

Construction Manager's Responsibilities: Pre-Design, Design, and Pre-Construction Phase

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I. Introduction

This download summarizes and addresses the nuances of the construction manager's role, responsibilities, and relationship with the design team (owner and its consultants) during the pre-design and pre-construction phases of a construction project. This download assumes that the design professional and construction manager are independent entities separately engaged by the owner and does not address projects in which the construction manager is also the design builder.¹

In the early development of the construction management concept, architects and engineers attempted to expand their basic portfolio of services by venturing into the construction management arena. As with many businesses that move outside their core area of expertise, the results were not favorable. The majority of construction managers in business today have morphed from general contractors into part-time or full-time construction managers. Therefore, this download will focus on construction management from the perspective of a construction contractor rather than a design professional.² When providing services to the design team, the construction manager should be wary of stepping over the murky line of services that should

1. See Chapter 13, *Construction Manager and the Design-Build Project*.

2. Large Architectural, Engineering and Construction (A/E/C) firms may appear on the surface to perform both design and construction management services. However, these firms are made up of multiple separate business entities and the design entity will rarely be the entity performing construction management. The comments related to independent construction managers apply to construction managers which are separate corporate entities that may be owned by a parent A/E/C firm.

(or must, by state licensing statute) be performed by licensed professionals. Many construction managers treat this phase of the project as a marketing tool that may lead to a negotiated agreement to manage the construction phase. The resulting liability exposure can far exceed any good will that might be earned by waiving the fee for profit. This download will address several areas of potential liability that construction managers should take into consideration when they enter into agreements to provide pre-design and pre-construction services. Additionally, we have included model agreements and a check list that can be used when drafting or reviewing agreements for pre-construction services.

For each of the construction phases we discuss below, our goal is to outline those tasks that a construction manager should undertake, as well as those tasks that are more properly left to the owner or to consultants.

II. Relationship with Owner

The owner of any construction project is ultimately responsible for ensuring that the project is successfully completed. In most instances, the owner lacks the specialized expertise to coordinate all of the different aspects of the project. Alternatively, the owner does not have sufficient internal resources to self-perform pre-construction services. In other instances, the owner may be averse to accepting risk and wish to transfer some or all of its risk to the construction manager and/or the design professional. Consequently, the owner will solicit proposals from construction managers to perform pre-construction services.³

The construction manager's role during the pre-construction phase will vary in accordance with the scope of the services that the owner requests and the construction manager agrees to provide. On most pre-construction projects, the construction manager will (1) prepare a series of cost estimates at predetermined stages of design development; (2) prepare the schedule for the design phase as well as a preliminary schedule for the construction phase; (3) perform value engineering analysis; (4) perform a constructability review; and, perhaps, (5) develop the construction logistics plan.

Later, if the construction manager is to manage the construction phase either as an agent or as an at-risk constructor, the construction manager's duties may also include preparation of bid packages, bid evaluation, and preparation of recommendations to the owner for the award of trade contracts. Where there are construction materials and equipment that have relatively long delivery requirements, the construction manager may be asked to purchase or assist the owner in purchasing long-lead items. If the construction manager is expected to enter into an at-risk agreement for the construction phase,⁴ pre-construction services will include developing the

3. IRVIN E. RICHTER & ROY S. MITCHELL, *HANDBOOK OF CONSTRUCTION LAW AND CLAIMS* (1982).

4. See Chapter 11, *Construction Management Contract Responsibilities Construction and Completion Phases*.

guaranteed maximum price. If the construction manager is brought on board very early in the process, it may also be involved in assisting the owner, architect, and other design professionals with the pre-design acquisition of information and governmental approvals.

Sometimes, disputes develop between the construction manager and other design team members with respect to each party's role and responsibilities. These disputes can be avoided if methods are employed to promote open communication. In particular, an experienced construction manager can facilitate communications between the owner, design professionals, and other stakeholders involved in the project.

Although not licensed to provide design services, most construction managers have significant experience that enables them to assist the design professionals with meeting budgetary requirements imposed by the owner and with evaluating the feasibility and constructability of the proposed design.

Unfortunately, many project team relationships deteriorate because of unrealistic expectations on the part of the owner and/or design professionals. In many instances, specifically with a less sophisticated owner, a lack of understanding of the actual construction costs may result in a grossly underfunded project. Consequently, it is imperative that the owner retain a construction manager who is in tune with actual construction costs to assist in the development of the initial budget. If the owner or the design professional establishes a costs estimate that is too low, the project may be doomed before it ever gets into construction.

III. Pre-Design

For more sophisticated owners, some or all of the pre-design may be performed in-house without the assistance of an independent construction manager. Before establishing the economic feasibility of the project, many owners are reluctant to spend the money necessary to engage a construction manager. However, depending on the sophistication of the owner's in-house staff, the role of the construction manager during the pre-design phase can greatly impact the success of the project. On the other hand, the construction manager must be aware that pre-design contains the word *design*; this is an area where the construction manager may inadvertently take on professional liability or perform services that, by law, are to be performed only by licensed professionals.

A. Project Scope

Establishing the program⁵ and defining the project scope is a formidable task for any owner. The project scope should not only identify the site, regulatory issues, use(s), goals, milestones, potential opposition, and stakeholders, it should also define the roles to be assumed by the project's team members (i.e., owner, architect, consultants,

5. The owner's program will outline the purpose, infrastructure, and facilities required to fulfill that purpose as well as the basic services required to support the planned facilities.

construction manager, etc.). It is imperative that the owner recognize the critical nature of formulating the project scope. Taking the time to plan the project carefully during pre-design is a good investment. It is true that people do not plan to fail, but rather they fail to plan. By recognizing that a project has many discrete parts that must be coordinated, the construction manager can apply its specialized management expertise to pre-design tasks as well as pre-construction.

Many abandoned projects, construction claims, and cost overruns can be eliminated or at least minimized if the owner makes the required investment in time and resources to complete the pre-design phase. Changes made to the scope during pre-design have minimal adverse financial consequences. Overall, when compared to the total cost to construct a project, the funds and resources required to properly complete the pre-design phase are small. The construction manager should recommend to the owner that it is never too early to start coordinating the details of the project and assigning team members to manage these tasks. The construction manager's role is to anticipate the owner's short-term and long-term project needs from the pre-construction phase to project close out. To achieve this, the construction manager should provide multiple options, from which the owner can select, which will assist the owner to focus on the decisions that will eliminate potential problems before they mature into deal killers.

B. *Environmental Impact Statements*

An Environmental Impact Statement (EIS) is a report prepared in accordance with the National Environmental Policy Act (NEPA)⁶ for federal projects or the applicable State Environmental Quality Review Act (SEQA). The EIS report is intended to provide a means for owners, governmental agencies, and the public to review the environmental ramifications, if any, associated with the proposed project.⁷ Anything that a reasonable person would consider significant should be addressed in the EIS. The EIS should address the total impact on the environment. Further, according to the Council on Environmental Quality (requirements may vary according to applicable SEQA), the EIS should generally address the direct and indirect effects that the project will have on the environment and possible methods for mitigating them. The EIS inserts the balancing of social, economic, and environmental issues into the project planning. If there is opposition to a project, attacking the EIS is the method most frequently used to delay the project and dissuade the owner from building in the opposition's back yard (also known as not in my back yard—NIMBY).⁸ There are consultants that specialize in this area, and these consultants should be retained directly by the owner and not the construction manager. Few construction managers have expertise in this area and the risk does not counterbalance the fee for

6. 42 U.S.C. § 4321 (1969).

7. MICHAEL L. MCKINNEY, ENVIRONMENTAL SCIENCE SYSTEMS AND SOLUTIONS (2003).

8. This is a common acronym for persons or groups that oppose new real estate development, manufacturing plant, or public works projects that have been proposed for their town or neighborhood.

profit (more than likely, no fee for profit) associated with the construction manager's involvement in pre-design.⁹

1. Phase I Environmental Assessment

A Phase I Environmental Assessment (EAS) is intended to satisfy due diligence requirements for a real estate purchaser, a construction lender, or a title insurer. They are performed in accordance with American Society of Testing Materials Standards¹⁰ and usually involve an historical investigation, including a physical survey of the site and surrounding properties, on-site inspection, review of building permits, review of environmental records, review of aerial photographs, record search for evidence of underground storage tanks, land use assessment, review of previous owners and uses, review of local geology and hydrology, and a written report that includes recommendations and conclusions. As indicated above, there are consultants that specialize in preparing the Phase I EAS. However, as opposed to an EAS discussed above, it is good practice for the construction manager who intends to manage on-site construction to review the Phase I EAS. In cases where the site or the area in which the site is located was previously devoted to an industrial use or there is a history of environmental problems in the area, if there is no Phase I available, the construction manager should qualify its proposal on the basis that the owner will provide a Phase I EAS that does not require preparation of a Phase II EAS. The construction manager and its subcontractors are responsible for the health and safety of the labor force working on the site and the construction manager should assure itself, in a reasonable manner, that there are no contaminated or hazardous substances on the site that could endanger its employees or subcontractor labor forces. Unfortunately, if the owner adopts a "don't ask, don't tell" attitude regarding potential environmental issues and refuses to order an EAS, the construction manager will be placed in the difficult position of deciding whether to walk away or order its own Phase I EAS.

2. Phase II Environmental Assessment

If questions are raised during the Phase I EAS, conducting a Phase II would be recommended as part of the conclusions and recommendations included in the Phase I EAS. Again, there are consultants who specialize in Phase II studies but in addition to the consultant, testing agencies will probably be required to perform soil borings, soil samplings, ground water surveys, asbestos surveys, lead paint surveys, and other testing and analyses. Negative or questionable findings during the Phase II

9. Some Architect/Engineer/Construction manager firms may perform environmental assessments with separate business entities.

10. AMERICAN SOCIETY OF TESTING MATERIALS STANDARDS, STANDARD PRACTICE FOR ENVIRONMENTAL SITE ASSESSMENTS: PHASE I ENVIRONMENTAL SITE ASSESSMENT PROCESS, E1527-05 (Nov. 1, 2005).

investigation may necessitate further testing, notification of appropriate governmental authorities, and the development of a remediation plan. There is no established protocol since each Phase II EAS depends on the potential problems discovered during the Phase I EAS. When health and safety issues are involved, the construction manager should err on the side of caution.

C. Site and Existing Building Survey Hazardous and Contaminated Substances

Before construction is performed in, or before the demolition of, buildings known or thought to contain mold, asbestos, lead paint, PCBs, and other hazardous or contaminated substances, an environmental consultant should be retained to survey and test for hazardous materials and develop a remediation plan. An owner either knows or should know that these substances are in its building and should assume the risk associated with abatement or cleanup. It is only fair since the owner is going to obtain the greatest benefit from the construction project. The construction manager, on the other hand, should strenuously resist becoming directly involved in retaining the environmental consultant or the testing agencies. The construction manager's insurance program may prohibit such activity. In addition, many of these consultants are relatively small businesses with levels of errors and omission insurance of \$1 million or \$2 million and limited assets. If there is a problem, it will usually carry unpleasant publicity and could place the construction manager's assets at risk.

D. Geotechnical Investigation

The geotechnical investigations are conducted early in the pre-design phase at a time before the initial budget has been established and when most owners wish to minimize costs. Geotechnical investigations involve high risk, and many architects insist that the owner contract directly with the geotechnical engineer. At a minimum, the geotechnical reports should include soil borings, soil investigation, determination of ground water level, and a recommendation of the foundation system or systems that could be used. At best, this investigation is a snapshot of the conditions observed.

Geotechnical investigations frequently miss changes in soil characteristics, presence of rock on portions of the site, environmental soil conditions, buried foundations, and other abandoned materials and equipment. Construction managers usually will insist on contract language that allows them to submit a Type I or Type II claim for differing subsurface conditions such as the language found in American Institute of Architects (AIA) Document A201-1997, § 4.3.4.¹¹

Agreements executed by geotechnical engineers frequently include a limitation of liability that will not go very far in rebuilding a structure that sustains damages as a result of errors or omissions. Even though this is clearly a design function, some owners will ask the construction manager to engage the geotechnical engineer and/or the boring or testing agency. Construction managers are not design professionals and

11. Differing Site Conditions, 48 C.F.R. § 52.236-2 (2000).

should be even more insistent than architects in avoiding any involvement in geotechnical investigations. Construction managers also need to be careful not to assume risk for subsurface conditions through the backdoor by value engineering—the recommendations made by the geotechnical engineer. Any such recommendation should be conditioned on written approval by the geotechnical engineer—not the architect.

E. *Funding*

The funding source of a construction project is typically the most time-sensitive and integral component of the project plan. During the pre-design phase, the construction manager can assist the owner with developing a project budget, including identifying creative strategies for financing the construction of the project. Engaging a construction manager who has a good reputation and relationship with the lender(s) is often factored into a decision by the owner to engage the construction manager during pre-design and/or pre-construction. However, construction managers are typically in the construction business and are not developers. During the early 1980s, some construction managers decided to enter into speculative real estate development; generally, they did not obtain the results they expected. Construction managers have different risk tolerance than owners and developers, and except for captive construction managers owned and operated by developers or owners, construction managers should not venture into speculative real estate development.

During the funding process, owners are asked to execute completion and environmental guarantees. Occasionally, the construction manager may be asked by the owner to execute a completion guarantee. On the surface, the risk associated with a completion guarantee appears to be similar to that associated with a performance bond. However, by executing a completion guarantee, the guarantor agrees to complete the project and assume the risk for differing conditions, excusable delays, design defects, and other costs that otherwise would entitle the construction manager to a change order and payment outside the lump sum or guaranteed maximum price. Unless offset by significant fee enhancement or an equity interest in the project, this risk is inappropriate for a construction manager operating under a traditional fee arrangement to assume.

F. *Land Acquisition*

Land acquisition, even though part of the pre-design phase, is usually handled solely by the owner. The construction manager may be asked to prepare budget estimates for a series of potential sites. Further involvement in site acquisition would be limited to situations where the construction manager also operates as the design builder. In most instances, the owner has procured the land for erecting the structure, or purchased the building it desires to renovate. In the event that the construction manager is retained at the point of project creation, the construction manager may be able to introduce the owner to developers and consultants that specialize in alternative or creative solutions for land acquisition through partnerships with government or private entities. For instance, a Fortune 500 company that wants to build a facility

may be able to partner with a quasi-public agency to build and lease back the facility with tax incentives. Public-private partnerships can maximize the owner's return on their investment with minimal risk.

G. Engaging Design Professional

The relationship between the owner and design professional can be difficult to define because the design professional can serve three different roles. Understanding the dynamics and the contractual relationship between the owner and design professional should be a priority of the construction manager. Therefore, the construction manager will be able to better define its role in the pre-construction phase of the project.

First, the design professional can be retained as an independent contractor to prepare the design. In this capacity, the design professional is responsible for preparing the construction drawings and specifications and limits its duties to managing the design aspects of the project. The design professional remains liable for errors and omissions in performance of its services.

Second, the design professional can be retained as an agent of the owner in performing inspection services and contract administration. In this capacity, the design professional would be responsible, in addition to preparing the construction documents, for observing the progress of construction work, certifying payment, and reporting to the owner. Further, the design professional has express or implied authority to negotiate on the owner's behalf with respect to modifications in the construction agreement.

Finally, the design professional can be retained as an independent arbitrator of disputes between the owner and contractor. In this capacity, the design professional may be asked to interpret the contractual rights and duties of the owner or contractor under the owner-contractor agreement.¹²

In most project scenarios, the design professional's role is a combination of the roles discussed above. Selecting a design professional is one of the owner's most important decisions and has the greatest impact on the project's success. Specifically, the owner will have to rely on the design professional to transfer the owner's vision onto the construction drawings. If the design professional is unable to prepare the drawings in a timely fashion, the success of the project could be in jeopardy.

Depending on the scope and size of the project, the owner may use a "direct selection" method.¹³ In this instance, the design professional may be personally referred by a friend or the design professional's reputation in the region may make him or her a viable choice. For large projects or government-funded projects, the

12. There is a movement within the American Institute of Architects (AIA) to remove the architect from this responsibility in the 2007 version of the AIA documents and substitute an independent neutral chosen by the parties.

13. IRVIN E. RICHTER & ROY S. MITCHELL, *HANDBOOK OF CONSTRUCTION LAW AND CLAIMS* 40–43 (1982).

best method of selecting the design professional would be through a Request for Proposal (RFP) method.

In relatively few instances, the design professional and construction manager may be the same entity. In particular, design professionals have traditionally held a high level of expertise in project management, sometimes including project scheduling, quality control, and contractor payment review.¹⁴ Consequently, if the design professional assumes the responsibility for the design as well as the project coordination, the owner-architect agreement should clearly separate the scope of activities between situations when the design professional is acting as just a design professional and situations when the design professional is acting as a construction manager. If the design professional wears the construction manager hat, the relationship between the parties of the project team must be defined through the use of explicit contract language.¹⁵ The inherent problem with combination organizations is that it is difficult to separate the design professional's professional liability from the liability for construction means and methods that would be assumed by the construction manager.

Owners can use project-specific contracts or pre-printed forms provided by the AIA¹⁶ or the Associated General Contractors of America (AGC).¹⁷ The AIA and AGC publish a family of contract documents that can be used as a starting point of contract negotiations. As a standard form, these agreements are designed to establish a relationship between the parties in a standard situation. However, every project is unique and modifications of the documents may be required and, in most cases, recommended.

The construction manager rarely gets deeply involved in the selection of the design professional. Unofficial recommendations may be solicited if the construction manager has been selected or has been engaged. In the vast majority of projects, design professionals are selected before the construction manager is selected. As part of the process, the design professional and owner should discuss the owner's expectations, budgetary requirements, and timing, as well as the impact that budget creep may have on the feasibility of the project. If already engaged, the construction manager should also be involved in this process.

H. *Adjacent Site Investigation*

The design may be dependent on an evaluation of adjacent properties. This is particularly true in a high-density urban environment. The construction manager may be asked to participate in nondestructive testing and recording of existing

14. *See generally* AIA B141, Standard Form of Agreement Between Owner and Architect ¶ 2.6.

15. *See* www.aia.org; www.agc.org.

16. www.aia.org.

17. www.agc.org.

conditions. Before performing such services, it should be clear in the construction management agreement that the construction manager is performing these services at the direction and under the supervision of the design professional. The construction manager does not want to share responsibility for errors and omissions related to the interpretation of information provided to the construction manager by the design professional. The information collected should be limited to data and the construction manager's employees should not, even if requested, offer opinions that could be construed as design related.

There is also a separate nondesign-related investigation of adjacent properties that is often made by construction managers. This investigation involves a recording of existing conditions prior to construction activities in an effort to minimize frivolous claims by adjacent property owners of damage caused by the construction manager's operations. This investigation usually is performed as part of the preconstruction services.

I. *Utility Service*

Frequently, construction managers are asked to take part in evaluating the suitability of the utilities that service the site. Again, this is a design issue and the construction manager's responsibilities should be limited to locating existing utilities rather than offering opinions as to whether or not they will support the proposed project. Additionally, construction managers should not take the lead in negotiations with utilities. There are many examples of projects that were substantially completed but were still waiting for the public utilities to complete the service connection to the new construction project. The owner should take the lead and should maintain responsibility for such negotiations.

Library References

C.J.S. Health and Environment §§ 105–107, 110, 112–129.

West's Key No. Digests, Environmental Law <KEY>579–611.

IV. Design

A. *Phases*

The first step in any design is developing the owner's program. During the program phase, the owner, and on larger projects the architect and the construction manager, establishes the project objectives to be achieved and the parameters within which those objectives will be satisfied. The owner may develop its program internally or retain a program manager. The program manager may be a consultant that specializes in the owner's planned facilities. Program management is not a delivery system and differs from project management. In particular, a program manager should be an extension of the owner's in-house staff. The program manager's scope

of services varies based on the needs of the owner. Typically, there are at least five phases of services that define the program manager's scope of services: program planning, design, construction, occupancy, and facilities management for one or more discrete projects. Depending on the owner's needs, additional services may be needed to accomplish the owner's objectives.

A program manager is particularly useful where the owner is building multiple facilities or a new headquarters. The owner's program should include a description of the owner's short-term and long-term objectives, the owner's financial and budgetary needs, the owner's space requirements, and the owner's scheduling priorities. This is by no means an all-inclusive list. Unlike the construction manager's role on a discrete project, the program manager is responsible for the overall development and coordination of multiple services.

Although the design professional retained by the owner will be responsible for the final design, the construction manager's input is critical to the overall success of the final design. Consequently, the construction manager should have a comprehensive understanding of the project's design requirements.

The construction manager should also appreciate the scope of the design professional's role during pre-construction and design development stages. Specifically, the construction manager can provide material pricing and availability of the proposed building systems. For example, if the project team learns that there may be a steel shortage in the upcoming months of the project, the construction manager may suggest an alternate building material to accomplish the owner's instructions. In the event that the owner does not want to use an alternate building material, the construction manager can assist the owner with revising the long-term project schedule.

The construction manager should incorporate the following list of questions into its initial program discussions with the owner:

- What is the target completion date? (i.e., When does the project need to be completed?)
- Who is responsible for making decisions? (i.e., defining the approval authorities)
- How will project information be disseminated among the parties?
- Who is responsible for maintaining the project schedule?

The construction manager on large or multi-site projects may be called on to fulfill the dual responsibility of program manager. After the program has been established and the design professionals have been engaged by the owner, the design process is customarily broken down by architects, and sometimes engineers, into three phases: schematic design; design development; and construction documents.

As a project team member, the construction manager will, in each phase of the design, be involved in preparing an estimate, preparing or updating the progress

schedule, value engineering, and reviewing constructability. The construction manager's responsibility is to assist the design professionals and the owner without assuming or usurping design responsibility and liability. This is an iterative process and should not be conducted in isolation.

1. *Schematic Design Drawings*

Schematic design is the process of transforming the owner's program into drawings which illustrate the scale and relationship between various project components. At the beginning of the schematic design phase, a pre-design conference and planning session is usually conducted between the owner and the design professional. Preferably, if the owner has retained a construction manager, the construction manager will also attend the pre-design conference and planning session. Other attendees may include the program manager (if not the construction manager), the owner's other consultants, and the architect's consultants, as may be appropriate. One of the objectives in the meeting should be to develop the basis on which the schematic design will be developed. Another objective for the meeting should be development and review of the preliminary design schedule.

In this phase, a detailed code and life safety analysis of applicable federal, state, and local jurisdictional building codes should be conducted. Also, it is recommended that the owner and the design professional coordinate introductory meetings with local government officials, including the local zoning board, to confirm that the project will satisfy all legal and project requirements.

At a minimum, the design professional should provide the following documentation for the owner's review: site plan showing building, parking, and grades; exterior concepts and image boards to communicate the design intent; architectural site plan; floor plans of all floors, including the proposed structural grid; summary of applicable building codes; proposed exterior finishes with color concept perspectives; horizontal control dimensions; and proposed finished floor elevations. The purpose of the schematic design phase is to provide the owner with an opportunity to confirm whether the development of the design is consistent with the owner's vision. Additionally, changes at this level of the design have minimal impact on the overall cost of the project.

Throughout the schematic design phase, the design professional should conduct weekly or biweekly formal design review meetings with other members of the project team and with the owner to review the status of the schematic design and design parameters, and to incorporate feedback from the owner and other team members. When the schematic design has reached a point where input is required from other disciplines, the design professional should retain consultants to develop the structural system, the site plan, the mechanical plans, and the electrical plans. These consultants usually include a structural engineer, a civil engineer, and a mechanical engineer to generate the supplemental design drawings.

The construction manager is responsible for coordinating and updating the design schedule. In addition, the construction manager may be asked to perform quick estimates to be used as part of a decision-making process in selecting systems

to be incorporated into the design. Value engineering and constructability analysis are invoked on an as-needed basis. After the owner has approved the schematic design, the first formal estimate beyond the preliminary estimate will be prepared along with a more detailed progress schedule for completion of the design and an updated construction schedule for the owner's review and approval.

2. Design Development Drawings

During the design development phase, the schematic design is further developed through the use of larger scale plans as well as elevations, sections, and details. The project team should continue to have periodic design review meetings to review design progress and to solicit input from team members. The construction manager will review the overall project schedule and conduct a design scheduling meeting to coordinate the completion of the design with the construction sequencing plan.

The final design development package should include all of the relevant drawings and specifications to describe the design intent and finishes adequately. The construction manager should perform value engineering and constructability review during the design development phase. Any changes to the design, including additions or deletions, resolved during the design development phase, will have a minimal adverse impact to the overall project budget. After the design development drawings and outline specifications have been completed and approved by the owner, another formal estimate will be prepared by the construction manager along with a more detailed design and construction progress schedule for the owner's review and approval. This estimate will be compared with the schematic design phase estimate, and adjustments will be made, if required, to the construction documents. Design development drawings and specifications are, on average, forty percent to fifty percent complete construction documents. The owner should approve the construction manager's estimate and the updated progress schedule at the commencement of the construction document phase.

3. Construction Drawings and Specifications (Construction Documents)

The construction documents are intended to convey, in as much detail as necessary, the graphic and quantitative information required by the trade contractors to perform the construction work. Design review meetings should continue during the construction document phase to discuss and resolve any outstanding issues with respect to the design. The construction manager should review the overall project schedule and conduct coordination meetings with the design professionals to make sure the remaining design activities are in compliance with and integrated into the construction schedule.

At the agreed upon point during the construction document phase (which should be in excess of seventy-five percent complete, as determined by the construction manager), a complete set of documents should be delivered to the construction manager. The construction manager will then assemble the bid packages and solicit bids from trade contractors, which will be used to serve as the basis for the guaranteed maximum price, or if the construction manager is to operate as an agent of the owner or the project is to be completed on cost-plus basis, the final formal estimate. The bid

documents should include, at a minimum, the design drawings and specifications, instructions to bidders, and other relevant documents necessary to assist the construction manager in obtaining bids from trade contractors.

B. Estimate

One of the construction manager's primary tasks during pre-construction is to provide construction cost information so that the owner can complete and update its cost-benefit analysis and have an understanding of the return expected from its investment. Construction managers are closer to the changes that take place in the construction marketplace and they provide the owner with a reality check. Sometimes, sophisticated owners will employ a separate cost consultant to perform a parallel estimate for comparison with the construction manager's cost estimate. Those owners who infrequently perform construction are usually the most out of touch with the actual costs. This is a very high-risk process because the owner's expectations upon which preliminary decisions are made may not be realistic. Owners who have become overly enamored with their project do not react favorably to the reality check provided by a major cost estimate.

An estimate is a rough or approximate calculation based upon the information available. Owners sometimes overlook the fact that the estimate is approximate and that an estimate merely represents the best judgment of the construction manager as to what the construction market will be when the project is eventually released to trade contractors for bid. Although providing estimates is an everyday occurrence for construction managers, they need to be aware of the dilemma faced by the owner's managers who discover they have to return to their senior management with a scaled back plan, or even worse, drop the plan entirely. An owner's desire to build a landmark or win an architectural award may no longer be possible. Most owners will treat this as a business setback that has to be managed and overcome. However, the construction manager needs to protect itself from those few owners who would rather shoot the messenger than accept defeat. Because of the importance of estimates, this section goes into some detail and can be skimmed by those familiar with the estimating process performed by construction managers.

Estimates should contain more than just a number. For example, there should be a narrative description of the project and document list, elements of the project should be quantified, assumptions and qualification used to prepare the estimate should be recorded, construction phasing assumed by estimator should be recorded, effect of means and methods on cost and schedule should be recorded, contract requirements that may affect the contract and schedule should be addressed, and a comparison should be made with the previous estimate including an analysis of scope changes that may be included in the latest estimate. Formal estimates consume the vast majority of costs associated with pre-construction and the construction manager should limit its responsibility to an agreed upon specific number of estimates. For example, the construction manager may agree to deliver one detailed estimate each (1) upon drawings approved by the owner at the completion of schematic design; (2) upon drawings approved by the owner at completion of design development;

(3) at sixty percent complete construction documents; and (4) for a guaranteed maximum price at ninety percent buyout of major trades. Without a defined duration and number of estimates, the construction manager could be liable for providing repeated costly estimates until the owner is satisfied.

Program and schematic estimates are prepared before a great deal of information is available. At this point in the design process, major decisions on the location of the project, systems to be employed, and area required may not be finalized. Preliminary estimates are also known as *order of magnitude*, *square foot*, or *conceptual* estimates. It is common for preliminary estimates to examine several alternatives so that cost can be included as part of decision-making process. It is a good idea before preparing the preliminary estimate to conduct a project charrette with other project team members to vet the project scope and review details that are being discussed among designers and/or the owner but have not yet been incorporated into the design. The results of a charrette can greatly increase the accuracy of the preliminary estimate. Preliminary estimates utilize historical data and may be based upon floor area, the number of cars in a parking garage, the number of rooms in a hotel, the number and type of units in multifamily housing, or the number of beds in a hospital. Preliminary estimates may also be based on historical data for similar projects to which parametric ratios and cost indices (escalation) are applied. If additional systems information is available, unit or assembly prices for the structure, exterior walls, roofing, and major mechanical and electrical equipment may be factored into the estimate. There should be a low expectation of accuracy commensurate with the level of information available. Preliminary estimates based on early design information generally have an average accuracy range within twenty percent.

Design development and early construction document estimates are based on quantity survey or drawing take-offs and review of the outline specifications. Assumptions are made to fill in the missing design information, and the estimate includes narrowed assumptions and qualifications. For buildings, foundation design may be assumed from available data. A preliminary finish schedule reviewed with the owner and architect is a valuable tool for establishing the quality of materials that will be required. Labor availability and other market conditions should be reviewed for cost impact. Design contingencies should be applied to cover further development of the design. A construction contingency should be included (outside the design contingency) for the exclusive use of the construction manager during the construction. Input from major trade contractors may also be included as part of the estimate. Allowances¹⁸ may be included for elements that have not been clearly defined such as millwork, carpet, and light fixtures.

18. Allowances are used where there is doubt as to material selection or insufficient information to price the element. An estimate to furnish and/or install certain construction elements is included as part of the construction manager's estimate. The owner has the right to specify the materials, equipment, or system to be installed and is responsible for costs incurred by the construction manager in excess of the allowance.

The final estimate or guaranteed maximum price (GMP) estimate, if there is one, is prepared after the construction documents are at least seventy-five percent complete. The construction manager's risk associated with a GMP is reduced by the percentage of trades that can be bought out before the GMP is prepared. As part of the GMP process, the construction manager is required to make assumptions for the uncompleted portion of the design, which is reasonably inferable from the construction documents. However, the GMP should not include changes in scope, systems, kinds, quality levels, quantities of materials, finishes, or equipment from those shown on construction drawings and specifications, or reasonably inferable from them. Some or all of these would be covered by the design contingency held by the owner outside of the GMP. The construction contingency that would be established by the construction manager in the GMP is intended for unanticipated costs encountered by the construction manager during construction such as unanticipated market conditions, buyout overruns, subcontractor default, schedule recovery for unexcused delay not recoverable from subcontractors, and other events outside the reasonable control of the construction manager. Detailed scope definitions should be prepared for each trade and included in bid packages sent to pre-qualified subcontractors (unless prohibited by law for public projects). Allowances may be established by the architect or suggested by bidders. Except for work that may be self-performed, costs are developed from bids submitted by subcontractors and suppliers. The construction manager's experience may indicate that there are certain risks that may not be included in a subcontractor's bid prices which the construction manager assigns to holds, i.e., temporary heat, dewatering, etc. A hold is part of the estimated direct construction costs, and the construction manager assumes the risk of an overrun. With an allowance, the owner assumes the risk of an overrun. The assumptions and qualifications included in the proposal should be further narrowed and coordinated with assumptions and qualifications received from bidders. The GMP should include the following¹⁹:

- a list identifying drawings and specifications, addenda, and other documents used in preparation of the GMP;
- a list of allowances and definition of materials and labor included in such allowances;
- the construction manager's assumptions and qualifications;
- a breakdown of the GMP into costs of the work (trade categories, holds, general conditions, insurance) and the construction manager's fee;
- alternates included in the GMP and those available (with cut-off dates) for subsequent acceptance by the owner;
- the date of substantial completion and other milestones (if applicable); and
- proposed incentives (if any) for the construction manager's performance.

19. See AIA Document A121/CMc-2003, § 2.2.

The GMP should always include an expiration date. If the owner does not accept the proposal by that date, it will be withdrawn by the construction manager. If the GMP is not accepted by the owner in a timely manner, the construction manager's participation in the project will come to an end. On the other hand, some owner-generated agreements provide that a rejection of the GMP will not terminate the contract, and the construction manager shall instead complete the project on a cost-plus and agreed upon fee basis. Securing the owner's acceptance of the GMP usually includes negotiation and, when there are budget pressures, scope reduction or value engineering. Issues that are related to the performance of construction under a GMP are outside the scope of this download.

C. Project Progress Scheduling

Time is another area of considerable risk to a construction manager. On a private project, the owner's return on investment is dependent on a specific completion date. Public projects such as a school must be open for the beginning of the school year. Most construction phase agreements and some pre-construction agreements contain a *time is of the essence* provision. If time is of the essence, a delay caused by the fault of the construction manager would constitute a breach of contract and could result in the construction manager's being liable for damages incurred by the owner as a result of the delay. If there is no time is of the essence provision, reasonableness will be the guide when measuring the timeliness of the services performed by the construction manager. Scheduling can be defined as planning the order (logic) in which construction will be performed, breaking down major tasks into manageable activities, and assigning a time for each activity. Scheduling is not an exact science, but there is an industry standard for coordinating the individual tasks of any project. The most widely accepted scheduling method is the Critical Path Method (CPM), which has been used in the construction industry for more than thirty years. CPM scheduling is a technique that breaks down the entire work into individual activities and requires an analysis of the number of days required to perform each individual activity. The logic applied to a CPM project schedule depends on the interrelationship between various activities, i.e., which activity or activities must be started or possibly completed before the next activity can start. In addition to assigning a reasonable duration to an activity, resources (labor and materials) may also be applied to each activity. The CPM is a representation of a project plan in a schematic diagram or network that depicts the sequences and the interdependent relationships of all of the activities of the project.²⁰ Preparing a schedule forces the construction manager and other participants to understand the entire project and to visualize the steps that must be taken to complete the project. The shortest path of interrelated activities found in the critical path network (the critical path), predicts when the project should be substantially complete.

20. See *Continental Consol. Corp.*, ENGBCA No. 2743 et al., 67-2 BCA, ¶ 6624 (1967); see also *Dobson v. Rutgers*, 157 N.J. Super. 357, 384 A.2d 1121 (1978) (citing to ANTILL WOODHEAD, *CRITICAL PATH METHODS IN CONSTRUCTION PRACTICE* (2d ed. 2005)).

Substantial completion²¹ is the major goal of most construction projects since the start of owner occupancy usually begins at substantial completion. Besides completion of the work, final completion includes delivery of record drawings, maintenance manuals, waivers, and other documentation that takes time to assemble but does not really affect physical completion. Some public owners have instituted onerous final completion provisions that seemingly can take longer than the physical construction period to complete. During the development of a schedule, what-if scenarios are explored in an effort to develop an optimum plan. Float is the difference in time between when an activity should be completed and when the activity must be completed to avoid an extension of the critical path. Activities on the critical path do not have float.

One of the important issues in scheduling is who controls the float. During preconstruction, the CPM schedule usually is used to gauge progress. During construction, the CPM schedule is a forecast of whether or not the construction manager will complete the project on time. Control of float becomes a liability issue if the construction manager has contractual responsibility for completing the project in an agreed upon time period. If the construction manager has assumed this risk, the construction manager should have control over its own destiny. The CPM can also be used to ensure that all of the critical construction items are completed in a timely manner and to identify tasks on the critical path that must be completed within the allotted time and cannot be delayed.²² However, construction managers should be careful not to assume responsibility for meeting multiple milestone dates which effectively prohibit the use of available float and pass control of float to the owner. After the CPM schedule is in place, it enters the maintenance phase and is used to measure actual against planned performance.

D. Value Engineering

Value Engineering (VE) was adopted by construction industry to differentiate the service performed by the construction manager from that of the design professional. It was originally developed by General Electric Corp. during World War II and is defined as analysis of programs, services, and supplies performed by the construction manager that are directed at improving performance, reliability, quality, safety, and life cycle costs. Most owners have a much more simplistic view of VE as a method of reducing costs without unduly changing the scope or intent of the design.

When the construction manager is brought on board early in the design process, the construction manager's senior operations staff can provide valuable insight into the use of alternate systems, products, or equipment without disrupting the design process. The experience level of the staff assigned to VE and the breadth of projects

21. Defined in AIA A201-1997, General Conditions of Contract for Construction, § 9.8.1, as "the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use."

22. *Peter Kiewit Sons Co. v. Iowa S. Utils. Co.*, 355 F. Supp. 376 (S.D. Iowa 1973).

constructed by the construction manager coupled with the architect's knowledge and experience will have a synergistic effect on the design process. Applying VE when construction documents are nearing completion usually is not as effective because the design is relatively fixed and significant changes are difficult or expensive to accomplish.

If at the time the construction manager joins the project team, the first estimate is above the owner's budget—a very common occurrence—engaging in value engineering may not reduce the cost to the degree required. At this time, the construction manager may be required to mix scope reduction into the VE suggestions. The Department of Defense attempted to go even farther by institutionalizing the VE process into the procurement process through the use of a Value Engineering Change Proposal (VECP) that required contract modifications be tied to VE proposals and provided an incentive to the contractor or construction manager to reduce costs. The VECP process apparently went too far and was not widely used and finally abandoned by the Department of Defense. The incentive to employ VE enjoyed by construction managers is to assist the owner in holding the budget in check so that the construction manager can successfully move from pre-construction to construction.

The construction manager is not the design professional and should be careful to limit its role to making suggestions that can be either approved or rejected by the architect and owner. The construction manager does not want to step over the line and assume design responsibility and liability, and should defer the final decision to the architect. When VE includes a significant modification to the design, the construction manager should insist that these changes be reflected in the architect's construction documents.

E. Constructability

The term *constructability* according to the Construction Industry Institute is defined as “the integration of construction knowledge and experience in planning, design, procurement, and construction phases of projects consistent with the overall project objectives.” Constructability is achieved through the effective and timely integration of construction input into planning and design as well as field operations. For maximum effect, it should be initiated early in the design process and performed at predefined points during the design process in accordance with a well thought-out plan.

Construction managers may place constructability review milestones on the design schedule to take place in the schematic design phase, the design development phase, and the construction document phase. The reviews may be broken down further by design disciplines; for example, site, architectural, structural, mechanical, and electrical. The construction manager's constructability review is intended to improve coordination among the construction design documents, identify potential construction problems, and mitigate claims that may flow from the problems identified. Constructability should focus on the relationship between the drawings and specifications prepared by the design professional and the means and methods to be employed by the construction manager during construction.

Constructability review usually involves a committee appointed by the construction manager and includes experienced senior level staff that may not be assigned to the project. The review has to be tailored to each design phase. For example, the schematic phase may concentrate on the site, selection of materials, and location of utilities.

During the schematic and design development constructability reviews, the committee should take into consideration that the design is a work in progress and should not focus on spelling and other obvious errors that will be cleaned up as the design progresses. The review for the design development phase may focus on systems to be employed, including the foundation, structure, exterior wall, roof, and major mechanical and electrical systems. The review of the construction documents should be completed before the seventy-five percent completion and should focus on space limitations, tolerances, connections with existing structures, potential leaks, construction difficulty, and coordination of the drawings and specifications.

The construction manager is not the licensed architect or engineer for the project and should avoid comments in the constructability reports that would more properly be included in a peer review by design professionals. Problems noted by the construction manager in the design can instead be geared toward industry standards, previous construction experience with similar designs, and previous experience related to re-work or warranty issues. Unless a construction manager is careful in preparing its comments, constructability review can shift design responsibility to the construction manager. There is published project execution plan data which includes constructability as an element.²³

F. Site Logistics

As part of pre-construction, the construction manager should develop the site logistics plan which relates the construction sequencing envisioned for the project with site safety, security, and the movement of labor and materials. Depending on site constraints, there may be several alternates developed before the final plan is selected. The site logistics plan may include the following: (1) protection of adjacent property, roads, and utilities; (2) location of construction fence and gates; (3) crane locations and crane erection path; (4) location and type of sidewalk bridges required for pedestrian protection; (5) temporary storage of materials and equipment; (6) location of hoists and lifts; and (7) temporary roads, staging areas, parking, and location of temporary offices and storage trailers. The safety of public and on-site construction labor is of paramount concern when developing the site logistics plan.

The site logistics plan should take into consideration site constraints that may affect the plan selected, such as (1) hazardous materials or contaminated soil located

23. CONSTRUCTION INDUSTRY INSTITUTE, GUIDELINE FOR IMPLEMENTATION OF CII CONCEPTS: BEST PRACTICES FOR THE CONSTRUCTION INDUSTRY 12–25 (Sept. 1995). For a comprehensive discussion on constructability with respect to architect/engineer professional liability claims see P. Douglas Folk, *Constructability Reviews: An Effective Tool for Improving Construction Documents and Reducing Claims*, CONSTRUCTION BRIEFINGS No. 2006-04, at 1 (2006).

on the site; (2) noise restrictions and work hours; (3) dust protection; (4) storm water run-off; (5) restrictions on deliveries or movement of materials and debris from the site; (6) existing businesses to continue operation during construction; and (7) potential neighborhood opposition or complaints. The care and quality exhibited by the construction manager in developing and selecting the site logistics plan are very important to establish a good basis for project safety as well as reducing the impact that the project will have on the neighborhood.

G. Green Building and Related Compliance

There could be liability for the construction manager hidden in the rush by the construction industry toward the laudable goal of sustainable building construction. A good rule of thumb for contract review is never to include (or skip over) unfamiliar terms to you. Therefore, it is important for the person reviewing and measuring the risk in pre-construction agreements to understand the green building certification program. The United States Green Building Council (USGBC) is an organization that promotes environmentally responsive and sustainable design, and has developed the LEED® (Leadership in Energy and Environmental Design), a system for energy conservation, waste reduction, and sustainability in the design and construction of buildings. Owners who will occupy their buildings may be focused on their investment return while developers who will sell the building or seek a triple net lease may be more focused on the marketing enhancement that LEED® will bring to the project.²⁴ LEED® criteria exist for new construction (NC), renovation of existing buildings (EB), and commercial interior fit-out (CI). Pilot certification programs are being developed for core and shell projects (CS), homes (H), and neighborhood development (ND). Certification levels by USGBC are designated certified, silver, gold, and platinum. The number of LEED® credits required to achieve certification depends on the project classification. For example, with LEED®-NC (public, institutional, and private new construction), simple certification requires 26-32 points, silver requires 33-38 points, gold requires 39-51 points, and platinum requires 52-69 points. Points for LEED®-NC are assigned depending on the project goals achieved for each of the prerequisites:²⁵

1. Sustainable Sites (14 points)—develop only appropriate sites, reuse existing buildings and/or site, protect natural and agricultural areas, reduce need for automobile use, and protect and/or restore natural sites.
2. Water Efficiency (5 points)—reduce the quantity used by the building and reduce the burden on the municipal water supply and treatment.

24. Scott Lewis, *Succeed at LEED: Focus on LEED Process*, ENVIRONMENTAL DESIGN & CONSTRUCTION, available at <http://www.edcmag.com/CDA/Articles/Leed/04c937e14c697010VgnVCM100000f932a8c0> (July 1, 2004) (registration required).

25. U.S. GREEN BUILDING COUNCIL, LEED—NC, at www.usgbc.org/file.asp?DocumentID=1317 (2005).

3. Energy and Atmosphere (17 points)—establish energy efficiency and system performance, optimize energy efficiency, encourage renewable and alternative energy sources, and support ozone protection protocols.
4. Materials and Resources (13 points)—use materials with less environmental impact, reduce and manage waste, reduce the amount of materials needed.
5. Indoor Environmental Quality (15 points)—establish good indoor air quality; eliminate, reduce, and manage the sources of indoor air pollution; ensure thermal comfort and system controllability; and provide for occupant connection to the outdoor environment.
6. Innovation in Design (5 points)—additional points are available for exceptional performance and innovation not otherwise specifically recognized by LEED®-NC.

Construction managers are marketing their commitment to and experience with LEED® as a qualification credential. Like any other risk in the construction arena, owners will seek to pass the risk of failing to achieve certification status to their construction managers and construction managers will either push back (negotiate a level playing field) and/or pass the risk through to their subcontractors. Owners may seek a warranty from the construction manager that certification will be achieved or that the savings predicted for the additional investment will be realized. At least one commentator has even suggested liquidated damages linked to energy performance.²⁶

There is no established body of case law to provide guidance and these relatively new risks are difficult for the construction manager and the owner to quantify. If the owner's perceived expectations are not realized, the construction manager may find itself saddled with extensive corrective work or default by a key subcontractor or supplier could leave the construction manager with no cost-effective method to achieve the required certification points.²⁷ Constructing a more environmentally friendly building is good for everyone and it should not be derailed by overreaching and misplaced risk transfer. Construction managers should only be asked to assume the risk for matters within their control. Care should be taken to assure that the LEED® certification requirements do not amount to a performance specification that transfers both design and construction liability to the construction manager.

Construction managers should avoid warranting or guaranteeing certification since achieving that goal is heavily dependent on actions being taken by the owner and the design professionals. A careful review of the construction manager's marketing materials may avoid an unexpected implied warranty. Construction managers should

26. Ujjval K. Vyas, *Making the Case: Including Legal Issues in the Green Building Agenda*, U.S. GREEN BUILDING COUNCIL GREEN BYTES (Chicago Chapter), available at http://chapters.usgbc.org/chicago/docs/Resources/GreenBytes/GreenBytes05_05.pdf (May 2005).

27. Ujjval K. Vyas, *A Greener Landscape on the Horizon*, AE/PRONET, at <http://www.aepnet.org/ge/no32.html> (2005).

also seek protection from owners for the implementation of innovative designs (additional points) that may be difficult or impossible to attain.

Library References

C.J.S. *Architects* §§ 16, 19, 21–23; C.J.S. *Contracts* §§ 11, 343, 359, 579–581, 583.
West's Key No. Digests, *Contracts* <KEY>199, 205.25, 205.35, 211, 213(2).

V. Pre-Construction

A. Long-Lead Materials and Equipment

The construction manager, with the design professional's assistance, will prepare a list of materials and equipment which may have long-lead times and should be purchased as soon as possible so as not to cause delay. Examples of typical long-lead items are structural steel, electrical switchgear, emergency generators, unique window wall systems, boilers, and chilled water systems. The construction manager may purchase long-lead items either as an agent of the owner or directly. As an agent of the owner, the owner enters into purchase orders directly with the required suppliers and the construction manager manages the procurement and expediting process for the owner. On commencement of construction by the construction manager, the owner's purchase orders may be assigned to the construction manager.

B. Permits and Approvals

The construction manager should make sure that it does not have responsibility for zoning, tax abatement, and land use review which should be the design professional's and/or the owner's responsibility. The design professional should submit drawings for review as soon as possible during the construction document phase and earlier if permitted by the local building department. The design professional's interpretation of the building code and other applicable rules and regulations may not be accepted by the building department. These issues should be addressed as soon as possible to avoid the need for a major redesign.

The construction manager should avoid assuming responsibility for the building permit, which contains information available only to the owner. The construction manager should not be placed in the position of making representations concerning the information that is supplied by the owner. However, the construction manager may suggest that the owner retain a permit expediting service to facilitate approval of its construction drawings with the local authority. The construction manager can pull the permits, but the owner should file the application, engage the expeditor (if applicable), and pay the fee which may be substantial. The design professional should file necessary signed and sealed drawings and specifications as required by the building code applicable to the local jurisdiction where the project is located.

The construction manager needs to make sure that any differences between the filed set of signed and sealed drawings and specifications and the construction documents used for trade contractor bid packages are resolved by the design professional

and the owner before commencement of construction. Otherwise, the work may be stopped by the building inspector if the work performed does not match that shown on the drawings and specifications filed as part of the building permit application process.

C. Early Work

Projects are almost always behind the owner's perceived schedule and, therefore, it is common for construction managers to be asked to perform certain construction work before the design has been completed and during the time when the construction manager is performing pre-construction services. This work may include abatement of hazardous materials, demolition, removal of contaminated soil, excavation, piles, foundations, erection of structural steel, etc., which are collectively referred to as "Early Work."²⁸

The construction manager may perform Early Work either as an agent of the owner or at-risk. As an agent of the owner, the owner enters into contracts with required trade contractors and the construction manager manages the construction for the owner. Owners sometimes select the agency relationship for Early Work so that they are free to solicit proposals from other construction managers if negotiations for the construction phase with the pre-construction construction manager reach an impasse. On the other hand, some owners do not feel comfortable directly entering into contracts with trade contractors and ask the construction manager to perform Early Work on a cost-plus-a-fee (where the scope is not defined or a sequence of trade contract bid packages is to be issued) or fixed price basis (scope defined).

D. GMP Estimate

Part of pre-construction in many cases involves preparation and acceptance of the GMP estimate (covered in detail above).

Library References

C.J.S. *Contracts* §§ 380, 393–407.

West's Key No. Digests, *Contracts* <KEY>232, 241, 243.

VI. Compensation

A. Consulting

Construction managers are in the business of construction, and the consulting services provided during pre-construction afford the construction manager the opportunity to gain a competitive edge in the selection of the construction manager

28. When used herein, the term "Early Work" includes any physical construction work performed by the construction manager before entering into the construction agreement with the owner. Some of the other terms used by owners for this work are "Early Action Work," "Early Construction Work," etc.

for the construction phase. As a result, consulting services during pre-construction frequently are provided at cost without a fee for profit. If the construction manager believes the proposed construction project could be a financially attractive, the direct costs actually incurred by the construction manager may have no relation to the compensation. Preparing a GMP is usually the most costly portion of this process and reimbursement for some or all of these costs may be deferred until after the construction contract is awarded, i.e., included as part of the construction manager's general conditions contained in the GMP. As opposed to other services provided by the construction manager, the compensation for pre-construction services is not balanced against the risk assumed. The construction manager needs to ensure that the zeal to obtain a new project does not outweigh the diligence that should be applied to preparing and reviewing the pre-construction agreement.

The compensation methods discussed below are most commonly used by construction managers for pre-construction services.

1. Time and Reimbursable Expenses

If there is no defined scope, the services are usually performed on a timecard basis. The construction manager is reimbursed at agreed all-inclusive billing rates or for the actual salary and wages of the employees assigned to the project plus a multiplier applied to wages and salary covering insurance, benefits, and taxes. In addition to time, the construction manager is reimbursed for costs incurred such as reproduction of drawings and specifications (a major expense when soliciting prices from trade contractors), messenger service, overnight courier, out of town travel, etc.

2. Not-to-Exceed

Some owners feel more comfortable if there is a not-to-exceed price set for the construction manager's services. This method does not usually involve a guarantee and the construction manager performs its services on a timecard manner as discussed above but is not authorized to incur expenses beyond the not-to-exceed amount. Reimbursable expenses may or may not be included in the not-to-exceed amount.

3. Fixed Price

Fixed price means the construction manager has agreed to perform a predefined scope of services for a guaranteed cost. This is the most prevalent method used by private owners for short-term (three to eight months) pre-construction services. If compensation is less than costs incurred, the construction manager assumes the risk that the project will go forward. The construction manager's salaries and wages make up the largest portion of such services, and fixed prices should be conditioned on a fixed duration and fixed scope of services.

B. Early Work

Regardless of whether or not the construction manager is at-risk, the construction manager will almost always apply a fee for profit to Early Work. The construction

manager is reimbursed on a cost-plus-a-fee, fixed price, or GMP basis. There is liability that may be assumed by the construction manager if the construction project is awarded to another construction manager. For example, the general conditions costs included as part of the Early Work may not be sufficient, coordination with another construction manager could increase the construction manager's staffing requirements, or the logistics plan adopted by the other construction manager may increase costs for Early Work subcontractors. An exit strategy should be in place and assigning Early Work subcontractors to the new construction manager should be a priority.

VII. Changes

A change is an alteration of the contract that modifies any or all of the following:

- the scope of work;
- the contract price; and/or
- the contract duration.

Changes within a pre-construction agreement usually involve additional services. Changes in such agreements become an issue only if compensation is based on GMP or fixed price. Before the construction manager can claim that the service is additional, there must be a clear definition of the services that are included in the contract.

A. Consulting Additional Services

To avoid a dispute with the owner, it is good practice to include in the agreement a listing of events that commonly give rise to additional services by the construction manager:

1. an extension in the duration of services to be provided;
2. a material change in the project, including, but not limited to, size, quality, complexity, the owner's schedule or budget, or procurement method;
3. performance failure by the owner, the owner's design professionals, or other consultants;
4. preparation for and attendance at a dispute resolution proceeding or a legal proceeding, except where the construction manager is a party thereto; and
5. change in services requested by owner beyond the services listed in the agreement.

For pre-construction services, the construction manager is performing tasks through employees who have an established cost. Anything that changes the assumptions as to the time required to perform the designated tasks should be the subject of additional compensation, i.e., change in services.

B. Change Orders for Early Work

A changes clause is essential when Early Work is included as part of the pre-construction agreement to control cost and risk allocation. The purpose of the changes

clause is to provide a means to alter the scope of the Early Work (or services) or duration. All construction contracts should include provisions for preparing and executing documentation related to changes. In contracts containing a changes clause, the owner has the right to change its mind, add or delete work, or make such changes as it deems appropriate. Some changes are owner-initiated changes such as directives, change orders, or constructive changes. Alternatively, the changes can be initiated by the construction manager or design professionals.

The complexity of the change provision depends on the scope of the Early Work to be performed. For Early Work (as opposed to pure consulting pre-construction agreements), the change process is as follows: first, an information distribution or identification (e.g., Request for Information, Field Work Order, Field Condition Report, etc.) is provided to or initiated by the design professional. Second, the construction manager is requested to submit pricing and scheduling compilation for the proposed scope of work. Third, the submission is reviewed by the design professional and the owner. Fourth, the owner makes a decision and action based on review. Finally, three scenarios may arise: (1) the owner provides approval in the form of a written change order; (2) the owner allows the construction manager to proceed but disputes time or cost; or (3) the construction manager abandons the change request.

As stated above, the owner or design professional can initiate and define the scope of changed work and negotiate with the construction manager for an agreed price. If the parties are able to agree, then the change order will be issued. If the parties are unable to agree, then a Construction Change Directive (CCD) may be issued for the undisputed portion of cost/time proposal. For example, AIA Document A201-1997, General Conditions to the Contract for Construction, provides that the architect is required to prepare change orders and construction change directives. AIA Document A201-1997 also encourages the architect to obtain written agreement from the contractor that the proposed orders for minor changes will not result in claims for additional time or money.

VIII. Insurance

Insurance is an area of pre-construction agreements that is given little attention. Insurance is intended to transfer the risk of accidental loss from the construction manager to an insurance company. If not covered by insurance, any liability assumed by the construction manager is a potential loss. Insurance covers losses that flow from bodily injury or property damage, but does not cover losses resulting from cost overruns or defective work or services. Property insurance covers property that is owned by the insured. Builder's risk insurance covers the work performed prior to completion. The construction manager's personal property insurance covers the construction manager's personal property such as, furniture, tools, and equipment. Occurrence policies cover losses that occur during the policy term regardless of when the claim is made. Claims-made policies generally cover losses only for claims filed during the term of the policy and sometimes for an extended discovery

period of one year or two years after the policy expires. The insurance required should be identified in the agreement and depends on the scope of services to be performed. At a minimum, every construction manager should have the following insurance coverage:

- Commercial General Liability (CGL) Insurance including Excess Liability;
- Commercial Automobile Liability Insurance; and
- Workers' Compensation Insurance.

The following discussion of insurance is limited to issues relating to pre-construction.

A. Construction Manager's Professional Liability Insurance

Even though construction managers may not be performing professional services, a major loss will drag the entire pre-construction team into the dispute. There is no clear distinction between pre-construction services performed by the construction manager and the services performed by design professionals. If the loss involves errors and omissions, the design professional's insurance may not be adequate, and the owner will look to the experienced construction manager who should have known that there was an error or omission in the drawings it reviewed. CGL policies do not cover this type of loss. If the construction manager, directly or indirectly, may be found to have negligently provided design services, that risk can be transferred to a claims-made professional liability insurance policy.

In reviewing the pre-construction agreement language, the construction manager should be aware that professional liability insurance typically excludes coverage for liability arising from indemnity clauses, agreements to defend, warranties, guarantees, and certifications. What may appear to be innocuous language could lead to a refusal by the insurance carrier to pay damages and defend the claim. As the line between design and construction services blurs, the risk to the construction manager increases exponentially.²⁹ That line can easily become transparent during pre-construction. Many in the construction industry are unaware that this coverage is available, but this is a valuable tool that should be considered as an addition to the construction manager's insurance program.

B. Contractor's Pollution Liability Insurance

The owner frequently adds abatement of hazardous or contaminated materials on the list of Early Work to be performed by the construction manager. If at all possible, the construction manager should avoid assuming responsibility for hazardous and contaminated substances. Losses resulting from such activities are not covered by

29. Fred Muse, *Professional Liability: Are Contractors Adequately Protected?*, IRMI.COM, at <http://www.irmi.com/Expert/articles/2000/Muse12.aspx> (Dec. 2000).

CGL insurance. The owner selects the site that contains hazardous or contaminated substances and the owner should not be allowed to transfer that risk to a construction manager working for a relatively small and short-term fee.

If the construction manager is to perform abatement work, the construction manager should operate as the owner's agent, and the owner should enter directly into contract with the cleanup and abatement trade contractors. In addition, the construction manager should avoid assuming responsibility for environmental consultants hired to perform surveys and testing and to monitor the performance of the cleanup and abatement trade contractors. Such consultants should be engaged directly by the owner.

It is also recommended that the owner defend, indemnify, and hold the construction manager harmless from losses arising from abatement and cleanup of hazardous and contaminated substances. If the construction manager decides to undertake abatement and cleanup activities, it should include the sizeable cost associated with project-specific Contractor's Pollution Liability (CPL) as part of its compensation. Construction managers who engage environmental consultants or provide in-house environmental services should instead include a combined professional and pollution liability policy. The CPL policy will cover pollution incidents that arise from the construction manager's activities as well as the activities of its subcontractors. Both occurrence and claims-made policies are available. The benefit of occurrence policies is that claims occurring during the project are covered regardless, even if made long after the construction manager has left the job site.

C. Builder's Risk Insurance

Most construction managers do not link the need for builder's risk insurance with pre-construction. However, if the construction manager is on-site during a major loss, the construction manager could become embroiled in a dispute with the owner's insurance carrier(s). Even though not directly involved in the loss, there is always guilt by association, and the construction manager's reputation may also affect the situation. Therefore, it is good practice to advise and follow up with the owner to make sure that all risk property insurance be in place before any improvements are made to the project site.

Builder's risk insurance, also known as course of construction insurance, covers new structures while they are being built, as well as materials and equipment stored on site (and in some cases, in transit or stored off-site) which are intended to be incorporated into the structure. For renovations, builder's risk insurance covers only the improvements being made. The owner's property insurance covers the unimproved property. Builder's risk policies should be all-risk for the full value of the project on a replacement costs basis and should include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage, as well as coverage for theft, terrorism, mold, glass breakage, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing, and start-up.

There are two types of policies available: (1) reporting form, which involves periodic payments based upon the value of the work in place; and (2) nonreporting policy, which requires an up-front payment of the entire premium and no reporting. The construction manager, subconsultants, and sub-subcontractors should be added as additional insureds. If the owner supplies builder's risk insurance, a waiver of subrogation for losses covered by builder's risk should be a mandatory addition to every agreement. The construction manager or its subcontractors cause many of the builder's risk losses. The construction manager does not want to find itself without a viable defense to litigation by a builder's risk insurance carrier.

The construction manager should review the builder's risk policy of the owner and make sure that the owner is responsible for losses not covered by the deductible. Deductibles are frequently in excess of a quarter of a million dollars and the construction manager should make sure that it does not assume liability for the deductible or for losses which exceed the policy limits. A simple innocuous clause that says the construction manager is responsible for repairing any damage to the work can be used to pass on the responsibility for the deductible to the construction manager. Losses to the work itself are excluded from coverage by the construction manager's CGL insurance and would have to be paid from the profit that was to be earned from the project. For example, if there are multiple tenants performing construction on a shopping center, the construction manager should seek a waiver of a subrogation from all of the owners.

Library References

C.J.S. *Insurance* §§ 54, 950, 970–973.

West's Key No. Digests, Insurance <KEY>2323, 2359, 2383.

IX. Suspension or Termination

The construction manager's agreement for pre-construction services should provide reimbursement for costs incurred up to the date of any subsequent termination, as the owner should not be given the impression that the construction manager is responsible for costs associated with completing the construction manager's pre-construction services, especially when there is no substantial profit associated with those services. This situation changes if the construction manager has agreed to perform Early Work at-risk. The construction manager in this situation may be responsible for direct costs incurred to complete the Early Work. However, consequential damages resulting from such termination for cause should be eliminated if the contract contains a mutual waiver of consequential damages provision.³⁰ It is important to refer specifically to damages flowing from termination for cause in the mutual waiver of consequential damages provision.

30. See, e.g., AIA A201-1997, § 4.3.10.

If the due diligence investigation conducted prior to commencement of services discloses potential problems that cannot be readily resolved, the construction manager may wish to retain the right to terminate for its convenience.

The owner's right to suspend services should be coupled with the right of the construction manager to suspend services for nonpayment.

Library References

C.J.S. *Contracts* §§ 384–385, 387–391, 393–394.

West's Key No. Digests, *Contracts* <KEY>231, 233.

X. Claims

A. Force Majeure and Extension of Time

A *force majeure* event occurs when a part of a contract cannot be performed due to causes that are outside the parties' control and that could not be avoided by the exercise of due care.³¹ The construction manager should be granted an extension of the schedule for *force majeure* events (Excusable Delay). To balance the risks fairly, Excusable Delays should also be compensable delays and provide for an equitable adjustment in the construction manager's compensation for costs incurred as a result of the Excusable Delay.

B. Notice

To be entitled to an extension of time and an equitable adjustment, the construction manager is usually required to notify the owner and the architect of a claim within a certain number of days. It is important that the construction manager have sufficient time to assemble information and analyze the schedule and cost impact attributable to a delay. Short notice periods imposed by owners are intended to cut off potential claims and avoid responsibility. The construction manager should avoid the requirement to submit a claim on short notice or should include an allowance for reasonable compliance.

Library References

C.J.S. *Contracts* §§ 520–525, 578–579, 585–586.

West's Key No. Digests, *Contracts* <KEY>309, 298.

XI. Contractual Risk

Just like any other business, if construction managers are busy, they are more inclined to pick and choose the projects they will become involved in, and if business is slow, they are more inclined to take anything that is available. The pre-construction phase of a project does not contain the level of risk associated with

31. BRYAN A. GARNER, *BLACK'S LAW DICTIONARY* (8th ed. 2004).

the construction phase, but there is risk. Once a construction manager is deeply involved in a project, it is very difficult to walk away when the construction project (and an attractive fee for profit) is about to commence. The construction manager should perform a due diligence review of every new project. Some of the questions to ask are:

- (1) What is the owner's reputation? For example, has the owner defaulted on a previous project? Is the owner very difficult to work with or is the owner litigious?
- (2) What is the owner's experience level? For example, does the owner have a track record for successful projects, or is this project the owner's first or the first project of this type? Does the owner have experienced personnel assigned to the project?
- (3) What are the owner's financial resources? Does the construction manager want to invest money in a project that may be abandoned?
- (4) Does the owner have title to the real estate to be improved or a lease that allows the owner to perform tenant improvements?
- (5) Is this a single entity owner? Single entity owners will have no income to offset unforeseen expenses during construction.
- (6) Does the owner's project seem reasonable? If the project does not seem reasonable to the construction manager, there is a greater risk that it will be abandoned.

A. *Scope of Services*

The agreement should clearly define the services that are to be performed by the construction manager. There should be a clear understanding between the owner and the construction manager as to what services are to be provided and what services, if provided, require additional compensation. As discussed above, the number of estimates to be provided should be clearly defined in the construction manager's proposal and agreement. If public hearings are to be required, the number of hearings to be attended by the construction manager should be indicated. The financial responsibility for the building permit should be assigned to the owner or factored into the construction manager's compensation. The financial responsibility for the reproduction of drawings and specifications also should be assigned to the owner or factored into the construction manager's compensation.

B. *Exclusion of Design Responsibility*

The construction manager is performing consulting services and it should be absolutely clear that it is not assuming any responsibility for design. As discussed above, the construction manager's employees assigned to perform value engineering and the constructability analysis must be careful to defer all design decisions to the design professionals. In the early twentieth century, the U.S. Supreme Court held that a contractor is not responsible for design defects (*Spearin* doctrine).³² Pursuant to

32. *United States v. Spearin*, 248 U.S. 132.

one common formulation of this doctrine, the owner is said to impliedly warrant the adequacy of the drawings and specifications, and as long as the work is performed in accordance with such drawings and specifications, the owner (not the construction manager) is liable for damages that may result from design errors and omissions. The *Spearin* doctrine has been followed by state courts, but the precise contours of the doctrine vary from one jurisdiction to another. In addition, the *Spearin* doctrine applies primarily to the construction phase rather than the murky arena of pre-construction work where the construction manager could be accused of taking part in the design process. Specific language in the pre-construction agreement should address this issue and create a bright-line separation of responsibilities.

C. Waiver of Consequential Damages

Consequential damages are damages (1) resulting from a breach of contract, including any loss resulting from the owner's general or particular requirements and needs of which the construction manager, at the time of contracting, had reason to know and could not reasonably be prevented; or (2) injury to person or property proximately resulting from any breach of warranty by the construction manager.³³ Consequential damages are foreseeable losses resulting from an inability to use the improvement. Direct damages refer to damages related to cost incurred to complete or correct the work performed by the defaulting contractor.

Before 1997 and the AIA's issuance of the revised document A201-1997, General Conditions of the Contract for Construction, there was little focus on including a waiver of consequential damages provision in construction agreements. Construction managers routinely accepted the risk, and owners expected construction managers to be liable for consequential damages.

A case in Atlantic City, New Jersey, is credited with bringing about this change. In 1981, Perini Corp. entered into a construction management agreement for the renovation of the Sands Hotel and Casino in Atlantic City. The construction manager was to be reimbursed for costs of managing the project and paid a construction management fee of approximately \$600,000. During construction, the casino and hotel were in continuous operation. No substantial completion date was inserted into the agreement and there was no time is of the essence provision. The entire project was substantially completed in September 1984. The owner took action to terminate Perini in December 1984, for default arising out of project delays.³⁴ Perini claimed that the revenue portions of the project were in operation before Memorial Day 1984, and that the only delay was to the glass facade. The court ordered the parties to arbitration. A three-party arbitration panel awarded \$14,500,000 in lost profits to the owner. The award was confirmed by New Jersey's highest court in September 1991.³⁵ The contracting world

33. U.C.C. § 7-205 (2005).

34. The court noted that the contract contained language prohibiting termination following substantial completion.

35. *Perini Corp. v. Great Bay Hotel & Casino, Inc.*, 610 A.2d 364 (N.J. 1992).

was shocked by an award of \$14,500,000 in consequential damages on a \$600,000 fee project. This result influenced the addition of the mutual waiver of consequential damages provision that is contained in § 4.3.10 of A201-1997, General Conditions of the Contract for Construction.³⁶

Construction managers should insert a similar mutual waiver into their pre-construction agreements. There could be considerable foreseeable consequential damages associated with delays in commencing construction allegedly attributable to the construction manager's performance. This is especially true if the agreement includes a time is of the essence provision; these provisions, of course, may not be appropriate where consulting services are heavily dependent on third parties and the allocation of delays would be difficult. If the owner insists on such a provision, it should be limited to Early Work. The owner may allege that the construction manager's defective estimates caused the project to be abandoned and left the owner liable for damages to investors and potential users. A waiver of consequential damages should be part of the boilerplate of every construction manager's agreement.

D. Limitation of Liability

Some construction managers may include a provision in their agreements that limits their liability to the owner to a designated amount. Obviously, these limits do not apply to third party claims. Some construction managers may argue that this limitation is reasonable because they are not receiving a fee for profit on pre-construction work and they should not be subject to unlimited liability. This is a hard sell to most owners but appears to be coming into wider use. The use of such a provision is presently limited to mega projects where the potential liabilities could put the construction manager out of business.

E. Guarantee of Estimates

Each pre-construction agreement should include exculpatory language which provides that the construction manager does not warrant or represent that the bid

36. Section 4.3.10 states:

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes:

1. damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
2. damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 4.3.10 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

prices eventually received from trade contractors will not vary from the construction manager's estimate and/or the owner's budget.³⁷ The bids received depend on the competitive market and negotiating conditions in place at the time the bid packages are released. For example, as is common in any market, high demand (busy trade contractors) equals higher bids. If the construction market cools, trade contractors who are actively looking for work tend to sharpen their pencils, assume more risk, and submit tighter (lower) bids. The only guaranteed estimate that should be provided by a construction manager is the GMP.

F. Indemnification

Indemnification is a device which usually shifts the risk from owner and architect to the construction manager. There should be no indemnification provision included in pre-construction agreements that do not include Early Work. Owners are so used to requiring insurance and indemnification from contractors that they automatically include such requirements in pre-construction consulting agreements. If the owner does not ask for indemnification and insurance certificates from other nonconstruction-related consultants (e.g., accountants, insurance brokers, attorneys, etc.), why does it need them from the construction manager who is performing similar types of services and who will not be located on the project site?

Indemnification is appropriate if the construction manager is performing Early Work. Indemnification provisions should be narrowly constructed as follows: (1) to mirror the coverage available under the CGL insurance policy—limited to bodily injury and property damages that arise from the performance of the work; (2) they should cover only the negligent act or omission by the construction manager and its subcontractors and sub-subcontractors; (3) the construction work performed by the construction manager which is covered by builder's risk insurance should be excluded from the indemnification provision; (4) indemnification should be limited to losses suffered by third parties; (5) if allowable under applicable state law, comparative negligence should be applied so that each defendant is liable to the extent of its own negligence and for the portion of defense costs associated therewith; (6) indemnification should not include breach of contract which has an adequate remedy; and (7) the design professionals should not be named as indemnitees (Claims brought by injured parties routinely include design issues; the construction manager's insurance carrier should not be required to engage separate attorneys for the defense of design professionals.).

A large number of states have enacted statutes designed to limit or void overbroad indemnification provisions. The earliest statutes carved sole negligence of the indemnitee out of the indemnification provision. Some of these are all-or-nothing statutes that void indemnification provisions if the intent of the language is to indemnify an indemnitee for its sole negligence. Starting in the 1980s, there was a movement in some states to mirror comparative negligence law and void indemnification

37. AIA Document B801/CMa-1992, § 5.2.

provisions to the extent they required the indemnitor to indemnify the indemnitee for its own negligence. Other states prohibited indemnification by contractors for services performed by design professionals. The construction manager should be intimately familiar with the statutes relating to indemnification that apply to the states in which it performs work.³⁸

Library References

C.J.S. *Contracts* §§ 11, 271, 343, 347, 359.

West's Key No. Digests, *Contracts* <KEY>114, 197, 205.15; *Indemnity* <KEY>33(5).

XII. Conclusion

Pre-construction on its surface seems to have considerably lower risk than managing the construction process. With fair balancing of the risks in the pre-design and pre-construction agreement, the construction manager should be able to complete its services without the necessity to set aside money for a potential loss reserve.

XIII. Practice Aids

A. Stand Alone Pre-Construction Agreement

AGREEMENT BETWEEN OWNER AND CONSTRUCTION MANAGER FOR PRE-CONSTRUCTION SERVICES

OWNER:

CONSTRUCTION MANAGER:

PROJECT:

38. For a more detailed discussion and for cites to state law, see JUSTIN SWEET, *LEGAL ASPECTS OF ARCHITECTURAL ENGINEERING AND THE CONSTRUCTION PROCESS* (7th ed. 2005).

OWNER/CONSTRUCTION MANAGER AGREEMENT FOR PRE-CONSTRUCTION SERVICES

This AGREEMENT made as of first day of <date>, by and between <Owner's name> ("Owner"), a <state> Corporation having its principal place of business at <address> and <Construction Manager's name>, a <state> Corporation having a place of business at <address> ("Construction Manager");

WHEREAS, the Owner plans to construct the <identify project> which consists of <details> ("Project"), as more fully described in the Project Description set forth in Exhibit A attached; and

WHEREAS, the Owner has retained <name of architect>, as the Architect for the Project.

WHEREAS, the Owner desires to retain the Construction Manager to provide pre-construction services in connection with the Project and the Construction Manager is willing to perform such services; and

WHEREAS, the Owner contemplates entering into an agreement for a Guaranteed Maximum Price for the construction phase services but the Owner has no obligation to enter into a further agreement with the Construction Manager; and

WHEREAS, the pre-construction phase services provided under this Agreement shall be performed to the reasonable satisfaction of the Owner;

NOW, THEREFORE, in consideration of the premises and mutual promises herein contained, the Owner and the Construction Manager agree as follows:

SECTION 1: GENERAL

1.1 The Project description and criteria for conceptual design are set forth in Exhibit A attached hereto.

SECTION 2: OBLIGATIONS AND RESPONSIBILITIES OF THE CONSTRUCTION MANAGER

2.1 THE CONSTRUCTION MANAGER

2.1.1 The Construction Manager accepts the relationship of trust and confidence established with the Owner by this Agreement and covenants with the Owner to furnish the Construction Manager's reasonable skill and judgment and to further the interests of the Owner. The Construction Manager shall furnish construction administration and management services and use the Construction Manager's good practices to perform pre-construction phase services in an expeditious and economical manner consistent with the interests of the Owner.

2.2 DUTY OF COOPERATION

2.2.1 The Owner shall retain an Architect, Engineer, and other design consultants to provide professional design services for the Project ("Design Consultants"). The

Owner may retain other consultants to provide services for the Project. The Construction Manager shall cooperate with and coordinate its work with that of the Design Consultants and other consultants retained by the Owner. Nothing in this Agreement shall be deemed to require the Construction Manager to engage in the practice of architecture, professional engineering or other design or construction-related professions regulated under the law of the state in which the Project is located.

2.2.2 If there is a primary tenant(s) or user(s) involved in the Project, the Construction Manager acknowledges that the Owner may consult with such tenant(s) about the design and construction of the Project. The Construction Manager shall anticipate and allow for such consultations when submitting documents for the Owner's review and approval. If the Owner's response is time sensitive, the Construction Manager shall make the Owner aware of the date when such response is required and the anticipated consequences of a late response.

2.3 PROJECT PERSONNEL

2.3.1 The Construction Manager's Principal Project Team is listed on Exhibit B attached. The Owner shall have the right to approve the Construction Manager's Project staff, which approval shall not be unreasonably withheld.

2.3.2 The Construction Manager agrees to furnish a qualified experienced staff for the administration, coordination, and management of the Project. Principals and staff of the Construction Manager shall be available and shall participate as needed. All personnel assigned by the Construction Manager to the Project shall be required to cooperate with personnel assigned by the Owner, by the Design Consultants and by the other consultants to the Project and, in the event the Construction Manager's personnel fail to so cooperate or are found to be lacking in competence, they shall be relieved of their duties in connection with the Project at the request of the Owner.

2.4 EMPLOYMENT PRACTICES

2.4.1 The Construction Manager shall comply with all applicable local, state, and federal employment laws and regulations which apply to means and methods employed by the Construction Manager in the performance of the Work and with applicable trade or collective bargaining agreements. They shall keep and maintain such records as are required by such laws and regulations.

SECTION 3: SCOPE OF CONSTRUCTION MANAGER'S SERVICES

3.1 GENERAL

3.1.1 The Construction Manager shall review the program furnished by the Owner to ascertain the requirements of the Project and shall arrive at a mutual understanding of such requirements with the Owner.

3.1.2 The Construction Manager shall provide a preliminary evaluation of the Owner's program, schedule, and construction budget requirements, each in terms of the other.

3.1.3 The Construction Manager shall expeditiously review design documents during their development and advise on selection of materials, building systems and equipment, and methods of Project delivery relative to the feasibility of construction methods, availability of materials and labor, time requirements for procurement, installation, and construction, and factors related to construction cost including, but not limited to, costs of alternative designs or materials, preliminary budgets, and possible economies.

3.1.4 The Construction Manager shall consult with the Owner and Architect regarding the Construction Documents and make recommendations regarding design details that adversely affect constructability, cost, or schedules.

3.1.5 The Construction Manager shall provide recommendations and information to the Owner and Architect regarding the assignment of responsibilities for temporary Project facilities and equipment, materials, and services for common use of the trade contractors. The Construction Manager shall verify that such requirements and assignment of responsibilities are included in the proposed Contract Documents.

3.1.6 The Construction Manager shall provide recommendations and information to the Owner regarding the allocation of responsibilities for safety programs among the contractors.

3.1.7 The Construction Manager shall advise on the division of the Project into individual contracts for various categories of Work, including the method to be used for selecting contractors and awarding Contracts. If multiple contracts are to be awarded, the Construction Manager shall review the Construction Documents and make recommendations as required to provide that (1) the Work of the contractors is coordinated, (2) all requirements for the Project have been assigned to the appropriate contract, (3) the likelihood of jurisdictional disputes has been minimized, and (4) proper coordination has been provided for phased construction.

3.1.8 Upon request, the Construction Manager shall assist the Owner in selecting, retaining, and coordinating the professional services of surveyors, special consultants, and testing laboratories required for the Project.

3.1.9 The Construction Manager shall provide an analysis of the types and quantities of labor required for the Project and review the availability of appropriate categories of labor required for critical phases. The Construction Manager shall make recommendations for actions designed to minimize adverse effects of labor shortages.

3.1.10 The Construction Manager shall assist the Owner in obtaining information regarding applicable requirements for equal employment opportunity programs for inclusion in the Contract Documents.

3.1.11 The Construction Manager shall develop bidders' interest in the Project and establish bidding schedules. The Construction Manager, with the assistance of the Architect, shall issue bidding documents to bidders and conduct pre-bid conferences with prospective bidders. The Construction Manager shall assist the Architect with regard to questions from bidders and with the issuance of addenda.

3.1.12 The Construction Manager shall assist the Owner in obtaining building permits and special permits for permanent improvements, except for permits required to be obtained directly by the various contractors. The Construction Manager shall assist the Owner and Architect in connection with the Owner's responsibility for filing documents required for the approvals of governmental authorities having jurisdiction over the Project.

3.1.13 The Construction Manager shall assist the design professionals and owner with the discussions and development of the program for off- and on-site utility infrastructure for the various utility companies. Evaluate related information, e.g., load letters, Points of Entry, typical construction details, etc., on basis of constructability and value engineering including cost studies as may be needed to evaluate impact to the project and/or alternatives.

3.2 BUDGET AND COST ESTIMATES

3.2.1 The Construction Manager shall create a comprehensive construction cost estimate with trade breakdowns and unit pricing. Unless otherwise agreed in writing by the Construction Manager, the Construction Manager shall prepare no more than four (4) estimates including the Guaranteed Maximum Price: (1) 100% Schematic Drawings completion; (2) 100% Design Development; (3) at 60% percent complete Construction Documents; and (4) the Guaranteed Maximum Price estimate at 90% complete Construction Documents. Estimates shall carry multiple alternates to reflect the continuing cost studies as the design develops.

3.2.2 Based on schematic designs and other design criteria prepared by the Architect and approved by the Owner, the Construction Manager shall prepare a preliminary cost estimate using area, volume, or similar conceptual estimating techniques. The preliminary cost estimate shall be submitted to the Owner for review by the Owner, if applicable, the primary tenant(s), the Design Consultants, and the other consultants and for approval by the Owner. From time to time, as requested by the Owner, the Construction Manager shall provide budgets and cost estimates for changes made by the Owner's users or primary tenant(s) to the base building scope of work.

3.2.3 When Design Development Documents have been completed by the Design Consultants and approved by the Owner, the Construction Manager shall prepare and submit to the Owner a detailed estimate with supporting data for review by the Owner, the Design Consultants, and the other consultants and for approval by the Owner.

3.2.4 When Construction Documents have been completed by the Design Consultants to a level of 60%, the Construction Manager shall prepare and submit to the Owner a detailed estimate with supporting data for review by the Owner, the Design Consultants, and the other consultants and for approval by the Owner.

3.2.5 If any estimate submitted to the Owner exceeds previously approved estimates or the Owner's budget, the Construction Manager shall make reasonable

recommendations to the Owner for scope reduction and/or value engineering to bring the estimated cost of construction within the Owner's budget.

3.2.6 The Construction Manager shall assist the Owner in developing cash flow projections.

3.3 VALUE ENGINEERING

3.3.1 The Construction Manager shall provide value engineering services during the pre-construction phase. The Construction Manager shall submit written value engineering estimates and recommendations throughout the document development phases. The Construction Manager shall provide a sample value engineering report for the Owner's approval and shall provide value engineering services of similar scope and level of effort to that shown in the sample. The Construction Manager recognizes that value engineering is an iterative process and that it may be required to modify its estimates and recommendations in response to review of its reports by the Owner, the Design Consultants, and the other consultants.

3.4 PROJECT SCHEDULE

3.4.1 The Construction Manager is aware that the pre-construction phase is to be completed within a fixed time frame. The Construction Manager shall perform its duties in a timely manner consistent with the Project Schedule.

3.4.2 The Construction Manager shall prepare a master Project Schedule which identifies milestones including but not limited to turnover dates to Owner's user(s), date of Substantial Completion, equipment and material delivery dates, and work necessary to achieve these dates for approval by the Owner. The Project Schedule shall include both design and construction activities. The Construction Manager shall coordinate and integrate the Project Schedule with the services and activities of the Owner, the Design Consultants, the other consultants, and the Construction Manager. The Construction Manager shall obtain the input of the Owner, the Design Consultants, and the other consultants for those portions of the Project Schedule relating to the performance of their services.

3.4.3 As design proceeds, the Project Schedule shall be updated to indicate proposed activity sequences and durations, milestone dates for receipts, and approval of pertinent information, submittal of a Guaranteed Maximum Price proposal, preparation and processing of shop drawings and samples, delivery of materials or equipment requiring long-lead time procurement, the Owner's occupancy requirements showing portions of the Project having occupancy priority, and proposed date of Substantial Completion. If updates to the Project Schedule indicate that previously approved schedules may not be met, the Construction Manager shall advise the Owner of the particular activities causing the schedule to be extended and shall recommend a schedule recovery plan to the Owner.

3.5 ADVICE ON CONSTRUCTABILITY AND LOGISTICS

3.5.1 The Construction Manager shall review design documents and make recommendations on means and methods of construction as well as availability of labor and materials. The Construction Manager shall advise the Owner regarding potential jurisdictional disputes between trades. The Construction Manager shall produce a site safety plan that complies with the requirements of all governing bodies having jurisdiction.

3.5.2 The Construction Manager shall establish a sequence of construction with the Owner, the Design Consultants, and the other consultants with respect to specific site logistics. Construction Manager shall provide site logistics plans and sequence diagrams reflective of the various stages of construction progress (i.e., site work, utility infrastructure, commencement of structures, etc.) and as may be required for proposed construction phasing alternatives.

3.6 MEETINGS

3.6.1 The Construction Manager shall schedule and attend regular meetings with the Owner, the Design Consultants, and the other consultants and shall produce minutes of such meetings when requested by the Owner and distribute them to all attendees and other concerned parties. The Construction Manager has included approximately two (2) meetings per month with the Design Team and the Owner. If so requested by the Owner, the Construction Manager shall attend a reasonable number of other meetings with governmental agencies, community groups, the Owner's primary users or other third parties and shall produce minutes of such meetings for the Owner's use when requested by the Owner.

3.7 [OMITTED]

3.8 PERMITS AND APPROVALS

3.8.1 The Owner shall file, expedite, and pay the fee for the application for the Building Permit and obtain approval of site plan and construction drawings from the Building Department.

3.8.2 The Construction Manager shall obtain Work permits from the governmental agencies having jurisdiction over the Project for the demolition and other preliminary construction Work if directed by the Owner.

3.9 GUARANTEED MAXIMUM PRICE PROPOSAL

3.9.1 The Construction Manager shall propose a Guaranteed Maximum Price ("GMP") when the construction documents are ninety percent (90%) complete. The proposed GMP shall be the sum of the estimated Cost of the Work including General Conditions, Insurance, and the Construction Manager's Fee. The assumptions and qualifications upon which the GMP is based shall be included as part of the proposal and shall have priority over all other Contract Documents.

3.9.2 "General Conditions" shall include Construction Manager's supervisory and administrative staff (on- and off-site); materials, supplies and expenses related to maintenance of the field office and other temporary facilities; clean up labor; blue-printing and copying; rubbish removal; and other miscellaneous costs and expenses as indicated in the GMP.

3.9.3 "Cost of the Work" shall mean subcontractor costs; materials and equipment purchased by Construction Manager; General Conditions; contingency for the sole use of the Construction Manager (upon Owner's written approval); and other costs incurred by the Construction Manager in the performance of the Work.

3.9.4 Insurance may include Subcontractor Default Insurance and Contractor's Controlled Insurance program.

3.10 ACCEPTANCE OF THE GMP PROPOSAL

3.10.1 If the GMP proposal is accepted by the Owner, the parties shall execute a separate agreement for Construction Phase Construction Management services ("GMP Construction Agreement") which shall contain mutually acceptable terms and conditions. Should negotiations between the Owner and Construction Manager concerning the amount of GMP or terms of the GMP Construction Agreement reach an impasse, the Owner shall have the right to award a contract for the services included in the Construction Manager's GMP proposal to an entity other than the Construction Manager.

3.10.2 In the event that the Owner does not award a contract for the services included in Construction Manager's GMP proposal to the Construction Manager, the Owner may, at its sole discretion, (1) retain the Construction Manager under a separate Agreement to complete the Construction Phase on a cost-plus-a-fee basis, (2) retain the Construction Manager to complete the Early Work, or (3) require the Construction Manager to assign such Subcontracts performing Early Work to the Owner.

SECTION 4: EARLY WORK/LONG-LEAD ITEMS

4.1.1 The Construction Manager shall identify long-lead items and early-work contracts ("Early Work"). The Construction Manager shall make recommendations with respect to current market trends that may affect procurement and installation so as to minimize potential delays and/or cost premiums.

4.2.1 When directed in writing by the Owner to perform Early Work including the purchase of long-lead items:

1. The Construction Manager shall pre-qualify several potential subcontractors in each required trade and/or suppliers, for Owner's approval.
2. The Construction Manager shall submit request for bids including Bid Documents prepared by the Design Consultants for the Owner's approval before bids are solicited and shall make such modifications thereto as the Owner deems advisable.

3. The insurance requirements for Subcontractors shall be as set forth in Section 7 of this Agreement.
4. The Construction Manager shall analyze bids and make recommendations for award of Subcontracts and/or purchase orders.
5. The Construction Manager shall prepare written authorization to be executed by the authorizing Construction Manager to enter into Subcontracts for award of Early Work or purchase orders for the purchase of long-lead items.
6. The following representative list of items of Early Work may be supplemented upon written agreement between the Owner and Construction Manager:
 1. Demolition and Abatement (Early Work);
 2. Excavation and Foundations (Early Work);
 3. Structural Steel (long-lead item);
 4. Curtain Wall (long-lead item);
 5. Elevator Equipment (long-lead item);
 6. HVAC Equipment (long-lead item);
 7. Electrical Equipment (long-lead item).

SECTION 5: CHANGE IN SERVICES

5.1 Change in Services of the Construction Manager, including services required of the Construction Manager's sub-consultants (if any), may be accomplished after execution of this Agreement, without invalidating the Agreement, if mutually agreed in writing, if required by circumstances beyond the Construction Manager's control, or if the Construction Manager's services are affected as described in Section 5.2. In the absence of mutual agreement in writing, the Construction Manager shall notify the Owner prior to providing such services. If the Owner deems that all or a part of such Change in Services is not required, the Owner shall give prompt written notice to the Construction Manager, and the Construction Manager shall have no obligation to provide those services. Change in Services of the Construction Manager shall entitle the Construction Manager to compensation pursuant to Section 6.3, and to any Reimbursable Expenses pursuant to Section 6.4.

5.2 If any of the following circumstances affect the Construction Manager's Services for the Project, the Construction Manager shall be entitled to an appropriate adjustment in the Construction Manager's compensation:

1. extension of the duration of Service beyond the term provided for in Section 6.1.1;
2. significant change in the Project including, but not limited to, size, quality, complexity, the Owner's schedule or budget, or procurement method;
3. failure of performance on the part of the Owner or the Owner's Design Consultants or other consultants;

4. preparation for and attendance at a dispute resolution proceeding or a legal proceeding except where the Construction Manager is party thereto;
5. change in services requested by Owner beyond the services included in Article 3.

SECTION 6: PAYMENT

6.1 COMPENSATION FOR SERVICES

6.1.1 The Construction Manager shall be reimbursed for staff costs incurred on the basis of hourly rates listed on Exhibit B. Construction Manager shall notify the Owner promptly should it appear that such costs may exceed _____ and 00/100 dollars (\$_____.00) ("NTE"). Without the prior written agreement of Owner, the Construction Manager shall not incur staff costs in excess of the NTE amount. The term of this agreement shall be _____ (___) months unless extended upon the written agreement of the Owner and Construction Manager. Compensation for Reimbursable Expenses is to be as provided in Section 6.4 below; compensation for Early Work is to be as provided in Sections 4 and 6.2 and for Change in Services as provided in Sections 5 and 6.3.

6.1.2 The Owner shall be entitled to direct the Construction Manager to perform Early Work or to perform Change in Services not covered by this Agreement.

6.1.3 If the Construction Manager is requested to perform Early Work or Change in Services, the Construction Manager may present an estimate of costs associated with such work for the Owner's consideration. Early Work and Change in Services shall not be performed by Construction Manager without the prior written approval of the Owner.

6.1.4 The Construction Manager shall maintain separate cost records as to all costs and expenses related to Early Work or Change in Services, which accounts and records with supporting documentation shall be available for inspection and audit by the Owner or its authorized representatives at all reasonable times.

6.2 COMPENSATION FOR EARLY WORK

6.2.1 The costs incurred by the Construction Manager as a result of Subcontracts and/or Purchase Orders entered into for Early Work shall be passed through to the Owner along with Construction Manager's General Conditions costs associated with the supervision and administration of such Subcontracts and a markup of _____ percent (___%) for the Construction Manager's Fee. The monthly fee for Services described in Subparagraph 6.1.1 above shall not include the Construction Manager's costs associated with the bidding, buyout of Early Work. A listing of the items that may be included in Construction Manager's General Conditions associated with such Early Work is set forth in Exhibit C attached hereto.

6.2.2 Based upon Applications for Payment submitted to the Owner by the Construction Manager, the Owner shall make progress payments to the Construction

Manager for work performed and/or materials or equipment delivered. The period covered by each Application for Payment shall be one calendar month ending on the last day of the month.

6.3 COMPENSATION FOR CHANGES IN SERVICES

6.3.1 The Construction Manager shall be reimbursed for Changes in Services performed by Construction Manager at the Staff Billing Rates included in Exhibit B attached hereto and shall be payable monthly as provided in Section 6.5. Such amount will be in addition to any other compensation due or owed to the Construction Manager under this Agreement. Changes in Services include, for example, supplemental estimating support staff requested by Owner between estimate cycles.

6.4 REIMBURSABLE EXPENSES

6.4.1 Payments for Reimbursable Expenses incurred shall be made monthly upon presentation of the Construction Manager's Application for Payment.

6.4.2 Reimbursable Expenses are in addition to compensation for the Construction Manager's Services (excluding Early Work where such expenses are included as part of Construction Manager's General Conditions) and include expenses incurred by the Construction Manager and Construction Manager's employees and subconsultants directly related to the Project, including the following:

1. transportation in connection with the Project, authorized out-of-town travel and subsistence;
2. blueprinting services, reproduction, graphics, postage, messenger and overnight couriers;
3. the expense of Construction Manager's Insurance including Construction Manager's errors and omissions insurance;
4. long distance telephone, facsimile, and data processing charges;
5. computer software and services for project Web site (if any);
6. other out-of-pocket expenses reasonably incurred by the Construction Manager in performance of Services.

6.5 PAYMENT TERMS

6.5.1 The Construction Manager shall submit Applications for Payment by the first of each month for services provided during the previous month. The Application shall separately list the monthly Services payment, Changes in Services performed, and Early Work performed. Provided that the Construction Manager's Application for Payment shall be received by the Owner not later than the first day of the month, the Owner shall make payment to the Construction Manager not later than the last business day of the same month. If the Construction Manager's Application for Payment is received later than the first day of the month, the Owner shall make payment to the Construction Manager no later than thirty days following receipt of the Application for Payment.

6.5.2 In relation only to the compensation for Early Work, the Owner may retain up to ten percent (10%) of a progress payment due to a Subcontractor. At fifty percent (50%) completion by a Subcontractor, no further retainage shall be withheld and at Substantial Completion retainage shall be paid for Subcontractor's Work except for one hundred percent (100%) of the value of unfinished punch list work. No retainage shall be withheld by the Owner on any costs except those to be paid to Subcontractors.

6.5.3 Records of Reimbursable Expenses, of expenses pertaining to a Change in Services, and of services performed on the basis of hourly rates shall be available to the Owner or the Owner's authorized representative at mutually convenient times.

SECTION 7: INSURANCE AND INDEMNIFICATION

7.1 TYPES AND LIMITS OF INSURANCE

7.1.1 The Construction Manager agrees to procure and maintain all insurance provided below with insurance companies satisfactory to the Owner. Except for Workers' Compensation and Employers' Liability, the insurance policies shall name the Owner and any other entities (excluding Design Consultants) as listed in Section 7.1.2, Owner may reasonably request as an additional insured. All policies shall provide that insurance carriers shall endeavor to give Owner not less than thirty (30) days prior written notice of any policy cancellation, non-renewal, or material change. Coverage shall be maintained for the duration of the Pre-construction Services. Before commencing performance of the Services and Early Work, Construction Manager shall provide Owner with original Certificates of Insurance.

A. Commercial General Liability Insurance

Occurrence form including premises and operations coverage, products, and completed operations; coverage for independent contractors; personal injury coverage; and blanket contractual liability. Completed Operations shall be maintained for a period of three (3) years following final completion.

Each Occurrence	\$2,000,000
Personal & Advertising Injury	\$2,000,000
Products & Completed Operations Aggregate	\$2,000,000
General Aggregate	\$2,000,000

B. Workers' Compensation

Workers' Compensation	Statutory
Employer's Liability	\$2,000,000 Each Accident
	\$2,000,000 Policy Limit—Disease
	\$2,000,000 Each Employee—Disease

C. Excess or Umbrella Liability Insurance, no more restrictive than the underlying insurance, with limits of not less than \$8,000,000 per occurrence and annual aggregate.

D. Commercial Automobile Liability Insurance with limits of not less than \$2,000,000 combined single limit for bodily injury and property damage covering all owned, non-owned and hired vehicles.

E. By so specifying, the Owner may require additional types of insurance. The premiums for such required additional insurance shall be reimbursed by the Owner.

7.1.2 The insurance policies required herein shall name the following entities as additional insureds:

- A. Owner _____
- B. Lender's Group _____
- C. Other Entities _____

7.1.3 PROPERTY INSURANCE

A. Unless Construction Manager is directed in writing to provide such insurance as a reimbursable expense, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance on an "all-risk" policy form, including builder's risk which shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, terrorism, mold, glass breakage, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, false work, testing and start-up, temporary buildings, and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Construction Manager's services and expenses required as a result of such insured loss, in the amount of the total value for the entire Project at the site on a replacement cost basis including costs to cover professional fees without optional deductibles. Such property insurance shall be maintained, unless otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until no person or entity other than the Owner has an insurable interest in the property required by this Section to be covered. The Owner shall reimburse the Construction Manager for costs associated with reconstruction as a result of a loss which are not covered because of deductibles or sublimits. This insurance shall name Construction Manager, Subcontractors, and Sub-subcontractors, as additional insureds.

B. The Owner shall file a copy of each policy with the Construction Manager prior to commencement of any Work which would or should be covered by such property insurance. Each policy shall contain a provision that the policy will not be canceled or allowed to expire, and that its limits will not be reduced, until at least 30 days' prior written notice has been given to the Construction Manager.

C. The Owner and Construction Manager waive all rights against (1) each other and any of their contractors, subcontractors, sub-subcontractors, agents, and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to Section 7.1.3 A or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors, if any, and the contractors, subcontractors, sub-subcontractors, agents, and employees of any of them, by appropriate written agreements, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

D. A loss insured under the Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds subject to requirements of any applicable mortgagee clause. The Construction Manager shall pay Subcontractors their just shares of insurance proceeds received by the Construction Manager, and by appropriate written agreements shall require Subcontractors to make payments to their sub-subcontractors in similar manner.

7.2 INDEMNIFICATION

7.2.1 To the fullest extent permitted by law, the Construction Manager shall indemnify and hold harmless the Owner, and its agents and employees from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Early Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Construction Manager, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable.

7.2.2 In claims against any person or entity indemnified under Section 7.2.1 by an employee of the Construction Manager, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 7.2.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Construction

Manager or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

7.2.3 The Owner acknowledges and agrees that the Construction Manager's indemnification in Section 7.2 applies to and is intended to apply only to the performance of construction work by the Construction Manager and its Subcontractors defined as Early Work under this Agreement.

7.3 RIGHTS OF THIRD PARTIES

7.3.1 Nothing in this Agreement shall create or give to third parties any claim or right of action against the Construction Manager or the Owner.

SECTION 8: ASSIGNMENT, SUSPENSION OF WORK, AND TERMINATION

8.1 SUCCESSORS AND ASSIGNS

8.1.1 The Construction Manager and Owner respectively bind themselves, their partners, successors, assigns, and legal representatives to the other party hereto and to partners, successors, assigns, and legal representatives of such other party in respect to covenants, agreements and obligations contained in this Agreement. Neither party to the Agreement shall assign the Agreement as a whole without the written consent of the other. If either party attempts to make such an assignment without consent, that party shall nevertheless remain legally responsible for all obligations under this Agreement.

8.2 SUSPENSION OR TERMINATION OF WORK

8.2.1 At any time, the Owner may, upon seven (7) calendar days' written notice to the Construction Manager, suspend or delay the Construction Manager's services hereunder. The Construction Manager shall be compensated for expenses necessarily and reasonably incurred in order to suspend its services.

8.2.2 At any time, the Owner may, upon seven (7) calendar days' written notice to the Construction Manager, terminate this Agreement in whole or in part, with or without cause, or abandon all or any part of the Project. The Owner shall pay to the Construction Manager all amounts due in accordance with Section 6 hereof with respect to Services and Early Work (if any) performed prior to the date of termination or abandonment as well as reimbursement for expenses necessarily and reasonably incurred in order to stop the Services and Early Work on the Project.

8.2.3 If the Owner, through no fault of the Construction Manager, does not pay the Construction Manager within seven (7) days after the date established in this Agreement, then the Construction Manager may, upon seven (7) additional days' written notice to the Owner, suspend Services and Early Work until payment of the amount owing has been received. The Project Schedule, and the time for completion of the Construction Manager's Services and/or Early Work shall be extended appropriately. In addition the Construction Manager's Compensation for Services

and/or Early Work including the subcontract amount for Subcontractors shall be increased by the amount of the reasonable costs of shutdown, delay and start-up.

SECTION 9: OWNER'S RESPONSIBILITY

9.1 OWNER'S REPRESENTATIVE

9.1.1 The Owner designates as its representative with respect to the Project:

<representative's name, address, telephone number, fax, and email address>

The Construction Manager may rely upon the written approval or decision of the Owner's designated representative or alternate representative as the approval or the decision by the Owner. The Construction Manager shall recognize only written directives from the Owner's designated representative or the alternate representative designated herein.

9.2 STRUCTURAL AND ENVIRONMENTAL TESTS, SURVEYS, AND REPORTS

9.2.1 The Owner shall furnish surveys, reports, drawings, and other information in its possession regarding the existing condition of the Project site. The Construction Manager may rely on the general accuracy of the technical data contained in such surveys, reports, or drawings.

9.2.2 The Owner may retain consultants to conduct additional structural, environmental, or other investigations for the Project. The Construction Manager may rely on the general accuracy of the technical data obtained through the additional investigations and any interpretations or conclusions expressed therein. The Construction Manager shall be responsible for interpreting the results of the investigations to the extent that such results pertain to constructability, accessibility of the site, and general suitability of types of materials or methods of construction.

9.3 OWNER'S ADMINISTRATIVE SERVICES

9.3.1 The Owner shall furnish, at its expense, all legal, accounting and insurance counseling services as may be necessary for the Project to protect the Owner's interests, including such auditing services as the Owner may require to verify the Construction Manager's invoices. Services furnished by the Owner are for the Owner's exclusive benefit.

9.4 CONSTRUCTION MANAGER NOTIFICATION

9.4.1 If the Owner observes or otherwise becomes aware of any fault or defect in the Early Work, prompt written notice thereof shall be given by the Owner to the Construction Manager.

9.5 OWNER'S APPROVAL

9.5.1 The Owner or its designated representative shall examine documents submitted by the Construction Manager and shall render approvals and decisions promptly. The Owner shall furnish required information and services and shall render approvals and decisions as expeditiously as necessary for the orderly progress of the Construction Manager's Services and of the Early Work.

9.6 HAZARDOUS AND CONTAMINATED SUBSTANCES

9.6.1 If reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos, polychlorinated biphenyl (PCB), mold, and lead paint encountered on the site by the Construction Manager, the Construction Manager shall, upon recognizing the condition, immediately stop Services or Early Work in the affected area and report the condition to the Owner and applicable Design Consultants.

9.6.2 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Construction Manager and Subcontractors, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of Services or Early Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 9.6.1 and has not been rendered harmless, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) but only to the extent that such damage, loss or expense is not due to the negligence of a party seeking indemnity.

SECTION 10: CLAIMS AND DISPUTE RESOLUTION

10.1 EXTENSIONS OF TIME

10.1.1 The Construction Manager shall be entitled to an extension of time for delay in completion of the work caused (1) by the acts or omissions of the Owner, its officers, agents or employees, the Design Consultant or the other consultants; (2) by supervening events or conditions beyond the control of the Construction Manager including, but not limited to, Acts of God or the public enemy, terrorism, inclement weather, war, or other national emergency making performance temporarily impossible or illegal, or strikes or labor disputes. The Construction Manager shall be entitled to an extension of time and for an equitable increase for costs incurred by the Construction Manager and Subcontractors as a result of such delay.

10.2 NOTICE OF CLAIM

10.2.1 If at any time the Construction Manager believes that there is a condition that will entitle it to additional compensation or a change in time ("Claim"), within ten (10) days after the occurrence of the event giving rise to the Claim, the Construction

Manager shall deliver written notice to the Owner stating the general nature of such Claim. Notice of the amount or extent of the Claim with supporting data shall be delivered to the Owner, in writing, within twenty-one (21) days after said written notice has been delivered (unless the Construction Manager reasonably requires additional time to submit additional or more accurate data to support such Claim). If the Owner requires any additional information to evaluate the Claim, the Owner shall request such information from the Construction Manager in writing. After receipt of all information required by the Owner, the Owner shall notify the Construction Manager in writing of its decision within thirty (30) days.

10.2.2 Pending the resolution of any the Claim (including mediation or arbitration) the Construction Manager, as long as the Construction Manager receives payment by Owner for actual costs incurred, shall diligently perform all Services and/or Early Work under this Agreement, including work or services that are the subject of such Claim.

10.3 MEDIATION AND DISPUTE RESOLUTION

10.3.1 Should a dispute arise between Owner and Construction Manager, senior executives of the parties shall first negotiate in good faith to resolve any Claims.

10.3.2 If such negotiations do not resolve said claims, the Owner and Construction Manager shall mediate the same as a condition precedent to the commencement of any arbitration or legal proceeding. Mediation shall be conducted under the Construction Industry Mediation Rules of the American Arbitration Association in effect at the time the dispute arises. Unless the parties mutually agree otherwise, the parties shall share the mediator's fee and any filing fees equally.

10.3.3 Any controversy arising out of or related to this Agreement, or its breach, shall be settled by arbitration, in accordance with the Construction Industry Arbitration rules then obtaining of the American Arbitration Association and award thereunder shall be binding upon the Parties and judgment on the award rendered by arbitrator(s) may be entered in any court having jurisdiction thereof. Each party shall proceed with his obligations under this Agreement pending arbitration proceedings, unless otherwise agreed by the Parties in writing. Written Notice of the demand for arbitration shall be served upon the other party and filed in writing with the American Arbitration Association. The demand for arbitration shall be made within a reasonable time after the controversy arises. Unless otherwise agreed by the parties, arbitration proceedings shall be conducted in the state and county in which the Project is located.

10.3.4 Except for the defense of third party claims, no such action or proceeding shall lie or shall be maintained by the either party unless such action or proceeding shall be commenced within one year after the date final payment is made under this Agreement, or in the event this Agreement is terminated, unless such action or proceeding be commenced within one year after the date of such termination.

10.4 GOVERNING LAW

10.4.1 This Agreement shall be governed and construed in accordance with the substantive law of the State in which the Project is located excluding conflict of law principles.

SECTION 11: MISCELLANEOUS PROVISIONS

11.1 PARTICIPATION IN CLAIMS AND LITIGATION SUPPORT

11.1.1 In the event any claim is made or any action brought in any way relating to the Project or the Construction Manager's services, the Construction Manager shall diligently render to the Owner any and all assistance which the Owner may require. The Construction Manager shall be entitled to compensation for such services as a Change in Service unless the claim is directly related to the Construction Manager's Services or Early Work performed on the Project.

11.2 WAIVER

11.2.1 No delay in enforcing any right, remedy, privilege, or recourse accorded to either party or to which either party may be or become entitled to have or exercise under this Agreement shall diminish, suspend, or exhaust any such right, remedy, privilege, or recourse.

11.3 EXHIBITS

11.3.1 The following Exhibits are attached hereto and made a part of this Agreement:

Exhibit A	Project Description
Exhibit B	Project Billing Rates
Exhibit C	Listing of General Conditions Cost Items Applicable to Early Work

11.4 CONSTRUCTION OF THIS AGREEMENT

11.4.1 This Agreement shall be construed without the aid of any presumption or other rule of law regarding construction against the party drafting the same or any part of it.

11.4.2 Section or paragraph headings in this Agreement are for convenience only and are not to be used in aid of construing the Agreement.

11.5 NOTICES

11.5.1 Any notice or other communication required or permitted to be given under this Agreement shall be sufficient if in writing and shall be considered given when delivered by messenger; by overnight courier; or mailed by certified mail, return receipt requested, postage prepaid to the parties at the following addresses (or at such other address as a party may specify by notice hereunder):

if to the Owner:

<contact name and address>

if to the Construction Manager:

<contact name and address>

11.6 ENTIRE AGREEMENT: AMENDMENT

11.6.1 This Agreement represents the entire and integrated agreement between the Owner and Construction Manager with respect to the provisions contained herein and supersedes all prior negotiations, representations or agreements, either written or oral, between them with respect to the Services to be provided hereunder. This Agreement may be modified only by a writing signed by the Owner and Construction Manager.

11.7 WAIVER OF CONSEQUENTIAL DAMAGES

The Construction Manager and Owner waive claims against each other for consequential damages arising out of or relating to this Agreement. This mutual waiver includes without limitation:

- (a) damages incurred by the Owner for rental expenses and for loss of use, income, profit, financing, business, and reputation and loss of management or employee productivity or the services of such persons; and
- (b) damages incurred by the Construction Manager or any Subcontractor for principal office expenses including compensation of personnel stationed in the principal office, loss of financing, business, and reputation, loss of profit, and loss of management or employee productivity or the services of such persons.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination under this Agreement.

11.8 PARTIAL INVALIDITY

If any term or provision of this Agreement or the application thereof to any person, firm or corporation, or circumstances, shall be invalid or unenforceable, the remainder of this Agreement, or the application or such term or provision to persons, firms or corporation, or circumstances, other than those as to which it is held invalid, shall both be unaffected thereby, and each term or provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

11.9 CONSTRUCTION MANAGER'S SERVICES

Evaluations of the Owner's budget, preliminary and detailed estimates prepared by the Construction Manager represent the Construction Manager's best judgment. It is recognized, that neither the Construction Manager nor the Owner has control over the cost of labor, materials, or equipment, over bidding methodology, or over competitive bidding, market, or negotiating conditions. Accordingly, except for the Guaranteed

Maximum Price, the Construction Manager cannot and does not warrant or represent that bids or negotiated prices will not vary from the budget proposed, established or approved by the Owner, or from any cost estimate or evaluation prepared by the Construction Manager. The recommendations and advice of the Construction Manager concerning value engineering suggestions and constructability shall be subject to the review and approval of the Owner and the Owner's Design Consultants. It is not the Construction Manager's responsibility to ascertain that the Drawings and Specifications and other information prepared by the Design Consultants are in accordance with applicable laws, statutes, ordinances, building codes, rules, and regulations. However, if the Construction Manager discovers that portions of such documents are at variance therewith, the Construction Manager shall notify the Architect and Owner in writing. The Construction Manager does not warrant or guarantee schedules except as may be included as part of the Guaranteed Maximum Price.

11.10 INDEPENDENT CONTRACTORS

11.10.1 Nothing in this Part A shall in any way constitute a partnership between, or joint venture by, the Owner and Construction Manager. Neither party shall hold itself out contrary to the terms of this Part A by advertising or otherwise, and neither party shall become liable or bound by any representation, act, or omission whatsoever of the other party contrary to the provisions of this section.

11.10.2 With regard to the activities of Construction Manager pursuant to this Part A, Construction Manager is at all times acting as an independent contractor of, and not as a joint venturer or partner of Owner.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

CONSTRUCTION MANAGER

<name>

<name and title>

OWNER

<name>

<name and title>

B. Part A—Pre-Construction Agreement

PART A

PRE-CONSTRUCTION AGREEMENT

This AGREEMENT made as of first day of <date>, by and between <Owner's name> ("Owner"), a <state> Corporation having its principal place of business at <address> and <Construction Manager's name>, a <state> Corporation having a place of business at <address> ("Construction Manager");

WHEREAS, the Owner plans to construct the <identify project> which consists of <details> ("Project"), as more fully described in the Project Description set forth in Exhibit A attached; and

WHEREAS, the Owner has retained <name of architect>, as the Architect for the Project.

WHEREAS, the Owner desires to retain the Construction Manager to provide pre-construction services in connection with the Project and the Construction Manager is willing to perform such services; and

WHEREAS, the Owner contemplates entering into Part B Agreement for Construction Management with a Guaranteed Maximum Price for the construction phase ("Part B"); and

WHEREAS, the pre-construction phase services provided under this Agreement shall be performed to the reasonable satisfaction of the Owner;

NOW, THEREFORE, in consideration of the premises and mutual promises herein contained, the Owner and the Construction Manager agree as follows:

SECTION 1: GENERAL

1.1 The Project description and criteria for conceptual design are set forth in Exhibit A attached hereto.

1.2 Construction Manager agrees to provide pre-construction services during the development of the design for the Project including preparation of cost estimates, preparation of design and construction progress schedule, constructability analysis, value engineering analysis and the development of a Guaranteed Maximum Price Proposal. The performance of Early Work, if requested by Owner, shall be in accordance with the terms of Article 7. No field work.

1.3 Construction Manager shall provide pre-construction services for a period of no more than _____ (__) months from date of this Agreement.

1.4 The terms contained in this Part A which are not defined herein, shall have the same meaning as set forth in Part B. Notwithstanding the foregoing, should there be a conflict in the definition of a term used in Part A and definition contained in Part B, for purposes of this Part A, the definition in Part A shall take precedence.

SECTION 2: OBLIGATIONS OF THE CONSTRUCTION MANAGER

2.1 COST ESTIMATES

2.1.1 The Construction Manager shall prepare no more than four (4) estimates including the Guaranteed Maximum Price: (1) 100% Schematic Drawings completion; (2) 100% Design Development; (3) at 60% percent complete Construction Documents; and (4) the Guaranteed Maximum Price estimate at 90% complete Construction Documents. Estimates shall carry multiple alternates to reflect the continuing cost studies as the design develops.

2.1.2 If any estimate submitted to the Owner exceeds previously approved estimates or the Owner's budget, the Construction Manager shall make reasonable recommendations to the Owner for scope reduction and/or value engineering to bring the estimated cost of construction within the Owner's budget.

2.1.3 The Construction Manager shall assist the Owner in developing cash flow projections.

2.2 VALUE ENGINEERING

2.2.1 The Construction Manager shall provide value engineering services during the pre-construction phase and shall provide value engineering services of similar scope and level of effort to that shown in the sample. The Construction Manager recognizes that value engineering is an iterative process and that it may be required to modify its estimates and recommendations in response to review of its reports by the Owner, the Design Consultants, and the other consultants.

2.3 PROJECT SCHEDULE

2.3.1 The Construction Manager shall perform its duties in a timely manner consistent with the Project Schedule.

2.3.2 The Construction Manager shall prepare the Project Schedule which identifies date of Substantial Completion, equipment and material delivery dates, and work necessary to achieve these dates for approval by the Owner. The Project Schedule shall include both design and construction activities. The Construction Manager shall coordinate and integrate the Project Schedule with the schedules provided by the Design Consultants and the other consultants.

2.3.3 As design proceeds, the Project Schedule shall be updated. If updates to the Project Schedule indicate that previously approved schedule may not be met, the Construction Manager shall advise the Owner of the particular activities causing the schedule to be extended and shall recommend a schedule recovery plan to the Owner.

2.4 CONSTRUCTABILITY AND LOGISTICS

2.4.1 The Construction Manager shall review design documents and make recommendations on means and methods of construction as well as availability of labor and materials. The Construction Manager shall advise the Owner regarding potential jurisdictional disputes between trades.

2.4.2 The Construction Manager shall establish specific site logistics. Construction Manager shall provide site logistics plans reflective of the various stages of construction progress (i.e., site work, utility infrastructure, commencement of structures, etc.) and as may be required for proposed construction phasing alternatives.

2.5 PERMITS AND APPROVALS

2.5.1 The Owner shall file, expedite, and pay the fee for the application for the Building Permit and obtain approval of site plan and construction drawings from the Building Department.

2.5.2 The Construction Manager shall obtain Work permits from the governmental agencies having jurisdiction over the Project for the demolition and other preliminary construction Work if directed by the Owner.

2.6 GUARANTEED MAXIMUM PRICE PROPOSAL

2.6.1 The Construction Manager shall propose a Guaranteed Maximum Price ("GMP") when the construction documents are ninety (90%) percent complete. The proposed GMP shall be the sum of the estimated Cost of the Work including General Conditions, Insurance, and the Construction Manager's Fee. The assumptions and qualifications upon which the GMP is based shall be included as part of the proposal and shall have priority over all other Contract Documents.

2.6.2 Unless otherwise stated in the assumptions and qualifications which take precedence, "Cost of the Work," "General Conditions," Insurance and Construction Manager's Fee included in the GMP shall be as defined in Part B (set forth in Exhibit A).

2.6.3 The Construction Manager's Fee for profit to be included in the GMP shall be _____ percent (___%) the Cost of the Work including General Conditions and Insurance.

2.6.4 Owner shall accept or reject the GMP Proposal within _____ (____) days after receipt. If Owner does not accept the GMP within this period, this Part A shall terminate.

2.7 ACCEPTANCE OF THE GMP PROPOSAL

2.7.1 Upon Owner's acceptance of the GMP Proposal described in Section 2.6 above, Construction Manager and Owner shall execute Part B of this Agreement in the form set forth in Exhibit A annexed hereto.

2.7.2 In the event that the Owner does not award a contract for the services included in Construction Manager's GMP Proposal to the Construction Manager, the Owner may, at its sole discretion, (1) retain the Construction Manager under Part B to complete the Construction Phase on a cost-plus-a-fee basis without a GMP, (2) retain the Construction Manager to complete the Early Work (if any), or (3) require the Construction Manager to assign such Subcontracts performing Early Work (if any) to the Owner.

2.8 EVALUATIONS, RECOMMENDATIONS, AND TIME

2.8.1 Evaluations of the Owner's budget, preliminary and detailed estimates prepared by the Construction Manager represent the Construction Manager's best judgment. It is recognized that neither the Construction Manager nor the Owner has control over the cost of labor, materials, or equipment, over bidding methodology, or over competitive bidding, market or negotiating conditions. Accordingly, except for the Guaranteed Maximum Price, the Construction Manager cannot and does not warrant or represent that bids or negotiated prices will not vary from the budget proposed, established or approved by the Owner, or from any cost estimate or evaluation prepared by the Construction Manager.

2.8.2 The recommendations and advice of the Construction Manager concerning value engineering suggestions and constructability shall be subject to the review and approval of the Owner and the Owner's Design Consultants. It is not the Construction Manager's responsibility to ascertain that the Drawings and Specifications and other information prepared by the Design Consultants are in accordance with applicable laws, statutes, ordinances, building codes, rules, and regulations. However, if the Construction Manager discovers that portions of such documents are at variance therewith, the Construction Manager shall notify the Architect and Owner in writing.

2.8.3 The Construction Manager does not warrant or guarantee schedules except as may be included as part of the Guaranteed Maximum Price

SECTION 3: EARLY WORK/LONG-LEAD ITEMS

3.1 The Construction Manager shall identify long-lead items and early-work contracts ("Early Work"). The Construction Manager shall make recommendations with respect to current market trends that may affect procurement and installation so as to minimize potential delays and/or cost premiums.

3.2 When the Construction Manager is directed in writing by the Owner to perform Early Work, all provisions of Part B (Exhibit C) shall be applicable to the Early Work and shall govern the performance of the Early Work as if Exhibit C had been incorporated herein in its entirety, except that the Early Work shall be performed on a cost-plus basis without a guaranteed maximum price.

3.3 The fee shall be _____ percent (___%) of the Cost of the Work including General Conditions and Insurance applicable to Early Work performed by the Construction Manager. The progress schedule for performance of Early Work shall be as agreed between Owner and Construction Manager.

3.4 The proposal for Early Work should be submitted as soon as possible after receipt from subcontractors of bids for performance of such Early Work.

3.5 The subcontracts for Early Action Work shall provide that if Part B is to be performed by entirely unrelated construction manager, the subcontract shall, upon written notice from the Owner and Construction Manager to subcontractor, be assigned by Construction Manager to the designated construction manager as if the contracting parties were construction manager and subcontractor from inception of the subcontractor's work.

SECTION 4: PRE-CONSTRUCTION COMPENSATION

4.1 Owner shall pay Construction Manager, as total compensation for services and expenses described in this Part A, the fixed sum of _____ (\$_____.00). The term of this agreement shall be _____ (___) months unless extended upon the written agreement of the Owner and Construction Manager.

4.2 The Construction Manager shall be reimbursed for Changes in Services performed by Construction Manager at the Staff Billing Rates included in Exhibit B attached hereto and shall be payable monthly. Such amount will be in addition to any other compensation due or owed to the Construction Manager under this Agreement.

4.3 Reimbursable Expenses are in addition to compensation for the Construction Manager's Services and include expenses incurred by the Construction Manager and Construction Manager's employees and subconsultants directly related to the Project, including the following:

1. transportation in connection with the Project, authorized out-of-town travel and subsistence;
2. blueprinting services, reproduction, graphics, postage, messenger and overnight couriers;
3. the expense of Construction Manager's Insurance including Construction Manager's errors and omissions insurance;
4. long distance telephone, facsimile, and data processing charges;
5. computer software and services for project Web site (if any);
6. other out-of-pocket expenses reasonably incurred by the Construction Manager in performance of Services.

4.4 The Construction Manager shall submit Applications for Payment by the first of each month for Pre-construction services provided during the previous month. The fixed fee indicated in Section 4.1 shall be invoiced in equal monthly payments over the duration of pre-construction. The Owner shall make payment to the

Construction Manager no later than 30 days following receipt of the Application for Payment. Early Work shall be separately invoiced and payment shall be as provided in Part B.

SECTION 5: INSURANCE

5.1 TYPES AND LIMITS OF INSURANCE

5.1.1 The Construction Manager agrees to procure and maintain all insurance provided below with insurance companies satisfactory to the Owner. Except for Workers' Compensation and Employers' Liability, the insurance policies shall name the Owner and any other entities (excluding Design Consultants) as listed in Section 5.1.2, Owner may reasonably request as an additional insured. All policies shall provide that insurance carriers shall endeavor to give Owner not less than thirty (30) days prior written notice of any policy cancellation, non-renewal or material change. Coverage shall be maintained for the duration of the Pre-construction Services. Before commencing performance of the Services and Early Work, Construction Manager shall provide Owner with original Certificates of Insurance.

A. Commercial General Liability Insurance

Occurrence form including premises and operations coverage, products and completed operations, coverage for independent contractors, personal injury coverage, and blanket contractual liability. Completed Operations shall be maintained for a period of three (3) years following final completion.

Each Occurrence	\$2,000,000
Personal & Advertising Injury	\$2,000,000
Products & Completed Operations Aggregate	\$2,000,000
General Aggregate	\$2,000,000

B. Workers' Compensation

Workers' Compensation	Statutory
Employer's Liability	\$2,000,000 Each Accident
	\$2,000,000 Policy Limit—Disease
	\$2,000,000 Each Employee—Disease

C. Excess or Umbrella Liability Insurance, no more restrictive than the underlying insurance, with limits of not less than \$____.00 per occurrence and annual aggregate.

D. Commercial Automobile Liability Insurance with limits of not less than \$2,000,000 combined single limit for bodily injury and property damage covering all owned, non-owned and hired vehicles.

E. By so specifying, the Owner may require additional types of insurance. The premiums for such required additional insurance shall be reimbursed by the Owner.

5.1.2 The insurance policies required herein shall name the following entities as additional insureds:

- A. Owner _____
- B. Lender's Group _____
- C. Other Entities _____

5.1.3 Property Insurance

The Owner shall file a copy of each "all risk" property insurance (builder's risk) policy with the Construction Manager prior to commencement of any Early Work. This insurance shall be in accordance with the insurance requirements contained in Part B and shall include a mutual waiver of subrogation by Owner and Construction Manager and name Construction Manager as an additional insured.

SECTION 6: SUSPENSION OR TERMINATION OF WORK

6.1 At any time, the Owner may, upon seven (7) calendar days' written notice to the Construction Manager, suspend or delay the Construction Manager's services hereunder. The Construction Manager shall be compensated for expenses necessarily and reasonably incurred in order to suspend its services.

6.2 At any time, the Owner may, upon seven (7) calendar days' written notice to the Construction Manager, terminate this Agreement in whole or in part, with or without cause, or abandon all or any part of the Project. The Owner shall pay to the Construction Manager all amounts due in accordance with Section 4 hereof with respect to Services and Early Work (if any) performed prior to the date of termination or abandonment as well as reimbursement for expenses necessarily and reasonably incurred in order to stop the Services and Early Work on the Project.

6.3 If the Owner, through no fault of the Construction Manager, does not pay the Construction Manager within seven (7) days after the date established in this Agreement, then the Construction Manager may, upon seven (7) additional days' written notice to the Owner, suspend Services and Early Work until payment of the amount owing has been received. The Project Schedule, and the time for completion of the Construction Manager's Services and/or Early Work shall be extended appropriately. In addition the Construction Manager's Compensation for Services and/or Early Work including the subcontract amount for Subcontractors shall be increased by the amount of the reasonable costs of shutdown, delay and start-up.

SECTION 7: MISCELLANEOUS

7.1 PARTICIPATION IN CLAIMS AND LITIGATION SUPPORT

7.1.1 In the event any claim is made or any action brought in any way relating to the Project or the Construction Manager's services, the Construction Manager shall

diligently render to the Owner any and all assistance which the Owner may require. The Construction Manager shall be entitled to compensation for such services.

7.2 WAIVER

7.2.1 No delay in enforcing any right, remedy, privilege or recourse accorded to either party or to which either party may be or become entitled to have or exercise under this Agreement shall diminish, suspend or exhaust any such right, remedy, privilege or recourse.

7.3 EXHIBITS

7.3.1 The following Exhibits are attached hereto and made a part of this Agreement:

Exhibit A	Project Description
Exhibit B	Project Billing Rates
Exhibit C	Part B Agreement for Construction Management with a GMP

7.4 CONSTRUCTION OF THIS AGREEMENT

7.4.1 This Agreement shall be construed without the aid of any presumption or other rule of law regarding construction against the party drafting the same or any part of it.

7.4.2 Section or paragraph headings in this Agreement are for convenience only and are not to be used in aid of construing the Agreement.

7.5 NOTICES

7.5.1 Any notice or other communication required or permitted to be given under this Agreement shall be sufficient if in writing and shall be considered given when delivered by messenger; overnight courier; or mailed by certified mail, return receipt requested, postage prepaid to the parties at the following addresses (or at such other address as a party may specify by notice hereunder):

if to the Owner:
<contact name and address>

if to the Construction Manager:
<contact name and address>

7.6 PARTIAL INVALIDITY

7.6.1 If any term or provision of this Agreement or the application thereof to any person, firm or corporation, or circumstances, shall be invalid or unenforceable, the remainder of this Agreement, or the application of such term or provision to persons,

firms or corporations, or circumstances, other than those as to which it is held invalid, shall both be unaffected thereby, and each term or provision of this Agreement shall be valid and enforced to the fullest extent permitted by law.

7.7 RIGHTS OF THIRD PARTIES

7.7.1 Nothing in this Agreement shall create or give to third parties any claim or right of action against the Construction Manager or the Owner.

7.8 SIMULTANEOUS EXECUTION

7.8.1 This Agreement may be executed in one or more counterparts, all of which shall be considered one and the same agreement, and shall become effective when one or more counterparts have been executed by each of the parties hereto and delivered to each of them.

7.9 COMPLETE AGREEMENT

7.9.1 This Agreement constitutes the complete agreement and understanding of the parties concerning the subject matter of this Agreement. This Agreement may be modified only by a writing signed by the Owner and Construction Manager.

7.10 EXTENSIONS OF TIME

7.10.1 The Construction Manager shall be entitled to an extension of time for delay in completion of the work caused; (1) by the acts or omissions of the Owner, its officers, agents or employees, the Design Consultant or the other consultants; (2) by supervening events or conditions beyond the control of the Construction Manager including, but not limited to, Acts of God or the public enemy, terrorism, inclement weather, war or other national emergency making performance temporarily impossible or illegal, or strikes or labor disputes. The Construction Manager shall be entitled to an extension of time and for an equitable increase for costs incurred by the Construction Manager and Subcontractors as a result of such delay.

7.11 MEDIATION AND DISPUTE RESOLUTION

7.11.1 Should a dispute arise between Owner and Construction Manager, senior executives of the parties shall first negotiate in good faith to resolve any Claims.

7.11.2 If such negotiations do not resolve said claims, the Owner and Construction Manager shall mediate the same as a condition precedent to the commencement of any arbitration or legal proceeding. Mediation shall be conducted under the Construction Industry Mediation Rules of the American Arbitration Association in effect at the time the dispute arises. Unless the parties mutually agree otherwise, the parties shall share the mediator's fee and any filing fees equally.

7.11.3 Any controversy arising out of or related to this Agreement, or its breach, shall be settled by arbitration, in accordance with the Construction Industry

Arbitration rules then obtaining of the American Arbitration Association and award thereunder shall be binding upon the Parties and judgment on the award rendered by arbitrator(s) may be entered in any court having jurisdiction thereof. Each party shall proceed with his obligations under this Agreement pending arbitration proceedings, unless otherwise agreed by the Parties in writing. Written Notice of the demand for arbitration shall be served upon the other party and filed in writing with the American Arbitration Association. The demand for arbitration shall be made within a reasonable time after the controversy arises. Unless otherwise agreed by the parties, arbitration proceedings shall be conducted in the state and county in which the Project is located.

7.11.4 Except for the defense of third party claims, no such action or proceeding shall lie or shall be maintained by the either party unless such action or proceeding shall be commenced within one year after the date final payment is made under this Agreement, or in the event this Agreement is terminated, unless such action or proceeding be commenced within one year after the date of such termination.

7.12 GOVERNING LAW

7.12.1 This Agreement shall be governed and construed in accordance with the substantive law of the State in which the Project is located excluding conflict of law principles.

7.13 WAIVER

7.13.1 No delay in enforcing any right, remedy, privilege or recourse accorded to either party or to which either party may be or become entitled to have or exercise under this Agreement shall diminish, suspend or exhaust any such right, remedy, privilege, or recourse.

7.14 CONSTRUCTION OF THIS AGREEMENT

7.14.1 This Agreement shall be construed without the aid of any presumption or other rule of law regarding construction against the party drafting the same or any part of it.

7.15 PARTIAL INVALIDITY

7.15.1 If any term or provision of this Agreement or the application thereof to any person, firm or corporation, or circumstances, shall be invalid or unenforceable, the remainder of this Agreement, or the application or such term or provision to persons, firms or corporation, or circumstances, other than those as to which it is held invalid, shall both be unaffected thereby, and each term or provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

7.16 INDEPENDENT CONTRACTORS

7.16.1 Nothing in this Agreement shall in any way constitute a partnership between, or joint venture by, the Owner and Construction Manager. Neither party shall hold itself out contrary to the terms of this Agreement by advertising or otherwise, and neither party shall become liable or bound by any representation, act, or omission whatsoever of the other party contrary to the provisions of this section.

7.16.2 With regard to the activities of Construction Manager pursuant to this Agreement, Construction Manager is at all times acting as an independent contractor of, and not as a joint venturer or partner of Owner.

7.17 WAIVER OF CONSEQUENTIAL DAMAGES

7.17.1 The Construction Manager and Owner waive claims against each other for consequential damages arising out of or relating to this Agreement. This mutual waiver includes without limitation:

1. damages incurred by the Owner for rental expenses and for loss of use, income, profit, financing, business and reputation and loss of management or employee productivity or the services of such persons; and
2. damages incurred by the Construction Manager or any Subcontractor for principal office expenses including compensation of personnel stationed in the principal office, loss of financing, business and reputation, loss of profit and loss of management or employee productivity or the services of such persons.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination under this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

CONSTRUCTION MANAGER

<name>

<name and title>

OWNER

<name>

<name and title>

C. Pre-Construction Agreement Checklist**OWNER/CONSTRUCTION MANAGER PRE-CONSTRUCTION AGREEMENT**

Item	Included	Title	Notes
1	<input type="checkbox"/>	Waiver of consequential damages	
2	<input type="checkbox"/>	Indemnification only for Early Work	
3	<input type="checkbox"/>	Insurance requirements	
4	<input type="checkbox"/>	Builder's risk waiver of subrogation	
5	<input type="checkbox"/>	CM added as additional insured to builder's risk	
6	<input type="checkbox"/>	Separate fee where applicable for GMP and cost-plus options	
7	<input type="checkbox"/>	Exclude CM from design responsibility	
8	<input type="checkbox"/>	Limit number of estimates	
9	<input type="checkbox"/>	Limit number of meetings	
10	<input type="checkbox"/>	Scope of pre-construction services	
11	<input type="checkbox"/>	Owner obtains building permit	
12	<input type="checkbox"/>	Method for reimbursement for additional services	
13	<input type="checkbox"/>	Payment for reimbursable expenses	
14	<input type="checkbox"/>	Payment term	
15	<input type="checkbox"/>	Termination provision	
16	<input type="checkbox"/>	Owner indemnification for hazmat where applicable	
17	<input type="checkbox"/>	Right to suspend services for nonpayment	
18	<input type="checkbox"/>	Notice provisions	
19	<input type="checkbox"/>	Dispute resolution provisions	