budget
- Interact with User groups to develop designs

- Coordinate all processes required through the Division of State Architect (DSA) to obtain approval of the design
- Provide a complete set of Bidding Documents for each project
- Provides project administration for RFI's, submittals, shop drawings, etc.
- Provide oversight of construction close-out documents for conformance to the contract specifications
- Participates in project close-out procedures
- Provide written interpretation of contract documents
- Implement Owner directed project changes
- Acquires DSA close-out certification

### ***Decision Making***

Timely allocation of resources influences the cost and success of the program. To this end, a Decision Matrix has been developed and ascribed to by the District in order to facilitate efficient decision making and manage expectations. The matrix includes a list of all groups that will be provided a regular input or update on project decisions.

It is the District's goal to maintain an open and active communication process during the Measure M Bond Program so all interested parties can have input into the bond activities and stay informed. The purpose of the matrix is to gain clarity and agreement on key areas of accountabilities as they relate to the program.

In the table below, various codes are used to articulate responsibility for the various Program and Project decisions through the Measure M life cycle.

- A - Approves the deliverable
- R – Recommends approval.
- C - Creates the deliverable. (Usually there is only one person who is responsible for creating a deliverable, although many people may provide input.)
- I - Provides input
- N – Is notified when a deliverable is complete
- M - Manages the deliverables



	Program Mngr	User Groups	College V. Pres, Inst, SS	College V. Pres, Admn	College President	V. Chancellor Fiscal	Chancellor	Board of Trustees	Notes
									A - Approves or authorizes
									R - Recommends Approval
									C - Creates deliverable or documentation
									I - Provides input
									N – Notified when a decision/deliverable is complete Notifications typically occur via the Monthly Report
									M - Manages the decision or deliverable
<b>Project Budgets</b>									
Program Budget Allocation	RCM		N	R	R	R	R	A	
Project Budget	RCM		N	R	R	R	R	A	
Any changes in total project budget	RCM		N	R	R	R	R	A	
Funds availability						A	N		
Expenditure Reporting	RCM			N	N	N	N	N	

	Program Mngr	User Groups	College V. Pres, Inst, SS	College V. Pres, Admin	College President	V. Chancellor Fiscal	Chancellor	Board of Trustees	Notes
									A - Approves or authorizes
									R - Recommends Approval
									C - Creates deliverable or documentation
									I - Provides input
									N - Notified when a decision/deliverable is complete Notifications typically occur via the Monthly Report
									M - Manages the decision or deliverable
<b>Changes</b>									
Errors & Omissions, Unforeseen, Jurisdictional	RCM			N	N	R	R	A	
Owner Initiated Scope Changes	RCM			R	R	R	R	A	Changes under or at \$5,000, the VP of Admin Services recommends and the President is notified. Changes between \$5,000 and \$50,000, the President recommends and the Vice Chancellor approves. Changes over \$50,000, the President and Vice Chancellor recommend and the Board approves.
<b>Project Schedules</b>									
Site Project Priority List	CM	I	I	R	R	R	R	A	
Establish Occupancy Dates	RCM		R	R	A	N	N	N	
Project Milestone Schedules	RCM		N	A	N	N	N	N	
Recovery Schedules	CM		N	N	N	N	N	N	
<b>Project Scopes</b>									
Program Requirements	CM	I	R	R	A	I	N	N	
Schematic Design Approval	RCM	I	R	R	A	N	N	N	
Design Development Approval	RCM	I	R	R	A	N	N	N	
Construction Document Approval	RCM	I	R	R	A	N	N	N	
Approval to Bid	RCM		N	R	N	A	N	N	
Award Approval	RCM		N	R	N	R	R	A	

## CHAPTER 4 – COMMUNICATIONS & REPORTING

### ***Introduction***

It is the District's goal to maintain an open and active communication process during the Measure M Bond Program, so that all interested parties can stay informed and have an opportunity to comment on bond activities.

### ***Reporting Tools***

To support this goal, the Program Manager will provide regular updates using various reporting and communications tools. The reporting frequency shall be a minimum standard, and as necessary, additional reports shall be provided for significant developments, potential issues, and program accomplishments.

### ***Monthly Progress Reports***

The Program Manager, will issue a detailed progress report on a monthly basis. The report will address scope, budget, schedule, and outstanding issues for each active project. The report shall be posted on the district's web site.

### ***President's Construction Meeting***

The Program Manager will facilitate a monthly Capital Improvement Program (CIP) meeting on each campus with the President's cabinet. The PM will provide an agenda and document action items. The meetings focus will be on planning and design issues, construction updates, and activities that will interrupt or inconvenience the campus during the construction phase of a project.

### ***Program Management Meeting***

During the startup and construction phases of all active projects, the Project Manager will prepare a weekly construction update. This report will provide information about current and planned future activities; possible utility or access disruptions, and an update of the project's progress. This report will be provided to the key campus communication representative, the VP for Administrative Services, for distribution to staff and students.

### ***Dashboard Reporting***

A bond program web site will be maintained by the District's webmaster, and the Program Manager will provide regular updates. The website links to each college's web sites and to the District web site. The web site will include general Program information, project summaries, schedules, budgets, recent activities, and upcoming activities to show ongoing progress on active construction projects.

***Community Information***

The District desires to proactively notify and engage the public in the Measure M activities. Each College will schedule a number of activities to publicize, inform and solicit input from the local communities. The Public Information Officer or others as designated by the campus president with support from the Program Manager will develop collateral materials. Outreach activities will include:

- Environmental Impact Reports (EIR)
- Open-house presentations
- Ground breaking ceremonies
- Building dedications
- Project signage
- Presentations to local government and organizations
- Press conferences

***Metrics of Program Success***

- Monthly written progress report
- Weekly construction updates
- Website updated monthly
- Meetings Attended
- Reports Produced

## CHAPTER 5 – MASTER PROGRAM BUDGET AND COST CONTROL

### ***Introduction***

Initial budgets were established in the planning phase for each project. As each project progresses through their respective design phases, budgets are reconfirmed or modified. Control is provided by comparisons of actual results against budget plan. Departures from budget can then be investigated and the reasons for the differences can be divided into controllable and non-controllable factors enabling remedial action to be taken as variances emerge.

### ***Guiding Principles and Participants***

The Program Manager will work with the District to establish a baseline Master Program Budget beginning with the District's preliminary outline of projects and budgets developed by the District and approved by the Board. The Master Program Budget will be updated periodically as project estimates are better defined during the design phases and when actual costs are identified after bidding and completion of construction.

For the Schematic, Design Development, and Construction Document phases of a project the Architect will provide the District a construction estimate which will be verified by the Program Manager. Design phase estimates shall include a contingency amount that reduces as the design develops. Escalation costs are also added for multi-year projects.

After a construction contract is awarded, the PM shall track costs and submit a projection of construction costs and exposures each month until the project is complete. The disposition of contingency use during construction and at the project completion is left up to the discretion of the District.

The PM will use this information along with other data to forecast final projected costs. A monthly report that also includes encumbrances, projected cost to complete and expense to date will be reported to the Chancellor, Board of Trustees, Citizen's Bond Oversight Committee and other stakeholders as directed by the District.

### ***Goals and Objectives***

- Establish and meet achievable Budgets for each project
- Provide a base against which actual performance can be measured and managed
- Balance the cost of extensive or special investigations against the risk of change orders for unforeseen conditions
- Eliminate scope changes after approval of Programming Document
- Achieve the lowest possible bids from responsive bidders
- Minimize the chances of change orders and claims after construction begins by supporting practices that lead to high quality bidding documents

## ***Budgeting***

### **Master Program Budget Development**

The Master Program Budget includes a conceptual estimate for each project in the program. The conceptual estimate is broken down into various components that are classified as hard or soft costs. Hard costs are the estimated cost associated with physically constructing each facility. Soft costs are the non-construction related costs such as professional services, permits, fees, contingencies and escalation.

Baseline budgets will be conceptual using square foot cost estimates for construction and percentages of construction cost for non-construction items such as professional services, permits and fees, contingencies and escalation.

### **Design and Construction Phase Estimates**

The PM reviews the Architect's cost estimates submitted at each design review (Schematic, Design Development and Construction Documents). A/E cost estimates shall include a narrative of the estimator's assumptions and the appropriate contingency amount for the phase as stated below:

- Schematic Design: 15-20%
- Design Development: 10-15%
- Intermediate Contract Documents: 5-10%
- Final Contract Documents: 3- 5%

If the PM disagrees with the Architect's estimate and differences cannot be resolved, the PM and the Architect will meet with the District to reconcile differences/discrepancies before moving forward to the next document phase. If it is determined that the estimated cost of the Architect's design exceeds the project budget, the A/E shall present cost saving options to the Owner for consideration and approval

## ***Cost Control***

### **Variance Control**

One of the objectives of budgeting is to provide a base against which actual performance can be measured and managed. The Program team will provide constant monitoring of the approved budgets and provide recommendations for corrective actions should unacceptable variances develop.

Variance control starts with realistic budgets. To support this approach the following budget tools will be implemented:

- Certain design phases will be supported by a professional estimate, reconciled by the Program Manager
- Forecasts will occur monthly to provide current information
- Schedule reviews of budget and estimates to ensure that decisions are made in an appropriate time to avoid additional cost

Specific strategies and approaches by each phase are outlined below:

### **Pre-Design Phase**

The Program Team will meet regularly with the campus user groups and design consultants during conceptual and preliminary design to advise on site use and improvements, selection of materials, building systems and equipment. Discussions will include:

- Identify factors (i.e.: risks) likely to affect construction costs
- Develop a preliminary estimate of the total project cost
- Evaluate alternative sites and develop cost & benefit analysis

### **Design Phase**

The Program Team will participate by providing recommendations and timely cost advice as the design evolves. Areas to be considered include:

- Construction feasibility
- Availability of materials and labor
- Time requirements for installation and construction
- Preparing estimates as the design evolves and to the same level of detail available on the drawings, such as schematic design, design development and completion of bid documents
- Identify and pre-purchase long lead items
- Preparing estimates of escalation based on expected local conditions
- Value engineering studies. Performing the studies, reviewing the recommendations from the value engineering study with the project team and adjusting estimates for those items adopted by the team
- Providing constructability reviews identifying and resolving potential claims or problem areas and deficiencies that may occur during the construction phase of a project, done by eliminating errors, omissions, and ambiguities in the contract documents
- Maximum effort will be expended to segregate all design decisions during the appropriate project phases. Design modifications after the Bid phase are often much more costly

### **Bid and Award Phase**

Contracting strategies that may include:

- Separate contracts to save markups for overhead and profit
- Pre-purchases for group discounts with contracts assigned to the general contractor
- Proactive bid enhancement to ensure local participation and lower bids
- Tabulating all bids and preparing a bid analysis, including evaluation of all alternate bid items and unit prices and comparing it to the budget and estimate
- Providing recommendations to the District for award

**Construction and Acceptance Phase**

- Monitor and manage change order review process.
- Perform independent estimates and analysis for change orders to determine reasonableness, as required.

**Types of Change Orders:**

- Changes in the Specifications or Plans
- Changes in the owner-furnished facilities, equipment, materials, services or site
- Changes directing acceleration of the Work
- Changes authorizing added time to the substantial completion milestone

**Change Amendments:**

## Unforeseen Conditions

- Some condition of the site differs from what could reasonably be inferred from all information known and communicated to the Contractor at the time of bid

All Change Orders will go to the Board of Trustees for approval or ratification.

***Request for Proposal (RFP)***

The District may at any time, by written order, and without notice to the sureties, make changes to the Contract if within the general scope of the Project. All District proposed changes will be initiated through the PM. Once a change has been initiated, the PM will prepare a Request for Proposal (RFP). The RFP will set forth in reasonable detail the nature of the change, whether additions, deletions or other revisions to the Contract Documents. If such change causes an increase or decrease in Contractor's cost and/or time required for performance of the Agreement, an equitable adjustment will be made and the Contract Sum and/or Contract Time modified in writing accordingly by a Change Order.

**Campus Change Request (CCR)**

If the Campus identifies additional scope that appears to be reasonably consistent with the intent of the project scope but clearly not included in the contract documents, the Campus can request a change be issued to encapsulate such items. The PM will outline the Change proposed by the Campus on a CCR outlining impacts to the Contract Sum and or Contract Schedule. The CCR once properly drafted shall be submitted to the Vice Chancellor of Fiscal Services. The Vice Chancellor of Fiscal services will approve or deny such request as appropriate.

***Contractor Changes – Change Order Request (COR)***

If the Contractor believes a change in the Contract is appropriate, the Contractor submits a COR to the PM within 10 calendar days of the event giving rise to the change. The COR will include a description of the proposed change, the contractual basis for the change and any proposed change in the Contract Sum and/or Contract Time. If the COR includes a proposal to extend the Contract Time, the Contractor must include a description of: (1) the nature of the delay; (2) the date (or anticipated date) of



commencement of the delay; (3) activities on the Project Schedule affected by the delay, any new activities created by the delay, and their relationship with existing activities; (4) the persons, organizations, or events responsible for the delay; (5) the anticipated extent of the delay; and (6) recommended action to avoid or minimize the delay. All Change Order Requests that affect the Contract Sum will be submitted as a lump sum price, itemized and supported with sufficient substantiating data such as detailed estimates, price quotes, invoices and rate sheet to permit evaluation with respect to the following costs:

- Professional services showing hourly rates times estimated hours
- Labor showing estimated hours
- Payroll taxes and applicable insurance burdens on labor
- Materials, supplies and equipment, including unit costs and estimated quantities
- Machinery and equipment rental, including rental rates and estimated durations
- Premiums for all bonds and insurance and sales tax
- Overhead and profit not to exceed 15% by the party performing the work and a 5% mark-up by the Contractor if not directly performing the work

The PM will review the Contractor's COR information and determine if a change to the Contract is allowable. For Change Order Requests that are not allowable, or incomplete, the PM will return to the Contractor with an explanation as to why the COR is being rejected. For Change Order Requests the PM considers allowable under the Contract, the PM will review cost and schedule information provided by the Contractor. If the PM enters into negotiations with the Contractor, the PM will prepare minutes of the negotiation meeting(s). If approved, the PM will prepare a Lump Sum Change Order for execution by the District and the Contractor. If denied, the PM will notify the Contractor of the denial.

### ***Change Order Funding***

Change Order funding is provided in the Project Budget Contingency. The PM will track change order activity and its effect on the Project Budget Contingency in the monthly Exposure Report, including potential change orders, proposed discretionary changes, change order requests from the Contractor and executed change orders. The cumulative total of all change orders shall not exceed 10% of the original Contract Price.

### ***Processing Agreed to Change Orders***

Once a Change Order has been agreed to by the Contractor and District, the Contractor prepares 3 original copies of the Change Order for execution. The Contractor delivers the Change Order copies to the PM for signature. The PM will acquire signatures from the Architect and the District. Once the PM has acquired all signatures the Change Order shall be presented to the District. The Program Manager prepares a Board agenda item for Change Order approval at the next regularly scheduled Board meeting. The Program Manager and the PM attend the Board meeting to answer any questions that might be posed by the Board. Change Orders approved by the Board are executed and returned to the Program Manager, who retains one signed copy for the District's files. The Program Manager forwards 2 copies of the executed Change Order to the PM, who delivers one signed copy to the Contractor and one signed copy to the

Architect. The Architect forwards the Change Order and any other information to DSA for review and approval.

***Metrics of Program Success***

- Each project meets or is under baseline budget.
- Contingency usage within the following limits:
  - Design Phase <10% of total budget
  - New Construction Phase <5% of total budget
  - Modernization Phase <10% of total budget
- Pre-bid estimates within 5% of the median bid.

## CHAPTER 6 – SCHEDULING AND SCHEDULE CONTROLS

### ***Introduction***

The project schedules are also one of the tools used to track costs for the Measure M Program. This information will be updated periodically, and will be reported to the Vice Chancellor of Fiscal Services, Board of Trustees, and Citizen's Bond Oversight Committee.

The Program Manager shall develop a Master Project Schedule based on the District and campus program priorities for accomplishing the work. After the Master Project Schedule has been established, the Program Manager shall periodically update the Master Project Schedule to reflect actual progress and/or any project re-phasing required by the District.

Prior to starting a design, the Program Manager shall develop a project duration detailing design phase milestones through DSA Approval. The project schedule shall be included in the Agreements between the Architect, PM and the District. The Program Manager shall update the Project Schedule during the design and permitting phases of the project.

Prior to design completion, the PM shall develop the Project Construction Outline. The Construction Outline shall detail the contract duration for construction activities with all necessary milestones. The PM's Project Outline shall be included in the contract documents issued to bidders and made part of the construction contract for incorporation into the Contractor's Baseline Schedule for attachment to the Contractors Agreement with the District. The PM shall monitor the Project progress during construction and close-out.

### **Master Project Milestone Schedule**

The Program Manager will develop the Master Project Milestone Schedule, which tracks the progress of the entire Program. The level of detail listed for each project on the Master Project Schedule is limited to single activities for design, DSA review and approval, bid period and time of construction. The Program Manager shall periodically update the Master Project Schedule, compare actual to planned progress and prepare a report to the Board.

### **Project Schedule (Design Phase)**

As projects enter the design phase, the Program Manager expands the Project Milestone Schedule to include activities for design reviews, agency approvals, District pre-purchase items (if applicable), period of bid marketing, advertisement for bids, addendum, bid opening, Board approval, pre-construction conference and construction period. The Project Schedule is made a part of the Architect's Agreement with the District to establish the critical timeline for A/E performance. The Program Manager shall review and update progress during the design and bid phases of a project.

**Project Schedule (Construction Phase)**

The PM shall ensure a Project Baseline schedule is issued in conformance with the specifications. The PM shall receive monthly updates with the Contractor's Pay Application verifying the "Work In Progress" and Cost to Complete values is representative and in compliance with the Schedule specifications.

**Look Ahead Schedules (Construction Phase)**

The PM will chair weekly meetings with construction contractors. During weekly meetings the PM and contractors will review Look Ahead Schedules showing activities for the current week and a two week look ahead. Any activities identified as being behind schedule or having the potential for going behind schedule will be documented in the meeting minutes and tracked.

**Recovery Schedules (Construction Phase)**

In the event that the critical path of the Project Schedule shows an impact of 10 or more days of negative float the Contractor shall issue either a Time Impact Analysis (TIA) or a Recovery Schedule. If the TIA proves critical path delays are excusable and compensable, the PM shall process a change order extending the end date of the contract with a full explanation of why the delay is excusable. If critical path delays are not excusable, the PM has several remedies to utilize in order to bring the project back within the contracted delivery timeline. One remedy is for contractor to develop a Recovery Schedule accepted by the PM to finish the project on time. Recovery schedules may include working on weekends and extra shifts or paying premiums to expedited deliveries in order to complete the project on time.

**Metrics of Program Success**

- Design - Conclude each design phase consistent with established milestone schedules
- Construction – Conclude each critical milestone within 10 days of established date
- Construction - Each building fully functional by established occupancy dates

## CHAPTER 7 – PROJECTS DELIVERY OPTIONS

### ***Introduction***

The construction industry recognizes several delivery methods that a public agency may consider when awarding capital construction projects. SBCCD's construction program consists of multiple building types to suit multiple requirements per the Educational Master Plan.

The Delivery Methods outlined below are available at the District's discretion:

### ***Delivery Methods***

- Design-Bid-Build – The District hires an Architect, who fully develops the design, and bids are received from General Contractors. The lowest responsive bidder enters into a fixed fee contract with the District for the construction of the Project. The General Contractor in turn contracts with various subcontractors to execute the work.
- Agency PM/Multiple Prime - The District hires an Architect, who fully develops the design. A Construction Manager is hired who manages the Construction phase, but is not under contract to build the facility. Bids are received from numerous Prime Contractors, often the same firms that would be Sub-contractors in the Design-Bid-Build approach. The lowest responsive bidder in each work category enters into a fixed fee contract with the District for the construction of their specific part of the Project.
- Lease-leaseback – This approach allows the District to choose a contractor based on perceived best value, rather than price alone. The lease-leaseback approach is realized by having the District enter into two leases with a chosen contractor: a site lease and a facilities lease. The Site Lease is the document in which the District will lease the real property to the builder for \$1 per year. The Facilities Lease is the document the school district will utilize to lease back the real property and completed facilities, and will also be the document that includes construction provisions which set the fixed price to be paid by the school district for the completion of the Project ("Guaranteed Maximum Price"). The construction provisions will reference the plans and specifications completed by the Architect.
- Design-Build - A single entity provides both the design and construction through the use of a single contract between the District and the design-build (D-B) contractor.

***The Process***

The PM assists the District in analyzing project deliverable methods according to the criteria listed below. The following steps/measures are taken:

- A. PM meets with the District to review and identify a project's requirements
- B. PM analyzes the project requirements based on the criteria below to against each project deliverable's traits to determine the delivery application
- C. PM makes recommendations to the District of the most effective delivery method based on the analysis taken in step B

***Criteria Influencing Choice of Delivery Methods***

The District has established goals and objectives that will be considered when analyzing the appropriate delivery method. The delivery method for a project affects budget, schedule, team and consultant selection, quality control, and all the other elements of the program management process. Among these are:

- Project schedule needs and constraints
- Budget requirements and parameters
- Utilization of local contractors & vendors
- Jobs for local community residents
- Diversity in the workforce
- Opportunities for emerging firms
- Economic and operational Efficiency
- Risk factors

***Application of Process Based on Criteria***

Example: \$9 Million Modernization of campus Business Building. The delivery method used was design-bid-build for the following reasons:

- Competitive bid environment produced more bidders and subsequently lower bids.
- District has a professional and construction staff to manage construction
- Recognized method of deliverable by most local vendors

Example: \$6 Million Solar Power Panel Project. Delivery method used was design-build for the following reasons:

- Project schedule was constrained
- Specialized vendors were required
- Single contract created economic and operational efficiency

## CHAPTER 8 – SAFETY

### ***Introduction***

Site Safety is a major concern on campus projects such as these. Our goal is to plan in advance for safe construction implementation and minimal disruptions to the educational environment. Protecting people and existing buildings from the construction activities are paramount.

The primary objective of the Safety Program is the elimination of all incidents, the prevention of personal injury and property loss, and to promote a higher degree of efficiency. The effectiveness of this program depends upon the active interest and cooperative effort of all Program participants

### ***Guiding Principles***

Items that help manage the Safety success of the General Contractor during the execution of all construction activities.

- 1) The General Conditions of each contract require the Contractor to submit several items related to safety prior to start of construction
  - a. A job specific IIPP (Injury and Illness Prevention Plan) for the company must be submitted to the PM
  - b. Current Insurance Certs are required to be submitted to the PM prior to the mobilization of the contractor onto the project site
  - c. Weekly safety meeting are required to be held with a mandatory all hands present sign in sheet and a copy of the safety topic submitted to the PM
  - d. A JHA (Job Hazard Analysis) is to be submitted to the PM when starting new phases of work to insure that the safety measure are considering real time hazards related to current activities
- 2) OCIP (Owner Controlled Insurance Program) Mandatory all projects > 1,000,000
  - a. The District employs a third party administrator that enrolls the General Contractor and Sub Contractors into the OCIP Plan. The third party monitors and tracks all contractors to help ensure they are properly enrolled prior to starting work
  - b. Site Visits
    - i. The third party administrator has a safety professional that does periodic inspections to ensure job site safety and good housekeeping is being employed by all construction team members
- 3) Non OCIP projects (as decided and < \$1,000,000).

District requires the contractor to maintain the following requirements

General Liability	\$ 2,000,000 Aggregate
	\$ 1,000,000 Per Occurrence
	\$ 1,000,000 Project Aggregate
	\$ 2,000,000 Products & Complete Operations
	\$ 1,000,000 Personal & Advertising Injury Limit



Auto Liability	\$ 1,000,000 Auto, Leased, hired, or borrowed \$ 1,000,000 Material Hoist \$ 1,000,000 Explosion, Collapse, and underground
Excess Liability	\$ 2,000,000 Contracts < \$ 500,000 \$ 5,000,000 Contracts > \$ 500,000
Professional Liability occurrence	\$ 3,000,000 Aggregate limit – \$ 50,000 per
Workman's Comp	\$ 1,000,000
Additional Insured	San Bernardino County SBCCD Kitchell/BRJ AOR IOR The State of California, Their officers, employees, Agents and Independent Contractors
Certificate of Insurance Holder	San Bernardino Community College District C/O Kitchell/BRJ Campus and Project Name 114 South Del Rosa Drive San Bernardino, CA 92408

***Metrics of Program Success***

The Program team is committed to a safe workplace. The team will strive to provide students, workers, staff and visitors possible workplace with no work stoppage accidents, injuries or property damage. It is the Program's policy that a safe work place will be provided at all times and that all operations will be conducted in a manner as to provide protection for all individuals who might come into contact with these operations. There shall be no operation considered so important or scheduling deadline so critical that safety is compromised.



## CHAPTER 9 – QUALITY STANDARDS & CONTROL

### ***Introduction***

Quality assurance is the systematic monitoring and evaluation of the various project components and requirements to ensure that standards of quality are being met or exceeded.

All members of the team; Program Manager, Architect, Contractors, Inspectors of Record and Special Inspectors, have a role in assuring that the Quality Standards for each project are met.

Quality assurance is conducted by:

- Measurement of work activity
- Identification of nonconforming services
- Development of corrective action plans
- Implementation of plan

### ***Quality Objectives***

The objective during the planning/design phase is to develop a set of contract documents, in collaboration with the user and design team, that accurately address project scope, program, budget and schedule that can be supported by a procurement process that will result in the successful completion of the project in accordance with all the project quality requirements.

The objective during the construction phase is to complete construction in accordance with the requirements of the contract documents and with documentation confirming that such compliance was achieved.

### ***Quality Processes***

The major elements during the planning/design phase will be:

- Implement a system for information sharing to all affected members on the team related to progress and design issues
- Ensure that design review meetings include design review comments and come to a mutual understanding between the project team and the design professionals.
- Control expansion of scope by continually tracking project costs against the budget
- Interdisciplinary coordination and independent (third party) document reviews
- Control of design criteria changes
- Quality assurance reviews
- Constructability reviews
- Value engineering
- Construction testing requirements defined

The major elements of the construction phase quality management plan will include:

- Mandatory Pre-construction Conferences before the start of the affected work.
- Detailed planning and scheduling
- Formal inspection and testing program
- Defined and timely reporting and record keeping
- Control of changes in the work

- Document control and distribution
- Early documentation and correction of nonconforming and deficient work
- Final review, documentation, and punch list work completion

To support final satisfactory facility use/occupancy, the Project Manager will also perform the following activities related to the administration of the Work:

- Maintenance manuals and operating procedures are obtained, indexed, and organized for future maintenance
- Spare parts and warranties are reviewed for contract compliance and archived
- Final permits are obtained and satisfy agency requirements
- Move-in plan prepared and implemented
- Start-up of major equipment and confirmation of performance is verified
- Punch list items corrected
- Final payment conditions met
- Contract close out
- Close-out reports prepared
- Submission of final documentation required for DSA closeout

***Metrics of Program Success***

- All non-conforming work corrected
- Start-up of major equipment, confirmation of performance is verified, training is provided to the campus, and the building is appropriately commissioned
- Contract close out within 90 days of final completion
- DSA closeout within 180 days of final completion

## CHAPTER 10 – PLANNING & DESIGN PHASE

### ***Introduction***

Throughout the lifecycle of each Project, the Program Manager will implement a set of processes and procedures to support the Measure M Bond goals. The focus will be on the four major categories of:

- Scope/Quality Control
- Budget
- Schedule
- Risk- (safety of people & buildings, and preserving the Colleges' education mission during design and construction)

### ***Planning and Design Objectives***

- Budget efficiency with design costs- define # of meetings and maximize benefit
- Timely decisions- affect costs and schedule
- Consider the goals of the Master Plan, Campus Plan, and Sustainability Plan
- Educational Program driven design
- Consistent Architectural Standards between campuses as appropriate
- Equity between campuses
- Achieve best value by “right balancing” quality, schedule and budget
- Life cycle analysis - balance first cost with operational costs

### ***Project User Groups***

Each project will have an assigned group that will meet with the Program Manager and the Project architect on a regular basis during the design phase of the Project. This group will provide project specific direction to the design team and will work to set priorities to keep the project on budget and on schedule. The Program Manager and the President's Cabinet shall meet with this group on a regular basis.

### ***Project Architects/Engineers/Planners***

The District has completed a qualifications based selection process, and has selected architectural firms who were assigned projects based on previous similar project experience, staff availability, and ability to meet design schedule deadlines. Efforts will be made to distribute projects based on experience and firm capacity to complete work effectively and in a timely manner.

### ***Process for the Registration, Screening and Recommendation of Professional Services Providers***

The District process is comprised of four major phases:

- Phase I – Outreach Process
- Phase II – Screening Advisory Committee
- Phase III – Criteria and Screening Process
- Phase IV – Final Recommendation, Fees and Contract

**Phase I:** The District will reach out to the professional services community as required by the bond project list, to solicit the registration of firms for the Measure M Project Interest List. Outreach will be done through the placement of newspaper advertisements, notice to professional publications and organizations and posting on the District website. Firms will self-identify their experience in specific project categories. A registration list will be developed and firms will be notified of as projects become available. Firms are responsible to renew their registration for project eligibility.

**Phase II:** A Screening Advisory Committee will be established for each project or project group. The committee will be comprised of one faculty member, one classified staff member, the College President or designee, the Vice President for Administrative Services, Director of Campus Facilities, and the Vice Chancellor, Fiscal Services. At the campus president's discretion, the administrator responsible for the instruction/services to be housed in the proposed facility will participate.

**Phase III:** The Screening Advisory Committee will establish the evaluation criteria and determine the rating criteria for the project. Firms with self-reported experience relevant to the project requirements will be invited to submit a proposal that would minimally include relevant experience, project approach, project schedule and a staffing plan. The firms with the highest scores will be invited to interview with the Screening Advisory Committee. Whenever possible a minimum of four to six firms will be invited to interview.

**Phase IV:** The Screening Advisory Committee will establish the evaluation criteria and determine the rating criteria for the project interviews. The members of the committee will rate and rank each firm. The District will conduct reference checks on the top ranked firms. A draft contract and fee will be negotiated with the highest ranking firm and will be submitted to the Board of Trustees for action. A summarized review of the process will be provided with the committee recommendation.

### ***Design Review***

As a special consideration for new construction projects which will either define or significantly alter the fabric of the campus, a formal design review and approval process will be used. The President's Cabinet will serve the role of determining the aesthetic appropriateness of each project proposal. At the conclusion of the Programming, Schematic Design, Design Development and Construction Documents phases, a formal written approval process will be employed.

### ***Design Phases***

Architectural design is a creative problem-solving process applied to each unique project. The first task is always to understand the user's needs, budget, and schedule; secondly, to develop a design; and then to prepare drawings and specifications to guide the contractor in building. Planning and design services are implemented in the following sequence:

1. **Programming and Pre-design Phase**
2. **Schematic Design**
3. **Design Development**
4. **Construction Documents**

***Metrics of Program Success***

- Effective design reviews resulting in user understanding of scopes
- Documented Design Reviews
- High quality documents that are biddable and buildable
- Timeliness of design services and reviews

## CHAPTER 11 – BIDDING AND CONSTRUCTION

### ***Introduction***

It is essential that all bidding and construction components be executed expertly, and within established cost, schedule, scope and safety parameters. The Program Management team will work collaboratively with the District and College staff to develop responsive project controls to support project success.

### ***Bidding & Construction Objectives***

- Enhanced notification to potential local bidders.
- Minimize uncertainty regarding bid documents.
- Provide bidding documents that clearly describe the end product in terms which communicate expectations of the end user.
- Seek multiple competitive bids.
- Transparent procurement processes.
- Timely decisions ensure costs and schedule are maintained.
- Bid awards to qualified contractors.
- Document contractors' performance.
- Maintaining a safe environment at all times.
- Minimizing disruption/inconvenience to the users and public at all times.
- Maintaining effective communications with all stakeholders.
- Ensure that the requirements of codes and standards are met or exceeded.
- Provide a basis for acceptance of the project.

Modifications to original contracts are made by processing a change order or amendment. Change Orders are funded from a contingency account included in the project budget. Change Orders are requested by the Contractor using a Change Order Request, initiated from the PM, by issuing a Request for Proposal. The cost of work under a Change Order can be charged in one lump sum or on a time and material basis, not to exceed amount, verified by the PM as the work is being performed by the Contractor.

## CHAPTER 12 – Appendix - Terminologies

### Acronyms

Acronyms are often used in the design and construction industry to communicate and report more efficiently. The following list of acronyms may appear in bond related communications, reports and discussions.

A/E – Architect/Engineer	HVAC – Heating, ventilation and air conditioning
ADA — Americans with Disabilities Act	IOR – Inspector of Record
ADR – Alternative Dispute Resolution	K/BRj – Kitchell/BRj
AIA – American Institute of Architects	Kitchell CEM – Kitchell Capital Expenditure Managers
ASF – Assignable Square Feet	LEED – Leadership in Energy and Environmental Design
CA – Construction Administration	MOU – Memo of understanding
CAD – Computer-Aided Drafting	NTP – Notice to Proceed
CBOC – Citizen’s Bond Oversight Committee	PE – Professional Engineer
CCCCO – CA Community College Chancellor’s Office	PI – Project Inspector
CD – Construction Document	PIP – Program Implementation Procedures
CDF – California Department of Forestry	PM – Program Management
CEQA – California Environmental Quality Act	PM – Project Manager
CHC – Crafton Hills College	PO – Purchase Order
CM – Construction Management	RFI – Request for Information
CO – Certificate of Occupancy	RFP – Request for Proposal
CO – Change Order	RFQ – Request for Qualifications
DBB – Design/Bid/Build	ROW – Right of Way
DB – Design/Build	SBCCD – San Bernardino Community College District
DD – Design Development	SBVC – San Bernardino Valley College
DGS – Department of General Services	SD – Schematic Design
DPW – Department of Public Works	SF – Square Foot
DSA – Division of State Architect	SOW – Scope of Work
EIR – Environmental Impact Report	
EMP – Educational Master Plan	
FMP – Facilities Master Plan	
FPP – Final Project Proposal	
FY – Fiscal Year	
GC – General Contractor	
GSF – Gross Square Feet	
H/L S — Health/Life Safety	