



CM/GC Manual

Delivery & Operations Division | Construction Section

December 2020



CM/GC Manual

**A supplement to the ODOT Construction Manual for
CM/GC Contracts**

December 2020

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FOREWORD

This is the December 2020 edition of the ODOT Construction Manager/General Contractor (CM/GC) Manual (CM/GC Manual) for the Oregon Department of Transportation (ODOT). This CM/GC Manual is a supplement to the ODOT Construction Manual for use on CM/GC Contracts. The ODOT Construction Manual generally applies unless stated otherwise in this CM/GC Manual.

This version is the first edition of the ODOT CM/GC Manual.

The current version of the CM/GC Manual is available online at:

<https://www.oregon.gov/odot/Construction/Pages/manuals.aspx>

The CM/GC Manual describes or references the practices needed to administer Construction Manager/General Contractor Contracts under the CM/GC Contract and Exhibits, including the CM/GC General Provisions. The CM/GC General Provisions (Exhibit L to the CM/GC Contract) replace the Oregon Standard Specifications for Construction Part 00100 General Conditions used for Design-Bid-Build contracts.

The CM/GC Contract and General Provisions include details regarding management and administration of the Contract including, but not limited to, timelines and milestones for various design or construction documents, as well as defining the roles and responsibilities for the parties. Nothing in this CM/GC Manual changes any provision or Specification included in the Contract, or any applicable Laws, ordinances, or regulations.

The project manager and the Project staff must be familiar with the applicable requirements of the Contract Documents, which includes the CM/GC Contract, exhibits, CM/GC General Provisions, which this CM/GC Manual references, and other Contract Documents for each of their Projects. They must also be familiar with the other manuals, including technical reference manuals, and Operational Notices or instructions applicable to portions of the work not covered in this CM/GC Manual.

FOR-1 CONVENTIONS

(a) Grammar

This CM/GC Manual is generally written in the imperative mood. When sentences in this CM/GC Manual use the imperative mood, the subject is implied.

This CM/GC Manual uses the terms “Area”, “Tech Center” or “Region” to describe duties, responsibilities, actions, etc., that must be fulfilled by the area manager, tech center manager, or region manager. Since delegation of authority and responsibility may vary by region or area, the PM must work with the area manager to determine whom the PM should contact in different instances.

This CM/GC Manual uses the pronoun “it” when referring to the Contractor, an agency, etc., since the Contractor or Agency is an organization rather than a person.

This CM/GC Manual generally uses the term “Project Manager” when discussing the Agency’s Project personnel. This term is meant to include the Resident Engineer, Assistant Resident Engineer, Resident Engineer-Consultant Projects, or Transportation Project Manager, Inspector, and other Project personnel to whom the Agency has delegated responsibility.

(b) Capitalization of Terms

Capitalized terms, other than titles, abbreviations, and grammatical usage, indicate that the terms have a defined meaning in CMGC110.20, or in the text accompanying the term.

(c) Abbreviations

Following are the meanings of abbreviations used in this CM/GC Manual. Other abbreviations and meanings of abbreviations referenced in this CM/GC Manual may be in the individual Sections of the CM/GC General Provisions to which they apply. (See CMGC110.10.)

A&E	Architectural Engineer
ADA	Americans with Disabilities Act
ADS	Alternative Delivery Services
AM	Area Manager
ATAR	Apprentice/Trainee Approval Request
BOLI	Bureau of Labor and Industries CAE Contract Administration Engineer
CAU	Contract Administration Unit
CCO	Contract Change Order
CE	Construction Engineering
CFR	Code of Federal Regulations
CM/GC	Construction Manager/General Contractor
CMR	Change Management Request
CPS	Contract Payment System
CR	Constructability Reviews
DAS	Department of Administrative Services
DBB	Design-Bid-Build

DBE	Disadvantaged Business Enterprise
DBRA	Davis Bacon and Related Acts
DOJ	Department of Justice
DSL	Department of State Lands
EW	Early Work
EWA	Early Work Amendment
EWO	Extra Work Order
EWP	Early Work Package
FFE	Finding of Fact for Exemption
FHWA	Federal Highway Administration
GMP	Guaranteed Maximum Price
GMPA	Guaranteed Maximum Price Amendment
ICE	Independent Cost Estimator
IGA	Intergovernmental Agreement
MAP-21	Moving Ahead for Progress in the 21 st Century Act
NEPA	National Environmental Policy Act
NTP	Notice to Proceed
OAR	Oregon Administrative Rule
OCR	ODOT Office of Civil Rights
ODOT	Oregon Department of Transportation
OJT	On-the-Job Training
OPO	ODOT Procurement Office – Construction
ORS	Oregon Revised Statutes
PCO	Project Controls Office
PM	Project Manager
PS&E	Plan, Specification, and Estimate Submittal
RAS	Region Assurance Specialist
RE	Resident Engineer
RE-CP	Resident Engineer Consultant Projects

RFP	Request for Proposal
SEP-14	Special Experimental Projects No. 14 – Alternative Contracting
TERO	Tribal Employment Rights Ordinance
TPM	Transportation Project Manager

FOR-2 REVISIONS TO THE MANUAL

The ODOT Construction Section, under the State Construction and Materials Engineer, publishes and updates this CM/GC Manual, and welcomes any comments and suggestions for revisions, corrections, and/or additions.

Comments or suggestions may be submitted to the ODOT Construction Section, Contract Administration Unit at the following:

ODOT.Contractsvs@odot.state.or.us

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Joe Squire, PE

State Construction and Materials Engineer

CHAPTER 1 – INTRODUCTION

1-1 CM/GC DELIVERY METHOD

Construction Manager/General Contractor (CM/GC) is an alternative contracting method that uses an integrated project team approach and applies professional management during the planning, design, and construction of a project. The integrated Project Team consists of an Agency (Owner), Owner's Representative Consultant (optional), architectural engineer (A&E), CM/GC Contractor (Contractor), Independent Cost Estimator (ICE) and subcontractors (see Figure 1-2 below). Like Design-Bid-Build, the Agency contracts separately for design and construction services. However, unlike Design-Bid-Build, in CM/GC Projects both the CM/GC Contractor and the A&E are selected through a qualifications-based or best-value selection process and both may be retained from the beginning of design through the end of construction. See Figure 1-3 below for a comparison of design-bid-build and CM/GC contracting.

Like other project delivery methods, CM/GC provides opportunities and has risks compared to conventional design-bid-build delivery.

The opportunities using a CM/GC Method:

- Value Selection of Contractor (Qualifications and Proposed Approach).
- Early Contractor involvement to optimize construction schedule.
- Early procurement of long lead-time materials.
- Collaboration between Designer, Contractor and Owner.
- Improved Constructability specific to Contractor's means and methods.
- Encourages Innovation.
- Risk Management.
- Improved Cost Control including early cost certainty.

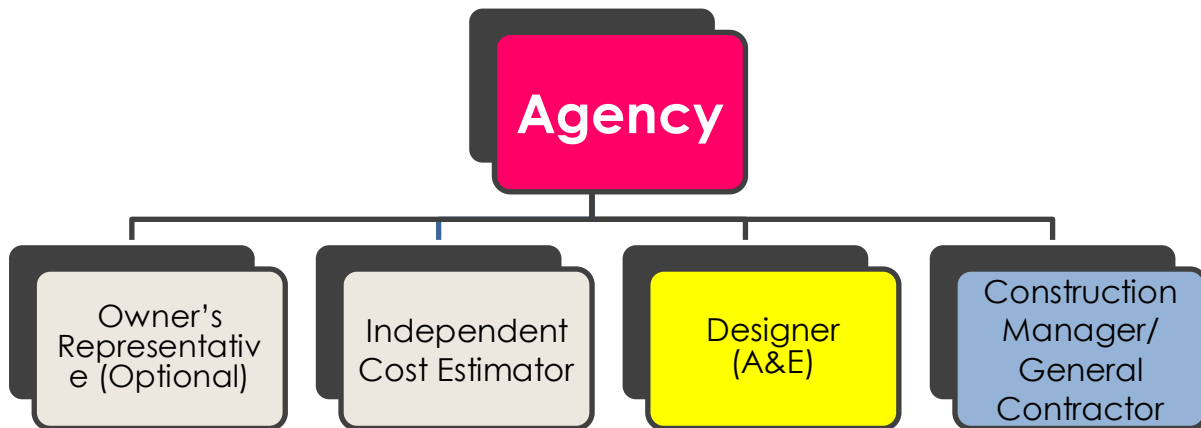
The disadvantages associated with using a CM/GC Method:

- Complex Cost Negotiations.
- Resource Intensive.
- Multiple Contracts to Manage.
- Delivery Method Requires State Exemption.

During the Pre-construction Phase Services, the Project Team works through the design process with the possibility of creating Early Work Packages for construction. The CM/GC Contractor acts as an advisor, providing professional services to the Agency. These services include, but are not limited to, performing constructability reviews, cost estimates, risk assessments, producing work schedules, and providing recommendations on construction phasing (see CMGC141.00). The role of the PM is to provide project management, leadership, and guidance to achieve the design milestone deliverables while determining the best strategies for the Project.

During the Construction Phase, the CM/GC Contractor performs Construction Phase services, which are added to the Contract through either an Early Work Amendment or a Guaranteed Maximum Price Amendment.

1-2 CONTRACTUAL RELATIONSHIPS



1-3 COMPARISON OF CM/GC and DBB CONTRACTING METHODS

Design-Bid-Build



CM/GC



CHAPTER 2 – CM/GC GENERAL PROVISIONS

On CM/GC Projects, the CM/GC General Provisions replace the Oregon Standard Specifications for Construction, Part 00100 General Conditions. The CM/GC General Provisions include differences specific to the award and execution of the contract, Pre-construction Phase Services and Construction Phase Services, Early Work Amendment process, Guaranteed Maximum Price (GMP) Amendment process, subcontracting and termination among others.

The CM/GC General Provisions (sections CMGC110 through CMGC199) included in the Contract contain the terms and conditions for Construction Phase Services. Amendments that add construction Work to the Contract include project-specific CM/GC Special Provisions. The Special Provisions included in a CM/GC Amendment use CM/GC-specific boilerplates for Sections CMGC110 through CMGC199, boilerplate Special Provisions developed for the Oregon Standard Specifications for Construction Part 00200 through Part 03000 and other special provisions developed for the project as necessary.

CHAPTER 3 – ORDER OF PRECEDENCE

The Order of Precedence for projects using the CM/GC delivery method is different than the Order of Precedence used for Design-Bid-Build Projects. For CM/GC projects the Order of Precedence is defined in CMGC150.10(a).

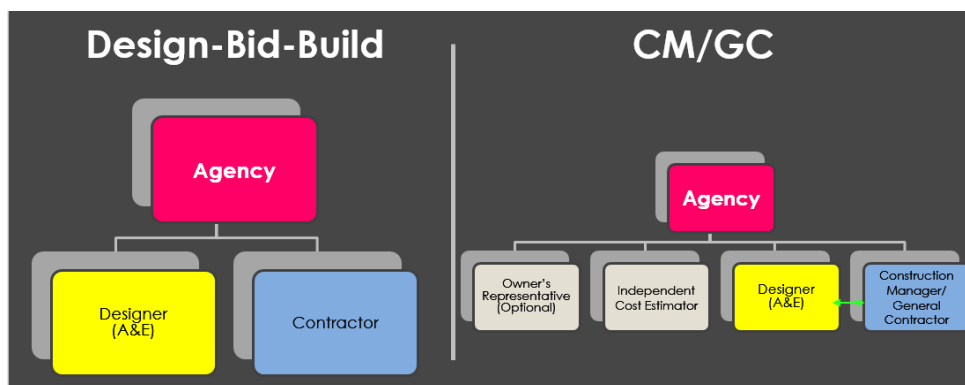
CHAPTER 4 – ROLES & GOVERNANCE

4-1 CONTRACTUAL RELATIONSHIP COMPARISON

The CM/GC method and the Design-Bid-Build method are different in their makeup and function (see Figure 4-1 below for a comparison). In the conventional Design-Bid-Build method, the design Project Team consists of various technical disciplines at the Agency. If the Agency outsources design for a Design-Bid-Build project, a contract with a separate Architectural and Engineering (A&E) firm will be entered into for design. Once the design is complete, the Project is advertised for bid and is awarded to the lowest bidder, with execution of the contract starting the Construction Phase.

The CM/GC method uses an integrated design approach, which involves selecting an A&E firm and a Construction Manager/General Contractor (CM/GC Contractor) during the Design Phase. The A&E provides the Professional(s) of Record responsible for the design and is hired between Project Initiation and 15% design. The CM/GC Contractor is typically hired around 15% design to allow for the CM/GC to lend its expertise to the design process. Hiring the CM/GC too late in the design can negate many of the advantages of the CM/GC delivery method discussed in Chapter 1. During the design phase the CM/GC Contractor works with the Agency and the A&E firm to provide constructability reviews, offer estimates, schedule updates and other deliverables described in CMGC141. To take full advantage of the CM/GC delivery method, the CM/GC Contractor must be brought on early in order to provide constructability advice and perform preliminary design review early enough in the process for the feedback to be considered. As the design progresses, the CM/GC Contractor submits pricing information and other submittals as specified.

The Agency, A&E, CM/GC Contractor, and the Owner’s Representative, if applicable, are Project Team members. Depending on the type or size of the Project, the Agency may also hire additional Consultants to help with project development, which may include an Independent Cost Estimator (ICE). See the Project specific requirements in Article 4 of the CM/GC Contract regarding the Relationship and Roles of the Parties.



4-2 AGENCY

The Agency (Oregon Department of Transportation (ODOT)), as the Owner, is responsible to build and maintain highways, bridges, and other parts of the transportation system to include bicycle, pedestrian, and public transportation projects.

The Agency is responsible for providing public engagement through the region's Community Affairs Liaison and/or Public Information Officers (see ODOT's [Public Involvement](#) webpage and [Operational Notice PD-12](#)).

(a) Region

(1) Area Manager

Refer to the ODOT Construction Manual, [Chapter 1 – ODOT Organization](#). The area manager (AM) is responsible for ensuring projects are delivered in scope, on schedule, and within budget as programmed. The AM ensures the RE has adequate staff, the project is funded to complete the Work, and that good public relations exist at the Project level.

(2) Project Manager

The resident engineer (RE), or resident engineer- consultant projects (RE-CP) all referred to as the project manager (PM).

The PM represents the Agency and is responsible for planning, executing, monitoring, and delivering assigned Projects in accordance with the Contract. The PM works with resource providers to identify and secure Project Team members to support delivery of the Project.

For CM/GC projects, the PM is responsible for overall management of the project within the PM's delegated authority, including but not limited to the following:

- All Project Team development, assignment delegation, establishing a project management plan.
- Management and administration of the consultant contracts and the CM/GC Contract.
- Lead Agency role on the Project Team.
- Region liaison for solicitation, selection, negotiation, of third-party contacts such as those for the A&E firm, CM/GC, ICE, and Owner's Representative (OR), if applicable, and other Project related third-party contracts and/or agreements.
- Ensuring the applicable PS&E Checklist is complete and all documentation is included (see PCO's Phase Gate Delivery Manual for guidance).
- Participating or assigning a design-management representative to Project Teams during the Pre-construction Phase.

- Review and coordinating any additional reviews, concurrence, and approvals of the various design deliverables and CM/GC Contractor's submitted Pre-construction Phase Services deliverables.
- Reviewing and coordinating the approvals for the development of Early Work packages (EWP) and Early Work Amendments (EWA);
- Leading the collaboration during Pre-construction Phase for effective project transition into the construction phase.
- Reviewing invoices and preparing progress payments for consultants and the CM/GC Contractor.
- Contract administration and technical compliance, including change management and recommendations/decisions per the Contract and Agency specifications.
- Performing required closeout process established for the consultant contracts and CM/GC Contracts ([see ORS 279C.350](#)).

(b) Contract Administration Unit

The [Contract Administration Unit](#) (CAU) is responsible for administration of the Agency's construction contracts including but not limited to:

- Approving and monitoring compliance with subcontracting procedures for CM/GC contracts.
- Liaison with Department of Justice (DOJ) to obtain concurrence on all CCOs and any amendments to the CM/GC Contract.
- Other responsibilities as described in the [ODOT Construction Manual](#).

The Contract Administration Engineer's (CAE) role is similar to that on low-bid projects. In addition to the items listed above, the CAE's role is to execute all Early Work Amendments and the Guaranteed Maximum Price Amendment.

The RE is responsible for coordinating with the CAU on all Change Orders or Amendments to the CM/GC Contract and other contract matters that are beyond the RE's authority or require DOJ review or concurrence. (see latest CM/GC chart for more information on the different roles, approvals, and responsibilities for each task).

(c) ODOT Procurement Office

The [ODOT Procurement Office](#) (OPO) conducts procurements for highway and bridge construction and other public improvements, architectural and engineering services, agreements, goods, equipment and trade services.

OPO will also issue Notice to Proceed on the CM/GC Contract for Pre-Construction Phase Services (only). **Note: If the NEPA review process is incomplete (FONSI or ROD has not been**

issued) at the time of issuance of Notice to Proceed the Notice to Proceed must be limited to only Preconstruction Phase Services and must not allow final design-related activities.

After the CM/GC Contract (for Pre-construction Phase Services) is awarded and Notice to Proceed is issued, OPO's role is one of advisory to the PM on topics such as review of bonds and insurance submitted for Amendments, and review of the Subcontracting Plan related to how the CM/GC Contractor advertises and solicits for subcontractor quotes and awards subcontracts.

(d) ODOT Office of Civil Rights

The ODOT Office of Civil Rights (OCR) administers various programs and provides information regarding potential contracting opportunities for construction, architectural and engineering, and other personal trade services. This includes:

- Small Business Resources.
- Disadvantaged Business Enterprise Program.
- Emerging Small Business Program.
- Mentor-Protégé Program.
- Tribal Employment Rights Ordinance (TERO).
- Workforce Development Program.

For some CM/GC deliverables, OCR will work with DOJ for legal reviews. The OCR will provide Project specific information related to assigned goals. The PM will work with OCR to ensure deliverables and Amendments have been reviewed and concurrence is obtained as required.

4-3 ARCHITECTURAL/ENGINEER CONSULTANT

The A&E consultant is an engineering firm hired by the Agency to perform design services and provide design deliverables for the Project at each of the major milestones indicated at 15%, 30%, 60%, 90%, and 100%. The A&E will follow the Agency's engineering manuals, standards, and specifications relevant to the project (see ODOT's [Technical Guidance](#) webpage for more information). The A&E firm's role continues through the Construction Phase of the Project as the Professional of Record.

4-4 CONSTRUCTION MANAGER/GENERAL CONTRACTOR

The CM/GC Contractor is a construction contractor that provides professional services as the Construction Manager (CM) during the project's Pre-Construction Design Phase. During the Pre-construction Phase, the contractor is hired as the Construction Manager (CM) and provides constructability reviews and pricing feedback on design options, and may identify risks based

on the CM/GC Contractor's established means and methods. The CM/GC Contractor may also perform Construction Phase Services as the General Contractor (GC) through Early Work Amendments (EWAs) and through the GMP Amendment, if agreement is reached with the Agency. The CM/GC Contractor must self-perform no less than 30% of the overall Construction Phase Work.

4-5 INDEPENDENT COST ESTIMATOR

The Independent Cost Estimator (ICE) is either an independent consultant hired by the Agency, or the Agency's internal cost estimating team, put in place to verify the reasonableness of the estimated cost of proposed EWAs, the GMP Amendment, and any associated Amendments or Change Orders. The ICE will independently develop a project based cost estimate. The ICE is not part of the Project Team but will participate in project team meetings as needed. The ICE will have access to the A&E deliverables, project information and participate in various cost estimating meetings so that it can provide an independent estimate for assessment and review of the CM/GC Contractor's estimate and supporting documentation, including the cost-loaded and production based schedule.

The Agency, at its discretion, may retain additional independent cost estimators to help resolve pricing discrepancies if necessary. The RE will discuss this option with the CAE before bringing in other estimators.

4-6 OWNER'S REPRESENTATIVE CONSULTANT (OPTIONAL)

Depending on the type, size, complexity, and resourcing need of the Project, the Agency may hire an Owner's Representative Consultant (also referred to as "Owner's Representative") to provide expertise and resources during project development, design, and construction phases. The Owner's Representative does not replace the Agency's role as Owner of the Project.

4-7 OTHER AGENCIES

(a) Department of Justice

The DOJ serves as legal counsel to the Agency through legal guidance and review of contract documents and represents the Agency in the event of legal issues.

After award of the CM/GC Contract, the PM will work with the CAE. The CAE will coordinate legal sufficiency reviews of all contract related documents pertaining to the CM/GC Contract including Amendments and Change Orders.

(b) Federal Highway Administration

Most CM/GC Projects will have federal funding due to the Project size. The PM should review the sections in the ODOT Construction Manual for similar requirements in Design-Bid-Build Projects to ensure compliance to maintain federal funding.

4-8 GOVERNANCE

(a) Federal Highway Administration

[Moving Ahead for Progress in the 21st Century Act \(MAP-21\) Section 1303 - Letting of Contracts](#) (07/06/2012). MAP-21 authorizes contracting agencies to use the CM/GC delivery method. Approval is no longer necessary under FHWA's SEP-14 process, as long as the contracting agency complies with the statutory provisions in Section 1303.

[Construction Manager/General Contractor Contracting Final Rule](#) (12/02/2016). Section 1303 of the Moving Ahead for Progress in the 21st Century Act (MAP-21) authorizes the use of the Construction Manager/General Contractor (CM/GC) contracting method. This final rule implements the new provisions in the statute, including requirements for FHWA approvals relating to the CM/GC delivery method of contracting for Projects receiving federal funding.

According to [23 CFR § 635.505 - Relationship to the NEPA process](#), the Agency and its PM should review the requirements related to the use of funds for advancing the design if NEPA process is not completed. Final design-related activities may not be eligible for federal reimbursement.

There are additional requirements on Federal Aid Projects if the Project is greater than \$500 Million in total project costs or classified as a Major Project by FHWA.

Additional FHWA requirements on CM/GC Projects are located at:

<https://www.fhwa.dot.gov/construction/contracts/acm/cmhc.cfm>.

(b) State of Oregon Statute

According to [ORS 279C.335\(2\)](#), public improvement projects are exempt from the competitive bidding requirement if there is Director of Transportation approval of the findings that the agency submits on the Finding of Fact for Exemption (FFE).

The PM should also be aware of the closeout requirements and the required evaluation of public improvement projects not contracted by competitive bidding as referenced in [ORS 279C.355](#).

CHAPTER 5 – AGENCY AUTHORITY

During the Pre-Construction and Construction Phase, the process and signatures for Amendments will be similar to the Contract Change Order (CCO) process described in [Chapter 15 – Change Orders/Force Account/Work by Public Forces](#) of the ODOT Construction Manual.

Per ODOT Construction Manual - Chapter 15, the draft Contract Change Order must be submitted to the CAE before it is sent to the CM/GC Contractor.

The PM has limited authority to execute CCOs and Amendments. The PM will work with the AM and the CAE on all Amendments and Change Orders. The A&E and other Agency consultants do not have any authority to execute Change Orders or Amendments on the Agency's behalf.

All Amendments and CCOs to the CM/GC Contract require CAE review before submitting to the Contractor for signature. The CAE will coordinate the CCO, Early Work Amendment (EWA) and Guaranteed Maximum Price (GMP) Amendment reviews with DOJ as necessary for legal sufficiency and return any comments, questions, and/or concurrences back to the Agency PM. [Refer to [Chapter 10-5 – Amendment Development and Oversight](#)]

The Agency PM must also obtain the approval of FHWA (refer to [Chapter 10-6\(b\) – FHWA Approval Criteria](#)) for Change Orders (inclusive of CCOs, Extra Work Orders (EWO), and any Order for Force Work (OFW) for federally funded CM/GC Projects. DOJ and FHWA, if applicable, review and concurrence is required prior to approval of CCO, EWO, OFW, EWA, and the GMP Amendment.

The PM will coordinate changes with the CM/GC Contractor's staff that has the appropriate authority to make those changes. This includes Key Personnel with the authority to make changes, as identified in Article 4 of the CM/GC Contract, and superintendents as noted in CMGC150.40. Changes to the CM/GC Contractor's Key Personnel is subject to Agency approval (see CMGC180.35.).

Refer to the ODOT Construction Manual, [Chapter 3 – Delegation of Authority](#), which describes who in the Agency has authority and the levels of authorities for Change Orders or Amendments.

CHAPTER 6 – COLLABORATION

During Pre-construction Phase Services, the Agency, A&E, CM/GC Contractor, and Owner's Representative, if applicable, will engage in the Project development process as members of the Project Team. It is important that the Agency Project Manager provide the primary lead role on the Project Team.

The CM/GC Contractor shall also be engaged in the Project development process working as a member of the Project Team and shall provide the services as described in Section CMGC141 – Pre-construction Phase Services.

The ICE is not part the Project Team developing the Project, but will develop its own independent cost estimate, schedule, and approach for each work package at the various design milestones. Although the ICE is not a member of the Project Team, it will participate in meetings and other coordination with the Project Team as appropriate to gain necessary knowledge of the Project.

CHAPTER 7 – DOCUMENT MANAGEMENT

7-1 PRE-CONSTRUCTION PHASE

During Pre-construction Phase Services, the PM will use ProjectWise® for receipt, retrieval, and storage of all Project design records, files, submittals, and deliverables identified by the Agency. It is required that the ODOT Folder Structure is used to house all documents related to project delivery, including draft and final electronic design at each phase of development.

The Agency will retain documentation regarding the use of ProjectWise® by all persons affiliated with the Project. The Agency will identify individuals and track the information regarding their use of ProjectWise® using a User Account Status spreadsheet for the specific project to include those with access and those whose access is no longer valid. The PM will verify the information on the User Account Status spreadsheet with the information provided by the CM/GC Contractor. The PM will be responsible for also tracking the use of ProjectWise® by any members of the Project Team for each specific project to include but not limited to the Owner's Representative, A&E, Independent Cost Estimator, Agency employees, and other consultants as necessary.

The CM/GC Contractor shall submit a completed and signed [External User Access Agreement](#) for each individual requesting ProjectWise® access to ODOT for review and approval. Individuals with approved accounts will be provided access only to appropriate folders specific to the Project that they have been contracted to work on. The CM/GC Contractor, its Subcontractors and each individual seeking or having access to ODOT's ProjectWise® network will follow the procedures provided in the [Contract Consultant and External User Roles, Responsibilities, and Security Requirements - ODOT's ProjectWise® Network](#).

The CM/GC is required to promptly send notice to ODOT via email to ProjectWiseAdmin@odot.state.or.us to remove ProjectWise® access for individuals that are no longer employed or that are reassigned or that otherwise no longer need access to ProjectWise® for the Project. ODOT will send an attestation request to the CM/GC Contractor every 30 days, or such other period ODOT deems necessary, to validate the list of individuals (including employees, Subcontractor employees or other agents) with access to ODOT's ProjectWise® network. The CM/GC Contractor shall respond in writing to ODOT within three (3) business days of any such attestation request (refer to Exhibit I of the CM/GC Contract).

7-2 CONSTRUCTION PHASE

Documentation of the Project during the Construction Phase Services follows the requirements of the ODOT Construction Manual, [Chapter 12 – Project Records](#). Contact the Contract Administration Unit for more information on software to be used for Construction Phase Services documentation.

CHAPTER 8 – CO-LOCATION

The CM/GC delivery method often utilizes a shared office space during the Pre-Construction Phase of the Project. Although co-location is not required for all CM/GC Projects, it is strongly encouraged.

The Agency may require co-location during any phase of the project. The PM will evaluate whether co-location makes sense for the project size and determine which contract (e.g. A&E, CM/GC Contractor, or Owner’s Representative, if applicable) should contain the appropriate project specific contract requirements prior to the release of the Request for Proposal (RFP) for the Pre-construction Phase Services.

For more information about co-location and contract specifications, please contact the Construction Contract Administration Unit (CAU).

8-1 PRECONSTRUCTION PHASE

If co-location is required for a CM/GC Project, it is generally during the Project’s Pre-construction Phase.

During the Pre-Construction Phase, co-location allows for timely, effective decision-making during the Project development process if the Project Team is working together in a location close to the project site. The CM/GC Contract will identify any project specific co-location expectations for the CM/GC Contractor’s Key Personnel.

The specific co-location site requirements, if required for the Pre-construction Phase Services, will be included in Exhibit F of the CM/GC Contract or in a consultant agreement if the pre-construction co-location is to be provided by a consultant.

The co-location space requirements must be included in the A&E, CM/GC, or Owner’s Representative Contract as applicable. The co-location space will be initially approved by the Agency prior to the Agency’s issuance of NTP on the CM/GC Contract to allow for set-up and occupancy prior to the CM/GC Contractor’s performance of Pre-construction Phase Services under the CM/GC Contract. The PM should consult the A&E, CM/GC, or Owner’s Representative Contract for specific timelines (see CMGC141.10 and Article 4.1 of the CM/GC Contract).

8-2 CONSTRUCTION PHASE

If co-location is required during Construction Phase Services, it will be provided by the CM/GC Contractor as specified in the CM/GC Contract.

The project-specific co-location requirements for Construction Phase Services will be negotiated with the CM/GC and will be included in an EWA or the GMP Amendment.

When negotiating the dedicated space, the Agency should determine the size of the Project Team, which may include the Owner's Representative, the A&E, and the CM/GC Contractor. The co-location facility must be located in the vicinity of the Project as required in the Contract (see CMGC141.10 and Article 4.1 of the CM/GC Contract.).

CHAPTER 9 – PRE-CONSTRUCTION PHASE SERVICES DELIVERABLES

The Pre-construction Phase on a CM/GC Project is the phase during which the CM/GC Contractor is contracted to assist the Agency and its Project Team with the Design Development of the Project. The Project Team will generally consist of three key team members to include the Agency, A&E, and the CM/GC Contractor. On some Projects, the Agency may elect to also contract with an Owner’s Representative, which will also be part of the Project Team. While the Agency may provide staff to perform independent cost estimating, or contract with an ICE, the ICE is not considered part of the Project Team

The A&E is responsible for the overall design and for providing the Design Development Documents which includes, but is not limited to: Plans, Specifications, and development of a Schedule of Items list at each milestone. During the Pre-construction Phase, the CM/GC Contractor is the Construction Manager responsible for providing all the Pre-construction Phase Services and deliverables described in CMGC141 Pre-construction Phase Services.

During the Pre-construction Phase, the PM will be responsible for coordinating the design collaboration between the A&E and the CM/GC Contractor. The PM is also responsible for making sure that the CM/GC Contractor is completing the various deliverables in a timely manner and in line with the Project Schedule.

9-1 DESIGN MILESTONES

The following design milestones apply to any Work Package, each EWA, and the Work to be added by the GMP Amendment (see CMGC141.24):

- 15% Design Complete
- 30% Design Complete
- 60% Design Complete
- 90% Design Complete
- 100% Design Complete; Final Plans, Specifications, and Estimates (PS&E).

The A&E, CM/GC Contractor, Independent Cost Estimator, and if applicable, the Owner’s Representative contracts will identify the various deliverables at each of the different design milestones. The following sections refer mainly to the deliverables required in the CM/GC Contract and the PM’s oversight.

If the Work to be added by an Amendment consists of multiple Work Packages, the Agency may require submittals at the above design milestones for each Work Package, or may combine multiple Work Packages into a single Work Package for convenience.

9-2 PRE-CONSTRUCTION PHASE SERVICES KICKOFF MEETING

Similar to the conventional Pre-Construction Conference discussed in the ODOT Construction Manual, [Chapter 11-2 – Pre-Construction Conference](#), projects delivered using CM/GC hold a Pre-Construction Phase Services kickoff meeting to start the Design Phase of the Project.

Within **21 Calendar Days** following the Agency’s issuance of the Notice to Proceed (NTP) for Pre-construction Phase Services, the PM will coordinate the kickoff meeting with the CM/GC Contractor, the CM/GC Contractor’s Key Personnel, and Major Subcontractors, the Agency, Owner’s Representative Consultant (optional), A&E, and Independent Cost Estimator (ICE) (see CMGC141.23(a).).

The Pre-construction Phase Services Kickoff Meeting is intended to develop a common understanding of purpose, assumptions, and outcomes for the Project. The following is a list of items discussed during the kickoff meeting:

- Review of the 15% Design Phase Submittal;
- Identification of value engineering ideas;
- Risk assessment and characterization of all baseline Project risks;
- Review of the Project schedule;
- Identification of design and anticipated permits;
- Review and validate the Project Risk Register to include cost and schedule risks, severity, and likelihood, risk priority, and risk ownership; and
- Review of potential delegated authorities (i.e. design exceptions, traffic control device approvals, ADA curb ramps)

See sample agenda at the end of this Chapter for an example Pre-Construction Phase Services kick off meeting agenda.

9-3 MOBILIZATION

Within **14 Calendar Days** following the NTP, the CM/GC Contractor is required to mobilize, applicable personnel, and resources into the Pre-construction Phase Services co-location space (if applicable, if co-location is required as part of the Contract).

9-4 RISK WORKSHOPS AND RISK MANAGEMENT PLAN

(a) Risk Workshop

Depending on the size and type of Project, the risk workshops are to strategically identify and allocate risks, value engineering studies, schedule confirmation, and develop a risk mitigation

plan. Please review CM/GC141.45(a) for the list of the services to be provided by the CM/GC Contractor at the risk workshops.

Within **10 Calendar Days** of receiving the A&E design submittal for each A&E Design Phase Submittal Milestone identified in CMGC141.24, the PM will coordinate with the CM/GC Contractor's Project Team to schedule a risk workshop. The Contractor's Project Team will consist of, at a minimum, the Contractor's Project Manager, Construction Manager, Superintendent, Scheduler, and Lead Cost Estimator. The PM or its representative will be responsible for leading the risk assessment workshop. Include the Value Engineering/Project Risk Engineer at each risk workshop.

(b) Abbreviated Risk Workshop

In addition to risk workshops triggered by Design Phase Submittal Milestones, a CM/GC Contract may specify abbreviated risk workshops between submittal milestones. The abbreviated risk workshops occur after the schedule, estimate, and report review. During the abbreviated risk workshops, update the Risk Register with new risks, review current risks, and provide follow up on the risk response strategy.

These abbreviated workshops will occur between the design milestones as described in CMGC141.45.

(c) Risk Management Plan

Within **45 Calendar Days** from receiving the 90% A&E design identified in CMGC141.24, for the Project or for an Early Work Package, the CM/GC Contractor submits the required Risk Management Plan that will include the response strategies for allocation and mitigation of risks identified collaboratively in the risk workshops.

The PM and Agency will review the Risk Management Plan and provide comments and edits to the CM/GC Contractor in a timely manner. Per CMGC141.45(b), the CM/GC Contractor is responsible for incorporating Agency comments and requirements, and submitting the Risk Management Plan, within **30 Calendar Days** from of receiving the Agency's comments.

Contact the ODOT's Project Risk/VE/Constructability Program (503-302-7592) for more information.

9-5 SUBCONTRACTING PLAN

The Subcontracting Plan identifies the CM/GC Contractor's subcontracting process for the Construction Phase Services. The Plan should include subcontracting requirements in Section CMGC144 for generating participation by Disadvantaged Business Enterprise (DBE) Subcontractors. See Article 9 of the CM/GC Contract for the minimum requirements the CM/GC Contractor shall include in order to fulfill the subcontracting requirements indicated in Article 9.1.1(b) of the CM/GC Contract.

The CM/GC Contractor is obligated to submit Subcontracting Plans according to CMGC141 regardless of the minimum subcontracting percentage.

Within **20 Calendar Days** following the Pre-construction Phase Services Kickoff Meeting, the CM/GC Contractor submits its initial Subcontracting Plan to the Agency. The PM will evaluate and make certain that the Subcontracting Plan includes the following:

- Details of its contracting plans and its Subcontractor plans and selection process.
- CM/GC Contractor's competitive selection process.
- CM/GC Contractor's suggestions, if any, for best value selection of Subcontractors.
- Approaches to publicly advertising opportunities.
- Procurement process.
- Subcontracting requirements in Section CMGC144.
- Information regarding subcontractor availability and local economic conditions.

(See Article 9 and Exhibit C of the CM/GC Contract and CMGC141.40(h).)

If the PM determines that the submittal information is incomplete or inaccurate, the PM will return the document for correction within the submittal review timelines identified in the CM/GC Contract [refer to [Chapter 12 – Pre-construction Subcontracting](#)].

Within **20 Calendar Days** of receiving the A&E design submittal for each A&E Design Phase Submittal Milestone identified in CMGC141.24, the CM/GC Contractor submits an updated Subcontracting Plan to the Agency. The PM will review the Subcontracting Plan and distribute it for review with Office of Civil Rights (OCR), CAU, and DOJ.

The Subcontracting Plan must be approved before the CM/GC Contractor solicits offers from Subcontractors for Construction Phase Services.

9-6 DIVERSITY PLAN

The CM/GC Contractor will consult with the Agency to submit a draft and final Diversity Plan for Agency approval. See CMGC141.40(i), CMGC144, and Exhibit C of the CM/GC Contract. The PM will review and forward the Diversity Plan to the OCR.

Within **20 Calendar Days** following the Pre-construction Phase Services Kickoff Meeting, the PM will ensure that the CM/GC Contractor submits a draft Diversity Plan.

Within **20 Calendar Days** of receiving the A&E design submittal for each A&E Design Phase Submittal Milestone identified in CMGC141.24, the CM/GC Contractor is required to submit an updated Diversity Plan to the PM.

The PM will consult with OCR on the Diversity Plan review. If there are any changes needed, the PM will facilitate the changes to the Diversity Plan between OCR and the CM/GC Contractor. OCR will coordinate the DOJ legal review related to the OCR Program. OCR will notify the PM of concurrence with the Diversity Plan after DOJ review.

The PM will send the Diversity Plan to CAU for review. CAU will coordinate a DOJ legal sufficiency review related to the requirements set forth in the CM/GC Contract. The PM will provide written notification to the CM/GC Contractor of the Diversity Plan approval. Once the PM, CAE, OCR, and DOJ determine the submitted Diversity Plan satisfies all applicable requirements in the Contract, the PM will give written approval.

The Diversity Plan must be approved before the CM/GC Contractor solicits offers from DBE Subcontractors for Construction Phase Services.

9-7 COOPERATIVE ARRANGEMENT

The Cooperative Arrangement meeting requirement is designed to partner the Agency and A&E with the CM/GC Contractor, the CM/GC Contractor's Key Personnel, and Major Subcontractors in an effort to take advantage of the strengths of each organization (See CMGC120.95 and CMGC150.05). The objective of the partnering agreement is the effective and efficient completion of Work on time, and to a standard of quality acceptable by the Agency, the A&E, and the CM/GC Contractor. For projects using the CM/GC delivery method, Cooperative Arrangement is required, whereas in design-bid-build, it is optional.

The PM will be responsible for the coordination and facilitation (either by Agency or its representatives) of mandatory workshops held at the following milestones:

- Within **30 Calendar Days** following NTP, or as otherwise directed by the Agency.
- Within **14 Calendar Days** following NTP for the first EWA, or as otherwise directed by the Agency.
- Within **14 Calendar Days** following NTP for the GMP Amendment, or as otherwise directed by the Agency.

(See CMGC120.95 and CMGC150.05.)

9-8 SCHEDULE

The Project Work schedules identify the sequencing of activities and time required for performance of the Work. The Agency will utilize a detailed, resource and cost-loaded, time-scaled critical path method network (CPM) Project Work schedule per CMGC180.41, starting at the early stages of the Pre-construction Phase, throughout the entire Project. The schedule helps to plan, coordinate, and control the progress of the construction and will provide for orderly, timely, and efficient performance of the Work. The schedule details enable the CM/GC Contractor and the A&E to plan, coordinate, analyze, document, and control their respective Contract responsibilities. The details will include double shifts, overtime work, or combination of both necessary to complete Contract Work within the Contract Time.

The PM will ensure that the CM/GC Contractor submits the initial CPM Project Work schedule within **45 Calendar Days** following NTP for Pre-construction Phase Services.

Within **14 Calendar Days** following CM/GC Contractor submission, the Engineer and the CM/GC Contractor shall meet to review the CPM Project Work schedule. Within **7 Calendar Days** following the meeting, the CM/GC Contractor shall resubmit to the Engineer the revised CPM Project Work schedule. The digital copy submitted by the CM/GC Contractor shall be compatible with Primavera P6 or another scheduling program approved by the Agency.

The PM will require the CM/GC Contractor to submit the **monthly** CPM Project Work schedules. When the CM/GC Contractor provides the CPM Project Work schedule and a computer analysis printout indicating the Critical Path, the PM or its representative will review and compare the progress to the previously submitted schedule. The PM will ensure that the CM/GC Contractor has incorporated any 3-week look ahead modifications in the overall schedule (See CMGC180.41(a)(1).).

The CM/GC Contractor shall consult with the PM, Owner's Representative Consultant, and A&E for design and permitting activities affecting the current Work schedule in order to provide current updates.

The PM is responsible to review the CM/GC Contractor's schedule submittals. If the PM determines that the submittal information is incomplete or inaccurate, the PM will return the document within the submittal review timelines identified in the CM/GC Contract.

9-9 MATERIAL SOURCING PLAN

The Material Sourcing Plan outlines the Materials required for the construction of major items and specialty items required for the construction of the Project. The PM will verify that the CM/GC Contractor addresses the need for ordering Materials with long lead time, and identifies Material sources that are in short supply, have inflationary risks, or potential for impact to the CPM Work schedule.

Within **45 Calendar Days** following the Pre-construction Phase Services Kickoff Meeting, an initial Material Sourcing Plan shall be submitted by the CM/GC Contractor based on the A&E design submittal for the 15% A&E Design Phase Submittal Milestone identified in CMGC141.24.

The CM/GC Contractor shall submit an updated Material Sourcing Plan within **45 Calendar Days** of receiving the A&E design submittal for each A&E Design Phase Submittal Milestone identified in CMGC141.24. The PM will ensure that the CM/GC Contractor submits the updated Material Sourcing Plan based on the most recent A&E Design submittal.

If the PM determines that the submittal information is incomplete or inaccurate, the PM will return the document for correction within the submittal review timelines identified in the CM/GC Contract.

9-10 PRE-CONSTRUCTION PHASE EVALUATION REPORTS

(a) Early Work Package Memorandum

The Early Work Package (EWP) memorandum, as required by CMGC141.40(a), will be submitted by the CM/GC Contractor to identify potential Early Work on a Project to achieve the goals of the Project. The CM/GC Contractor submits the EWP memorandum within 90 Calendar Days following the Pre-Construction Phase Services Kickoff Meeting. This memorandum will include the CM/GC Contractor's justification for each suggested EWP.

(b) Initial Pre-Construction Phase Evaluation Report

Within **90 Calendar Days** following the NTP for Pre-construction Phase Services, the CM/GC Contractor shall submit a Pre-construction Phase Evaluation Report. The PM will review the Pre-Construction Phase Evaluation Report for completeness and accuracy. The report will be based on the Pre-construction Phase Services Kickoff meeting and the review of the latest A&E design plan submittal.

The PM will make certain that the report includes the following:

- CPM Project Work schedule per CMGC180.41.
- Preliminary construction cost based on A&E provided Pay Item list.
- Basis for estimates of labor, equipment and material rates (see Article 6 of the CM/GC Contract).
- Red-line edits on design drawings and specifications.
- Proposed construction project phasing and sequencing alternatives, including.
- A list of advantages and disadvantages, including schedule and cost considerations.
- Impacts of each alternative on operations, associated risks, and traffic control.
- Constructability recommendations and value engineering.
- Recommendations on any identified opportunities for increased efficiency or innovation.
- Recommendations on structure design options, including a comparison of the risks, cost, schedule, construction methods, safety, maintenance, and other benefits of the different Structure types.
- Permitting Plan; (refer to [Chapter 9-15 – Permitting Plan](#)).
- Existing Parameters Memorandum; (refer to [Chapter 9-14 – Existing Parameters Memorandum](#)).
- Any issues that, in the opinion of the CM/GC Contractor, should be considered in the planning, design, management, or execution of the Project.

If the PM determines that the submittal information is incomplete or inaccurate, the PM will return the document for correction within the submittal review timelines identified in the CM/GC Contract.

(c) Pre-construction Phase Evaluation Report Updates

Within **45 Calendar Days** of receiving the A&E design submittal for each A&E Design Phase Submittal Milestone identified in CMGC141.24, the CM/GC Contractor is required to submit an updated Pre-construction Phase Evaluation Report to the Agency.

The PM will review the updated reports for completeness and accuracy. The PM will ensure that the updated reports include the information noted above and an updated EWP Memorandum based on the latest design developments and revisions available at the time of the submittal.

9-11 EARLY WORK PACKAGE PRE-CONSTRUCTION PHASE PROPOSAL

The PM will evaluate and determine with CAU, DOJ, and FHWA whether the project warrants an Early Work Amendment (EWA). An EWA may include one or more EWPs.

Following the Agency's written identification of Early Work Package(s) (EWP) for an EWA, and within **30 Calendar Days** of receiving each A&E design submittal for that EWP/EWA, the CM/GC Contractor shall submit a Pre-construction Phase Proposal. The Pre-construction Phase Proposals shall include the following:

- Cost estimates and other information and elements as identified in Articles 6.5 and 6.6 of the CM/GC Contract and CMGC141.31(b).
- Schedule durations.
- All permitting, Right-of-Way, third-party agreements, or other items necessary for the proposed EWA.
- Availability of and sourcing plan for, Materials necessary to complete the EWA.

If the PM determines that the submittal information is incomplete or inaccurate, the PM will return the document for correction within the submittal review timelines identified in the CM/GC Contract.

9-12 CONSTRUCTABILITY REVIEWS

The CM/GC Contractor, including its own personnel and any subcontractors shall work collaboratively with the Agency, A&E, and Owner's Representative (if any) to answer questions and provide recommendations on constructability of the Project.

Within **45 Calendar Days** of receiving the A&E design submittal for each A&E Design Phase Submittal Milestone identified in CMGC141.24, the CM/GC Contractor is required to submit

written comments, red-line edits, and recommendations on the proposed contract documents, including but not limited to specifications, Pay Item list, and on the drawings to the Agency for the A&E design submittal (see CMGC141.21 and Exhibit D of the CM/GC Contract).

9-13 COST ESTIMATING

Within **45 Calendar Days**, or such greater number of days allowed by the Agency, of receiving the A&E design submittal for each A&E Design Phase Submittal Milestone identified in CMGC141 (which could include both the Early Work Packages and the overall design), the CM/GC Contractor is required to develop and submit a cost estimate to the Agency for the overall Project or an identified Early Work Package, based on the latest version of the A&E's design plans, schedule of items, and specifications (refer to [Chapter 14 – Cost Estimating](#) and [Chapter 10-5 – Amendment Development and Oversight](#) for more information on the cost estimating process).

9-14 EXISTING PARAMETERS MEMORANDUM

The Existing Parameters Memorandum gathers information about the following:

- Existing operational requirements for each type and location of the proposed work.
- Summarizing operational options for work activities that may have the potential to disrupt services to business and residential customers.
- Summarizing the procedures and parameters related to each type of work environment, schedule, and outlining the acceptable construction work windows and their related requirements.

The PM will verify that the CM/GC Contractor submits the Existing Parameters Memorandum as part of the Pre-construction Evaluation Report due within **90 Calendar Days** following the NTP and within **45 Calendar Days** of receiving the A&E design submittal for each A&E Design Phase Submittal Milestone identified in CMGC141.24 (see CMGC141.40(f)).

If the PM determines that the submittal information is incomplete or inaccurate, the PM will return the document for correction within the submittal review timelines identified in the CM/GC Contract.

9-15 PERMITTING PLAN

The Permitting Plan identifies timelines, required information, and approval and signature cycles for each permit. The Plan will include the following:

- A spreadsheet summarizing all the necessary permits to construct the Project.
- Summary of submittal deadlines.
- Summary of signature deadlines.
- Comments on progress.

Within **120 Calendar Days** following the Pre-construction Phase Services Kickoff Meeting, the CM/GC Contractor shall submit the initial Permitting Plan. The PM will review and track the CM/GC Contractor's submittals of the initial Permitting Plan and monthly updated Permitting Plans. The PM will ensure that the CM/GC Contractor is collaborating with the A&E to provide **monthly** updates to the Permitting Plan.

If the PM determines that the submittal information is incomplete or inaccurate, the PM will return the document for correction within the submittal review timelines identified in the CM/GC Contract.

9-16 CONSTRUCTION APPROACH, MEANS, AND METHODS PLAN

The Construction Approach, Means, and Methods Plan (CAMMP) contains the Project narrative describing the CM/GC Contractor's approach to Construction Phase Services activities and includes planning, coordinating, scheduling, sequencing, means and methods, and resourcing of the Work. The PM will review the CM/GC Contractor's CAMMP as identified in CMGC141.41.

Within **60 Calendar Days** before commencing mobilization of any EWA or the GMP Amendment, the CM/GC Contractor submits a draft CAMMP. The PM will provide any review edits and comments on the CAMMP to the CM/GC Contractor.

The CM/GC Contractor shall incorporate Agency comments and requirements, finalize, and resubmit the CAMMP to the Agency for final approval no later than **30 Calendar Days** prior to commencing mobilization to perform each EWA, if applicable, and the GMP Amendment.

If the PM determines that the submittal information is incomplete or inaccurate, the PM will return the document for correction within the submittal review timelines identified in the CM/GC Contract.

9-17 PRE-CONSTRUCTION PHASE MEETINGS

Per CMGC141.32, the PM or the Agency's representative will facilitate and will coordinate with the CM/GC Contractor, CM/GC Contractor's Key Personnel, Major Subcontractors, and others to participate in the following recurring meetings:

(a) Project Manager's Meeting – Weekly

The CM/GC Contractor's PM shall participate in weekly meetings with the Agency's PM. The project manager meetings focus on reviewing Project progress and resolving critical or difficult Project issues, particularly related to the Project schedule, budget, and potential risks.

(b) Design Meeting – Weekly

The CM/GC Contractor's PM and applicable personnel shall participate in:

- Weekly discipline-specific design meetings, including but not limited to, structural, geotechnical, environmental, roadway, traffic, utility and ROW, and hydraulic design meetings.
- Additional informal over the shoulder weekly meetings, as required by the Agency.

(c) Disadvantaged Business Enterprise Meeting – Bi-weekly

The CM/GC Contractor's Diversity Coordinator will attend and participate in bi-weekly DBE coordination meetings with the Agency. The DBE coordination meetings will focus on the CM/GC Contractor's DBE outreach, events and attendance to support DBE participation on the Project, technical assistance for DBE firm certification, and approach to increase and improve the capacity, capabilities, and expertise of certified DBEs to be successful with Project subcontracting opportunities.

(d) Risk Management Meeting – Bi-Weekly

The CM/GC Contractor's Project Manager and applicable personnel shall participate in bi-weekly risk management meetings with the Project Team to review the Team's follow-up progress on risk response strategies for all major risks identified in the risk register.

(e) Executive Team Meeting – Monthly

The CM/GC Contractor's Project Principal and Project Manager shall attend monthly Agency executive team meetings to provide Agency executives with a status update on Work completed, Work underway, upcoming Work priorities, and risks to the Project scope, schedule, and budget.

(f) Estimating Task Force Meeting – Monthly

The CM/GC Contractor's Project Manager, Cost Estimator, and applicable personnel shall participate in monthly task force meetings with the Agency and the Independent Cost Estimator (ICE) to plan and organize the basis of labor and equipment rates, productivity assumptions, proposed pay items and detailed cost estimates for the proposed work. Estimating task force meetings may be held more or less frequently as needed to meet the demands of the project. (see Article 6.5.2 and Exhibit H CM/GC Contract).

9-18 PUBLIC INFORMATION MEETING SUPPORT

The CM/GC Contractor's PM shall provide support and content to support the Agency-led public information process (see CMGC141.22). The Agency will determine the level of involvement by the CM/GC Contractor's PM and other personnel to provide tasks such as:

- Preparation of information and participation in community and stakeholder briefings.
- Informational meetings.
- Attending and participating in the Agency's open house meetings.
- Supporting the Agency-directed public information and media requests.

SAMPLE AGENDA

Instructions – Information highlighted in Yellow is a place holder to be changed, along with blanks to be filled in. Items highlighted in Green are instructions that should be removed from the final version.

Pre-Construction Phase Services Kick-off Meeting

AGENDA

Project: CM/GC Manual Example Project

Key No. 20999 Contract No. C99889

May 18 – May 22, 2020

This meeting is being recorded

I. INTRODUCTIONS

A. CM/GC Contractor: A-one Construction Company

123 Business Street

Center, OR 99999

Office Phone: _____

FAX Number: _____

Cell Phone: _____

Name, Title*	Telephone	Cell

[Include Key Personnel in table above from CM/GC Contract Article 4.6.1 and those listed in Article 17 of the CM/GC Contract.]

1. Major Subcontractor, Inc. [see CM/GC Contract Article 4.6.2]

2. Major Subcontractor, Inc. [see CM/GC Contract Article 4.6.2]

B. Agency: Oregon Department of Transportation (ODOT)

2001 ODOT Way, Building B

Salem, OR 97301

Office Phone: (503) 986-3456

FAX Number: (503) 986-4567

ODOT Staff Assigned to This Project:

Name, Title	Telephone	Cell
Rhoda Head, PM		
Rod Lenker, Assistant PM		

Other ODOT Staff – In Attendance

Name, Title	Telephone	Cell
OCR		
Labor Compliance		
Public Engagement		
Risk Management		
OPO		

C. A&E Firm: Best Designs (A&E), Inc.

24001 Industrial Way

Salem, OR 97304

Office Phone: (503) 986-0100

FAX Number: (503) 986-4000

Name, Title	Telephone	Cell
Rod Labor, Principal		
Sue Carter, Design Manager		
Tim Sharp, Lead Design Eng.		

D. Owner's Representative: Overseers, Inc. [only if used, otherwise remove]

3368 Portland Ave., Building 10

Salem, OR 97303

Office Phone: (503) 986-3456

FAX Number: (503) 986-4567

Name, Title	Telephone	Cell
Jill Sight, Principal		
Kelly Keen, Design		

Name, Title	Telephone	Cell

E. ICE: Calculators, Inc. [Note if ODOT is performing the ICE, then include above with ODOT]

3368 Portland Ave., Building 10

Salem, OR 97303

Office Phone: (503) 986-3456

FAX Number: (503) 986-4567

Name, Title	Telephone	Cell
James Sharper, Principal		
Nancy James, Head Estimator		

II. KICK-OFF OVERVIEW

- Meeting Facility Layout and Evacuation Procedure
- Summary of Project Scope, Key Project Elements,
- Estimated Schedule Milestones dates for pre-construction and construction phase services.
- File Sharing via ODOT’s ProjectWise Network
- CM/GC Contract Exhibit D Project Goals
- Agency’s Goals
- Stakeholders’ Goals
- Public Engagement
- Review of the 15% Design Phase Submittal [update % to reflect actual milestone]
- Review of the Project schedule (including design, permitting, ROW, etc.)
- Review of potential delegated authorities (i.e. design exceptions, traffic control device approvals, ADA curb ramps)
- Identification of anticipated permits and restrictions [e.g. Traffic related work restrictions, In Water Work Windows, bird nesting, etc.]

II. DELIVERABLES OVERVIEW

A. From Notice to Proceed (NTP)

Item	Days from NTP	Reference(s)
Pre-Construction Colocation, if applicable	14 Calendar Days	Article 4.1 and Exhibit F of the CM/GC Contract
Cooperative Arrangements	30 Calendar Days	CMGC120.95

Item	Days from NTP	Reference(s)
		CMGC150.05, Pre-Construction Phase Each Early Work Amendment, if applicable At GMP Amendment/ Construction Phase
CPM Project Work schedule	45 Calendar Days 14 Calendar Days following submission, meeting to review 7 Calendar Days of the review meeting, resubmit, including required revisions	CMGC180.41(a)

B. From Pre-Construction Phase Kick-Off Meeting

Item	Days from Kick-Off Meeting	Reference(s)
Subcontracting Plan	20 Calendar Days	CMGC141.40(h)
Diversity Plan	20 Calendar Days	CMGC141.40(i)
Initial Material Sourcing Plan	45 Calendar Days	CMGC141.40(g)
Early Work Package Memorandum	90 Calendar Days	CMGC141.40(a)
Initial Pre-construction Phase Evaluation Report	90 Calendar Days	CMGC141.40(b)
Initial Permitting Plan	120 Calendar Days Updated Permitting Plan each month	CMGC141.40(e)

C. Based on Design Submittals

The following design milestones apply to any Work Package, each EWA, and the Work to be added by the GMP Amendment (see CMGC141.24):

- 15% Design Complete.
- 30% Design Complete.
- 60% Design Complete.
- 90% Design Complete.
- 100% Design Complete; Final Plans, Specifications, and Estimates (PS&E).

Item	Days from A&E Design Submittal Milestone	Reference(s)
Risk Workshop Participation	10 Calendar Days	CMGC141.45(a)
Updated Subcontracting Plan	20 Calendar Days	CMGC141.40(h)
Updated Diversity Plan	20 Calendar Days	CMGC141.40(i)
Constructability Review	45 Calendar Days	CMGC141.21
Cost Estimate	45 Calendar Days	CMGC141.31
Updated Pre-construction Phase Evaluation Report	45 Calendar Days	CMGC141.40(c)
Updated Materials Sourcing Plan	45 Calendar Days	CMGC141.40(g)

III. Pre-Construction Phase Service Billing

A. Labor & Travel

1. Pre-Construction Phase Services Rates (CM/GC Contract Article 17).
2. Travel (CM/GC Contract Article 17 & Exhibit J), if applicable.

B. Billing Cycle

IV. CIVIL RIGHTS PROGRAMS [Federally Funded Projects]

A. DBE / EEO / Affirmative Action

1. DBE Work Plan Proposals.
2. DBE Subcontract requirements.

Agency will assign Goals 30 Calendar Days after the 60% A&E Design Phase Submittal Milestone for each Early Work Amendment, the GMP Amendment and to the price for other amendments or change orders.

3. Indian Preference in Employment [if applicable].

B. On-The-Job Training (OJT) / Apprenticeship

1. Assigned Goal of ___%.
2. Training Programs submitted.

C. Subcontracting

V. Value Engineering

[Work with the Agency's Value Engineer to establish the agenda for this section]

VI. Constructability Review

[Main requirement is in CM/GC141.21 based on 45 calendar days from A&E Submittal. However, at the Pre-Construction Kick-off, general discussion and preliminary discussions are anticipated based on the A&E's current milestone submittal, if any.]

A. Comments and recommended edits related to the proposed contract documents

1. Specifications.
2. Pay Item List.
3. Drawings.

B. Cost and schedule implications related to design decisions and alternatives

VII. Risk Management workshop

[Work with the Agency's Risk Management Engineer to establish the agenda for this section]

CHAPTER 10 – PRE-CONSTRUCTION - NOTICE TO PROCEED TO EWA/GMP AMENDMENT

This Chapter describes the Pre-Construction Phase Services after the CM/GC Contractor has been hired, from Notice to Proceed (NTP) to the execution of a Guaranteed Maximum Price (GMP) Amendment. The process may include the Agency opting to perform construction Work prior to the GMP Amendment through the execution of Early Work Amendment(s) (EWA(s)).

10-1 NOTICE TO PROCEED FOR PRE-CONSTRUCTION PHASE SERVICES

When the CM/GC Contract has been fully executed, the OPO will send the NTP to the CM/GC Contractor (see below for NEPA limitations). Until the Agency executes an EWA, the GMP Amendment, or Change Order, the CM/GC Contractor is only authorized to perform the work described in CMGC141 Pre-Construction Phase Services.

Note: If the NEPA Process has not been completed at the time of award, according to CFR the PM may Issue notices to proceed to the CM/GC contractor for preconstruction services, excluding final design-related activities; and issue a notice-to-proceed to a consultant design firm for the preliminary design and any work related to preliminary design of the project to the extent that those actions do not limit any reasonable range of alternatives. See section 4-8 governance or refer to 23 CFR §635.505 Relationship to the NEPA process for more information related to the NEPA requirements.

10-2 DESIGN MILESTONE

The PM will ensure that the CM/GC Contractor completes the deliverables required in the Pre-construction Phase Services, and the Project's overall design is progressing in accordance with the Contract.

The A&E is responsible for providing the Agency Design Development Documents, which include Plans, Specifications, and schedule of items, at the following Design Milestones listed in CMGC141.24:

- 15% Design Complete.
- 30% Design Complete.
- 60% Design Complete.
- 90% Design Complete.
- 100% Complete Design (Final Plans, Specifications and Estimates)

The design milestones listed above apply separately for the design of the Work to be added by each EWA and the design of the Work to be added by the GMP Amendment. If Work is to be

added by Amendment after execution of the GMP Amendment, the design milestones will also apply to the design for that Work.

If the Work to be added by an Amendment consists of multiple Work Packages, the Agency may require submittals at the above design milestones for each Work Package, or may combine multiple Work Packages into a single Work Package for convenience.

The PM will review the A&E design milestone submittals for completeness and consistency at each of the design milestones before accepting the submittal. Submittals will be prepared and submitted according to the following:

- Submittals should be prepared at each design milestone but, depending on the complexity or specific needs of the project, design milestones may be adjusted to include more or fewer design milestone submittals.
- Each submittal should use a defined naming convention that clearly identifies to which Work Package or Amendment, and design milestone the submittal applies.
- All submittals at the various design milestones should include Project plans, quantity take-offs, proposed Pay Items, units of measurement, payment inclusions and limitations, and any specifications appropriate for the level of design.

Once each design milestone submittal has been reviewed and accepted as complete by the Agency, the PM will distribute the appropriate portions of the submittal to the CM/GC Contractor, the Independent Cost Estimator (ICE), and the Owner's Representative, if applicable. The CM/GC Contractor, the ICE, and the Owner's Representative, if applicable, will independently review the design milestone submittal. The CM/GC Contractor and the ICE will provide a production-based cost estimate to the Agency.

The Agency may also have a separate independent cost estimate performed by a party with limited exposure to the project; this firm is commonly referred to as the "Blind ICE." The role of the Blind ICE may be performed by either a separate consultant or the Agency.

Note: There are additional cost estimating requirements on Federal Aid Projects if the project is greater than \$500 Million in total project costs or classified as a Major Project by FHWA. See <https://www.fhwa.dot.gov/majorprojects/> for additional requirements.

10-3 COST ESTIMATING

Please refer to [Chapter 14 – Cost Estimating](#).

10-4 IDENTIFICATION OF AN EARLY WORK PACKAGE(S)

Depending on the size of the Project, the Project Team may identify Early Work Package(s) (EWP(s)) or Work that can start prior to the final design of the Project. The RFP or the CM/GC Contract may also identify EWP(s) depending on size and complexity of the Project.

The PM should establish a total project base cost during the Pre-construction Phase prior to identifying in writing any EWP.

An EWP enables the Agency to accelerate the schedule of the Construction Phase Work by starting critical path activities early. Work related to an in-water work window or long-lead procurement items are examples of Work items that may justify an EWP.

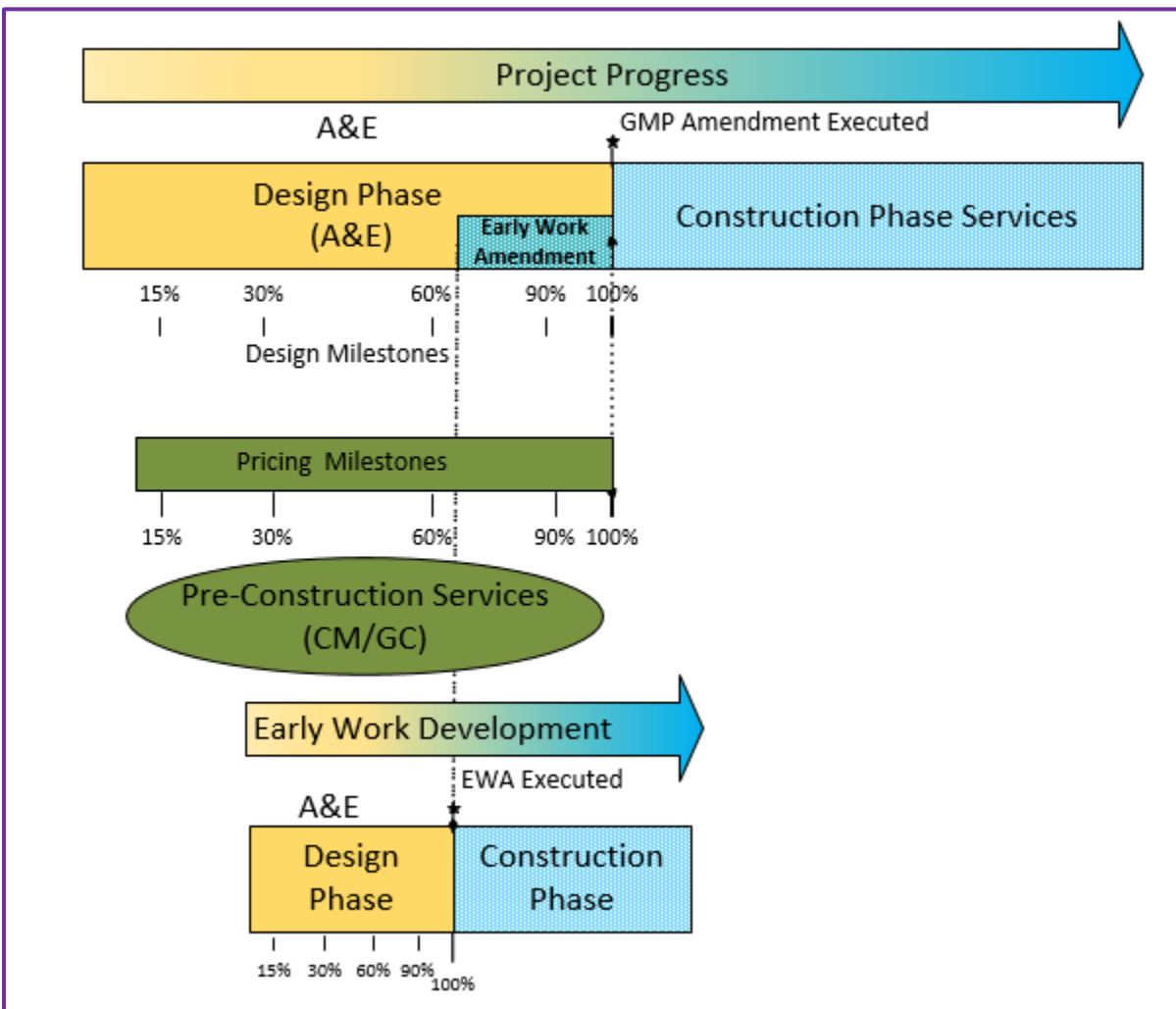


Figure 10-1: Progress from design phase to construction phase and the timing of early work.

When an EWP is identified by the Agency, it must be part of the original scope of Work for the Project and be in line with the Project Goals.

The PM must keep in mind maintaining severability when considering an EWP. Maintaining severability means that the Agency should not execute an EWA that limits the Agency's ability to contract with another contractor to complete the remainder of the Work in the Project, if necessary (because agreement on a GMP is not reached).

The PM will be accountable for developing, reviewing, and the oversight and approvals that are required when an EWP is identified and (if approved) is added to the Contract by an EWA.

The PM will consider the following items when determining whether the Project should pursue design of an EWP:

- The time required for separate design and construction of the Work to be added by an EWP must fit into and provide a benefit to the overall Project schedule.
- All Project resources must be adequately staffed and have capacity to add any EWP without being detrimental to the existing overall Project timelines.
- Time available for ROW purchases, utility coordination, and environmental permitting must be adequate.
- EWP(s) should not be used to “break up” the design into manageable pieces. The Agency must make sure that the A&E firm has the capacity to meet the demands of the Project design schedule.
- Execution of an EWA and mobilization of the CM/GC Contractor for Construction Phase Work does not justify execution of additional Amendments to provide continuous Construction Phase Work for the CM/GC Contractor. Note: Significant lags between periods of Construction Work are acceptable if the scheduling of Amendments is in the best interest of the Project.
- When the Agency executes an EWA early in the process, other Contract requirements such as wage rates are established; i.e., BOLI wage rates, the Qualified Project List version, etc.
- Other considerations should include the following:
 - Does the EWP advance the scope and still maintain the severability that is needed in case contract negotiations are not in the Agency's best interests?
 - Will execution of the EWA result in cost and time-savings that will benefit the Project?
 - Will execution of the EWA lock the Agency into a particular phasing, or specific means and methods of Construction?

Each Amendment will address standalone mobilization costs. In some cases, mobilization costs for a proposed Amendment may have been covered by a previous Amendment, but all costs of mobilization must be carefully considered before omitting those costs from an Amendment.

The approval process to add any EWA to the CM/GC Contract for Construction Phase Services is similar to the Contract Change Order process in the ODOT Construction Manual [Chapter 15](#)

– [Change Orders/Force Account/Work by Public Forces](#). However, the Amendment process outlined in [Chapter 10-5 – Amendment Development and Oversight](#) identifies additional requirements and process steps.

The PM will ensure the following:

- The EWP documents used to develop an EWA are reviewed by all parties and approved by an individual(s) with necessary delegated authority.
- The EWA Contract Documents are consistent with the project goals, objectives, schedules, and contracting strategies.
- Required reviews and approvals are completed throughout the process.

10-5 AMENDMENT DEVELOPMENT AND OVERSIGHT

Successful price justification for an Amendment in the CM/GC delivery method relies on documenting the assumptions used by the CM/GC Contractor to price the Work.

Documentation of the Project is maintained to capture a history of the changes at each design milestone. The CM/GC Contractor is expected to be open and transparent about how the Estimated Cost of the Work is developed, and will utilize open-book cost estimating to prepare their cost estimates for construction and facilitate the required audit process (see Article 10 of the CM/GC Contract).

(a) Project Draft Schedule of Items

In addition to the Plans and Specifications, the A&E also produces and submits a draft schedule of items at each A&E Design Phase Submittal Milestone identified in CMGC141.24. The PM must review the Schedule of Items and provide it to the CM/GC Contractor.

The PM is responsible for reviewing justifications for any changes or additions the CM/GC Contractor recommends to the proposed Schedule of Items. The PM will ensure that the CM/GC Contractor submits justification for each "Unique item of Work" on the CM/GC Contractor's Pay Item list. A "Unique item of Work" is defined as an item of Work that is not contained in the most current version of the ODOT Bid Item list for the ODOT Standard Specifications.

The PM will ensure that the CM/GC Contractor submits a draft Schedule of Items with the unit prices, total prices, and detailed construction cost estimates (see CMGC141.31).

(b) Agency Review Process

For each Amendment, the PM will review at least the following items:

- Scope of Work.
- A&E design milestone submittals.
- Schedule of Items (Pay Items, units of measurement, and quantities).
- Escalation provisions.
- Salvage values for temporary materials.

- Limitations of operations.
- Supporting documentation that will make up the Estimated Cost of the Work:
 - Labor (Hours, shift limitations, crafts, management assumptions).
 - Materials (Quantity, type, specification, delivery assumptions).
 - Equipment (What types and pieces of equipment are needed).
 - Risks/Assumptions (Unit cost payments, Lump Sum payments, who carries the risk for certain approaches being used).
 - General Conditions Work Costs (see Exhibit H of the CM/GC Contract).
 - Contingency for a select few Pay Items.
- Subcontracting Plan, quotes and invoices.
- Diversity Plan, DBE/OJT/TERO requirements, and costs (with consideration of Project specific goals).
- Construction schedule for the identified scope of Work.
- Safety (aside from the normal program, any unique requirements).
- Quality Aspects (Quality Control plan).
- Environmental/Regulatory (limitations as to the impacts on Work schedule or performance standards).
- Any other items listed in CMGC141.

(c) Scope of the Work

During the review process, the PM or their representatives will consider the following at each design milestone related to the scope of work:

- Does the scope of the Work reflect the project goals?
- Is scope of work dependent on other Amendments?

(d) Project Schedules

During the review process, the PM or their representatives will consider the following at each design milestone related to the Project Schedule:

- Does the Amendment benefit the overall project schedule?
- Does the schedule reflect the Work to be performed?
- Does the schedule include the design-phase and permitting timelines?
- Does the schedule follow the requirements of the CM/GC Contract and Amendments to date?
- Does the schedule follow the requirements set forth in CMGC180.41?

(e) Schedule of Items/Pay Items

During the review process, the PM or their representatives will consider the following at each design milestone related to the proposed pay items:

- Does the Amendment benefit the overall Project cost?

- Do the Pay Items contain the documented assumptions, clarifications?
- Do the Pay Items use units of measurement which would be typical on a Design-Bid-Build (DBB) project and not consist of one lump sum item?
- Do the Pay Items follow the measurement and payment guidelines in the applicable subsection 0.80 and 0.90 of the Standard Specifications, or are there Special Provisions that modify measurement and payment?

The PM should ensure that the correct version of the Agency's Project Controls Office Bid Item List is used by all parties.

The PM should also document any corrective actions, comments, and agreed upon modifications to the A&E deliverables, including any findings and comments and provided responses to the CM/GC Contractor's constructability review.

10-6 EXECUTION OF AN AMENDMENT

After the 90% design milestone for an Amendment, and once the Agency and the CM/GC Contractor agree on all components of an Amendment, the PM will be responsible for coordinating the process for drafting and reviewing the Amendment to add or continue Construction Phase Services.

In addition to the process for reviewing the draft Amendment, the PM will also consider other approvals that will need to be in place prior to the execution of an Amendment for Construction Phase Work, which include the following:

(a) Increase in Authorization for a Project

The PM will submit a request for an increase in authorization for any Amendment or Change Orders added to the original Contract if the current authorization will be exceeded (refer to the ODOT Construction Manual, [Chapter 5 – Construction Authorization](#)).

(b) FHWA Approval Criteria

If the project is federally funded, the PM must obtain FHWA approval before allowing any of the following elements to be incorporated into the Contract by Amendment (including any EWA or the GMP Amendment) or Change Order:

1. Any sensitive or controversial change, or any change for which FHWA review and approval is specifically requested.
2. Changes that affect environmental mitigation or commitments.
3. Waiver of Buy America provisions.
4. Changes to the scope of Work or extension of the Contract limits shown in the project documents approved by FHWA.
5. Work not already approved by FHWA, if FHWA participation is questionable.

(c) National Environment Policy Act

For Projects with Federal funds, the National Environmental Policy Act (NEPA) applies. The Agency will not initiate any construction activities or execute any Amendment or Change Order that authorizes the CM/GC Contractor to perform construction activities prior to completion of the NEPA process (see 23 CFR §635.505(b) and Articles 6.5.1 and 6.6.3 of the CM/GC Contract).

Even in the absence of construction activities, completion of the NEPA process is required prior to final design of a CM/GC Project. The exceptions to this rule per 23 CFR §635.505(c) are as follows:

- Any level of design activities are permitted if the Agency will assume all risk and expense of the Project.
- The Agency has a process of segregating the costs of the CM/GC Contractor's at-risk work from the Pre-construction Phase Services eligible for reimbursement during the NEPA process. If the Agency decides to perform at-risk design, it must notify FHWA of its decision to do so before undertaking such activities.

(d) CMGC141 Deliverables

In addition to the Amendment development review and approval process, the PM will also review and verify that the CM/GC Contractor is providing all the documents required in CMGC141 (refer to [Chapter 9 - Pre-construction Design Phase Deliverables](#)).

(e) Draft Amendment Review at 90% Design

When preparing the draft Amendment, the PM will:

- Use CM/GC Contract Exhibit A-1 for an EWA, or
- Use CM/GC Contract Exhibit A-2 for the GMP Amendment.
- Ensure that the draft Amendment contains all the required plans, specifications, estimate, and documented assumptions related to the Work being proposed.
- Facilitate the OCR review and approval of Form 1 submitted by the CM/GC Contractor. The PM and OCR will work directly with the CM/GC Contractor on modifications to Form 1.
- Once the draft Amendment has been reviewed by the area manager, the PM will submit plans, specifications, and the Schedule of Pay Items to the Project Controls Office to perform a Quality Assurance review. QA review will include, but will not be limited to, verifying that required ROW, utility coordination, and environmental permitting have been completed or are on track to be complete prior to execution of the Amendment.
- Verify with OCR that Form 1 is approved.
- Review the draft Amendment with FHWA, if applicable.

Once the appropriate parties complete review and approval of all submittals, the CAE will review the draft Amendment and work with the Department of Justice (DOJ) on an interim legal sufficiency review.

Once the DOJ has reviewed the draft Amendment, the CAE will provide comments back to the PM for review.

The PM will address all of the comments and corrections identified by the CAE, DOJ, FHWA (if applicable), and OCR.

After all the comments and corrections are addressed, the PM will resubmit the updated draft Amendment to the CAE.

(f) Final Amendment Review at 100% Design

The PM's role is to facilitate the EWA or the GMP Amendment approval process between the CM/GC Contractor and the interested parties. The following is the process the PM will follow in order to complete the execution of an Amendment:

- (1) The PM will review the final Amendment and Attachments, which include Plans, Specifications, Schedule of Items, and other items submitted by the CM/GC Contractor including:
 - Attachment A – Specifications.
 - Attachment B – Plans.
 - Attachment C - Additional Insurance Requirements (see Exhibit G of the CM/GC Contract).
 - Attachment D - Prevailing Wage Rates for Construction Phase Services.
 - Attachment E - Cost Breakdown.
 - Attachment F - Contingency Breakdown.
 - Attachment G - Clarifications and Assumptions.
 - CM/GC Contractor's Form 2 (OCR, DBE related submittal).
 - CM/GC Contractor's Bonds and Insurance (see Exhibit B of the CM/GC Contract).
- (2) The PM will forward the complete updated draft EWA or GMP Amendment to CAU for review. If necessary, the PM will notify the CM/GC Contractor of any submittals that need to be resubmitted, modified, changed, or corrected.
- (3) CAU will verify that the quality assurance review is complete.
- (4) Once CAU has completed its review of the EWA or the GMP Amendment, they will send it to DOJ for a legal sufficiency review. DOJ will perform a review and send the fully reviewed Amendment back to the CAE. If there are any items that need to be resubmitted, modified, changed, or corrected, CAU will notify the PM and the PM will address any of the edits prior to finalizing the Amendment.
- (5) The PM will also send the Amendment for review by FHWA, if applicable. CAU will verify that FHWA has reviewed the EWA or GMP Amendment.

- (6) The PM will forward the bonds and insurance quotes to OPO for review. OPO will review and provide a notice to the PM of whether the submitted bonds and insurance information complies with the Contract requirements.
- (7) The PM will request Form 2 from OCR and will have the CM/GC Contractor forward the completed Form 2 back to OCR. OCR will review and provide a notice to the PM and CM/GC Contractor whether Form 2 complies with the Contract requirements.
- (8) The PM will verify the Subcontracting Plan approvals are in place.
- (9) The PM will verify the Diversity Plan approvals are in place.
- (10) The PM will verify approval of the bonds and insurance with OPO.
- (11) The PM will verify the approval of Form 2 with OCR.
- (12) The PM will send the bonds, insurance, and Form 2 to CAU for review. CAU will verify the recommendations from OPO and OCR.
- (13) Once all documents and verifications have been completed, CAU will send the PM the final EWA or GMP Amendment documentation
- (14) AM will concur with final EWA or GMP Amendment
- (15) PM will send Amendment to CM/GC Contractor for signatures.
- (16) After signed by the CM/GC Contractor, the PM will recommend and sign the EWA or the GMP Amendment.
- (17) The area manager will recommend and sign the EWA or the GMP Amendment.
- (18) The PM will send the Amendment to CAU for final approval and processing.
- (19) The Amendment is approved and executed by the CAE.

(g) Notice to Proceed for Construction Phase Services

Once the Amendment is executed by the CAE, the PM will confirm the Notice to Proceed with the CM/GC Contractor for the specific Construction Phase Services identified in the Amendment. If NTP must occur at a date other than the original NTP for the Amendment, the PM will issue written notification of this change to the CM/GC Contractor (see CMGC130.50(b)).

CHAPTER 11 – PRE-CONSTRUCTION PHASE SERVICE COSTS

In addition to the A&E, ICE, and other consultants submitting invoices, the PM will also be responsible for reviewing the CM/GC's invoices for the Pre-construction Phase Services including allowable travel expenses. The CM/GC's invoices for Pre-construction Phase Services are paid by utilizing the Contract Payment System (CPS) or other Agency payment system managed by the Contract Administration Unit in the ODOT Construction Section.

11-1 HOURLY RATES FOR PRE-CONSTRUCTION PHASE SERVICES

During the Pre-construction Phase, the CM/GC shall be performing professional services. The hourly rates for these services include the following:

- Constructability review services.
- Cost estimating.
- Development of all EWAs.
- Development of the GMP Amendment.
- Other Pre-construction Phase Services (see CMGC141).

According to Article 6.2 of the CM/GC Contract, the costs for Pre-construction Phase Services will be payable to the CM/GC Contractor based on fixed hourly rates for personnel for the actual hours worked with a maximum not-to-exceed (NTE) amount (see Article 17 of the GM/GC Contract).

As described in Article 11 of the CM/GC Contract, throughout the Pre-construction Phase, the PM will be receiving invoices from the CM/GC Contractor for Pre-construction Phase Services.

When reviewing the CM/GC Contractor's invoices for the Pre-Construction Phase Services, the PM will:

- Make certain that the hourly rates match the rates provided in Article 17 of the CM/GC Contract.
- Verify that the actual hours worked for the personnel and positions are multiplied by the applicable fixed hourly rates.
- Review the invoice submitted monthly by the CM/GC Contractor to verify the amount of hours actually worked for each Key Personnel (e.g. If a Key Personnel was only available for 50% of a given month, verify that the invoices are consistent with the work arrangements.)
- Ensure that the reported rate matches the rate for the position performing the task, regardless of whether or not the task is listed as part of the position's duties.

- Review and ensure that the hours reported on the invoice do not exceed 40-hours per work week for any individual, unless otherwise agreed to by the PM (see Article 11 of the CM/GC Contract).
- Evaluate any backup data, including timesheets submitted, to verify hours worked for the CM/GC Contractor’s Key Personnel, any Major Subcontractors and Subcontractors.
- Evaluate the project and percentage complete of work and any task or deliverables described in the CM/GC’s submitted invoices.
- Review, evaluate, and make certain that when the Pre-construction Phase Services and Construction Phase Services performed on an Early Work Amendment are happening concurrently, there are no overlaps or doubling of payments.

As described in Article 11.4.2 of the CM/GC Contract, the calculations for Pre-construction Phase Services are shown in the following example:

Key Personnel or Position	Estimated Hours	Hourly Rate (Article 17 of CM/GC Contract)	Cost
Construction Manager (Key Personnel)	174	x \$100.00	= \$17,400.00
Scheduler position	150	x \$90.00	= \$13,500.00
Estimator position	174	x \$85.00	= \$14,790.00
Monthly Total			\$45,690.00

The CM/GC Contract establishes an NTE amount for Pre-construction Phase Services. During the progression of Work during this phase, the PM will evaluate whether the hours and travel expenses each month seem reasonable with the course of the project. **Example:** If the overall project design is at 60% complete, but payments for Pre-construction Phase Services represent 75% of the NTE, there could be an anticipated shortfall near the end of the design phase. In such a situation, the PM should discuss this with the CM/GC Contractor. The CM/GC Contractor is responsible to provide Pre-construction Phase Services during the duration of the Pre-construction Phase even after the execution of an Early Work Amendment or during the development of the GMP Amendment.

If the PM determines that a monthly invoice is missing the required information as described in the CM/GC Contract, or if there are errors in the invoice, the PM should contact the CM/GC Contractor’s appropriate personnel as soon as possible to provide additional backup information or an updated invoice. The Agency may withhold payment for any inaccurate or

improper amounts claimed previously and may withhold the inaccurate or improper amounts from the final payment (see Article 11.4.2 of the CM/GC Contract).

11-2 TRAVEL EXPENSES FOR PRE-CONSTRUCTION PHASE SERVICES

In the event that a Key Personnel or position has allowable travel expenses associated with the Pre-construction Phase Services (see Article 17 of the CM/GC Contract), the PM will review travel costs submitted with the monthly invoicing from the CM/GC Contractor.

Travel expenses are paid for on a reimbursable basis as noted in Exhibit J of the CM/GC Contract. The PM will review the submitted travel expenses and make certain that the CM/GC Contractor has submitted the required information. The PM will not pay or reimburse the CM/GC Contractor at rates in excess of the applicable rates listed for individual positions in Article 17 of the CM/GC Contract.

See the Statewide Travel Policy in the Oregon Accounting Manual (OAM) Chapter 40.10.00, at the following web address:

<https://www.oregon.gov/das/Financial/Acctng/Documents/40.10.00.pdf>.

The PM will determine that the cost estimates for mileage, lodging, and per diems for approved travel are at the rates in effect on the date when the Contract is executed. The PM will review receipts for travel-related expenses, which may include the following:

- Determine if the reimbursement is for Short Term Per Diem or Long Term Per Diem and follows the requirements in Exhibit J.
- Lodging (hotel expenses)
 - If lodging is shared by two or more individuals, the lodging receipt will indicate the names of any travelers on official state business who shared the room. Any individual that shares travel lodging will not claim lodging twice for a single transaction.
 - Reimbursements or cost estimates will be for only one contract or project per day. The CM/GC Contractor (including Subcontractors) may not include in a cost estimate or seek reimbursement of full lodging costs or per diem rates (either short-term or long-term) for a given traveler for more than one contract or project on the same day.
- Rental vehicle(s) – receipts including traveler(s) names. Any individuals that share a rental vehicle may not make separate claims for the same vehicle.
- Air fare – receipts including traveler(s) names.

The travel, lodging, and per diem are listed as a maximum NTE in Article 17 of the CM/GC Contract.

The PM will determine the CM/GC Contractor's (and Subcontractor's) mileage, including:

- Determine whether or not mileage is listed separately and not associated with any of the other travel expenses.
- Verify mileage expense estimates and reimbursement are based on actual distance traveled.
- Verify the CM/GC Contractor's invoices contain the current rate set by the State Controller in OAM 40.10.00 for any mileage claimed for reimbursement.

The PM should develop an MS Excel spreadsheet to track the travel expenses for each position, including comparing the estimated and actual reimbursable rates.

11-3 PROGRESS PAYMENTS FOR PRE- CONSTRUCTION PHASE SERVICES

The PM or its representatives will develop "paynotes" for the approved Pre-construction Phase Services associated with the monthly submitted invoices and include all supporting documentation in the payment files (refer to ODOT Construction Manual, [Chapter 12D – Quantities](#)).

The PM will follow the normal payment processes that are described in [Chapter 25 – Payments to Contractors/Retainage](#) of the ODOT Construction Manual. The Agency will **not** hold any retainage on the Pre-construction Phase Services when entering paynotes for the preliminary progress payment estimate or "progress estimate" in CPS or the Agency's payment system.

The CM/GC fee is **not** applied to or included in the costs for Pre-construction Phase Services including any travel expenses (see Article 6.2 of the CM/GC Contract).

CHAPTER 12 – PRE-CONSTRUCTION SUBCONTRACTING

12-1 SUBCONTRACTING GENERAL REQUIREMENTS

Due to the multiple phases of a CM/GC Contract and additional State and Federal requirements that apply to the CM/GC method, the PM has an increased level of involvement in the subcontracting process beyond that required on a design-bid-build project. Except when in conflict with this CM/GC Manual or the CM/GC Contract, the requirements of the ODOT Construction Manual, [Chapter 14 – Subcontracts](#) apply to a CM/GC Project.

During the Pre-construction Phase, often only the CM/GC Contractor performs services. However, a Major Subcontractor's staff (as Key Personnel, or as listed staff in Article 17 of the CM/GC Contract) may perform specific Pre-construction Phase Services.

During the Pre-construction Phase, before the execution of an Early Work Amendment or the GMP Amendment, the CM/GC Contractor is not performing any Construction Phase Services Work and has not executed any subcontracts for performance of construction Work. The CM/GC Contractor shall not contract with Subcontractors for Construction Phase Service Work until after the execution of an Amendment that adds construction Work. The CM/GC Contractor shall develop and submit a Subcontracting Plan to establish the Subcontractor selection methods and processes for the Construction Phase (see CMGC141.40(h)).

The PM is responsible to:

- Review and obtain approval of the CM/GC Contractor's proposed Subcontracting Plan
- Evaluate which portions of the Work will be performed by the CM/GC Contractor, Major Subcontractors, and Subcontractors.
- Evaluate when the CM/GC Contractor may use a non-competitive process to select Subcontractors.
- Monitor the CM/GC Contractor's processes for competitive and non-competitive selection of Subcontractors.
- Evaluate and approve the CM/GC Contractor's proposed replacements for Major Subcontractors.

12-2 SUBCONTRACTING LIMITATIONS

(a) CM/GC Contractor Self-Performance

Article 9.1.1(a) of the CM/GC Contract and CMGC180.20(a) of the CM/GC General Provisions specify that the CM/GC Contractor's own organization shall **self-perform a minimum of 30%** of the total cost of all of the Construction Phase Services under the Contract. CMGC180.20(b) of

the CM/GC General Provisions define the term "own organization." See Article 9 of the CM/GC Contract for which Work activities qualify for self-performance and other restrictions.

(b) Minimum Subcontracting Percentage

Article 9.1.1(b) of the CM/GC Contract may specify that the CM/GC Contractor subcontract out a minimum percentage of the total cost of the Construction Phase Services. Depending on the type of Work included in each Amendment and the availability of Work that can be subcontracted, the Agency may assign all of part of this minimum subcontracting percentage to one or more Amendments, including the GMP Amendment. Article 9 of the CM/GC Contract also specifies multiple restrictions on what subcontractor work counts toward satisfying this minimum subcontracting percentage, including but not limited to:

- Work subcontracted to Major Subcontractors, Affiliates, or subsidiaries will **not** count.
- Work subcontracted to Certified DBE firms will count toward the minimum subcontracting percentage.
- If the minimum subcontracting percentage is less than other percentage goals for the Project, such as the DBE Contract Goal, the CM/GC Contractor is still required to satisfy the higher goal.

12-3 MAJOR SUBCONTRACTORS

The CM/GC Contractor shall identify Major Subcontractors in its proposal response to the RFP for the Project, and the Agency will consider the qualifications of those Major Subcontractors when evaluating the Proposers. Article 4.6.2 of the CM/GC Contract lists the Major Subcontractors identified in the Contractor's proposal. Due to the integral role of Major Subcontractors during the Pre-construction Phase and the specific subcontracting allowance for them in Article 9 of the CM/GC Contract, the Agency has developed a specific process for the replacement of Major Subcontractors (refer to [Chapter 13-3 – Replacement of Major Subcontractors](#), Article 4.8 of the CM/GC Contract and CMGC180.36(a) for the Major Subcontractor replacement process).

12-4 SUBCONTRACTING PLAN

The CM/GC Contractor shall submit a Subcontracting Plan within **20 Calendar Days** following the Pre-construction Phase Services Kickoff Meeting and shall submit an updated Subcontracting Plan within **20 Calendar Days** after receiving the A&E design submittal for each A&E Design Phase Submittal Milestone in CMGC141.24. To accommodate the methods of various Contractors, the CM/GC Contract is not prescriptive about the methods and process that the CM/GC Contractor must use and list in the Subcontracting Plan. The PM is responsible to review the subcontracting plan for completeness and compliance with the requirements listed in CMGC141.40(h). The Subcontracting Plan will comply with all requirements in:

- Article 9 of the CM/GC Contract.

- Sections CMGC141 and CMGC144 of the CM/GC General Provisions.
- Exhibit C to the CM/GC Contract.
- [ORS 279C.337\(3\)](#).
- [OAR 137-049-0690\(5\)](#).
- The CM/GC Contractor's Diversity Plan, as applicable.

The CM/GC Contractor's Subcontracting Plan shall include, but not be limited to, the following:

- The process by which the CM/GC Contractor shall select and identify which portions of Work will be subcontracted using a competitive selection method and which will be subcontracted using a non-competitive selection method (best value).
- A detailed description of the CM/GC Contractor's "competitive" selection method
- Whether the CM/GC will utilize a non-competitive method for selecting subcontractors.
- Whether the CM/GC will select subcontracts within certain dollar ranges by competitive of non-competitive methods.
- Subcontracting solicitation processes.
- Process for identifying Work that will be self-performed by the CM/GC Contractor.
- The process and timing for meeting with unsuccessful bidders or proposers.
- Timeframes for all notices, responses, documentation sharing, and other actions for the subcontracting solicitation process.

The PM will coordinate review of the Subcontracting Plan's solicitation processes with the ODOT Procurement Office (OPO). The PM will consult with ODOT Office of Civil Rights (OCR) on the Disadvantaged Business Enterprise requirements. OCR will coordinate with the Oregon Department of Justice (DOJ) for a legal review of the Subcontracting Plan. OCR will notify the PM upon concurrence with the Subcontracting Plan.

The PM will then coordinate with the Contract Administration Unit (CAU) for a review of the Subcontracting Plan. CAU will coordinate DOJ for a legal sufficiency review of the Subcontracting Plan. Once the PM, CAE, OPO, OCR, and DOJ determines that the submitted Subcontracting Plan satisfies all applicable requirements in the Contract, the PM will give written concurrence of the Subcontracting Plan. The Subcontracting Plan must be concurred with by the Agency before the CM/GC Contractor solicits offers from Subcontractors for Construction Phase Services or before the Agency agrees on a GMP, whichever occur earlier (see Article 9.1.1(d)).

12-5 SUBCONTRACTOR SELECTION PROCESS

Absent a written justification from the CM/GC Contractor, and acceptance by the PM, the CM/GC Contractor shall use a competitive process when selecting Subcontractors. The PM is responsible for ensuring the following:

- The CM/GC Contractor's Subcontractor selection processes comply with:
 - Article 9 of the CM/GC Contract.
 - Sections CMGC141 and CMGC144 of the CM/GC General Provisions.

- Exhibit C to the CM/GC Contract.
- [ORS 279C.337\(3\)](#).
- [OAR 137-049-0690\(5\)](#).
- Absent a written justification, the CM/GC Contractor's Subcontractor selection process is competitive (see [OAR 137-049-0690\(5\)\(k\)](#)).
- The CM/GC Contractor notifies the Agency of, and the Agency approves, all subcontracts before the CM/GC Contractor subcontracts with a Subcontractor.

If the CM/GC Contractor does not use a competitive process to select a Subcontractor, the PM must verify that the CM/GC Contractor has:

- Submitted a written justification to the Agency explaining the circumstances that support non-competitive or sole-source selection.
- Provided an independent cost estimate for the work within the work package, if requested by the Agency.
- Fully responded to all questions or comments from the Agency.
- Not pursue a non-competitive Subcontractor selection process before the Agency approves the use of that process.

Written consent from the PM is required before any Subcontractor can perform Work on the Contract (see CMGC180.21).

CHAPTER 13 – REPLACEMENT OF KEY PERSONNEL AND MAJOR SUBCONTRACTORS

Selection of the CM/GC Contractor for a particular project is based on both price and technical components. The CM/GC Pre-Construction Phase Services pricing and CM/GC Fee make up the price component, and the technical components include the CM/GC Contractor's past project experiences, qualifications, and Key Personnel and Major Subcontractors listed in the proposal.

During evaluation of the technical components of a proposal, the selected CM/GC Contractor's Key Personnel and Major Subcontractors (if applicable) shall have been evaluated based on their special qualifications, expertise, experience, or approach. The CM/GC Contractor is therefore required to use the Key Personnel and Major Subcontractors named in Article 4 of the CM/GC Contract. During the performance of the Work, if the CM/GC Contractor is requesting a replacement or temporary absence in writing of a Key Personnel or a Major Subcontractor it is important to ensure that the replacement meets the applicable qualifications listed in the project specific RFP.

The executed CM/GC Contract contains a list of Key Personnel (see in Article 4.6 of the CM/GC Contract). Any temporary absence or replacement of a Key Personnel or Major Subcontractor follows the process or steps noted in CMGC180.35 and CMGC180.36.

13-1 TEMPORARY ABSENCE OF KEY PERSONNEL

In the event that the CM/GC Contractor's Key Personnel listed in Article 4.6 of the CM/GC Contract are:

- Unable to fulfil the applicable specified duties of the position, or
- Are absent from their applicable specified Work schedule and locations for more than 48 hours.

According to CMGC180.35(a) the CM/GC Contractor is required to submit a written request to the Agency at least 7 Calendar Days in advance of when the absence of the Key Personnel is to begin.

Upon receiving a written request, the PM is under no obligation to consider or approve a request to temporarily replace the Key Personnel. The Agency may elect to consider the CM/GC's written request. If so, the PM should consider the following when determining the reasonableness of such request:

- Is the request within the timeframes of the Contract?
- Does the proposed temporary Key Personnel have the qualifications to fulfill the duties and obligations of the position?

- Is the temporary absence less than 14 Calendar Days? If the temporary absence is for more than 14 Calendar Days, then the absence is not temporary and the replacement steps in CMGC180.35(b) would apply.
- Is this request to temporarily replace this Key Personnel a frequent occurrence?
- What is the reasoning behind the request (i.e. vacation, extended leave or due to another project?)
- Is the temporary Key Personnel available for similar dates and times that the Key Personnel was?
- Is the temporary Key Personnel only available a portion of the time?

The PM should determine the reasonableness of the request and respond accordingly. Note that the CM/GC Contractor is required to make available all Key Personnel for the duration of the Pre-Construction and Construction Phase Work.

13-2 REPLACEMENT OF KEY PERSONNEL

In the event that the CM/GC Contractor is proposing to transfer, reassign, replace, or delegate the authority of its Key Personnel listed in Article 4.6, then the CM/GC Contractor is required to submit the request at least **30 Calendar Days** before the proposed change (see CMGC 180.35(b)).

Please note that the PM is under no obligation to consider or approve the CM/GC Contractor's request to reassign, replace or delegate the authority of the Key Personnel. The Agency may elect to consider the CM/GC Contractor's written request. If so, upon receipt of the request, the PM should consider the following:

- Does the request include the name and qualifications of proposed personnel?
- Does the proposed replacement(s) of the Key Personnel have the similar past project experiences, qualifications, and judgement to adequately fulfill the duties of the Key Personnel being replaced (review the Project specific Request for Proposal)?
- Does the request include a resume(s) of the proposed personnel demonstrating that the proposed personnel has qualifications that are equal or better than the qualifications of the Key Personnel being replaced?
- Is there adequate justification to transfer, reassign, replace or delegate authority of the proposed Key Personnel?
- Is the request reasonable or is it beyond the CM/GC's control (i.e. medical leave, death, or termination of employment)?
- Does the request include the Key Personnel being reassigned or transferred to another project that the CM/GC Contractor is constructing or to any project being constructed by an Affiliate or Subsidiary of the CM/GC Contractor?
- Is the Key Personnel being furloughed?

Is the proposed personnel fulfilling another role on the project (i.e. is it another Key Personnel?).

If the PM determines that the offered reason or justification is adequate, the Agency will determine whether to authorize the change in Key Personnel.

If the Agency authorizes a change in Key Personnel, the PM may negotiate an hourly rate that is different than the existing rate for the replaced Key Personnel. The negotiated hourly rate for the proposed personnel will be an equitable rate when considering the experience and qualifications of the personnel, but not more than the hourly rate listed in Article 17 of the CM/GC Contract.

The PM will notify the CM/GC Contractor of its determination whether or not to authorize the change within **14 Calendar Days** of receiving the complete written request.

13-3 REPLACEMENT OF MAJOR SUBCONTRACTORS

In the event that the CM/GC Contractor is proposing to reassign or replace a Major Subcontractor identified in Article 4.6, then the CM/GC Contractor is required to submit the request at least 60 Calendar Days before the proposed change (see CMGC180.36(a)).

Please note that the PM is under no obligation to consider or approve a request to reassign or replace the Major Subcontractor. The Agency may elect to consider the CM/GC Contractor's written request. If so, upon receipt of the request, the PM should consider the following:

- Does the request include the company name and qualifications of proposed personnel?
- Does the proposed replacement(s) of the Major Subcontractor have the similar past project experiences, qualifications, and judgement to adequately fulfill the duties of the Major Subcontractor being replaced (review the Project specific Request for Proposal)?
- Does the request include resumes of the employees of the proposed Major Subcontractor demonstrating that the proposed subcontractor employs personnel with qualifications that are equal to or better than the qualifications of the Key Personnel and other employees of the Major Subcontractor being replaced?
- Is there adequate justification to reassign or replace the Major Subcontractor?
- Is the request reasonable or is it beyond the CM/GC Contractor's control (i.e. medical leave, death, or termination of employment)?
- Does the request include the Major Subcontractor being reassigned or transferred to another project that the CM/GC Contractor is constructing or to any project being constructed by an Affiliate or subsidiary of the CM/GC Contractor?
- Is the proposed Major Subcontractor fulfilling another role on the Project (i.e. is it another Major Subcontractor)?
- If the PM determines that the offered reason or justification is adequate, the Agency will determine whether or not to authorize the change in Major Subcontractors.

If the Agency authorizes a change in Major Subcontractors, the Estimated Cost of the Work for the Work that was to be performed by the replaced Major Subcontractor is subject to Open-Book price negotiations, according to Article 6 of the CM/GC Contract. The newly negotiated price for the Work may be less than, but will not be more than, the Estimated Cost of the Work that was to be performed by the replaced Major Subcontractor.

The PM will notify the CM/GC Contractor of its determination whether or not to authorize the change within **45 Calendar Days** of receiving the complete written request.

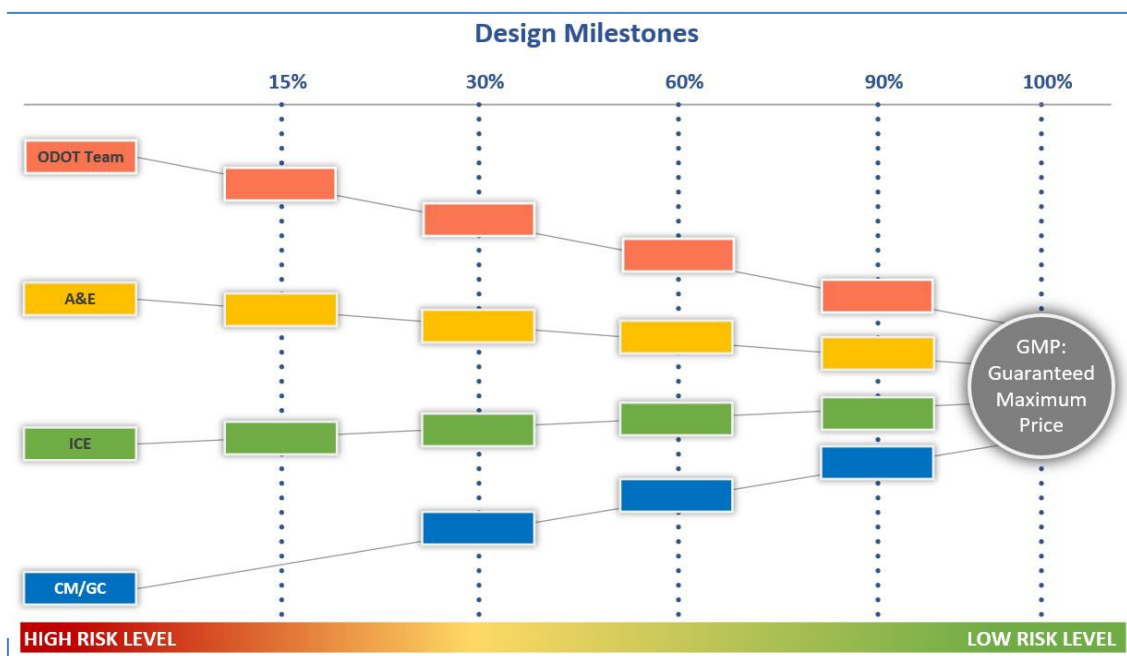
The Agency has the right to require removal and replacement of any Subcontractor, including Major Subcontractors according to CMGC180.21(a) (see also CMGC180.30). If the Agency requires removal or replacement of a Major Subcontractor, the process described above and in CMGC180.36(a) of the CM/GC General Provisions applies.

Written consent from the PM is required prior to forces, other than the Contractor's own, performing Work on the Contract (refer to the ODOT Construction Manual, [Chapter 14 – Subcontracts](#)).

CHAPTER 14 – COST ESTIMATING

14-1 COST ESTIMATING

The design milestones identified in CMGC141 enable the Agency to periodically establish a cost estimate or a cost range throughout the design development for Work to be added by an Amendment. The design milestones can also be thought of as individual “pricing milestones.” As the design becomes more refined at each design milestone through the constructability review and risk assessment process, the variations in cost submitted by the CM/GC Contractor and the ICE, and the A&E engineer’s estimate should narrow in range.



(a) Develop Cost Estimating Instructions

Prior to development of cost estimates by the CM/GC Contractor, the PM will need to work with the CM/GC Contractor to develop cost-estimating instructions. The CM/GC Contractor’s cost-estimating instructions will provide a thorough summary of the estimating practices, rules or guidelines, and estimating software that the CM/GC Contractor agrees to use. The ICE and other estimators will follow the same estimating guidelines to facilitate comparisons between the multiple estimating parties. The estimating instructions should, at a minimum, address the following:

- Pay Items.

- Equipment – a list of equipment (owned or rented) with rates.
- Labor rates.
- Cost breakdown structure.
- Subcontract quotes.
- Permanent materials.
- Discounts, rebates, refunds, and temporary materials salvage values (refer to [Chapter 21 – Cost Savings, Discounts, Rebates, and Refunds](#)).
- Small tools and consumables.
- Identification of plug prices.
- Field indirect cost items.
- Itemization of General Condition Work Costs separate from other Pay Items.
- Agency email address for quote submittals (refer to [Chapter 14-1\(b\) – Submittal of Subcontractors Quotes](#)).
- Identification of parent and child cost codes assigned to the estimate and to be used by the Agency, the ICE, and the CM/GC Contractor.
- Process for documentation of assumptions and clarifications used to establish pricing.

The cost estimating instructions are also a guide for the ICE, and the Blind ICE if applicable, on how to develop their independent cost estimates.

(b) Submittal of Subcontractors Quotes

In addition to the CM/GC Contractor's price information, there will also be price quotes from other potential subcontractors, suppliers, vendors, sureties, equipment rental companies and insurance carriers. Refer to the Open Book Process in the CM/GC Contract Article 6.

(c) Cost Estimate Submittals

All cost estimates must be developed according to the procedures and requirements in CM/GC Contract Article 6, including but not limited to the Open Book Process. The CM/GC Contractor shall include quantity calculations and unit cost justification for all Pay Items, provide the justification of construction production rates, and any assumptions used to determine the unit costs for the Pay Items (see CMGC141.31 and Article 6.5.2 of the CM/GC Contract).

The PM will verify that the CM/GC Contractor submits cost estimates based on the A&E design milestone submittals. The cost estimates will be submitted according to procedures and requirements in the CM/GC Contract Article 6 and Section CMGC141, including the Open Book Process. This procedure will apply to any design milestone submittal. The PM must also verify that the supporting documents with the CM/GC Contractor's estimate include a list of assumptions and clarifications as referenced in Article 6.5.2 of the CM/GC Contract.

The CM/GC Contractor, the ICE and the Owner's Representative, if applicable, are required to provide the Agency independent, detailed cost estimates and pricing data that are based on estimated production rates. In addition to providing a cost estimate and schedule, the ICE may

also review the reasonableness of the CM/GC Contractor's cost estimate, schedule, assumptions and any clarifications given through the cost estimating process at each of the design milestones.

Estimates from the CM/GC Contractor, the ICE and the Owner's Representative, if applicable, need to include and independently identify the various cost items to cover General Conditions Work Costs, labor, Materials, equipment, and other cost elements, to include all supporting data such as Subcontractor quotes and material quotes for each Pay Item (see Exhibit H of the CM/GC Contract for more information).

(d) Build Cost Estimates/Document Assumptions

The PM will review the CM/GC Contractor's submitted cost estimates, estimate narratives, and cost-loaded and resource-loaded schedules at the design milestones.

- (1) Cost Estimates** - The purpose of the initial cost estimate is to link the bottom-up, production-based cost estimate to how the Agency will measure and pay for Pay Items during the Construction Phase. The PM should attempt to negotiate pay item units of measurement that the Agency typically uses on Design-Bid-Build (DBB) projects, such as Unit Price or Lump Sum (see CMGC141.31).
- (2) Cost Estimate Narrative** - The cost estimate narrative should clarify means, methods, and key assumptions used to price the work at each design milestone, such as: type of equipment proposed to perform the work, crew sizes, shifts per day, hours per shift, productivity assumptions, assumed weather delays, and supporting subcontractor and supplier quotes (see Article 6.5.2 of the CM/GC Contract).
- (3) Cost-Loaded and Resource-Loaded Schedule** - The CM/GC Contractor's cost estimate documentation includes the cost-loaded and resource-loaded schedule that defines the costs and resources required to complete each scheduled activity. (See CMGC180.41) The types of costs and resources defined in the schedule may include equipment, crew size, shift schedule and duration, permanent materials, and temporary materials.

Although the CM/GC Contractor is responsible for the development of its cost estimate, the Agency will verify the CM/GC Contractor's estimate by comparing it to the independent cost estimates developed by ICE and, if applicable the Blind ICE.

(e) General Conditions Work Costs

Refer to Exhibit H of the CMGC Contract for additional information about Project Cost Components. Considerations for the PM's review include:

- Have the direct wages, payroll taxes, etc. of the CM/GC Contractor's Key Personnel (e.g. Project Principal and Project Manager) been made part of the general conditions work costs or are they blended into the direct costs? What are the costs related to local transport and are those separated out and not included in the direct cost of the work?

- What are the onsite project office costs, including co-location costs, etc. and are they separated out as monthly costs?
- Are there allowable CM/GC Contractor costs related to relocation, housing and subsistence for any project personnel, including travel, hotel, and meals? Note: These costs should be less than those costs established for Pre-construction Phase Services.
- What are the costs of the jobsite trailer, temporary facilities and maintenance, and temporary utilities?
- Are other jobsite expenses related to safety equipment and materials separated from the Direct Work Costs?

(f) Labor Rates and Prevailing Wage Rates

During the Pre-Construction Phase of the Project when the cost estimates are being developed, the PM will need to verify that the labor rates used in the estimates by the CM/GC Contractor, ICE, and Blind ICE, if applicable, are within reason of the most current rates published at the time of the cost estimates.

Depending on the funding source for the Project, the PM needs to determine whether Davis-Bacon or BOLI (State prevailing minimum wage rates) apply (refer to the ODOT Construction Manual, [Chapter 19-1 – General](#)). If the CM/GC Contractor submits a written justification, the Agency may agree to pay wage rates that are higher than those listed in the prevailing wage rates (see CMGC170.65(e)(2)). Please contact CAU for more information.

Generally, the Pre-construction Phase Services rates for the Key Personnel will include more costs than the Construction Phase Services rates for those same Key Personnel (Construction Phase Services rates will typically be lower). The PM will need to renegotiate Construction Phase Services rates for Key Personnel when negotiating costs for an Amendment.

The PM will also need to verify that any cost estimates for Major Subcontractors or Subcontractors subject to the Open-Book Pricing (not competitively bid) have also considered the most current labor rates published at the time the cost estimates submitted. These rates may also change throughout the duration of the Work Package development.

If there is significant time between when the CM/GC Contractor submits its final price proposal and Amendment execution, the PM will need to verify with the CM/GC Contractor that any time-dependent rates, including but not limited to prevailing wage and fuel, asphalt and steel, have not changed or if they have changed, determine if the changes to the prevailing wage or other time-dependent rates will impact the cost estimates and the CM/GC Contractor's price to the Agency (refer to [Chapter 10 – Pre-construction Notice to Proceed to EWA/GMP Amendment](#)).

The CM/GC Contract Documents, CMGC170.65, contains provisions for increasing labor rates (refer to [Chapter 20-2 - Labor Rate Adjustments](#)).

(g) Bonds and Insurance

When the PM reviews the CM/GC Contractor's cost estimates during Pre-construction Phase Services, the PM will ensure the estimates include the CM/GC Contractor's and any Subcontractor costs for bonds and any costs for required insurance (see Exhibit G of the CM/GC Contract).

When reviewing the cost estimates, the PM will verify:

- The Agency does not allow owner controlled insurance policies (OCIP) or contractor controlled insurance policies (CCIP).
- The bonds and insurance costs are not included in the price for the Estimated Cost of the Work.
- Costs for bonds and insurance are not subject to the CM/GC Fee (see Exhibit H of the CM/GC Contract on Project Cost Components for more information).
- Subcontractor "plug values" for bonds and insurance are not included in any of the costs when determining the final price for the Amendments. "Plug values" will be replaced with values determined by actual quotes from the insurance company and the surety when determining the final Amendment pricing.
- The Agency may also elect to compare the estimated costs for the bonds and insurance rates provided by the CM/GC Contractor to quotes from third-party vendor(s). The Agency may negotiate the costs for bonds and insurance (i.e.: Article 6.6.7 of the CM/GC Contract).
- Check with OPO for verification of adequate coverages and bonding coverage amounts (refer to the ODOT Construction Manual, [Chapter 8-2 – Contract Award](#)).

(h) Initial Comparison and Cost Reconciliation Meetings

The PM will meet with the CM/GC Contractor to compare cost estimates, construction schedule, and scope of work; and review clarifications and assumptions to reconcile differences in the cost estimates submitted by the CM/GC Contractor and the ICE. The PM will also review and compare estimates with the A&E engineer's estimate, and the Owner's Representative, if applicable. The PM will consider at least the following items during the initial comparison and cost reconciliation meetings:

- Does the cost estimate proposal follow the previously agreed upon estimating instructions?
- Does the submitted schedule use the same timelines as those used in development of the cost estimate?
- Do the completion dates match the durations listed in the cost estimate?

The Project Team should communicate changes early and often during the cost estimating process. A perceived minor change could have a significant impact during the cost estimating process.

The PM will also document the method of measurement and payment, and any assumptions or clarifications during the cost estimating process. The PM will also:

- Document information from negotiation session minutes and transcripts and draft a formal record of negotiations. The record of negotiations, at a minimum should reflect:
 - Participants.
 - Negotiation reconciliations and outcomes for each negotiation session conducted.
 - CM/GC Contractor's assumptions and Pay Item notes and individual pay item codes.
 - Agreed upon methods of payment that follows standard specifications.
 - Agreed upon methods of payment that do not follow standard specifications.
 - Negotiated reconciliations and assumptions, and items that have not yet been reconciled.
 - Discussion regarding estimated quantities.
 - Negotiation of all unit prices.
 - Negotiation of all other proposed direct costs (proposed direct costs should be evaluated in order to confirm cost reasonableness. Are there any missing Pay Items?).
 - Negotiation of all general conditions Work costs.
 - Which detailed records related to the cost build up have been provided (e.g. assumptions, clarifications, correspondence, photographs, record of negotiations, etc.)?
- Document identified inconsistent cost estimate items and assumptions the Agency and the CM/GC Contractor are not able to resolve.
- Review Subcontractor quotes and validate the self-performance percentage for the overall Amendment and document for tracking purposes.
- Document details on agreed upon modifications and impacts to the Project plans, scope, schedule, budget, shiftwork, contractor's approach, etc.
- Document action items and responsible person.
- Document agreed upon assumptions and clarifications.

(i) Contingency amounts included in an Early Work and GMP Amendments

An Early Work Amendment or the GMP Amendment may include a contingency amount for one or more Pay Items to mitigate costs if there are changes in the agreed upon scope or if the project conditions do not match the clarifications or assumptions on which the estimate was based.

During the price negotiations for an Amendment, the Agency and CM/GC Contractor may not be able to reach agreement for a Pay Item, this could be based on the CM/GC Contractor's assumptions at the time of the cost proposal or other uncertain factors that could add risk to the Project.

A contingency amount is a way to separate additional costs that may or may not happen from the direct cost of the work. This also allows the CM/CG Contractor and the Agency to establish a way to mitigate cost overruns for Pay Items with uncertainty, such as items with unknown quantities, changes in an agreed upon scope or if the CM/GC Contractor's approach changes from what is documented in its assumptions.

Any contingency amounts agreed upon during negotiations for an Amendment will not become part of the Maximum Early Work Price unless those contingency amounts are added to the Estimated Cost of the Work by Change Order (see Article 6.6.6 of the CM/GC Contract).

If the contingency amounts are not fully utilized, the unspent amounts are not earned by the CM/GC Contractor, and may be later used by the Agency. The Contractor agrees to complete the scope of work for that maximum amount (i.e. the contract amount for the Early Work Amendment or GMP Amendment) and agrees to be solely responsible for any cost beyond the Maximum Early Work Price or the Guaranteed Maximum Price on an Amendment.

If design changes are required during the review and reconciliation of an Early Work Package or the GMP proposals, the Agency will authorize and request the A&E to revise the construction documents to the extent necessary to reflect the agreed-upon assumptions and clarifications contained in the final approved GMP or Early Work Package GMP proposal.

Any project risk (Agency, CM/GC Contractor, and shared risk) will be discussed openly and included in the contingency negotiations and documented in the CM/GC Contractor's assumptions and clarifications (refer to [Chapter 9-4 Risk Workshops and Risk Management Plan](#)).

The Contractor is required to notify the Agency if any such revised Contract Documents are inconsistent with the agreed-upon assumptions and clarifications.

Upon execution of an Early Work Amendment or the GMP Amendment, the CM/GC Contractor takes full responsibility for the estimate basis and assumptions that were provided at each of the pricing milestones.

(j) Cost eligibility

The PM should also be aware of the cost eligibility requirements listed in 23 CFR §635.507 for both preconstruction services and construction services.

For construction services, this includes a price analysis, confirming that the agreed price is reasonable, for authorization of funds for construction.

CHAPTER 15 – TERMINATION

15-1 TERMINATION

The Agency should pursue all other available remedies prior to considering termination of the CM/GC Contract. If termination is inevitable, this Chapter provides guidance on the termination process for CM/GC Contracts. If termination is being considered, the PM will consult with the CAE.

(a) Termination for Default

CMGC180.90(a) and Article 13.5 provide guidance on acts of the CM/GC Contractor or defaults of the CM/GC Contract for which the Agency may pursue termination for default. When the Agency has determined that sufficient cause exists for termination for default, the Agency will give the CM/GC Contractor and the CM/GC Contractor's Surety **10 Calendar Days'** notice of the termination. The CM/GC Contract will not be terminated if the CM/GC Contractor or its surety corrects the cause for termination or proposes to correct the cause for termination to the satisfaction of the Engineer (see CMGC180.90(b)).

(1) Termination for Default Prior to Execution of the GMP Amendment - If the Agency terminates the Contract for default prior to the execution of an EWA or GMP Amendment, the Agency will pay an amount to the CM/GC Contractor that is equal to the costs for the CM/GC Contractor's Pre-Construction Phase Services performed (including allowable travel expenses) to the date of termination (see Article 13.3.1 of the CM/GC Contract, CMGC180.90(a) and CMGC195.70).

If the Agency terminates the CM/GC Contract for default after execution of an EWA but prior to the execution of the GMP Amendment, the Agency will make no further payment to the CM/GC Contractor until the Work under any executed EWA has been completed by the Agency (see Articles 13.3.2 and 13.5 of the CM/GC Contract and CMGC180.90(a)).

(2) Termination for Default After Execution of the GMP Amendment - If the Agency terminates the CM/GC Contract for default after execution of the GMP Amendment, the Agency will make no further payment to the CM/GC Contractor until the Project has been completed by the Agency (see Articles 13.4 and 13.5 of the CM/GC Contract and CMGC180.90(a)). Upon completion of the Project by the Agency, the Agency will determine the total amount owed to the defaulting CM/GC Contractor, if any, or total amount due from the CM/GC Contractor's Surety.

In accordance with CM/GC Contract Article 13.4, if the Agency terminates under Article 13.3.1 or Article 13.3.2 of the CM/GC Contract, the Agency will be entitled to copies of, and will have the right to use, all Work Products of the CM/GC Contractor, Subcontractors, consultants, and Suppliers performed to the date of termination (see

CMGC170.09), and the CM/GC Contractor shall deliver copies of the same to the Agency upon request. (see CMGC195.70(a)).

(b) Termination for Public Convenience

(1) Termination for Public Convenience Prior to Execution of the GMP Amendment - The Agency may terminate the CM/GC Contract, in whole or in part, for public convenience prior to the execution of the GMP Amendment with notice to the CM/GC Contractor per CMGC180.90(c). If the Agency terminates for public convenience prior to execution of the GMP Amendment, the Agency will pay the CM/GC Contractor according to CM/GC Contract Article 13.1 as follows:

- The Actual Cost of the Work for Work completed and Accepted prior to the date of Termination (not to exceed the Estimated Cost of the Work for that Work).
- Applicable actual costs for bonds and insurance.
- Prorated CM/GC Fee (based on the Estimated Cost of the Work for Work completed and Accepted prior to the date of termination).
- Pre-construction Phase Services costs (including allowable travel expenses) payable to the date of termination.
- Materials left on hand will be purchased according to CMGC195.70(b).

Note: The sum of the Actual Cost of the Work, applicable actual costs for bonds and insurance, amounts paid for materials left on hand, and the prorated CM/GC Fee cannot exceed the Maximum Early Work Price(s) under an Early Work Amendment.

(2) Termination for Public Convenience after Execution of the GMP Amendment - The Agency may terminate the Contract, in whole or in part, for public convenience after the execution of the GMP Amendment with notice to the CM/GC Contractor per CMGC180.90(c). If the Agency terminates for public convenience after the execution of the GMP Amendment, the Agency will pay the CM/GC Contractor as follows:

- All costs identified in subsection (b)(1) above for termination for public convenience prior to the GMP Amendment;
- The Actual Cost of the Work for Work added by the GMP Amendment that is completed and Accepted prior to the date of Termination (not to exceed the Estimated Cost of the Work for that Work);
- Applicable actual costs for bonds and insurance;
- Prorated CM/GC Fee (based on the Estimated Cost of the Work for Work completed and Accepted prior to the date of termination); and
- Materials left on hand will be purchased according to CMGC195.70(b).

Note: Payment following termination for public convenience after execution of the GMP Amendment cannot exceed the GMP.

- (3) Failure to Furnish an Acceptable GMP** - In the event the CM/GC Contractor fails to furnish a GMP acceptable to the Agency, or if the Agency determines at any time for any reason in its sole discretion that the Parties may fail to reach a timely agreement on a GMP acceptable to the Agency, the Agency may terminate the Contract for public convenience without liability according to Article 13.1 (see Article 6.7 of the CM/GC Contract).

When termination for convenience is initiated, the Agency will provide the CM/GC Contractor and the CM/GC Contractor's Surety **7 Calendar Days'** written notice of the termination.

(c) Termination for Non-Availability of Funds - The Agency may also terminate the Contract for the non-availability of funds (see Article 13.6 of the CM/GC Contract), including:

1. If the Agency fails to receive funding, or appropriations, allotments, limitations, or other expenditure authority at levels sufficient to pay for the CM/GC Contractor's Work;
2. If Federal or State law are modified or interpreted in such a way that either the Pre-construction Phase Services or Construction Phase Services are prohibited, or the Agency is prohibited from paying for such services from the planned funding source.

(d) Termination Related to NEPA

The Agency may terminate the Contract, in whole or in part, without penalty, if the NEPA environmental review process does not result in the selection of a build alternative (see to Article 13.7 of the CM/GC Contract).

If such action occurs, the Agency will:

- Provide the CM/GC Contractor and the CM/GC Contractor's Surety **7 Calendar Days'** written notice of the termination.
- Compensate the CM/GC Contractor according to Article 13.1 of the CM/GC Contract.
- Purchase Materials left on hand according to CMGC195.80.

(e) Other Termination Considerations

Please refer to Articles 13.8 through 13.10 of the CM/GC Contract for the following considerations:

- Upon termination of the CM/GC Contract, the CM/GC Contractor shall remain responsible for the quality of the Work that was performed through the date of termination.
- For disputes involving alleged Agency default, the CM/GC Contractor shall be limited solely to pursuing remedies through those procedures set forth in Section CMGC199.

- In the event of litigation instigated by the CM/GC Contractor in accordance with CMGC199.40(e), or by the Agency for breach of CM/GC Contract, in addition to its other available remedies the Agency may pursue both recoupment and set-off.

Refer to [Chapter 35 – Termination and Breach of Contract](#) in the ODOT Construction Manual for guidance regarding other breach of contract, corrective actions, and termination of the Contract. In the event termination is being considered, the PM will consult with the CAE.

CHAPTER 16 – PUBLIC ENGAGEMENT

Some projects may require the need for heavy public engagement. The Agency has the role of providing public engagement through the region's community affairs liaison and/or public information officers.

16-1 PUBLIC INVOLVEMENT PLAN

A Public Involvement Plan is required for each project. Please refer to the [Public Involvement](#) and [Operational Notice PD-12](#) for more information on what the plan requires and the guidelines set forth on how the Agency approaches public engagement.

For more information, please refer to the [Public Engagement Toolkit](#) webpage (internal ODOT only).

16.2 ROLE OF THE PROJECT MANAGER

The PM will be responsible for development, maintenance, coordination, and implementation of public involvement plans, regardless of individual team member assignments, and including any transitions (e.g., planning to project development to construction). The PM will also lead, coordinate, participate in, and/or facilitate public involvement processes and activities as agreed upon with their area manager/supervisor and Project Team members on each project (refer to [Chapter 9-18](#) for CMGC Contractor support).

CHAPTER 17 – LABOR COMPLIANCE

The following Chapter 17 applies to the Pre-Construction Phase service costs after the CM/GC Contractor has been hired. For the labor compliance process during the Construction Phase, refer to the ODOT Construction Manual [Chapter 19 - Labor Compliance](#).

17-1 PRE-CONSTRUCTION PHASE

Prevailing wage rates do not normally apply to Pre-construction Phase Services.

Refer to [Chapter 14-1\(f\) – Labor Rates and Prevailing Wage Rates](#) for PM review during the Pre-construction Phase Services cost estimating process for Construction Phase Work for an Early Work Amendment or the GMP Amendment.

17-2 CONSTRUCTION PHASE

The applicable wage rates are those in effect at the time of the execution of the first Early Work Amendment, or at the time of the execution of the GMP Amendment if no Early Work Amendment has been executed.

The PM will ensure that the CM/GC Contractor submits all documentation required by CMGC170.65 and Article 9.3.2 of the CM/GC Contract. The PM will submit all documentation from the CM/GC Contractor to Contract Administration Unit. Refer to the ODOT Construction Manual, [Chapter 19 – Labor Compliance](#).

Refer to [Chapter 20 – Escalation/De-escalation](#) for adjustment of labor rates under the CM/GC Contract.

CHAPTER 18 – BONDS AND INSURANCE

The PM will coordinate with OPO for the review and approval of the CM/GC Contractor's bonds and insurance requirements of the CM/GC Contract including Exhibit G prior to executing each Early Work Amendment and the GMP Amendment.

18-1 PRE-CONSTRUCTION PHASE

Refer to [Chapter 14-1\(g\) – Bonds and Insurance](#) for PM review during the Pre-construction Phase Services estimating process.

18-2 CONSTRUCTION PHASE

The cost of any bonds and insurance will be addressed in all executed Amendments and Change Orders (see Article 6.1 of the CM/GC Contract).

The PM will verify the Actual Costs for bonds and insurance by comparing invoices to the cost submitted by the CM/GC Contractor for each Early Work Amendment and GMP Amendment.

The Agency will make payment for the actual cost of the bond and insurance. The Agency reserves the right to perform periodic and final reviews, validations, and audits of the actual costs of bonds and insurance (see Article 10.2 of the CM/GC Contract).

Refer to [Chapter 21-2 – Payment for Construction Phase Services](#) for guidance regarding payment for bonds and insurance during the Construction Phase.

CHAPTER 19 – CONTRACT TIME AND LIQUIDATED DAMAGES

Except when in conflict with this CM/GC Manual, the requirements in the ODOT Construction Manual, Chapter [12E – Adjustments to Lump Sum and Other Items](#) and Chapter [13 – Contract Time](#) apply to a CM/GC Project.

19-1 CONTRACT TIME

Contract Time for a CM/GC Contract is described in CMGC180.50. The Contract Completion Date (the completion date for the entire Project) is specified in Article 5.2 of the CM/GC Contract and the completion date(s) for each Amendment (Early Work Amendments and the GMP Amendment) will be specified in subsection 5(b) of the Amendment itself. The completion date(s) specified in the Amendment(s) will not supersede the Contract Completion Date unless otherwise specified.

The PM should discuss Contract Time, completion dates, and adjustment of Contract Time at the Pre-Construction Conference for each Amendment.

The PM will also issue the required **Notification of Commencement and Completion Dates for Contract Projects, form 734-3233** as discussed in detail in [Chapter 13 – Contract Time](#) of the ODOT Construction Manual with the following differences:

- First Notification will be issued for each Early Work Amendment(s) and the GMP Amendment.
- Second Notification will be issued for each completion date specified by each Early Work Amendment, the GMP Amendment, and for the Contract Completion Date.
- A single, Third Notification will be issued for the completion of the entire Project.

19-2 LIQUIDATED DAMAGES

Liquidated damages for a CM/GC Contract are described in CMGC180.85. The liquidated damages rate that applies to the Contract Completion Date for the entire Project is specified in Article 5.5 of the CM/GC Contract.

The applicable liquidated damages rate for each specified completion date in each Amendment (Early Work Amendments and the GMP Amendment) will be specified in subsection 5(c) of the Amendment itself. The liquidated damages rate(s) specified in the Amendment(s) will not supersede the liquidated damages rate specified in Article 5.5 of the CM/GC Contract.

(a) Determining Liquidated Damages Rates for Amendments

Liquidated damages rates for each Amendment will be determined according to CMGC180.85(b) and in coordination with the Contract Administration Unit.

For each Early Work Amendment, the Current Contract Sum (see CMCG180.85(b)) at the time of execution is used in the calculation of the liquidated damages. If the Agency has executed 2 Early Work Amendments (EWA-1 and EWA-2, respectively) the Current Contract Sum amount grows with the execution of any additional Amendments or Change Orders, thus EWA-2 Current Contract Sum would already include EWA-1 Current Contract Sum at the time of execution. Contact the Contract Administration Unit during development of each Amendment prior to establishing liquidated damages rates for the Work to be added by Amendment.

(b) Assessing Liquidated Damages

The Agency will not assess more than one liquidated damages rate concurrently.

If the CM/GC Contractor exceeds multiple specified completion dates within a single Amendment, the Agency will assess liquidated damages at the single highest applicable liquidated damages rate.

If the CM/GC Contractor exceeds the completion dates for multiple Amendments, the Agency will assess liquidated damages at the single highest applicable liquidated damages rate.

If the CM/GC Contractor exceeds the completion date for an Amendment and the Contract Completion Date for the entire Project, the Agency will assess liquidated damages at the single highest applicable liquidated damages rate.

CHAPTER 20 – ESCALATION / DE-ESCALATION

20-1 MATERIAL ESCALATION / DE-ESCALATION

Like design-bid-build Projects, CM/GC Projects include escalation/de-escalation clauses for asphalt, fuel, and steel materials (refer to Section CMGC195). CM/GC Projects also contain provisions to adjust the labor rates that the Agency will pay to the CM/GC Contractor based on changes in the posted prevailing wage rates. The process and procedures for escalation and de-escalation that apply to design-bid-build Projects (refer to the ODOT Construction Manual, [Chapter 12E-2\(a\) – Escalation / De-escalation \(Fuel, Asphalt, Steel\)](#)) also apply to CM/GC Projects, except as modified by this section.

(a) Asphalt Cement Material Price Escalation/De-escalation

Asphalt cement material escalation/de-escalation (AE) is addressed in CMGC195.10 of the CM/GC Contract, but the Agency will decide whether or not AE is appropriate for each Amendment and include the applicable Special Provisions language in each EWA and the GMP Amendment for AE to be in effect during the life of that Amendment.

In general, AE will apply if all the following conditions are met:

- The Amendment has at least 150 Tons of liquid asphalt.
- The Agency determines that AE is appropriate for the Amendment.
- There are eligible Pay Items in the Special Provisions for the Amendment.

During development of each Amendment, the Agency will determine if there are Pay Items in the Amendment that will use at least 150 Tons of liquid asphalt and if AE is appropriate for the Amendment. If AE is determined appropriate, the Agency will determine which Pay Items qualify for AE, and these Pay Items will be listed in Subsection CMGC195.10(d) of the Special Provisions for that Amendment. A separate base price will be established for each Amendment that will use AE.

Depending on the length of the Amendment (one season vs. multiple seasons) and the clarifications and assumptions agreed to during negotiation with the CM/GC Contractor, the Agency may decide that AE is not appropriate for an Amendment, regardless of whether or not the Amendment has at least 150 Tons of liquid Asphalt.

Refer to the ODOT Construction Manual, Chapter [12E-2\(a\)\(1\) – Asphalt Cement Material Price Escalation/De-escalation \(AE\)](#) for allowable changes to the terms of AE after execution of an Amendment. However, keep in mind that changes to the terms of AE will be applied on an Amendment by Amendment basis rather than to the entire CM/GC Contract as would be the case with a design-bid-build project.

The Monthly Asphalt Cement Material Price (MACMP) is established by the Agency and is posted on the Specifications Unit website at:

<https://www.oregon.gov/ODOT/Business/Pages/Asphalt-Fuel-Price.aspx>.

For each Amendment, escalation and de-escalation only applies to the Pay Items listed in CMGC195.10(d) of the Special Provisions of that Amendment. The PM will calculate an amount of escalation or de-escalation for the Pay Items if the current monthly price differs more than 5% from the Monthly Asphalt Cement Material Price (MACMP) published on the Agency website for the month immediately preceding the execution of the Amendment.

(b) Fuel Price Escalation/De-escalation

Fuel escalation/de-escalation (FE) is addressed in CMGC195.11 of the CM/GC Contract, but the Agency will decide whether or not FE is appropriate for each Amendment and include the applicable special provision language in each Early Work Amendment and the GMP Amendment for FE to be in effect during the life of that Amendment.

During development of each Amendment, the Agency will determine if FE is applicable to the Amendment. In general, this is done by determining if the Pay Items listed on the [Fuel Escalation Worksheet](#) meet the minimum qualifiers. If the individual Pay Items for an Amendment meet the individual minimum qualifiers and if the total of all Pay Items meets the minimum qualifier of 25,100 gallons, then the FE provisions apply and the applicable Pay Items will be listed in Subsection CMGC195.11 of the Special Provisions for the Amendment. A separate base price will be established for each Amendment that will use FE.

Depending on the length of the Amendment (one season vs. multiple seasons) and the clarifications and assumptions agreed to during negotiation with the CM/GC Contractor, the Agency may decide that FE is not appropriate for an Amendment, regardless of whether or not the Pay Items meet the minimum qualifiers established above.

Refer to the Construction Manual, Chapter [12E-2\(a\)\(2\) – Fuel Cost Price Escalation/De-escalation \(FE\)](#) for allowable changes to the terms of FE after execution of an Amendment. However, keep in mind that changes to the terms of FE will be applied on an Amendment by Amendment basis rather than to the entire Contract as would be the case with a low-bid project.

The Monthly Fuel Price (MFP) is established by the Agency and is posted on the Specifications Unit website at: <https://www.oregon.gov/ODOT/Business/Pages/Asphalt-Fuel-Price.aspx>.

For each Amendment, escalation and de-escalation only applies to the Pay Items listed in CMGC195.11(d) of the Special Provisions of that Amendment. The PM will calculate an amount of escalation or de-escalation for the Pay Items if the current monthly price differs more than 25% from the Monthly Fuel Price (MFP) published on the Agency website for the month the Agency executes the Amendment.

(c) Steel Material Price Escalation/De-escalation

Steel escalation/de-escalation is addressed in CMGC195.12 of the CM/GC Contract, but the Agency will decide whether or not steel material price escalation/de-escalation (SE) is appropriate for each Amendment and include the applicable special provision language in each Early Work Amendment and the GMP Amendment for SE to be in effect during the life of that Amendment.

During development of each Amendment, the Agency will determine if the Amendment has any eligible SE Pay Items. If there are eligible Pay Items, they will be listed in Subsection CMGC195.12 of the Special Provisions for the Amendment. If there are no eligible Pay Items, Subsection CMGC195.12(d) will state: *“No Pay Items under this Amendment qualify for the steel escalation/de-escalation program for this Amendment.”* The PM will use the [Steel Escalation/De-Escalation Worksheet](#) (“Table of Steel Escalation”) to identify which Pay Items will be listed in the Special Provisions. A separate base price will be established for each Amendment that will use SE.

The CM/GC Contractor can choose to participate in the SE program by printing out the Steel Materials Pay Item list in CMGC195.12(d) of the Special Provisions, identifying which Pay Items they wish to select for participation in the SE program, signing, and submitting the list to the PM, or by submitting through another method that the PM agrees to. The CM/GC Contractor shall complete and submit the Steel Material Pay Item list before or within **5 business days** after the Pre-construction Conference for the Amendment to which the escalation/de-escalation would apply. SE can only be made on the Pay Items selected by the CM/GC Contractor. The PM will need to keep a copy of the participation notice with the applicable Project records, and submit a copy to the CAU.

If the CM/GC Contractor elects to not participate in the SE program for an Amendment, this will need to be documented in one of the following ways:

- The CM/GC Contractor can notify the PM in writing of its choice to not participate in the SE program, or
- The PM can notify the CM/GC Contractor in writing that the required participation information was not received within the timeframe allowed, and that the SE program provisions in CMGC195.12 will not apply to the Amendment.

The Region Assurance Specialist (RAS) will require the applicable documentation confirming either participation (participation form) or non-participation (letter to or from the CM/GC Contractor) to be included in the Project documentation.

A separate BV will be established for each Amendment that will use SE. The BV and the Monthly Steel Materials Value (MV) are posted on the Agency website after the numbers are considered final.

<https://www.oregon.gov/ODOT/Business/Pages/Steel.aspx>

Preliminary numbers may be referenced for six months or more before they are determined to be final. This means that SE adjustments for Work completed in January are not made until the final numbers are posted in June (at the earliest), and will be posted on the July pay estimate. The Agency has no control over when the final numbers will be posted, therefore, SE adjustments may not be reflected on payments to the CM/GC Contractor for up to two months after the final values are posted. The CM/GC Contractor is not eligible for interest on these delayed payments (see CMGC195.12(b)).

20-2 LABOR RATE ADJUSTMENTS

To account for inflated labor rates in the later years of an Amendment, the CM/GC Contract contains provisions to adjust the wage rates that the Agency will pay the CM/GC Contractor. The Agency will pay the CM/GC Contractor the prevailing wage rate amounts included in the Amendment, but the rates will be adjusted based on the prevailing wage rates effective for January 1 of each year (see CMGC170.65(b)(1)).

(a) State Prevailing Wage Rates

After the execution of an Amendment, the PM is responsible to check the BOLI prevailing wage rates each January 1. For Work performed in that calendar year, the PM will adjust the wage rates to the new rates. However, ODOT will not make payment to the CM/GC Contractor at a rate less than the BOLI prevailing wage rates applicable to the Project and included in each Amendment. The adjusted rate will only apply to the Work performed in that calendar year (see CMGC170.65(b)(1)).

(b) Prevailing Wage Rates for Federally Funded Projects

After the execution of an Amendment, the PM is responsible to check the Davis-Bacon and BOLI prevailing wage rates each January 1. For Work performed in that calendar year, the PM will adjust the current Project wage rates to the higher of the new Davis-Bacon or BOLI rates. However, ODOT will not make payment to the CM/GC Contractor to the Project and included in each Amendment. The adjusted rate will only apply to the Work performed in that calendar year (see to CMGC170.65(e)(2)).

If the CM/GC Contractor submits sufficient written justification, the PM may agree to make payment at wage rates that are higher than those effective for the CM/GC Contract or higher than the adjusted rates. The PM should only agree to make payment at a higher rate if the justification was a consideration during negotiation of the original Amendment.

CHAPTER 21 – PAYMENTS MADE FOR EWA & GMPA

The following Chapter discusses the monthly progress estimates for payments on an Early Work Amendment or a Guaranteed Maximum Price Amendment. The basis for making payments will be similar to Design-Bid-Build (refer to the ODOT Construction Manual, [Chapter to 25 – Payments to Contractors/Retainage](#)), however; this Chapter will discuss some of the key differences.

21-1 PAYMENT FOR PRE-CONSTRUCTION PHASE SERVICES

Articles 11.1 through 11.4 of the CM/GC Contract specify the terms for payment for Pre-construction Phase Services performed by the CM/GC Contractor ([refer to Chapter 11 – Pre-construction Phase Service Costs](#)) for guidance on making payment for Pre-construction Phase Service Costs]

The PM will need to verify and track costs for Pre-construction Phase Services and Construction Phase Services separately if Work occurs simultaneously for Pre-construction Phase Services and Construction Phase Services.

Additionally, according to 23 CFR §635.507, Cost eligibility:

(a) Costs, or prices based on estimated costs, under a CM/GC contract shall be eligible for Federal-aid reimbursement only to the extent that costs incurred, or cost estimates included in negotiated prices, are allowable in accordance with the Federal cost principles (as specified in 2 CFR part 200, subpart E). Contracting agencies must perform a cost or price analysis in connection with procurement actions, including contract modifications, in accordance with 2 CFR 200.323(a) and this subpart.

(1) For preconstruction services, to the extent that actual costs or cost estimates are included in negotiated prices that will be used for cost reimbursement, the costs must comply with the Federal cost principles to be eligible for participation.

21-2 PAYMENT FOR CONSTRUCTION PHASE SERVICES

The Agency will only pay for measured Pay Item quantities included in the Construction Phase Services and performed according to the terms of the CM/GC Contract Documents. Similar to Design-Bid-Build, Pay Item quantities listed in the Schedule(s) of Items do not govern payment.

Measured quantities may fluctuate from the estimated quantities included in the EWA or GMP Amendment and payment will be based on actual quantities measured, as long as payment for actual quantities does not exceed the Estimated Cost of the Work.

Payment for measured Pay Item quantities is considered full compensation to the CM/GC Contractor for furnishing all Materials, Equipment, labor, and Incidentals necessary to complete the Work for those Pay Items; and for risk, loss, damage, and expense arising from the nature or completion of Work or from action of the elements listed in CMGC170.80.

Although the line item prices for the CM/GC Fee, bonds, and insurance will be included as separate Pay Items in the progress estimates, they are not considered “standard” Pay Items related to the Estimated Cost of the Work or the Actual Cost of the Work.

The PM will be responsible for checking that the CM/GC Fee, bonds, and insurance are separately priced items not included in the Pay Items associated with the Actual Cost of the Work or the General Condition Work Costs (refer to [Chapter 21-4\(f\) – Bonds and Insurance](#)).

21-3 MAXIMUM EARLY WORK PRICE(S)

Before executing any Early Work Amendment(s), the Agency will first negotiate with the CM/GC Contractor on the various Pay Items included in the Work to determine the Maximum Early Work Price(s). According to Article 6.5.7 of the CM/GC Contract, the Maximum Early Work Price for an Early Work Amendment is determined using the following formula:

$$\begin{aligned} & \textbf{Estimated Cost of the Work} \text{ (Includes General Conditions Work Costs, NTE \$____)} \\ & + \textbf{CM/GC Fee} \text{ (% of Estimated Cost of the Work - becomes fixed; subject to change} \\ & \quad \text{in accordance with Article 6.4.2 of the CM/GC Contract)} \\ & + \textbf{Bonds and Insurance} \text{ (Actual, reimbursable costs)} \\ & = \textbf{Maximum Early Work Price} \end{aligned}$$

Note: Any contingency amounts agreed upon during negotiations for an Amendment will not become part of the Maximum Early Work Price unless those contingency amounts are added to the Estimated Cost of the Work by Change Order (see Article 6.6.6 of the CM/GC Contract).

The Maximum Early Work Price establishes the maximum amount that the Agency will pay the CM/GC Contractor under an Early Work Amendment.

(a) Estimated Cost of the Work

The Estimated Cost of the Work for an Amendment will capture all of the direct costs for the CM/GC Contractor to perform the construction Work on the Project, including Pay Items for

items such as: Mobilization, Temporary Signs, General Excavation, Drilled Shaft Concrete, Aggregate Base and Level 3 ½ Inch ACP Mixture, etc.

The Estimated Cost of the Work will also include all of the General Conditions Work Costs, which are costs incurred by the CM/GC Contractor in support of the construction efforts. The General Conditions Work Costs items may also be topics of the progress estimate and tracked under separate Pay Items. Examples of these items may include the following:

- The CM/GC Contractor's Project Principal, PM and all on-site non-craft CM/GC personnel.
- CM/GC Contractor's costs associated with related local transport to the project site.
- On-site project office facility, including co-location costs, rent/lease, demobilization, utilities, and other monthly costs (Except for those items specifically paid for during the Pre-construction Phase or included in the CM/GC Fee or provided by the Agency).
- The CM/GC Contractor's cost related to communications equipment (e.g. cell phones, landlines, phones, radios, computers, and software).
- Allowable CM/GC Contractor's costs related to relocation, housing, and subsistence for any project personnel.
- The CM/GC Contractor's jobsite trailer, temporary facilities and maintenance (e.g. temporary fencing, temporary utilities, site security and maintenance, and dumpsters).
- Other items include drinking water for construction craft labor, safety equipment and materials, and first-aid supplies.

For more specific information on the General Condition Work Costs, refer to Exhibit H of the CM/GC Contract that identifies which costs will be paid or reimbursed in the "Cost of the Work" and, therefore, included in the Estimated Cost of the Work for an Amendment.

Note: The Estimated Cost of the Work should not include any overhead costs or other costs that are already included in the CM/GC Fee or in the cost for bonds and insurance or any Pre-Construction Phase Services costs.

(b) CM/GC Fee

Since the Estimated Cost of the Work only includes direct Work costs and General Conditions Work Costs, the Contract establishes a CM/GC Fee as a means for the CM/GC Contractor to be paid for other costs such as overhead and profit. Exhibit H of the CM/GC Contract specifies which costs are included in the CM/GC Fee under the heading "Items included in CM/GC Fee."

The CM/GC Fee is a set percentage that is determined before the initial CM/GC Contract is executed. In addition to payments for the Estimated Cost of the Work performed, the CM/GC Contractor shall be paid an amount equal to the CM/GC Fee percentage multiplied by the payment amount for the Estimated Cost of the Work.

Exhibit H of the CM/GC Contract specifies which costs are subject to the CM/GC Fee under the heading "Items paid or reimbursed in 'Cost of the Work' and subject to CM/GC Fee." Exhibit H

also specifies which costs are not subject to the CM/GC Fee under the heading "Items Reimbursed without CM/GC Fee markup."

(c) Bonds and Insurance

The Agency will reimburse the CM/GC Contractor for any costs actually incurred by the CM/GC Contractor to obtain bonding and insurance coverages required by the CM/GC Contract. Payment amounts for bonds and insurance costs will be based on the actual amounts paid by the CM/GC Contractor for bonds and insurance and not estimated costs.

Costs for bonds and insurance are not subject to the CM/GC Fee markup (see Exhibit H of the CM/GC Contract).

(d) Contingency Amounts

(1) Contingency Amount Included in an Early Work or GMP Amendment -

The contingency amount identified and included in an Early Work Amendment or a GMP Amendment is reflective of the scope of work for that specific Early Work Amendment or GMP and is based on several factors. The contingency may be set up to cover the possibility of an issue occurring that was previously identified in a risk assessment. The contingency amount may also be used, at the Agency's discretion, to cover change order items related to changes in the project scope.

The amount of GMP Contingency will be approved by the Agency prior to the execution of the GMP or Early Work Amendment. The PM will review the contingency items with the CAE. The utilization of any portion of the contingency amount will be processed similar to the Agency procedures used for change orders. The PM must first review any of the CM/GC Contractor's assumptions and the request to use the contingency amount must be clearly justified by the Contractor in writing and must be authorized by the PM.

Contingency amounts agreed upon during negotiations for an Amendment will not be included in the Estimated Cost of the Work or the Maximum Early Work Price unless those contingency amounts are added to the Estimated Cost of the Work by Change Order (see Article 6.6.6 of the CM/GC Contract). If a contingency amount is added to the Estimated Cost of the Work by Change Order, the Maximum Early Work Price or the Guaranteed Maximum Price will also be increased by that amount.

- (2) Agency Contingency** - The construction authorization for each project also contains contingency funding to allow for normal Change Orders and fluctuations in Pay Item quantities, escalations (labor or commodity) or other unanticipated items, increases in engineering costs and items beyond the control of the Agency or the CM/GC Contractor. The PM remains responsible for staying within the construction authorization or approved overrun for the entire project.

On most ODOT Projects, the contingency amount is fixed at 3.5% of the contract amount. The PM should discuss with Contract Administration Unit to determine if this amount is adequate for the Project or to justify a different amount.

21-4 MONTHLY PROGRESS PAYMENTS FOR EARLY WORK AMENDMENTS

(a) Early Work Amendment Determination

For each EWA executed by the Agency, the Agency will pay the CM/GC Contractor an amount equal to the sum of the CM/GC fee attributable to the Early Work, the actual reimbursable costs incurred for bonds and insurance applicable to the Early Work, and the Actual Cost of the work for the early work completed and Accepted by the Agency, not to exceed the Maximum Early Work Price for the EWA.

The Agency will make payment for any Early Work Amendment as follows:

- Actual Cost of the Work** (Includes General Conditions Work Costs, NTE \$____)
- + **CM/GC Fee** (% of Estimated Cost of the Work for the EWA; subject to change in accordance with Article 6.4.2 of the CM/GC Contract)
- + **Bonds and Insurance** (Actual, reimbursable costs applicable to the EWA)
- = **EWA Payment**

(b) Monthly Progress Payments for Construction Phase Services

The Agency will make progress payments monthly during the Construction Phase Services. The Agency's payment of progress payments, or determination of satisfactory completion of Pay Items or Work, will not be construed as Final Acceptance or approval of any part of the Work, and will not relieve the Contractor of responsibility for defective Materials or workmanship or for latent defects and warranty obligations.

All progress payments will be based on estimates and are subject to correction. The CM/GC Contractor shall assume all risk and bear any losses if they use these estimates to make payment to Subcontractors.

At the same time each month, the Engineer will make an estimate of the amount and value of Pay Item Work completed under any EWA and the GMP Amendment. The payment of each monthly progress estimate for Construction Phase Services will be calculated by summing the amounts of the following:

- Amount of work completed will be the sum of the estimated number of units completed for unit priced Pay Items.

- Estimated percentage complete of lump sum Pay Items.
- Value of Materials on hand.
- Estimated percentage of the applicable CM/GC Fee.
- Actual costs for bonds and insurance applicable to the Amendment.

The PM will facilitate the process to ensure that payment made to the CM/GC Contractor is complete and accurate (refer to the Example Progress Payment at the end of the chapter).

(e) Calculation of the CM/GC Fee

The CM/GC Fee portion that is payable on a monthly basis will be calculated as follows:

$$\begin{aligned} & \text{Value of Completed Pay Item Work (Actual Cost of the Work and General} \\ & \quad \text{Condition Work Costs)} \\ & + \text{ Value of Materials on Hand} \\ & = \text{ Subtotal} \\ & \times \text{ CM/GC Fee (\% Identified in Article 6.4.1 of the CM/GC Contract)} \\ & = \text{ Portion of CM/GC Fee Payable on the Progress Estimate} \end{aligned}$$

The PM should note that there are limitations on the costs or charges that are subject to the CM/GC Fee provided in Article 6.4 of the CM/GC Contract. For a list of qualifying items, please refer to Exhibit H of the CM/GC Contract. No CM/GC Fee will be paid on any contingency amounts unless authorized by the Agency.

Decreases in the Estimated Cost of the Work for an Early Work Amendment or the Estimated Cost of the Work for the GMP Amendment will not result in a decrease in the CM/GC Fee except in the case of a scope reduction in accordance with Article 6.4 (see Article 6.12 of the CM/GC Contract).

For the GMP Amendment, the total CM/GC Fee will be reduced by the CM/GC Fee payments made under any EWA or any other Amendments or Change Orders.

(f) Bonds and Insurance

The Agency will reimburse the CM/GC Contractor for the actual costs for bonds and insurances according to CMGC195.50(b)(6). The payment for the costs for the bonds and insurance are 100% of the actual reimbursable costs upon receipt of cost information (refer to [Chapter 18 – Bonds and Insurance](#)).

The cost of any bonds and insurance will be included in all executed Amendments and Change Orders (see Article 6.1 of the CM/GC Contract).

The PM will verify:

- The actual costs prior to reimbursing the CM/GC Contractor for the bond and insurance amount.

- The actual costs incurred by the CM/GC Contractor for bonding and insuring subcontractors, prior to reimbursing the CM/GC Contractor for those costs.
- The costs for bonds and insurance are reimbursed and do not have the CM/GC Fee markup applied to those costs (see Exhibit H Project Cost Components for more information).
- Upon the completion of each Early Work Amendment and the GMP Amendment, any discounts, rebates, and refunds for insurance costs received by the CM/GC Contractor (see Article 8 of the CM/GC Contract).

(g) Overruns and Agency Savings

If no GMP Amendment is executed or if the Work under an Early Work Amendment is completed before a GMP Amendment is executed, savings or an underrun under an Early Work Amendment may not be used by the CM/GC Contractor to offset an overrun under another Early Work Amendment.

In addition, if the Work under an Early Work Amendment or the GMP Amendment is not completed, but expected savings can be reasonably demonstrated under the Amendment, the Agency may elect to remove those savings from the Contract by a reduction of the Maximum Early Work Price for the Early Work Amendment, or by reducing the GMP for the GMP Amendment, as applicable, by the amount of the savings (see Article 6.10 of the CM/GC Contract).

(h) Reduction in Payments

The progress payments are subject to the following reductions (see CMGC195.50(a)(2)(g):

- Amounts previously paid.
- Amounts deductible or owed to the Agency for any cause specified in the CM/GC Contract.
- Additional amounts retained to protect the Agency's interests according to CMGC195.50(b) and (e).

Any other amounts authorized by Article 11.8 of the CM/GC Contract.

(i) Retainage

1. Pre-construction Phase Services – No retainage will be held on any Pre-construction Phase Work.
2. Construction Phase Services – If the Agency elects to withhold retainage from Construction Phase Services:
 - Retainage will not be held on any bonds and insurance Pay Items.
 - No retainage will be held on the CM/GC percentage fee.

- Retainage may be applied to General Condition Work Costs and the Estimated Cost of the Work for each progress estimate according to CMGC195.50 (refer to the ODOT Construction Manual, [Chapter 25 – Payments to Contractors/Retainage](#)).

(j) Extra Work/Force Account

If payment is being made for Extra Work completed by the CM/GC Contractor, performed on a Force Account basis, pricing will be determined according to CMGC197.

Work ordered by Force Account (and completed by the Contractor) will generally follow the same Open-Book Pricing process described in [Chapter – 14 Cost Estimating](#) (see CMGC197 for details).

The Costs for Force Account Work are not included in any EWA or the GMP Amendment.

When the CM/GC Contractor performs ordered Force Account Work, the Actual Cost incurred, as limited to CMGC197, will be subject to an additional amount equal to the CM/GC Fee percentage established in Article 6.3 of the CM/GC Contract. No additional or supplemental markup will be allowed.

When a Subcontractor performs Force Account Work, the Actual Cost incurred, as limited in CMGC197, will be subject to an additional amount equal to a percentage markup as specified in CMGC197.

21-5 MONTHLY PROGRESS PAYMENT FOR THE GMP AMENDMENT

(a) GMP Amendment Determination

The Agency will make payment for the GMP Amendment as follows:

	Pre-construction Phase Costs (Not-to-Exceed (NTE) amount and includes travel expenses NTE \$____)
+	Estimated Cost of the Work (Includes General Conditions Work Costs, NTE \$____)
+	CM/GC Fee (% of Estimated Cost of the Work - becomes fixed; subject to change in accordance with Article 6.4.2 of the CM/GC Contract)
+	Bonds and Insurance (Actual, reimbursable costs)
=	GMP

(b) Monthly Progress Payments for Construction Phase Services

Monthly progress payments made under a GMP Amendment will be similar to the processes described in the monthly payments made for an Early Work Amendment (refer to [Chapter 21-4\(b\) – Monthly Progress Payments for Construction Phase Services](#)).

21-6 FINAL PAYMENT

(a) Final Payment Accounting

After the PM's issuance of Second Notification for the entire Contract and Project, the CM/GC Contractor shall submit to the Agency a final detailed accounting of the Actual Cost of the Work for the entire Contract and Project.

The Agency will not make payment that exceeds the Estimated Cost of the Work or at any rate greater than the unit price that is used in determining the Estimated Cost of the Work unless otherwise agreed upon by the Agency in an Amendment or Change Order.

Measured quantities may fluctuate from the estimated quantities included in the EWA or GMP Amendment and payment will be based on actual quantities measured, as long as payment for actual quantities does not exceed the Estimated Cost of the Work.

(b) Calculation of Final Payment

Subject to other provisions of the Contract Documents (see CMGC195.90), final payment will be calculated as follows:

- Pre-construction Phase Costs** (Includes allowable travel expenses)
- + **Actual Cost of the Work** (Includes General Conditions Work Costs, NTE \$____)
- + **CM/GC Fee** (% of Actual Cost of the Work - becomes fixed; subject to change in accordance with Article 6.4.2 of the CM/GC Contract)
- + **Bonds and Insurance** (Actual, reimbursable costs)
- **Amount for which the Agency withholds approval of payment**
- **Aggregate of previous payments made to the CM/GC Contractor**
- **Applicable Deductions According to CM/GC Contract Article 11.8.**
- = **Final Payment**

If the GMP Amendment has been executed, the sum will not exceed the GMP. If no GMP Amendment has been executed, the sum will not exceed the Maximum Early Work Price(s) plus the Pre-construction Phase Services costs. If two or more EWAs have been executed, but there is

no GMP Amendment, a final payment amount will be computed under Article 12 of the CM/GC Contract separately for each Early Work Amendment.

(c) Termination

Please refer to [Chapter 15 – Termination](#).

(d) Audit Adjustments

The Agency, with the assistance of its representatives including, but not limited to Agency consultants, will conduct final audit(s) of the Project Records prior to the Contract closeout, which at the Agency's discretion may be before or after the CM/GC Contractor's final accounting required under Article 12 of the CM/GC Contract and before or after final payment. (There may also be subsequent audits as noted in Article 12.3 of the CM/GC Contract.) The purpose of the final audit(s) is to validate the Actual Cost of the Work and determine if cost reimbursements and other payments are allowable, properly allocated, and reasonable. The final audit(s) may result in reduction adjustments or corrections in amounts paid or to be paid.

(e) Cost Savings

Any savings realized from comparing the Actual Cost of the Work to the Estimated Cost of the Work will accrue to the Agency. The Agency may elect to use any savings for additional Work or increases to the scope of the Project (see Article 6.10 of the CM/GC Contract).

(f) Trade Discounts, Rebates, and Refunds

Trade discounts, rebates, refunds and net amounts received from the sales of surplus or salvage materials and equipment, or the salvage value of such Materials and equipment, if they have not been sold prior to Final Payment, will accrue to the Agency. The PM will take steps to ensure that the CM/GC Contactor secures all potential discounts, rebates, and refunds for the benefit of the Agency.

Assumptions regarding the availability of any of the following shall be included in the pricing development for any Early Work Amendment, the GMP Amendment, and Amendments and Change Orders:

- Cash discounts or other discounts.
- Rebates or refunds obtained on purchases or on payments made by the CM/GC.
- Sales prices and salvage value of Materials and Equipment.

The Agency will consider discounts, rebates, or refunds when reconciling the Actual Cost of the Work (see Article 8 of the CM/GC Contract).

Example Progress Payment

Progress Payment Estimate 1					
Item No.	Item Name	Unit of Measurement	Unit Price	Quantity Performed (this month)	Performed to Date Quantity
Pay Item - 1	Mobilization	LS	\$75,000	90	\$67,500.00
Pay Item - 2	Moving Single Sign posts	EA	\$200	5	\$1,000.00
Pay Item - 3	General Excavation	CY	\$35	700	\$24,500.00
Pay Item - 4	Level 3, 1/2 Inch ACP Mixture	Ton	\$65	450	\$29,250.00
Pay Item -17	Co-Location Space - Reimbursable Monthly Cost (General Condition Work Costs)	\$	\$1	12500	\$12,500.00
Pay Item - 21	Monthly Reimbursable Utility Costs (General Condition Work Costs)	\$	\$1	900	\$900.00
				Subtotal	\$135,650.00
Note: Based on a 9% fee, \$135,650.00 X .09 = \$12,208.50. (Use to calculate portion of CM/GC % Fee).					
Pay Item - 95	CM/GC Fee (9%)	\$	\$1	12,208.5	\$12,208.50
Pay Item - 100	Bond Costs (Reimbursable)	\$	\$1	9000	\$9,000.00
Pay Item - 101	Insurance Costs (Reimbursable)	\$	\$1	25000	\$25,000.00
Total Monthly Payment under Early Work Amendment*					\$181,858.50
<i>*Does not include Pre-construction Phase Services costs or determination for retainage.</i>					

CHAPTER 22 – CONTRACT CLOSE OUT

Please refer to [Chapter 37 – Submittal of Final Project Documentation](#) of the ODOT Construction Manual for guidance on submittal of final Project documentation with the exception of the Project Manager’s Narrative Form, 734-2756. The Project Manager’s Narrative Form is not required for CM/GC projects.

22-1 FINDING OF FACT FOR EXEMPTION CLOSEOUT REPORT

Within **45 Calendar Days** after issuance of Second Notification, Alternative Delivery Services (ADS) will set up a meeting with the PM to discuss required project information needed to complete the Finding of Facts for Exemption (FFE) Post-Construction Evaluation Report. At the meeting, ADS will provide the PM a base document for the report. The PM will work with ADS on any necessary information required to accurately complete this report.

Within **30 Calendar Days** after the issuance of Third Notification, the FFE Post-Construction Final Report is due to the ODOT Director. At the time of the issuance of Third Notification, the PM will submit a draft FFE Post-Construction Evaluation Report to ADS. In preparation of the submission of the FFE closeout report, ADS will facilitate the process for DOJ review and approval. Upon DOJ approval, ADS will submit a copy of the final FFE Post-Construction Report and Report Cover Memo to the ODOT Director’s Office. ADS will provide the PM a copy of the report and will also provide OPO a copy of the report for posting on the Agency’s website.

22-2 LESSONS LEARNED MEETING

ADS will facilitate the Post-Construction Closeout Lessons Learned follow up meeting with the Project Team, OPO, and CAU. The meeting will generally occur more than **45 Calendar Days** after Second Notification or after any claims are settled. This meeting provides the Agency an opportunity to discuss and document important Project specific issues and experiences that may necessitate a change of processes for future CM/GC Projects. ADS will draft and finalize a lessons learned summary report for documenting the outcomes of the meeting

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