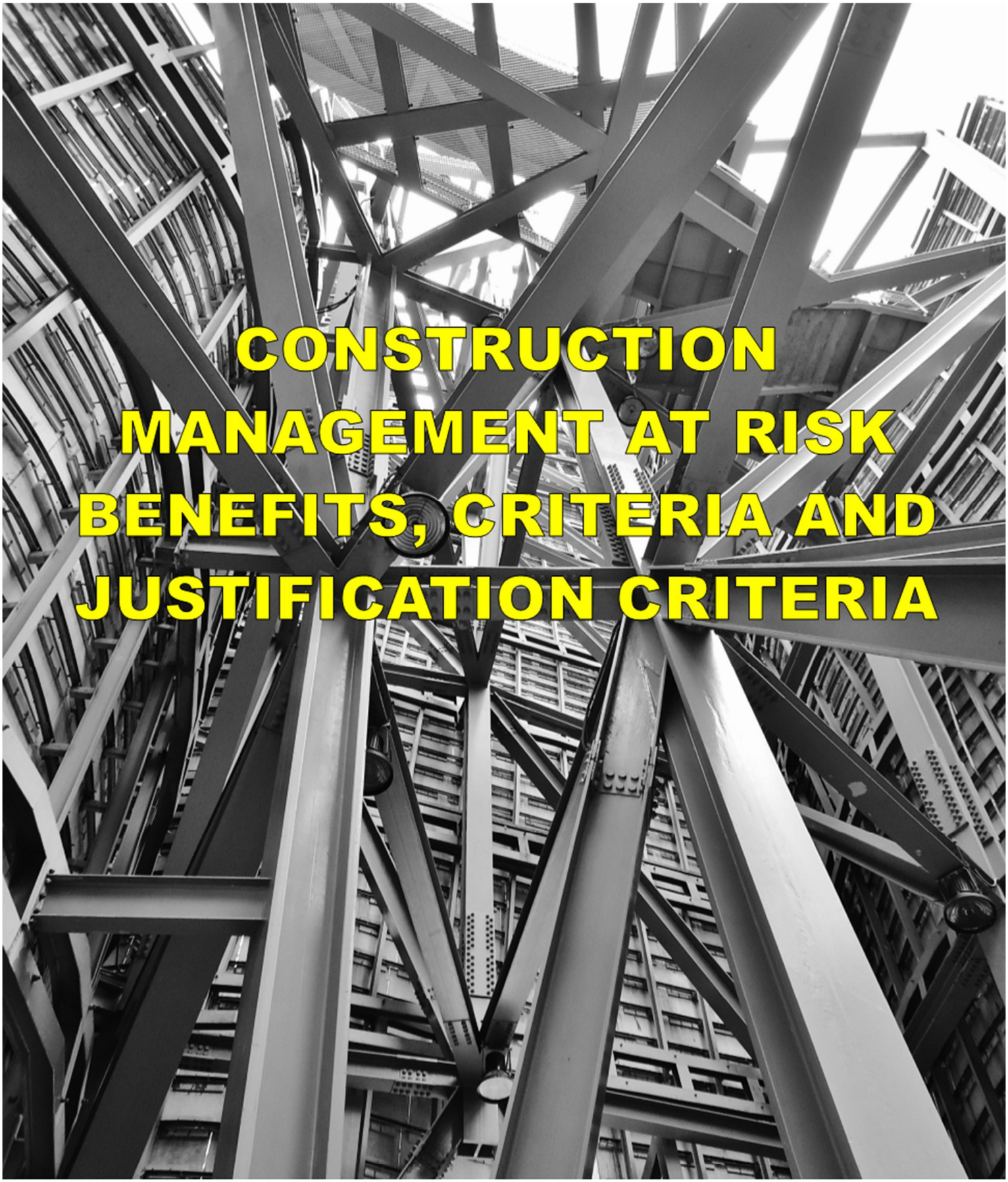

CONSTRUCTION MANAGEMENT AT RISK BENEFITS, CRITERIA AND JUSTIFICATION CRITERIA

ASSOCIATED GENERAL CONTRACTORS OF AMERICA
AGC
THE CONSTRUCTION ASSOCIATION
NASFA

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CONSTRUCTION MANAGEMENT AT RISK BENEFITS, CRITERIA AND JUSTIFICATION

I. Executive Summary

Members of the Associated General Contractors of America ("AGC") and the National Association of State Facilities Administrators ("NASFA") formed a workgroup for the purpose of gathering industry leaders from the Public Agency and Contractor communities to review the use of Construction Management at Risk ("CM-at-Risk") as an alternate contract delivery method. [i] The findings and recommended practices that have evolved from the workgroup highlights the positive aspects of the CM-at-Risk process, documents how it can be beneficial on certain projects, identifies the most common problems encountered during the utilization of this method of procurement and summarily discusses the risks inherent with its implementation. The consensus finding is that while CM-at-Risk is not a "fix-all" process, properly implemented it can aid in the mitigation of typical risks that present themselves in the traditional Design-Bid-Build ("DBB") and Design-Build ("DB") contract delivery methods.

This AGC/NASFA workgroup has determined that there is consensus between the Public Agency and Contractor communities that the CM-at-Risk process has advantages when properly implemented and utilized.

This paper presents the collective opinions and experiences of the workgroup as to the case for implementing CM-at-Risk and the associated benefits and risks. The benefits include more cost certainty, the ability to allow for compressed schedules and more realistic timelines. These are established with the input of a Construction Manager ("CM") early in the design process using pre-construction services. The possible risks include the potential to pay more for the work, the process being administered incorrectly, and decisions not being made on time.

II. Introduction

The construction industry saw a need. Across the country, there is an ongoing and sometimes contentious conversation concerning the use of Construction Management (also known as CM-at-Risk "CM/GC" or "CMAR") as a method for procuring construction of public buildings as an alternative to the traditional DBB and DB contract delivery methods. The various terms are used in different situations and by different owners for a variety of reasons, but for the purpose of this document we intend the terms to be synonymous. The AGC and NASFA formed this workgroup to review and discuss the use of CM-at-Risk and identify the pros and cons of this construction procurement methodology. The group consisted of a broad cross-section of members of the AGC and NASFA communities. It included small and large contractors and NASFA members from across the country representing a wide variety of Agency types from higher education to central government to stand-alone agencies. Due to the variety of input to this document, the terms "Agency", "Campus", "State" and some other terms are used synonymously with "Owner".

The focus of the workgroup was to identify the pros and cons of the use of CM-at-Risk, to help identify when it is appropriate to use CM-at-Risk and what best practices can be shared to help assure success in using this delivery method for a project.

III. Project Delivery Methods

Project delivery method is the process of assigning and allocating the contractual responsibilities for planning, designing, managing and constructing a project. While there are many hybrid project delivery methods, there are typically three basic types of construction contract delivery methods that are employed in public contracting.[ii] The contractual structure between the parties and local/governmental statues fundamentally determines which project delivery methodology is available to be employed. Some state agencies utilize modified standard construction contracts that meet their statutory requirements and policy objectives, while other agencies utilize their own set of contract documents.

Design – Bid – Build (DBB)

DBB is the traditional method in which an Agency contracts with a Designer and a General Contractor ("GC") under separate contracts. Drawings and specifications are developed in advance of construction bid proposals, from which a solicitation package is developed and issued to the construction community for review and pricing. The GC typically has little input or involvement during the design process and is afforded the opportunity to seek clarification as part of this competitive bid proposal process. The award of a construction contract is typically issued to the lowest responsible bidder.

While the DBB delivery method fosters market competition for the lowest initial price possible, it may not be the best option for complex projects nor optimize best value to the Agency. The DBB process is typically best suited for projects that have the following characteristics:

1. Categorized as "standard" construction types: slab on grade, single story, box shaped, etc.
2. Minimal site and/or subsurface complexities are anticipated to be encountered.
3. Sufficient time is available to allow for a coordinated and complete design prior to soliciting GC pricing.
4. Minimal long-lead items are required to be procured.
5. Construction requires the implementation of means and methods that are predictable and in-line with the Architect/Engineer ("A/E") design assumptions.
6. Sufficient time will be afforded the Contractor to perform the work.

Design – Build (DB)

Under a DB contract, the Agency contracts with a single entity, typically with the Contractor leading the team, that will be a single point of responsibility and will provide both the design and construction services for the project. While a set of criteria or preliminary design parameters are provided by the Agency, the Agency is foregoing the direct interaction that it maintains with the A/E under the DBB process in exchange for the Contractor's direct and early involvement in the design process. The concept is that the design construction team forms an alliance that can streamline the entire project

delivery process and work in collaboration to deliver the project more expeditiously and with fewer change orders. This type of delivery system works well for complex projects and projects where sufficient time may not be afforded to develop a coordinated and complete design in advance of contract award.

Construction Manager at Risk (CM-at-Risk)

Under a CM-at-Risk contract, the Agency engages a project Designer and qualified CM under a negotiated contract to provide both preconstruction services and the construction of the project with a fixed fee and Guaranteed Maximum Price ("GMP"). The two most commonly used standard CM-at-Risk contracts published today are by ConsensusDocs, a Coalition effort of 40 organizations, and the series of contract forms as promulgated by the American Institute of Architects (AIA).[i]

CM-at-Risk allows for the early project involvement of a CM who can partner with the A/E and Agency to provide constructability assistance, estimating, design review and early procurement opportunities. Additionally, the start of construction can begin prior to 100% complete design documents. The CM-at-Risk typically also provides detailed cost estimates early in the design phase, so that value engineering and cost reduction ideas can be considered when they are the most easily addressed.

The CM-at-Risk project delivery method differs from the traditional DBB project delivery method in the following ways:

- The timing of when the CM or GC is retained as compared to when the contract price is established.
- The contributions a CM-at-Risk can provide in the design phase BEFORE construction starts versus a GC who begins construction AFTER the design is 100% completed.
- The spirit of cooperation tends to favor the CM-at-Risk approach as their project costs are maintained in an open accounting method viewed by the Agency; and where a fixed fee is competitively provided for their profit, fees, general conditions, etc. In a DBB scenario, the GC has a closed book accounting system where fee/profit is generally sought to be maximized through buyouts and efficiency opportunities.
- The selection of CM-at-Risk is a Qualifications-Based Selection process, which involves pre-qualification based on a contracting firm's financial, resource and management capabilities as compared to selection based primarily on a competitive pricing basis.

IV. Selection of CM-at-Risk Project Delivery Method

Benefits

The decision on which contracting method to employ is based on many factors, including restrictions on budget and time, technical complexity, project phasing and allocation of risk.

In considering whether to utilize the CM-at-Risk project delivery method, it needs to be understood that simply choosing to engage a CM-at-Risk is only one small step in the process and other factors need to be considered to ensure a successful construction project. The use of CM-at-Risk is not a panacea to curing all project causes for failure or cost overruns, nor is it intended as a process that will guarantee success. Rather, it is simply another tool in the Agency's arsenal to establish a more collaborative environment for the Agency, Designer and Contractor to interact.

CM-at-Risk should generally be used only by an Agency with a sophisticated staff of design and/or construction professionals that can commit resources and time to overseeing project development and execution. It requires that Agency representatives involved in the project can make decisions, understand the ramifications of decisions being made and be involved on a regular basis to keep the project moving.

When implemented properly, CM-at-Risk is a very good process for the selection of a CM on complex projects, those who have accelerated schedules, difficult site conditions, intricate phasing and/or special equipment or systems. It offers the Agency the opportunity to use a Qualifications-Based Selection process, in lieu of a competitive bid process and minimize the selection of a CM that may not have the resources or experience to perform the project successfully.

Cost alignment with scope and schedule are best assured by using CM-at-Risk. Having a CM on-board during the design process should continually provide real-time estimates and hard-cost analysis. When properly implemented it will help reduce cost impacts through scope and budget reconciliation throughout the design so construction can commence as planned. CM input and expertise can be essential to providing value engineering, life-cycle cost alternatives and methodology ideas that can better allocate costs and expenses to the critical goals and most appropriate areas of the project. This input is also of tremendous value in the constructability of design solutions and productivity rates involved, which also help to manage costs.

Most often the reasons for choosing to implement the CM-at-Risk project delivery process and the measured success of the project shares the following common elements / goals:

- Foster Collaboration Through an Integrated Team
  - Agency
  - A/E Design Team
  - Construction Management
    - Specialty Trades
- Increase Agency Control & Involvement
- Manage Risk
  - Design / Preconstruction
  - Negotiation of GMP
  - Inclusion of a contingency for the CM in the GMP
  - Construction Process
  - Prequalification of Subcontractors with Agency involvement
  - Open-book process
- Accelerate Delivery
  - Reduce advertisement / bid review process
  - Allows for early CM involvement in schedule development
  - Early start of construction
  - Opportunity for early packages and acceleration
- Increase Flexibility
  - Early work packages
  - Trade specific work packages
- Reduce Cost of Construction
  - Value engineering
  - Independent cost estimates
  - Contract compliance audit

CM-at-Risk is a good delivery method for the right project and for the right Agency. It allows for the selection of the most qualified team for the project at hand. It provides for a better set of construction documents due to the additional review afforded by the early involvement of the CM, which should translate into a lower rate of change orders and better budget control on the project. Due to the collaborative nature of the process the team members can be more likely to resolve issues during the course of the project and the likelihood of legal action at the end of the project should be less likely to occur.

Factors to Consider

Not all projects are good candidates to use the CM-at-Risk process. Before blindly employing the process, a careful review should be undertaken. The three main factors that should be considered when evaluating a project for CM-at-Risk include: 1) Budget; 2) Complexity; and 3) Schedule.

No two projects are the same, and therefore, it is not always possible to perform a statistical comparison of the cost incurred to construct different projects due solely to budget or other cost factors. However, it has been the experience of the workgroup that projects with a projected budget in excess of $5M are typically good candidates for CM-at-Risk. Under this threshold, CM fees are typically higher than the potential cost/schedule savings that may be realized through the implementation of CM-at-Risk.

Complexity covers not only the technical components of the project, but also the user-end component. Specialty building use and the continuity of operations/utility systems while construction proceeds are just a few of the technical complexities that may be encountered. The user component includes minimizing disruption to end-user programs, while maintaining the workforce production necessary to achieve an on-time and on-budget project delivery. Projects that are technical and user complex benefit from having an integrated project team consisting of A/E, CM and Agency, such as afforded under the CM-at-Risk process.

Projects that have restricted construction site/staging areas, require multiple staging and handling of materials, safety concerns, multiple phasing and run concurrent with other construction projects on an area-wide site or campus are good candidates for CM-at-Risk. These items can be discussed and coordinated through the CM and effective solutions can be arrived at ahead of the start of construction rather than trying to sort through site, coordination and material handling issues in a contentious, low-bid process. This has the potential to reduce the CM's overhead expenses. In addition, the ability to issue early trade contractor packages exists, which can expedite the overall project completion by starting work sooner and procurement of long lead-time for materials or equipment early in the process. This allows design and construction to run concurrently and allows an accelerated completion of the project schedule.

Another factor to consider when deciding if a project is a good candidate for CM-at-Risk is risk management. The CM-at-Risk process allows project risks to be identified and mitigated by the CM, the Designer and the Agency working together. The CM-at-Risk contract provides a mechanism to negotiate the allocation of risk between the Agency and the CM through the CM-at-Risk pricing structure.

The project delivery method should be established by the Agency prior to the selection of an A/E firm. The selection of an A/E firm may be contingent upon the type of project delivery method chosen, as certain A/E firms may have more experience with specific project delivery methods.

All team members must fully understand the meaning of CM-at-Risk and what each team member's roles/responsibilities are in the process. To be successful, every team member must be engaged 100% and committed to the project.

Understand your state's requirements. On government projects, statutes and/or ordinances are in place for governing criteria for selection. In many states, the legislature has adopted into law the requirements for a project to qualify as a CM-at-Risk project.

Selection Process

In contrast to traditional DBB selections that may be based primarily on price, the selection of a CM is typically a Qualifications-Based Selection process that is often commenced as early as possible but to maximize effectiveness generally no later than during the schematic design phase of the project. While a selection can be made later in design, it is not recommended since many of the preconstruction benefits may not be realized. The selection of a CM in a Qualifications-Based Selection process occurs through a two-part Request for Qualifications ("RFQ") and Request for Proposal ("RFP") process.

The RFQ is publicly advertised to prequalify CM-at-Risk firms for the project and should list any criteria, unique characteristic or specific complexities of the project that the prospective bidders will be required to address. The Selection Committee members evaluate and score the responses and shortlists those firms that are deemed most qualified to perform the project. It has been the work group's experience that the shortlist is typically limited to three to five firms that will be selected to receive an RFP. The evaluation/score must be based on the information provided in the written RFQ response and not consider past or prior experiences that the Committee may have with the proposers that has not been presented in the RFQ. It also may be necessary to interview the top firms and their team members, should the list of qualified firms need to be pared down. Individual procurement requirements should be consulted for the ability to shortlist respondents and provide interviews.

The RFP is distributed to the shortlisted firms, which are requested to submit a formal response to the RFP and, possibly, a formal presentation and/or interview. As is discussed further below, consideration should be given as to whether the RFP response may include costs for preconstruction services and general conditions along with percentages for the CM-at-Risk fee and mark-up for Agency-initiated change orders. The Selection Committee evaluates/scores the RFP response and interview. This process allows for the Agency to meet the CM team that will be executing their project, which is a huge benefit when procuring a large complex project. The cost component is evaluated and the CM that is deemed the most qualified is selected to begin work with the Agency and the design team.

Factors to consider when evaluating the qualifications of the proposed RFP bidders, should include, but not be limited to, the following:

- Verifiable experience in successfully managing the construction of projects of a similar size and scope;
- Quality of references;
- Qualifications of the individuals proposed for the CM-at-Risk project team, including relevant project experience and accomplishments;
- Safety performance record;
- Surety and insurance limits;
- Detail, clarity and soundness of the project approach proposed;
- Availability to and familiarity with the project locale including the local subcontractor community.

Scoring should be weighted to the assignment to ascertain which CM firm/team is best suited for the specific project (unless otherwise mandated in public procurement laws). For example, one may want to weigh heavier direct relevant experience by the team on similar projects, such as those of similar size and complexity of the proposed project.

On most public projects, statute requires certain criteria, like what is described above, be followed. These criteria are typically noted as "not limited to"; therefore, additional criteria can be added when deemed appropriate for a project. For example, if the project is for historic renovation, the RFQ/RFP would request additional information specifically relating to historic renovations.

Input from major trade contractors (e.g. mechanical, electrical) may be desired during the pre-construction phase of a project to achieve the best value for the Agency. On such projects the RFP will specify criteria for doing such. Selection of trade contractors and suppliers is typically performed in the same manner as the CM. The selection of trade contractors is made after the CM is under contract for preconstruction services and at the appropriate stage/phase of the design and construction process. Major or specialty trade contractors may be selected by the CM-at-Risk on a prequalification/performance basis in conjunction with the Agency, Architect and Engineers, as approved by the Agency. Trade contracts may be awarded to qualified subcontractors on a low cost or best value basis.

Selection Committee

The Selection Committee typically consists of members of the Building Committee and the A/E design team. The Building Committee typically consists of one or two representatives from the Agency that will hold the contract and one or two from the end user Agency. Other committee members may be added relative to project or owner needs. As for the design team, it is typically a representative from the design firm only; however, in some special cases one of the engineers may participate. The Selection Committee members are those ultimately responsible for ensuring the project scope is accurately defined within the RFP and are proposed to be completed within the time and budget parameters specified by the Agency.

The Selection Committee should be comprised of members who can evaluate the validity of the value a CM-at-Risk is offering. Proposed members of the Selection Committee should go through a vetting process. Anyone lacking knowledge of the CM-at-Risk process should attend a training session lead by a team member that is an industry professional. At least half of the committee should include industry professionals that have experience in the CM-at-Risk process and can help those who have limited experience work thru the process.

It is recommended that the Agency establish an approved written policy on the selection process. This will ensure transparency in the selection process and help reduce the risk for challenges/ protests/ lawsuits from CM-at-Risk firms who were not selected to be awarded the contract. It is recommended that a procurement individual either chair the Selection Committee or train the chairperson on awarding a contract based on qualifications with price being a component.

V. Selection of CM-at-Risk Team

There is no truer example of the Greek Philosopher Aristotle's suggestion that "the whole is greater than the sum of its parts", than in the assembly of the project team that will be tasked with ensuring a successful and timely project outcome. Each construction project is unique and will most likely encounter obstacles and events that will have to be overcome to achieve the goal of completing the project within the budgeted cost and time parameters. The team members will be tasked with navigating these obstacles and managing the work through these events.

To facilitate this collaborative process, the project team should be committed to open communication, sharing of thoughts and ideas, constructive criticism and ensuring that time is set aside to conduct periodic meetings to discuss and review the path forward necessary to accomplish the goals established for a successful project.

In selecting the firm or key staff to manage the CM-at-Risk process, the following criteria should be considered.

Agency Project Manager

The Agency's selection of a project manager to represent its interest on the project should focus on assigning an individual that has experience in managing projects of similar size and complexity and has served in a position of responsible charge on projects that have employed alternative delivery methods. While it is not a prerequisite for the project manager to have served on a CM-at-Risk project, the project manager should have the ability and willingness to understand the collaborative process and interaction that is required of all team members to ensure project success.

The assignment of the project manager at the initial stage of the contract process and prior to engagement of an A/E or CM is essential in ensuring proper management of the design, procurement and construction process, from inception through project completion. The project manager should be involved, if not intimately familiar, in the development of the overall project scope, budget and timeline parameters. It is also recommended that the project manager be dedicated, full-time if necessary, to devoting the time necessary to actively participate in the CM-at-Risk process and deliver timely decisions to allow for the design, procurement and construction process to move forward.

To facilitate timely responses to questions that may arise, it is also recommended that a "decision tree" be established at the initial stage of design to allow for identifying the steps necessary to escalate defined issues to the proper decision maker as it relates to:

- Building Function
- Design Parameters
- Contract Party Responsibilities

- Budget
- Schedule
- Changes in the Work
- Impact Events

A/E Design Team

In addition to demonstrated experience in providing design services of similar size and complexity, the selection of the design team should focus on retaining a firm with a proven track record in successfully designing projects that have utilized the alternative contract delivery method, and experience working in a collaborative environment. The A/E should be open to exploring the benefits of employing different materials or systems that may be proposed by the Agency and CM for improvements in function, cost or time to construct.

The collaborative process is unlikely to prove beneficial to minimizing risks inherent in the traditional Design-Bid-Build delivery method if the A/E is unwilling to engage and consider input from the CM as to preferred methods or systems that may prove useful on the project.

The A/E may be required to prepare early release packages for review by the Agency and CM, particularly when complex building structures or phased construction warrants a review of distinct elements of the work (e.g., building envelope vs. interior). In these instances, the A/E should possess the ability and experience to both coordinate the design work of its engineering sub-consultants, but also coordinate the collective team member changes into the final documents issued as construction drawings.

Construction Management (CM)

Traditionally, when an Agency retained an independent CM ("Agency CM") to guard their interests during construction (often starting during bidding period), the Agency CM was a separate business entity with limited liability, but shared one common interest with the Agency, assuring that the project was completed on-schedule, on-budget and at the expected level of quality. With the introduction of CM-at-Risk, the role of the CM as an Agency's advocate during construction is changed with increased liability being transferred to the CM. With the increased liability, the CM's focus on his/her own business interests naturally becomes a significant influence on the decisions they make relative to schedule, budget and quality.

Although the timing of when the CM should be retained is open to debate, it is widely recognized that early engagement of the CM in the design and pre-construction process has proven successful in minimizing problems that can derail the timely and successful completion of a project. The early involvement of the CM in the design process has also reduce the likelihood that the CM will pursue

change orders related to an ambiguity in the design because of their involvement during preconstruction.

Similar to the A/E, the CM should be experienced in performing construction projects that have employed the alternative contract delivery method. Further, the key staff assigned to the project during the design and pre-construction phase should be skilled in value engineering and identifying within the construction documents potential risks that require alternate solutions be considered. To maintain and build-upon the information and knowledge acquired during the design and pre-construction phase, the CM's key staff should be assigned / committed to working on the project into the construction phase and through project completion.

While it is not a pre-requisite for the CM's key staff to have experience working under a CM-at-Risk contract, it is important that the key staff assigned by the CM possess a knowledge of, or experience in, the use of industry standard construction scheduling or cost management resources for forecasting and troubleshooting.

Contract Close-out

Close-out is an important part of a project that must not be overlooked when choosing to implement the CM-at-Risk project delivery method. The CM-at-Risk's close-out procedure should be provided in the RFQ/RFP solicitation with written responses examined by the Selection Committee before the interview. This will allow the Selection Committee to ascertain whether the CM shares the Agency's importance and value of the close-out process, including whether the CM intends to commit adequate time and resources to facilitate the close-out process.

An Agency's RFQ/RFP should outline the Agency and end user requirements as part of the CM-at Risk's close-out process, including the following submissions, if applicable:

- As-Built Drawings
- Operation and Maintenance Manuals
- Warranties
- Attic Stock Inventory
- Keying Information
- Color Schedule
- Contact List of Vendors and Trade Contractors
- Training Videos

A common practice that has been successfully used by the work group involves the development of a close-out "check list", which is attached to the RFP/RFQ. The check list should allow the Agency to choose "close-out" requirements specific to the types of project being procured.

Another tool is a Project Close-Out template, which records project close-out activities. Again, this could be identified as a requirement in the RFP/RFQ solicitation.

Other Considerations:

- Involve project stakeholders (e.g. facilities department, building maintenance staff, etc.) when identifying close-out requirements. They can identify issues that an administrator may not think are necessary but are critical to maintaining the facility.
- Define a specific time-period following substantial completion when close-out work is to be completed.
- The CM should identify which member of its team is responsible for managing close-out.

VI. Early Involvement of CM

In contrast to the traditional GC role, the use of the CM-at-Risk process allows for a CM to be engaged during the design process. While the benefits realized through the early engagement of the CM may vary from project to project, the following are a variety of reasons that are often cited as the basis for the CM's early involvement:

1. The project is of high complexity where the benefits of having the entity who will build it participate and contribute in the development of the design to support construction – changes and cost savings can be realized.

2. Where there are long lead items needing purchase in the design phase, a CM can often procure these items, and manage the fabrication, delivery and installation of the entire process to minimize delays.

3. The project is schedule restrictive, with a CM on board in the design phase, enabling work can begin prior to the documents being 100% complete. Early release scopes may include site clearing, support of excavation, soils remediation, utility installation, foundations and the potential of steel erection. This approach is referred to as "fast tracking".

4. The project is budget sensitive, the CM in the design phase can often collaborate with the A/E and Agency in value engineering efforts to reduce costs through alternative materials, different means and methods and project risk mitigation.

5. The participation of the CM in the design and phasing decisions so that "unbuildable" or costly design details or phasing plans may be avoided, and design/drawing inconsistencies may be limited.

Defining Pre-Construction Services

Pre-Construction services are a critical function of CM-at-Risk, and in most cases, the project will benefit through the early retention of a CM during the pre-construction phase. The CM and their team can provide a critical analysis of the design documents, schedule and projected cost of the project. Constructability review from the CM's perspective has become of paramount importance in helping the design team to assure that documents are complete, coordinated and constructible.

The first work product often requested from the CM on a CM-at-Risk project is the constructability review and cost analysis. During this period, normally between the schematic and preliminary phases, of the project development process the A/E and the Agency can see significant value added with input during the design and early cost models that are created to help assure that the project can be delivered within budget and time constraints. This early work can affect the selection of materials and detailing to allow for a project that is more easily, and cost effectively constructed, while addressing the Agency's needs for an improved life cycle. The Agency, A/E and CM can work as a team to find the best solution

for the project at hand and get the most value within the Agency's financial limitations. This teamwork creates a collaborative environment that provides huge benefits to the project as it progresses.

The A/E also has the opportunity to tailor the design to the CM's strengths and preferred means and methods; to provide more detail and potentially reduce construction time. This collaborative approach with CM-at-Risk project delivery should result in savings in design services. The CM, if brought on early can prevent items from being designed multiple times. In addition, it reduces the Agency's exposure to CM claims and supplemental agreements that arise over design and constructability issues.

However, it is important during the procurement process of CM-at-Risk services for the Agency to ensure that what they are looking for is defined in the documents. It is important to know that preconstruction is not just estimating and budgets. The RFP should be specific in listing out the items that the Agency is requesting of the CM. This allows the competing CMs to price what the Agency wants and allows the Agency the ability to hold the awarded CM accountable.

Some items that should be considered include:

- Estimates and Reconciliation of Estimates – If the Agency hires a third-party consultant to perform a check estimate, these will need to be reconciled.
- Value Engineering Input and Tracking – The CM should be tracking the Value Engineering items that are developed and following up with the design team to ensure that they are incorporated into the documents.
- Constructability Reviews – Indicate that constructability reviews will be required at each iteration of estimate and make sure the CM team involves the Superintendent to review the drawings. These should be "marked-up" drawings with an attached description summary sheet of the items that need more clarification, details or identify an ambiguity that may lead to change orders.
- Coordination Reviews – The CM should be working with the design team to make sure that the equipment that is going in to the space can fit. Many firms engage their BIM departments to concurrently perform clash detection as the drawings are developed.
- CM Plans – These should include logistics, staging, site trailers, parking and delivery hours. These are later incorporated into the bid documents for subcontractors to follow.
- Site Specific Safety Plan – CM should be developing and working with the project team to ensure the safety of all stakeholders. This is extremely important when working on occupied facilities.
- Long Lead Identification and Procurement – CM should identify what long lead items are needed and what early release packages are needed to meet the schedule.

- Master Project Schedule – Develop and maintain with input from project team
- Construction Schedule – To be included in bid packages
- Permitting – Other than construction, what are they needing to obtain?
- Public Meetings – Will they be required to attend, if so, how many are anticipated?
- Design Meetings – Frequency of attendance.
- Enabling Work
- Exploratory Work
- Determination of phasing for projects involving an occupied building
- Planning for and implementing ground breaking and ribbon cutting coordination.

The fee for the pre-construction services is a small percentage of the overall project cost. Depending on the region the services can range from 1% to 5% of the project cost. It has been the collective experience of the workgroup that when executed correctly the benefits of engaging the CM to provide pre-construction services significantly outweigh the cost. The dollar value of the savings from having the CM's input relating to cost, scheduling/logistics and constructability far exceeds the dollar value of the pre-construction fee.

Engagement of CM for Pre-Construction Services

Engagement with a CM is also different from traditional GC procurements. An Agency initially solicits for a CM to perform pre-construction services, which may not include an agreement for the CM to provide construction services. These pre-construction services are project specific as listed above, but commonly contain scheduling, estimating, value engineering and trade or subcontractor prequalification services. The duration of the pre-construction service is typically provided from the mid-schematic design phase through the construction design phase. It has been the experience of the workgroup that pre-construction pricing is often awarded on a lump sum basis.

In instances where the Agency anticipates utilizing the CM to perform pre-construction and construction services, consideration should be given to requesting that the CM include within its pre-construction pricing soft cost construction items (i.e. permitting, engineering, insurances, taxes, etc.). This is done to lock in typical costs during the competitive process for CM selection, versus negotiating after the fact with a CM that is under agreement.

For example, the pre-construction pricing submission will require the CM to provide a fee amount, which is a percent of the total construction cost. At the time of this writing, it has been the experience of the workgroup that CM fees range from 2% to 3% of estimated construction cost. [iii] As the CM has not yet been selected for pre-construction services, this future pricing percentage (also used for general conditions, general requirements, CM contingency, etc.) enables an Agency to competitively select a CM. As such, a CM needs to provide competitive pricing and value to be selected by an Agency to provide both pre-construction and construction services. If these percentages were negotiated after pre-construction is completed and only during the GMP process, the advantage shifts to the CM as the Agency is now dependent upon the CM to continue beyond the pre-construction process on the project and, if not, schedule delays and additional costs could be incurred.

This pricing plan is also advantageous to the Agency. With set amounts for fees and other soft costs, the CM can focus more on partnering with an Agency's team to best accomplish the task at hand. The CM's fee is basically fixed and predictable such that the savings realized from buy-out savings or improved efficiency benefits the project and Agency jointly, and not the CMs bottom-line. This is the tradeoff to receiving a fixed fee.

Engagement of CM for Construction Services

At the conclusion of the pre-construction phase, the Agency has the flexibility to continue with the CM into construction or bid the completed design work under the traditional lump sum manner and sever ties with the CM.

If the Agency continues with the CM into construction, the CM will perform the procurement of all the trades, review their scopes and confirm their pricing. When approved by the Agency, the CM will contract with each Subcontractor and build to a total project cost which becomes the GMP. The project stakeholders do not necessarily have to wait until 100% of the project design is complete before trade contractors are bought out to finalize a GMP with a CM. Often 90% to 95% of the project costs are accounted for with the remaining end of project scopes assigned reasonable allowances which will be bought out later (e.g. items such as landscaping, some finishes, furnishings, etc.). Allowances and exclusions should be minimized as they reduce risk to the CM and put the responsibility for these items back on the Owner/Agency.

Due to the absence or reduction in the competitive bid process for the work by engaging the CM early in the design process, the Agency is typically afforded the opportunity to monitor and audit the construction costs of the project to ensure payment for only those costs necessarily incurred in the performance of the work and identified as reimbursable costs under the CM-at-Risk agreement. This process also allows for the CM to maximize the use of and coordination of MBE/WBE/DBE/Vet sub-contracting.

VII. Construction Phase

The goal is to negotiate a GMP for the project that meets the user's needs, budget and schedule under parameters that are fair and reasonable to the CM. As noted above, at the time of RFP submission, it is recommended that the CM provides percentages or hard numbers for the pre-construction services, general conditions, CM fee, insurance and taxes. Since the construction cost and mark-up vary depending on the project location, size (both square footage & cost), complexity and schedule, the following is a guide based on the workgroup's experience that can be utilized to gauge whether the fees for CM services requested fall within construction industry standards or require further review to determine the factors that may warrant additional consideration of a higher fee percentage:

- Preconstruction Services = 1%-5%
- CM Fee = 3%-5%
- General Conditions = 5%-15%
- Contingency = 1%-5%

The scope of construction services should also be outlined during the procurement and selection process of the CM to ensure that the successful bidder has the capabilities and experience necessary to accomplish the project successfully. Similar to the construction services required under the DBB project delivery method, many of these same services will be required of the CM-at-Risk project delivery method, including, but not limited to, the following:

- Project Supervision and Management
- Cost Estimating and Cost Control
- Procurement of Trade Bids
- Project Scheduling Development and Updating
- Procurement of Permits
- Procurement of Insurances & Bonds
- Implementation of a Safety Program
- Quality Assurance (QA) and Quality Control (QC)
- Project Commissioning

Thought should also be provided as to whether the CM services may also include:

- Building Information Modeling (BIM)
- LEED Coordination & Supervision

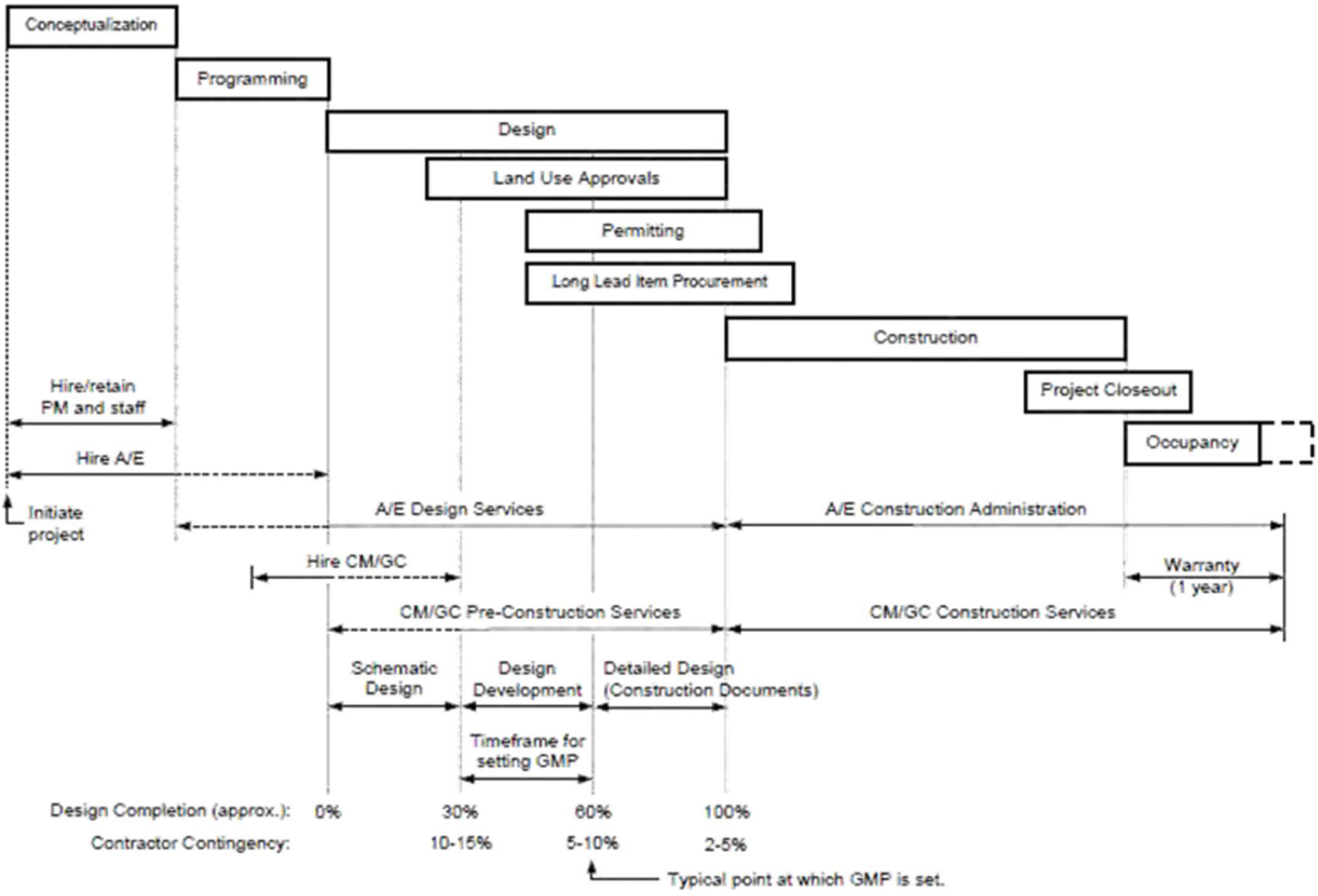
GMP Establishment

As stated in the AGC/NASFA 2007 CM/GC Guide for Public Owners: "At some point – normally at the completion of the construction document stage – the Guaranteed Maximum Price (GMP) is finalized, setting the contract price for the project (including the CM/GC's fee and reimbursable costs). This ensures that the Agency will receive competitive bids for the cost of the work from the Subcontractors and doesn't require the CM/GC to include as much risk protection contingency to cover this risk." [Appendix 1] Simply stated, the later in the design process that a GMP is established, the less "risk protection contingency" is required to cover the risk.

It is recommended that the GMP is established at a point where the design is sufficiently advanced, and the CM can furnish a price with minimal contingency for possible increases in scope. When possible, waiting to establish the GMP until after the construction documents are 100% complete and the CM has been able to solicit competitive subcontract pricing for the main trade work, should minimize the amount of risk protection contingency that will need to be carried within the GMP.

Under an accelerated schedule it may be necessary to consider issuing early work packages, prior to the formulation of the GMP. The typical early work packages that can be issued in advance of finalizing the GMP include site development, demolition, structural and footing packages and equipment procurement of items with long lead times. These types of early work packages require careful attention by all parties for coordination and in most cases require partial building permits, which means the building official must be involved in these early decisions as particularly early foundation and structural packages can get complicated.

Below provides a representative CM/GC Project Timeline for transitioning to a GMP:



It is important that once the GMP is established, a list of the drawings, specifications and other contract documents be prepared to document the basis on which the GMP has been calculated. A list of assumptions and exclusions should be prepared by the CM and reviewed with the Agency and A/E to supplement the information, or lack thereof, that comprises the construction documents.

In instances where the design is not 100% complete and the scope-of-work is not fully defined, two common forms of risk protection that may need to be included within the GMP will be identified as either an allowance or construction contingency. An allowance is an estimate assigned to a specific line-item of work that has not been clearly defined. Whether the allowance value is established by the A/E or CM, it merely serves as a placeholder until such time that the scope can be more clearly defined and competitive pricing obtained from the trade contractors. Once competitive pricing is obtained, a change order may be required to recognize upward, or downward pricing adjustments or construction

contingency may be allocated to recognize the cost savings or overrun within the line-item allowance budget. Due to the uncertainty introduced through the inclusion of allowance items, it is recommended that such allowances be used sparingly and that the allowance budget or "hold" be based on historical information to minimize the cost uncertainty.

In contrast to an allowance, a construction contingency is a fund that is established to offset cost overruns or gaps in scope that are reimbursable under the GMP agreement but were not specifically accounted for within a budgeted line-item. Potential costs include, but are not necessarily limited to: refinements to the project documents as a result of the continuing development of the design, scope gaps between trade contractors, contract default by subcontractors, costs of corrective work not provided for elsewhere, constructability issues and issues related to field conditions which a prudent CM should have reasonably detected during discharge of any preconstruction duties provided by this

CM. The construction contingency is not intended to provide funds for out-of-scope changes or work that was not contemplated under the initial design.

A construction contingency should be incorporated into all CM-at-Risk contracts and a process established to manage contingency fund usage and reconciliation of budgeted line- item adjustments monthly as part of the pay request process. Monthly, a construction contingency usage report should be prepared by the CM and included with the monthly pay request identifying, at a minimum, the following:

- Contingency Funds Used Prior Pay Request
- Requested Contingency Fund Usage Then-Current Pay Request
- Basis for Contingency Fund Allocation (appropriate use of and approval process for use of contingency must be well defined in the contract)
  - Trade Buyout
    - Cost Savings
    - Cost Overrun
  - Omitted Scope from Trade Buyout
  - Corrective Work

While the CM should not be unreasonably denied access to contingency funds to offset certain cost overruns or gaps in scope that are reimbursable under the GMP agreement, the Agency should also be permitted to have increasing control or use of the contingency funds as the project progresses and the budget estimates can be considered more reliable. Written authorization to utilize or re-allocate construction contingency should be required of the Agency but should not be unreasonably withheld. The construction contingency may be applied to any work or other component of the GMP without the necessity of a change order and use of a portion of the contingency does not change the GMP, but

merely serves to reallocate the GMP funds to allow the CM to be reimbursed for this work and cost under a specific line-item.

Consideration should be provided to making the reimbursement of General Conditions costs based on a fixed line-item value, prorated over the project performance period, as compared to reimbursement of actual costs. The purpose of making the general conditions line-item reimbursable as a fixed line-item is to minimize the extensive monthly review process required to submit and review a monthly general conditions billing that is comprised of many small charges (e.g., temporary office and field supplies). Prior to determining the fixed value of general conditions, the parties must prepare a detailed listing of the costs that comprise the general conditions budgets to ensure that disputes do not later arise as to whether these costs should be reimbursable as a separate cost of the work. For example, the Agency and CM should determine during the evolution of the GMP whether security, cleaning, trash disposal, etc. will be reimbursed under general conditions, as compared to a separate line-item of work that is awarded to a trade contractor or vendor.

Savings within the GMP, including un-utilized construction contingency, realized at the completion of the project should be retained by the Agency, unless the contract specifically provides for sharing of the savings between the Agency and CM. The main purpose of allowing the CM to share in the savings (between the target or guaranteed maximum price and actual costs) is to provide a cost incentive in hopes that the CM will keep project costs down. This type of an incentive is only effective when the right to participate is determined prior to the performance of the work and expenditure of project funds. Early into the project stages, when the CM has made few commitments (in the form of labor crews, mobilization of equipment and issuance of purchase orders to vendor/suppliers), there is a better chance of the CM finding more ways to save both time and money.

In the instance that savings are to be shared, the percentage of sharing should be identified within the GMP Agreement and that the distribution of these savings will not occur until the project is 100% complete, final pay request has been submitted and a final reconciliation or audit of the cost of the work has been performed. There are a couple of equally viable approaches to shared savings. One is a static approach in which a static percentage of the savings goes to the Agency and another percentage inures to the benefit of the CM, (e.g., 75% Agency and 25% CM). Another shared savings clause which would be part of a GMP amendment to the CM-at-Risk prime contract would provide an initial breakdown of the savings that would inure to the benefit of the CM and the Agency (*e.g. initially 20% to the CM)*, and gradually increase as the amount of project savings increased until a plateau is reached.[iv]

Analyzing the Final Costs

In contrast to fixed price agreements whereby payment to the Contractor is based on the percent complete of the work, under a CM-at-Risk GMP or cost-reimbursement agreement the CM will be required to support its actual costs prior to reimbursement for same. The issuance of a CM-at-Risk contract, in and of itself, will not result in the realization of lower project costs or savings without active Agency participation. To fully benefit from the use of CM-at-Risk contracting methods, the Agency must verify that the costs being charged by the CM and its Subcontractors are consistent with the terms and conditions of the contract, and the overall method of compensation. Basically, there is very little incentive under a cost-plus-fee contract for the CM to control project costs or ensure that all charges are accurate and contractually reimbursable if the Agency has shown little concern to monitor or enforce same. On these projects, often, the total cost of construction will mirror the GMP sum reimbursable under the contract – rather than the actual cost of construction, which could be significantly less.

The typical payment process under CM-at-Risk requires that the CM submit a monthly request for payment supported by actual cost records, often limiting the payment to the CM to the lesser of the percentage of work complete or actual costs of the work incurred to date. Throughout the submission of monthly pay requests and supporting actual cost support from trade contractors and vendors, the focus on reviewing the accuracy and reasonableness of the pay request is for the work performed in the current period, as compared to evaluating the cumulative cost and supporting cost records that have been submitted to date. Thus, it will be necessary to perform a final project audit or reconciliation prior to release of final payment.

It is often misunderstood that merely because the CM is providing monthly cost support for its actual trade and vendor costs, that it is not necessary to perform a final cost audit or reconciliation. However, there may be many reasons that these actual supporting cost documents, although accurate at the time that the pay request was submitted, prove to be inaccurate or require adjustment at a later date. This particularly concerns trade contractor adjustments for non-conforming work, defaulted contracts or back charges for work performed by others. In certain situations, particularly involving complex projects, it may be necessary to perform an interim audit or reconciliation, to minimize the late identification of costs that have been improperly reimbursed or invoiced.

As part of the final audit or reconciliation process, the CM should be required to submit a final job cost report and accounts payable report or similar reports to serve as the basis for which the final audit or reconciliation will be performed. On projects where the CM self-performs work, additional supporting reports for CM field labor and equipment may also be required. A specific time period should be defined within the GMP contract as to when the CM is required to provide the Agency with access or copies of all project cost documents to perform this final audit or reconciliation, as well as the time for its completion.

The main purpose of a final audit or reconciliation is to verify that the cost charged and reimbursed under the CM-at-Risk contract was consistent with the terms and conditions of the agreement and truly representative of the actual cost necessarily incurred by the CM in the performance of the work. Equally as important is that the audit or reconciliation process provide a forum for the Agency and CM to identify any improvements that should be made on future CM-at-Risk contracts: (a) to the manner in which the CM was reimbursed or accounted for the cost of the work; and (b) by adding contractual language that would assist in the enforcement of the agreement. These improvements can be implemented on the next project in an effort to prevent the reoccurrence of a specific problem or to find savings in areas that otherwise may not exist.

VIII. Lessons Learned

Provided below is an example of the methods employed by a state Agency in the successful implementation of the CM-at-Risk project delivery method, as well as lessons learned (good and bad).

Public Agency Procurement Example - Delaware

Under Delaware public works law (Title 29, Chapter 69), all public works projects over the "large" threshold (currently at $100K), must be publicly bid. From the Delaware Code: "The contracting Agency shall cause suitable plans and specifications to be prepared for all contracts pursuant to this section. All plans and specifications shall be prepared by registered and licensed architects and/or engineers who shall sign the plans and specifications and affix their seals thereto." This essentially requires DBB. Also, of note, is Delaware's special requirement for "public buildings" to name Subcontractors at the time of bid. This requires the CM to name their subcontractors with their bid submission and eliminates any "bid shopping" post-bid. There is no requirement to award separate contracts to separate trade contractors - the CM holds the contract with the Agency and separately subcontracts with the trade contractors.

Additionally, the Delaware Code allows for CM-Agency ("CMA") construction contracts. From the Code: "An Agency may retain, in accordance with subchapter V of this chapter, the professional services of a general contractor or other qualified firm to assist in cost estimation, economic design analysis and construction." CMA firms are selected by "best qualified" procedures under Delaware Code. These CMA firms perform preconstruction design reviews, project logistics planning and cost estimation prior to bidding. The CMA prepares the "bid packages" for the various trades which are publicly bid. Post-bid, they manage the work onsite and assist the Agency similar to a GC; however, they do not have any direct contract authority since the Agency (State) holds all the trade contracts. There is usually a "General Work" Trade Contractor that fills the role that typically a GC would fill; however, this Contractor has no authority over other Trade Contractors. The CMA can "self-perform" some of the work, but this is typically limited in scope and cost. CMA is typically used for the following projects:

- Phased Funding from the Legislature – Since a DBB / General Contractor contract must be awarded all at once with a purchase order set up, phased funding cannot take place.
- Large or Complex Projects – Where the project entails multiple locations, phases or other project criteria that would be better suited to a CMA firm to manage.
- Expensive Projects – Where the bonding authority may be difficult for local/regional Contractors to obtain bonds for the entire project and Subcontractors are required to provide separate bonds for their trade package.

Note- there is no "threshold" for use of CMA, however the Delaware Office of Management and Budget ("OMB") must approve the use of CMA contracts.

Delaware has also used CM-at-Risk, where the CM holds all trade contracts. Since this delivery method is not specifically proscribed in the Delaware Code, special legislative authority has been granted for selected projects to use CM-at-Risk. Under this scenario, the CM is selected early in design to assist in preconstruction activities similar to a CMA. The GMP is established after the design is complete and the trade contractor prices are obtained. Due to concerns from subcontracting firms, Delaware has used specific procedures to prequalify the trade contractors when using CM-at-Risk. The State oversees this prequalification process with the assistance of the CM-at-Risk. Once the prequalified list is complete, the firms on the list solicit pricing to the CM (with the State overseeing the process) for the various trade packages. This ensures there is an "open bidding environment" for subcontractors to participate in the project.

Delaware has also successfully used DB on a few projects. Similar to CM-at-Risk, since DB is not specifically proscribed in the Delaware Code, special legislative authority must be granted to use this method. The Delaware OMB must approve all projects to use DB. DB is used primarily to save time and cost through a concurrent design and construction process

Good CM-at-Risk Experiences

Example 1 - The CM-at-Risk delivery method was used on a $300 million historical building renovation and restoration. With this delivery method, the contracting authority was able to select the CM-at-Risk Contractor for the entire project and then supplement their contract with the work packages as funding became available. Contrasted with the typical DBB method, the contracting authority would have had to bid out work packages as the funding became available resulting in four different prime Contractors. The result was as follows:

1) A single Contractor who was responsible for all work, schedule of work, safety and site logistics throughout the entire project;
2) A single contract and vendor for the contracting authority to manage;
3) Efficiency for all involved by not having to re-educate multiple prime Contractors;
4) Shortened construction schedule; demolition and other work could begin before the design was fully completed; and
5) CM, A/E and Agency partnered for an integrated and collaborative approach throughout design and construction resulting in fewer disputes, no claims and a quality project that was delivered on schedule.

Example 2 - In Virginia, the CM-at-Risk project delivery method was selected to construct a $25 million, three-story, 67,347 square foot classroom building with science labs and a black box theatre. The project also included a $6 million, four-story, 350-car parking deck with a connector bridge to the new building. The CM-at-Risk method was selected due to the extremely aggressive project schedule and the complex nature of the science labs. The CM-at-Risk process allowed multiple design packages and contract amendments to allow the CM to begin construction while the building was still in design. Multiple design packages would not have been an option with a DBB project delivery method. The packages included an early site package, a footing and structural steel package for the building, a final building package and parking deck package.

This project was similar to other CM-at-Risk projects in that there is more of a team atmosphere among all team members (Agency, A/E, CM and Subcontractors). This working relationship began in the design phase with everyone working together to develop an efficient and buildable design, which was then strengthened by the stakeholders committing to resolve issues that arose in the construction phase. Another contributor to this relationship was the CM and Agency's management of contingency funds that covered minor design flaws in the drawings and mistakes made in construction. In DBB construction the Contractor is not required to have a contingency, so any design mistakes would be handled through change orders. Subcontractors are often working under tighter budgets with a DBB project and are quick to submit change order requests.

Bad CM-at-Risk Experience

During the pre-construction process, a dispute arose between the CM and A/E design team at the end of the design development phase of a $50 million project, where the CM and the A/E team were required to perform cost estimating and then reconcile any differences in their estimates. The CM's cost estimate was $5 million more than the A/E's and each party insisted their estimate was the more accurate. They were able to reconcile approximately $2 million, but that still left a $3 million difference. Since the A/E would have to perform redesign work to reduce the cost; they continued to challenge the CM's estimate resulting in a contentious relationship where the contracting authority had to step in to facilitate the mending of relationships. When bids were received, the CM's estimates were the more accurate. The lesson learned was to select firms who are experienced and willing to collaborate to resolve conflicts.

IX. Training and Education

All entities involved with CM-at-Risk projects should strive to increase their knowledge of the process and how to improve it. This process can start at the end of the project with "an end of project meeting" including all of the project team members participating in reviewing and documenting "lessons learned" for the project. This information should be a historical reference or case study to be used by all parties to improve upon the next CM-at-Risk project.

The Agency, A/E and CM should be encouraged to share their experience and the lessons learned and actively participate in local conferences and other forums where CM-at-Risk is a topic of discussion. The more the CM-at-Risk process is discussed in a forum setting with all entities present, the more individuals will learn and be able to contribute to its successful use and implementation on future projects.

As the CM-at Risk project delivery approach grows in popularity and is implemented by more Agencies this project delivery method will continue to improve and be refined. Training, continued education and sharing of experiences (successes or failures) is vital to the success of the CM-at-Risk approach and ultimately, the projects being constructed and the success of the stakeholders responsible for delivering these projects.

X. Summary

The collective experience of the AGC/NASFA workgroup suggests that CM-at-Risk has proven to be a beneficial and valuable project delivery method when applied in the proper setting and with the proper controls in place. As with the more traditional project delivery methods, the successful application of CM-at-Risk is dependent, in large part, on the experience and capabilities of the parties involved.

Benefits of the CM-at-Risk delivery method include the early involvement of a CM who can partner with the A/E and Agency to provide constructability assistance, estimating, design review and early procurement opportunities; and the ability to start construction prior to 100% complete design documents. Pre-Construction services have proven to be a critical function of CM-at-Risk, and in most cases, the project will benefit through the early retention of a CM during the pre-construction phase. The largest benefit realized through the implementation of CM-at-Risk is the collaborative effort that is fostered to encourage the Agency, A/E and CM to work toward a unified goal of delivering the project within the established budget and time constraints.

Each construction project is unique and will most likely encounter obstacles and events that will have to be overcome to achieve the goal of completing the project within the budgeted cost and time parameters. For this to occur, the CM-at-Risk team members that will be tasked with navigating these obstacles and managing the work through these events must fully understand the meaning of CM-at-Risk and what each team member's roles/responsibilities are in the process.

To facilitate this collaborative process, the project team should be committed to open communication, sharing of thoughts and ideas, constructive criticism and ensuring that time is set aside to conduct periodic meetings to discuss and review the path forward necessary to accomplish the goals established for a successful project.

The use of CM-at-Risk, however, is not a panacea to curing all project causes for failure or cost overruns, nor is it intended as a process that will guarantee success. Rather, it is simply another tool in the Agency's arsenal to establish a more collaborative environment for the Agency, A/E and CM to interact. Not all projects are good candidates to use the CM-at-Risk process. Before blindly employing the CM-at-Risk delivery process, a careful review as to the benefits and risks should be undertaken as outlined within this paper.

XI. Appendices

a. Reference / Industry Publications

1. "Best Practices for use of Best Value Selections, A Joint Publication of AGC and NASFA"
2. "ConsensusDocs Guidebook 2016"
3. "CM/GC Guidelines for Public Owners 2nd Edition (2007), A Joint Publication of AGC and NASFA"
4. "Project Delivery Systems for Construction 3rd Edition" (2011) published by AGC of America.

b. Websites

1. https://www.agc.org/cm-risk

c. Samples

1. Attachment A – RFQ – Virginia
2. Attachment B – RFP – Virginia
3. ConsensusDocs 500 Standard Agreement and General Conditions Between Owner and Construction Manager (Where the CM is At-Risk) 2017 edition https://www.consensusdocs.org/contract/500-2/
4. State of Ohio: "Project Delivery Method Comparison Guide" http://ofcc.ohio.gov/Portals/0/Documents/Resources/Reform/ProjectDeliveryComparisonGuide.pdf
5. Construction Management Association of America (CMAA): "An Owner's Guide To Project Delivery Methods" http://cmaanet.org/files/owners%20Guide%20to%20Project%20Delivery%20Methods%20Final.pdf
6. American Institute of Architects (AIA): "Understanding Project Delivery" http://www.aia-mn.org/wp-content/uploads/project_delivery.pdf

Endnotes

[ii] Throughout this paper the term Agency is used to refer to a public agency owner or government agency owner that is charged with letting contracts for the design, planning, management and construction of public facilities.

[ii] Public Private Partnership ("PPP") and Integrated Project Delivery ("IPD") are gaining more traction as alternate project delivery methods being considered and implemented in public agency projects. However, for the purpose of this paper and in recognition that these methods have not yet been fully embraced by most public agencies, these alternate project delivery methods have not been included within the methods.

[i] See the ConsensusDocs 500 Standard Agreement and General Conditions Between Owner and Construction Manager (Where the CM is At-Risk) 2017 edition https://www.consensusdocs.org/contract/500-2/; American Institute of Architects (AIA) A133-2009, Standard Form of Agreement Between Owner and Construction Manager as Constructor where the basis of payment is the Cost of the Work Plus a Fee with a Guaranteed Maximum Price. https://www.aiacontracts.org/contract-doc-pages/27151-construction-manager-as-constructor-cmc-family

[iii] The actual CM fee awarded may vary based on various factors, including the complexity of the project, availability of qualified CMs to perform the work, and risk-allocation provisions that are contained within the CM-at-Risk agreement.

[iv] See the ConsensusDocs Guidebook to the ConsensusDocs 500 CM at-Risk Standard Agreement that provides an initial savings of 20%that increases up to 30% once a project savings exceed ten million dollars. www.ConsensusDocs.org/Guidebook.

REQUEST FOR QUALIFICATIONS

Issue Date: , 2017 RFQ # CM-RFQ

Title: Construction Management at Risk
Request for Qualifications (Step 1 of 2)
Virginia Community College, Campus

Project Code:

Commodity: 95826, 90900, 91200, 91831 Non-Professional Services and Construction Services

Issuing Agency & Address: **Virginia Community College System (VCCS)**
Facilities Management Services
300 Arboretum Place, Suite 200
Richmond, VA 23236

Location of Work:

Statements of Qualifications are invited for the project at the Campus of Community College. **Statements of Qualifications will be received until 4:00 p.m. local time on , 2017.** All SOQs must reach the above address by the deadline stated.

All inquiries for information should be directed to Ms. Sibyl Roberts, Virginia Community College System, Phone: (804) 819-4918, Email: sroberts@vccs.edu

IF STATEMENT OF QUALIFICATIONS (SOQ) IS MAILED, SEND DIRECTLY TO ISSUING AGENCY SHOWN ABOVE. IF SOQ IS HAND DELIVERED, DELIVER TO THE SAME: **Attention: Ms. Sibyl Roberts**

Name and Address of Submitting Firm:

_____ Date: _____

_____ By: _____
(Signature in Ink)

_____ Typed Name _____

_____ Zip: _____ Title: _____

FEIN/SSN # _____ Telephone No. ( ) _____

Virginia Contractor's No. : _____ E-mail: _____

eVA Vendor: ☐ Yes ☐ No

Please check one of the following boxes:

☐ Offeror does not wish to request that the information supplied in this response to the RFQ be considered trade secret or proprietary information in accordance with § 2.2-4342(F) of the *Code of Virginia*.

☐ Offeror does wish to request that the information supplied in this response to the RFQ be considered trade secret or proprietary information in accordance with § 2.2-4342(F) of the *Code of Virginia*. A written notice is attached hereto, which specifies the data or material for which the Offeror is specifically claiming trade secret protection and provides the reasons why such protection is necessary. Failure to provide the required written notice, with specified date or material, will result in information being declared non trade secret by the issuing Agency. **The entire RFQ Response may not be designated trade secret or proprietary.**

1. Purpose / Project Description:

Purpose: To solicit Statements of Qualifications (SOQ's) from firms with experience in similar projects. Shortlisted firms will receive a Request for Proposal (RFP). The selected firm will provide preconstruction services such as value engineering, cost estimating and constructability analyses, project tracking and scheduling. The selected firm may also provide construction period services contingent upon the firm providing a Guaranteed Maximum Price ("GMP") agreeable to the Owner.

Background and Scope:

~~The VCCS has engaged an architectural firm for a comprehensive renovation of 141,465 sq. ft. at Seafeldt Building on Northern Virginia Community College's Woodbridge Campus. The Seafeldt Building was constructed in two phases in 1978 and 1990. This project will include reconfiguration and modernization of all spaces, new finishes, ceilings, flooring, casework and replacement of all major building components. The scope will include such items as replacing or modifying plumbing and electrical and lighting systems, building automation, fire/life safety systems, energy efficiency, ADA compliance and replacing heating, ventilating, and air conditioning (HVAC) units and distribution. Necessary enhancements also include addition of an emergency generator, and upgrades to the technology infrastructure. Doors, windows, louvers and other building envelope penetrations will be replaced with energy efficient components. The entire envelope will be re-worked and repaired as necessary. New windows or clerestory lighting or light monitors may be added to increase the amount of natural light to the interior of the building. Given the extensive scope of the renovation work to be performed in conjunction with this project, temporary classroom, administrative & faculty office, and special purpose modular units may be required in order to facilitate continued uninterrupted operation of the campus.~~

Offerors are to refrain from contacting personnel employed by the College or the AE for purposes of requesting tours or for any other purpose relating to the project. Organizations that qualify to submit proposals (i.e., "short-listed" organizations) will be provided additional information as is available along with the Request for Proposals.

Anticipated Construction Start Date:
Anticipated Construction Duration:

2. Justification for CM at Risk or Design-Build Procurement Methods:

Due to the phased construction requirement for the nursing labs to be completed in time to meet the college's operation schedule, the amount of coordination necessary with the renovation of existing space and addition of new space to an older structure, competitive sealed bidding is not advantageous because low-bid contractors have little control over what subcontractors will submit the lowest bids. CM at Risk is advantageous because of the need for careful coordination of the phased construction required in occupied buildings, and the complex mechanical & electrical systems to serve laboratory spaces. A CM at Risk will also provide design phase services such as cost estimating and review of designs for constructability and coordination, and scheduling.

3. Submission Requirements:

a. **Five (5) hard copies and one electronic copy are required. This includes one original, which shall be clearly marked,** and four additional copies. SOQs should be prepared simply and economically, providing a straightforward, concise description of the firm's capabilities. Emphasis should be on completeness and clarity of content. All documentation submitted with the SOQ shall be included in a single bound volume.

b. Submissions shall include the following documents in this order:
- The completed signature page of this request;

- The completed **CO-16** (VCCS Rev.09/16) with referenced and required attachments (i.e., bonding letter, project listings, organizational chart, key personnel resumes, etc.);
- The completed **VCCS-CO-16a** (VCCS Rev.09/16);
- The completed SCC form.

c. The Owner recognizes the possible existence of confidentiality agreements between an Offeror and previous clients and fully respects such agreements. Any information requested that is considered to be confidential between the Offeror and a previous client shall be marked proprietary by the Offeror.

d. The Owner reserves the right to visit the office(s) of an Offeror to verify any claim(s) made by an Offeror regarding staff, facilities, capabilities, qualifications and any other reasonable concerns that may arise on the part of the Owner. In such an event, the Offeror must make every reasonable attempt to clarify any concerns expressed by the Owner.

e. The Owner will not be responsible for any costs incurred by an Offeror in response to this RFQ.

f. In the event the Offeror discovers an error in its submission, attention may be drawn to the error by providing a written amendment to the initial Qualifications submission. All amendments shall be received by the Owner on or before the date and time fixed for receipt of Qualifications. The Offeror shall define who is authorized to approve amendments/changes. If an error is discovered after the time and date of receipt of the RFQ response, the Offeror may withdraw from consideration, but the error correction will not be accepted by the Owner.

g. As noted above, Offerors may contact, in writing, the designated Owner point of contact for any required clarifications on this RFQ**.** Offerors are to refrain from contacting the Owner personnel for purposes of requesting tours or for any other purpose relating to the project.

4. Evaluation:

Statements of Qualifications will be evaluated by selection committee based on the criteria listed below (in no particular order of importance). The Owner reserves the right to ask for additional or project specific information in subsequent Request for Proposals (Step 2) that will be issued to the shortlisted Offerors.

- Legal Proceedings or Claims
- Personnel and Team Experience
- Financial Capability to Perform the Work (including Evidence of Bonding Capacity)
- Approach to Managing a Construction Management at Risk Project
- Approach to Small, Women and Minority Owned Business Participation
- References

5. Prequalification and Notification:

The selection committee will evaluate each responding firm's Statement of Qualifications and any other relevant information and shall determine those deemed most qualified with respect to the criteria established for the project. The evaluation process shall result in a short list of two to five offerors to receive the subsequent RFP. An offeror may be denied prequalification only as specified under the Code of Virginia § 2.2-4317, but the short list shall also be based upon the RFQ criteria.

The Owner will provide written notice to all firms which are not “short-listed” to allow for a 10 day appeal period. After the 10 day period has passed, the short-listed firms will be notified of their selection to move to the RFP stage and will be provided the RFP.

The selection committee will send an RFP to the shortlisted firms, requesting submission of a formal proposal from each. After evaluation of the proposals, the Owner shall conduct negotiations with two or more offerors submitting the highest ranked proposals. The contract shall be awarded to the offeror who is fully qualified and has been determined to have provided the best value in response to the Request for Proposal.

Should the Owner determine, in writing and at its sole discretion, that only one offeror is fully qualified or that one offeror is clearly more highly qualified than the others under consideration, a contract may be negotiated and awarded to that offeror.

Attachments:

1. CO-16 (VCCS Rev.09/16) (to be completed by Bidders/Offerors in response to the RFQ and the qualification criteria provided herein);
2. VCCS-CO-16a (VCCS Rev.09/16) (to be completed by Bidders/Offerors in response to the RFQ and the qualification criteria provided herein);
3. SCC form.

QUALIFICATION CRITERIA

I. BONDING:

A. STANDARD BONDING: Contractor can secure bonding for this project in an amount equal to or greater than the estimated construction cost from a surety company **(1)** listed in the United States Department of Treasury, Federal Register, **Circular 570: Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies;** and **(2)** licensed to transact surety business in the Commonwealth of Virginia.

B. SELF-BONDING PROGRAM: Contact Owner for additional details.

C. CAPACITY: The capacity the organization has to meet the project schedule and demands given its current workload.

II. EXPERIENCE AND PERFORMANCE ON PROJECTS OF SIMILAR SIZE AND SCOPE:

This includes consideration of references and client feedback from past and ongoing projects and a demonstrated ability to maintain project schedule and budget.

Firm Experience:

The contractor or contractor's office that will handle this project has undertaken **at least three (3) construction projects of similar or comparable scope, approximately 80,000** gross square feet including BOTH **renovation and building additions including phased construction in occupied facilities** (see RFQ for additional scope information) **within the last ten years.** The projects shall be sufficiently comparable so that the agency may conclude that the contractor is familiar with and capable of handling the project(s) described herein.

Project Team/Staffing:

1. The successful organization shall provide and maintain an experienced, professional project team that is tailored to the size, complexity and scope of work of the Project. It is recognized that the composition of the team will vary in response to the particular phases and needs of the Project. However, the Proposer is obligated to provide sufficient staffing with the qualifications required to expertly manage all construction activities relating to the Project at all times.
2. By submitting a response, the Proposer agrees that no individual assigned to the Project shall be removed from the Project without the prior consent of the Owner.
3. If the Proposer wishes to reassign an individual from the team assigned to the Project to another Project, the Proposer must make a formal, written request to the Owner and must verify that the Owner has received the request not later than ten (10) working days prior to the intended date of reassignment.
4. The Owner will make the final, binding decision on a release from the Project of a member of the team not later than five (5) working days from the intended date of reassignment.
5. The above process may be waived in cases of personal emergency or extreme personal hardship or duress. The burden of proving such conditions to the Owner remains with the Proposer. In cases in which the Owner requests the removal of a member of the team for the remainder of the duration of the Project, the Proposer's Project Manager or Principal-in-Charge will act upon such cases promptly and will, within 72 hours, propose a replacement to the Owner.

Key Personnel Experience:

The Project Executive proposed to be assigned to this project has **served as Project Executive on at least three (3) construction projects of similar or comparable scope, approximately 80,000** gross square feet including BOTH **renovation and building additions including phased construction in occupied facilities** (see RFQ for additional scope information) **within the last ten years.** Equivalent or comparable experience may be considered,

at the agency's sole discretion; however, it shall be sufficiently similar so that the agency may conclude that the proposed Project Manager is familiar with and capable of handling the project(s) described herein.

The Project Manager proposed to be assigned to this project has **served as Project Manager on at least three (3) construction projects of similar or comparable scope**, approximately 80,000 gross square feet including BOTH **renovation and building additions including phased construction in occupied facilities** (see RFQ for additional scope information) **within the last ten years.** Equivalent or comparable experience may be considered, at the agency's sole discretion; however, it shall be sufficiently similar so that the agency may conclude that the proposed Project Manager is familiar with and capable of handling the project(s) described herein.

The Superintendent proposed to be assigned to this project has **served as Superintendent on at least three (3) projects in the last ten years of similar or comparable scope, one of those within the past five years.** Equivalent or comparable experience may be considered, at the agency's sole discretion; however, it shall be sufficiently similar so that the agency may conclude that the proposed Project Manager is familiar with and capable of handling the project(s) described herein.

III. JUDGMENTS:

Any judgment(s), whether one or several, entered against the contractor for breach of contract for construction within the past ten (10) years may be grounds for denying prequalification, at the agency's sole discretion, after due consideration of the date(s), amount(s), facts and circumstances.

IV. SUBSTANTIAL NON-COMPLIANCE:

Any of the following may be grounds for denying prequalification, at the agency's sole discretion, after review and consideration of the dates, facts and circumstances.

The contractor:

- in the last three (3) years has **received a final order for failure to abate or for a willful violation** by the US OSHA or by the Virginia Department of Labor and Industry or any other government agency; or
- has **paid liquidated damages** for failure to complete a project by the contracted date on more than two (2) projects in the last five (5) years; or
- has **paid actual damages** resulting from failure to complete a project by the contracted date on more than two (2) projects in the last five (5) years; or
- has **been terminated** for cause on a contract in the last five (5) years; or
- was **more than thirty (30) days late, without good cause,** in achieving the contracted substantial completion date where there was no liquidated damage provision on more than two (2) projects in the last three (3) years; or
- has **received more than two (2) cure notices** on a single project in the past two (2) years and/or more than one (1) cure notice on five (5) separate projects in the past five (5) years; or
- has **had repeated instances** on a project of i**nstallation and workmanship deviations which exceed the tolerances in the standards referenced** in the contract documents. Documentation of such instances shall be the written reports and records of the owner's representatives on the project; or
- has **finally completed a project** more than 90 days after achieving substantial completion on two (2) or more projects in the last three (3) years, for reasons within the contractor's control. Documented delay of delivery of material necessary to perform remaining work or seasonal conditions that bear on performing the work or operating specific equipment or building systems shall be considered in mitigation; or
- has had **Performance or Payment Bond claims paid on its behalf** in the last three (3) years.

NOTE: ***If the agency intends to deny prequalification based on any of the above, it shall obtain written documentation evidencing same, pursuant to Section 2.2-4317 of the Code of Virginia, prior to such denial.***

V. CONVICTIONS:

Any of the following may be grounds for denying prequalification, at the agency's sole discretion, after review and consideration of the dates, facts and circumstances.

The contractor or any officer, director, project manager, procurement manager, chief financial officer, partner or owner of the construction company in the past ten (10) years:

a) has **been convicted** on charges relating to **conflicts of interest**;
b) has **been convicted** on charges relating to any **criminal activity** relating to contracting, construction, bidding, bid rigging or bribery;
c) has **been convicted** on charges relating to **employment of illegal aliens** on construction projects;
d) has **been convicted**: (i) under Va. Code Section 2.2-4367 et seq. (Ethics in Public Contracting); (ii) under Va. Code Section 18.2-498.1 et seq. (Va. Governmental Frauds Act); (iii) under Va. Code Section 59.1-68.6 et seq. (Conspiracy to Rig Bids); (iv) of a criminal violation of Va. Code Section 40.1-49.4 (enforcement of occupational safety and health standards); or (v) of violating any substantially similar federal law or law of another state.
e) has **been fined or adjudicated of** having failed to abate a citation for building code violations by a court or a local building code appeals board.

VI. DEBARMENT & ENJOINMENT:

The following may be grounds for denying prequalification, at the agency's sole discretion, after review and consideration of the dates, facts and circumstances:

The contractor or any officer, director, project executive, project manager, procurement manager, chief financial officer, partner or owner of the construction company in the past ten (10) years: has been **debarred** or **enjoined** by any agency or political subdivision of the Commonwealth of Virginia, by any agency of the United States, or by any agency of another state.

VII. AGENCY QUALIFICATION CRITERIA:

The Owner may also consider other aspects of the qualifications statements as it deems appropriate in evaluating the responses: Approach to managing a CM at-Risk project based on description in general of the process, procedures and strategies utilized, including pre-construction services.

VIII. SMALL BUSINESS PARTICIPATION:

Approach to meeting the aspirational goal of the Commonwealth of a minimum 42% participation by Small Businesses. Target Goal: Under Executive Order 20, July 22, 2014, Cabinet Secretaries and all executive branch agencies have been directed to continue and advance the following on a race and gender neutral basis: Exceed a target goal of 42% of all discretionary spending with small businesses certified by DSBSD.

DGS-30-384
(Rev. 04/15)

Vendor eVA Registration Requirements

eVA Vendor Registration: The eVA Internet electronic procurement solution (http://eVA.virginia.gov) streamlines and automates government purchasing activities for the Commonwealth. The eVA portal is the gateway for vendors to conduct business with state agencies and public bodies. All vendors desiring to provide construction and/or professional services to the Commonwealth shall participate in the eVA electronic procurement solution. All bidders or offerors must register in eVA; failure to register will result in their bid/proposal being rejected. There are no fees to register, however, transaction fees apply as follows:

The Vendor Transaction Fee shall be:
(i) DSBSD-certified Small Businesses: 1%, capped at $500 per order.
(ii) Businesses that are <u>not</u> DSBSD-certified Small Businesses: 1%, capped at $1,500 per order.

eVA Contracts and Orders: The solicitation/contract will result in <u>one (1)</u> purchase order(s) with the eVA transaction fee specified below assessed for each order.

The Vendor Transaction Fee shall be:
(i) DSBSD-certified Small Businesses: 1%, capped at $500 per order.
(ii) Businesses that are <u>not</u> DSBSD-certified Small Businesses: 1%, capped at $1,500 per order.

The eVA transaction fee will be assessed approximately 30 days after each purchase order is issued. Any adjustments (increases/decreases) will be handled through eVA change orders.

The eVA transaction fees listed above are per the eVA Fee Schedule, revised 7/1/2014. Please refer to the eVA website for subsequent fee revisions.

DSBSD is the Virginia Department of Small Business and Supplier Diversity, a new department which went into effect 1/1/2014. The operations of the former Department of Minority Business Enterprise (DMBE) are currently being transitioned into DSBSD. Until such time as the transition is complete, consider "DSBSD-certified" and "DMBE-certified" to be equivalent terms.

DGS-30-467 (4/15)
(VCCS Modified 01/17)

REQUEST FOR PROPOSAL

Issue Date: October 2, 2017 RFP # 18162CM-RFP

Title: Construction Management at Risk
Request for Proposals (Step 2 of 2)
Northern Virginia Community College, Woodbridge Campus
Renovate Seefeldt Building
Project Code: 260-18162

Commodity Codes: 95826, 90900, 91200, 91831 Non-Professional Services and Construction Services

Issuing Agency & Address: **Virginia Community College System**
Facilities Management Services
300 Arboretum Place, Suite 200
Richmond, Virginia 23236

Location of Work: NVCC Woodbridge Campus, Prince William County, Virginia

All inquiries for information should be directed to Ms. Sibyl Roberts, Virginia Community College System, Phone: (804) 819-4918, Email: sroberts@vccs.edu

IF PROPOSAL IS MAILED, SEND DIRECTLY TO ISSUING AGENCY SHOWN ABOVE. IF PROPOSAL IS HAND DELIVERED, DELIVER TO THE SAME: **Attention: Ms. Sibyl Roberts**

PROPOSALS for furnishing the services described herein will be received until **4:00 P.M. local time on Thursday November 2, 2017**. All PROPOSALS must reach the above address by the deadline stated.

In compliance with this RFP, which includes the attached Table of Contents and all provisions and appendices attached and referenced therein, and subject to all the terms and conditions set forth herein, the undersigned offers and agrees to furnish the services in accordance with the attached RFP. It is understood that this RFP and the scope of services may be modified, by mutual agreement, in subsequent negotiations.

Name and Address of Offeror:

_____ Date: _____

_____ By: _____
(Signature in Ink)

_____ Typed Name: _____

_____ Zip: _____ Title: _____

FEIN/SSN # _____ Telephone No. ( ) _____

Virginia Contractor's No.: _____ E-mail: _____

eVA Vendor: ☐ Yes ☐ No

Please check one of the following boxes:

☐ Offeror does not wish to request that the information supplied in this response to the RFP be considered trade secret or proprietary information in accordance with § 2.2-4342(F) of the Code of Virginia.

☐ Offeror does wish to request that the information supplied in this response to the RFP be considered trade secret or proprietary information in accordance with § 2.2-4342(F) of the Code of Virginia. A written notice is attached hereto, which specifies the data or material for which the Offeror is specifically claiming trade secret protection and provides the reasons why such protection is necessary. Failure to provide the required written notice, with specified date or material, will result in information being declared non trade secret by the issuing Agency. **The entire RFP Response may not be designated trade secret or proprietary.**

TABLE OF CONTENTS

Attachments:

1. Project Description
2. Construction Phase Scope of Services
3. Preconstruction Phase Scope of Services
4. eVa Vendor Registration Requirements
5. Price Proposal Form for Construction Manager "At Risk" Services
6. Form CO-9CM(1) - Commonwealth of Virginia Contract Between Owner And Construction Manager ("CM") For Part 1 – Pre-Construction Phase Services, including Terms and Conditions
7. Form CO-9CM(2) - Commonwealth of Virginia Contract Between Owner and Construction Manager "At Risk" For Part 2 – Construction Phase Services and the General Conditions of the Construction Manager "At Risk" Construction Contract (CO-7CM)

I. DEFINITION OF TERMS IN RFP

The following terms used in this RFP shall have the definitions and meanings as shown below:

Construction Manager or Construction Manager "At Risk" (CM): The person, firm or other legal entity who proposes to provide all pre-construction and construction services for the project. The CM is hereinafter also called the Contractor in this Request for Proposal.

Cost of the Construction Work: The "Cost of the Construction Work" is generally defined as the direct costs of labor, materials, equipment, associated costs of the trades/subcontracts which are incorporated into the completion of a project, any required payment and performance bonds, and any other insurances, licenses or other items as identified in the Request for Proposal (RFP).

Contractor's (CM) Fee: The sum included in the Guaranteed Maximum Price (GMP) to compensate the Contractor or CM for home office expenses, overhead, and profit during the construction phase of the Contract, subject to modification by Change Order issued by the Owner's Agent to the CM.

General Conditions Fee: The "General Conditions Fee" is generally defined as the total compensation amount payable to the Contractor for his on-site supervision, project specific management personnel such as project managers and office engineers, inspections, labor, etc. including markups as required by the General Conditions during the construction phase of the Contract. This Fee is included as a separate line item in the Guaranteed Maximum Price (GMP) and is subject to modification by Change Order. The "General Conditions Fee" includes those items of cost and or work as follows and the cost of these items/work are included in the Construction Manager's General Conditions Fee. The "General Conditions Fee" is to be considered as a fixed amount and shall be inclusive of the Project Scope of Work as defined in the RFP. The "General Conditions Fee" is to be inclusive of both project site and home office costs required to execute the requirements for the Project. The Constructions Manager's General Conditions Fee Proposal attached to the Contract shall include a unit rate that would be used as a basis for an increase in the Fixed General Conditions amount should a major change in the Project Scope of Work take place.

CM Contingency: The "Construction Management Contingency" is generally defined as that component of the GMP set aside to address the cost of the work or other components of the GMP that were reasonably unforeseen at the time the GMP was developed. Potential costs include, but are not necessarily limited to: refinements to the project documents as a result of the continuing development of the design, scope gaps between trade contractors, contract default by subcontractors, costs of corrective work not provided for elsewhere, constructability issues and issues related to field conditions which a prudent CM should have reasonably detected during discharge of any preconstruction duties provided by this CM. The CM Contingency is not intended to address the cost of project scope changes made after the GMP was developed.

The CM Contingency may be applied to any work or other component of the GMP without the necessity of a Change Order. Use of a portion of the CM Contingency does not change the contract amount which is based on the GMP, but does increase the amount of money to be paid the CM for the Work while simultaneously and equally decreasing the amount of money remaining in the CM Contingency.

Use of the CM contingency may only be made with the written approval of the Owner. The Owner shall specify the procedure for the CM to request the use of any portion of the CM Contingency. The CM shall periodically report to the Owner as is mutually agreeable but no less than monthly specifying: the amount of the CM Contingency used, the reasons for the

requirement, and the justifications for the use of the CM Contingency. Unless otherwise specified in the Contract between the Owner and Contractor, all CM Contingency remaining at project conclusion shall be retained by the Owner.

The Owner may, through Supplemental General Conditions, define subcategories of the CM Contingency and prescribe the uses of funding within the subcategories.

Guaranteed Maximum Price (GMP): The Guaranteed Maximum Price (GMP) is generally defined as the sum total of the "Cost of the Construction Work", the CM Contingency, the "General Conditions Fee", and the "CM (or Contractor's) Fee" which the Construction Manager agrees is the total compensation payable to the CM/Contractor for performing the Work in the Contract. Such Work includes the entire completed construction, or the various separately identifiable parts thereof, required to be provided under the Contract Documents or which may be reasonably expected to be provided as part of a complete, code compliant and functioning system for those systems depicted in the plans and specifications. The GMP is only subject to modification by Change Order for work directed by the Owner which was not in the scope of work or not reasonably expected to be included in the Work, as described by the systems, plans and specifications provided to the Construction Manager for determining the GMP.

Insurance and Taxes Fee: The Taxes and Insurance fee is generally defined as the total of all insurance costs such as general liability insurance, builder's risk insurance, payment and performance bonds, and any other insurance costs that are required by the contract and any taxes such as local business licenses or other taxes that are required for the completion of the work expressed as a percentage. The Insurance and Taxes Fee is to be inclusive of all items, other than design or CM contingencies, CM Fee, or General Conditions Fee, that will be included in addition to the cost of the work in establishing the Guaranteed Maximum Price and the final contract value.

II. PURPOSE

The Owner seeks to retain the services of a Construction Manager/General Contractor (CM) for the referenced project. The purpose of the Request for Proposal (RFP) is to solicit proposals for selecting a CM to provide preconstruction services such as value analysis, cost estimating and constructability analyses, and project tracking. The selected CM may also provide construction period services contingent upon the CM providing a Guaranteed Maximum Price (GMP) agreeable to the Owner. This RFP sets forth the minimum performance criteria. By choosing the Construction Manager at Risk construction delivery method, it is intended that the CM and the Architect shall work in the spirit of teamwork to assure the project goals and timeframes are met to support the Owner's program.

III. INSTRUCTIONS TO PROPOSERS

The bidder or offeror shall be a registered vendor in eVA. See eVA Vendor Registration Requirements (attached).

The proposer shall review all available project documents as listed in Attachment "A" to this Request for Proposal, visit and become familiar with the project site, identify any requirements of the local municipalities (business licenses or other taxes or fees necessary to conduct business in that municipality). The Work is for Construction Manager at Risk services of which the contracts are structured in two parts:

Part 1 – Preconstruction Phase Services: Pre-Construction Phase Services will be subject to the Terms and Conditions for the Part 1 - Pre-Construction Phase Services Contract and will be

performed for a stipulated or fixed amount. The Commonwealth of Virginia Contract Between Owner and Construction Manager ("CM") For Part 1 – Pre-Construction Phase Services (Form CO-9CM(1)) is used for this portion of the work. The Part 1 contract is associated with the work of the CM at Risk prior to the start of construction activities.

Part 1 services shall include the following:

1. Construction Manager at Risk Preconstruction Phase standard Scope of Services, attached.
2. All Work shall comply with the requirements of the CO-9CM(1) and the VCCS Construction and Professional Services Manual.

Part 2 – Construction Phase Services: Phase 2, Construction Phase Services, will be contingent upon the CM at Risk providing a GMP agreeable to the Owner. The Commonwealth of Virginia Contract Between Owner and Construction Manager "At Risk" For Part 2 – Construction Phase Services (Form CO-9CM(2)), is used for this portion of the work. The Part 2 contract is associated with the work of the CM at Risk during the construction portion of the project.

Part 2 services shall include the following:

1. Completion of the Construction portion of the Work in conformance with the project documents and the Construction Manager at Risk Construction Phase standard Scope of Services, attached.
2. All work shall comply with the requirements of the CO-9CM(2), the General Conditions of the Construction Manager "At Risk" Construction Contract (CO-7CM) and the VCCS Construction and Professional Services Manual.

Mandatory Preproposal Conference
As a pre-requisite to submitting Proposals, shortlisted Offerors are invited to attend a **Mandatory Pre-Proposal Conference, at Northern Virginia Community College, Woodbridge Campus, Seefeldt Building, Provost's Conference Room** to be held at **10:00 A.M**. **on Thursday, October 12, 2017**, to review the scope and requirements of this project. **Requests for meetings by individual Offerors will not be considered.** All questions or requests for additional information must be submitted in writing directly to Sibyl Roberts at the address or e-mail listed on the cover sheet, page 1, of this RFP. Immediately after the Pre-Proposal Conference, interested respondents may tour the site with the Owner's representative.

The RFP Response shall include the following components and shall be bound, tabbed, and organized as follows:

General Information

1. The headquarters location of the organization (including physical address, mailing address, telephone number, facsimile number and main e-mail address or web site address) and clear identification of the location of the organization's local or regional office (if different from the headquarters location, including physical address, mailing address, telephone number, facsimile number and main e-mail address or web site address) to be used in delivering the requested CM services to be provided on the Project.

2. The legal status of the organization (privately held corporation, publicly held corporation, joint venture, etc.). If the Proposal is being made by a legal joint venture, the Proposal must include the information listed within this section of the CM RFP for both organizations that constitute the joint venture and a copy of the joint venture agreement.

3. The names and contact information for the President, Vice President of Operations, Chief Executive Officer (CEO) and Chief Financial Officer (CFO) of the organization, as well as the Office Manager of the organization's local office that will have primary responsibility for delivering the Project.

4. The name and title, direct telephone number (including extension), pager number, cellular telephone number and direct e-mail address of the highest ranking individual within the organization that will have oversight responsibility for the organization's involvement with the Project.

5. The number of years that the organization has been providing services similar to those requested by this CM RFP, including a delineation of this information for both the headquarters location and the local or regional office that will be used in delivering the requested CM services on the Project. Proposers must clearly identify the staffing and experience of the office from which the project will be managed.

Capacity

Describe the capacity the organization has to meet the project schedule and demands. Include an analysis of current workload.

Surety

A letter from the organization's surety company listing the organization's current single Project and total Projects bonding capacity, including such information for the local or regional office that will be used in delivering the services to be provided on the Project, if the local or regional office is separately bonded.

CM Team

1. The successful CM organization shall provide and maintain an experienced, professional CM team that is tailored to the size, complexity and scope of work of the Project. It is recognized that the composition of the CM team will vary in response to the particular phases and needs of the Project. However, the CM is obligated to provide sufficient staffing with the qualifications required to expertly manage all construction activities relating to the Project at all times.

2. By submitting a Proposal, the Offeror agrees that no individual assigned to the Project shall be removed from the Project without the prior consent of the Owner.

3. If the CM wishes to reassign an individual from the CM team assigned to the Project to another Project, the CM must make a formal, written request to the Owner and must verify that the Owner has received the request not later than ten (10) working days prior to the intended date of reassignment.

4. The Owner will make the final, binding decision on a release from the Project of a member of the CM team not later than five (5) days from the intended date of reassignment.

5. The above process may be waived in cases of personal emergency or extreme personal hardship or duress. The burden of proving such conditions to the Owner remains with the CM. In cases in which the Owner requests the removal of a member of the CM team for

the remainder of the duration of the Project, the CM's Project Manager or Principal-in-Charge will act upon such cases promptly and will, within 72 hours, propose a replacement to the Owner.

6. The Proposal must include a description of the duties and responsibilities of all key Project team members and an organizational chart indicating the title or function of each individual and the reporting structure and functional relationships between the team members.

7. The Proposal must include a complete set of resumes of all key proposed CM team members. For each individual, each resume should clearly state the following:
   a. Title (Principal, Project Manager, Superintendent, etc.).
   b. Number of years of experience in the construction industry.
   c. A summary of education, including the name(s) of the institution(s) from which the individual graduated and the year(s) of graduation.
   d. A listing of professional registrations, including registration numbers and dates the respective registrations were first obtained, per state, along with any certifications relevant to the individual's proposed function on the Project.
   e. A list of any professional/trade organization affiliations and associations in which the individual actively participates.
   f. A listing of relevant Project experience, including, for each respective Project, the name of the client (if confidential, designate accordingly), city/state in which the Project was located, a brief description of the responsibility/responsibilities held, a brief narrative of the work produced directly by the individual on the Project and the dates of assignment to each respective Project.
   g. At least three client references that can be contacted to obtain an assessment of the individual's competencies and capabilities for the Project.

8. The Proposal must indicate what percentage of each individual's time will be committed to the Project (e. g., 100%, 80%, etc.) and identify the individual and what activities they will perform.
   Examples:
   a. Value Analysis/Constructability Review.
   b. Subcontractor pre-qualification.
   c. Procurement.
   d. Estimating/estimates.
   e. Forecasting/forecasts.
   f. Project Budget/Accounting.
   g. Scheduling/schedules.
   h. Safety.
   i. Quality.
   j. SBE/MBE/WBE coordination.
   k. Systems start-up and commissioning.
   l. Project close-out.

Project Approach

1. The Proposal must include a fully detailed and developed approach to be undertaken by the CM for accomplishing the Scope of Work of the Project. This written approach should document how the CM team will execute the demands of the Project by describing the processes, procedures and strategies utilized. This approach shall outline the philosophy and methodology for:

a. Interfacing with the Architect/Engineer.
b. Interfacing with all Subcontractors.
c. Interfacing with all outside entities on the Project.
d. Maintaining the project's budget.
e. Maintaining the Project's schedule.
f. Meeting the Project's quality objectives.

2. The written approach must address the CM's plans for minimizing disruptions to the traffic patterns and customary activities in the immediate vicinity of the Project site.

3. The written approach must address the CM's plan for the utilization of available staging area. Include in the response to this specific item the CM's plan for the delivery of materials and equipment to the Project site and how such items will be stored or coordinated prior to their need for erection or placement into their permanent positions.

4. The written approach must address the Offeror's strategies for obtaining qualified, complete subcontractor pricing including targeted Small, Women-Owned and Minority-Owned Business (SWAM) participation. **The goal of the Commonwealth is that 42% of its purchases be made from small businesses certified by the Department of Small Business and Supplier Diversity (DSBSD). It is expected that the CM will meet or exceed this goal.**

Other Relevant Information

Proposals may include any other documentation deemed appropriate by the Offeror to convey to the Project CM Evaluation Committee knowledge regarding the Offeror's organization.

Price Proposal

Offerors shall complete the Price Proposal Form and submit two copies in a separate sealed envelope. The Price Proposal Form is due at the same time, date, and location as the Proposal.

IV. PROPOSAL SUBMISSION

1. Six (6) copies of the Proposal (one marked original and five copies of the original) and one electronic copy are to be submitted to the attention of the Owner/Agency Representative at the address listed above. Two copies of the completed Price Proposal Form shall be included in a separate sealed envelope.

2. Proposals shall be sealed and clearly marked with the name and address of the Offeror and the title and solicitation number of this RFP. A completed and signed copy of the cover sheet of this RFP must be included.

3. Proposals are to be submitted not later than the due date and time listed on the first page of this document. Proposals received after the above time and date will be rejected and returned to the sender.

4. The Owner will not be responsible for any costs incurred by an Offeror in the preparation and submittal of a Proposal. The Owner will not assume any liability for loss of or damage to Proposals in transit from Offerors. All materials submitted for consideration in response to this RFP will become the property of the Owner. Submissions will not be returned to the Offerors.

5. The Owner recognizes the possible existence of confidentiality agreements between an Offeror and previous clients and fully respects such agreements. Ownership of all data, materials and documentation originated and prepared for the Owner pursuant to the RFQ and subsequent RFP shall belong exclusively to the Owner and be subject to public inspection according to the Virginia Freedom of Information Act. Trade secrets or proprietary information submitted by Proposers in response to an RFQ or RFP shall not be subject to public disclosure under the Virginia Freedom of Information Act if the Proposer invokes the protections of § 2.2-4342 of the Code of Virginia, in writing, either before or at the time the Proposer submits the data. The written notice must specifically identify the data or materials for the Owner to protect and state the reasons why protection is necessary. The Proposer must identify the proprietary or trade secret material submitted by some distinct method such as highlighting or underlining and must indicate only the specific words, figures, or paragraphs that constitute trade secret or proprietary information.

6. In the event the Offeror discovers an error in its Proposal after it has been submitted, attention may be drawn to the error in writing and an amendment to the Proposal submitted to the Owner on or before the date and time fixed for receipt of Proposals. The amendment will be accepted and shall be treated with equal force as the balance of the originally submitted Proposal. If an error is discovered after the time and date of receipt of the RFP, the Offeror may withdraw, without penalty, from consideration, but the error correction will not be accepted by the Owner.

7. The Owner's Project personnel reserve the right to visit the office(s) of an Offeror to verify any claim(s) made by an Offeror regarding staff, facilities, capabilities, qualifications and any other reasonable concerns that may arise on the part of the Owner. In such an event, the Offeror must make every reasonable attempt to address any concerns expressed by the Owner's personnel at that time.

V. PROPOSALS EVALUATION PROCESS

1. Upon receipt of the Proposals from the Offerors, proposals will be opened and distributed to the Evaluation Committee. The Evaluation Committee will thoroughly review the Proposals and rank them according to the criteria contained herein and will invite those organizations whose Proposals most closely align with the requirements of the RFP to provide an oral presentation to the Committee.

2. **Oral Presentations/Interviews will be scheduled for November 16, 2017.** The presentation including questions and discussion is expected to not exceed one hour in length. The purpose of the presentations is to allow the Owner to meet the Offeror's key personnel, discuss the RFP and to allow the Offeror to highlight selected areas of their proposal as they deem appropriate. The oral presentation shall not involve negotiations of any proposed costs or fees. It is anticipated that these face-to-face interviews will be conducted with all fully responsive proposers.

3. At the conclusion of the interviews, the Evaluation Committee will rank the interviewed Offerors on the basis of the evaluation factors included in the Request for Proposals. Price Proposals will be opened and evaluated. Selection shall be made of two Offerors deemed to be fully qualified and best suited among those submitting proposals. Negotiations shall be conducted with the two top-ranked Offerors. Price shall be considered, but will not be the sole determining factor. The Owner shall select the Offeror that, in its opinion, has made the best proposal.

4. The Owner may cancel this Request for Proposals or reject proposals at any time prior to an award. Should the Owner determine in writing to the VCCS Associate Vice Chancellor for Facilities and at its sole discretion that only one candidate is fully qualified, or that one candidate is clearly more highly qualified than the others under consideration, a contract may be negotiated and awarded to that candidate.

5. The award document will be a contract incorporating by reference all the requirements, terms and conditions of the solicitation and the Contractor's proposal as negotiated.

VI. SELECTION CRITERIA

The Selection Criteria to be evaluated by the Evaluation Committee include the following:

Part I (49 points)

- Inclusion of, and the thorough development of, all Proposal elements as requested within this CM/GC RFP.
- General organization and continuity of the Proposal.
- Verifiable experience in successfully managing the construction of projects of a similar size and scope.
- Quality of References.
- Qualifications of the individuals proposed for the CM/GC Project team, including relevant Project experience and accomplishments.
- The Offeror's demonstrated safety performance record.
- Detail, clarity and soundness of the Project Approach portion of the Proposal.
- Offeror's SWAM plan and ability to meet or exceed the Commonwealth's goals.

Part II (51 points)

- The thoroughness and clarity of the General Conditions Fee Amount portion of the overall Proposal and its corresponding value, the Insurance & Taxes Fee, and the monetary value of the sum of the CM/GC Pre-construction Services Fee and the CM/GC Fixed Fee Amount.

ATTACHMENTS

1. Project Description
2. Construction Phase Scope of Services
3. Preconstruction Phase Scope of Services
4. eVa Vendor Registration Requirements
5. Price Proposal Form for Construction Manager "At Risk" Services
6. Form CO-9CM(1) – Commonwealth of Virginia Contract Between Owner and Construction Manager ("CM") For Part 1 – Pre-Construction Phase Services, including Terms and Conditions
7. Form CO-9CM(2) – Commonwealth of Virginia Contract Between Owner and Construction Manager "At Risk" For Part 2 – Construction Phase Services and the General Conditions of the Construction Manager "At Risk" Construction Contract (CO-7CM)

Northern Virginia Community College, Woodbridge Campus
Renovate Seefeldt Building
Project Code: 260-18162

Project Description:

The Seefeldt building was constructed in two phases in 1978 and 1990, totaling 141,465 gross square feet. The Phase I envelope is stucco on metal studs, and the Phase II envelope is EIFS wall panels. The building contains classrooms, administrative space, offices, labs, library, and cafeteria.

This project will be a comprehensive renovation that will include reconfiguration and modernization of all spaces, new finishes, ceilings, flooring, casework and replacement of all major building components. The design for renovation will include an analysis of the building envelope and slab for moisture infiltration. The scope will include such items as replacing or modifying plumbing and electrical and lighting systems, building automation, fire/life safety systems, energy efficiency, ADA compliance and replacing heating, ventilating, and air conditioning (HVAC) units and distribution. Necessary enhancements also include addition of an emergency generator, and upgrades to the technology infrastructure. Doors, windows, louvers and other building envelope penetrations will be replaced with energy efficient components. The entire envelope will be re-worked and repaired as necessary. New windows or clerestory lighting or light monitors may be added to increase the amount of natural light to the interior of the building.

Given the extensive scope of the renovation work to be performed in conjunction with this project, temporary classroom, administrative & faculty office, and special purpose modular units may be required in order to facilitate continued uninterrupted operation of the campus.

Below is a link to the building as-built drawings and campus master plan for Seefeldt Building.

https://1drv.ms/f/s!AiN4RBezu6zRjxOg22HjghHx_dVT

Price Proposal Form
Construction Manager "At Risk" Services

Date: _____, 20___.

Project: Northern Virginia Community College, Manassas Campus
Renovate Seefeldt Building
Project Code: 260-18162

To: Commonwealth of Virginia
Virginia Community College System
Facilities Management Services
300 Arboretum Place, Suite 200
Richmond, Virginia 23236
Attention: Sibyl H. Roberts, Capital Outlay Program Manager

From: *(Insert Name and address of CM)*

In compliance with and subject to the Request for Proposal and your response (Proposal) and the documents therein specified, all of which are incorporated herein by reference, the undersigned proposes to furnish all labor, equipment, and materials and perform all work necessary for pre-construction services for this Project as well as the associated lump sum CM Fee, General Conditions Fee, insurances, bonds, and other items listed below in accordance with the Request for Proposal dated _____, 20__, the Amendments noted below, and the staffing and technical provisions stated above, for the consideration of the following amounts:

1. Preconstruction Services Fee (lump sum) $ _____

2. General Conditions Fee (lump sum) – include a specific listing of General Conditions items and each item's associated cost based upon a (Agency to enter duration) _____ day schedule (complete attached worksheet).

   TOTAL GENERAL CONDITIONS FEE (lump sum) $ _____

   The amount **per day** that can be added or subtracted from the total general conditions amount for adjustment in the construction schedule when establishing the GMP or relative to change orders for adjustments in general conditions shall be the Total General Conditions Fee amount divided by the number of days listed above.

3. Provide an Insurance and Taxes Fee – stated as a percentage of the cost of the work, for general liability insurance, builders risk insurance, payment and performance bonds, local business licenses, and any local municipal taxes. (This is the amount that the offeror will include in any estimates as full and complete payment for these items.)

_____%

4. CM Fee (lump sum) $_____

The proposer acknowledges the anticipated construction budget for this project is $ 28-30,000,000 and submits this proposal in full knowledge of the budget and is in agreement that the budget is reasonable for the work as described in this Request for Proposal.

In compliance with this Request for Proposal and all provisions and appendices attached and referenced therein, and subject to all the terms and conditions set forth herein, the undersigned offers and agrees to furnish the services described in the attached Request for Proposals. It is understood that this proposal may be modified, by mutual agreement in subsequent negotiations.

Name and Address of Submitting Firm:

_____ Date: _____

_____ By: _____
(Signature in Ink)

_____ Typed Name: _____

_____ Zip: _____ Title: _____

FEIN/SSN #: _____ Telephone No.: ( ) _____

SCC ID#: _____ E-mail: _____

Virginia Contractor's No.: _____