

Construction Management Glossary

- A -

Activity - (1) A scheduling term (2) The smallest work unit within a project; the basic building block of a project. (see Project)

ADA - The Americans with Disabilities Act which gives civil rights protection to individuals with disabilities similar to those provided to individuals on the basis of race, color, sex, national origin, age, and religion. It guarantees equal opportunity for individuals with disabilities in public accommodations, employment, transportation, State and local government services, and telecommunications.

Addendum - (Addenda) Written information adding to, clarifying or modifying the bidding documents. An addendum is generally issued by the owner to the contractor during the bidding process and as such, addenda are intended to become part of the contract documents when the construction contract is executed.

Additional Services - Services provided over and above those designated as basic services in owner agreements with A/Es and CMs.

A/E - Architect/Engineer; the design professional hired by the owner to provide design and design-related services.

Agency CM (ACM) - (CM Without Risk). A contractual form of the CM system exclusively performed in an agency relationship between the construction manager and owner. ACM is the form from which other CM forms and variations are derived.

Agent - One authorized by a client (principal) to act in his/her stead or behalf and owes the client a "fiduciary duty" (Trust). Example: Construction Manager for fee but classified as an independent contractor for tax purposes. A construction manager for fee does not have any financial responsibility whereas a construction manager at-risk does have financial risk similar to a general contractor.

Agreement - A legal document that binds two or more parties to specific and implied obligations, e.g., Contract.

Alterations - (1) A term used to describe partial construction work performed within an existing structure (2) Remodeling without a building addition.

Alternate Bid - Amount stated in the bid to be added or deducted from the base bid amount proposed for alternate materials and/or methods of construction.

Ancillary Benefits - Subordinate secondary benefits that automatically accrue from the performance of an unassociated prime responsibility.

Apparent Low Bidder - The bidder who has submitted the lowest competitive proposal as determined by a cursory examination of the bids submitted.

Application for Payment - Contractor's written request for payment for completed portions of the work and, for materials delivered or stored and properly labeled for the respective project.

Approved Bidders List - The list of contractors that have survived pre-qualification tests.

Approved Changes - Changes of any nature in contract requirements which have been agreed upon through a change approval process and approved by the owner.

Architect - An individual who designs and supervises the professional design for the construction of buildings or other structures.

Architects Basic Services - A recognized series of phases performed by an architect as follows: 1st Schematic Design Phase, 2nd Design Development Phase, 3rd Construction Document Phase, 4th Bidding or Negotiated Phase, 5th Construction Phase.

Architect-Engineer (A/E) - An individual or firm offering professional services as both architect and engineer.

Architectural Drawing - A line drawing showing plan and/or elevation views of the proposed building for the purpose of showing the overall appearance of the building.

Arrow Diagram - Also known as the I-J method or Activity-on Arrow method. This method uses arrows, pointing in the direction of schedule flow, to represent activities with duration and circles (nodes) at each end of the arrow designating the start and finish events (dates) of each activity.

As-Built Drawings - Drawings marked up to reflect changes made during the construction process or after construction that amend the Contract Drawings to show the exact location, geometry, and dimensions of the constructed project. It is good practice to make As-Built Drawings by marking the changes on reproducible drawings such as mylar, vellum or sepia for the duplication purposes later. As-Built Drawings are not the same as Record Drawings.

- B -

Basic Services - The services specially listed in the services agreement as basic services.

Beneficial Occupancy - The point of project completion when the owner can use the constructed facility in whole or in part for its intended purpose even though final completion may not be achieved.

Bid - A binding offer, usually expressed in dollars to provide specific services within clearly stated requirements.

Bid Bond - A written form of security executed by the bidder as principal and by a surety for the purpose of guaranteeing that the bidder will sign the contract, if awarded the contract, for the stated bid amount. The Surety is a third-party that makes a pledge to pay liquidated damages to the owner to the extent of the difference between the bonded contractor bid and the next highest bidder but not to exceed the face value of the bond; if the bonded contractor declines an award offered by the owner.

Bid Date/Time - The due date and time set by the owner, architect or engineer for receiving bids.

Bid Depository - A physical location where trade contractor proposals are filed the day before general contractor bids are to be received by an owner for pickup, opening, acceptance, or rejection by general contractors bidding the owner's project.

Bid Division - A portion of the total project reserved for contractors for bidding and performance purposes, i.e., Division of Work or Work-Scope.

Bid Division Description - A narrative description of the concise work-scope to be bid and performed by a contractor, Division of Work Description or Work Scope Description.

Bid Documents - The documents distributed to contractors by the owner for bidding purposes. They include drawings, specifications, form of contract, general and supplementary conditions, proposal forms, and other information including addenda.

Bid Form - A standard written form furnished to all bidders for the purpose of obtaining the requested information and required signatures from the authorized bidding representatives.

Bid Opening - The actual process of opening and tabulating bids submitted within the prescribed bid date/time and conforming with the bid procedures. A Bid Opening can be open (where the bidders are permitted to attend) or closed (where the bidders are not permitted to attend).

Bid Price - The stipulated sum stated in the bidder's bid.

Bidding Documents - The published advertisement or written invitation to bid, instructions to bidders, the bid form and the proposed contract documents including any acknowledged addenda issued prior to receipt of bids.

Bidding Period - The calendar period allowed from issuance of bidding requirements and contract documents to the prescribed bid date/time.

Bidding Requirements - The written minimum acceptable requirements set forth by the owner to the contractor during bidding process. The owner usually reserves the right to reject a bid if the Bidding Requirements are not met.

Bid Shopper - A buyer or client who seeks to play one proposed supplier or subcontractor against the other for the purpose of reducing a purchase price.

Bid Shopping - Negotiations to obtain lower costs and prices both prior to submitting proposals and after signing contracts.

Bid Tabulation - A summary sheet listing all bid prices.

Bid Time - The time set by the owner, architect or engineer for receiving bids.

Bond - (see Bid Bond, Contract Bond, Contract Payment Bond, Contract Performance Bond, Labor and Material Payment Bond, Performance Bond or Subcontractor Bond).

Bonding Company - A properly licensed firm or corporation willing to execute a surety bond, or bonds, payable to the owner, securing the performance on a contract either in whole or in part; or securing payment for labor and materials.

Bonus-Penalty Clause - A positive/negative incentive to comply with a schedule. A bonus is paid for timely performance; a penalty is assessed for untimely performance. The dollar amount of the bonus and penalty must be equal, e.g., Penalty-Bonus clause in a contract.

Budget (Construction Budget) - (1) An itemized summary of estimated or intended expenditures for a given period of time (2) The total sum of money allocated for a specific project.

Budget Estimate - An estimate of cost based on rough or incomplete information, with a stated degree of accuracy. The more information available, the more accurate the estimate. Loosely called a "ballpark" estimate.

Building - (1) To form by combining materials or parts (2) A structure enclosed within a roof and within exterior walls housing, shelter, enclosure and support of individuals, animals, or real property of any kind.

Building Code - The legal requirements set up by the prevailing various governing agencies covering the minimum acceptable requirements for all types of construction.

Building Envelope - (1) The waterproof elements of a building which enclose conditioned spaces through which thermal energy may be transferred to or from the exterior. (2) The outer structure of the building. (sometimes referred to as "Building Shell")

Building Inspector/Official - A qualified government representative authorized to inspect construction for compliance with applicable building codes, regulations and ordinances. Courts have ruled that building inspections are exempt from errors and omissions liabilities.

Building Permit - A written document issued by the appropriate governmental authority permitting construction to begin on a specific project in accordance with drawings and specifications approved by the governmental authority.

Building Process - A term used to express every step of a construction project from it's conception to final acceptance and occupancy.

Bulletin - A delineation, narrative or both describing a proposed change for pricing by a contractor and for consideration as a change by the owner.

- C -

Changed Conditions - Conditions or circumstances, physical or otherwise, which surface after a contract has been signed and which alter the circumstances or conditions on which the contract is based, i.e., Concealed Conditions or Latent Conditions.

Change Order - A written document between the owner and the contractor signed by the owner and the contractor authorizing a change in the work or an adjustment in the contract sum or the contract time. A change order may be signed by the architect or engineer, provided they have written authority from the owner for such procedure and that a copy of such written authority is furnished to the contractor upon request. The contract sum and the contract time may be changed only by change order. A change order may be in the form of additional compensation or time; or less compensation or time known as a Deduction (from the contract) the amount deducted from the contract sum by change order.

Change Order Proposal - A change order proposal is the written document before it has been approved and effected by the Contractor and Owner. A change order proposal can be issued by

either the contractor or the owner. The change order proposal becomes a change order only after it has been approved and effected by the Contractor and Owner.

Change Order Request - A written document issued by the owner requesting an adjustment to the contract sum or an extension of the contract time; generally issued by the architect or owners representative.

Chart of Accounts - An alpha/numeric identification system for budget line items that ensures that project expenditures are properly debited/credited in the project budget as payments are made in behalf of the project.

Checks and Balances - The term used to describe the use of the overlapping expertise of each team member during team decision making.

Claim - A formal notice sent by a contractor to an owner asserting the fact that the terms of the contract have been breached and compensation is being sought by the contractor from the owner.

Clerk-of-the-Work - An individual employed by an owner to represent him on a project at the site of the work. The clerk-of-the-work's abilities, credentials, and responsibilities vary at the discretion of the owner.

Closed Bid - A specific term used where only invited bidders or estimators are given access to the prescribed project information. Usually the owner provides a designed list of invitees.

CM - The abbreviation for Construction Management and Construction Manager (a firm that provides CM services or persons who work for a CM firm).

CM Fee Plus Reimbursables - A form of payment for CM services where the construction manager is paid a fixed or percentage fee for CM expertise, plus pre-established hourly, daily, weekly, or monthly costs for field personnel and equipment.

CM Format - The interactive contracting approach to providing a project's needs, used by the CM project team to manage a project.

CM Partnering - A contractual commitment by the Owner, A/E, and CM to achieve a common goal, and doing so without a stakeholder's exposure to a potential for conflict of interest in pursuit of that goal.

CM Philosophy - An enlightened approach to accomplishing an owner-oriented end result using a system of motivating concepts and principles for achievement.

CM Procedures Manual - The depository for the proprietary micro-management procedures used by the CM to detail and facilitate the service obligations owed to a client.

CM Project Manual - The common depository for the micro-management procedures to be used on the project by the team to accomplish project requirements.

CM Services - The scope of services provided by a construction manager and available to owners in whole or in part. CM services are not consistent in scope or performance from one CM firm to another.

Codes - Prevailing regulations, ordinances or statutory requirements set forth by governmental agencies associated with building construction practices and owner occupancy, adopted and administered for the protection of public health, life safety and welfare.

Collateral Information - Information of value that is unexpectedly made available through the routine performance of another activity or activities.

Commissioning - The process at or near construction completion when a facility is put into use to see if it functions as designed. Usually applied to manufacturing type projects, and similar to Beneficial Occupancy in the commercial sector.

Completion Schedule - A schedule of the activities and events required to effect occupancy or the use of a facility for its intended purpose. It is used to determine if construction progress will meet the occupancy date.

Conditions of the Contract - Term that refers to the General Conditions and the Supplementary and Special Conditions of the contract for construction.

Construct - To assemble and combine construction materials and methods to make a structure.

Constructability - The optimizing of cost, time, and quality factors with the material, equipment, construction means, methods, and techniques used on a project; accomplished by matching owner values with available construction industry practices.

Construction - The act or process of constructing.

Construction Budget - The target cost figure covering the construction phase of a project. It includes the cost of contracts with trade contractors, construction support items other purchased labor, material and equipment, and the construction manager's cost but not the cost of land, A/E fees, or consultant fees.

Construction Coordination - The orchestration or interfacing of performing contractors on-site.

Construction Cost - (1) The direct contractor costs for labor, material, equipment, and services; contractors overhead and profit; and other direct construction costs. Construction cost does not include the compensation paid to the architect and engineer and consultants, the cost of the land, rights-of-way or other costs which are defined in the contract documents as being the responsibility of the owner.

Construction Documents - All drawings, specifications and addenda associated with a specific construction project. These documents delineate and graphically represent the physical construction requirements established by the A/E.

Construction Documents Phase - The third phase of the architect's basic services wherein the architect prepares working drawings, specifications and bidding information. Depending on the architect's scope of services the architect may assist the owner in the preparation of bidding forms, the conditions of the contract and the form of agreement between the owner and contractor.

Construction Document Review - The owner's review of the borrower's construction documents (plans and specifications), list of materials, and cost breakdowns for the purpose of confirming that these documents and estimates are feasible and are in accordance with the proposed loan or project appraisal.

Construction Inspector - A qualified individual authorized by the owner to assist in the inspection of the construction project to ensure compliance with the contract documents and/or a specific construction contract.

Construction Management (CM) - A project delivery system that uses a construction manager to facilitate the design and construction of a project by organizing and directing men, materials, and equipment to accomplish the purpose of the designer. A professional service that applies effective management techniques to the planning, design, and construction of a project from inception to completion for the purpose of controlling time, cost and quality, as defined by the Construction Management Association of America (CMAA).

Construction Management Contract - A written agreement wherein responsibilities for coordination and accomplishment of overall project planning, design and construction are given to a construction management firm. The building team generally consists of the owner, contractor and designer or architect.

Construction Manager - A firm or business organization with the expertise and resources to manage the design, contracting, and construction aspects of project delivery. Individuals who work for a CM Firm are also referred to as Construction Managers.

Construction Phase - The fifth and final phase of the architect's basic services, which includes the architect's general administration (G&A) of the construction contract.

Construction Schedule - A graphic, tabular or narrative representation or depiction of the construction portion of the project-delivery process, showing activities and durations in sequential order.

Construction Support Items - Purchases, services, or materials required to facilitate construction at the site. As part of the construction budget, these are financial obligations of the owner and the logistic responsibility of the CM.

Construction Team - The designated responsible project management of each trade contractor plus the Level 2 and Level 3 Managers of the owner, A/E, and CM, i.e., Project Team.

Constructor-XCM - A variation of the extended services form of CM where the construction manager self-performs some of the construction on the project.

Consultant Professional firm and/or individual hired by the owner or client to give professional advise.

Contingencies - Line-item amounts in the project budget, dedicated to specific cost areas where oversight is an inherent problem in project delivery.

Contract - (1) An agreement between two or more parties, especially one that is written and enforceable by law (2) The writing or document containing such an agreement.

Contract Administration - The contractual duties and responsibilities of the A/E, contractor or CM during the construction phase of a specific project for servicing the interactive provisions in the contract for construction.

Contract Bond - A written form of security from a surety company, on behalf of an acceptable prime or main contractor or subcontractor, guaranteeing complete execution of the contract and

all supplemental agreements pertaining thereto and for the payment of all legal debts pertaining to the construction of the project.

Contract Date - 1) Usually on the front page of the agreement (2) If not on front page it may be the date opposite the signatures when the agreement was actually signed (3) or when it was recorded (4) or the date the agreement was actually awarded to the contractor.

Contract Document Phase - The final phase of design on an architectural project when construction documents are completed and bidding documents formulated.

Contract Document Review - A review of Bid and/or Contract Documents on a continuing basis, or at short intervals during the pre-construction phase, to preclude errors, ambiguities, and omissions.

Contract Documents - A term used to represent all executed agreements between the owner and contractor, any general, supplementary or other contract conditions, the drawings and specifications, all bidding documents less bidding information plus pre-award addenda issued prior to execution of the contract and post-award Change Orders, and any other items specifically stipulated as being included in the contract documents, which collectively form the contract between the contractor and the owner.

Contract Overrun - The cost deficit after determining the difference between the original contract price and the final completed cost including all adjustments by approved change order.

Contract Payment Bond - A written form of security from a surety company to the owner, on behalf of an acceptable prime or main contractor or subcontractor, guaranteeing payment to all persons providing labor, materials, equipment, or services in accordance with the contract.

Contract Performance Bond - A written form of security from a surety company to the owner, on behalf of an acceptable prime or main contractor or subcontractor, guaranteeing the completion of the work in accordance with the terms of the contract.

Contract Period - The elapsed number of working days or calendar days from the specified date of commencing work to the specified date of completion, as specified in the contract.

Contract Sum - The total agreeable amount payable by the owner to the contractor for the performance of the work under the contract documents.

Contract Time - The time period set forth established in the contract documents for completing a specific project; usually stated in working days or calendar days. The contract time can only be adjusted by valid time extensions through change order.

Contract Underrun - The cost savings after determining the difference between the original contract price and the final completed cost including all adjustments by approved change order.

Contracting Officer - An official representative of the owner with specific authority to act in his behalf in connection with a specific project.

Contractor - A properly licensed individual or company that contracts to perform a defined scope of work on a construction project and agrees to furnish labor, materials, equipment and associated services to perform the work as specified for a specified price.

Contractor/Constructor-XCM - A variation of the extended services form of CM where the construction manager holds construction contracts and self-performs construction on the project.

Contractor-XCM - A variation of the extended services form of CM where the construction manager holds construction contracts for the project.

Contractor's Option - A written provision in the contract documents giving the contractor the option of selecting certain specified materials, methods or systems without changing in the contract sum.

Contractor's Qualification Statement - A written statement of the Contractor's experience and qualifications submitted to the Owner during the contractor selection process. The American Institute of Architects publishes a standard Contractor's Qualification Statement form for this purpose.

Contractability - The optimizing of cost, time, and quality factors with the contracting structures and techniques used on a project; accomplished by matching owner contracting requirements with available construction industry practices.

Contractual Liability - The liability assumed by a party under a contract.

Control CM - A person designated by the CM firm to interface with the owner's and A/E's representatives on the project team at the second management level.

Coordination Meeting - Meeting held in the field to review project status and coordinate scheduled activities.

Coordinator - A person designated to assist a Control CM, Project Manager, or Level 2 Manager in executing the CM format.

Cost Breakdown - A financial statement furnished by the contractor to the architect or engineer delineating the portions of the contract sum allotted for the various parts of the work and used as the basis for reviewing the contractor's applications for progress payments.

Cost Codes - A numbering system given to specific kinds of work for the purpose of organizing the cost control process of a specific project.

Cost Control / Cost Management - Deliberations, actions, and reactions to project cost fluctuations during a project to maintain the project cost within the project budget.

Cost of Construction - The target cost figure covering the construction phase of a project. It includes the cost of contracts with trade contractors, construction support items other purchased labor, material and equipment, and the construction manager's cost but not the cost of land, A/E fees, or consultant fees.

Cost of Work - All costs incurred by the contractor in the proper performance of the work required by the plans and specifications for a specific project.

Cost Plus Contract - A form of contract usually between an owner and contractor, A/E design professional, or CM, under which the contractor, A/E or CM is reimbursed for his/her direct and indirect costs and, in addition, is paid a fee for his/her services. The fee is usually stated as a stipulated sum or as a percentage of cost.

Cost Plus Fee Agreement - A written agreement with the owner under which the contractor, A/E or CM for "Cost-Plus" work.

Credibility - The quality of something that makes it believable.

Critical Date Schedule - A schedule of milestones spanning from the start of construction to occupancy, used as the main measure of progress to keep the project on schedule.

Critical Path - The continuous chain of activities from project-start to project-finish, whose durations cannot be exceeded if the project is to be completed on the project-finish date. A sequence of activities that collectively require the longest duration to complete (the duration of the sequence is the shortest possible time from the start event to the finish event). Activities on the critical path have no slack time.

Critical Path Method (CPM) - A planning scheduling and control line and symbol diagram drawn to show the respective tasks and activities involved in constructing a specific project.

Critical Path Schedule - A schedule that utilizes the Critical Path scheduling technique using either the arrow or precedence diagramming method.

CSI - Abbreviation for the Construction Specification Institute

CSI Master Format - The CSI Master Format is a system of numbers and titles for organizing construction information into a regular, standard order or sequence. By establishing a master list of titles and numbers Master Format promotes standardization and thereby facilitates the retrieval of information and improves construction communication. It provides a uniform system for organizing information in project manuals, for organizing project cost data, and for filing product information and other technical data.

Currant Date Line - A vertical line on the chart indicating the currant date.

- D -

Daily Construction Report - A written document and record that has two main purposes: (1) they furnish information to off-site persons who need and have a right to know important details of events as they occur daily and hourly, and (2) they furnish historical documentation that might later have a legal bearing in cases of disputes. Daily reports should be as factual and impersonal as possible, free from the expression of personal opinions and feelings. Each report should be numbered to correspond with the working days established on the progress schedule. In the event of no-work days, a daily report should still be made, stating "no work today" (due to rain, strike, or other causes). The report includes a description of the weather; a record of the total number of employees, subcontractors by name, work started and completed today, equipment on the job site, job progress today, names and titles of visitors, accidents and/or safety meetings, and a remarks column for other job related information.

Date of Agreement - (1) Usually on the front page of the agreement (2) If not on front page it may be the date opposite the signatures when the agreement was actually signed (3) or when it was recorded (4) or the date the agreement was actually awarded to the contractor.

Date of Commencement of the Work - The date established in a written notice to proceed from the owner to the contractor.

Date of Substantial Completion - The date certified by the architect when the work or a designated portion thereof is sufficiently complete, in accordance with the contract documents, so the owner may occupy the work or designated portion thereof for the use for which it is intended.

Demising Walls - The boundaries that separate your space from your neighbors' and from the public corridor.

Design - A graphical representation consisting of plan views, interior and exterior elevations, sections, and other drawings and details to depict the goal or purpose for a building or other structure.

Design-Build (D-B) - A project delivery method where a design-build contractor (contractor-led D-B), A/E design professional (design-led D-B) or CM (CM-led D-B) is directly responsible for both the total project design and construction of the project. Design-Build liability can be explicitly conveyed through the contract documents or implicitly conveyed through the assumption of project-specific design liability, via performance specifications.

Design-Build Contracting - A contract structure where both design and construction responsibility are vested in a single contractor.

Design-Build Contractor - A contractor that provides design and construction services under a single responsibility contract to an owner.

Design-Build Construction - When a Prime or Main contractor bids or negotiates to provide Design and Construction services for the entire construction project.

Design-Construct Contract - A written agreement between and contractor and owner wherein the contractor agrees to provide both design and construction services.

Design-Development Phase - The second phase of the architect's basic services wherein the architect prepares drawings and other presentation documents to fix and describe the size and character of the entire project as to architectural, structural, mechanical and electrical systems, materials and other essentials as may be appropriate; and prepares a statement of probable construction cost.

Designability - A pragmatic, value-based assessment of the design in comparison with the stated physical and aesthetic needs of the owner.

Detail - (1) An individual part or item (2) A graphical scale representation, e.g., a drawing at a larger scale, of construction parts or items showing materials, composition and dimensions.

Detailed Construction Schedule - A graphic, tabular or narrative representation or depiction of the construction portion of the project-delivery process, showing individual activities and durations or activities in sequential order at the lowest level of detail (Level-3 Schedule).

Design Development Phase - The term used on architectural projects to describe the transitional phase from the Schematic Phase to the Contract Document during design.

Design-XCM - A variation of the extended services form of CM, where the A/E also provides the CM function.

Direct Costs - The costs directly attributed to a work-scope, such as labor, material, equipment, and subcontracts but not the cost of operations overhead and the labor, material, equipment, and

subcontracts expended in support of the undertaking. Direct Costs, Hard Costs, and Construction Costs are synonymous.

Direct Labor Costs - Costs accruing from expended labor excluding the bonus portion of overtime, insurances, and payroll taxes.

Direct Material Costs - Costs accruing from material acquisition including purchase price, freight, and taxes.

Division of Work - A portion of the total project reserved for contractors for bidding and performance purposes, i.e., Bid Division or Work-Scope.

Division of Work Description - A narrative description of the concise work-scope to be bid and performed by a contractor; Bid Description Division or Work Scope.

Drawings - (1) A term used to represent that portion of the contract documents that graphically illustrates the design, location, geometry and dimensions of the components and elements contained in a specific project in sufficient detail to facilitate construction. (2) A line drawing.

Dual Services - The providing of more than one principal service under a single contract or multiple contracts.

Duration - The length of an activity, excluding holidays and other non-working days.

Dynamic Decisions - Decisions that are made without team deliberations. Autonomous or bilateral decisions based on policy, procedures, or experience.

Dynamic Risk - The risk inherent to a speculative decision. The risk-taker can either gain, lose, or break even from the risk.

- E -

Employment Agreement - A contract binding an employee to an employer for a specific length of time and for disclosed compensation.

Engineer - A professional firm and/or individual who is professionally engaged in an engineering discipline.

Escrow Account - Money put into the custody of the third party by the first party for disbursement to the second party. A brief temporary depository for progress payments until authorized for release according to the depositor's explicit instructions.

Estimate - (1) To calculate approximately the amount, extent or value of something (2) To form an opinion of estimated costs.

Estimated Cost to Complete - An estimate of the cost still to be expended on a work-scope in order to complete it. The difference between the Cost to Date and the Estimated Final Cost.

Estimated Final Cost - An estimate of the final cost of a work item based on its Cost to Date and the estimated cost to complete it. The sum of the Cost to Date and the Estimated Cost to Complete.

Estimate of Construction Cost - A calculation of costs prepared on the basis of a detailed analysis of materials and labor for all items of work, as contrasted with an estimate based on current area, volume or similar unit costs.

Estimating - A process of calculating the amount of material, labor and equipment required for a given project necessary to complete the work as specified.

Ethics - Self-imposed rules or standards of performance for professionals set by the organization or association to which the professional belongs or by the public trust.

Extended Services - Dissimilar services included in a contract to be performed over and above those that are included as the principal services of the contract.

Extended Services-CM - A form of CM where other services such as design, construction, and contracting are included with ACM services provided by the construction manager.

- F -

Facilitator - A person who leads by logic, suggestion and example more so than by direction.

Fast-Track or Fast-Tracking - The process of designing portions of a project while portions already designed are under construction. A series of controlled design-build sequences that collectively constitute a complete project.

Fast Track Construction - A method of construction management which involves a continuous design-construction operation. When a prime or main contractor starts the construction work before the plans and specifications are complete.

Feasibility Phase - The conceptual phase of a project preceding the Design Phase used to determine from various perspectives whether a project should be constructed or not.

Fee Enhancement - The awarding of an additional fee, over and above the basic fee for services, based on the performance quality of the party providing the basic service.

Fiduciary - One who stands in a special relationship of trust, confidence, and responsibility regarding contracted obligations.

Field-Based CM Field Organization - A project organization structure that bases the CM's 2nd Level representative and certain resource persons in the field rather than in the office.

Field Construction Manager - A person designated by the CM firm to interface with the owner's and A/E's representatives on the project team at the third management level. A person located at the site and charged to administer the procedures established by the team's Level 2 Manager for the construction of the project.

Field Management - The coordination and management of owner-contracted resources on-site during construction.

Field Order (FO) - An written order issued to a contractor by the owner, or owner's representative, i.e., A/E design professional, effecting a minor change or clarification with instructions to perform work not included in the contract for construction. The work will eventually become a Change Order. A Field Order is an expedient process used in an emergency or need

situation, that in many cases does not involve an adjustment to the contract sum or an extension of the contract time.

Field Report - A written document and record that has two main purposes: (1) they furnish information to off-site persons who need and have a right to know important details of events as they occur daily and hourly, and (2) they furnish historical documentation that might later have a legal bearing in cases of disputes. Daily reports should be as factual and impersonal as possible, free from the expression of personal opinions and feelings. Each report should be numbered to correspond with the working days established on the progress schedule. In the event of no-work days, a daily report should still be made, stating "no work today" (due to rain, strike, or other causes). The report includes a description of the weather; a record of the total number of employees, subcontractors by name, work started and completed today, equipment on the job site, job progress today, names and titles of visitors, accidents and/or safety meetings, and a remarks column for other job related information.

Field Schedule - A graphic, tabular or narrative representation or depiction of the construction portion of the project-delivery process, showing field activities and durations in sequential order. A short interval field-based schedule that plans contractor and subcontractor activities on a month-to-month, week-to-week, or day-to-day basis from the project milestone schedule.

Field Work Order (FWO) - A written request to a subcontractor or vendor, usually from the general or main contractor, site for services or materials.

Final Acceptance - The action of the owner accepting the work from the contractor when the owner deems the work completed in accordance with the contract requirements. Final acceptance is confirmed by the owner when making the final payment to the contractor.

Final Completion - The point at which both parties to a contract declare the other has satisfactorily completed its responsibilities under the contract.

Final Design Phase - The designation used by engineers for the last portion of the design process prior to bidding.

Final Inspection - A final site review of the project by the contractor, owner or owner's authorized representative prior to issuing the final certificate for payment.

Final Payment - The last payment from the owner to the contractor of the entire unpaid balance of the contract sum as adjusted by any approved change orders.

Financial and Management Control System - A manual or computerized management control system used by the project team to guide the course of a project and record its status and progress.

Financial Stakeholder - A party involved by contract to perform a prescribed definitive physical work-scope for a sum of money, who stands to lose or gain money from the eventual outcome of the project or how it is performed.

Finish Date - The date that an activity or project is completed.

Fixed Fee - A set contract amount for all labor, materials, equipment and services; and contractors overhead and profit for all work being performed for a specific scope of work.

Fixed Limit of Construction Costs - A construction cost ceiling agreed to between the owner and architect or engineer for designing a specific project.

FF&E - (1) An abbreviation for furniture, fixtures and equipment (2) Items classified as personal property rather than real property (3) An abbreviation generally associated with interior design and planning of retail stores or office facilities.

Float - A scheduling term indicating that an activity or a sequence of activities does not necessarily have to start or end on the scheduled date to maintain the schedule on the critical path. The difference between the early start and late finish of an activity, minus the activities duration.

Force Account Work - Work done and paid for on an expended time and material basis.

- G -

Gantt Chart - The schedule of activities for a project. A Gantt Chart shows start and finish dates, critical and non-critical activities, slack time, and predecessor relationships.

General Conditions - A written portion of the contract documents set forth by the owner stipulating the contractor's minimum acceptable performance requirements including the rights, responsibilities and relationships of the parties involved in the performance of the contract. General conditions are usually included in the book of specifications but are sometimes found in the architectural drawings.

General Condition Items - Purchases, services, or materials required to facilitate construction at the site. As part of the construction budget, these are financial obligations of the owner and the logistic responsibility of the CM.

General Conditions (of the Contract for Construction) - The part of the contract that prescribes the rights, responsibilities, and relationships of the parties signing the agreement and outlines the administration of the contract for construction, e.g., American Institute of Architects (AIA) Document A201.

General Contracting System - The traditional project-delivery system that utilizes the services of a general contractor; the GC assembles and submits a proposal for the work on a project and then contracts directly with the owner to construct the project as an independent contractor.

General Contractor (GC) - A properly licensed individual or company having "primary" responsibility for the work. A GC can perform work with its own contractors or can perform the project work as an independent contractor, providing services to owners through the use of subcontractors when using the general contracting system. In the latter case, the GC is referred to as "Paper Contractor".

General Contracting - (The traditional contracting method) When a prime or main contractor bids the entire work after the final design, plans and specifications are complete and have been approved by the owner.

Guarantee - An agreement by which a party accepts responsibility for fulfilling an obligation.

Guaranteed Maximum Price-Construction Management (GMP-CM) - A form of the CM system where the construction manager guarantees, in addition to providing ACM services, a ceiling price to the owner for the cost of construction.

- H -

Hard Costs - All items of expense directly incurred by or attributable to a specific project, assignment or task. Direct Costs, Hard Costs, and Construction Costs are synonymous.

Human Resources - Persons who have inherent an acquired skills, knowledge and abilities to function to the benefit of an employer. They can be employees or contract personnel.

- I -

Independent Contractor - One free from the influence, guidance, or control of another or others and does not owe a "fiduciary duty". e.g., an architect, engineer, prime or main contractor, construction manager at-risk.

Indirect Costs - Costs for items and activities other than those directly incorporated into the building or structure but considered necessary to complete the project. A contractor's or consultant's overhead expense; expenses indirectly incurred and not chargeable to a specific project or task. The terms Indirect costs and soft costs are synonymous.

Improvements - (1) A term sometimes used to describe Tenant Improvements (TI's). (2) Improvements can be in the form of new construction or remodel work.

Indemnification - (1)The act of indemnifying. (2) The condition of being indemnified.

In-House Resources - Resources, physical, monetary, or human, available within an organization for providing contracted services.

IRFP - The abbreviation for Initial Request for Proposal; The first request for uniform detailed information from prospective CM practitioners being screened for a project.

Inspection - (1) The act of inspecting. (2) An official examination or review of the work completed or in progress to determine its compliance with contract requirements.

Inspection List - A list prepared by the owner or his/her authorized representative of items of work requiring immediate corrective or completion action by the contractor.

Inspection Report - Sometimes used to describe an Inspection List.

Inspector - An individual who is appointed or employed to inspect something.

Interior Finish - A term used to represent the visible elements, materials and applications applied to a building's interior excluding furniture, fixtures and equipment.

Interview Decorum - The rules and procedures established by the owner for interfacing with firms competing for providing services.

Invoice - A list sent to a purchaser containing the items and charges of merchandise.

- J -

Job Description - A broad-scope explanation of a position's requirements indicating the duties for the position and the expertise and capabilities required of a person to adequately perform in that position.

Job-Site Overhead - Supportive and necessary on-site construction expense, such as construction support costs, supervision, bonus labor, field personnel, and office expense.

Joint Venture Partner - A party that contracts with another similar party on a project basis to provide greater financial strength, improved services or more acceptable performance qualifications as a combined organization to design, bid, and/or construct a specific project.

- K -

K - Used as an abbreviation for Contract or Contracts in the legal sector.

- L -

Labor and Material Payment Bond - (1) A written form of security from a surety (bonding) company to the owner, on behalf of an acceptable prime or main contractor or subcontractor, guaranteeing payment to the owner in the event the contractor fails to pay for all labor, materials, equipment, or services in accordance with the contract, and (2) to pay any claims against the owner from contractors and suppliers who have not been paid for labor, material, and equipment incorporated into the project.

Leasehold Improvements - A term used to mean Tenant Improvements (TI's). Generally, this term is used when building in retail stores as contrasted with the term Tenant Improvements, which are generally associated with office buildings. The terms are often used interchangeably.

Letter of Intent - A notice from an owner to a contractor stating that a contract will be awarded to the contractor providing certain events occur or specific conditions are met by the contractor. The letter will usually serve a formal Notice to Proceed on the project.

Lien, Mechanic's or Material - The right to take and hold or sell an owner's property to satisfy unpaid debts to a qualified contractor for labor, materials, equipment or services to improve the property.

Lien Release - A written document from the contractor to the owner that releases the Lien, Mechanic's or Material following its satisfaction.

Lien Waiver - (1) An written document from a contractor, subcontractor, material supplier or other construction professional, having lien rights against an owner's property, relinquishes all or part of those rights. (2) Lien waivers are generally used for processing progress payments to prime or main or subcontractors as follows: Conditional Lien Waiver, Unconditional Lien Waiver, and Final Lien Waiver.

Life-Cycle Cost - The cost of purchasing, installing, owning, operating, and maintaining a construction element over the life of the facility.

Long-Lead Items - Material and equipment required for construction which have delivery dates too far in the future to be included in a contractor's contract at bid time. They are pre-purchased directly by the owner.

Long-Lead Time - The time between the purchase date and delivery date of long-lead items.

Lump Sum Agreement - A written agreement in which a specific amount is set forth as the total payment for completing the contract.

Lump Sum Bid - A single entry amount to cover all labor, equipment, materials, services, and overhead and profit for completing the construction of a variety of unspecified items of work without the benefit of a cost breakdown.

Lump Sum Contract - A written contract between the owner and contractor wherein the owner agrees to pay the contractor a specified sum of money for completing a scope of work consisting of a variety of unspecified items or work.

Lump Sum Fee - A fixed dollar amount which includes all costs of services including overhead and profit.

- M -

Management Information and Control System - A manual or computerized system used by the project team to guide the course of a project and record its status and progress.

Management Plan - A micro-scheme to produce project requirements in terms of policies, procedures and timing developed from the management strategy.

Management Strategy - A micro-and micro-approach to structuring contracts and managing a project; based on owner policies, project demands, and contracting practices in the project area.

Master Schedule - A schedule that spans from the start of design to occupancy; includes the signal activities which control the progress of the project from start to finish. (Level-1 Schedule).

Mechanic's Lien - A legal claim against an owner's property by a project participant to the value of monies earned by not paid for by the owner or an employing contractor.

Meeting Attendance Form - A form consisting of three columns (individuals name, individuals title, and company the individual represents). This form is given to all persons attending any meeting. Each person attending the meeting will fill in their respective information. The date of the meeting should be included for reference.

Meeting Notes - A written report consisting of a project number, project name, meeting date and time, meeting place, meeting subject, a list of persons attending, and a list of actions taken and/or discussed during the meeting. Generally, this report is distributed to all persons attending the meeting and any other person having an interest in the meeting.

Milestone - An activity with a duration of zero (0) and by which progress of the project is measured. A milestone is an informational marker only; it does not affect scheduling and is used to delineate strategic events of signal importance to monitor progress on the construction milestone schedule..

Milestone Schedule - A schedule of milestones spanning from the start of construction to occupancy, used as the main measure of progress to keep the project on schedule.

Multiple Bidding - Soliciting and receiving bids from trade or work-scope contractors when using a multiple-contracting format.

Multiple Contracting - A contracting format that separates the project's single work-scope into a number of interfacing smaller work-scopes, to be individually and competitively bid or negotiated.

Multiple Prime Contracts - Contracts with work-scope contractors, individually awarded by the owner under a multiple contracting format.

- N -

Negative Attributes - A quality, character, procedure, or practice inherent to a system (of contracting) that impairs the system's performance.

Notice of Award - A letter from an owner to a contractor stating that a contract has been awarded to the contractor and a contract will be forthcoming, which usually functions as a Notice to Proceed.

Notice to Proceed - A notice from an owner directing a contractor to begin work on a contract, subject to specific stated conditions.

- O -

Occupancy Phase - A stipulated length of time following the construction phase, during which contractors are bonded to ensure that materials, equipment, and workmanship meet the requirements of their contracts, and that supplier- and manufacturer-provided warranties and guarantees remain in force.

Occupancy Schedule - A schedule of the activities and events required to effect occupancy or the use of a facility for its intended purpose. It is used to determine if construction progress will meet the occupancy date.

On-Site Supervision - Site-based personnel with supervisory responsibilities.

Open Bid - A specific term used where any qualified bidder or estimator is given access to the prescribed project information. Open bid project information is not private.

Owner - (1) An individual or corporation that owns a real property.

Owner-Architect Agreement - A written form of contract between architect and client for professional architectural services.

Owner-Builder - A term used to describe an Owner who takes on the responsibilities of the general contractor to build a specific project.

Owner-Construction Agreement - Contract between owner and contractor for a construction project.

Owner-CM Agreement - Contract between construction manager and client for professional services.

- P -

Performance Bond - (1) A written form of security from a surety (bonding) company to the owner, on behalf of an acceptable prime or main contractor or subcontractor, guaranteeing payment to the owner in the event the contractor fails to perform all labor, materials, equipment, or services in accordance with the contract the face value of the performance bond. (2) The surety companies generally reserve the right to have the original prime or main or subcontractor remedy any claims before paying on the bond or hiring other contractors.

Performance Specifications - The written material containing the minimum acceptable standards and actions, as may be necessary to complete a project. Including the minimum acceptable quality standards and aesthetic values expected upon completion of the project.

PERT - An abbreviation for Program Evaluating and Review Technique.

PERT Schedule - A diagram that illustrates, charts and reports a projects estimated start and completion times; and work in progress.

Phased or Stage Bidding - The process of receiving proposals from contractors on projects that are constructed as more than one total work-scope.

Phased Construction - A unitized approach to constructing a facility by designing and constructing separate project elements. Each element is a complete project in itself.

Plan - (1) A line drawing (by floor) representing the horizontal geometrical section of the walls of a building. The section (a horizontal plane) is taken at an elevation to include the relative positions of the walls, partitions, windows, doors, chimneys, columns, pilasters, etc. (2) A plan can be thought of as cutting a horizontal section through a building at an eye level elevation.

Plan Checker - A term sometimes used to describe a building department official who examines the building permit documents.

Planner - A person who forms a scheme or method for doing something; an arrangement of means or steps for the attainment of some object; a scheme, method, design; a mode of action.

Plans - A term used to represent all drawings including sections and details; and any supplemental drawings for complete execution of a specific project. These graphic representations show the location, geometry, and dimensions of a project or its elements in sufficient detail to facilitate construction.

Positive Attributes - A quality, character, procedure, or practice inherent to a system (of contracting) that elevates the system's performance.

Post-Bid Shopping - Negotiations between prime contractors (buyers) and trade contractors (sellers) to obtain lower prices after signing a prime contract with an owner.

Potential for Conflict of Interest - A conflict of interest that could occur but has not yet materialized.

Pre-Bid Shopping - Negotiations between prime contractors (buyers) and trade contractors (sellers) to obtain lower prices prior to submitting prime contract proposals to owners.

Pre-Construction Planning - A team-building process used for the purpose of establishing below market dollar budget, overall project scheduling and design criteria; also identification and selection of the most feasible planning, design and construction team.

Precedence Diagram - Also known as the activity-on-node method. This method uses a node (geometric shape) to represent activities with connecting lines to show the logic or sequence of activities.

Preconstruction Phase - All required phases prior to the start of construction.

Predecessor - An activity that must be completed before another activity can begin.

Pre-Design Phase - The phase prior to the start of design where feasibility studies are done and conceptual project cost estimates are prepared.

Preliminary Design Phase - Applies to engineering projects; the initial design effort following signing of the Owner-Engineer agreement. It is followed by the Final Design Phase.

Preliminary Drawings - (1) The drawings that precede the final approved drawings. (2) Usually these drawings are stamped or titled "PRELIMINARY", or "PRELIMINARY/NOT FOR CONSTRUCTION"; and the "PRELIMINARY" is removed from the drawings upon being reviewed and approved by the architect and/or owner.

Preliminary Lien Notice - A written notice given to the property owner of a specific project by the subcontractors and any person or company furnishing services, equipment or materials to that project. The notice states if bills are not paid in full for the labor, services, equipment, or materials furnished or to be furnished, a mechanic's lien leading to the loss, through court foreclosure proceedings, of all or part of the property being so improved may be placed against the property even though the owner has paid the prime contractor in full. The notice explains how the owner can protect himself against this consequence by (1) requiring the prime contractor to furnish a signed release by the person or firm thus giving the owner notice before making payment to the prime contractor or (2) any other method or device which is appropriate under the circumstances. The State of California mandates that a Preliminary Lien Notice must be given to the property owner not more than 20 days after starting the work on the specific project.

Pre-qualification - A screening process of perspective bidders wherein the owner or his/her appointed representative gathers background information from a contractor or construction professional for selection purposes. Qualifying considerations include competence, integrity, dependability, responsiveness, bonding rate, bonding capacity, work on hand, similar project experience, and other specific owner requirements.

Prime Contract - (1) A contract held by an owner. (2) A written contract directly between a prime or main contractor or subcontractor for work on a specific project.

Prime Contractor - (1) Any contractor having a contract directly with the owner. (2) Usually the main (general) contractor for a specific project.

Principal - (1) The leading participant of professional practice.

Private Sector - The domain where projects are funded with capital other than from taxes.

Product Data - Detailed information provided by material and equipment suppliers demonstrating that the item provided meets the requirements of the contract documents.

Professional Engineer - A professional firm and/or individual who is professionally engaged in an engineering discipline.

Professional Liability Insurance - Insurance provided for design professionals and construction managers that protects the owner against the financial results and liability of negligent acts by the insured. Usually referred to as Errors and Omissions (E&O) insurance.

Professional Services - Services provided by a professional, in the legal sense of the word, or by an individual or firm whose competence can be measured against an established standard of care.

Professionalism - Essentially; considerate, courteous, ethical behavior when dealing or communicating with others on a construction project.

Program - An ordered list of events to take place or procedures to be followed for a specific project.

Program Management - Services provided to an owner who has more than one construction project, for the purposes of providing standardized technical and management expertise on all projects. (As defined by CMAA)

Program Schedule - A schedule that spans from the start of design to occupancy; includes the signal activities which control the progress of the project from start to finish.

Program Team - The project team, usually consisting of the owner, A/E design professional, and CM represented by their Level 1, 2, and 3 Persons.

Progress Meeting - A meeting dedicated essentially to contractor progress during the construction phase.

Progress Payment - Partial payments on a contractor's contract amount, periodically paid by the owner for work accomplished by the contractor to date determined by calculating the difference between the completed work and materials stored and a predetermined schedule of values or unit costs.

Progress Schedule - A line diagram showing proposed and actual starting and completion times the respective project activities.

Project - A word used to represent the overall scope of work being performed to complete a specific construction job.

Project Budget - The target cost of the project established by the owner and agreed to be achievable by the team. The Project Budget usually includes the cost of construction and the CM fee, plus any other line-item costs (land, legal fees, interest, design fees, CM fees, etc.) that the owner wishes to have included in the budget.

Project Cost - All costs for a specific project including costs for land, professionals, construction, furnishings, fixtures, equipment, financing and any other project related costs.

Project Costs - Costs expended on a project and which debit the line items that comprise the Project Budget.

Project Directory - A written list of all parties connected with a specific project. The list usually includes a classification or description of the party (i.e., Owner, Architect, Attorney, General Contractor, Civil Engineer, Structural Engineer, etc.); name, address, telephone and FAX numbers opposite their respective classifications or description. It is particularly important that the emergency or after hour telephone numbers are included. These numbers should be kept confidential if requested by the respective parties.

Project Manager - A qualified individual or firm authorized by the owner to be directly responsible for the day-to-day management and administration, and for coordinating time, equipment, money, tasks and people for all or specified portions of a specific project.

Project Manual - A organized book setting forth the bidding requirements, conditions of the contract and the technical work specifications for a specific project that documents and augments the drawings. The Project Manual contains the General Conditions, Supplementary and Special Conditions, the Form of Contract, Addenda, Change Orders, Bidding Information and Proposal Forms as appropriate, and the Technical Specifications.

Project Meeting - A meeting dedicated essentially to contractor performance and progress payments, involving supervisors from contractor home offices and the team's Level 2 and 3 Managers.

Project Representative - A qualified individual authorized by the owner to assist in the administration of a specific construction contract.

Project Site - The place where a structure or group of structures was, or is to be located, i.e., a construction site.

Project Team - Consists of the architect/engineer, construction manager, and owner, represented by their Level 1, 2, and 3 Persons, plus the designated leaders of contracted constructors.

Proposal - A written offer from a bidder to the owner, preferably on a prescribed proposal form, to perform the work and to furnish all labor, materials, equipment and/or services for the prices and terms quoted by the bidder.

Proposal Form - A standard written form furnished to all bidders for the purpose of obtaining the requested information and required signatures from the authorized bidding representatives.

Public Sector - The domain where owners fund projects with monies that come in whole or in part from taxes.

Purchase Order (PO) - A written document from a buyer to a seller to purchase materials, services, equipment or supplies with acceptable purchase terms indicated.

Pure CM - A contractual form of the CM system exclusively performed in an agency relationship between the construction manager and owner. (CM Without Risk). ACM is the form from which other CM forms and variations are derived.

Punch List - A list prepared by the owner or his/her authorized representative of items of work requiring immediate corrective or completion action by the contractor.

- Q -

Qualified - An individual or firm with a recognized degree, certificate, or professional standing; or who by extensive knowledge, training and experience, has successfully demonstrated his/her abilities to identify and solve or resolve problems associated with a specific subject matter or project type.

Quality - The value levels of material and equipment selected by the A/E. Conformance to the technical specifications during construction.

Quality Assurance (QA) - The procedure established by the Project Team to inject and extract the level of quality designated by the owner.

Quality Control (QC) - That part of the Quality Assurance procedure that determines if specified quality is attained.

Quality Engineering - That part of the Quality Assurance procedure where the required level of quality is accurately inserted into the construction documents by the A/E.

Questionable Practices - Practices, standard or otherwise, that are not totally productive or are unfriendly or unfair to those parties that the practices interface.

- R -

Record Drawings - A set of contract document drawings, marked up as construction proceeds to reflect changes made during the construction process, which show the exact location, geometry, and dimensions of all elements of the constructed project as installed. It is good practice to make As-Built Drawings by marking the changes on reproducible drawings such as mylar, vellum or sepia for the duplication purposes later.

R.F.I. - (1) An abbreviation for Request for Information. (2) A written request from a contractor to the owner or architect for clarification or information about the contract documents following contract award.

RFP - The abbreviation for "Request for Proposal; The second request for uniform detailed information from prospective CM practitioners being screened for a project.

Reimbursable Expense - Charges to the owner covering costs for services that could not or intentionally were not quantified at the time the fee arrangement was made.

Release of Lien - A written action properly executed by an individual or firm supplying labor, materials or professional services on a project which releases his mechanic's lien against the project property.

Reimbursable Expenses (or Costs) - Amounts expended for or on account of the project which, in accordance with the terms of the appropriate agreement, are to be reimbursed by the owner.

Resident Architect (RA) - An architect permanently assigned at a job site who supervises the construction work for the purpose of protecting the owner's interests during construction.

Resident Engineer (RE) (inspector) - An individual permanently assigned at a job site for the purpose of representing the owner's interests during the construction phase, i.e., Owner's Rep..

Roll-Out - A loose term used to describe the rapid succession (completion) of similar projects over a given time period.

- S -

Safety Report - The Occupational Safety and Health Act (OSHA) of 1970 clearly states the common goal of safe and healthful working conditions. A Safety Report is prepared following a regularly scheduled project safety inspection of the specific project.

Samples - Detailed information provided by material and equipment suppliers demonstrating that the item provided meets the requirements of the contract documents.

Schedule - A plan for performing work or achieving an objective.

Schedule of Values - (1) The breakdown of a lump sum price into sub-items and sub-costs for identifiable construction elements, which can be evaluated by examination for contractor progress payment purposes. (2) A statement furnished by the contractor to the architect or engineer reflecting the portions of the contract sum allotted for the various parts of the work and used as the basis for reviewing the contractor's applications for progress payments.

Schematic - A preliminary sketch or diagram representing the proposed intent of the designer.

Schematic Design Phase - The initial Design Phase on an architectural project when the A/E

Schematic Design Phase - The first phase of the A/E design professional's basic services in which he/she consults with the owner to ascertain the requirements of the project and prepares schematic design studies consisting of drawings and other documents showing the scale, project components, and delineates the owner's needs in a general way for the owner's approval.

Scheme - (1) A chart, a diagram, or an outline of a system being proposed (2) An orderly combination of related construction systems and components for a specific project or purpose.

Scope of Work (SOW) - A written range of view or action; outlook; hence, room for the exercise of faculties or function; capacity for achievement; all in connection with a designated project.

Slack Time - The flexibility with non-critical jobs that allows their start dates to be adjusted without affecting the project completion date. (also referred to as Float).

Shop Drawings - Detailed information provided by material and equipment suppliers demonstrating that the item provided meets the requirements of the contract documents.

Site - The place where a structure or group of structures was, or is to be located, i.e., a construction site.

Soft Costs - Soft Costs are cost items in addition to the direct Construction Cost. Soft Costs generally include architectural and engineering, legal, permits and fees, financing fees, construction interest and operating expenses, leasing and real estate commissions, advertising and promotion, and supervision.

Special Conditions - (1) Amendments to the General Conditions that change standard requirements to unique requirements, appropriate for a specific project. (2) A section of the conditions of the contract, other than the General Conditions and Supplementary Conditions,

which may be prepared for a particular project. (3) Specific clauses setting forth conditions or requirements peculiar to the project under consideration, and covering work or materials involved in the proposal and estimate, but not satisfactorily covered by the General Conditions.

Special Consultants - Experts in highly specialized fields not inherent to an owner, A/E, or CM.

Specifications - A detailed, exact statement of particulars, especially statements prescribing materials and methods, and quantitative and qualitative and qualitative information pertaining to material, products, and equipment to be incorporated into a specific project. The most common arrangement for specifications substantially parallels the Construction Specification Institute (CSI) format.

Standard Details - A drawing or illustration sufficiently complete and detailed for use on other projects with minimum or no changes.

Standard Dimension - A measurement unique to a specific manufactured item.

Standards of Professional Practice - A listing of minimum acceptable ethical principals and practices adopted by qualified and recognized professional organizations to guide their members in the conduct of specific professional practice.

Start Date - The date that an activity or project begins.

Start-Up - The period prior to owner occupancy when mechanical, electrical, and other systems are activated and the owner's operating and maintenance staff are instructed in their use.

Statement - A copy or summary of any account covering a stated period.

Static Decisions - Decisions that are made or can be made under the full influence of the project team's checks and balances.

Static Risks - Risks inherent to the project-delivery process which occur or can occur by accident and have no opportunity for gain in the manner of their disposal.

Statute of Limitations - The period of time in which legal action must be brought for an alleged damage or injury. The period commences with the discovery of the alleged damage or injury; or in construction industry cases with completion of the work or services performed. Legal advise should be obtained.

Stipulated Sum Agreement - A written agreement in which a specific amount is set forth as the total payment for completing the contract.

Structural Design - A term used to represent the proportioning of structural members to carry loads in a building structure.

Structural Systems - The load bearing frame assembly of beams and columns on a foundation. The beams and columns are generally fabricated off site and assembled on site. Other systems such as non load bearing walls, floors, ceilings and roofs are generally constructed within and on the structural system.

Structure - (1) Something constructed (2) A building put together based on specific plans and specifications.

Study and Report Phase - Principally applicable to engineering projects. Includes the investigation and determination of specific conditions and/or areas, activities or phases of the project and provides recommendations of design solutions to and owner's needs.

Sub - An abbreviation for Subcontractor.

Subcontract - A written form of agreement between the prime or main contractor and another contractor or supplier for the satisfactory performance of services or delivery or material as set forth in the plans and specifications for a specific project.

Subcontractor - A qualified subordinate contractor who has a contract with the prime or main contractor.

Subcontractor Bond - A written document from a subcontractor given to the prime or main contractor by the subcontractor guaranteeing performance of his/her contract and payment of all labor, materials, equipment and service bills associated with the subcontract agreement.

Sublet - To subcontract all or a portion of a contracted amount.

Substantial Completion - The stage in the progress of the work when the work, or designated portion of the work, is sufficiently complete in accordance with the contract documents so that the owner can occupy or utilize the work for its intended use.

Substantial Completion Date - The date on which a contractor reaches a point of completion, when subsequent interfacing contractors can productively begin work or the owner can occupy the project, in whole or in part, without undo interference.

Substitution - A proposed replacement or alternate offered in lieu of and represented as being equivalent to a specified material or process.

Substructure - The supporting part of a structure, i.e., the foundation.

Sub-subcontractor - An individual or contractor who has a written contract with a subcontractor to perform a portion of the work.

Sub-surface Investigation - (1) A term used to represent an examination of soil conditions below the ground. (2) Investigations include soil borings and geotechnical laboratory tests for structural design purposes.

Successor - (1) One that succeeds another (2) A scheduled activity whose start depends on the completion of one or more predecessors.

Superintendent - A job title usually reserved for the administrative level person who supervises the work of an on-site contractor.

Superstructure The part of a building or other structure above the foundation.

Supervision - (1) The act, process, or function of supervising construction materials, methods and processes for a specific project (2) Hands on field direction of the contracted work by a qualified individual of the contractor.

Supervision by a Field CM - To coordinate and guide, but not inspect, the performance of construction resources contracted for by the owner.

Supplemental Conditions - Supplements or modifies the standard clauses of the general conditions to accommodate specific project requirements. (synonymous with Supplementary Conditions)

Supplementary Conditions - A written section of the contract documents supplementing and qualifying or modifying the contracts general conditions.

Supplier - An individual or firm who supplies and/or fabricates materials or equipment for a specific portion of a construction project but does not perform any labor on the project.

Surety Company or Surety - A properly licensed firm or corporation willing to execute a surety bond, or bonds, payable to the owner, securing the performance on a contract either in whole or in part; or securing payment for labor and materials.

Synergism - Actions by two or more persons to achieve an end result that could not be achieved as well by one of the persons.

- T -

Team - The designated responsible project management of each trade contractor plus the Level 2 and Level 3 Managers of the owner, A/E, and CM, i.e., Project Team.

Technical Inspection - Matching technical specification criteria with visual or mechanical tests on the project site, or in a remote location or laboratory, to ascertain conformance.

Technical Review - The critique of design solutions, or criteria used for design solutions, by a party other than the one providing the solutions or criteria, to determine adequacy and suitability of purpose.

Technical Specifications - Written criteria that augment the drawings pertaining to the technical construction of the project that cannot be conveniently included on the plans.

T&M - (1) An abbreviation for a contracting method called Time and Materials (2) A written agreement between the owner and the contractor wherein payment is based on the contractor's actual cost for labor, equipment, materials, and services plus a fixed add-on amount to cover the contractor's overhead and profit.

Tenant's Rentable Square Feet - Usable square feet plus a percentage (the core factor) of the common areas on the floor, including hallways, bathrooms and telephone closets, and some main lobbies. Rentable square footage is the number on which a tenant's rent is usually based.

Tenant's Usable Square Feet - The square footage contained within the demising walls.

Tenure - The duration, term, or length of time required by agreement or precedent for performance of services.

Testing - Applying standard procedures to determine if prescribed technical criteria have been met in performance.

Timeline - A synonym for scheduling of activities in the context of time.

Timely Performance - Compliance with a time requirement.

TI'S (Tenant Improvements) - TI'S is a term used to define the interior improvements of the project after the Building Envelope is complete. TI'S usually include finish floor coverings; ceilings; partitions; doors, frames, hardware; fire protection; HVAC consisting of branch distribution duct work, control boxes, and registers; electrical consisting of lighting, switches, power outlets, phone/data outlets, exit and energy lighting; window coverings; general conditions; and the general contractor's fee. The cost of tenant improvements are generally born by the tenant and the costs of tenant improvements will vary with every building, and with tenant requirements.

Time is of the Essence - A provision in a construction contract by the owner that punctual completion within the time limits or periods in the contract is a vital part of the contract performance and that failure to perform on time is a breach and the injured party is entitled to damages in the amount of loss sustained. e.g., "time is of the essence in the completion of the construction contract".

Time-and-a-half - A term meaning any individuals normal billing hourly rate is increased by a multiple of 1.5 following predetermined normal working hours.

Timely Completion - Completing the work of the contract before the date required.

Time of Completion - The date or number of calendar or working days stated in the contract to substantially complete the work for a specific project.

Trade Contractor - A contractor that specialized in providing/installing specific elements of the overall construction requirements of a project.

Transmittal - A written document used to identify information being sent to a receiving party. The transmittal is usually the cover sheet for the information being sent and includes the name, telephone/FAX number and address of the sending and receiving parties. The sender may include a message or instructions in the transmittal. It is also important to include the names of other parties the information is being sent to on the transmittal form.

Travel Time - Wages paid to workmen under certain union contracts and under certain job conditions for the time spent in traveling from their place of residence to and from the job.

- U -

Underwriter's Laboratories (UL) Label - A label on a product or manufactured item showing the material is regularly tested by, and complies with the minimum standards of the Underwriter's Laboratories specification for safety and quality.

Uniform Building Code (UBC) - The Uniform Building Code is one of the family of codes and related publications published by the International Conference of Building Officials (ICBO) and other organizations, such as the International Association of Plumbing and Mechanical Officials (IAPMO) and the National Fire Protection Association (NFPA), which have similar goals as far as code publications are concerned. The Uniform Building Code is designed to be compatible with these other codes, as together they make up the enforcement tools of a jurisdiction.

Uniform System - The CSI Master Format is a "uniform system" of numbers and titles for organizing construction information into a regular, standard order or sequence. By establishing a master list of titles and numbers Master Format promotes standardization and thereby facilitates the retrieval of information and improves construction communication. It provides a uniform system for organizing information in project manuals, for organizing project cost data, and for filing product information and other technical data.

Unit Price Contract - A written contract wherein the owner agrees to pay the contractor a specified amount of money for each unit of work successfully completed as set forth in the contract.

Unit Prices - A predetermined price for a measurement or quantity of work to be performed within a specific contract. The designated unit price would include all labor materials, equipment or services associated with the measurement or quantity established.

Up-Front Services - Free or reduced-rate services provided to prospective clients in the interest of obtaining a contract. Often rationalized as part of a firm's selling or public relations program.

- V -

Value - The intrinsic worth of something determine don an individual bases.

Value Engineer - A person, usually certified, who is qualified to perform value engineering services for a client.

Value Engineering - A technical review process; the close matching of engineering design to the value an owner derives from the design.

Value Management - The matching of project decisions and directions with the expressed requirements of the owner, from an owner value derived perspective.

Value Manager - A person qualified to perform value management services for a client.

Verbal Quotation - A written document used by the contractor to receive a subcontract or material cost proposal over the telephone prior to the subcontractor or supplier sending their written proposal via mail or facsimile.

Vendor - One that sells materials or equipment not fabricated to a special design.

- W -

Warranty - Assurance by a providing party that the work, material, and equipment under warranty will perform as promised or as required by contract.

Warranty Phase - The phase of a project where the agreement by which a party accepts responsibility for fulfilling an obligation and warrant that the work under warranty meets its intended use for a specifically established timeframe.

Work - The successful performance of the entire scope of the project being performed for a specific construction project including labor, materials, equipment, and other associated items necessary to fulfill all obligations under the contract.

Work-Scope - A portion of the total project work that is delineated in the contract documents for a specific trade contractor or discipline for bidding and performance purposes.

Work Scope Description - A narrative description of the concise scope-of-work to be bid and performed by a contractor, subcontractor, etc.

Working Drawing - A drawing sufficiently complete with plan and section views, dimensions, details, and notes so that whatever is shown can be constructed and/or replicated without instructions but subject to clarifications.

Work Order (WO) - A written order, signed by the owner or his representative, of a contractual status requiring performance by the contractor without negotiation of any sort.

Work Letter - A written statement (often called Exhibit B to a lease or rental agreement) of the specific materials and quantities the owner will provide at his own expense. The work letter defines the building standards, including the type of ceiling, the type and number of light fixtures, the size and construction of the suite-entry and interior doors. Building standards define the quality of tenant spaces. Generally, a Work Letter is associated with the leasing or renting of office space by a tenant within a Building Envelope.

- X -

XCM - An abbreviation for "Extended Services -CM"; A form of Construction Management (CM) where other services such as design, construction, and contracting are included with Additional Construction Management (ACM) services provided by the Construction Manager.

- Y -

(empty)

- Z -

Zoning - Restrictions of areas or regions of land within specific geographical areas based on permitted building size, character, and uses as established by governing urban authorities.

Zoning Permit - A document issued by a governing urban authority permitting land to be used for a specific purpose.