Tribe’s legal and contract specialists should review this entire document line-by-line and perform edits as needed for the Tribe’s RFP. Also edit yellow highlighted text as required for the RFP and remove [ ] parentheses. Remove red outlined boxes and all the color highlighting for the final document.

**[insert name of Tribe]**

**REQUEST FOR PROPOSALS (RFP)**

**for**

**Construction Manager / General Contractor (CM-GC) Services**

**for a**

**Project Suite**

**via the**

**Construction Manager / General Contractor (CM/GC)**

**Project Delivery Method**

 **Due Date: [insert date and time, and time zone]**

**Point of Contact:**

**[insert name].**

**DIRECTOR, [insert name of Tribe] TRANSPORTATION PROGRAM**

**Email: [insert]**

**Phone: [insert]**

**CONTENTS**

# SECTION A– Administrative Information

[**I. Definitions**](#Definitions) **3**

[**II. Purpose**](#Purpose) **5**

[**III. Project Suite Overview**](#Project_Suite_Overview)  **6**

## [**IV. Location / Background**](#Location_Background)  **7**

[**V. Project Suite Timelines**](#Project_Suite_Timelines)  **7**

[**VI. Schedule of Activities**](#Schedule_of_Activities) **7**

[**VII. Request for Proposals**](#Request_for_Proposals) **7**

[**VIII. Submittal Requirements**](#Submittal_Requirements) **10**

[**IX. Evaluation Process and Award**](#Evaluation_Process_and_Award) **10**

# [X. Compensation for CM Services](#Compensation_for_CM_Services)  17

# SECTION B – Scope of Work

[**I. Project Suite Information**](#Project_Suite_Information) **17**

**SECTION C – The Owner’s Strategic Plan for CM/GC**

[**I. Project Suite Goals**](#Project_Suite_Goals) **19**

[**II. Requirements of the CM**](#Requirements_of_the_CM) **19**

# [III. Two-Day “Kick-off” Meeting](#Two_Day_Kick_off_Meeting) 23

[**IV. Concept of Operation (COO)**](#Concept_of_Operation_COO) **23**

# [V. Project Team Meetings](#Project_Team_Meetings) 24

# [VI. Project Budget](#Project_Budget) 24

# [VII. Project Schedule](#Project_Schedule) 25

# [VIII. Design Parameters and Criteria](#Design_Parameters_and_Criteria) 25

[**IX. Guaranteed Maximum Price (GMP)**](#Guaranteed_Maximum_Price_GMP) **25**

# [X. Ownership of Documents](#Ownership_of_Documents) 26

[**XI. Basic Tenets of CM/GC**](#Basic_Tenets_of_CMGC) **26**

**SECTION A. ADMINISTRATIVE INFORMATION**

**I. Definitions**

**Allowance**: Item of work/quantities that the Project Team anticipates may overrun. All Allowances are budgeted within the overall GMP (i.e., under the umbrella of the GMP).

**BIA:** Bureau of Indian Affairs.

**Bundle:** A group of Projects bound together and let as a unit, for a negotiated GMP.

**CM**: The Construction Manager who is an employee of the CM-GC firm, and who serves as a member of the Project Team. The CM (along with the CM-GC firm) is contracted directly with the Owner through a separate RFP. “CM” can also refer to the entire CM-GC firm. This RFP often refers to the CM-GC firm as the CM, to avoid confusing the CM-GC firm with the CM/GC project delivery method.

**CM-GC Firm:** A firm that includes both the CM and the General Contractor (GC).

**CM/GC**: The Construction Manager/General Contractor project delivery method. CM/GC is a Federal Highway Administration (FHWA) alternative contracting method of project delivery.

**Concept of Operation COO:** Outlines (charts out) Early Work Packages (as well as pre-defines all Work Packages) for the entire Project Suite.

**Construction Manager at Risk (CM@Risk / CMAR):** A project delivery system, different than CM/GC, in which there is no Independent Cost Estimator, and the GMP is developed before selection of the CMAR.

**Contingency:** A specific type of allowance that allocates the potential use of funds to account for risk and uncertainty. All unused contingencies are returned to the Project Team for building more scope (within the Project Suite) or to assist with Projects that are short on budget. It is important to note that **ALL** allowance and contingencies items are budgeted within the overall GMP (as in, under the umbrella of the GMP).

**Contracting Officer:** Delegated by the Owner to execute contracts. The Contracting Officer is [insert name and title], [insert name of Tribe]. Contact information is [insert email address and phone number]

**Contracting Officer Representative (COR):**  Delegated by Contracting Officer to manage all activities of the Project Team. The COR shall be the Project Lead (PL).

**Cost-Based Estimating:** Construction cost estimate calculated by the ICE from Project-specific costs that take into account remoteness, mobilization needed, equipment to be used, labor, production rates, material supplier costs, and other special conditions of the Project. Cost-based estimating does not use historical bid or award data from other projects.

**Cost Model:** A cost estimate developed for each Project and Bundle within the Project Suite. The CM and the ICE each independently create their own Cost Models. The Cost Model is used to verify that the overall Project scope can be completed within the available Project budget and within the GMP.

**Design Manager (DM):** Serves as a member of the Project Team and provides professional engineering and surveying, environmental surveys, NEPA documents, environmental permit applications, and right-of-way acquisition, and design management services. The DM is contracted directly with the Owner through a separate RFP. The DM consists of the Lead Design Professional and all subconsultants or specialty designers, surveyors, applicable specialists, etc.

**General Contractor (GC):** The General Contractor that is part of the CM-GC firm. The GC constructs the Projects, Work Packages, and Bundles in the Project Suite which have GMPs contractually agreed upon between the Owner and the CM.

**Guaranteed Maximum Price (GMP):** A price contractually agreed upon between the Owner and the CM. Includes the direct cost of all work, indirect costs, allowances, contingencies, and CM fixed fee (i.e. profit and overhead). The CM receives no more than this figure for the work, but may receive less.

**Independent Cost Estimator (ICE):** Provides independent cost estimates to the Project Team and the Owner, and serves as a member of the Project Team. The ICE is contracted directly with the Owner through a separate RFP.

**Linear Schedule Method (LSM):** Used mainly in the construction industry to schedule resources in repetitive activities commonly found in highway, pipeline, high-rise building and rail construction projects. These projects are called repetitive or linear projects. The main advantages of LSM over Critical Path Method (CPM) are its underlying idea of keeping resources continuously at work.

**Offeror:** Refers to each CM-GC firm that may submit a proposal in response to this Request for Proposals (RFP). Used interchangeably with Proposer and CM until the contract is awarded to the CM-GC firm.

**Opinion of Probable Construction Cost (OPCC):** An open book cost estimate for the work developed from the ICE and CM’s estimating software platform that includes direct and indirect costs along with allowances and contingencies. The OPCC is supplemented by a CPM resource loaded schedule.

**Owner:** [insert name of Tribe] is the Owner of the CM/GC project delivery program for this Project Suite, as well as the owner of the Projects.

**Project**: An individual construction project.

**Project Lead (PL):** The Owner’s representative who has the authority to make decisions on the Owner’s behalf. Facilitates the entire Project Team and/or the CM/GC process, and is responsible for the guidance and leadership of the entire Project Team. All correspondence and communications go through the PL.

**Project Suite**: The unit of work, comprising multiple Projects, Bundles, and Work packages that is let under a single contract between the Owner and a CM.

**Project Team:** Comprised of the Owner, CM (along with the CM’s subcontractors, material suppliers, surveyors, etc.), ICE, and DM (along with DM’s subconsultants).

**RFP**: Request for Proposal. Prepared and submitted by Offeror.

**Statement of Qualifications (SOQ):** Represents primary component of Submittal as described in this RFP. Prepared and submitted by the Offeror.

**Submittal/Submission:** All documents as described and used as a basis in the CM selection process.

**TERO**: Tribal Employment Rights Ordinance or Office. TERO Ordinances require that all employers who are engaged in operating a business on reservations give preference to qualified Indians in all aspects of employment, contracting and other business activities. TERO Offices were established and empowered to monitor and enforce the requirements of the tribal employment rights ordinance.

**VTC:**  Video tele-conferencing.

**Work Package:** The most basic unit of work in contractual terms. Multiple Work Packages may comprise a Project, or a Work Package may include connected work tasks that span multiple Projects. For instance, Work Packages that consist of tasks that must be completed early in the construction process on multiple Projects are common, such as ordering materials or products with long delivery times, ROW procurement, Utility work, mobilization, clearing and grubbing, etc. This type of Work package is called an Early Work Package. As long as all the Projects are within a single Bundle, a single Work Package (or Early Work Package) with its own GMP, can be executed for all such work. Within a single Project, a Work Package can be assembled to cover any group of tasks that may be easily grouped, such as all the pipe work, all the excavation, all the work within a certain geographic area for which permits and right-of-way (ROW) have been procured, etc.

## **II. Purpose**

This RFP provides prospective Offerors with sufficient information to prepare and submit proposals for the Owner’s consideration of services by a CM and a GC (both in one CM-GC firm) for this CM/GC Project Suite. Offerors should read this entire RFP to understand the Owner’s intent for CM/GC, Value Capture, and Project Bundling (three national FHWA Every Day Counts (EDC) initiatives) prior to developing their proposals.

The Owner intends to develop innovative cost-saving and time-saving solutions to accelerate construction and deliver Projects in the Project Suite substantially under budget while enhancing value and quality, and use the cost savings captured to complete the greatest number/scope/length of Projects possible in the Project Suite within the available funding, This may include increasing the number of Projects in the Project Suite or expanding the scope of an individual Project within the Project Suite. The Project Suite will be delivered using multiple Projects and Work Packages (including Early Work Packages) to meet the Owner’s accelerated schedule (see NCHRP 787 for details).

The Owner is seeking proposals from qualified GC firms for CM services to rapidly deliver the Project Suite. The CM services directly support the CM/GC project delivery method for this Project Suite.

The selected CM becomes a member of the Project Team to develop and deliver the Project Suite. The Project Team also includes the ICE and the Design Manager (DM). The CM works closely, i.e., early and often, with the Project Team. If the ICE and the DM are meeting, the CM is expected to be present and engaged.

The role of the CM is significantly different and much more involved than the Offeror may typically be used to. It is based on “best practices” taken from national research, including: NCHRP 787; NCHRP Synthesis 518; and, Quantification of Cost, Benefits, and Risks associated with Alternative Contracting Methods (DTFH61-13-R-00019).

Offerors should read this RFP in its entirety to understand the Owner’s intent for the CM role and the intent behind utilizing CM/GC. Additionally, Offerors should understand the remoteness of these Projects, logistical challenges, limited labor and equipment, limited temporary housing/subsistence, and unusual market conditions of [insert name of area that the work is in].

The successful Offeror for the CM position applies its professional capabilities during all phases of the Project Suite, including the pre-construction phase and the construction phase. The successful Offeror for the CM position applies its professional management capabilities during the planning and design of a Project (i.e. pre-construction phase), and possesses the necessary resource skills, personnel, systems, and experience to engage in detailed discussions over key constructability issues, contract packaging, phasing of the work, material availability and pricing, as the design progresses. In addition, the CM promotes the use of accelerated and innovative construction techniques for the specific Projects, and promote the use of a local workforce.

See **Section C – Part II. Requirements of the CM** for further details of the CM’s roles and responsibilities.

## **III. Project Suite Overview**

The Owner has traditionally delivered its transportation projects via a traditional Design-Bid-Build (D-B-B) project delivery method. However, because of the expected benefits associated with the CM/GC accelerated and innovative project delivery process, the Owner is including [insert number] transportation and facility related Projects into the Project Suite for this solicitation.

This Project Suite, with CM/GC as the proposed delivery method and Value Capture as a proposed tool for innovatively financing the Project Suite, involves the strategic use of three initiatives from FHWA’s Every Day Counts (EDC) program to accelerate and advance the use of technologies and processes to shorten the Project delivery process, enhance roadway safety, reduce traffic congestion, and integrate automation. It is important to note that the Federal Highway Administration (FHWA) will be closely following this ground-breaking national pilot program to ensure its success.

There are many variations of the CM/GC delivery method. As is evident, the Owner seeks best value through the engagement of highly qualified and experienced teams and individuals. This Project Suite will NOT be delivered based on a low-bid approach. Rather, the Project Suite will be delivered based on a best value approach. Accordingly, the Owner will pay the CM, ICE and Design Manager (DM) for pre-construction services on a time and materials basis, and dependent of the phased work schedule.

The proposed Project Suite consists of [insert number] diversified Projects that are well-suited to be delivered through this CM/GC program. See Section B, Part I for information on Projects. The Owner anticipates that this method will allow these Projects to be delivered under budget and more quickly and efficiently than could be delivered using the conventional D-B-B method.

## **IV. Location / Background**

 [Insert name of Tribe, location, and background of the Tribe]

## **V. Project Suite Timelines**

The Owner is requesting firms to propose on the CM/GC delivery of the Project Suite using multiple Work Packages and Early Work Packages to meet the accelerated schedule. Only those firms that have the resources to deliver Projects according to the desired dates shown in **Table 3** should respond. **Table 3** is in **Section B.1.**

**VI. Schedule of Activities**

**Table 1**

|  |  |
| --- | --- |
| Issue RFP | **[insert date]** |
| Mandatory Pre-Submittal Meeting([insert time and time zone]) – CM may utilize VTC, vs in-person Requirement | **[insert date]** |
| Deadline to submit questions to [insert name of Tribe] ([insert time and time zone]) | **[insert date]** |
| Last day for [insert name of Tribe] to issue addenda and Clarifications | **[insert date]** |
| **Deadline for Submittals (**[insert time and time zone]**)** | **[insert date]** |
| INTERVIEWS - – CM may utilize VTC, vs in-person Requirement |  **[insert date]** |
| Recommendation of Selection to [insert name of Tribe] |  **[insert date]** |

**VII. Request for Proposals**

All interested CM firms are invited to submit a proposal in accordance with the specifications, requirements and dates set forth herein. The Owner intends to award a contract to the firm, who, following the criteria outlined below, best meets the objectives of the RFP. However, the Owner is not obligated to award a contract based on this RFP and reserves the right to reject any and all proposals.

Inquiries

Prospective firms will make written inquiries concerning this RFP to obtain clarification of requirements. No inquiries will be accepted after [insert date, time, and time zone]. Inquiries should be directed to [insert name and title]. The written inquiries shall not be directed only to the CO, and not the PL or anyone else with knowledge of the Project Suite. No telephone call inquiries will be taken or accepted.

Addendum or Supplements to Request for Proposals

In the event it becomes necessary to revise any part of this RFP, an addendum will be provided and issued to all interested parties who have notified the CO of their intent to submit by [insert date, time, and time zone].

## Submittal (Also see Section VIII – Submittal Requirements)

Each submittal must be identified with the RFP name, Project Suite title, Offeror name and address, due date and time. A letter of transmittal must be provided with each proposal. All proposals must be stapled in the upper left-hand corner. No plastic binders are necessary. A proposal may be withdrawn prior to the due date and time by written request. Any proposal not withdrawn by the due date shall constitute an irrevocable offer. The Offeror is responsible for all costs incurred by firms prior to issuance of a fully executed contract. All material submitted regarding this RFP will become the property of the Owner and will only be returned to the Offeror at the Owner’s option. This also applies to firms who withdraw their proposal.

One (1) original and six (6) copies of the typewritten proposal must be received on or before [insert date, time, and time zone]. Offerors mailing their proposals must allow sufficient mail delivery time to ensure receipt of the proposal by the time specified. Late proposals will not be considered under any circumstances and will not be returned. Electronic proposals will be permitted, and must be submitted to the e-mail address shown. The proposal package should be delivered or sent to:

**[insert name and mailing address]**

 [insert email address}

## Acceptance of Proposal Content

The contents of the proposal of the successful Offeror, and the RFP may become all or part of the scope of work, and as such, contractual obligations. Failure of the successful Offeror to accept these obligations in a contract may result in cancellation of the award.

## Selection / Procurement Process

The successful Offeror will be selected solely through a best value selection process. A selection panel will evaluate each RFP according to the selection criteria set below. The Owner will conduct mandatory formal interviews. The Owner will select the firm based on the RFPs received and formal interviews if conducted.

The Owner will enter into negotiations with the selected Offeror and attempt to execute a contract upon completion of negotiation of fees and contract terms. If the Owner is unsuccessful in negotiating a contract with the best qualified firm, the Owner may then negotiate with the next qualified firm until a contract is executed, or the Owner may decide to terminate the selection process. Once a contract is executed with the successful firm, the procurement is complete.

## Award of RFP/Right to Reject

The contract will be awarded to the Offeror whose proposal conforms to the RFP, and is most advantageous to the Owner. The Owner reserves the right to reject any and all proposals, and to waive informalities and irregularities in the proposals received, and to accept any portion of any proposal, or all items proposed, if deemed in the best interest of the Owner.

## Work Force

The work performed under this contract is subject to [insert name of Tribe]’s procurement policies and the TERO ordinance of [insert name of Tribe}.

## The Owner’s Right to Termination

The Owner has the right to terminate the CM contract at any time and is under no obligation to proceed with construction or additional Work Packages. Upon termination, the CM will be paid for all services rendered to date.

If the CM and the Owner are unable to reach agreement on a fair and reasonable price for the professional services agreement contract or any related amendment, the Owner reserves the right not to exercise the contract/amendment and to solicit CM or prime contractor services in a new procurement, which could take the form of any delivery system that the Owner deems to be in its best interest.

Ownership of Documents

All innovations, ideas, plans, phasing, bids, Cost Models, schedules, risk matrices, manuscripts, specifications, data, maps, materials, etc., submitted with the SOQ or presented during the interview become the property of the Owner. Proprietary cost information will not be shared with other Offerors.

## Sufficient Capacity

The Owner is requesting the Project Team use the CM/GC project delivery method to develop the Project Suite potentially using multiple Early Work Packages in an effort to meet an accelerated schedule. **Only those Offerors that have the resources to simultaneously price multiple Work Packages necessary to deliver several different types of projects on or before the set deadlines, should respond**.

 **VIII. Submittal Requirements**

## Overview

All Offerors must attend the Mandatory Pre-Submission Meeting. See **Table 1**. Submittals will not be accepted from firms who have not attended the Mandatory Pre-Submission Meeting.

Each Offeror shall submit an SOQ that fully addresses the evaluation factors contained in this solicitation and complies with the preparation and submission instructions contained in this provision. Offerors shall carefully review this section and its relationship to the selection criteria prior to commencing SOQ preparation.

Offerors shall base their SOQ on performing all work in accordance with this RFP. The SOQ shall provide appropriate exhibits, graphics, risk matrices, schedules, drawings, schedules, cost models, and text to reflect consideration of the evaluation factors and RFP requirements. Discussion information should be concise and specific to this Project Suite. Excessive detail will not be considered positively in the evaluation.

## Key Personnel

When an Offeror lists administrative and/or discipline-specific personnel, the Offeror agrees to make the personnel available to complete work on the contract at whatever level the Project Suite requires. Personnel changes must be reviewed and approved in advance by the COR to assure the replacement is equally qualified and has comparable experience. The COR will only allow changes in key personnel only when caused by circumstances outside the control of the Offeror (e.g., employee leaves company). Changes in key personnel for the convenience or benefit of the CM will not be allowed.

## Submittal Contents

Proposals shall not exceed **23 single-sided pages** of 8-1/2” x 11” size using Times New Roman 12-point font. All pages must be numbered.

Submittals shall be organized as follows and meet the section page limits depicted below:

1. Project Innovations and Associated Cost Savings, (9 pages max)
2. Construction Management Plan (Pre-construction and Construction Phases), (2 pages max)
3. Personnel Qualifications, Experience, and Capability of both CM and Subcontractors (3-page summary - organizational charts and resumes are not included in the page limit)
4. Contracting Plan (4 pages)
5. Linear Schedules and Early Work Packages (1 page)
6. CM and Subcontractor’s Past Performance and Experience with Similar Work (4 pages).

a) Examples of Innovative Work (3 pages. No project discussion may exceed 1 page)

1. Appendices:

Appendix A - Proposed Schedules (does not count towards page limit)

Appendix B - Critical Issues (does not count towards page limit)

Appendix C - Resumes (one page per position. Does not count towards page limit)

**IX. Evaluation Process and Award**

The evaluation process and award is comprised of three parts (Part 1, Part 2, and Part 3):

**Part 1: Technical Proposals – 130 points:**

Based on technical proposal rankings, up to three (of the highest ranked technical proposals) will be shortlisted for interviews.

Note: Part 1 scores are used only to shortlist up to three firms.

# Project Innovations with Associated Cost Savings (30 points)

The Owner is seeking the best innovative solutions to accelerate construction and deliver a Project Suite significantly under budget while accomplishing the following: enhancing value and quality; building the most Projects possible within the available funding i.e., stretching the dollars to construct the greatest scope of work within the current available funding, using the cost savings captured to complete the Projects. The targeted goal is to complete the Project Suite under budget with on-time delivery through innovations proposed by the CM and its subcontractors.

With this in mind, the Offeror will demonstrate it can successfully deliver the Project Suite:

* Describe your understanding of the Project Suite, how you will use innovation to stretch the funding to complete the Project Suite, and how you will deliver Projects simultaneously for on-time delivery.
* List specific innovations for the Project Suite illustrating potential cost reductions, schedule acceleration, risk reductions, and improved quality your team can deliver.
* Identify critical Project issues and solutions on how your team will mitigate them. Critical Project issues that should be considered. Include constructability concerns, risk areas affecting the delivery, design concerns, material availability, Project costs, and third-party stakeholders for the Project(s).
1. **Construction Management Plan (Pre-construction and Construction Phases) (20 points)**

The Owner is seeking Offerors that understand CM/GC and can use it effectively to deliver the Project Suite. A proactive approach to construction management, cost modeling, and risk mitigation is required for a successful CM/GC delivery.

* Outline in detail how you will effectively manage this specific Project Suite and begin construction on the first Work Package within the two weeks of the notice to proceed.
* Provide a preliminary production based and resource loaded Critical Path method (CPM) schedule to demonstrate your construction approach to the Project Suite. Reference the desired Project start dates provided in **Table 3**. Your construction approach should identify any critical decision points for meeting the schedule and budget.

# Key Personnel Qualifications, Experience, and Capabilities (30 points)

The Owner is seeking Offerors who will use its organization, subcontractors, and CM/GC to ensure successful completion of the Project Suite.

The following are required:

* Provide a graphic organizational structure chart of the Offeror’s firm that identifies position titles, names, and the Offeror's estimated number of hours that each of the key personnel will dedicate to the Project Suite. Ensure individuals assigned to this Project Suite are clearly identified.
* Provide a graphic organizational structure chart for each of your key subcontractors. Ensure individuals assigned to this Project Suite are clearly identified. (Note: Specialty subcontractors should be selected for inclusion by the Offeror based on qualifications, engaged in both pre-construction and construction phases of the work, and will not be allowed to be switched out between phases, without the express written consent of the PD).
* The organization charts must Identify position titles, names, and the Offeror’s proposed percentage of time that each of the key personnel will be dedicated to the Project Suite.
* Identify the individuals on charts who have binding decision-making authority for their organization on this Project Suite (authority for the CM and separately for each individual Subcontractor).
* Identify members of your team by name that you commit to have consistently attend the weekly Project progress meetings. (Note: Decision-makers with full authority to bind their company to a course of action or work without further approval are considered essential at the weekly meetings for both the CM and key Subcontractors).
* Provide supporting resumes and two references for each position listed below. References must have been directly involved, as a representative of the owner, in work performed by the key personnel in the last ten years.
* Principal of the Company — The Offeror must show a significant commitment of the principal to the Project Suite. The principle will actively participate in all critical Project Team meetings and any executive team progress meetings (held between top leadership of the Owner, CM, subcontractors, subconsultants, ICE, construction inspectors, and the DM).
* Senior Project Manager (PM) - The Senior PM must have experience in leading the delivery of projects using contractor procurement methods other than competitive (low bid )(design-bid-build) and must have experience in the delivery of projects making use of the CM/GC or other contracting methods where it was used in a manner similar to this Project Suite.
* Senior Project CM / Superintendent - The senior CM/superintendent must have relevant experience in leading bridge, roadway, building and recreation projects that include work of a similar scope, nature, and complexity as the Project Suite.
* Project Lead Estimator (LE) - The Project LE must be an experienced construction cost estimator including experience assessing price and risk as well as discussion of assumptions used to derive the proposed pricing.
* Project Scheduler (PS) — The PS must have relevant experience on projects of similar complexity and linear production based schedules.
* The Offeror may designate up to three other key positions for pre-construction and construction services.
* Subcontractors - The subcontractors must have relevant experience on their specialty work of similar scope, nature, and complexity. The Owner has final approval authority for all sub-consultants. The Owner may also recommend subcontractors for the CM’s and/or GC’s consideration. The Owner has the right to remove any subcontractor, at will, and with no cause. The Owner must approve all replacements of subcontractors.

Resumes should specifically address the following:

* Role in delivering past CM/GC projects;
* Experience working in a collaborative environment in both the pre-construction and construction phases;
* Experience with alternatives evaluation and using real time costing;
* Experience in decision-making for the firm.
* Knowledge of, and experience in, TERO.

# Workforce (20 Points)

The Owner highly encourages employment of a local workforce and local businesses to deliver a substantial portion of this Project Suite. Local is defined as having residence or an existing significant place of business located within the electoral and taxing boundaries of [insert description or name of area]. Offerors will be evaluated based on their approach, creativity, and their demonstrated commitment to maximizing the use of local residents, local material suppliers and local specialty contractors to deliver this Project Suite. Your approach will lay out which steps you will commit to as a company to ensure that the local individuals and local businesses are given the maximum opportunity to participate in the performance of this contract.

Outline your approach to locating and maximizing inclusion of a local workforce, suppliers and subcontractors in the Project Suite, i.e., recruiting efforts job fairs, breaking construction plans into small packages that enable the local trades to easily complete, etc.

Identify potential “on the job” training/mentoring opportunities you envision for the Project Suite.

Include relevant examples of past project experience in which substantial local participation has been achieved, with specific project data list the number of local businesses under contract and the cost of the work allocated to local businesses, as a percentage of the overall construction contract.

Provide the name and title of the individual on the CM’s team who will be responsible for overseeing efforts to reach out to and assist individuals and local businesses to compete for work and to successfully perform as integral members of the CM’s team.

# Past Performance and Experience with CM/GC (30 Points)

The Owner is seeks Offerors with demonstrated performance using alternative delivery methods.

Explain why the proposed team is best qualified to make this Project Suite successful.

Include any past experience (1) working with owners on collaborative problem solving and (2) mitigating project risks, including schedule risk.

Provide up to three examples of your most relevant projects of similar size and scope completed in the last 5-7 years where one or more of your proposed team members were involved. Preferred examples are projects using CM/GC or Design-Build. The project narrative confirms your breadth and depth of experience for work similar or larger than this Project Suite.

**Part 2: Cost Competitiveness Determination – 50 points:**

Determining the cost competitiveness for each firm is the final step to determine the ’best value’ score of each of the prospective Offeror. Cost competitiveness will be determined through the CM Fixed Fee (profit and home office overhead). The required price will be provided in a sealed envelope, separate from the Proposal. The pricing component is designed to provide competitive pricing for the CM markup (OH and profit), which will be used in the development of the GMPs. The CM Fixed Fee will be included as part of the contract.

The Fixed Fee shall be based upon the estimated Project construction amount of [enter total $ Projects estimate]. The Owner reserves the right to negotiate and establish a final Fixed Fee with the selected CM. The purpose of the negotiations is to review, validate or reduce the Fixed Fee. The Owner will not increase the Fixed Fee after CM selection.

1. **CM Fixed Fee**

Each Offeror must submit a Fixed Fee, which is the fixed percentage of home office overhead and profit to be applied to the total of all direct costs, project overhead, and indirect costs. The Fixed Fee will be applied to Subcontractor work. Offerors shall state their Fixed Fee, identified as a percentage and carried out to two decimal points (e.g. 0.00%), which will be applied to all construction phases.

The Fixed Fee contains profit and home office overhead. Profit includes bonuses and incentives, but excludes all costs associated with direct construction activities, including, but not limited to, risk. Home office overhead is defined as all auditable costs that are allocated to all Projects, including insurance that is maintained by the Offeror as a general cost of doing business.

The Fixed Fee must not contain field office overhead; field direct expenses; labor, including fringe; heavy (construction) equipment; subcontractor costs; small tools; bonds; materials; mobilization; and Project- related insurance as this is included in the GMP. Examples of item definitions that are not contained in the Fixed Fee are set forth below:

* 1. Field office overhead is defined as capital and consumable expenses necessary for the establishment and operation of the field office;
	2. Field direct expenses are defined as hotels, airfare, food, rental cars/taxi, mileage, and other travel or per diem costs;
	3. Labor, including fringe, is defined as field and office labor, plus other costs attributable to that labor, such as, vacation, holiday, sick leave, license fees, and training;
	4. Subcontractor costs are defined as all costs attributable to the use of subcontracted work, including, bonding and insurance costs;
	5. Small tools are defined as tools associated with construction and not covered under equipment;
	6. Miscellaneous Project office costs, including but not limited to, drinking water, printing, reproduction, postage, delivery, and supplies; and
	7. All costs related to cell phones, radios, fax machines, pagers, computers and software.
1. **Technical Proposal Scoring**

Each reviewer will evaluate responses to each of the technical criteria and ratings using a numerical rating system as follows:

1. A relative numerical weight has been established by the Owner for each major category.

The sum of the weights equals the total points allocated. All committee members will use these values.

1. The relative weighting assigned to each major category will be the maximum any criterion (subcategory) in the major category can receive.
2. Three degrees of quality (poor (40%-60%), fair (60%-80%), and good (80%-100%)) shall be considered when scoring each subcategory.
3. Each subcategory is equally weighted. Sum the subcategory evaluation scores within each major category and divide by the number of subcategories in the major category to arrive at an overall major category number. Round off to two decimal places.
4. Add up the major category ratings to arrive at the score for the Proposal.
5. Each committee member is required to document the rationale used for the scoring of the proposing firms.
6. **Weighted Cost Competitiveness**

The Owner has chosen to use a best value selection process that includes scoring on both the technical proposal and the price (Fixed Fee). Each Offeror’s Fixed Fee will be competitively scored against the other Offerors. The Offeror with the lowest Fixed Fee will receive a score of 10 points. The other Offerors receive a proportion of the available points by dividing the lowest proposed Offeror’s Fixed Fee by their proposed multiplier, rounded to 2 decimal places. If two or more Offerors provide the same exact multiplier (%), each bidder’s score will be computed as noted, which will result in identical scores.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Offeror** | **Proposed CM Fixed Fee** | **Ratio of Max. Points** | **% of Max. Points** | **Max. Points** | **Price Score** | **Offeror Rank** |
| Offeror A | 6.00% | 6.006.00 | 100.00% | 10 | 10.00 | 1 |
| Offeror B | 6.50% | 6.006.50 | 92.31% | 10 | 9.23 | 2 |
| Offeror C | 7.00% | 6.007.00 | 85.71% | 10 | 8.57 | 3 |

**Table 2— Example of Cost Competitiveness Score - Based on a Percentage Formula (normalized to the lowest bid)**

**Part 3: Interview – 100 points:**

Mandatory interviews for the top three short-listed firms will be conducted by the Owner. During the interview, the Offeror will have the opportunity to demonstrate the key question as to “how they will make the Owner successful” in delivering the Project Suite.

The Owner shall coordinate the interviews with each shortlisted Offeror. At the request of the Offeror, interviews may be conducted via VTC. The order of the interviews for the Offerors will be random and will be determined prior to the interview date. The notification will include information about location; set limits on the number of people attending (based on room size, occupancy comfort, and safety); state the amount of time for each interview; and include any other scheduling or room constraints.

The maximum number of points for the interview will be 100. After scoring the interview, the points will be combined with the points scored from the Technical Proposals (130 max) and Cost Competiveness (50 max). The shortlisted Offerors will then be ranked from highest to lowest.

The interview will not be used to fill in missing or incomplete information that was required in the written proposal. The interview will not be used as an opportunity by the Offerors to improve or supplement their proposals.  The interview will be a maximum of 2 hours and the end of the 2 hours the interview will end regardless of where the Offeror is in their interview.

The interview will consist of the following:

Part 1: Presentation by the Offeror – Topics such as innovations, risks, challenges, scheduling, best practices, lessons learned, keys to success, etc. – 1 hour

Part 2: Open Discussion between Offeror and Owner’s interview panel. – Questions and comments – 1 hour.

# X. Compensation for CM Services

### The selected Offeror will be paid a negotiated fee based after CM selection.

### Pre-construction Fee:

### The pre-construction fee covers the CM costs to participate in the activities conducted during the advancement of pre-construction phase. These include but are not limited to cost estimates at predetermined stages, preparing/updating the schedule for the design and construction phases; preparation of cost modeling and GMP estimates, performing value engineering analysis, conducting risk assessment, performing constructability reviews, developing the construction logistics plan, generating market surveys of construction materials and equipment that have long delivery requirements, early purchase of long-lead items, and other services required in the contract. (See CMGC Requirements for a more detailed list).

The CM will not be entitled to recover any lost costs for the actual expenditures for pre-construction services or any lost profits for the costs of the future construction phase services contract should a GMP not be successfully agreed upon with the Owner for any reason.

**SECTION B - SCOPE OF WORK**

1. **Project Suite Information**

# General Description

The selected CM will successfully partner with the Owner and the entire Project Team to rapidly deliver the Project Suite, thereby creating an economic stimulus package for the local community, as well as rapidly completing these Projects to take them “off its books” to enable the Owner to focus on future work. Bundling of Projects has numerous advantages. It will permit the Project Team to strategically plan, fund, permit, design, and to build the Projects simultaneously in a manner which constructs the greatest amount and length of Projects within the Project Suite and available funding. The goal is to stretch the existing funding by capturing savings gained through innovations and risk reductions to efficiently complete the construction of the listed Projects ahead of schedule and under budget. Bundling also creates an economy of scale: significantly reducing individual Project overhead, mobilization costs, equipment costs, staff time, and required design details and levels. Bundling also reduces the need for inspection personnel who are traditionally required when using the standard design-bid-build (D-B-B) method.

## **Table 3 – Project Suite List**

The Project Suite listed in Table 2 is in varying stages of the design, permitting, ROW acquisition, and funding processes. Some have no NEPA; some have funding agency approvals, while others lack funding agency approvals at this time; etc.

**Table 3 – Project Suite List**

**[Complete the following Project Suite list]**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Project Name** | **Priority** | **Estimated Cost for Design and Construction** | **Funding Sources** | **Status of Funding** | **Desired Start Date** |
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| **Total** |  |  |  |  |

# Challenges

Each Project will have its challenges. The Project Team is responsible for researching innovative ways to eliminate these challenges. The Project Team is further responsible for identifying the risk for each Project and Work Package. The Project Team works together during Project Team meetings to develop the best Work Packages for the Owner. A constructability review process is built into CM/GC, and is executed by the Project Team as a matter of course.

**Project Descriptions with Maps**

**[insert map showing Project locations]**

**[Insert a description of each Project, including location of Project, types of work, restrictions, etc.)]**

**SECTION C –** **THE OWNER’S STRATEGIC PLAN FOR CM/GC**

1. **Project Suite Goals**

Specific Project goals are as follows:

* Use a cost-effective approach to design and construction to deliver a Project Suite under budget and ahead of schedule;
* Work cooperatively with the Owner, the Project Team, and stakeholders to maintain a cost-effective and timely schedule;
* Honor all grant funding procedures to obtain 100% grant reimbursement; conform to DBE requirements;
* Use innovation to provide improved quality and performance and generate significant Project savings;
* Maintain a strong positive relationship with major stakeholders, cultivate a partnering attitude, promote a creative environment, and be proactive in addressing Project needs;
* Provide a context-sensitive Project Suite using smarter construction methods for low maintenance and long-term performance, such as solar energy and water recycling;
* Provide a safe working and traveling environment that minimizes the potential for injuries to the public and construction workers;
* Minimize inconvenience to the public by minimizing construction time and delays;
* Deliver Early Work Packages to ensure early construction is quickly underway after Notice to Proceed; and
* Measurably track and demonstrate how this specific CM/GC program “outperformed” traditional methods (such as Design-Bid-Build) (D-B-B), i.e., competitive low-bid.

 **II. Requirements of the CM**

The CM works closely, i.e., early and often, with the overall Project Team. If the ICE and the DM are meeting, the CM is expected to be present and engaged.

The CM is actively involved in both the pre-construction phase and the construction phase of the Project Suite.

The CM (supported by its pre-selected sub-contractors) furnishes all labor, materials, equipment, services, and support facilities, etc., required for the CM to provide Project Suite, which include but are not limited to the following:

* Subcontractors – The CM’s preselected and preapproved subcontractors support the CM throughout both phases of the Projects—i.e., the pre-construction and construction phases.
* Project Team Meetings – Participate in all Project Team meetings. Partner with the entire Project Team to develop innovative and streamlined Work Packages, Projects, and Bundles. Propose innovative means and methods, along with associated real-time pricing, throughout the pre-construction phase. Assist the DM to enable the DM to accurately produce a set of constructible plans that effectively eliminate all changes in the field.

Meet with the ICE to review, discuss, and compare the current Cost Models developed by the ICE and CM and discuss current innovative design options, potential Work Packages, schedules, OPCCs, etc.

Take meeting notes of the Project Team meetings and distribute them within 3 days after the meeting.

* + - * Design Reviews—Certify to the Owner that the plans are constructible as designed, in order to guarantee that they can be completed within the proposed GMP and schedule. Identify and recommend solutions relating to the elimination of all errors, omissions, ambiguities, etc.... providing an “economy of scale” relating to the proposed design phasing.
			* Constructability Reviews—During the pre-construction phase of Projects, conduct with the Project Team intensive constructability reviews of the Project designs to eliminate all potential change orders and/or claims. This process includes but is not limited to certifying: all final quantities, required resources, construction phasing, means and methods, traffic control, specifications, equipment, labor, feasible technologies, permits, right-of-way, easements, etc., to enable the Project Suite to be constructed as planned with an exceptional level of quality and within the GMP and accelerated schedule.
			* Market Surveys for Design Decisions—Furnish designers with innovative alternative means and methods, materials and/or equipment along with current real-time actual prices and availability of resources in order to jointly make informed design decisions (early in the process) to eliminate future changes in the proposed designs.
			* Perform and Certify All Project Quantities—Perform and certify all Project quantities required to successfully construct the Project, Bundle or Work Package within the GMP.
			* Design Options—Prices and evaluate numerous design options and details for constructability and feasibility.
			* Risk—Identify potential risks (including financial risk) and methods to mitigate/share/eliminate them.
			* Guaranteed Maximum price (GMP) — Prepare and submit to the Owner a GMP for the labor, equipment, and materials required to construct each Work Package, Project, or Bundle.
			* Maintenance of Traffic/Traffic Control Plans— Work with the Owner and DM to develop all maintenance of traffic/traffic control plans necessary to successfully construct the Project for all proposed phases and Work Packages.
			* Staging needs— Propose, review, and validate staging plans for the Project.
			* Environmental Commitments/Permits—Actively work with the Owner and DM to streamline the permitting process and recommend construction means and methods to expedite necessary permit approvals.
* Cost Model—Provide an accurate and up to date detailed independent Cost Model for each Project and Bundle within the Project Suite. At each Project Team meeting, review and discuss with the ICE the CM’s current Cost Model. The Cost Model addresses design, permitting, construction, inspection, right-of-way, mitigation, proposed and current GMPs, early work packages, expenses to date, pre-construction services, construction services, etc. The Cost Model is defined as an open book cost estimate for the project from the agreed upon estimating software platform that includes such things as labor and equipment rates, production rates, trucking costs, fuel costs, worker-hour assumptions (hours planned per shift, hours planned per day, days per week), material costs, subcontractor costs, overhead assumptions, proposed profit, and contingency.
	+ - * Real Time Actual Costs— Provide, along with the CM’s subcontractors, real-time actual costs relating to innovative concepts, multiple Work Packages, and design details ensuring the Project Suite is constructible under budget. CM provides actual pricing while also focusing on the aspect that “time equals money,” relating to Projects.
* Value Analysis—Identify aspects of the design or specifications that do not add value or whose value may be enhanced. Based on this, identify changes that would not necessarily reduce the cost, but may actually increase constructability or speed production, reduce design requirements, decrease life-cycle costs, etc.
	+ - * Material Cost Forecasting —Uses the CM’s Sub-contractors and contacts within the industry to develop costs considering construction material price escalation to assist making decisions regarding material selection, advanced ordering, and Early Work Packages.
			* Cash Flow /Cost Control - Prepare and track an earned value analysis to provide the Owner with information on how Project financing and payments must be made available to avoid delaying Project progress. This may also include projected construction costs to aid the Owner in determining projected cash flow decisions.
			* Master Project Schedule—Prepare, manage, and track a linear resource loaded schedule of work throughout the pre-construction and construction phase to ensure that all commitments and dates will be met, and notify the Owner when issues arise. The master schedule includes such items as pre-construction schedules, design schedules, permitting schedules, right-of-way schedules, detailed construction schedules, GMP schedules, Project milestones, third-party agreement schedules, submittal schedules, utility relocation schedules, inspection and testing schedules, and phased acceptance schedules. The CM evaluates whether the planned and current work progress are in line with the constraints of the master schedule. The CM provides resource loading, and sequencing of all Project tasks needed to complete pre-construction and construction.
			* Right-of-way acquisition and easements- Assist the DM in identifying options for right-of-away acquisitions and easements by providing innovations, means and methods input, etc. The primary purpose is to minimize the number of right-of-way actions that must be undertaken in an effort to expedite the schedule and reduce the overall Project costs.
		- Meetings — Actively coordinate, participate, and document all Project meetings held with the Owner, DM, ICE, permit agencies, internal and external stakeholders, etc.
		- Third-party Issues— Review, manage, and track all agreements and permits while developing innovative solutions for third-party issues (i.e. irrigation and flood control districts, railroad, utilities, property owners, adjacent municipalities, citizen groups, etc.). Advise the Project Team and the Owner of impacts to the Project Suite, and proposes innovative solutions to meet these commitments.
		- Invoicing—Provides detailed “open book“ monthly invoices for progress of pre-construction and construction.
		- Contracting —Contract with all sub-contractors, materials and equipment suppliers, surveying firms, QC testing and inspection firms, geotechnical firms, and equipment suppliers, etc. necessary for the successful completion of the Project Suite.
		- Construction — During the construction phase, the CM-GC firm provides traditional construction services, functioning as the prime (general) contractor, responsible for completing the work on schedule within the GMP.
		- Construction Management — Monitor and maintain price, schedule, and quality during construction. Provide continuous on-site construction management services throughout the construction phase. This management includes, but not be limited to, managing and documenting weekly job site progress meetings and pre-construction meetings; attendance and participation in all Project Team meetings, permit tracking and compliance, third-party agreements, submitting overseeing and conducting QC testing and inspection programs; overseeing and conducting pre-construction and construction surveying; monitoring CM staff and subcontractor work performance; maintaining record copies of all contract documents, creating and maintaining as-built plans, administering post construction closeout, final completion, tracking all GMPs, Contingencies and Allowances; and all other necessary management and documentation for the successful completion of the Project Suite.
		- Public Information Assistance - Provide public information assistance relating to the traveling public, adjacent property owners, etc. during the pre-construction and construction phases as needed.
		- Innovations, Schedule Acceleration, and Cost Savings - Propose significant innovations, schedule acceleration, and cost savings throughout the pre-construction and construction phases.

# III. Two-Day “Kick-off” Meeting

Once the entire Project Team is assembled, **all members** of the Project Team attend a two-day “Kick-off” meeting. ***Attendance by all parties is mandatory***. This includes the DM (and sub-consultants), the CM (and all subcontractors), the ICE, the Project Lead (PL), the Owner (and staff), stakeholders, funding organizations, permitting agencies, and other organizations, etc., required for the success of the Project Suite. The meeting schedule is yet to be determined. The first day of the meeting focuses on forming a highly effective Project Team for delivery of this program. The second day is a program-specific discussion. This two-day “Kick-off” meeting generally follows the draft outline below:

# Two-Day “Kick-Off” Agenda:

1. Welcome and Introductions
2. [insert name of Tribe] / FHWA’s Top Leadership Briefing (Strategic Vision, Goals, End State, Challenges, etc.)
3. Project Team and Project Lead Introductions and roles of each Project Team member
4. [insert name of Tribe] Transportation Director’s Vision, Goals, Budget, Challenges, at the Program Level
5. CM/GC Performance Targets - FHWA briefs the latest national research and “what right looks like”
6. DM’s Briefing - DM’s perspective: innovations, alternative means and methods, time savings, cost savings, risk mitigations, critical issues, challenges, and highlights etc., from DM’s proposal.
7. CM Briefing - CM’s perspective: innovations, alternative means and methods, time savings, cost savings, risk mitigations, critical issues, challenges, highlights etc., from CM’s proposal.
8. ICE Briefing - ICE’s perspective: innovations, alternative means and methods, time savings, cost savings, risk mitigations, critical issues, challenges, and highlights etc., from ICE’s proposal.
9. Group Critical Thinking Session
10. Risk Matrix Overview / Discussion
11. ICE’s Cost Model
12. Schedule Development
13. Integrated master development/review – design, R/W, utilities, estimate, etc.
14. CM’s Master Schedule Overview
15. Cost Model development/review and estimate alignment
16. Identification / discussion of first Work Packages
17. Action Items/Set Up Meeting Times/Set Up Task Force Groups

**IV.**  **Concept of Operation (COO)**

Prior to the Kick-off meeting, the CM and ICE each independently develop a Concept of Operation (COO). This COO outlines (charts out) Early Work Packages (and pre-defines all Work Packages) for the entire Project Suite, recognizing that the first Work Package must go to construction within 30 days from the NTP. One goal is to quickly get the CM out to construction i.e., first breaking ground on the Owner’s highest priority Project. The Project Team updates the COO at each weekly Project progress meeting prior to proceeding with the first Work Package, i.e. the Project Team must ensure that the accumulation of all work cost does not exceed the total Project Suite budget (maximum GMP).

The COO must be modeled for the individual Work Packages and Bundles as well as for the overall Project Suite. Each Project within the Project Suite has specific individual accounting requirements. Based on these accounting requirements, quantities are individually tracked by Project for each specific pay item. For example, fine grading may span three different projects within one Work package, the quantities must be measured and tracked for each individual Project separately, by accounting code.

# V. Project Team Meetings

Members of the Project Team schedule and attend all Project Team meetings. Project Team meetings are held once per week during the pre-construction phase of Projects and Bundles, and on an as-needed basis during the construction phase. The Project Team promptly reviews and provides any comments on the minutes to use at the next Project Team meeting. Project Team meetings present general Project progress, address design options that arise during the design process, and help to provide input and direction from the Owner.

The Project Team develops and schedules innovative and streamlined Early Work Packages that complete the Projects well under budget and ahead of schedule.

The Project Team plans relevant aspects of the cost estimate, schedule, and OPCCs. This includes a cost estimate narrative; detailed assessment of the Projects’ limitations of operations; reconciliation of the quantities, crew sizes, COO, and production rates; review of subcontractor plug numbers and actual costs, labor rates, and material costs; and the planned method of measurement, the basis of payment, and a description of the CM’s and ICE’s planned means and methods for constructing the Project Suite.

The DM may hold design specific meetings with the CM at a more frequent schedule.

# VI. Project Budget

Budget control is critical to the success of the Projects. The Project Team members actively participate in clearly defining the scope of each Project, the design, and means and methods to bring the Project Suite well under the Project budget. These cost savings are then applied to additional work / scope within the Project Suite. The CM shall provide current market pricing as a basis of its open-book cost estimates. This includes all expenditures related to the Project (construction, construction management, permitting, local fees, right of way, allowances, contingencies, mitigation, material costs, subcontractor costs, testing, etc.).

# VII. Project Schedule

The ICE is responsible for developing and maintaining an independent overall master Project schedule for the design, construction, permitting, etc., of the Project Suite using a cost-and-resource-loaded CPM schedule.

During the pre-construction phase, the Project schedule includes all detailed coordination efforts to optimize the design, including all DM activities (including permitting / environmental), all CM activities, all third-party/stakeholder activities, BIA right-of-way activities, construction, and all the Owner’s activities. The obligation of the Owner, BIA, FHWA, stakeholders, etc., to complete specific submittal reviews is also included in the Project schedule.

# VIII. Design Parameters and Criteria

The Project Team identifies which design criteria it follows to design and construct each Project. This includes construction standards, testing, specifications, etc.

**IX. Guaranteed Maximum Price (GMP)**

As part of pre-construction phase services, when construction documents are sufficiently complete to establish a price and a clearly defined scope, the CM submits a formal GMP proposal to the Owner for an entire Project, Work Package or Bundle.

The GMP includes the direct cost of all work, indirect costs, allowances items, contingencies, and construction managers set fee (i.e. profit and overhead). Any remaining allowances or unused contingencies are used to complete other Project work within the Project Suite. The CM guarantees to complete the scope of work for that GMP amount (i.e. the contract amount for the construction phase contract) and agrees to be solely responsible for any difference between the actual cost of work and the GMP amount.

All GMP proposal(s) are reviewed and approved by the Project Team and the Owner prior to moving forward. After the CM and the Owner mutually agree to the GMP, and the signing of the Phase 2- Construction Services Option occurs, then the CM-GC firm takes full responsibility for delivering the Work Package, Project, or Bundle within the GMP.

Compensation for construction services within a GMP is as follows:

* For Lump Sum Items in the GMP: Paid as a lump sum.
* For Allowance items in the GMP: Paid based on the actual prices agreed to in the GMP and all spending of allowances are pre-approved by the owner. Quantities are based on field measurement. All unused contingencies and allowances are returned to the Project for additional work within the Project.
* For Contingencies in the GMP: Paid based on the actual prices agreed to in the GMP and all spending of contingencies are pre-approved by the owner. Quantities are based on field measurement. All unused allowances are returned to the Project for additional work within the Project.
* For Unit Price items in the GMP: Paid based on the agreed upon unit prices in the GMP. Quantities are based on field measurement. All unused unit items are returned to the Project for additional work within the Project.

Progress payments for work are paid according to the resource loaded linear schedule as well as verification through measurement in the field.

If the CM and the Owner are unable to reach agreement on a fair and reasonable price for the Phase 2- Construction Services Option, the Owner reserves the right not to exercise the Option and to solicit construction services in a new procurement, from which the CM would be excluded.

# X. Ownership of Documents

All ideas and plans proposed as part of this RFP process become the property of the Owner.

All tracings, bids, plans, manuscripts, specifications, data, maps, materials, etc. prepared or obtained by the Offeror as a result of working on this contract, become the property of the Owner.

**XI. Basic Tenets of CM/GC**

**A. Introduction**

The purpose of these basic tenants is to communicate key aspects of CM/GC to the construction industry and design community. Even though CM/GC is used by many agencies, this document details the Owner’s understanding and implementation of the delivery method.

 **B. CM/GC Contrast to CM@Risk / CMAR**

CM/GC has a long history in both public and private sectors, particularly for vertical construction, federal sector projects, and related construction projects. While there are potential differences in how CM is implemented for vertical construction, some of the same fundamental characteristics apply to highway or multi-modal transportation projects. CM/GC is a system modeled after CM@Risk (CMR) that allows, or in most cases compels, the CM to self-perform a portion of the work.

### The Project Team

With the CM/GC project delivery method, an Owner ”custom-builds” its entire Project Team, including subcontractors and subconsultants, to properly fit the specific needs and objectives of each Project. A partnership is formed between the Owner and the Project Team (ICE, CM, DM, subconsultants, and subcontractors) shortening overall Project completion duration, improving risk identification and mitigation responses, increasing utilization of innovative design/construction techniques, and improving construction conflict identification and management.

The Project Team shall meet once per week during the pre-construction phase of a Project or Bundle, and on an as-needed basis during the construction phase of a Project or Bundle.

### D. Pre-construction Phase

Bundling of Projects and Work Packages allow the Project Team to strategically and innovatively plan, fund, permit, design, and build in a manner which constructs the greatest amount of Projects within the current available funding.

The Project Suite will be delivered using multiple Early Work Packages and Work Packages to meet the Owner’s accelerated schedule (See NCHRP 787 for details).

Under the CM/GC delivery method, it is possible for Projects to be designed “around a table” during regular Project meetings (with the entire Project Team present). The emphasis of the design process changes in this scenario from traditional bid sets of plans to construction sets. The intensity of the design effort shifts from traditional plans production to Project Team planning – that is, critical design decisions are made during regular meetings with all decision-makers present. CM/GC projects do not need a fully developed design package, as with Design-Bid-Build projects, or a complex performance specification as with Design Build projects.

The fast-track nature of CM/GC requires a short-term need for increased plan production rate. The Designer must keep pace with the acceleration and changes proposed by the Project Team as well as multiple Early Work Packages.

The CM/GC method delivers Projects using one CM. This allows the Project Team to strategically and innovatively plan, fund, permit, design, and build in a manner which constructs the greatest amount within the current available funding.

The Project Team’s initial focus should be to identify and begin construction on Projects or portions of Projects that are potentially “shovel ready” and/or can quickly be made “shovel ready” while simultaneously working on other Projects within the Project Suite that are awaiting items as: NEPA clearance, permitting, right-of-way, funding, third-party approvals (i.e., BIA, FHWA, Resource Agencies, etc.).

Pre-construction services consist of addressing and managing agency desires that may encompass a wide range of services, such as scheduling, estimating, bidding and procuring labor and materials, supporting early public outreach, coordinating environmental permits, generating alternative design and construction means and methods, or developing relocation plans for businesses and landowners. Pre-construction includes vital “over-the-shoulder” reviews; which are informal reviews of the design conducted by the CM, literally looking “over the shoulder” of the DM while the DM is in the process of designing the Project. The concept is extended to include non-literal settings where the CM is very closely involved in the design, to the point that the CM can raise questions and make design changes as the design progresses instead of only at designated times. Typically, the pre-construction phase continues until the last Work Package is approved and released for construction.

### E. Pre-construction Phase Collaboration, Coordination, and Communication

The Project Team has the common goals of producing a quality Project under budget, maximizing the value of the work to the Owner, achieving completion without undue inconvenience to the public, producing the work at a reasonable cost to the Owner, and with a reasonable compensation to the CM, ICE, and the DM. In promoting these goals, it is expected that the CM cooperate and collaborate with the Design Manager in reviewing design documents, preparing cost estimates, limitations of operations, sequencing suggestions, constructability reviews, and other items required by the contract. The CM works with the Project Team, and Agencies as needed, when considering alternatives. The CM actively provides input for alternatives, improved methods, and other ways to maximize the quality of the Project. The CM maintains constant communication with the Project Team.

The CM’s pre-construction services are not intended to include the performance of design work. The DM remains responsible for the Engineering of all aspects related to finalization of the design documents and remains the Designer(s)-of-Record throughout the construction phase.

As part of pre-construction phase services, the Project Team holds regular meetings to plan relevant aspects of the cost estimate organization and breakdown for a specific scope of work. This includes a cost estimate narrative, a detailed assessment of the Projects’ limitations of operations, reconciliation of the quantities, crew sizes, production rates, labor rates, and material costs, the planned ‘method of measurement’ and ‘basis of payment,’ and a description of the CM’s planned ‘means and methods’ for constructing the Project scope. During the development of the GMP, the Project Team considers why costs may be out of range, if the Project is overdesigned, if the specifications are more stringent than needed, whether the CM is carrying unnecessary risks, if the Owner is asking for more than they can afford, and if contingencies and allowances are needed. With this process, each pay item is treated like an individual GMP and the entire Project Team agrees to a reasonable cost to pay for each item, prior to moving forward with the design detail. This enables real-time adjustments to each pay item, as well as each design detail, prior to proceeding to an overall GMP very early in the design process. Costs should thereby remain in control because they are controlled and adjusted during each regular production meeting.

**F. Opinion of Probable Cost (OPCC)**

Prior to the CM submitting a GMP for each Work Package, the ICE and CM independently and continuously develop / review both informal and formal OPCCs. The OPCC is defined as an open book cost estimate for the work developed from the ICE and CM’s estimating software platform that includes direct and indirect costs along with allowances and contingencies. The OPCC is supplemented by a CPM resource loaded schedule.

The OPCC represents a good faith open book estimate from the ICE, of the Project costs required to complete all Work Packages required for the Project. It is used to verify that the overall Project scope can be completed under the available Project budget. This model enables the Project Team to properly plan, and effectively monitor and control the cash flow, costs, and funds available in comparison to the budget, estimates and total commitments for the Project. This cost model is not contractual but a guide for the Project Team in gauging the Project in relation to an allowable budget.

Throughout the CM/GC process, the entire Project Team should be aware of the targeted, versus the actual, on-going costs of the Project, as it is being designed and innovations are implemented, to assure that the overall Project costs are kept under budget In addition, the entire Project Team (including the ICE) discusses the actual bid estimates/prices, received directly from the subcontractors, during the regular Project meetings and determine if costs may be out of range, and why; i.e., is the Project overdesigned? Are the specifications more stringent than needed? Are the CM pricing risks included in the unit items versus carrying them on the risk matrix? Is the owner asking for more than they can afford? Are contingencies and allowances needed, etc.? With this process, each pay item is treated as an individual GMP and the entire Project Team agrees to a reasonable cost to pay for each item, prior to moving forward with the design detail. This enables real-time adjustments to each pay item, as well as each design detail, prior to proceeding to an overall GMP very early in the design process. Costs should thereby remain under control because they are adjusted during each regular production meeting.

**G. Linear (Resource Loaded) Schedules**

Linear (resource loaded) schedules are to be utilized by the CM. A Linear Schedule Method (LSM) is used mainly in the construction industry to schedule resources in repetitive activities commonly found in highway, pipeline, high-rise building and rail construction projects. These projects are called repetitive or linear projects. The main advantages of LSM over Critical Path Method (CPM) are its underlying idea of keeping resources continuously at work. In other words, it schedules activities in such a way that:

* 1. Resource utilization is maximized;
	2. Interruption in on-going process is minimized, including hiring-and-firing; and
	3. The effect of the learning curve phenomenon is minimized.

**H. Guaranteed Maximum Price (GMP)**

A GMP is the CM’s guaranteed price to deliver a collaboratively developed and mutually agreed upon scope of work for an entire Project, Work Package or Bundle. The CM guarantees that in no event shall the sum of the CM fixed fee, direct cost of the work, and the Owner’s and CM’s allowances and contingencies exceed the GMP. It includes, but is not limited to all direct and indirect contractor costs associated with the construction, contracting, self-performance and management of the Project, including the preparation of the construction schedules, shop drawing preparation, construction labor, material costs, equipment costs, all traffic control, quality testing, survey, replacement of rejected work or materials, all punch-list work, certain public information and coordination costs, all overhead costs, general condition costs, and fees.

The GMP cost excludes the fees that are paid for services under the pre-construction services phase. GMPs are not subject to price escalation or de-escalation as a result of inflation (time value of money) costs. This issue is considered on a case-by-case basis as part of GMP Contingency discussions within each GMP. In such instances, an escalation study that is specific to the elements of work may be used as a basis of comparison and setting of the contingency costs for escalation and de-escalation.

Each GMP includes the CM Fixed Fee, a pricing element that was bid competitively as part of the CM selection, which is a fixed rate percentage for home office overhead and profit that is applied to the total of all direct costs, Project overhead, and indirect costs. Home office overheads are NOT included in the GMP pricing.

A Project’s overall GMP is typically comprised of a series of smaller GMPs. When the design for an individual Work Package achieves 60-90% completion, the CM provides a GMP for construction of that scope. It is critical for the CM and subcontractors to formulate the rough and final GMPs based on real bids, not estimates by the DM and/or CM firms. Getting real costs at the earliest possible rough concept phases of scoping and rough plans is essential to coming in under budget and generating constructible Projects within schedule. Throughout pre-construction, the CM furnishes real-time cost proposals received from directly from the CM and Sub-contractors as the design progresses. A transparent, open books form, of cost accounting is used and the CM’s profit, general conditions, and indirect costs are known along with any contingencies that the Project Team agrees to be appropriate. The Owner is given an opportunity to question the CM’s proposals as well as direct the Project Team to revise its approach to meet budget constraints.

After successfully agreeing on the construction contract amount, a GMP contract option is executed and the CM-GC firm functions like a General Contractor and is responsible for completing the work on schedule at the guaranteed maximum price for that scope.

Although the selected CM is contracted for both the pre-construction and construction services of this Project through this selection process, should the Owner and the CM be unsuccessful in agreeing to a GMP, the CM loses the rights to perform the work associated with that GMP, which can be re-procured using a Design-Bid-Build or any other lawful procurement method selected by the Owner. The CM will be prohibited from participating on the re-procured work. If the GMP is not accepted, the Owner, in its sole discretion, reserves the right to end the CM’s participation in the Project development process at any time during the pre-construction phase. The CM would be entitled to receive the cost attributable to the completed pre-construction phase services. In this case, the CM would not be entitled to any further additional compensation from the Owner, i.e. damages or lost profits on portions of work not performed.

1. **Contingency / Allowances**

Contingencies and allowances are required to successfully cover the design and construction aspect of the Project and to accelerate the entire process. Contingencies are the difference between success and failure on a Project as they enable real-time decisions to be made and paid for and the Project to move forward rapidly. Contingency is the part of the cost estimate that covers all the uncertain costs of the Project.

The two types of contingencies used in the CM/GC delivery are as follows:

* + CM Contingency - The CM Contingency is an allowance tailored to the scope of work for each GMP that may not have been finalized/defined/specified, as part of the finalization of the drawings and specifications. The CM Contingency is approved and used at the sole discretion of the Owner. The amount of GMP Contingency is approved by the Owner prior to the execution of the GMP and is based upon risk modeling. When establishing the CM Contingencies, the CM requests and provides the Owner adequate reasoning as to why they are to be allowed. The Owner must authorize the use of any portion of the CM Contingency. If the CM Contingency is not fully used, the unspent amount is used for additional work in the Project Suite.
	+ Owner Contingency - The Owner’s Contingency is an amount, determined by the Owner, and inclusive in the overall Project budget, to properly account for potential scope changes, made at the discretion of the Owner, that were not anticipated by the Owner and are beyond the control of the Owner and the CM at the start of the Project.

An allowance is a specified amount included in the GMP for certain items of work that are known but final quantities may be impacted by final site conditions. For example, based on borings the Project Team recognizes there are sections of the base course that need to be replaced and estimates have been made based on the best available geotechnical data. However, the reality is that until the asphalt is removed from the roadway an exact quantity cannot be confirmed.

Therefore, an estimate/price is included in the GMP along with an allowance priced for that item of work. If additional material is needed, the allowance covers the cost of additional material. The CM's costs for labor, overhead, profit and other expenses with respect to the allowance item are included in the GMP but not in the allowance amount. If the quantity under runs the estimate made in the GMP, the balance is used towards new work within the scope of the Project.

1. **Independent Cost Estimate**

An independent cost estimate is developed by the ICE using the cost-based estimating method to compare with the GMP submitted by the CM to ensure that the GMP is reasonable and fair. Only a firm that includes construction estimators experienced in cost-based estimating should be considered for work as an ICE. A properly executed independent cost estimate should never use historical figures (data). The ICE should be contacting the same people that the CM is contacting. This introduces another potential problem, however. The subcontractors and suppliers, if not contacted by the CM and/or owner and ”encouraged“ to support the ICE, will almost assuredly not do so—rendering erroneous prices or none at all. Subcontractors and suppliers should be told in advance that they will be contacted by the ICE, and should be strongly encouraged to work with them. Preferably, the ICE should engage the CM’s estimators throughout this process. By allowing the parties to talk through their disagreements, the process becomes much more efficient. Conceivably, this does not present any potential conflict through these discussions. Since any differences have to be reconciled eventually, it is a good idea to let the individuals that produce these estimates sort things out directly, and as early as possible.

Throughout the independent cost estimate process, the entire Project Team should be aware of the targeted, versus the actual, on-going costs of the Project, as it is being designed and innovations are implemented to assure that the overall Project costs are kept under budget. The independent cost estimate should be performed using CM’s/entities with direct local construction bidding experience. In addition, the entire Project Team (including the ICE) discusses the actual bid estimates/prices, received directly from the subs, during the regular Project meetings and determines if and why costs may be out of range, i.e., is the Project overdesigned? Are the specifications more stringent than needed? Is the CM carrying too many risks? Is the owner asking for more than they can afford? Are contingencies and allowances needed, etc.? With this process, each pay item is treated as an individual GMP and the entire Project Team agrees to a reasonable cost to pay for each item, prior to moving forward with the design detail. This enables real-time adjustments to each pay item, as well as each design detail, prior to proceeding to an overall GMP very early in the design process. Costs should thereby remain in control because they are controlled and adjusted during each regular production meeting.

1. **Construction Phase**

The CM enters into a single contract with the Owner for each Project, Work Package, or Bundle, each contract initiated with an individual Notice-To Proceed (NTP). The first NTP is issued to engage pre-construction services and ultimately the development of the GMP. Offerors are required to name their proposed Subcontractors, if any, in their proposal. Subsequent NTPs are issued after the parties agree to an option that provides a GMP for the selected scope of work. Each subsequent contract option has its own NTP. The terms and conditions for construction services are based on the Owner’s Standard Construction Contract with modifications that are tailored to specific Project requirements.

Once construction begins, the CM becomes the General Contractor (GC) while retaining their duties as construction manager (CM). It is essential that the CM stays fully engaged as a member of the Project Team, so as not to lose the benefits and risk time and effort achieved during the pre-construction phase. This phase begins when the Project Team releases its first Work Package for construction. Typically, construction consists of multiple Work Packages. The CM retains management assistance of the Project as well as acting as prime Contractor (GC) delivering the labor, equipment and materials to complete each Work Package successfully. The initial Project Team and structure remain intact throughout both the pre-construction and construction phases. Construction services consist of purchasing, on-site and off-site construction and fabrication of components, contract administration, and general implementation of the contract requirements through Project closeout. The CM runs frequent progress meetings and produces progress schedules, shop drawings, payment applications, record documents, and as-builts.