## Federal

## Construction

 Contracting

Stan Uhlig

## Federal

 Construction Contracting Made Easy
## Stan Uhlig

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## About the Author

Stan Uhlig, founder and owner of Federal Construction Consultants, is a leading expert who began his extensive career as a Seabee in Vietnam. His experience spans from teaching civil engineering technology to working in federal construction contracting around the world. During his 37 years as a contractor to the Department of Defense, Stan worked as a chief engineer, project manager, senior project manager, and general manager of operations. The founder of a multimillion-dollar construction business, Stan has successfully completed some of the biggest and most complex government contracts ever conceived at home or abroad. They include underground aircraft hangars, nuclear weapon storage facilities, fire stations, air traffic control towers, operations facilities, barracks, dining facilities, high-rise bridges, historic renovations (including the first YMCA building west of the Mississippi River), rebuilding of dry docks (the West Coast's largest), and an underground hospital (again, the world's largest).

All of these projects not only presented unique engineering challenges but also involved intricate contractual complexities and operational difficulties. Stan has expertise in successfully managing such contracts in a way that not only delivers quality and on-time results but also avoids lawsuits, delays, added costs, and loss of credibility. For the past five years, Stan has managed an average of 40 projects and up to 1,500 employees. He has also taught construction contracting at the college level and mentored a large general contractor. He is an engaging speaker in his interactive workshops.

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## Preface

The financial and consequent construction meltdown of 2008 and 2009 and the passage of the American Recovery and Reinvestment Act of 2009 (ARRA) have shifted the focus from commercial to federal government construction contracting. Companies that perform mostly state, county, city, and commercial construction have seen their work disappear overnight. Under ARRA, the federal government has poured over $\$ 275$ billion into "off the shelf, ready to go" construction projects and has also distributed billions of dollars to the states to use for other state, county, and local construction projects.

Because so few commercial projects are being built, federal government contracting has become virtually the only game in town. Many construction companies are now trying to enter the federal government construction contracting market. However, federal government laws and processes are very different from those in the commercial and state and local governmental construction sectors, and mastery of these laws and processes is essential to success. Companies today are bidding on federal projects without a clear understanding of what it takes to do work for the government; as a result, many are encountering serious financial difficulties.

Opportunities abound in federal government construction contracting, but the devil is in the details. Federal government construction contracting requires that management systems be set up to deal with mandated everyday processes and the inherent risk associated with those processes. You can't just do business in the same old way if you want to do business with the federal government.
Effective construction operations management requires that a company manage its risk. Federal Construction Contracting Made Easy includes a "risk management" chapter intended to be used in the decision-making process. Companies performing work for the federal government must plan and operate based on the realities of having a business relationship with the federal government. You might need to change your management systems to incorporate the required federal government processes.

You will also need to set up management systems to identify and monitor the additional costs that are inherent in federal contracting. Federal Construction Contracting Made Easy will guide you in understanding and interpreting the various federal government rules, regulations, processes, and procedures. For example, general conditions costs are generally higher for federal government construction contracting than for commercial construction contracting because additional staff members are needed to handle various federal government-required tasks. The timeliness of actions such as notifications must be tracked, and forms and procedures must be developed to provide adequate documentation that the federal government's rules and regulations, specifically the

Federal Acquisition Regulation (FAR), have been addressed. Quality control systems must be established. The home office and the field office staff will have more work to do, and they could face severe penalties if some of that work-such as meeting DavisBacon Act (prevailing wages) and Small Business Subcontracting Plan documentation requirements-is not done properly. Reviewing your management systems early on will help you to succeed in federal government construction contracting.

In developing Federal Construction Contracting Made Easy, I have drawn on my 37+ years working directly on federal government construction contracts. The discussions and advice I offer in this book are not academic or theoretical, but practical-based on the reality of what it takes to perform successfully in the federal government construction contracting marketplace.

## WHAT THIS BOOK WILL DO FOR YOU

Federal Construction Contracting Made Easy is designed to be your complete reference to the rules, regulations, procedures, and processes of doing business with the federal government in construction contracting. The contents have been designed around U.S. Army Corps of Engineers operating methods and the associated rules, processes, and procedures. Although other federal government agencies operate under the same laws and regulations, they may have slightly different processes and requirements. This book will help all levels of construction firms, architect/engineer firms, subcontractors, and vendors that want to do business with the federal government; it will also help firms that are already in the field become more effective and thus more profitable. It will empower firms with the knowledge of the processes, rules, regulations, and procedures needed to be successful in federal construction contracting.

This book will serve as a ready reference to all federal government construction requirements, rules, regulations, and procedures for every one of your employees. It will save your company precious time, effort, money, and frustration and will put you in a position to challenge the federal government on issues instead of succumbing to its every demand. You will understand when a demand must be met and how to deal with it and when a demand is inappropriate and unenforceable.

Federal Construction Contracting Made Easy is your complete guide to:

- Finding federal construction projects to bid on

■ Understanding federal government solicitations and contracts

- Understanding what constitutes a winning proposal
- Building a strategy for your firm that meets your goals and enhances your business plan
- Understanding federal government rules, regulations, and procedures for producing project designs for both design-bid-build and design-build contracts
- Preparing quality control and safety programs that comply with federal regulations and processes
- Understanding the FAR and knowing when and how to use it for your benefit and protection
- Determining when a change order is required and how to price and properly process it
- Identifying a claim and knowing how to process it.

Each chapter is designed to provide you with:

An in-depth guide to how the process works

- A complete understanding of how to use the process, regulation, or procedure for your benefit and protection
■ Checklists, where appropriate, to help you decipher requirements
- Recommendations and tips to help you through the process and protect you from potential claim situations
- Copies of federal government forms
- Knowledge that the federal government must deal with you as an equal.

It is my hope that this book will provide you with the tools and knowledge you need to succeed in the federal construction contracting marketplace. Please be in touch with your success stories or if I can help in your efforts.
—Stan Uhlig www.contractingguru.com

Federal Construction Contracting Made Easy: A Field Guide to the FAR is available as a supplement for project superintendents at www.managementconceptspress.com (please click on Book Supplements) and www.federalconstructionconsultants.com

## Finding and Understanding the Solicitation

> Finding Federal Projects to Bid On
„ Using FedBizOpps
„ Data Universal Numbering System (DUNS)
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Understanding the Solicitation
„ Basic Statutory and Regulatory Provisions
»Acquisition Methods
» Parts of a Solicitation
»Amendments
»Submitting Questions
» Online Representations and Certifications (ORCA)
The objectives of this chapter are to determine what types of federal projects there are to bid on and to learn how to use FedBizOpps to search for projects, how to read and understand the solicitation and acquisition methods, how to find the pertinent information on the Standard Form (SF) 1442, how to register with the federal government to be able to bid on a project, and how to complete the online representations and certifications. This chapter will walk you through all of these processes. After reading the chapter, you should be able to find projects, understand the solicitation and where to find any information you will need from it, and be able to register with the federal government to perform work with it.

## FINDING FEDERAL PROJECTS TO BID ON

The federal government uses three different methods of construction contracting. For very minor works, such as repairing a boiler, that are less than $\$ 2,500$ in cost, the government has the option of purchasing the service using the federal government VISA credit card. Not all government personnel have this card, but many at each site do. For construction over $\$ 2,500$ but less than $\$ 25,000$, the local contracting office may let out the contract. Federal government construction projects having an estimated value of over $\$ 25,000$ are posted on the official federal government website, www.fbo.gov.

- Using the federal government VISA credit card-This method allows local federal
government users to get items repaired and maintained in an expeditious manner. The requirements to follow FAR regulations are minimized, so there is very little paperwork involved. It is as simple as giving a written quote, agreeing with the user on the work and price, and then running the card through your credit card machine. You will need to have your system set up to accept the VISA card, but that can normally be done very quickly. You must get to know the personnel at each base who have access to the VISA card and develop a close relationship with them to get work from them. You can obtain this information from the local base or regional contracting office. The advantage is that they all have an operations and maintenance fund and there is always a need to get work done quickly. The profit margins are normally very good.
- Federal projects up to $\$ 25,000$-Federal government construction projects that are estimated to be more than $\$ 2,500$ but less than $\$ 25,000$ are normally contracted by the local contracting office. Again, the strict FAR requirements are relaxed somewhat to allow time frames to be compressed, and firms are invited to bid based on a local bidders list without the work having to be advertised. Although there is still competition for the contract, the margins again can be quite high. Your firm should make it a point to meet with the local contracting office to get on the bidders list. Each contracting office has a website where you can find the name of the right person to talk to. Typically, there is a large operations and maintenance fund available for each department, and the contracting office is responsible for letting the contracts.
Federal projects over $\$ 25,000-$ Nearly all federal government projects over $\$ 25,000$ that are to go out for bid must be advertised on the FedBizOpps website. Every federal agency other than NASA lists its projects on this website. It is imperative that any contractor, subcontractor, vendor, or architect/engineer firm register to use this website and register with the federal government through this website to do business with it. A firm can look up opportunities and view plan holders' lists without fully registering, but to view the full solicitation, plans, request for proposal (RFP), etc., the firm must be registered in the Central Contractor Registration (CCR) database. Registering in CCR can take up to a week if you don't already have a Data Universal Numbering System (DUNS) number but only a day or two if you do.


## Using FedBizOpps

Using FedBizOpps (www.fbo.gov) is the primary method of finding construction projects to bid on. Other types of solicitations, such as architect/engineer services and construction management services, are also listed on this official government website. Anyone can use the website by setting up a username and password in the "Vendors" area on the home page. Doing so will allow you to view the solicitations listed, as well
as the plan holders' list, but it will not allow you to view all the solicitation documents. You must be fully registered through the CCR process to be able to access those documents.

## Data Universal Numbering System (DUNS)

The first step in getting CCR registered is to acquire a DUNS number. You will have to request this number through the Dun \& Bradstreet website at http://fedgov.dnb.com/webform. The form is not very difficult to complete, but you must use the same business name shown on your latest tax return or the same Taxpayer Identification Number (TIN) assigned by the IRS. This is important because if there is a difference, CCR will kick back the registration and the process will have to be redone by Dun \& Bradstreet. The DUNS number you receive is a location-specific designator, so if you want to register more than one location, you will have to get a DUNS number for each one. Once you have completed the form, it will take one to two business days to receive your DUNS number.

## Central Contractor Registration (CCR)

Now that you have your DUNS number, you can start the CCR process. Like the DUNS number, CCR is a location-specific registration, so you must use the location corresponding to the DUNS number. Some of the information you will be asked to provide is mandatory and some is optional. If you are a sole proprietorship, your TIN is either your Employer Identification Number (EIN) or your Social Security Number (SSN). If you need an EIN, you should get one from the IRS before proceeding any further because the CCR process requires that your EIN be active and it can take the IRS two to five weeks to activate a newly issued EIN. CCR will forward the name and TIN to the IRS to confirm that both match their records. The other information you will need to enter into CCR is statistical, such as location information, worldwide organization, North American Industrial Classification System (NAICS) codes, and electronic funds transfer (EFT) information.
The worldwide organization information will be submitted to the Small Business Administration (SBA) to determine the official size of your business. The information for receipts will be for the last three years because the business size is determined using a three-year average.

The North American Industrial Classification System (NAICS) is the standard used by federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. You will have to determine which NAICS codes your business corresponds to and enter them into the CCR. Choose as many as you see fit. You should choose quite a
number of these because to bid on a project, you will need to have a NAICS code that matches the one(s) listed in the solicitation. The CCR website will direct you to a Census Bureau website that provides a definition for each NAICS code.

CCR also requires that you include your EFT information, which the government will use to pay invoices. This method has proven to be effective, and the required information is easy to enter. The EFT greatly speeds the payment process.

Now that you are CCR registered, you will need to set up a registration in FedBizOpps so that you can search for solicitations and view the attached documents. This is a simple process that requires you to set up a user name and password. The website has a user guide and a video demonstration that will walk you through the process. The site has many handy features to help you limit the time required to search for solicitations. Using the "Opportunities" navigation, you can use the "search" and "advanced search" modes, which will limit the solicitations to only those you are interested in.

I have found that the easiest and quickest way to find projects I'm interested in is to set up my search by using the "advanced search" tab and putting in the states and NAICS codes that match what I'm looking for.

You can use the "Watch List" to list solicitations that you want to follow. You will receive a daily e-mail that outlines any changes affecting a notice on your Watch List target list. You can also set up search agents based on selected detailed search elements. The search agents can be set up on an ad hoc or scheduled basis, allowing you to receive solicitations that align with your designated search criteria. These search tools will help you to target specific types of solicitations and make better use of your time.

## UNDERSTANDING THE SOLICITATION

The solicitation is the process by which the federal government advertises a project for bid. The advertisement can appear on FedBizOpps or through other methods. FedBizOpps is the government's preferred method, but many small contracts are advertised locally through the local agency contracting offices.

As the contractor, you need to understand that the solicitation and bidding process has different requirements for different projects. Some projects might be unrestricted, meaning that the bidding is open to all contractors regardless of size or designation. Some projects might be set-asides, meaning that only firms of a specific size and/or type, such as small, women-owned, service disabled/veteran-owned, small disadvantaged, or HUBZone businesses, may be allowed to bid. You must formulate a business strategy that will put you in a position to win the contract. This will be discussed later in the manual.

Contracting with the federal government is a highly regulated and structured process that, unlike commercial contracting, is governed generally by the United States Code and common law. Federal government contracting is governed by a complex set of statutes and regulations. They determine what method or process an agency must use to solicit a contract; how the agency is to negotiate or award a contract; and, under certain circumstances, what costs the government will reimburse and how a contractor must account for those costs.
You must also be aware that the U.S. government imposes a host of socioeconomic requirements through its contracts, including requirements related to affirmative action, drug-free workplace, subcontracting, minimum employee wages, etc. You must understand the federal government's contracting process if you are going to be successful.

## Basic Statutory and Regulatory Provisions

The Armed Services Procurement Act of 1947 (ASPA), the Federal Property and Administrative Services Act of 1949 (FPASA), and the Competition in Contracting Act (CICA) are the three statutes that guide the federal acquisition process. The ASPA governs the acquisition of all property (except land), construction, and services by defense agencies; the FPASA governs similar civilian agency acquisitions.

The CICA, applicable to both defense and civilian acquisitions, requires federal agencies to seek and obtain "full and open competition" wherever possible in the contract award process. A federal agency may not award a contract using a sole source contractor or "other than full and open competition" except in very specific cases.

The Federal Acquisition Regulation (FAR) contains the uniform policies and procedures for acquisitions by all federal agencies. It implements or addresses nearly every procurement-related statute or executive order. The FAR affects every stage of the acquisition process. Its publication in 1984 reflected Congress' efforts to create a uniform structure for Executive Branch federal contracting. The FAR replaced defense service and civilian agency regulations dating back to the late 1940s. Even though there are still numerous agency-specific supplements, which were implemented after the creation of the FAR, the supplements may not conflict with or supersede relevant FAR clauses.

## Acquisition Methods

The ASPA, FPASA, and CICA established two basic methods of obtaining "full and open competition"-sealed bidding and competitive negotiation. Sealed bidding is characterized by a rigid adherence to formal procedures. Those procedures aim to provide all bidders an opportunity to compete for the contract on an equal footing. In a
sealed bidding acquisition, the agency must award to the responsible bidder that submits the lowest responsive bid (price). In contrast, competitive negotiation is a more flexible process that enables the agency to conduct discussions, evaluate offers, and award the contract using price and other factors.

## Sealed Bidding

Once a federal agency identifies a need and decides to proceed with an acquisition, it must solicit sealed bids if (1) time permits the solicitation, submission, and evaluation of sealed bids; (2) the award will be made on the basis of price and other price-related factors; (3) it is not necessary to conduct discussions with the responding offerors about their bids; and (4) there is a reasonable expectation of receiving more than one sealed bid.

The agency's contracting officer (CO) initiates a sealed bidding acquisition by issuing an invitation for bids (IFB). The IFB must describe the government's requirements clearly, accurately, and completely. The agency publicizes the IFB through display in a public place, announcement in newspapers or trade journals, publication in the Commerce Business Daily (CBD), publication on the federal government's FedBizOpps website, and mailing of the IFB to the contractors on the agency's solicitation mailing list.

It is critical that you submit your bids by the deadline stated in the IFB. A late bid will not be considered for award except where (1) the bid was sent to the CO by registered or certified mail at least five days before the bid receipt date; (2) the government mishandled the bid after receipt; (3) the bid was sent to the CO by "Postal Service Next Day Service" two days prior to the bid receipt date; or (4) the bid was transmitted electronically and received by 5:00 p.m. one working day prior to the bid receipt date.
All bids received by the time and at the place set for opening are publicly opened and read aloud by the CO. The bids are then recorded on an "Abstract of Offers" (Standard Form (SF) 1049) and examined for mistakes. If no mistakes are found, the CO awards the contract to the responsible bidder that submitted the lowest responsive bid.

A responsive bid is one that contains a definite, unqualified offer to meet the material terms of the IFB. Conditions, informalities, or defects in the bid that affect the price, quantity, quality, or delivery of the items being acquired by the agency result in rejection of the bid. Prior to awarding the contract to the lowest bidder, the FAR also requires the prospective awardee to be determined to be responsible, that is, to have the ability and capacity to perform the contract. More specifically, the FAR requires a prospective contractor to (1) have adequate financial resources to perform the contract; (2) be able to comply with the required or proposed delivery or performance schedule; (3) have a satisfactory performance record; (4) have a satisfactory record of integrity and business ethics; (5) have the necessary organization, experience, accounting and operational controls, and technical skills; (6) have the necessary production,
construction, and technical equipment and facilities; and (7) be otherwise qualified and eligible to receive an award under applicable laws and regulations.

Beyond responsiveness and responsibility, the CO may consider only price and pricerelated factors during bid evaluation. Price-related factors include costs or delays to the government resulting from differences in inspection, locations of supplies, and transportation; taxes; and changes made or requested by a bidder in any provision of the IFB. After evaluating price and price-related factors, the CO awards the contract to the responsible bidder whose bid is most advantageous to the government-i.e., lowest price. Award is made by furnishing a properly executed award document to the successful bidder. Under sealed bidding procedures, one of only two types of contract price methods may be used: (1) firm-fixed price or (2) fixed price with economic price adjustment.

## Negotiation

If one of the four conditions for use of sealed bidding is not present, the CO awards the contract using competitive negotiation. Contracting by negotiation allows more flexibility in awarding the contract. Unlike sealed bidding, the CO may engage in discussions with offerors and, in evaluating proposals, may also consider non-cost factors (such as managerial experience, technical approach, and/or past performance).

The negotiating process begins when the CO issues a request for proposal (RFP). As in sealed bidding, if the procurement is over $\$ 25,000$, the CO synopsizes a notice of the proposed contract action in FedBizOpps. An RFP must, at a minimum, state the agency's need, the anticipated terms and conditions of the contract, information the contractor must include in the proposal, and factors and significant sub-factors that the agency will consider in evaluating the proposals and awarding the contract. All interested parties may then submit proposals.

Evaluation of the proposals includes an assessment of the proposals' relative qualities, based upon the factors and sub-factors specified in the solicitation. Typically the CO evaluates (1) the offeror's cost or price proposal, (2) the offeror's past performance on government and commercial contracts, (3) the offeror's technical approach, and (4) any other identified factors for award. During the evaluation period, the CO and source selection team may communicate with the offerors to clarify ambiguous proposed terms.

The CO may award a negotiated contract without any further negotiations, called "discussions." If the CO intends to conduct discussions, however, he or she first preliminarily identifies the offerors that fall within the "competitive range." The competitive range is composed of all the most highly rated proposals. To assist in determining the competitive range, the CO may engage in limited communications with all offerors. After establishing the competitive range, the CO notifies each excluded offeror and proceeds to conduct discussions with the remaining offerors. According to
the FAR, the "primary objective" of discussions is to maximize the agency's ability "to obtain best value, based on the requirement and thee valuation factors set forth in the evaluation." During the discussions, the CO must indicate to each offeror the significant weaknesses, deficiencies, or other aspects of the proposal that could be altered to enhance the proposal's potential for award. However, the CO must not (1) engage in conduct that favors one offeror over another, (2) reveal an offeror's technical solution, (3) reveal an offeror's price without permission, (4) disclose the names of persons providing information about the offeror's past performance, or (5) furnish sensitive source selection information.

After discussions begin, the CO may eliminate from consideration any offeror originally in the competitive range but no longer considered among the most highly rated offerors. The CO also may request that offerors revise their proposals to clarify any compromises reached during negotiation. At the conclusion of the discussions, the CO requests a final proposal revision from each offeror still in the competitive range.

Finally, the CO undertakes a comparative analysis of the final offers in accordance with the evaluation procedures set forth in the RFP and selects the offeror whose proposal is most advantageous to the government. The documented award decision should contain an analysis of the trade-offs accomplished by negotiations and the reasons why the awardees' proposal represents the best value to the agency. The CO always has the discretion not to award any contract if he or she deems that course to be in the government's best interests. If requested by an unsuccessful offeror, the CO conducts a post-award debriefing, during which the basis for the selection decision is explained.

## Parts of a Solicitation

The standard parts of a solicitation are determined by the "Uniform Contract Format." They are usually listed alphabetically but may be listed numerically or by the form number. For instance, Part A of a solicitation is the solicitation/contract form, but for Department of Defense contracts it is usually shown as SF 1442. The parts of a solicitation are:

## Part I: The Schedule

Solicitation/Contract Form
Supplies or Services and Prices/Costs
Description/Specifications/Work Statement
Packaging and Marking
Inspection and Acceptance
Deliveries and Performance
Contract Administration Data
Special Contract Requirements

## Part IV: Representations and Instructions

 Representations, Certifications and other Statements of Offeror Instructions, Conditions and Notices to Offerors Evaluation Factors for Award
## Part I: The Schedule

## Section A: Solicitation/Contract Form

Standard Form (SF) 1442 is the "Solicitation, Offer, and Award" form used by the federal government to solicit bids and to award a contract for construction, alteration, or repair. It is the basic part of the contract whereby the federal government, through the CO, consummates the contract award. This form is used for the solicitation and later is used to make the award.
Page 1 contains the SOLICITATION section, and page 2 contains the OFFER and AWARD sections. The government completes the SOLICITATION section when it issues the package. The contractor completes the OFFER section when it submits its bid or proposal. Upon acceptance of the bid or proposal by the government, the CO completes the AWARD section. Block 1 contains the SOLICITATION NUMBER.
Block 2 contains the TYPE OF SOLICITATION, SEALED BID (IFB) or NEGOTIATED (RFP).
Block 3 contains the DATE ISSUED.
Block 4 contains the CONTRACT NUMBER. This block is completed when the government awards the contract.
Block 5 contains the REQUISITION/PURCHASE REQUEST NUMBER. This is sometimes left blank but might contain a number that is issued by the installation.
Block 6 contains the PROJECT NUMBER. This might be left blank but may be completed by the installation, especially for small contracts.
Block 7 is the ISSUED BY block. It contains the name and address of the issuing agency as well as a block labeled CODE. The CODE identifies the installation where the work will be accomplished.
Block 8 is the ADDRESS OFFER TO block. It contains the address to which the offer will be sent.
Block 9 is the FOR INFORMATION CALL block. Part A, NAME, contains the name of the contact person, and Part B contains the TELEPHONE NUMBER of that contact person. SOLICITATION

Block 10 is titled THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title, identifying number, date). This is where a brief description of the work is shown.
Block 11 tells the contractor when the work must begin, how many days to complete the work, and from when, i.e., award or notice to proceed.
Block 12A is titled THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS. It says either "yes" you have to or "no" you don't have to.
Block 12B is titled CALENDAR DAYS, and it shows how many days after award the contractor has to submit the required bonds.
Block 13 contains ADDITIONAL SOLICITATION REQUIREMENTS. This section shows the number of copies of the proposal to be submitted, the date and time for receipt of proposals, whether an offer guarantee is or is not required, and how many days the offer must be good for.

## OFFER

Block 14 contains the NAME AND ADDRESS OF OFFEROR (including ZIP Code). This must be the full name and address and should also include the firm's DUNS and TIN and the e-mail address of the contractor's point of contact. CODE and FACILITY CODE are left blank unless inserted later by the government.
Block 15 requires the TELEPHONE NUMBER of the contractor's point of contact.
Block 16 requires the REMITTANCE ADDRESS of the contractor.
Block 17 requires that the offered price be inserted or reference made to a schedule of prices if included in the solicitation documents. The contractor must also either insert a period of time that the price will hold or be bound to hold it for the time period shown in Block 13D. Very often, the time shown in Block 13D is mandatory and cannot be changed.
Block 18 states that the offeror agrees to furnish any required performance and payment bonds.
Block 19 contains the ACKNOWLEDGEMENT OF AMENDMENTS. It is critical that all amendments issued under the solicitation be acknowledged here. The amendment number and date must be shown.
Block 20A requires the typed NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER.

Block 20B requires the SIGNATURE of the person authorized to make the offer.
Block 20C requires the OFFER DATE. AWARD
Block 21 contains ITEMS ACCEPTED and shows the prices that the offeror proposed and the government has accepted. The specific line items are shown here.

Block 22 contains the AMOUNT the government has accepted. This should equal the sum of the line items the government accepted in Block 21.
Block 23 contains the ACCOUNTING AND APPROPRIATION DATA that the government will use to charge all contract expenses. The government adds this.
Block 24 is the SUBMIT INVOICES TO ADDRESS SHOWN IN block. Normally it shows "Block 26."

Block 25 is the OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO block, which the CO will check if the solicitation is a sole source negotiated contract.
Block 26 contains ADMINISTERED BY information. This information consists of the office and address of the group that will administer the contract.
Block 27 shows the name and address of the unit that the PAYMENT WILL BE MADE BY.

Block 28 is used only when there is a NEGOTIATED AGREEMENT. If the CO checks this box, the contractor must sign and date the document and return the required copies to the CO.
Block 29 is used when the CO is making an AWARD based upon an accepted proposal. Blocks 30A, 30B, and 30C are used only when Block 28 has been checked by the CO and must be signed by the contractor.
Blocks 31A, 31B, and 31C are used only when Block 29 has been checked and signed by the CO.

## Section B: Supplies or Services and Prices/Costs

Following the solicitation/contract form is a brief description of the acquisition and required pricing. It is composed of at least one line item for the base bid and quite often line items for options. These are called contract line item numbers, or CLINs. They need to be very carefully read and understood because they can be either "additive" or "deductive" and they can overlap. The performance period is also included in the CLINs, and options may allow additional time or may deduct performance time. The type of acquisition, such as "Firm Fixed Price" (FFP) or "Unit Price" contract, is also noted. If it is an FFP, the Unit is always 1 and the Unit Price is the total for the line item.

## Section C: Description/Specifications/Statement of Work

The description of what the project is, any specifications, and the statement of work are included in this section.

## Section D: Packaging and Marking

This section contains requirements for packaging, packing, preservation, and marking. It is very seldom used in construction contracts but is used by the government when purchasing supplies and materials.

This section includes inspection, acceptance, quality assurance, quality control, and reliability requirements.

## Section F: Deliveries or Performance

The requirements for the time, place, and method of delivery and/or performance are specified in this section. The statement of work generally details these requirements.
Section G: Contract Administration Data
The government must include any required accounting and appropriation data and any required contract administration information or instructions here. This is in addition to the information shown on the SF 1442.

## Section H: Special Contract Requirements

This section includes special contract clauses that are not included in Section I, Contract Clauses, or in other sections of the solicitation. Most federal agencies add their own supplemental clauses, which usually pertain to their specific way of doing business.

## Part II: Contract Clauses

## Section I: Contract Clauses

This section includes clauses required by law and any additional clauses expected to be included in any resulting contract, if these clauses are not required in any other section. An index may be inserted if this section's format is particularly complex. The FAR clauses in this section may be "Clauses by Reference" or "Clauses by Full Text."
Part III: List of Documents, Exhibits, and Other Attachments

## Section J: List of Attachments

The solicitation must list the title, date, and number of pages for each attached document, exhibit, and other attachment. Cross-references to material in other sections may be inserted as appropriate.

## Part IV: Representations and Instructions

## Section K: Representations, Certifications, and other Statements of Offerors

Included in this section are the solicitation provisions that require representations, certifications, or the submission of other information by offerors.
Section L: Instructions, Conditions, and Notices to Offerors or Respondents
This section includes solicitation provisions and other information and instructions not required elsewhere to guide offerors or respondents in preparing proposals or responses to requests for information. Prospective offerors or respondents might be instructed to submit proposals or information in a specific format or severable parts to facilitate evaluation. The instructions might specify further organization of proposal or response parts, such as:

## - Administrative

- Management
- Technical
- Past performance
- Cost or Pricing Data or Other Information.


## Section M: Evaluation Factors for Award

The solicitation must identify all significant factors and any significant sub-factors that will be considered in awarding the contract and their relative importance as discussed below.

## Amendments

Amendments are issued by the CO during a solicitation to "amend" or change the requirements of the solicitation. This can be done for any reason and happens with almost every solicitation. You, as the contractor, can usually use FedBizOpps to sign up for automatic notification of any amendments that have been issued. Pay special attention to the changes included in the amendment and develop a system to track all changes. I highly recommend that you use a "living document" system to keep the solicitation up-to-date. The date for submittal of the proposal quite often changes with an amendment, so watch this very carefully.

The contractor must acknowledge all amendments in Block 19, ACKNOWLEDGEMENT OF AMENDMENTS. This is extremely important because if all amendments are not acknowledged, the CO will not consider the proposal and that could cost you a job.

## Submitting Questions

You will have questions after reviewing the solicitation. This is a normal part of the review process, but you should decide early in the process whether your questions should be submitted for government clarification. Develop a strategy that clarifies concerns but does not give an advantage to your competitors. You need to make sure that the questions "level the playing field" for all the competing contractors but do not give away any competitive advantage you might have.

Questions must be submitted in the manner prescribed in the solicitation (e-mail, fax, etc.) to the office/person specified and by no later than the cutoff date and time shown in the solicitation. Questions submitted that do not follow these guidelines may be disallowed by the CO.

ORCA is an e-government initiative developed to replace the paper-based "Representations and Certifications" (Reps and Certs) process. Previously, vendors had to submit Reps and Certs for each individual large purchase contract award. Now, using ORCA, you can enter your Reps and Certs information once for use on all federal contracts. This site benefits not only you, by allowing you to maintain an accurate and complete record, but also the CO, who can view every record, including archives, with the click of a mouse. Although using ORCA is generally not yet mandatory (many solicitations are making it mandatory), it is highly recommended to save time and effort.

Go to https://orca.bpn.gov to begin the process.

## Starting Your Application

Before you can enter ORCA, you must:

- Have an active registration in CCR

Have the Marketing Partner Identification Number (MPIN) from your active registration

- Know your DUNS number.

Registration in CCR. To determine whether you have an active registration, visit CCR's home page at www.ccr.gov and click on "Search CCR" on the left side of your screen. If you have an active registration, you can begin your ORCA record. If not, complete one at the same website. Reminder: There is no cost involved with registering in CCR. When registering, make sure to use 2007 NAICS codes and not 2002 NAICS codes. You may begin your ORCA questionnaire immediately after your CCR registration becomes active.

Marketing Partner Identification Number (MPIN). The MPIN is a nine-character code containing at least one alpha character and one number (no special characters or spaces). The MPIN is created by you in your company's CCR record, and it acts as a password for various government systems, including ORCA. The MPIN is the last data field in the "Points of Contact" section of the CCR registration. Once you have entered your new MPIN into CCR, it will become active in ORCA as soon as your CCR registration becomes active. If you need more information on how to create your MPIN, go to www.ccr.gov.

If you are not in CCR, go to www.ccr.gov and complete a registration. If you have an active registration but do not know your MPIN, contact the person who submitted your company's CCR registration for that information. If you do not know who that person is, contact the CCR help desk at 888-227-2423.

DUNS Number. You will need a DUNS number in conjunction with the MPIN to enter the ORCA system. The DUNS number is a unique, nine-character identification number provided by the commercial company Dun \& Bradstreet. If you have an active record in CCR, you have a DUNS number. View your active CCR record to determine your DUNS number.

If you have questions or problems with your DUNS number or do not have a DUNS number, call D\&B at 1-866-705-5711. The process to request a number takes about 10 minutes and is free of charge. If you already have a DUNS number, the D\&B representative will advise you over the phone.

DUNS + 4. The use of DUNS +4 numbers to identify vendors is limited to identifying records for the same vendor at the same physical location. The +4 should be used in ORCA only if you registered your company that way in CCR.

## Entering Your Application

Follow these steps to enter an ORCA application. Note that after 20 minutes of inactivity on one page, your registration will time out and all data will be lost.

1. Start at https://orca.bpn.gov.
2. Enter your DUNS number and MPIN, and click "Submit." If you entered a valid DUNS number/MPIN combination, your existing information from CCR will be pulled and displayed for your review.
3. Review the displayed CCR information. If it is correct, click "Create ORCA Record." If it is incorrect, visit www.ccr.gov and update your registration. Changes in CCR will update into ORCA as soon as your CCR registration becomes active.
4. Confirm your ORCA POC (point of contact) and change it if necessary. Click "Continue." The questionnaire will begin.
5. Answer all the questions. Click "Save and Continue Questionnaire" when finished with each of the five pages.
6. At the end of the questionnaire, click "Save and Continue to Certification."

You may choose to exit the questionnaire at any point, saving what you have entered thus far, by clicking "Save and Exit Questionnaire."
If you need to return to an earlier page, click "Previous Page." However, any entries that you made on the current page will not be saved unless you first click "Save and Continue Questionnaire."
Whenever you enter text in a field, you must click "Add" for the information to be saved.

Throughout the auestionnaire. vou might find a few auestions marked
"Reserved." Because of certain company information provided in your CCR record, these questions might no longer be applicable to you. Continue on to the next question.
7. Review your answers by reading the actual provisions/clauses that contain your responses. If you would like to make any changes, click on the check box or displayed answer to return to the original question. When finished making the changes, click "Continue" to get back to the review.

Remember to review and click the check boxes on the read-only clauses of $52.203-11,52.222-38,52.223-1,52.225-20$, and $52.227-6$. These are the first five clauses on the review page.
» If you answered questions related to DFARS clauses/provisions, review the applicable DFARS provisions/clauses. There are nine DFARS read-only clauses/provisions with check boxes that must be filled in to submit the certification.
8. When satisfied with all of your answers, scroll to the bottom of the screen. Be sure to certify that your answers are true by clicking the check box with the date/time stamp. When finished, click "Submit Certification."
9. Download a pdf copy of your completed Reps and Certs record for your files. Please note that the information stored in an active ORCA record is considered unrestricted and may be searched by the public using the DUNS number.

You will receive an e-mail confirmation that you have registered your record. A record is active for 365 days from date of submission or upon updating. You should update your record as necessary to reflect changes, but at least annually to ensure it is current, accurate, and complete.

You will be reminded by e-mail of the renewal requirement 60 days, 30 days, and 15 days prior to your record's expiration. The notice will be sent to the ORCA POC designated in your company's record.
> The Strategy
»Resources and Capabilities
" Size, Type, and Location of the Project
„ Evaluation Criteria
> Risk Management
„Risk Management Review Process
» Risk Management Listing
RFP Requirements/Proposal Preparation
» Two-Phase Design-Build
„ Bidder Eligibility
„ Bid Feasibility
»Self-Assessment
" Competition
„ Preparing the Proposal
> Protest after Award
> Surety Bonds
> Insurance
> Taxes
> Utilization of Small Business Concerns
The purpose of this chapter is to help you develop a strategy that will set you up to win projects that you have a chance to win, instead of competing with all the other construction firms going after federal work. This is done by helping you to understand your capabilities and resources and helping you to determine, through the federal government's evaluation process, whether you should compete for the project. The risk management section will help you determine whether a project is within your risk tolerance level. The risk management section should be used after you have picked out a potential project to bid on so that you can look more closely at the specifics of the project and determine if the project has risks that are unacceptable to you.

Once you have determined that going after a project to bid on is part of your strategy, you will have to evaluate the RFP requirements and prepare a proposal that can win the project.

This chapter will help you to prepare and submit a winning proposal to the federal government. The section on small business utilization will help you to determine which firms might be good to use to meet the small disadvantaged business concerns requirement if that is required by the solicitation. You will also learn how to protest an award if you believe that it was solicited or awarded improperly.

The federal government requires bonds and insurance, and there are specific requirements for each. The bonding requirement is straightforward, but it is minimal so this chapter shows the differences between what the government requires, what would normally be provided by the owner, and what you should provide for your own protection that the government will not provide.

## THE STRATEGY

To put together a winning strategy, you must first perform a thorough analysis of your resources and capabilities. Second, you must determine which type and size of project you want to bid on. Third, you have to determine whether you will be able to score high according to the evaluation criteria. In today's economic environment, bidding is very competitive, so picking the right project for your firm to bid on will save you time and money. It makes no sense to bid on projects that you have very little chance of winning.

## Resources and Capabilities

You must determine what resources you have. They might include access to money such as a line of credit, cash flow, bonding capacity, home office organization and personnel, offices and/or personnel in various locations, field personnel, tradesmen (union/nonunion), equipment, etc.

Evaluating your company's capabilities will help you determine whether you will be able to perform the work. Items like the type of work you perform well-remodeling, new construction, vertical construction, horizontal construction, specialty trade, etc.must be defined. Ability to joint venture and/or team with another company must be determined and considered. Type of contract capability, such as design-build, design-bidbuild, negotiated, cost plus fixed fee, or indefinite delivery/indefinite quantity, must be determined. Will your cash flow allow for the preparation of a detailed and thus potentially costly proposal? Can you bond the project and, if so, will it use up all of your bonding capacity?

## Size, Type, and Location of the Project

Part of your strategy must include determining the size, type, and location of the project you want to bid on. This decision should be based on your resources, capabilities, risk review, and competition.

Project size should be based on your bonding capability and your resources to perform the work on time. Picking a project that uses all of your bonding capacity might keep you from bidding on projects that could be more lucrative, and it would use up more of your resources. Also, managing a large project could be daunting.
The type of project selected must be in line with your capabilities. A design-build project generally requires the general contractor to partner with an architect-engineer firm, and the evaluation criteria will require that the partners have worked together in the past. Unless you can score high on this, you could be wasting a great deal of time and money preparing a proposal. A specialty trade contractor needs to pick a project that is primarily in his or her trade but could have a minor amount of general contracting. Thought must be given to picking the type of project that will allow you the best opportunity to win the bid.

Risk assessment has become a major component of the decision-making process. This process should include evaluating areas such as external risks (soil/subsurface conditions, project site); management risks (financial and human resources); and operational risks (quality of plans and specifications, environmental concerns, phasing, etc). Corporate policy will have to determine what acceptable risk is, and again this needs to be part of your strategy. Only projects that meet those criteria should be picked to bid on.

Knowing your competition is of great importance and should be a key factor in determining whether to bid on a project. If you don't know the bidders, take the time to find out about them. Go to their websites, check with the Department of Labor and Industries or whichever department issues business licenses in your state, and check the local trade organizations. Learning about your competition needs to be part of your strategy.

## Evaluation Criteria

Section M of the solicitation package contains the "Evaluation Factors for Award." These factors can be very simple, such as requiring only that you list how long you have been doing this type of work, to very complex and time-consuming, such as requiring detailed plans, schedules, past history, architectural drawings, etc. The evaluation criteria must be read very carefully, and your team must decide early on whether the criteria can be met and combined with the other parts of your strategy. Meeting some of these criteria
can be very expensive and might keep you from bidding other projects for which you are better suited. Some evaluation factors, such as past history or strength of your management team, might require that you build up a resume.

You should pick projects to bid on by looking for evaluation criteria that you can easily meet, that might limit your competition, and that do not require proposals that are expensive to prepare.

## RISK MANAGEMENT

Risk management can be considered the identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities. Risks can come from uncertainty in financial markets, management failure, project failure, unforeseen conditions, legal liabilities, credit risk, accidents, natural causes and disasters, and many other areas. Risk and subsequent mitigation must be managed before, during, and after the project has been won. Failure to do so could prove disastrous and cause severe financial loss.

The strategies to manage risk include transferring the risk to another party, avoiding the risk, reducing the negative effect of the risk, and accepting some or all of the consequences of a particular risk.

## Risk Management Review Process

This Risk Management Review Process is provided as a generic federal government project-focused review process for risk and other likely management questions. This process is intended to identify risks and ways to mitigate them. You should use this process after you have identified a potential project to bid on but before you actually start preparing a proposal. Some firms I have worked for have developed numerical systems that actually rate the different areas of the various risks and then assign a numerical grade to the risk before the firm can bid on the project. This has the advantage of identifying high-risk projects along with mitigation methods, allowing the firm to calculate these methods into the price and possibly the proposal.

You should set up a system tailored to your specific company:

1. Generate and review the business risk bid/no bid form before the review.
2. Understand the basic prospect analysis-contract terms, bid partners, and payment terms-to set the context for the remainder of the review.
3. Understand thoroughly the scope of the work, the project requirements, the type
of contract and its documentation requirements, and what innovative changes/additions and/or exclusions will be done to be more competitive.
4. Review the project schedule, looking especially for comparisons with similar project durations, clear illustration and timing of government responsibilities, presence of minimum float requirement or definition of who owns the float, clear definition of what constitutes the completion and completion date, and illustration of the completion date that the cost estimate is based upon, as well as any liquidated damages and/or penalty dates.
5. Review the estimate tools and methodology used to verify appropriateness for the purpose.
6. Prepare an execution plan that shows offices involved, key personnel to be proposed, self-performed work, and subcontracted work.
7. Review the risk listing and mitigation plan and how they are reflected in the solicitation/contract questions and responses, proposal clarifications, and pricing.
8. Review the estimate itself, beginning with the general conditions first and then the material quantities, unit prices for material, construction labor hours, productivity, labor posture if applicable, labor costs per work unit with backup from subcontractors if applicable, or in-house estimators' recommendations, including hours to be worked, per diems, etc. Compare the estimate with estimates for other similar projects, using actual finals where possible.
» Buy-down-Review buy-down projections compared to history and how they will be used: profit or contingency.
Indirects-Review the construction management staffing plan, use of local temporary labor, tools, consumables, equipment, etc., and compare these with regional data for similar past projects. Review the insurance cost basis against planned prime contract terms.
Engineering-Review hours and costs estimated versus past history, as well as office work split and local rates if a partner or joint venture is used.
"Cash flow-Review the use of the schedule and estimate data versus the billing plan for the contract or proposal.
»Contingency-Review for proper methods, risk range parameters, and under-run probability.
Fee/margin-Review for minimum recommended margin consistent with risk profile, market opportunity, and strategic importance.
9. Review the solicitation/clarification statements for adequacy in presenting lowest costs and protecting your position.
10. Inspect the pricing model to determine consistency with the estimate.
11. Review the most likely highest and lowest profit/margin cases.

## Risk Management Listing

## External Risks

Project Site Risk—Risks related to the actual construction site. Examples:

- Area population that is too small to provide the necessary labor or to support the project with sufficient lodging, restaurants, police, fire, security, medical facilities, utilities, potable water, telephone, Internet service, or other infrastructure.
- Tourist/local population interferences (attitude toward project, client, or contractor) and local economic, social, political, or labor posture conditions.
- Access to ports, railroads, and highways; altitude, remoteness, or congestion; dimensional or weight restrictions on the transport of construction equipment or components.
- Severe winters, difficult topography, restricted traffic ability or drainage.
- Access to rights-of-way, easements, utility connections, and other site elements.
- Noise, dust, night lighting, labor congestion, parking, or travel-to-site restrictions.


## Soil/Subsurface Conditions Risk

- The risk arising from subsurface "unknowns." Examples include voids due to current or past mining operations; obstructions such as large rocks, operational or abandoned equipment, electrical cabling or trenching, and piping or foundations that are not shown on drawings; sinkholes; shallow water table; burial sites; or sites of paleontological or archaeological value.
- The risk of unevenly compressed or expansive soil. (Soil studies performed by the client often fail to reveal relevant site soil conditions because the borings were too far apart or were done in an area away from the actual construction site.)


## Environmental Substances Risk

The risk that a site is contaminated with asbestos. Examples include attic insulation; insulation on underground or aboveground tanks, piping, or equipment; and asbestos fibers in the air or on the ground after an explosion or fire.

The risk that a building built by the contractor, particularly a multi-family
dwelling, will develop toxic mold over time. Insurance against this risk might be impossible to obtain because of extensive mold litigation in the United States.

- The risk that dust from mines, mine areas, or heavy use of agricultural chemicals might contain arsenic and other lung-damaging particulates.
- The risk that furnace insulation might contain vanadium pentoxide from fuel oil firing. When disturbed during demolition or revamp, the dust can cause severe reactions.


## Regulatory Risk

- Exposure to federal, state, regional, or municipal agency actions that impair the contractor's ability to execute its corporate strategy or successfully complete a project as planned. Examples include the Buy American Act; compliance with design codes, health and safety regulations, professional/contractor license requirements, and environmental permit requirements; right-ofway/condemnation procedures; and building, work, or fire department permit requirements.
- Financial reporting required by regulatory agencies. When incomplete, inaccurate, or untimely, financial reports can expose the contractor to fines and penalties.

Force Majeure Events Risk-The risk associated with events outside the contractor's or client's control. Examples include extreme weather (tornadoes, hurricanes, abnormal temperatures, unusual rain or snowfall), floods, earthquakes, fires, explosions, total power failure, major discharge of toxic substances, and labor strikes and walkouts at the project or suppliers.

## Available Workdays Risk

- The risk that religious or cultural customs prevent labor from working the typical workweek.
- Normal weather patterns in the area (rainfall, snow, wind, extreme high or low temperatures not covered by force majeure, or available daylight) limit construction activities during certain times of the year.


## Competitors Risk

- Major competitors or new entrants to the market take actions to establish or sustain competitive advantage to win a project. These actions include bidding with little or no profit/overhead/margin to keep a business afloat, increasing productivity, or reducing costs.
Too many competitors in a particular geographic area pursuing a particular
project, thus driving margins down.


## Management Risks

Reputation Risk-The risk that the company might lose clients, key employees, or its ability to compete; might not get a good evaluation; does not know how to manage its business; or does not perform on its projects (safety, cost, schedule, quality).
Business Interruption Risk-Risk to the ability to sustain operations, provide essential products or services, or recover operating costs as a result of a major disaster (accident, sabotage, work stoppage, act of God). The inability to recover from such events could damage the reputation of the company, the company's ability to obtain capital, or investor relations.
Business Portfolio Risk-The risk that the firm will not maximize business performance by effectively prioritizing its products or balancing its business in a strategic context. Examples include selling projects outside the company's risk tolerance, low-margin projects, or projects for which there is no available expertise or resources, while at the same time not preparing and planning for high-value, profitable opportunities that maximize return.
Management Incentives Risk-The risk that occurs when management is incentivized to act in a manner inconsistent with the company's business objectives, strategies, and ethical standards and prudent business practice. In these cases, managers and employees do not buy into the performance measures because they are not realistic, understandable, objectively determinable, or actionable. The risk also occurs when performance indicators do not accurately measure the skills or characteristics that are predictive of success in a given position. Such performance measures ultimately prove to be irrelevant.
Market Sensitivity Risk-The risk that results when management commits the company's resources and expected cash flows from future operations to such an extent that it reduces the company's tolerance for changes in the business environment that are totally beyond its control. Sensitivity risk also results when an organization is too inflexible to adapt in response to change. For example, a strategy to grow rapidly, expand geographically, or invest in significant high-risk ventures can increase the company's sensitivity exposure to economic, regulatory, or market developments.

## Outsourcing/Consultants Risk

- The risk that outside service providers, such as third-party administrators, local or foreign partners, consultants, or agents, will not act within their defined limits of authority and will not perform in a manner consistent with the values, strategies, and objectives of the company.
The risk that strategic business processes outsourced will ultimately create competition for the outsourcing organization because the know-how shared with
the consultant will later be exploited by the consultant or given to a competitor.
- The risk of not outsourcing non-core activities when financially advantageous to the company when higher value can be obtained by involving outside consultants.


## Strategic Information Risk

- The risk that financial accounting information used to manage business processes is not properly integrated with nonfinancial information, such as customer satisfaction, quality, and increased efficiency. The result is a myopic, short-term fixation on manipulating outputs to achieve financial targets, rather than fulfilling customer expectations by controlling and improving processes. Key decision makers are unable to reliably measure the value of a specific business or any of its significant segments in a strategic context. This risk affects the evaluation of both owned businesses (e.g., the decision to invest/grow, maintain/harvest, or divest/liquidate) and prospective businesses (e.g., the decision to acquire, joint venture, or strategically align). Examples include unknown project commitments still outstanding at any point in time.
- The risk that key assumptions about the external environment are inconsistent with reality or are not being monitored by the company, resulting in obsolete business strategies. An example is failure to stay abreast of the business cycles of the industry the company serves.
- The risk that business strategy is not communicated consistently and often throughout the organization or reflected in written plans of action, resulting in missed opportunities.


## Bonding/Bank Guarantee Risk

■ The risk that significant partners, subcontractors, or suppliers are not sufficiently bonded to limit the company's exposure.

■ The risk associated with allocating the company's bonding, guarantee, or letter of credit capacity to a long-term project that does not bring expected returns.

## Capital Availability Risk

- The risk that the company does not have access to the capital it needs to fuel its growth, execute its strategies, and generate future financial returns. This can result in a competitive disadvantage during periods when the company is highly leveraged or its major competitors have larger cash reserves or borrowing capacity, a lower cost structure, greater market share, or access to capital through strategic alliances.
- The risk that the company's client does not have access to capital, which can
result in a project award's being delayed, suspended, or otherwise affected by the client's cash flow.


## Cash Flow/Liquidity Risk

- Cash flow risk results from not having a cash flow plan when the project is bid or not aligning with the project team in the area of cash flow early in the project. Risk can also occur when paying subcontractor or supplier invoices early or not collecting from the client when due; not charging interest for late payment; not resolving audit exceptions in a timely manner and not requesting payment from suppliers or subcontractors when due; or inadequate monitoring of documentation to allow proper client billing.
- Liquidity risk is the exposure to loss as a result of the inability to meet cash flow obligations in a timely and cost-effective manner. It often arises as a result of an investment portfolio with a cash and/or maturity profile that differs from the underlying cash flows dictated by the company's operating requirements and other obligations. Operating requirements, debt service, capital expenditures, and other cash outflows can require premature liquidation of assets, which can lead to reduced profits and/or unplanned realized losses. In the extreme, poor liquidity management can lead to default.

Claims Risk-The risk that claims are filed against the company resulting in financial loss or that the company neglects to file-or aggressively pursue-claims against clients, partners, suppliers, and subcontractors when entitled to do so.

Equity Risk-Exposure to fluctuations in the income stream from and/or value of equity ownership in an incorporated entity. Equity risk might arise as a result of:

- Investment in shares of publicly traded facilities, including holdings in a portfolio of equity securities or in private placements.
- Investment holdings of debt convertible into equity.

Company share offerings and company acquisition programs that are linked to share prices.
Investment of capital, people, or proprietary know-how with expectations of future returns.

Financial Market Risk-Exposure to changes in the earning capacity or economic value of the company or the company's clients or partners as a result of changes in financial market variables that affect income, expense, or balance values. An example is rising interest rates that affect the cost of money.
Financial Reporting Risk-The risk that a firm's financial reports issued to existing and prospective business partners, investors, or lenders include material misstatements
or omit material facts, making them misleading. This risk usually results from failure to obtain relevant business information from external and internal sources and to assess whether adjustments are required to fairly represent the firm's financial position, results from operations, and sources and uses of cash. Examples:

- Project financial status over or underreported in project reviews or project financial status report.
- Overly optimistic representation of future project profitability.
- Premature profit take-up before all costs are reconciled or incentives awarded.
- Project revenues entering backlog ahead of project award.

Financial Status of Partners Risk (joint ventures, subs, teaming partners, etc.).

- Exposure to weak banks, other financial institutions, and other companies, such as vendors, subcontractors, managing contractors, joint venture partners, merger and acquisition parties, that have potential financial obligations to the company or on behalf of the company. Due diligence must be performed early and thoroughly prior to a signed agreement. In some cases, consideration should be given to making payments to sub-suppliers or lower-tier subcontractors directly.
Exposure to parties that would disproportionately benefit at the company's expense through use of its reputation, bonding, costing structure, or schedule performance.


## Insurance Risk

- The risk that there is no adequate coverage under the company's umbrella insurance policy or project-specific insurance or, conversely, that there is duplicate coverage, resulting in unnecessary coverage expense by the company or partner.
- The risk that prime contract requirements have not flowed down to the supplier or subcontractor contracts.

Interest Rate Risk-The risk (or opportunity) associated with fluctuating interest rates. This risk might affect the company either directly by increasing or decreasing interest rates for its debt or indirectly by affecting the borrowing of partners, vendors, or subcontractors.

Leakage (Profit Erosion) Risk-The risk of allowing profits to be eroded on projects or company initiatives. Examples:

- Underestimating the cost of implementing software systems.
- Failing to take corrective action at the right time.
- Focusing on loss avoidance and not profit enhancements.
- Not applying value engineering principles and having no formal value awareness program on the project.
- Over-designing (gold plating).
- Losing project incentives.
- Incurring rework, penalties, or lawsuits.
- Poor safety performance, resulting in claims, additional costs, and delays.
- Not managing client relations.
- Poor productivity in the home office or in the field.
- Doing work for free or for no fee.
- Overrunning the non-billable budget.
- Not adding profit and extended overhead to change orders.
- Underestimating lump sum costs.

Opportunity Cost Risk-The risk arising from the company's use of its resources in a manner that leads to the loss of economic value, including:

- Time value losses due to delays in invoicing, collections, claim processing, investment of funds, etc. The consequences of these delays could result in borrowing.
- Transaction costs due to inappropriate or inefficient management of cash flows. An example is the need to borrow high-cost funds or sell securities at a loss because of the failure to match the maturities of short-term investment operational or financial obligations.
- Earnings exposure when funds or other resources (people, knowledge, computers) are invested in a manner that does not generate sufficient returns to cover costs, profits, and risk, while additional opportunities are not pursued.

Pension and Benefit Risk-The risk arising from pension funds and health benefit plans that are not actuarially sound, meaning they are insufficient to satisfy the benefit obligations defined by the plan. The consequences of this risk include reputation risk, loss of morale, work stoppages, litigation, and additional funding required by the company.

Pricing Risk-The risk arising from inadequate pricing. Examples:

- Projects are bid at prices too high to be competitive or too low to cover costs.

Processes are inadequate to ensure contracts are sufficiently reviewed to
substantiate whether the work the company is contracted to accomplish is reasonable for the price.

- A project converts from reimbursable to lump sum without a thorough estimate update, risk assessment, and management review.

Subordination/Settlement Risk-The risk that occurs when the company's various debt, equity, and cash flow positions are subordinated to positions held by others (client's partners, other contractors). This might result in uncollectible investments for the company. Settlement risk-also called "delivery risk"-arises when financial counterparts make their payments to each other at different times or in different locations. The first paying party is exposed to the risk that the later paying party will fail to perform because of delay, system failure, or default. In essence, one party has performed its obligations under the contract but has not yet received value from its counterpart.
Taxes/Duties/Permit Fees Risk-The risk that taxes, duties, and permit fees are overlooked or not paid, resulting in fines or imprisonment, or that they are overpaid, eroding profit. Examples:

- Lack of clarity in the contract regarding who pays value-added tax (VAT), import duties, customs clearance fees, income or sales tax, licenses, and permits.
- Not including the cost of the above items in the project estimate or schedule. (Key permits should drive the company milestones, completion dates, liquidated damages, etc.)
- Noncompliance with tax regulations, payments, and filing requirements.
- Significant transactions of the company, client, or partner that have adverse tax consequences and could have been avoided or reduced had they been structured differently.


## Alignment Risk

- The risk that the objectives and performance measures of the company's business processes are not aligned with its overall business objectives and strategies. The objectives and measures do not focus people on the right things and lead to conflicting, uncoordinated activities.
- The risk that the project team is not aware of the project's objectives and is not in alignment with the client and/or its own ranks. For example, the project team is not familiar with the project business plan or lump sum estimate; engineering and procurement activities are not aligned with construction, operation, or maintenance requirements.
- The risk that people either make decisions or take actions that are not within their explicit responsibility or control or fail to take responsibility for those things for which they are accountable. Examples include not following the appropriate approval requirements; not empowering people to do their jobs; and not allowing decisions to be made at the level where the knowledge and experience reside.
- The risk that the company's organizational structure does not support strategies, efficient decision-making, and responsiveness to clients.


## Change Readiness Risk (Culture Change Risk)

- Management and employees are unable to implement organizational change quickly enough to keep pace with the marketplace, such as changes arising from competitor acts, regulatory requirements, consumer demands, mergers, etc.
- Management is unaware of how resistant or receptive employees are to change, how long it takes to implement change (absorption rate), and who among the population are the change agents and the skeptics supporting or hindering the process.


## Communication Risk

- Communications vertically (top-down and bottom-up) or horizontally (crossfunctional) within the company are ineffective and result in messages that are inconsistent with authorized responsibilities or established measures. Information does not flow in a timely manner to those who need it for decision-making.
- Project communication within the project team or with the client is incomplete, not documented in writing, not distributed to those who need it, or not timely.
- Lack of openness in communication prevents honest feedback and free exchange of ideas, resulting in low morale, information hoarding, and not presenting bad news to management as soon as possible.
- Written or electronic communication is inappropriate or is presented in such a way that it can later be used against the company ("smoking guns").

Employee Integrity Risk-The risk of management fraud, employee fraud, and illegal and unauthorized acts, any or all of which could lead to reputation degradation in the marketplace or even financial loss. Examples:

- Employees, customers, or suppliers, individually or in collusion, perpetrate fraud against the company, resulting in profit erosion.
- Physical assets are subject to unethical or unauthorized use, vandalism, sabotage, or theft.
- Management issues misleading statements with the intent to deceive the investing
public and the external auditor or engages in bribes, kickbacks, influence payments, and other schemes for the benefit of the company.
- Information and proprietary assets (designs, work processes, customer lists, information and knowledge, trade secrets) are compromised by industrial espionage, resulting in less of competitive advantage.


## Health and Safety Risk

- Risks resulting from unsafe practices in the office or in the field. These risks, if not controlled, expose the company to potentially significant workers' compensation liabilities. Workers' compensation laws, which vary from state to state, can result in severe financial losses. Examples include lack of good site or office housekeeping; lack of adequate and frequent safety training; exposure to asbestos, either visible or hidden (buried pipe, attic enclosures), which should have triggered immediate notification of the client; and failure to enforce disciplinary policies when safety rules are violated.
- The risk that the negative publicity from highly visible human and other costs associated with health and safety issues will cause reputation loss. In addition, company managers could find themselves criminally liable for failure to provide a safe working environment for their employees.

Key Person Risk-The risk that a key employee or manager leaves the company or a particular project or initiative, resulting in significant impact on established processes, general level of experience, and sourcing of knowledge. This risk is often a consequence of poor succession planning.

Skilled Personnel/Leadership Risk-The risk that hiring, retention, or motivation of skilled labor is made difficult by internal company deficiencies or by the external labor market environment, which may vary across regions or business cycles. This risk can result in decreased customer satisfaction or in failure to complete projects on schedule or under budget. Examples:

- People responsible for important business processes cannot, or do not, provide the leadership, vision, and support necessary to help employees to be effective and successful in their jobs.
- Lead project personnel, such as managers, lead engineers, or supervisors, are unavailable or are unable or unwilling to adequately support the project.
Personnel responsible for supporting the company or project, such as estimators, engineers, designers, buyers, or planners, do not possess the requisite knowledge, skills, and experience to ensure that critical business objectives are achieved and significant business risks are reduced to an acceptable level.

Training/Knowledge Analysis/Knowledge Sharing Risk-The risk that company employees, in the field or in the home office, do not receive sufficient training or that training programs are not designed to convey relevant and timely knowledge to employees, or that knowledge sharing is not encouraged or supported by a formal system accessible to those who need to participate. Examples include on-the-job and formal training in the project management, contract law, and financial and business aspects of projects; safety and hazardous materials training and certification; use of tools that increase productivity, such as computers; new-hire orientation; and analysis and sharing of past experience and best practices.

## Operational Risks

Change Orders/Scope Changes Risk-The risk that processes do not exist or are not followed to ensure change orders are discouraged or are properly priced and the change order revenues collected. Change orders, particularly small ones, are seldom understood with respect to their total impact on scope and schedule. Most important, they disrupt the natural, planned flow of the project and the allocation of resources, affecting other activities as well. Because most change orders do not involve additions to the scope of facilities (for example, re-prioritizing of work by the client), they are often underpriced or performed at no charge to the client while in reality they should carry a premium over original-scope work.
Client-Furnished Materials Risk—Risk associated with equipment or materials selected and purchased by the client that are later given to the company, specifically risk associated with their timely delivery, integrity, compliance with specifications, and operating characteristics, which become the company's responsibility. In such cases, not only should the company make a profit for taking on this responsibility (and not just on the man-hours expended in the support functions) but the risks associated with the equipment and materials also need to be assessed and mitigated. An example is material received late when the company has schedule LDs.

## Client Indecision/Interference Risk

Client management does not reach decisions in a timely manner, which is important to completing projects or adhering to the project schedule. Client indecision risk also encompasses the risk that the client will make a decision and then reverse it once the company has committed time and resources on the basis of the original decision.
The client demands excessive "design studies" and special reports to justify decisions.

- The client wants to make decisions or monitor project status at a level that is typically performed by the company. The client's demands reduce the company's ability to effectively manage the project.
- The client commissions an on-the-job survey asking the company's employees for areas of project improvement. This survey data might be used to harm the company later should the project come under dispute.

Client Obligations/Milestones Risk-The risk that the client is unable or unwilling to meet obligations under the contract. Examples:

- Not providing as-built information for the project, operating data, maintenance requirements, client specifications, vendor or licensor data, or inspection records or not approving drawings and procedures in a timely manner.
Not procuring the environmental permit on time and not supporting other permitting or reporting activities, such as building, traffic, or work permits or customs clearances.
- Not paying its bills on time.

Client Organization Risk-The risk that the client's organization is weak, inexperienced, or not empowered to make decisions or that client management might be unstable and the job security of sponsors for the project might be low. On long-duration projects, for example some operation and maintenance ( $O \& M$ ) projects, there is a likelihood that the decision makers will change, bringing a different operation/maintenance strategy, jeopardizing the attainment of incentives, or even deciding to self-perform some or all O\&M functions.

## Client Profile/Culture Risk

- The company does not understand the risks when undertaking work for specific clients. Thus, the proposal team is unable to develop an accurate and successful strategy or to halt the bidding process once the job is revealed to be less attractive or outside the company's risk tolerance. Examples include requiring a bid bond, making exiting the bidding process difficult, and the client's willingness to accept contract comments or tendency to throw out the bid.
- The high likelihood that the client or client's team on the project will not approve of or be satisfied with the selection of the company as a contractor or with the outcome of the project, regardless of the effort invested. For example, the client might be "wired" to another contractor, or the client might have a culture of contractor-bashing and adversarial stance.


## Errors in Client Information Risk-The risk of:

- Conflicting data in the RFP, client's scope of work, and client specifications.

Obsolete, inaccurate, or limited soil studies, topographic information, or survey information.

- As-built drawings that have errors or are incomplete or nonexistent.
- Wrong process or utility data, electrical load studies, or drain capacities.
- Assumptions on facility integrity jeopardized by poor inspection records and deferred or incomplete maintenance.

Contract Administration Risk-The risk resulting from deficient prime contract administration. Examples:

Performing work before the contract is signed (risk increases significantly if material purchases or field activities are undertaken!) or performing work on change orders before they are signed.

- Performing work before submittals are approved.
- Not understanding or following the contract and not enforcing the company's rights (invoices, interest on late payments, approval of change orders, force majeure claims).
Not recognizing that the client is not meeting contractual requirements and notifying the client as soon as possible; not meeting the company's obligations regarding notifications, documentation, reports, approvals, budget and schedule deviations, project personnel, and overtime approvals.
- Not aligning with the client on the prime contract early in the project or with the project team regarding roles, responsibilities, milestones, and deliverables.
Not communicating the contract requirements to the project team by either preparing and distributing a contract summary or having a contract reading and discussion session.

Liquidated Damages Risk-Risk associated with having LDs on schedule or performance in the contract (rather than with the actual schedule or performance). Examples:

- LDs are structured in a way that makes it attractive to the client to take advantage of them.
- Performance LDs are not clear, leading to unnecessary discussions during project handover.
- There is no "neutral zone" between the end of the period when the project would earn an incentive on schedule and the start of LDs, making it financially advantageous for the client to push the project away from the incentives zone and into the LDs zone.
- The risk that the SOW is not well defined and kept current by narratives, discussion confirmations, minutes of meeting, drawings, schematics, checklists, digital photos, responsibility matrixes, or any other means that can later be used as the control basis for price and schedule adjustments.
- The SOW is not clear and detailed regarding the physical facilities being worked on as well as the services provided by the company. The SOW should state what is included and excluded in the work or what is provided by others (vendors, subs, teaming partners, or the client).
- The SOW includes language such as "as required," "to be verified," "etc.," "to be determined," or other ambiguous terms.
The SOW includes work never before done by the company, unusual requirements from the client, and other uncertainties.

Terms and Conditions Risk-The risk associated with not having proper terms and conditions in the contract or resulting from their misinterpretation; specifically, warranties, scope changes clause, client schedule delays, indemnification, releases, budget and schedule impact, insurance and bonds, transfer and acceptance, compensation, client-supplied material, consequential damages, currency fluctuation, regulatory agency changes, escalation, inflation, force majeure, taxes, hazardous waste, payment schedules, court order delays, strikes and walkouts, third-party delays, and liquidated damages.

## Warranties/Guarantees Risk

- The risk associated with not complying with the scope of work or with faulty performance of the work, resulting in re-performance cost.
- The risk associated with not meeting the process, mechanical, environmental, or utility consumption guarantees resulting from an inadequate margin between "as designed" and "as guaranteed" parameters.
- The risk that might arise from not verifying the licensor's design basis, not monitoring the design phase to ensure implementation, not including the guarantee requirements in supplier's purchase orders, and not appointing a "warranty manager" on the project.

Cost of Cash Risk-The risk that cost of cash estimates either under- or overstate the positive or negative effects of cost of cash. Cost of cash estimates must account for a variety of factors:

Timing of the investment in the strategy to win the proposal or in the purchase of the bid bond vs. timing of project award and client payments.

- Amount and duration of any required client retention.
- Timing of expenditures to suppliers (including cancellation charges) vs. client payments (considered any payment floats if a zero-balance account is not in place).
- Timing of the award of any incentives, bonuses, and shared savings vs. timing of investments required to attain them.
- Cost of cash curve not updated during the life of the project, leading to inaccurate forecasts of project profitability, or failure to include change orders, escalation, or the impact of exchange rates in the cost of cash calculation.

Cost of Labor Risk-The risk that the cost of labor might be too volatile or too inflationary to successfully bid a project. Unsuccessful labor cost forecasts might, in turn, squeeze margins. Examples:

Variances in field/home office labor rates and mix; foreseeable potential variations in insurance and payroll burden costs and company overhead costs. (For example, the project is bid as direct-hire execution but later goes to subcontractors.)
Variations in home office, field construction, vendor shop, or subcontractor overtime or shift work requirements; variations in drug testing, field site engineering support, and travel time between labor camp and site; warehouse and lay-down areas too far from site; variations in commissioning personnel and other indirect labor work hours, timing, and costs.
Other indirect cost variances, including recruiting and training, camps, and infrastructure; home office or field cost underestimated by assuming a task is simpler than it really is or that it can be done at lower cost. (For example, the project is bid as a work share, but it is later determined that it must be done at the site because of the revamp nature of the work.)

Cost of Materials Risk-The risk inherent in the underestimating of tagged and bulk material quantities and unit prices, or a lack of emphasis on negotiating the lowest cost with suppliers or subcontractors when materials are within the scope of the subcontract. Also the lack of monitoring of project cost in the disciplines, which sometimes tend to direct their energies toward managing the man-hour budget while neglecting the installed-cost budget for their prime and enforcing "estimate-centric" execution.

Escalation Risk-The risk that prices for labor, materials, and other direct costs will rise during the course of project execution and those higher costs are not included in the estimate used in determining the project price.

Estimate Quality Risk-The risk arising from a substandard estimate. Examples:

- The company does not have the time or resources to produce a quality bid for a
project or change order estimate. Consequences might include a bid that is too low or too high, drafting of a proposal that lacks the quality to win the project, or a change order that fails to cover all necessary costs. If possible, the contract should allow for change order adjustment.
- Not all disciplines, including construction, are involved in the estimate.
- An inadequate review of project risks and opportunities fails to identify events that call for added costs/increased contingency.

Productivity (Labor/Equipment) Risk-The risk of using the wrong productivity assumptions in the estimate. Examples:

- Labor productivity is not sufficient to complete the project on time or within budget. Labor productivity can vary across geographic regions or economic cycles and is dependent on congestion, elevation, language skills of supervisory personnel, and many other factors, making each site unique.
Heavy equipment productivity affects the rate of progress and the cost on infrastructure projects.
- Computer productivity is often overestimated, particularly when a new system is introduced.

Civil, Structural, and Architectural Engineering and Design Items RiskExamples include:

- Lack of good information on existing facilities.
- Insufficient number of CADD (computer-aided design and drafting) model review terminals, resulting in reduced efficiency.
- Adding to existing structures without adequately checking, resulting in possible failure of structure and/or possible substantial liability.
- Decision to eliminate or reduce engineering deliverables without proper consultation with the construction manager, resulting in possible increased level of effort required in the field.
- Reduced level of checking of drawings, causing possible field rework, with resulting schedule delays, cost overruns, and increased field supervision cost.
- Work sharing with inexperienced offices, resulting in both increased possibility of not meeting schedule and quality problems.
- Use of non-sophisticated steel fabricators, resulting in a lack of ability to use electronic transfer of CADD model or request connection design.

Control Systems Engineering Items Risk-Examples include:

Local code requirements, such as city or government codes or manuals, etc,, resulting in startup or installation approval delays and/or extra cost for purchase of replacement material.

- Use of new, unproven control systems to reduce cost could result in increased labor and schedule delay in field if the system does not operate as expected.
Complex controls furnished by mechanical package vendor might result in field and office rework revision if the instrumentation does not meet project requirements.


## Electrical Engineering Items Risk-Examples include:

- Out-of-specification vendor electrical installation on mechanical packages, resulting in cost increases for rework and schedule delay.
- Late definition of control circuits, motors, and other equipment, resulting in:
„ Late release of materials
» Late release and/or rework of drawings and material takeoffs.
- Missed equipment that requires electrical supply, resulting in:
» Late changes to motor control centers
„ Late ordering of materials
» Loss of control over equipment costs.
- Delivery of vendor data after issue of construction drawings, resulting in:
, Rework
Cost increase due to increased man-hours for drawings.
Scope growth of electrical, resulting in rework, late design, and delay of engineering and construction schedule.
- Reduced deliverables to construction to reduce home office costs, resulting in increased field supervision cost.

Mechanical Engineering Items Risk-Risk associated with mechanical engineering and design activities and responsibilities. Examples:

- Using a design code that the home office is not familiar with, resulting in:

Excessive man-hours to familiarize all users with code
Equipment vendor not properly applying code.

- Overrun of equipment count and cost, resulting in:
„Likely overrun in equipment count due to process changes or sparing
„Philosophy change
» More man-hours for additional items
"Delay in schedule
More request for quotation (RFQ) packages than planned
„ Overrun of capital cost budget
Impact on plot plan/detailed design.
- Improper rejection of technical design, causing cost and schedule delay and lack of client confidence, resulting in excessive review and approval time. Late changes to equipment while in fabrication caused by late HAZOP review, resulting in increased price and late delivery.
- Reduced deliverables to construction to reduce home office costs, resulting in increased field supervision cost.

Change Management Risk-While change order risk pertains to the likelihood of the client's introducing changes to scope, schedule, sequence of work, deliverables, etc., change management risk comes from project teams that fail to comply with, or to implement on day one, the change management process. Examples:

- Project manager wants to have the client "on his side" and continually fails to invoke the company's contractual right to recover base cost, overheads, and profit from changes or even recognize and document such changes as soon as they occur.
Many "minor changes" are accepted and believed to have no impact on cost/schedule while in reality their aggregate has a major effect on both cost and schedule.
- Resource levels are not adjusted to accommodate for changes.
- The project team uses client changes as a reason to introduce their own changes or cover inefficiencies and to delay project milestones and deliverables.
Change is not aggressively discouraged among the project team and/or with the client.
- Claims against suppliers, subcontractors, or client are not filed as soon as possible.

Compliance with Specs/Procedures Risk—As a result of a flaw in design or operation or due to human error, oversight, or indifference, the company's processes do not meet customer requirements the first time or do not comply with prescribed codes, procedures, and policies required by the government. Noncompliance introduces the risk of lower quality, unrecoverable rework cost, and unnecessary delays.

Construction/Constructability Risk—Risks and opportunities associated with constructability and construction activities and responsibilities in the home office and field. Examples:

■ Not addressing constructability issues early in the design.

- Not considering labor density vs. productivity, construction in winter or during high wind or rain, import of construction equipment, and efforts related to enforcing a drug-free workplace.
- No accurate assessment of local craft quality and availability, resulting in escalating craft labor costs in addition to incentives required to recruit and retain craft. Lack of skilled manpower can result in lower productivity and escalating costs.
- Shortage of skilled workforce due to competing projects in the area, resulting in:
„ Poor quality of work
„ Increased reworks
„ Low productivity
Increased safety-related risks
Increased cost
Schedule slippage
High turnover rate.
No clear definition of requirements for mechanical completion and turnover, resulting in inability to achieve project milestones and attain incentives. No clear determination of project completion.
Lack of an integrated schedule based on construction sequencing and system turnover, resulting in ineffective sequencing of engineering deliverables and materials. Unproductive construction execution, resulting in extended schedule and escalating direct and indirect costs.
- Engineering and procurement deliverables not segregated or identified by work package or turnover system, resulting in ineffective and unproductive construction execution based on clear identification of deliverables and materials to support the execution sequencing mandated by the schedule.
- Weather-related circumstances such as rain, snow, or winter conditions that can prolong completion of underground activities and escalate direct and indirect costs and schedule.
- Excessive field material surplus, resulting in increased cost.
- Excessive field indirect material, resulting in increased cost.
- Lost time due to untimely issuing of daily work permits by owner, resulting in low productivity and schedule delays.
- Lost time and injuries due to plant evacuations, such as those from chemical releases, resulting in low productivity and increased field labor costs.
- Working critical path activities during adverse weather conditions, resulting in missed completion dates and associated incentives, increased safety-related risks, low productivity, and increased field labor costs.
- Method of acceptance for structural connections is not clearly identified, resulting in:
„Schedule delays
Rework of structural steel connections
» Failure to provide proper equipment for testing connections.
» Poor or nonexistent surface water drainage system, resulting in excessive lost time due to rainouts/flooding schedule delays and increased cost.
» Deterioration and/or damage to equipment during on-site storage, resulting in delay in construction schedule, project turnover, and additional cost for equipment rework/repair.
Instruments do not get spec-checked and calibrated upon receipt prior to storing, resulting in:

Discovery of out-of-spec or damaged instruments after installation, leaving little time to repurchase or repair

- Disruption of work plans
- Schedule delays.
- Failure to implement an adequate inspection measuring and test equipment (IM\&TE) program, resulting in:
» Invalid tests or measurement results, requiring rework
» Increased cost due to lost equipment
» Lack of control of equipment.
- Local contractors' lack of knowledge of Occupational Safety and Health Administration (OSHA), site, state, and U.S. Army Corps of Engineers (USACE) safety rules and regulations, resulting in increased number of accidents.
- Contractors lack competent safety representatives with authority to stop unsafe work, resulting in work stoppages due to safety rule violations and schedule delays.

Environmental Compliance Risks-Environmental risks expose the company to potential enormous liabilities. The risk is highest on projects of long duration or where the company has taken responsibility for facility operation/maintenance. The exposure is twofold:

- Liability to third parties for bodily injury or property damage caused by the environmental damage.
- Liability to governments or third parties for the cost of removing pollutants plus severe punitive damages. Examples include damage to natural features or existing facilities (roads, bridges); contamination of soil, water, or air; noise or odor pollution; noncompliance with environmental impact reports; negligence in applying any required best available control technology; and not testing for the presence of contaminated soil or notifying client immediately when contaminated soil is discovered so client can undertake removal, if contractually obligated to do so.


## Existing Facilities/Reuse of Equipment Risks

- The risk associated with working in an existing facility, particularly one that is, or was recently, in operation. Examples include cutting into pipelines without first testing that they are liquid-free; working without a hot permit; ignoring "lock and tag" procedures.
The risk inherent in the reuse of existing plant equipment, piping, or other systems; re-rating of equipment; equipment with incomplete or lacking inspection data; or equipment or systems older than their expected design life or for which replacement parts might not be available. Examples include tie-ins into pipe that might not support the internal or external stresses induced by the modifications and adding loads to structures already at their design capacity.
- The risk associated with idle time incurred waiting for hot permits or confined entry permits, evacuation drills, gas alarms, and other occurrences related to an operating plant.

Heavy Lifts/Rigging Risk—The risk associated with unusual, heavy, or elevated lifts. Examples:

- Engineered lifts not checked by a licensed rigging engineer.

Lateral loads on lifting lugs (wind, upending the equipment during the lift) or vertical loads over 10 tons not checked by a licensed rigging engineer.
Rigging engineer not present during lifts where the load exceeds 95 percent of the crane's capacity.

Inter-discipline Coordination Risk-The risk inherent in inter-discipline work
processes. Examples:

- The various disciplines involved in the project are not in close proximity or are not dedicated full-time to the project, making coordination difficult.
- Team checking, peer reviews, or coordination meetings are not conducted.
- Inter-discipline procedures for the project are not published or not followed.
- Design, constructability, and joint risk reviews, value awareness programs, and all other inter-discipline feedback opportunities are untimely, do not include the required participants, or are not taking place.

Other Contractor at Site Risk-The risk associated with another contractor moving to a site where the company is performing construction, resulting in added demands for labor, construction equipment, available materials, and local infrastructure. In extreme cases, sabotage, vandalism, and theft might result, and cost and schedule are affected by increased security measures.
Commissioning Risk ("Turnkey" Activities Risk)—The risk resulting from the company's responsibility to either lead or support the commissioning of the completed project. Examples:

- Lack of certain systems, such as utilities, that need to be commissioned early to support startup. These systems need to be identified at the beginning of the project and design; material management and construction must be prioritized accordingly. Back-feed power must be ensured for the startup.
- Adequate resources required to support pre-commissioning, commissioning, performance testing, and operations handover of turnkey projects are not available.

Project Incentives Risk-The risk that the project incentive was formulated in such a way that it is unattainable. Examples:

- Schedule incentive is based on an unrealistic schedule; incentive payment is an "all or nothing" type, making it tempting for the client to avoid its award. Note: Multiple milestones or progressive "dollars per day" incentives are easier to manage.
- Performance incentives are based on the assumption that the facility will operate optimally on the first pass, or not enough margin exists between design parameters and incentive parameters.
"Under-run of project budget" incentives are difficult to collect if the company was involved in the estimate. The budget should be verified by the client, or profit should be put at risk to counter the client's perceptions.
- Baseline calculation on incentive-based O\&M projects was not done correctly, leaving little room for improved outcomes.

Project Schedule Risk-The risk that key deadlines and milestones are not met. For corporate initiatives, failure to meet deadlines and milestones might lower employee support of the initiative, lengthen the time key employees are kept away from their core activities, and increase costs for the initiative. Failing to meet project deadlines and milestones might result in financial loss (liquidated damages, extra costs) or jeopardize the company's relationship with a client. Examples:

- Not measuring actual progress vs. plan, not having a project execution plan formulated in enough detail to allow tasks to be done in the proper sequence, or not using historical data to formulate a realistic schedule.
- Not reviewing execution plans and contingency/backup options on a regular basis or not giving enough emphasis to critical path activities, which require separate, dedicated monitoring.
- Not making agreements with suppliers to obtain firmed-up, key information early rather than waiting for the entire certified dimensional outline to be issued.
- Not establishing a process control philosophy and venting/drainage requirements early.

Receiving the building or environmental permit late (this should be a client milestone) and not adjusting the schedule accordingly.

Project Staffing/Organization Risk-The risk that the project staff is not adequate for the size, complexity, or strategic importance of the project. Examples:

- To cut cost, positions are eliminated or assigned only part-time, or people without the necessary training and experience are placed in leading positions.
- The project manager is not aggressive enough to stand up to a demanding client and protect the profitability, schedule, or technical integrity of the project. The project manager lets the client lead the project team rather than leading it on behalf of the client toward the jointly established objective.
- The project team is not business-focused, allowing profit erosion to occur.

Quality Control/Validation Risk-Checks and balances intended to ensure quality (compliance with requirements) are not in place or are ignored, resulting in quality risk. The contractor quality control plan (CQCP) is not followed, resulting in deficiencies and client dissatisfaction. Examples include constructability, peer reviews, team checks, timely interference detection, design reviews and material engineering reviews, field surveys, shop inspection, supplier evaluations, soil tests, welder certification, etc.
Work-sharing/Joint Execution Risk—Risk associated with project work's being done
in multiple offices through work sharing or with other contractors. The more offices involved, the higher the risk. Examples:

- Not defining technical requirements and interface/coordination procedures, not monitoring the performance of the teams in the global execution office by assigning appropriate lead engineers in the lead office.
When working with other companies, not ascertaining that their execution methods parallel as closely as possible the company's in terms of use of task forces, compatible software, and methods of checking/levels of quality, document control, etc.

Organized Labor Risk-The risk associated with dealing with organized labor management and retaining union employees for projects. Examples:

- Strikes
- Work slowdowns
- Demands for work hour reductions
- Wage increases or changes in working conditions
- Contract renegotiations
- Non-union work in areas of union labor dominance

Difficulties in dealing with union management.
Critical Deliveries Risk-The risk associated with late delivery of critical equipment or with faulty or damaged equipment, as well as the risk resulting from poor planning and coordination of large/heavy deliveries. Key deliveries often determine the schedule critical path. The risk can be mitigated by selecting a reliable equipment supplier and a reputable logistics and freight forwarding customs clearance company. The project manager should be closely involved in the planning and monitoring of key deliveries, particularly those that are large or heavy, because non-standard routes, times, and delivery methods might be required.

## Key Suppliers/Subcontractors Risk-Examples include:

- Supplier or subcontractor is known to perform below expectations in terms of missing schedules, not providing adequate or timely project documents, filing nuisance claims, not having enough resources in the field or in the shop, poor quality control, etc. However, due to lack of competition or client preference, this substandard performance plays a significant role on the project and must be closely managed to attain acceptable results.
Supplier or subcontractor has control over a disproportionate portion of the
project or corporate initiative, and its ability to manage risk affects the risk profile of the project or initiative. Where possible, multiple subcontractors should split the work.


## Material Management/Procurement Risk-Examples include:

- Scope of purchase order is poorly written, leading to uncertainties in cost and schedule performance, excessive change orders, and eventually claims.
- Supplier is not adequately managed through the enforcement of the purchase order, use of the company's standard terms and conditions, timely technical and commercial approval by the project team and the client, buy-down plan, shop and field inspection program, collection of back-charges for faulty work, and proper close-out of purchase orders and subcontracts.

Material management is not integrated into the project schedule, resulting in shortages, surplus, emergency purchases at a premium, and out-of-sequence deliveries.

Materials or equipment owned by the company or third parties, such as vendors or subcontractors, is not adequately protected from weather damage, mishandling, misuse, or theft.

- Warehouse/lay-down areas are remote from the construction site area, and double handling of materials is affecting cost and schedule.
Flow-down requirements result in supplier or contractor schedule impact and supplier or contractor cost increase.
- Not using a material manager, resulting in inaccurate reporting, forecasting, inefficiency, and inadequate corporate roll-up.
- Material escalation, resulting in budget overruns and delivery delays.

RFQ/RFP cycle is too short, resulting in increased contingency, incomplete milestone schedules, and untimely vendor data/information.
Late issuance of long-lead equipment purchase orders, resulting in construction delays, increased execution costs, and potential liquidated damages.
Lack of involvement of logistics in material/equipment delivery, resulting in construction delays, exposure to liquidated damages when deliveries slip due to inadequate logistics effort by the suppliers and inaccurate information, import duties, duty exemptions, freight forwarding challenges, etc.

## Material Sourcing/Selection/Certification Risks

The risk associated with certain commodities that historically have wide price fluctuations or are typically in short supply-for example, chrome or titanium-
or require specialized fabrication.

- The risk that the material selected for a particular application is unsuitable or impractical, resulting in decreased operator or public safety, potential environmental contamination, or increased life-cycle cost for the facility.
- Risk that materials purchased do not comply with codes and specifications, might not be fit for service, or have been acquired illegally, such as counterfeit materials, faked certificates, metallurgy not as shown on the certificate but discovered later.


## Small Business/Buy American Compliance Risk

- The company does not contract sufficient minority or disadvantaged businesses to comply with federal requirements.
- Contractual provisions to source materials and equipment or issue subcontracts to a small disadvantaged business (SDB) are not followed, resulting in fines.

Subcontract Administration Risk-The risk resulting from home office or field subcontract administration. Examples:

- Authorizing subcontractors to perform work before the scope is clearly defined and documented and the price is agreed to by both parties, and not aligning the project team about the scope of the subcontract early in the project. Not conducting weekly subcontractor meetings and asking the question "Are there any claims?" and then not documenting the answer (or no answer) in the minutes of the meeting.
- Not filing back-charges against subcontractors in a timely manner and with proper documentation or not meeting the company's contractual requirements, such as notifications.
- Failing to request subcontractor bonding, insurance, and other certificates; not making sure that such certificates are valid for the duration and type of work performed; and not keeping them on file.
- Not reviewing subcontractor plans vs. actual performance to make sure subcontractors are meeting their commitments, or allowing change orders to become claims.
- Late assignment/involvement of project contracts manager, resulting in ineffective or no contracting plan, inadequate pre-qualification of potential bidders, and assumption of unnecessary risks.
- Insufficient discipline reviews of work processes, usually from too much working in isolation, resulting in conflict and/or duplication of effort, poorly defined scopes of work, inadequate contract language, inadequate instruments of surety,
such as bonds, etc.
- Insufficient emphasis given to the prevention of contractor claims, resulting in excess claims and "leakage" and current approach being reactive rather than proactive.
High rate of contract growth, resulting in unnecessary "leakage" and end-ofproject surprises in unanticipated growth.
Too much commercial authority given to or assumed by project manager, resulting in unqualified commercial decisions equaling "leakage."

Unsafe/Inexperienced Subcontractor Risk-The risk associated with a subcontractor that does not have the same high safety performance goals as the company or is not familiar with the client's requirements or with local regulations and standards. To mitigate this risk, subcontractors should be informed, educated, trained, and audited at regular intervals.

## Inventory/Spares Risk

- The risk of spare parts or specialized equipment not being available when needed or not meeting requirements.
- The risk that the procurement or replacement of spare parts is not clearly defined in the contract or that taxes, financing cost, inflation, storage costs, or other timedependent costs have not been accounted for in the proposal.

Information Technology (IT) Risk-The risk that information technologies do not efficiently and effectively support the current and future needs of the business; are not operating as intended; are compromising the integrity and reliability of data and information; are exposing significant assets to potential loss or misuse; or threaten the company's ability to sustain the operation, its critical business processes, or its projects. Examples:

- New software or software release is implemented without first being tested or at the wrong time during a project, causing disruption, delays, and errors from program "bugs."
Transactions are not authorized, complete, accurate, or timely as they are entered into or reported by the various application systems at the company.
- Access to information, such as data or programs, is inappropriately granted or refused, meaning unauthorized people are able to access confidential information while those who need to access it do not have the right kind of access (for example, read, copy, and write).
Information is not available when needed or there is loss of communication (for example, from cut cables, telephone or electrical system outage, or network
downtime) or a loss of basic processing capability and operational difficulties, such as a disk drive breakdown, operator errors, computer viruses, and industrial espionage.

Licenses/Patents/Confidentiality Risk-The risk that patents, confidentiality agreements, licensor data, attorney-client-privileged information, and other intellectual property commitments are not honored, resulting in legal action against the company. Conversely, the risk that the company's confidential information is intentionally or unintentionally given to others. Examples include giving clients access to ftp site; licensor information granted on a particular project is used on other projects; and unauthorized use of the company's developed software on client computers.

## Technology Change Risks

- The risk that the technology or process selected is superseded by a cheaper, better one, thus rendering the original selection obsolete, with replacement parts no longer available.
- The risk that a licensor package or proven technology is modified extensively to accommodate client requirements, potentially invalidating the license. Note: Licensor requirements should be challenged if excessive, but approval must be obtained for deviations.
- The risk that HAZOP reviews are performed late on the project, introducing untimely yet mandatory changes into the design.


## Technology Implementation Risk

- The risk that the process or technology selected will not attain the client's objectives in terms of capacity, economics, product slate, operability, availability, utility consumption, effluents, environmental or safety constraints, or consistent operation.
- The risk associated with a new technology, particularly one for which there are no existing full-scale running operations. Note: Prototype operations or equipment should be left out of the lump sum, if possible. Examples include the company's having to rely on technology by others or being responsible to verify and guarantee technology by others; no clarity as to who has material selection responsibility.


## RFP REQUIREMENTS/PROPOSAL PREPARATION

Now that you have found the project that might meet your strategic goals, it is time to decide whether to prepare a proposal and submit your bid. Some solicitations require simple "go/no-go" proposals and some require very costly, time-consuming, and
complex proposals, so you must make some timely and in-depth decisions before starting the process. Are you eligible to bid the project? Is it feasible to bid the project? Have you done a self-assessment to decide whether you have the resources to perform the work as required and to a high quality? Have you analyzed the competition to determine whether you have a good chance of winning the bid? Have you analyzed the solicitation and do you understand what it requires? Are you willing to spend the time and money, and can you devote the resources necessary to prepare a "winning" proposal?

These are all questions you must ask yourself prior to preparing a bid and submitting the proposal. Remember, the process can take quite a bit of time, so these questions must be asked early on so that the decision to go forward allows you enough time to do a thorough and well-thought-out proposal. You are doing all of this work to "win" the bid, so don't waste your time on a bid that is put together sloppily.

## Two-Phase Design-Build

Two-phase design-build has become very popular with the federal government. The government started using this process in 2004. It is a simple (by government standards) process that can save contractors a lot of money proposing on a project, and it provides the government with more prospective contractors.

In Phase 1 of the best-value source selection process, government personnel perform a capability analysis and assessment of performance risk. Contractors are evaluated in three areas: corporate relevant experience, past performance and organization, and technical narrative.

Preparing a proposal for this phase is fairly simple and straightforward. Once a contractor becomes familiar with the process, it can tailor the response to each new requirement.

The government often receives many Phase 1 proposals-as many as two or three times the number it receives for non-two-phase design-build solicitations. This streamlined initial evaluation allows for a much quicker decision as to which proposals will make the cut for the Phase 2 evaluation.

The two-phase selection process also can save contractors money and time up front. If eliminated in Phase 1, a contractor can save an estimated $\$ 10,000-\$ 100,000$ and up to 60 working days by not preparing the Phase 2 proposal. A contractor not selected to proceed to the next phase in the competitive process can request a debriefing to learn how its proposal could have been improved and then quickly turn its attention to another business opportunity. The debriefing will enable the contractor to perfect its Phase 1 submissions and eventually allow it to make many more submissions.

In Phase 2 of the selection process, experts evaluate the design technical capability, remaining performance capability, and price. This evaluation takes a deeper look at what is being offered against the expressed needs of the government and the price. The Phase 2 evaluation determines the best-value contractor(s), depending on whether the acquisition involves a stand-alone contract or a "master contract" such as a Multiple Award Task Order Contract (MATOC) or a Multiple Award Construction Contract (MACC).

## Bidder Eligibility

You must decide whether you are eligible to bid on the project. Many projects are limited as to who can bid on them.

1. Is it an open solicitation?
2. Is it sole source?
3. Is the contract a set-aside? If it is, then is it:

For holders of existing master contracts?
For small business? Applicable size standards?
For special socioeconomic categories such as HUBZone, small disadvantaged business concern, veteran-owned small business concern, service disabled veteran-owned small business concern, women-owned small business concern, etc.?

## Bid Feasibility

Now you need to decide whether it is feasible to bid on the project. Remember, there is limited time to pull everything together and prepare a "winning" proposal.

Can you meet the due date and still have a well-prepared and thought-out proposal?
Do you have the resources available to:
Gather, read, and digest the bid documents?
Research the bid context?
Seek partners if desired or needed? Should you do a joint venture or teaming? Is there enough time to put together the bid?
Seek technical info? Knowing the technical information is critical to preparing the bid.
Determine material, labor, and subcontract costs?

Attend pre-bid meetings, site visits, etc.?
Communicate with government procurement staff to ask questions and get answers in time to make decisions?
„ Assess the competition?

## Self-Assessment

Now that you have determined that you are eligible to bid on the project and it is feasible for you to bid, can you perform the work as required and provide the quality necessary for a good performance evaluation?

1. Assuming that you win the bid, can you perform as required?
2. Do you have all the required expertise and skills?
3. Can you get all the materials?
4. Is your company structure set up to handle the project?
5. Can you obtain the required bonding and insurance? Is any special insurance, such as environmental insurance, required?
6. Do you need any special licenses or other credentials?
7. Do you understand what quality control systems will be required?
8. Will cash flow be an issue?
9. Is the project the right size for you?
10. Have you performed your risk analysis, and are the risks worth it?
11. Are the rewards worth doing the project? Can you keep your profit margin high enough to make doing the project worthwhile? Remember, you are not doing this because you need the practice.
12. Does this contract fit with your short-term, intermediate, and long-term goals?
13. Is this project consistent with your business plan?
14. Are you prepared for any special requirements such as ITAR (International Traffic in Arms Regulations), security clearances, financial audits, etc.?

## Competition

You have now decided that bidding this project is feasible, you are eligible to bid, and you have the resources to bid and perform the work, so it is time to assess the competition. This can sometimes be very difficult because some firms will not yet be involved when you must make your decision to bid the project; however, assessing the competition is paramount to developing your bid strategy. You need to consider:

1. Who are your competitors?
2. What do you know about them?
3. What more can you learn about them?
4. Do you have competitive advantage?
5. How can you best communicate your advantage?

If you can't win, you shouldn't bid the project unless you want the experience and the exposure or it costs you nothing.

## Preparing the Proposal

Now that you have decided you want to bid on the project, the work really begins -preparing the proposal. The bid/proposal must be responsive, attention-getting, and competitive. You must understand all the solicitation requirements, including the evaluation factors, and your proposal must be complete and delivered exactly as required.
RESPONSIVE:

1. You must provide everything that is asked for.

Provide all that the solicitation requires, including all associated documents.

Include the SF 1442, "Solicitation, Offer, and Award" page, signed.
Include the acknowledgement of all amendments. Check to make sure you have all the amendments.

Include any representations and certifications that might be in addition to ORCA.

The burden to be responsive is on you.
2. You must "give it to them the way they want it."

Read and reread the solicitation.
Take notes and highlight important requirements; use Post-its or clips.
Make lists of what is required.
Get some clues as to the government's perspective. Review the "Evaluation Factors for Award."
„ Make sure you are clear in satisfying all the evaluation criteria.
When in doubt, default to the RFP's structure.
3. You must check for other requirements such as:
„ Is your CCR registration current, correct, and complete?
„ Is your ORCA also current, correct, and complete?
Are any security clearances required? If so, can you get them in time?
Is an ITAR license required?
Are any state or local licenses required?
Are your taxes paid?
"Are you debarred or on the "Excluded Parties List"?
4. You must pay attention to the bid/proposal delivery.
„ It must be delivered on or before the time and date due.
» It must be delivered to the correct person and at the correct address.
„The package must be complete and marked as required by the solicitation.
Hard copies, electronic submittals, and number of copies must be delivered as specified.

Fax or e-mail proposals only as expressly permitted.
Get confirmation of delivery date and time from the carrier and recipient.

## ATTENTION-GETTING:

1. Ensure up-front communication.

Get on the "Interested Parties List."
Ask intelligent questions.
If possible, ask the questions in person or by telephone.
2. Attend pre-bid meetings or site visits.
3. Try to understand the bigger picture, such as the history, the present, and the future.
4. Be on their team! Be a part of their solution!
5. Don't be fancy, flashy, or trashy. Keep it simple. You want to be noticed, but you don't want to be looked down on.
6. Avoid irrelevant references.

## COMPETITIVE:

1. Read the "Evaluation Factors for Award."
2. The strengths of your proposal must match the government's most important evaluation factors.
3. The factors are sometimes scored; if not, they are probably weighted.
4. You must convincingly address all the evaluation factors.
5. You may not propose something other than what is asked for-even if it is better.

## WINNING PROPOSALS ARE:

- Responsive

Complete-contains everything required
Delivered on time
Meets all format requirements
Doesn't include extraneous "junk."

- Clear and simple
- Easy to evaluate

Remember, proposals reflect the competence of their authors, and they should inspire confidence in your firm. You are trying to show the government that you are the most qualified firm to do its work. You should not get discouraged if you do not win some bids right off the bat. Preparing proposals takes practice and great skill and can be learned only after doing them a number of times. Consider using a professional proposal writer with a proven record of winning proposals.

You should request a debriefing after every award, even if you win the award, because it will show what you did wrong and what you did right. It will help you to strengthen your future proposals.

## PROTEST AFTER AWARD

A challenge to the government's conduct of a procurement action is known as a bid protest. Protests can be made either prior to award of a contract or afterward, but most protests for construction contracts are filed after award because the protesting contractor will generally base the protest on the successful offeror's failure to meet one or more of the solicitation requirements, such as lowest bid, responsibility of the contractor, or responsiveness to the solicitation, or on the agency's failure to evaluate the successful offeror's proposal consistent with the evaluation criteria as listed in the solicitation.

The contractor may file a protest with:

- The contracting agency responsible for the procurement
- The Comptroller General of the Government Accountability Office
- The United States Court of Federal Claims.

Time limits and procedures are contained in FAR clauses 33.101 and 33.103 ; however, the contractor must be aware of when the time for filing the protest starts (generally 10 days) after the basis for the protest is known or should have been known, whichever is earlier. If the protester requests a debriefing and the protest is based upon what was learned at the debriefing, the Government Accountability Office (GAO) has held that the protest must be filed within 10 calendar days after the debriefing. Agency and GAO regulations must be followed closely because any procedural error or untimely filing may be cause for the GAO or the procuring agency to disallow the protest. I highly recommend that the contractor obtain the services of a competent attorney immediately if a protest is contemplated.

## FAR Clause 52.233-2, Service of Protest

As prescribed in 33.106, insert the following provision:
Service of $^{\text {Protest (Sept 2006) }}$
(a) Protests, as defined in section 31.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the Government Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from $\qquad$ . [Contracting Officer designate the official or location where a protest may be served on the Contracting Officer.]
(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.
(End of provision)

## FAR Clause 52.233-3, Protest after Award

As prescribed in 33.106(b), insert the following clause:
Protest after Award (Aug 1996)
(a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms
and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either
(1) Cancel the stop-work order; or
(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.
(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if[use same indent as (1) and (2) above on the ones below]
(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and
(2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon a proposal at any time before final payment under this contract.
(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.
(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.
(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.
(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6 , the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.
(End of clause)

Alternate I (June 1985). As prescribed in 33.106 (b), substitute in paragraph (a)(2) the words "the Termination clause of this contract" for the words "the Default, or the Termination for Convenience of the Government clause of this contract." In paragraph (b) substitute the words "an equitable adjustment in the delivery schedule, the estimated cost, the fee, or a combination thereof, and in any other terms of the contract that may be affected" for the words "an equitable adjustment in the delivery schedule or contract price, or both."

## SURETY BONDS

A 100 percent payment and 100 percent performance bond must be submitted within 10 days after award. The bonds must be completed in accordance with the government's directions. No work may start until they have been submitted and approved. A bid bond might be required; if it is, that will be shown in the solicitation. As the contractor, you should understand the definition of original contract price as shown in paragraph (a) below. This is very important in determining the bond amount to be supplied immediately after award for indefinite quantity contracts.

FAR Clause 52.228-15, Performance and Payment Bonds-Construction
(a) Definitions. As used in this clause:
"Original contract price" means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinitequantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.
(b) Amount of required bonds. Unless the resulting contract price is $\$ 100,000$ or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:
( 1 ) Performance bonds (Standard Form 25). The penal amount of performance bonds at the time of contract award shall be 100 percent of the original contract price.
(2) Payment Bonds (Standard Form 25A). The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract price.
(3) Additional bond protection.
(i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.
(ii) The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.
(c) Furnishing executed bonds. The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, but in any event, before starting work.
(d) Surety or other security for bonds. The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register or may be obtained from the:
U.S. Department of the Treasury

Financial Management Service
Surety Bond Branch
3700 East West Highway, Room 6F01
Hyattsville, MD 20782.
Or via the internet at http://www.fms.treas.gov/c570/.
(e) Notice of subcontractor waiver of protection (40 U.S.C. 3133(c)). Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

## INSURANCE

The contractor must provide and maintain insurance in accordance with the requirements of FAR clause 52.228-5, Insurance-Work on a Government Installation. The required minimum limits of the insurance are provided in the solicitation, usually in section 007300 . The contractor must also ensure that all subcontractors maintain the same minimum level of insurance and include the substance of this clause in all subcontracts. The contractor also must provide proof of subcontractor required and maintained insurance to the CO upon request. This insurance is generally liability insurance, and it is designed to protect the government and not the contractor.

You should be aware that even though the contract may require only a minimum level of insurance, there is other insurance that should be considered. If you will be working over water as defined by the United States Longshoremen and Harbor Workers Act, that
insurance will be mandated by law but might not be required by the solicitation. The government does not require "Builders Risk" insurance because this insurance does not cover the government but instead covers the contractor. "Builders Risk" insurance is normally paid for by the owner for commercial projects and might be missed by the contractor; but if there is a fire or other disaster on the project being constructed, this insurance will be needed. Worker's compensation insurance will also have to be maintained even though the government might not require it. There are also other types of insurance, such as environmental insurance, that might need to be considered depending upon the type and scope of the contract.

## FAR Clause 52.228-5, Insurance-Work on a Government

## Installation

As prescribed in 28.310, insert the following clause:
Insurance-Work on a Government Instalation (Jan 1997)
(a) The Contractor shall, at its own expense, provide and maintain during the entire performance of this contract, at least the kinds and minimum amounts of insurance required in the Schedule or elsewhere in the contract.
(b) Before commencing work under this contract, the Contractor shall notify the Contracting Officer in writing that the required insurance has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Government's interest shall not be effective-
(1) For such period as the laws of the State in which this contract is to be performed prescribe; or
(2) Until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer, whichever period is longer.
(c)The Contractor shall insert the substance of this clause, including this paragraph (c), in subcontracts under this contract that require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule or elsewhere in the contract. The Contractor shall maintain a copy of all subcontractors' proofs of required insurance, and shall make copies available to the Contracting Officer upon request.
(End of clause)

You should explore the various types of insurance required and add other insurance that will protect your firm.

Taxes incurred by contractors vary greatly from state to state and sometimes from county to county. Business, sales, and use taxes, etc. can make a big difference in the profitability of a project. Some states allow all costs for work on a federal installation to be tax-free. Some states might charge sales tax on materials only but not on labor or vice versa. Contact the state department of revenue in the state where the project is to be built to determine exactly what taxes must be paid.

There are no special federal taxes levied upon a contractor for performing work on a government installation.

## UTILIZATION OF SMALL BUSINESS CONCERNS

FAR clause 52.219-8, Utilization of Small Business Concerns, is normally added to contracts when the award is made to a large business. It requires that the contractor make a "good faith effort" to utilize small businesses as defined below. The contract will normally have small business and small disadvantaged business goals that must be met. As the contractor, you need to determine how to meet such goals and make every effort to meet them. You will also have to make a subcontracting plan and file the SF 294 and SF 295 forms as required by FAR clause 52.219-9, Small Business Subcontracting Plan. You will not have to get certifications from these firms and may rely on the subcontractor's written representation unless FAR clause 52.219-25, Small Disadvantaged Business Participation Program-Disadvantaged Status and Reporting, is included in the contract. In this case, you must obtain certification through the CCR database or the SBA's Office of Small Disadvantaged Business Certification and Eligibility for a joint venture partner, team member, or subcontractor representing itself as a small disadvantaged business concern.

Currently only small disadvantaged businesses and HUBZone businesses must be certified by the SBA; however, the SBA is in the process of developing a certification program for service-disabled veteran-owned businesses. This will probably result in changes to these FAR clauses.

## FAR Clause 52.219-8, Utilization of Small Business Concerns <br> As prescribed in 19.708(a), insert the following clause: <br> Utiuzation of Small Business Concerns (May 2004)

(a) It is the policy of the United States that small business concerns, veteranowned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any

Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and womenowned small business concerns.
(b) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Contractor's compliance with this clause.
(c) Definitions. As used in this contract-
"HUBZone small business concern" means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.
"Service-disabled veteran-owned small business concern"-
(1) Means a small business concern-
(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and
(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.
(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).
"Small business concern" means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.
"Small disadvantaged business concern" means a small business concern that represents, as part of its offer that-
(1) It has received certification as a small disadvantaged business concern consistent with 13 CFR part 124, Subpart B;
(2) No material change in disadvantaged ownership and control has occurred since its certification;
(3) Where the concern is owned by one or more individuals, the net worth of each individual upon whom the certification is based does not exceed $\$ 750,000$ after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and
(4) It is identified, on the date of its representation, as a certified small disadvantaged business in the database maintained by the Small Business Administration (PRO-Net).
"Veteran-owned small business concern" means a small business concern-
(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and
(2) The management and daily business operations of which are controlled by one or more veterans.
"Women-owned small business concern" means a small business concern-
(1) That is at least 51 percent owned by one or more women, or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and
(2) Whose management and daily business operations are controlled by one or more women.
(d) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as a small business concern, a veteranowned small business concern, a service-disabled veteran-owned small business concern, a HUBZone small business concern, a small disadvantaged business concern, or a women-owned small business concern.
(End of clause)

## FAR Clause 52.219-25, Small Disadvantaged Business Participation ProgramDisadvantaged Status and Reporting

As prescribed in 19.1204(b), insert the following clause:
Small Disadvantaged Business Participation Program—Disadvantaged
Status and Reporting (apr 2008)
(a) Disadvantaged status for joint venture partners, team members, and subcontractors. This clause addresses disadvantaged status for joint venture partners, teaming arrangement members, and subcontractors and is applicable if this contract contains small disadvantaged business (SDB) participation targets. The Contractor shall obtain representations of small disadvantaged status from
joint venture partners, teaming arrangement members, and subcontractors through use of a provision substantially the same as paragraph (b)(1)(i) of the provision at FAR 52.219-22, Small Disadvantaged Business Status. The Contractor shall confirm that a joint venture partner, team member, or subcontractor representing itself as a small disadvantaged business concern is a small disadvantaged business concern certified by the Small Business Administration by using the Central Contractor Registration database or by contacting the SBA's Office of Small Disadvantaged Business Certification and Eligibility.
(b) Reporting requirement. If this contract contains SDB participation targets, the Contractor shall report on the participation of SDB concerns at contract completion, or as otherwise provided in this contract. Reporting may be on Optional Form 312, Small Disadvantaged Business Participation Report, in the Contractor's own format providing the same information, or accomplished through using the Electronic Subcontracting Reporting System's Small Disadvantaged Business Participation Report. This report is required for each contract containing SDB participation targets. If this contract contains an individual Small Business Subcontracting Plan, reports shall be submitted with the final Individual Subcontract Report at the completion of the contract.

## Contracts

> Types of Contracts
„ Fixed-Price Contracts
" Cost-Reimbursement Contracts
» Incentive Contracts
Indefinite-Delivery Contracts
Time-and-Materials, Labor-Hours, and Letter Contracts
> Types of Contracting Officers
> Contracting Officer's Representative
The objective of this chapter is to show you all the contract types that the federal government can use and what they are used for. You will understand the federal government's intent by knowing what the contract type is. This chapter also talks about the various contracting officers and their authority, along with what the contracting officer's representative is and what authority he or she has. Understanding these authorities is critical to avoiding claims because only a duly authorized contracting officer may direct a contractor to make a change.

## TYPES OF CONTRACTS

A wide selection of contract types is available to the government in order to provide the flexibility agencies need in acquiring the large variety and volume of supplies and services they require. Contract types vary according to:

- The degree and timing of the responsibility assumed by the contractor for the costs of performance
- The amount and nature of the profit incentive offered to the contractor for achieving or exceeding specified standards or goals.

The contract types are grouped into two broad categories: fixed-price contracts and costreimbursement contracts. The specific contract types range from firm-fixed-price, in which the contractor has full responsibility for the performance costs and resulting profit (or loss), to cost-plus-fixed-fee, in which the contractor has minimal responsibility for the performance costs and the negotiated fee (profit) is fixed. In between are the various incentive contracts, in which the contractor's responsibility for the performance
costs and the profit or fee incentives offered are tailored to the uncertainties involved in contract performance. Indefinite-delivery contracts and time-and-materials, labor-hour, and letter contracts can be either fixed-price contracts or cost-reimbursement type. All of these types of contracts may be used for construction-type activities; however, the majority of such contracts will be firm-fixed-price or indefinite-delivery, indefinite quantity (IDIQ) contracts.
The most commonly used types of contracts for construction are stand-alone project contracts that are firm-fixed-price; multiple award task order contracts (MATOC) that are IDIQ contracts; multiple award construction contracts (MACC) that are IDIQ contracts; job order contracts (JOC) that are IDIQ contracts; single-award task order contracts (SATOC) that are IDIQ contracts; and simplified acquisition of base engineering resources (SABER) contracts, which are IDIQ contracts.

Any type of contract can be either design-bid-build or design-build. The IDIQ contracts normally have a base year(s) with option years that can extend the contract up to 2 to 10 years. IDIQ contracts are excellent contracts for contractors because they generally provide business for many years and can be very lucrative. These contracts can also have incentives built into them depending upon the customer's needs.

The contracting officer (CO) assigned to the project determines what type of contract is to be used. The decision is based on the requirements of the project, customer requirements, and other factors as determined by the Federal Acquisition Regulation (FAR). The SBA also may be a part of the decision-making process because it must determine the extent to which small businesses will participate in the project.

The following is a list of contracts showing when they are generally used.

## Fixed-Price Contracts

Fixed-price contracts provide for a firm price or, in appropriate cases, an adjustable price. Fixed-price contracts that provide for an adjustable price may include a ceiling price, a target price (including target cost), or both. Unless otherwise specified in the contract, the ceiling price or target price is subject to adjustment only by operation of contract clauses providing for equitable adjustment or other revision of the contract price under stated circumstances.

- Firm-fixed-price contract-This contract provides for a price that is not subject to any adjustment on the basis of the contractor's cost experience in performing the contract, and it places upon the contractor maximum risk and full responsibility for all costs and resulting profit or loss. It provides maximum incentive for the contractor to control costs and perform effectively and imposes a minimum administrative burden upon the contracting parties. The government may use a
firm-fixed-price contract in conjunction with an award-fee incentive and performance or delivery incentives based solely on factors other than cost. The contract type remains firm-fixed-price when used with these incentives.
Fixed-price with economic price adjustment contract-A fixed-price contract with economic price adjustment provides for upward and downward revision of the stated contract price upon the occurrence of specified contingencies. The government may use a fixed-price contract with economic price adjustment in conjunction with an award-fee incentive and performance or delivery incentives based solely on factors other than cost. The contract type remains fixed-price with economic price adjustment when used with these incentives.
- Fixed-price incentive contract-This fixed-price contract provides for adjusting profit and establishing the final contract price by a formula based on the relationship of final negotiated total cost to total target cost.
- Fixed-price contract with prospective price redetermination-This contract may be used in acquisitions of quantity production or services for which it is possible to negotiate a fair and reasonable firm fixed price for an initial period, but not for subsequent periods of contract performance.
- Fixed-ceiling-price contract with retroactive price redetermination-This contract is used for research and development contracts estimated at $\$ 100,000$ or less when it is established at the outset that a fair and reasonable firm fixed price cannot be negotiated and that the amount involved and short performance period make the use of any other fixed-price contract type impracticable.
- Firm-fixed-price, level-of-effort term contract-This contract is used for investigation or study in a specific research and development area.

The product of the contract is usually a report showing the results achieved through application of the required level of effort; however, payment is based on the effort expended rather than on the results achieved.

## Cost-Reimbursement Contracts

Cost-reimbursement contracts provide for payment of allowable incurred costs, to the extent prescribed in the contract. They establish an estimate of total cost for the purpose of obligating funds and establishing a ceiling that the contractor may not exceed without the approval of the CO. Cost-reimbursement contracts are suitable for use only when uncertainties involved in contract performance do not permit costs to be estimated with sufficient accuracy to use any type of fixed-price contract.

- Cost contract-This is a cost-reimbursement contract in which the contractor receives no fee. It may be used for research and development work, particularly
with nonprofit educational institutions or other nonprofit organizations.
- Cost-sharing contract-This is a cost-reimbursement contract in which the contractor receives no fee and is reimbursed only for an agreed-upon portion of its allowable costs. A cost-sharing contract may be used when the contractor agrees to absorb a portion of the costs in the expectation of substantial compensating benefits.
Cost-plus-incentive-fee contract-This cost-reimbursement contract provides for an initially negotiated fee to be adjusted later by a formula based on the relationship of total allowable costs to total target costs.
Cost-plus-award-fee contract-This cost-reimbursement contract provides for a fee consisting of (1) a base amount (which may be zero) fixed at inception of the contract and (2) an award amount based upon a judgmental evaluation by the government, sufficient to provide motivation for excellence in contract performance.
- Cost-plus-fixed fee contract-This cost-reimbursement contract provides for payment to the contractor of a negotiated fee that is fixed at the inception of the contract. The fixed fee does not vary with actual cost but may be adjusted as a result of changes in the work to be performed under the contract. This contract type permits contracting for efforts that might otherwise present too great a risk to contractors, but it provides the contractor only a minimum incentive to control costs.


## Incentive Contracts

Incentive contracts are used when a firm-fixed-price contract is not appropriate and the required supplies or services can be acquired at lower costs and, in certain instances, with improved delivery or technical performance, by relating the amount of profit or fee payable under the contract to the contractor's performance. Incentive contracts are designed to obtain specific acquisition objectives.

- Fixed-price incentive contract-This is a fixed-price contract that provides for adjusting profit and establishing the final contract price by application of a formula based on the relationship of total final negotiated cost to total target cost. The final price is subject to a price ceiling, negotiated at the outset.
- Fixed-price incentive (firm target) contract-This contract specifies a target cost, a target profit, a price ceiling (but not a profit ceiling or floor), and a profit adjustment formula. These elements are all negotiated at the outset. The price ceiling is the maximum that may be paid to the contractor, except for any adjustment under other contract clauses. When the contractor completes performance, the parties negotiate the final cost and the final price is established
by applying the formula. Note: When the final cost is less than the target cost, application of the formula results in a final profit greater than the target profit; conversely, when final cost is more than target cost, application of the formula results in a final profit less than the target profit or even a net loss. If the final negotiated cost exceeds the price ceiling, the contractor absorbs the difference as a loss. Because the profit varies inversely with the cost, this contract type provides a positive, calculable profit incentive for the contractor to control costs.
- Fixed-price incentive (successive targets) contract-This type of contract specifies an initial target cost, target profit, and initial profit adjustment formula to be used for establishing the firm target profit, including a ceiling and floor for the firm target profit. Note: This formula normally provides for a lesser degree of contractor cost responsibility than a formula for establishing final profit and price; the production point at which the firm target cost and target profit will be negotiated (usually before delivery or shop completion of the first item); or a ceiling price that is the maximum that may be paid to the contractor. When the production point specified in the contract is reached, the parties negotiate the firm target cost, giving consideration to cost experience under the contract and other pertinent factors. The firm target profit is established by the formula. At this point, the parties have two alternatives:
» They may negotiate a firm fixed price, using the firm target cost plus target profit as a guide.
»If negotiation of a firm fixed price is inappropriate, they may negotiate a formula for establishing the final price using the firm target cost and target profit. The final cost is then negotiated at completion, and the final profit is established by formula, as under the fixed-price incentive (firm target) contract.
Fixed-price contract with award fees-Award-fee provisions may be used in fixedprice contracts when the government wishes to motivate a contractor and other incentives cannot be used because contractor performance cannot be measured objectively. Such contracts establish a fixed price (including normal profit) for the effort. This price will be paid for satisfactory contract performance. Award fee earned (if any) will be paid in addition to that fixed price.
Cost-plus-incentive-fee contract-This cost-reimbursement contract provides for the initially negotiated fee to be adjusted later by a formula based on the relationship of total allowable costs to total target costs. This contract type specifies a target cost, target fee, minimum and maximum fees, and a fee adjustment formula. After contract performance, the fee payable to the contractor is determined in accordance with the formula. The formula provides, within limits, for increases in fee above target fee when total allowable costs are less than target costs and decreases in fee below target fee when total allowable costs exceed target costs. This increase or decrease is intended to provide an incentive for the contractor.

This type of contract is typically used for services or development and test programs.
Cost-plus-award-fee contract-This cost-reimbursement contract provides for a fee consisting of (1) a base amount fixed at inception of the contract, if applicable and at the discretion of the CO, and (2) an award amount that the contractor may earn in whole or part during performance that is sufficient to provide motivation for excellence in the areas of cost, schedule, and technical performance.

## Indefinite-Delivery Contracts

There are three types of indefinite-delivery contracts-definite-quantity contracts, requirements contracts, and indefinite-quantity contracts. The appropriate type of indefinite-delivery contract is used to acquire supplies and/or services when the exact times and/or quantities of future deliveries are not known at the time of contract award. Requirements contracts and indefinite-quantity contracts are also known as delivery order contracts or task order contracts.

- Definite-quantity contract-This contract provides for delivery of a definite quantity of specific supplies or services for a fixed period, with deliveries or performance to be scheduled at designated locations once ordered.
- Requirements contract-This contract provides for filling all actual purchase requirements of designated government activities for supplies or services during a specified contract period, with deliveries or performance scheduled by placing orders with the contractor. It is generally used for acquiring any supplies or services when the government anticipates recurring requirements but cannot predetermine the precise quantities that will be needed during a definite period.

Indefinite-auantity contract-This contract provides for an indefinite quantity, within stated limits, of supplies or services during a fixed period. The government places orders for individual requirements, and quantity limits may be stated as number of units or dollar values. This type of contract is used when the government cannot predetermine, above a specified minimum, the precise quantities of supplies or services it will require during the contract period, and it is inadvisable to commit itself for more than a minimum quantity. A job order contract (JOC) is this type of contract.

## Time-and-Materials, Labor-Hours, and Letter Contracts

- Time-and-materials contract-This contract provides for acquiring supplies or services on the basis of direct labor hours at specified fixed hourly rates that
include wages, overhead, general and administrative expenses and profit, and actual cost for materials. This contract may be used only when it is not possible at the time of placing the contract to estimate accurately the extent or duration of the work or to anticipate costs with any reasonable degree of confidence.
Labor-hour contract-This contract is a variation of the time-and-materials contract, differing only in that materials are not supplied by the contractor.
- Letter contract-This is a written preliminary contractual instrument that authorizes the contractor to begin immediately manufacturing supplies or performing services. A letter contract may be used when the government's interests demand that the contractor be given a binding commitment so that work can start immediately and also when negotiating a definitive contract is not possible in time to meet the requirement.


## TYPES OF CONTRACTING OFFICERS

There are three types of contracting officers-the procurement contracting officer, the contracting officer, and the administrative contracting officer.

The procuring contracting officer (PCO) does the procurement for a very large contract. This type of CO is usually used only on projects where there is a need to manage parts of the contract separately, and it is generally needed when a contract affects multiple bases that would be much better handled by a CO at each base. Typical examples are a regional JOC or MATOC contract. The PCO usually has the final determination on a contract because he or she is over the total contract and not just a task order. (Although the FAR does not specifically include the role of the PCO, many agencies have PCOs, especially when contracts have large, diversified requirements.)

The contracting officer (CO) has total contractual authority over the contract. This person is assigned by the regional director of contracting (for standalone projects) or by the PCO. If assigned by the PCO, then upon award of a contract/task order, the CO is assigned by a "Letter of Delegation." This person has full authority to act on behalf of the U.S. government in all contractual matters. When given formal direction from the CO, the contractor, by federal law, must do what is directed and then file a claim if in dispute. The final decision by a CO is binding until overturned by a court. A CO is issued a warrant by the U.S. government to issue and oversee contracts that obligate the government financially and otherwise in all matters relating to a contract for services or goods. The level of authority of the CO is determined by the level of the warrant, which ranges from $\$ 2,000$ to unlimited. There are many levels of warrants, but a CO may not sign a contract or change order without a warrant at least equal to the contract or change order amount. To be granted a warrant, a CO must have certain levels and types of education, including government-sponsored courses, and must have passed certain tests. A CO may give direction that commits the government both verbally and in
writing; however, the CO must have money in hand or a "promise" that funds are available or will be made available.
The administrative contracting officer (ACO) is designated by the CO to handle the day-to-day contract actions for a project. The ACO has the authority to make commitments or changes that affect price, quality, quantity, delivery, or any other terms or conditions of the contract that might have been authorized by the CO. The changes that the ACO may make are limited by this authority and by the level of warrant this person has. Generally, the ACO makes construction change orders.

## FAR Clause 33.210, Contracting Officer's Authority

Except as provided in this section, contracting officers are authorized, within any specific limitations of their warrants, to decide or resolve all claims arising under or relating to a contract subject to the Act. In accordance with agency policies and 33.214, contracting officers are authorized to use ADR procedures to resolve claims. The authority to decide or resolve claims does not extend to-
(a) A claim or dispute for penalties or forfeitures prescribed by statute or regulation that another Federal agency is specifically authorized to administer, settle, or determine; or
(b) The settlement, compromise, payment, or adjustment of any claim involving fraud.

## CONTRACTING OFFICER'S REPRESENTATIVE

The contracting officer's representative (COR) is defined as an individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the CO to perform specific technical or administrative functions. If the CO designates a COR, the contractor will receive a written copy of the designation. The designation will specify the extent of the COR's authority to act on behalf of the CO.

The COR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract. Only the CO or the ACO may make commitments or changes of any kind that affect price, quality, quantity, delivery, or any other term or condition of the contract. The COR is usually designated in the "Notice of Award" letter signed by the CO but may also be designated later. The COR is considered the CO's "eyes and ears" and is the first person the CO will go to in a contract dispute.

## 4

Design
> Requirements for Registration of Designers
> Correlating Design to RFP and Proposal
> Shop Drawings
> Specifications and Drawings
„Partnering and Project Progress Processes
„Stages of Design Submittal
„Specifications
„Drawings
Design Analysis
> Design Quality Control (DQC)
. Acceptance of Plan
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» Procedures
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„ Why the USACE Uses Design-Build
» Fast-Track Construction
> Understanding Military-Specific Codes
> Anti-terrorism/Force Protection (AT/FP) Requirements
> LEED
> Procedure for Obtaining Variances after Design Is Complete The objective of this chapter is to show the contractor, architect, and engineers the requirements for design of federal government projects and, more specifically, designbuild projects. The design-build process was chosen for analysis because it is generally the most complicated process for the designer and because the design-build method of
construction as used by the federal government is significantly different from that used by the commercial sector. When used by the federal government, the design-build process is designed to shift liability from the government to the contractor, whereas in the commercial sector, it is designed to save time and get the most "bang for the buck." This process has also become the federal government's project delivery method of choice.

This chapter will show you what design submittals will normally be required, how to incorporate the RFP and proposal into the design, when the designer must be registered, what the specifications and drawings must contain and what format to use, and how to develop a design quality control plan. It will acquaint you with the federal government's design review process (DrChecks), requirements for design schedules, and fast-tracking requirements. It will explain how to make the designer aware that the federal government codes and technical manuals might be significantly different from the commercial codes used in the past and how to become familiar with them. It will also address how to make the designer aware that federal government construction requires the use of ant-terrorism/force protection design guidelines (and where to find them) and that the federal government requires "green design" through the Leadership in Energy and Environmental Design (LEED) process. The chapter also contains the process for obtaining a variance after design is complete.

## REQUIREMENTS FOR REGISTRATION OF DESIGNERS

The following FAR clause requires that all projects be designed by registered architects and engineers. The federal government requires that the architects and engineers be registered in the state where the work is being performed. The Council on Federal Procurement of Architectural and Engineering Services clarified the intent of this clause in 2009, stating that "individuals performing architecture, engineering, landscape architecture, or surveying and mapping on federal contracts must be licensed in the state/jurisdiction where the work is being performed, if the state has such a licensing law." All architects and engineers are subject to liability for defects in design in accordance with the statute of limitations and the statute of repose of the state in which the work is performed.

## FAR Clause 52.236-25, Requirements for Registration of Designers As prescribed in 36.609-4, insert the following clause: <br> Requirements for Registration of Designers (June 2003)

Architects or engineers registered to practice in the particular professional field involved in a State, the District of Columbia, or an outlying area of the United States shall prepare or review and approve the design of architectural, structural, mechanical, electrical, civil, or other engineering features of the work.

## CORRELATING DESIGN TO RFP AND PROPOSAL

The architect and engineers are key players during the proposal preparation for designbuild projects. The architect might have to prepare preliminary drawings, including floor plans, elevations, and sections that show the government what you and your team propose to meet the RFP requirements. Your team will have to propose materials and systems-HVAC, electrical, security, etc.-for incorporation into the project. This process should be conducted in conjunction with teaming subcontractors, and their recommendations as to materials and systems should be solicited and used wherever possible as long as they meet the RFP requirements. The proposal will usually have to be prepared in a short period ( 30 to 60 days is normal), and because the various trades will need to perform a cost estimate, the architect will have to prepare the preliminary drawings before the rest of the proposal can be prepared.

The RFP will list many requirements, and the design team will have to understand them and incorporate them into the design. Doing this can sometimes be very complicated because some requirements might not be readily apparent, such as those in technical manuals that are only referenced. The architect and engineers will also have to be careful to pick materials that meet the requirements of the RFP but also are the least expensive and meet the requirements of the Buy American Act.

The team should also determine whether betterments will be proposed. Betterments add to the cost of the project. They might or might not help you to win the project, but the government will require that you provide the betterments if you are awarded the contract.

Betterments will normally make a difference only if the lowest bids are very close. You should not provide betterments unless you believe you need them to win the bid.

The "Accepted Proposal" is a part of the contract and, along with the RFP, constitutes the contract even though the design is "shop drawings." Once the design is completed and accepted by the government, it becomes a part of the contract. Any deviation from the proposal or accepted completed design must go through the official procedure for government approval. (See section 013300 of the RFP.) The designer of record must approve all deviations prior to submitting them to the government. (See section 0133 00 , RFP.) What you state in the proposal that you give the government is exactly what the government expects to get. Any change after award requires that the government concur with the deviation. (Use the request for information (RFI) format required by the contract.)

Any revision to the design that deviates from the contract requirements (i.e., the RFP and the accepted proposal), pursuant to the "Changes" clause, must first be approved by the designer of record (DOR) and then forwarded by you to the government for the CO's approval. The government does not have to approve this request unless it is deemed in the "best interest of the government." If the proposal conflicts with the RFP, the order of precedence delineated in the RFP determines which will govern.

You will be responsible for ensuring that the design meets all the requirements in the contract, so it is important that you perform a thorough compliance review.

The government generally will do only a cursory review during design but will be much stricter about RFP and proposal compliance during construction.

Do not put more into your design than is required by the RFP and your proposal. If you do, the government will expect to see it and you will have to get the government's concurrence to remove or change it.

## SHOP DRAWINGS

Shop drawings, as required by DFARS clause 252.227-7033, Rights in Shop Drawings, and also possibly by section 007300 , Special Contract Requirements, are considered by the contract to be an extension of design and therefore the DOR must approve them. You also have the responsibility to make sure that the shop drawings are in full compliance with the design drawings because the design drawings will supersede the shop drawings for legal import.

Shop drawings for a government design-build project very seldom require government approval and usually will be provided to the government as a "For Information Only" submittal. Government design-bid-build contracts generally require numerous superfluous shop drawings; however, through the design-build process you can limit them to only those deemed necessary for construction, quality, or liability reasons.

Limit the number of shop drawings and tests required to only those that are dictated by the RFP and that limit the liability of the contractor and designer. Requiring more than is needed only costs you more money and opens the door for more government review.

DFARS Clause 252.227-7033, Rights in Shop Drawings
As prescribed at 227.7107-1(c), use the following clause:
(a) Shop drawings for construction means drawings, submitted to the Government by the Construction Contractor, subcontractor or any lower-tier subcontractor pursuant to a construction contract, showing in detail (i) the proposed fabrication and assembly of structural elements and (ii) the installation (i.e., form, fit, and attachment details) of materials or equipment. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.
(b) This clause, including this paragraph (b), shall be included in all subcontracts hereunder at any tier.
(End of clause)

## SPECIFICATIONS AND DRAWINGS

The specifications and drawings required by the design-build contract are considered "deliverables" per section 013316 and are not "approved" by the government but rather "accepted" by the government. The government reviews the design documents only for contract "conformance." All extensions of design, i.e., shop drawings, are approved by the DOR. FAR clause 52.236-21, Specifications and Drawings for Construction, and DFARS clause 252.236-7001, Contract Drawings and Specifications, implement this requirement.

The basic process and design requirements for each design submitted are explained below.

## Partnering and Project Progress Processes

The Initial Partnering Conference may be scheduled and conducted with or at any time following the post-award conference. The government proposes to form a partnership with you to develop a cohesive building team. This partnership will involve the USACE project delivery team members, facility users, facility command representatives, installation representatives, DOR, major subcontractors, and your quality control and construction management staff. This partnership will strive to develop a cooperative management team drawing on the strengths of each team member in an effort to achieve a quality project within budget and on schedule. The partnership will be bilateral in membership, and participation will be totally voluntary.

As part of the partnering process, you and the government will develop, establish, and agree to comprehensive design development processes, including conduct of conferences, expectations of design development at conferences, fast-tracking, design acceptance, structural interior design (SID)/furniture, fixtures and equipment (FF\&E) design approval, project closeout, etc. The government will explain the contract
requirements; you, as the design-build contractor, should review the government's proposed project schedule and suggest ways to streamline processes.

The Initial Design Conference may be scheduled and conducted at the project installation any time after the post-award conference, although it is recommended that the partnering process be initiated with or before the initial design conference. Any design work conducted after award and prior to this conference should be limited to site design and is discouraged for other items. All DORs must participate in the conference. The purpose of the meeting is to introduce everyone and to make sure any needs you have are assigned and due dates are established, as well as who will get the information. You, as the contractor, will conduct the initial design conference.

## Stages of Design Submittal

The stages of design submittal described below define the government's expectations with respect to process and content. As the contractor, you must determine how to best plan and execute the design and review process for this project within the parameters listed below. As a minimum, the government expects to see at least one interim and one final design submittal before construction of a design package may proceed and at least one "design complete" submittal that documents the accepted design. You may subdivide the design into separate packages for each stage of design and may proceed with construction of a package after the government accepts the final design for that package. (See also discussion on waivers to submission of intermediate design packages where the parties partner during the design process.)

## Site /Utilities

To facilitate fast-track design-construction activities, you may submit a final (100 percent) site and utility design as the first design submittal or elect to submit interim and final site and utility design submittals as explained below. Following review, resolution, and incorporation of all government comments and submittal of a satisfactory set of site-utility design documents, after completing all other preconstruction requirements in the contract and after the pre-construction meeting, the government will allow you to proceed with site development activities, including demolition where applicable, within the parameters set forth in the accepted design submittal. For the first site and utility design submittal, whether interim or final, the submittal review, comment, and resolution times from the RFP apply, except that the government will require a maximum 14 -calendar day review period, exclusive of mailing time. No on-site construction activities may begin prior to written government clearance to proceed.

You may either submit a single interim design for review, representing a complete package with all design disciplines, or split the interim design into smaller, individual design packages as deemed necessary for fast-track construction purposes. As required in section 013201.00 , Project Schedule, you must schedule the design and construction packaging plan to meet the contract completion period. This submittal is the government's primary opportunity to review the design for conformance to the solicitation, the accepted contract proposal, and the building codes and reference documents at a point where required revisions can be still made, while minimizing lost design effort to keep the design on track with the contract requirements.

You should designate the interim design submittal(s) as a snapshot and proceed with design development at your own risk. This will cut down required design time with little risk of having to redo the documents. Remember, the drawings and specifications are yours, and the government can only review them for conformance to the RFP and proposal.

Note: See below for a waiver in which the parties establish an effective over-theshoulder process review procedure through the partnering process, eliminating the need for a formal intermediate design review.

## Over-the-Shoulder Process Reviews

To facilitate a streamlined design-build process, you and the government may agree on one-on-one review or small group reviews, electronically, online (if available within your standard design practices), or at your design offices or other agreed-upon location, when practicable to the parties. You and the government will coordinate such reviews to minimize or eliminate disruptions to the design process. Any data required for these reviews will normally be provided in electronic format rather than as hard copy.

If you and the government establish and implement an effective, mutually agreeable partnering procedure for regular (e.g., weekly) over-the-shoulder review procedures that keep the government reviewers fully informed of the progress, contents, design intent, design documentation, etc., of the design package, the government will agree to waive the formal intermediate design review period for that package. You will still need to submit the required intermediate design documentation; however, you and the reviewers may agree to how that material will be provided in lieu of a formal consolidated submission of the package. It should be noted that government funding is extremely limited for non-local travel by design reviewers, so the maximum use of virtual teaming methods is required. Some possibilities include electronic file sharing, interactive software with online or telephonic conferencing, and video conferencing.

The government must still perform its code and contract conformance reviews, so you are encouraged to partner with the reviewers to find ways to facilitate this process as well as meeting or bettering the design-build schedule. You must maintain a fully
functional configuration management system to track design revisions, regardless of whether there is a need for a formal intermediate design review. The formal intermediate review procedures form the contractual basis for the official schedule, in the event that the partnering process determines that this review process is best suited for efficient project execution. However, the government will pledge to support and promote the partnering process to work with you to find ways to better the design schedule. You and/or your designer will need to keep very accurate meeting minutes because this will take the place of a DrChecks review.

## Final Design Submittal

This submittal is required for each design package prior to government acceptance of that package for construction.

## Design-Complete Submittals

After the final design submittal and review conference for a design package, you must revise the design package to incorporate any comments generated and resolved in the final review conferences, perform and document a back-check review, and submit the final design-complete documents, which represent released-for-construction documents.

## Holiday Periods for Government Review or Actions

You should not schedule meetings, government reviews, or responses during the last two weeks of December or other designated government holidays, including the Friday after Thanksgiving, and exclude these same dates and periods for any government actions.

It is important that you and the designer schedule and meet dates for design reviews and any other critical submittals because the lack of a government review can cause serious delays in both the design and construction.

## Late Submittals and Reviews

If you cannot meet your scheduled submittal date for a design package, you must revise the proposed submittal date and notify the government in writing, at least one week prior to the submittal, to accommodate the government reviewers' other scheduled activities. If a design submittal is more than one day late in accordance with the latest revised design schedule, or if notification of a proposed design schedule change is less than seven days from the anticipated design submittal receipt date, the government review period may be extended up to seven days because of reviewers' schedule conflicts. If the government is late in meeting its review commitment and the delay increases your cost or delays completion of the project, the FAR clauses 52.242-14, Suspension of Work, and 52.249-10, Default, provide the respective remedy or relief for the delay. You should pay special attention to the notification of times under these

## Specifications

These may be any one of the major, well-known master guide specification sources (use only one source) such as MASTERSPEC from the American Institute of Architects, SPECTEXT from Construction Specification Institute, or Unified Facility Guide Specifications (UFGS), including specifications from these sources. The DORs must edit and expand the appropriate specifications to ensure that all project design, current code, and regulatory requirements are met. Specifications must clearly identify the appropriate, specific products chosen to meet the contract requirements (i.e., manufacturers' brand names and model numbers or similar product information).

## Drawings

Drawings must include comments from any previous design conferences incorporated into the documents to provide an interim design for the "part" submitted.

## Design Analysis

The DORs must prepare and present design analyses along with the calculations necessary to substantiate and support all design documents submitted. They must provide design substantiation as required by the applicable codes and references.

## FAR Clause 52.236-21, Specifications and Drawings for Construction As prescribed in 36.521, insert the following clause:

Specifications and Drawings for Construction (Feb 1997)
(a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.
(b) Wherever in the specifications or upon the drawings the words "directed," "required," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the "direction," "requirement," "order," "designation," or "prescription," of the Contracting Officer is intended and similarly the words "approved," "acceptable," "satisfactory," or words of like import shall mean "approved by," or "acceptable to," or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.
(c) Where "as shown," "as indicated," "as detailed," or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place," that is "furnished and installed."
(d) Shop drawings means drawings, submitted to the Government by the Contractor, subcontractor, or any lower tier subcontractor pursuant to a construction contract, showing in detail (1) the proposed fabrication and assembly of structural elements, and (2) the installation (i.e., fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the contractor to explain in detail specific portions of the work required by the contract. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.
(e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Government's reasons therefore. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) of this clause.
(f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation, the Contracting Officer shall issue an appropriate contract modification, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.
(g) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the Contracting Officer and one set will be returned to the Contractor.

## (End of clause)

Alternate I (Apr 1984). When record shop drawings are required and reproducible shop drawings are needed, add the following sentences to paragraph ( g ) of the basic clause: Upon completing the work under this contract, the Contractor shall furnish a complete set of all shop drawings as finally approved. These drawings shall show all changes and revisions made up to the time the equipment is completed and accepted.
Alternate II (Apr 1984). When record shop drawings are required and reproducible shop drawings are not needed, the following sentences shall be added to paragraph (g) of the basic clause:
Upon completing the work under this contract, the Contractor shall furnish [Contracting Officer complete by inserting desired amount] sets of prints of all shop drawings as finally approved. These drawings shall show changes and revisions made up to the time the equipment is completed and accepted.

## DFARS Clause 252.236-7001, Contract Drawings and Specifications

As prescribed in 236.570(a), use the following clause:
Contract Drawings And Specifications (Aug 2000)
(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.
(b) The Contractor shall-
(1) Check all drawings furnished immediately upon receipt;
(2) Compare all drawings and verify the figures before laying out the work;
(3) Promptly notify the Contracting Officer of any discrepancies;
(4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and
(5) Reproduce and print contract drawings and specifications as needed.
(c) In general-
(1) Large-scale drawings shall govern small-scale drawings; and
(2) The Contractor shall follow figures marked on drawings in preference to scale measurements.
(d) Omissions from the drawings or specifications or the mis-description of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.
(e) The work shall conform to the specifications and the contract drawings identified on the following index of drawings:

| Title File | Drawing No. |
| :--- | ---: |
| (End of clause) |  |

## DESIGN QUALITY CONTROL (DQC)

As the contractor, you must provide and maintain a design quality control plan (DQCP) as the basis of an effective quality control program that will ensure that all services required by the design-build contract are performed and provided in a manner that meets professional architectural and engineering quality standards. As a minimum, all documents should be technically reviewed by competent, independent reviewers identified in the DQCP. The same person or group that produced the product may not perform the independent technical review (ITR). The designer will correct errors and deficiencies in the design documents prior to submitting them to the government.

You should include in the DQCP the discipline-specific checklists to be used during the design and quality control of each submittal. These completed checklists must be submitted at each design phase as part of the project documentation. Note: Engineer Regulation 1110-1-12 provides some useful information on developing checklists.

The DQCP must be implemented by a design quality control manager, who has the responsibility of ensuring that all documents on the project have been coordinated. This person must have verifiable engineering or architectural design experience and must be a registered professional engineer or architect. As the contractor, you must notify the CO in writing of the name of the person and the name of an alternate person assigned to the position.

The CO will notify you in writing of the acceptance of the DQCP. After acceptance, any changes you propose are subject to the acceptance of the CO.

## Acceptance of Plan

Acceptance of your plan is required prior to the start of design and construction. Acceptance is conditional and is predicated on satisfactory performance during the design and construction. The government may require you to make changes in your contractor quality control plan (CQCP), including the DQCP and operations, including removal of personnel, as necessary, to obtain the quality specified.

## Notification of Changes

After acceptance of the CQCP, you must notify the CO in writing of any proposed changes. Proposed changes are subject to acceptance by the CO.

## Design Quality Control Plan

The DQCP is required by the government to verify that the designers have addressed all the requirements of the RFP, codes, and other RFP referenced manuals. It is important that the DQCP include all necessary checklists to clearly show the government that these requirements have been reviewed and addressed.

1. Each discipline should have its own DQC manager and specific DQC checklist following a format similar to that of the architectural DQC checklist.
2. The DQC manager should mark each item as follows:

DQC Initial—Item has been reviewed and corrected as needed.
"NA"-Item is not applicable.
" "INC"-Item is still in progress (for interim submittals only).
3. Submit this checklist to the architect on an agreed-upon date.
4. The design firm must verify that each discipline has completed a DQC checklist and will forward the information to the contractor.

## General Scope of Review:

■ Completeness of Drawing Set—Are all required sheets included?
■ Completeness of Sheets-Is all information required on a given sheet shown?

- Inter-coordination of Drawings-Do all references and callouts lead to the right reference/section/detail?
- Dimension Check—Are all dimensions shown? Do the strings add up? Are the dimensions consistent between drawings?

■ Site Plan Coordination-Does the site plan layout match the civil site plan?

Floor Plan (Background) Coordination-Are all disciplines using the correct floor plan backgrounds to match the architectural floor plan?

- Elevations Coordination-Do exterior and interior elevations show louvers and lights?
- Roof Plan Coordination-Is mechanical and electrical equipment shown? Does the structural roof plan show equipment and weights? Is roof drainage clearly shown?
- Architectural/Structural Coordination-Do the architectural sections and details match the structural?
- Fire Sprinkler Coordination-Are all areas properly protected as required, including concealed spaces, exterior canopies, projections? Are areas exempt from fire sprinklers clearly identified?
- Language Consistency-Are the same names/callouts used throughout the documents?
- Graphic Quality/Consistency-Is the set readable at half size? Does each sheet have the same font, poché, line weights, etc.? Do pochéd/shaded areas and dashed lines match the legend?


## ARCHITECTURAL DQC CHECKLIST SUBMITTAL PHASE:

100\% Civil Submittal Package

$\qquad$ Long-Lead Submittal Package
___ 100\% Foundation Submittal Package 60\% Interim (OTS) 100\% Final

## SUBMITTAL INCLUDES:

$\qquad$ EPDF (Dining Facility)
$\qquad$ UEPH (Barracks)
$\qquad$ LSB (Storage)
$\qquad$ Roads/Utilities

## CHECKED BY:

Name $\qquad$
Company

## Discipline

## Drawing Set

$\qquad$ Are all the sheets and details required by this project included in the set?

## Title Sheet

$\qquad$ Project Team - Confirm information is complete and spelling correct
$\qquad$ Drawing Index - Confirm sheet names, numbers, and order matches drawing index

## ___ Vicinity Map - Confirm inclusion

____ Abbreviations List - Confirm inclusion of abbreviations used on each sheet
____ Project General Notes - Confirm they are complete and appropriate for project
____ Project Site Address - Confirm it is shown
____ Sheet Dates - Confirm all sheets have the same date
Confirm all sheets state "Interim Set" or "Final Set" or "For Construction" (as appropriate)

## Code Summary Sheet

___ Confirm code summary is complete
Confirm fire-rated assembly location and fire rating are identified

- Confirm fire-rated walls are shown correctly on floor plans
- Confirm fire-rated floor and roof assemblies are shown correctly on sections


## Architectural Site Plan

General

- Confirm North arrow and proper orientation
- Confirm scale is correct

Confirm site plan layout matches civil and landscape plan layout
Confirm building and site improvements are properly dimensioned

- Confirm dimension strings add up to total dimensions
- Confirm dimensions indicate they are to "Face of Wall," "Column Centerline," "Gridline," etc. (as appropriate)
Confirm different types of paving/walkways are shown as graphically distinct Confirm control/construction joint layout in concrete walks/pavement is shown, including details/notes
Confirm cast-in-place concrete curbs, extruded concrete curbs, and wheel stops
are shown and are graphically distinct.
___ Confirm painted striping and traffic marks on pavement are shown and dimensioned
___ Confirm traffic and site signage is shown Confirm concrete retaining walls and other site structures are detailed on structural drawings
___ Confirm retaining walls over four feet high are designed/detailed/stamped by engineer
___ Confirm fire hydrants, fire department connection, post indicator valve, bollards, etc. are shown and match those shown on civil drawings


## Floor Plan

## ____ General

- Confirm North arrow and proper orientation
- Confirm scale is correct
- Confirm floor plan layout and grid lines match layout and grid lines shown on structural, mechanical, and electrical sheets
___ General Notes Review
- Confirm inclusion of note indicating at what point dimensions are taken Legend Review
- Confirm each item is graphically distinct and readable, and descriptions are complete
Dimension Review
- Confirm all exterior walls are dimensioned
- Confirm all interior walls and columns are dimensioned
- Confirm windows and doors are dimensioned
- Confirm dimension strings add up to total dimensions shown Wall Type Review
- Confirm fire-rated wall types match layout and rating of rated walls on code summary sheet
- Confirm mechanical drawings show corresponding smoke/fire dampers in the right walls
- Confirm half-high walls are designed/detailed to resist lateral loads (may need detail for vertical steel tube brace, especially at dead-end walls)

Building and Wall Section Cuts

- Confirm each cut has a corresponding section on the sheet noted
- Confirm sections are cut at each different major building condition/element Detail Bubbles
- Confirm each bubble has a corresponding detail on the sheet noted
$\qquad$ Masonry Exterior Walls
- Confirm overall dimensions and rough openings are to brick module


## Reflected Ceiling Plan

$\qquad$ General

- Confirm North arrow and proper orientation
- Confirm scale is correct
$\qquad$ Legend
- Confirm poché in legend matches poché on plan in scale and appearance
- Confirm similar type ceilings are scheduled (ACT-1, ACT-2, etc.)
- Confirm hard ceiling detail or note type of framing support system
___ Confirm ceiling heights are shown in all rooms/areas
____ Confirm exterior soffits are shown
___ Confirm light layout matches layout shown on electrical drawings
Confirm HVAC grill layout matches layout shown on mechanical drawings


## Roof Plan

____ General

- Confirm North arrow and proper orientation
- Confirm scale is correct

Roofs with Batt Insulation

- Confirm ventilation path above insulation (under deck) between eaves and ridge conforms to code
- Confirm eave and ridge vents are shown/detailed on sections and plans
- Confirm ventilation space and paths are shown on sections
- Confirm roof structural members are deep enough to accommodate insulation depth plus two inches for ventilation space
- Confirm structural drawings do not conflict with or block ventilation path
- Confirm roofing system is noted
- Confirm rigid roof insulation R-value is noted
- Confirm locations of tapered insulation areas are noted and shown Roof Drains
- Confirm drains are shown and detailed
- Confirm rain leader piping is shown on mechanical drawings and matches drain layout
- Confirm overflow drains or through-wall scuppers are shown conforming to code
- Confirm drain and piping are sized to conform to code (request copy of calculations)


## Gutters

- Confirm gutter is graphically shown and noted or included in legend
- Confirm that relationship of downspouts and expansion joints is correctly shown
- Confirm that downspout locations match exterior elevations and storm drain connections shown on civil drawings

Confirm each different roof edge condition is detailed
Asphalt Shingles over Rigid Insulation - Confirm vent space and $5 / 8$-inch T\&G plywood nailer are shown along with adequate screw attachment to roof structure

Confirm a roof access ladder/hatch or stair is shown Confirm that maintenance fall protection system or 42-inch-high parapet is shown (or owner has waived requirement in writing)

## Roof Details

$\qquad$ Confirm details are complete and constructible
$\qquad$ Confirm all details shown are called out on the roof plan
Room Finish Schedule
$\qquad$ Confirm abbreviations are included on title sheet
Confirm stair floor covering is noted
Confirm elevator floor covering is noted

## Confirm doors are numbered correctly

## ____ Confirm all abbreviations are included on title sheet

## Door and Window Details

____ Confirm details are complete and constructible
___ Confirm all details shown are called out on door schedule or exterior elevations Confirm details have enough separation between lines to make them easily readable
____ Confirm details match the floor/wall conditions
Confirm exterior details show primary and secondary weather barriers (sealant, sheet metal, and flexible flashing)
___ Confirm exterior weather-resistant barrier is shown overlapping interior vapor barrier in depth of exterior wall framing

## Exterior Elevations

$\qquad$ Confirm all exterior elevations are shown or noted
___ Confirm bottom of footing line is shown
____ Confirm existing grade is shown
___ Confirm finish grade or top of paving is shown as a solid line and noted Confirm each floor level is shown and noted

Confirm roof line is shown dashed on buildings with parapet walls
Confirm all exterior finishes are referenced
Confirm window or glazing types are shown
Masonry Exterior Walls

- Confirm brick coursing, pattern, and colors are shown
- Confirm doors and windows are sized for masonry module (where appropriate)
- Confirm masonry veneer is not supported on wood framing in any location
- Confirm structural drawings show steel lintel at head of all openings
- Confirm masonry veneer walls show weeps at bottom and vent at top
$\qquad$ Below-Grade Waterproofing
- Confirm sections show below-grade waterproofing


## Building Sections

Confirm vertical dimensions are shown and consistent with dimensions shown on other drawings
___ Confirm floor and roof components are graphically shown and called out Confirm inclusion of fire-rated floor and roof assemblies (where applicable) Confirm building structure allows for fire sprinkler system

## Wall Sections

____ Confirm structure matches what is shown on structural drawings Confirm lateral support for parapet walls is shown on structural drawings Confirm below-grade waterproofing is shown
Confirm sub-grade, capillary break, concrete slab on grade, and vapor retarder are graphically shown and called out
Confirm building insulation (walls, floor overhangs, roofs) is shown and noted (including R -value)
Confirm rigid foundation insulation is shown and noted (including R -value)

## Stair Sections

Wood Stairs (where applicable)

- Confirm structural drawings show stair stringers and landing framing and detail stringer support connections at top and bottom
- Confirm architectural drawings note treads and risers (should be 1 ?-inch plywood treads and $3 / 4$-inch plywood risers glued and screwed to stringers)
- Confirm square or radius nose stair treads are noted (coordinate with requirement of floor covering, if any)
- Confirm drawings call out floor sheathing on landings
- Confirm half-high walls between stairs runs, at landings, and overlooking balconies are properly designed/detailed to resist lateral loads and movement, especially dead-end walls at bottom of stairs (usually need a steel tube to brace laterally)
Pre-Engineered Steel Stairs (where applicable)
- Architectural Stairs Exposed to View - Confirm size and configuration of stair stringers and connections have been detailed/noted with a note advising whether stair is required to free-span between floors or if columns are allowed. Confirm top and bottom of stringers are detailed to terminate for best appearance
- Confirm square or radius nose stair treads are noted (coordinate with
requirement of floor covering, if any)
- Confirm stair tread type is shown (steel pan with concrete infill, steel grating, etc.)
$\qquad$ Handrails
- Confirm both handrails and guardrails are drawn
- Confirm radius returns are shown on ends of all handrails
- Confirm handrails extend 11 inches plus depth of stair tread beyond face of bottom risers and 12 inches past top risers
- Wood Handrails - Confirm each change of direction has a wall bracket shown for proper support
- Handrail Support Brackets (if shown): Confirm brackets are shown for proper support, bottom attachment to handrail, and no more than 5 feet apart for $11 / 2$-inch steel pipe and 4 feet apart for $1 \frac{1}{2}$-inch diameter wood
$\qquad$ Guardrails
- Confirm 42-inch-high guardrails are shown at all locations where drop-off exceeds 30 inches
- Confirm size of largest opening through guardrail will not permit passage of 4-inch sphere
- Confirm guardrails are designed/detailed to resist lateral loads and movement


## Interior Elevations

___ Confirm all finish components are called out
____ Confirm finish components shown match finish schedule
___ Confirm casework is dimensioned for both width and depth Interior Details
____ Confirm details are complete
____ Confirm size and species of finish wood members are called out
Consultant Drawings
____ Confirm each sheet has project name and date matching title sheet
_-_ Confirm each sheet has been stamped and signed by engineer $\qquad$ Confirm North arrow and proper orientation
___ Confirm scale is correct
Confirm site and floor plan layout and grid lines match layout and grid lines

## ARCHITECTURAL/OWNER COORDINATION

$\qquad$ Owner-Furnished Equipment

- Confirm inclusion of list of owner-furnished equipment in Division 1 of specs or in equipment schedule on drawings
- Confirm contractor unloading, installation, connection, coordination are shown (as applicable)
- Confirm floor plans show locations and proper dimensions of equipment
- Confirm backing/support of equipment is shown/specified
- Confirm electrical and mechanical rough-in/service/connections are provided for each piece of equipment
- Low-Voltage Equipment/Systems (phones, data, etc) - Confirm whether wire/cable is required to be plenum rated and advise owner in writing

Owner-Furnished Materials/Finishes

- Confirm owner-furnished materials/finishes are noted on drawings and finish schedule
- OFCI—owner-furnished, contractor-installed
- OFOI—owner-furnished, owner-installed
- Confirm subfloor preparation is noted on drawings and specified


## ARCHITECTURAL/PLUMBING COORDINATION

## Review Requirements:

1. Light table
2. Plumbing and architectural floor plans plotted at same scale
3. Plumbing fixture data sheets (dimensions, features, requirements, mounting options)
4. Best if reviewed in meeting with mechanical and structural engineers

Background Plan - Confirm plumbing floor plan background matches latest architectural floor plan

Plumbing In/Under Floors

- Floor Cleanouts - Confirm cleanout locations shown are easily accessible and do not conflict with casework, equipment, or furniture layout
- Floor Drains
- Confirm drain is located in center of area to be drained or as required to allow uniform floor slope
- If floor slope is required, confirm slope is shown on architectural floor plan
- Confirm each type/style of floor drain body and grate is consistent with use of the space and specified floor covering
- Floor Drains in Waterproof Floor Assemblies - Confirm floor drain body has mechanical clamping ring and/or wide flange to allow permanent means of connecting waterproof membrane to drain for leak-free attachment (membranes under tile setting bed or topping slab require seepage holes in drain body)
- Confirm drains do not coincide with floor joists, beams, or bearing walls
- Confirm depth of drain and plumbing trap will fit into floor framing space
- Waste, Vent, and H/C Water Piping in Framed Floors - Confirm piping is shown running parallel to framing or framing is open web to allow piping to pass through
- Confirm floor sinks are not located in fire-rated floors or are approved by building official for installation in fire-rated assemblies
Plumbing in Walls
- Confirm wall depths are adequate to receive plumbing pipes (waste, vent, and $\mathrm{H} / \mathrm{C}$ water)
- 4 -inch waste requires 512 -inch stud; back-to-back fixtures require $51 / 2$-inch stud
- 3 -inch cast-iron waste requires 4 -inch stud; back-to-back fixtures require 6 -inch stud
- 3 -inch plastic waste requires $3 ½$-inch stud; back-to-back fixtures require 6 -inch stud
- 2-inch waste and back-to-back fixtures require $31 / 2$-inch stud
- Confirm wall/chase depths are adequate to receive concealed fixture carriers (wall-hung toilets, lavs, service sinks, and urinals)
- Confirm back-to-back gang toilet rooms have common chase wall between with space between studs for waste and insulated water piping to cross
- Confirm wall depths are adequate to receive rain leader piping (pipe O.D. plus 1 inch for insulation)
- 6 -inch pipe requires $7 \frac{1}{2}$-inch stud
- 4 -inch pipe requires $51 / 2$-inch stud
- 3 -inch pipe requires $51 / 2$-inch stud
- 2 -inch pipe requires $31 / 2$-inch stud
- Waste Risers - Confirm riser locations do not conflict with beams, joists, or rim joists
- Wall Cleanouts - Confirm wall cleanouts are easily accessible and not located behind casework, equipment
- Freeze-Proof Hose Bibbs - Confirm these are shown in wall deep enough to receive ( 12 -inch minimum depth) or at intersecting wall
- Confirm water main risers are not located in exterior walls or cold attics


## $\qquad$ <br> Plumbing in Attic/on Roof

- Confirm plumbing roof plan shows roof drains in same location as architectural roof plan
- Confirm roof drains do not coincide with roof joists, beams, or bearing walls
- Confirm roof drain leader piping is size required by roof drainage calculations/code
- Confirm roof overflow drains terminate at visible location and are not tied into rain leaders
- Confirm detail for support of gas piping on roof is acceptable to roofing membrane manufacturer
- Confirm plumbing vents are not located in valleys or near air intakes on HVAC equipment
- Confirm water piping is not shown in cold attic (above insulation)

Sinks

- Confirm sinks shown on plumbing plan are in same place as shown on architectural plan
- Confirm counters are deep enough to accept sink size without cutting out supports


## STRUCTURAL/HVAC COORDINATION

## Review Recommendations:

1. Light table (BIM overlay at 100 percent)
2. HVAC and structural floor plans plotted at same scale
3. Equipment data sheets (dimensions, weights, access requirements, mounting options)
4. Best if reviewed in meeting with mechanical and structural engineers

## $\qquad$ <br> Equipment Support (Overlay structural framing plan over HVAC plan.)

- Locate each piece of HVAC equipment - Does structural plan show proper location and weight of equipment?
- Mounting Method - Does method shown on HVAC drawings agree with and work with structural framing shown (curb, sleeper, concrete slab, suspended, pedestal)?

Clearance above Ceilings (Overlay structural framing plan over HVAC plan.)

- Locate structural beams/headers
- Do duct heights that cross under these beams/headers allow for ceiling height(s) shown?
- Do any beams/headers conflict with HVAC equipment locations or required installation and access clearances?
- Locate largest sections of ductwork - Is there adequate space above ceiling to fit largest ducts below the structure?
- Does bottom of duct elevation allow room for thickness of duct insulation?
- Does bottom of duct elevation allow room for thickness of fireproofing on beams (if applicable)?
- Does bottom of duct elevation allow room for removal of ceiling tile in lay-in ceilings?
- Does bottom of duct elevation allow room for plumbing pipes?
- Does bottom of duct elevation allow room for fire sprinkler piping?
- Does bottom of duct elevation allow room for electrical conduit?
- Does bottom of duct elevation allow room for recessed lights?

Openings in Structure (Overlay structural plan over HVAC plan.)

- Exterior Walls - Do structural plan and HVAC drawings agree on location of openings?
- Does structural plan give details and/or criteria for ducts passing through exterior walls?
- Confirm opening sizes shown on HVAC do not exceed size limitations shown on structural plan
- Confirm additional reinforcing or framing members are shown at jambs of openings
- Bearing Walls - Do structural and HVAC drawings agree on location of openings?
- Does structural plan give details and/or criteria for ducts passing through bearing walls?
- Do beams/headers over openings leave enough room for duct sizes shown?
- Confirm opening sizes shown on HVAC do not exceed size limitations shown on structural plan
- Confirm additional reinforcing or framing members are shown at jambs of openings
- Shear Walls - Do structural plan and HVAC drawings agree on location of openings?
- Does structural plan give details and/or criteria for ducts passing through shear walls?
- Confirm opening sizes shown on HVAC do not exceed size limitations shown on structural plan
- Confirm additional reinforcing or framing members are shown at jambs of openings
- Floor and Roof Structure - Do structural plan and HVAC drawings agree on location of openings?
- Confirm structural framing plan shows each of the required HVAC openings
- Confirm opening sizes shown on structural framing plan agree with duct sizes shown on HVAC (including duct insulation and fire/smoke damper mounting requirements)
- Does structural plan give details and/or criteria for reinforcing/framing around openings?


## DrChecks DESIGN REVIEW AND CHECKING SYSTEM

DrChecks is the government system by which all design review is managed. The system allows all contractor, designer, and government personnel to review a design, including design analysis, etc., and make comments in writing. This Web-based system works very well, and its use is mandatory for all government projects.

The contractor and designer must understand how this process can help or hurt them. The contractor can post review comments about the design on DrChecks just as the government can; however, contractors seldom do this and instead usually confer with the designer. The government reviewers seldom understand the requirements of the RFP or the proposal and often post comments that are in conflict with them.
Both you and your designer must be cognizant of comments that deviate from the RFP and proposal requirements because if you "concur" with the comments, you are acknowledging that this is a contract change and that you agree to perform the additional work at no extra charge to the government. You must be thorough in reviewing the comments prior to agreeing to them. And remember that only the CO may make a change to the contract.

## Procedures

As the contractor, you must develop and maintain effective, acceptable design configuration management (DCM) procedures to control and track all revisions to the design documents from after the interim design submittal through submittal of the asbuilt documents. During the design process, DCM procedures will facilitate and help streamline the design and review schedule. After the final design is accepted, they will provide control of any documented revisions to the accepted design. (See Special Contract Requirement: Deviating from the Accepted Design.) The system must include appropriate authorities and concurrences to authorize revisions, including documentation as to why the revision must be made. The DCM data should be available to the government reviewers at all times. You may use your own internal system with interactive government concurrence where necessary or use the government's DrChecks Design Review and Checking System.

## Tracking Design Review Comments

Although you may use your own internal system for overall DCM, you and the government will use the DrChecks Design Review and Checking System to initiate, respond to, resolve, and track government design compliance review comments. This system might also be useful for other data that needs to be interactive or otherwise available for shared use and retrieval. An attachment to the contract will detail how to establish an account and set up the DrChecks system. Note: The design review comments
must all be closed out before the government will approve the "design complete" documents.

## PRELIMINARY CONSTRUCTION/DESIGN PROGRESS SCHEDULE

The Preliminary Construction/Design Progress Schedule is generally required by section 013201 of the contract, and it must include all contractor-planned operations for the first 90 calendar days. It must also be cost-loaded so as to balance the contract award CLINs shown on the price schedule. The cost loading of the schedule satisfies the requirement for the "Schedule of Prices" and will be used for future invoices. This is important because if the CLINs are not added into the schedule properly, the government's Resident Management System/Quality Control System (RMS/QCS) will reject them and will not allow an invoice. Be aware that the cost loading will probably skew the actual work schedule. Updated schedules may be submitted at any time, but they must be approved by the CO. All required submittals and approvals should be shown in this schedule. Allow only the minimum time for the government to approve the various items because this could later prove that a compensable delay is warranted. All design packages should be included in this schedule, as well as any anticipated fasttrack activities. This schedule must be submitted within 15 days after "Notice to Proceed" (NTP).

The initial project schedule submittal must include the entire construction sequence and all fast-track construction activities. It must be more detailed than the preliminary project schedule and must be submitted within 42 days after the NTP.

The design package schedule submittal is a FRAGNET (fragmented network analysis) schedule extracted from the preliminary, initial, or updated schedule. It covers the activities associated with that design package, including construction, procurement, and permitting activities. This schedule will be included in the preliminary construction progress schedule and the initial project schedule.
The progress schedules are among the most important documents you will have, and they should be treated as such. The government is highly trained on how to read and interpret them, so they will be scrutinized carefully.

## FAST-TRACKING

Fast tracking is the process whereby construction is started while design is still in progress. This has become a key component of the federal design-build process because it can shorten the time required to turn the facility over to the end user.

The USACE uses design-build for the following reasons:

- Part of transformation goals and objectives
- Maximizes flexibility in design solution to meet cost and time goals
- Reduces facility costs by 20 percent from those using existing acquisition methods and criteria
- Performance-based design criteria
- Shortens time for construction-no longer than 18 months
- Fast-tracking and streamlined contract execution procedures are incorporated
- Leverages industry standards and practices.

A model design-build RFP can be found at ftp.usace.army.mil/pub/hqusace.

## Fast-Track Construction

Fast-track construction is encouraged for all government design-build contracts. The obvious advantage is that concurrent construction and design will save time. The design of work that is fast-tracked should be started first. Doing so requires:

- The fast-track design package must be identified early.
- The initial schedule must clearly show the fast-track design and all associated construction activities.
- Any required permits must be obtained.
- All preconstruction plans must be submitted and approved.
- The fast-track design period will have to be short to allow for the review process. Generally the minimum time for design, including reviews, is 60 to 90 days.
- The design must be carefully reviewed to ensure it meets RFP, proposal, and code requirements. This is critical because government design reviewers do not have an obligation to determine whether the design meets these requirements; however, government field personnel catch many violations, which can cause a lot of extra money to be spent for corrections.


## UNDERSTANDING MILITARY-SPECIFIC CODES

Each RFP contains a section showing both the industry and military criteria. Most design and construction firms are familiar with the industry criteria or codes but are new to the requirements of the military criteria or codes.

Most industry criteria/codes are relatively straightforward, and if references are used, they generally refer to other parts of that particular code. Military criteria, however, usually refer, within a specific technical guide or manual, to numerous other codes, manuals, or technical guides. An example is Technical Guide for Installation Information Infrastructure Architecture (I3A). This technical guide has six pages of references.

Remember that "the devil is in the details." The designer must be totally familiar with the references and requirements and how they pertain to the project. Quite often a simple term such as telecommunications room versus telecommunications closet can significantly alter which references are used.

The designer should not depend on government design reviews to identify the problem areas. If you are unsure about anything in a technical manual or a reference requirement, put the question in writing and submit it formally through the RFI process. This will make the answer an accepted part of the design and eliminate problems during construction. The government design reviewers are not the same people who will manage the construction for the government, and they do not necessarily see things in the same way.

Precedence: In the event of a conflict between references and/or applicable military criteria, the most stringent requirement will apply, unless otherwise noted in the contract. The version in effect at the time of the award will be used throughout the period of the contract unless the contract is formally modified by the CO to include the latest version. The designer should make every effort to refrain from referencing military criteria on the plans and in the specifications. No one in the field will be as familiar as the designer with these criteria. It is recommended that the requirements of the military criteria be clearly shown on the plans and in the specifications.

## ANTI-TERRORISM/FORCE PROTECTION (AT/FP) REQUIREMENTS

The AT/FP Requirements were mandated by DoD 2000.16, DoD Antiterrorism Standards, and they are mandatory for all DoD projects. These requirements are in UFC 4-010-01, DoD Minimum Antiterrorism Standards for Buildings, and UFC 4-023-03, Design of Buildings to Resist Progressive Collapse. The requirements are an attempt to minimize damage to government facilities and life from a terrorist attack. These manuals include all items for AT/FP, from standoff distances to progressive collapse to windows and airborne contamination. Various levels of protection are required depending on the facility classification.

UFC 4-010-01 and UFC 4-023-03 have many reference document requirements. The designer must pay special attention to these requirements during design development and needs to be aware that they also add significantly to the cost of construction; allowances must be made for this during proposal/price preparation. Also, many of
these materials, such as windows and doors/frames, can have unusually long delivery times. Even items like landscaping will be affected by these requirements.

## LEED

The design-build projects currently being solicited by the government all require that a contractor meet the "silver" rating (as a minimum) established by the U.S. Green Building Council (USGBC). Currently, LEED v2.2 is required for LEED documentation.

As the contractor, you must assign a LEED-accredited professional who is responsible for tracking LEED planning, performance, and documentation for each LEED credit through construction closeout. Incorporate LEED credits in the plans, specifications, and design analyses. Develop LEED supporting documentation as a separable portion of the design analysis and provide it with each required design submittal. Include a separate LEED project checklist for each nonexempt facility. (One checklist may be provided for multiple facilities in accordance with the LEED-NC Application Guide for Multiple Buildings and On-Campus Building Projects and the LEED v2.2 Documentation Requirements and Submittals Checklist.) Final design submittal for each portion of the work must include all required design documentation relating to that portion of work (for example, all site credit design documents with final site design). The submittal requirements are indicated in the LEED v2.2 Documentation Requirements.

Submit all documentation and, if applicable, the USGBC Design Phase Review ruling at final design. (For fast-track projects with multiple final design submittals, this will be at the last scheduled final design submittal.) All project documentation related to LEED must conform to USGBC requirements for both content and format, including audit requirements, and must be separate from other design analyses. You must maintain and update the LEED documentation throughout the project process. The designers of record must prepare and present the LEED documentation, along with the calculations and other data necessary to substantiate and support all design documents submitted.

The LEED requirements require that both the construction and design phase be documented. You must assign a management team member to collect all documentation for the construction from all subcontractors, vendors, and suppliers. It is highly recommended that this requirement be made a part of each individual subcontract and purchase order. The final submittal of the LEED documentation must be reviewed and approved by the DOR before it is submitted to the government.

## PROCEDURE FOR OBTAINING VARIANCES AFTER DESIGN IS COMPLETE

The approval of the designer of record is required for extensions of design; critical materials; any deviations from the solicitation, the accepted proposal, or the completed design; equipment whose compatibility with the entire system must be checked; and
other items as designated by the CO. In terms of the contract clause entitled "Specifications and Drawings for Construction," the specifications and drawings are considered "shop drawings." The DOR must ensure that submittals conform to the solicitation, accepted proposal, and completed design; however, see below for those submittals proposing a deviation to the contract or substitution of a material, system, or piece of equipment identified by manufacturer, brand name, or model description in the accepted contract proposal.
Government concurrence, as well as DOR approval, is required before you may proceed with any proposed deviation to the completed design that still complies with the solicitation and accepted proposal. The government may non-concur with any deviation to the design, which could impact furniture, furnishings, equipment selection, or operations decisions made on the basis of the reviewed and concurred design.

Unless prohibited or provided for elsewhere in the contract, where the accepted contract proposal named products, systems, materials, or equipment by manufacturer, brand name, and/or model number or other specific identification, and you desire to substitute a manufacturer or model after award, you must submit a requested substitution or deviation for government concurrence. The submittal should include substantiation, identifying information, and the DOR's approval, specifying that the substitute/deviation meets the contract requirements and is equal in function, performance, quality, and salient features to that in the accepted proposal.

Government approval is also required for any deviations from the solicitation or accepted proposal that might constitute a change to the contract terms or any item specifically designated as requiring government approval in the solicitation for internal and external color finish selections and other items as designated by the CO.

The Designer of Record/Contractor RFI process, sometimes called a Design Clarification Request (DCR), must be initiated any time you want to deviate from the solicitation (RFP), the accepted proposal, or the completed design. The DOR must approve the deviation before it may be forwarded to the government for either concurrence or approval as necessary. The requested deviation should be submitted to the government using the RFI process through QCS. (QCS is the government-furnished "Construction Contractor Module" of the government's RMS program.) It should be submitted by the CQC manager after his or her approval, and the DOR approval must accompany the submittal. As the contractor, you may not commence any deviation work until the submittal is approved.

You should set up a system to track all DCRs because numerous DCRs will be generated as the construction progresses.

|  | Project: |
| :---: | :---: |
| Design Clarification Request |  |
| To: | DCR No.: <br> Requested By: <br> Date Requested: <br> Date Required: |
| Attn.: |  |
| DCR Subject: Spec. Sect.: Drawing Ref.: | Potential Cost Impact <br> - Potential Schedule Impact |
| Information Requested: |  |
|  |  |
| Signed By: | Date: |
| Response: |  |
| Signed By: | Date: |

## 5

## Quality Control

> Contract Quality Control Requirements
$>$ Contractor Quality Control Plan (CQCP)
> Preconstruction Submittals
> Submittal Register

- Three-Phase Quality Control Program
„ Preparatory Phase
„ Initial Phase
» Follow-up Phase
» Additional Preparatory and Initial Phases
Quality Control Manager's Qualifications and Certification
> Inspector's Qualifications
-RMS/QCS
This chapter details the contractor quality control (CQC) requirements that you can expect to have to adhere to in a federal government construction contract. The requirements for an individual solicitation can vary widely, so special attention must be given to the contract clause that contains these requirements. The requirements, processes, and personnel qualifications shown in this section are based on a large design-build project.

The objectives of this chapter are to demonstrate the requirements of the federal government's mandated CQC system; clarify the requirements for the CQCP and submittal register; familiarize you with the federal government's three-phase quality control process; detail the qualifications normally required for the CQC manager and specialty inspectors; and acquaint you with the requirements and use of the U.S. Army Corps of Engineers' RMS/QCS.

## CONTRACTOR QUALITY CONTROL REQUIREMENTS

The government does not perform quality control but instead performs quality assurance. This means that government personnel monitor the contractor quality control program and not the construction. The government monitors a project for compliance to the RFP, the proposal, and the final design documents.

Government contracts require contractor quality control, with the level of quality control determined by the size and complexity of the project. The requirement might range from simple oversight for a small, non-complex project to extensive plans and inspections for large, complex projects. FAR clause 52.246-12, Inspection of Construction, is generally included in each contract (see Chapter 7); a separate section, usually section 014504 , further defines the CQC requirements.

You will be responsible for quality control and must establish and maintain an effective quality control system. The quality control system will consist of the plans, procedures, and organization necessary to produce an end product that complies with the contract requirements. The system will cover all construction design and construction operations, both on-site and off-site, and will be keyed to the proposed design and construction sequence. The government requires that the site project superintendent be responsible for the quality of work on the job, but there might also be a requirement for a CQC manager and/or individual specialty inspectors. Normally the contract will require that the CQC team report to the site project superintendent.

The CQC system is the means by which project quality is ensured and tracked, and it is headed by the CQC system manager. The U.S. Army Corps of Engineers uses RMS/QCS for all CQC required documentation, including submittals, RFIs, reports, tests, daily reports, schedules, the three-phase inspection program, transmittals, man-hour reports, deficiency tracking, payments, etc. Other agencies use other systems; however, they are very similar in requirements, which extend to the tracking of submittals, testing, inspections, punch lists, and certifications.

This system also pertains to DQC (see Chapter 4), but the design group must employ a separate ITR team.

## CONTRACTOR QUALITY CONTROL PLAN (CQCP)

As the contractor, you must prepare a quality control plan within 30 days after the notice to proceed and furnish it to the government for approval in accordance with sections 014500 and 013300 of the RFP. This plan is critical for the government to allow operations to begin.

The CQCP is arguably the most important plan that will be developed, and it is the basis for all quality control actions under the contract. This plan is very detailed and must be very complete. The contract requires a DQCP as part of the CQCP and allows interim CQCPs, but work outside the features of work included in an accepted interim plan will not be permitted.
The use of interim plans here is highly recommended because it will allow both design demolition and fast-tracking to begin.

The government considers this plan to be of high importance and monitors compliance with it very carefully.

The following is an outline of what is generally required in a CQCP.

## CONTENTS OF CONTRACTOR QUALITY CONTROL PLAN (Section 0145 00)

 Introduction1. CQC Organization
a. Organization structure narrative
b. Org chart
c. Acknowledgement of three-phase system
2. Resumes
a. CQC systems manager
b. CQC systems manager - alternate
c. Specialized areas
i. Civil
ii. Mechanical
iii. Electrical
iv. Structural
v. Plumbing
vi. Concrete
vii. Testing, adjusting, and balancing
viii. Fire protection
3. Authorization Letters
a. Letter to the CQC systems manager regarding delegation of duties and authorities
b. CQC system manager's letters of direction to specialized personnel
4. Submittal Management
a. System narrative
b. Documentation
5. Testing Procedures
a. System narrative
b. Documentation
6. Three Phases of Control
a. System narrative
b. Documentation

## 7. Deficiencies

a. System narrative
b. Documentation
8. Reporting
a. System narrative
b. Documentation
9. Definable Features List

## PRECONSTRUCTION SUBMITTALS

A number of preconstruction submittals usually must be approved by the government prior to starting work. The following preconstruction submittals are generally required by section 013300 of the contract. The contract will state which of these must be submitted and when.

- Certificate of insurance
- Surety bonds
- List of proposed subcontractors (might already be listed in the proposal)
- List of proposed products (might already be listed in proposal)
- Construction progress schedule

■ Submittal register
■ Schedule of prices

- Accident prevention plan
- Work plan
- Quality control plan

■ Environmental protection plan.

## SUBMITTAL REGISTER

Two types of submittal registers may be used in a government contract. The first is for a fully designed project that does not require any additional design (design-bid-build type); the other is for a design-build project that requires full design. The first type will
require only that you submit all documents in accordance with the submittal items identified and at the times required. You need to be aware that these documents must be approved by the CQC manager prior to submitting them to the government for approval and that they might take an extreme amount of time ( 30 days) to be approved. Submittals that are disapproved might need to go through the entire approval process again, and that could take another 30 days. I recommend that you keep accurate records as to when submittals were sent to the government and when they were returned and document any impact delays might cause. The courts have held that tardiness by the government in returning submittals is not justification for a claim unless the tardiness causes the contractor harm.
The initial submittal register is required by section 013300 of the design-build contract, and it must be submitted within 15 days after notice to proceed. It must include as a minimum the design packages and other initial submittals required elsewhere in the contract. The government requires specific plans, schedules, etc., to be submitted for approval, and therefore they must be included in the submittal register. However, the remainder of what needs to be submitted is the prerogative of your design-build team. The DOR should identify required submittals in the specifications and include them in the final submittal register. To further complicate matters, the submittal register also serves as a scheduling document for submittals and will be used to control submittal actions throughout the contract period. The submit dates and need dates used in the submittal register must be coordinated with the project schedule.

The submittal requirements of the plans and specifications should be limited to only those required to ensure compliance with the RFP/proposal, mitigate your liability, and ensure the quality of the final product. Superfluous submittal requirements should be eliminated.

Submit and need dates entered into the project schedule need to be carefully thought out and then entered. Use the 15 -day minimum time frame between the submit and need dates and stick to these dates. This is important because federal case law does not recognize specific time frames for review, e.g., 7 or 15 days, but instead recognizes whether the excessive review period caused a delay. Delays are common, especially during the design phase, because some reviewers have trouble closing out comments. This impact must be documented and clearly shown on the updated schedule.

The submittal register will be developed and maintained on the government's RMS/QCS. It must be submitted both electronically and in hard copy.

## THREE-PHASE QUALITY CONTROL PROGRAM

The three-phase quality control program, required by section 014500 of the contract, is used by all government agencies. It is the means by which you will ensure that the
construction, including that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control will be conducted by the CQC system manager for each definable feature of the construction work-the preparatory phase, the initial phase, and the follow-up phase.

## Preparatory Phase

This phase is performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase includes:

- A review of each paragraph of applicable specifications, reference codes, and standards, with a copy of those sections applicable to that portion of the work to be accomplished in the field made available to you at the preparatory inspection. These copies must be maintained in the field and available for use by government personnel until final acceptance of the work.
- A review of the contract drawings.
- A check to ensure that all materials and/or equipment have been tested, submitted, and approved.
- Review of provisions made to provide required control inspection and testing.
- Examination of the work area to ensure all required preliminary work has been completed and is in compliance with the contract.
- A physical examination of required materials, equipment, and sample work to ensure they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- A review of the appropriate activity hazard analysis to ensure safety requirements are met.
- Discussion of procedures for controlling quality of the work, including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- A check to ensure the portion of the plan for the work to be performed has been accepted by the CO.


## Initial Phase

This phase must be accomplished at the beginning of a definable feature of work. The following must be accomplished:

- Check work to ensure it is in full compliance with contract requirements. Review
minutes of the preparatory meeting.
- Verify adequacy of controls to ensure full contract compliance. Verify required control inspection testing.
- Establish level of workmanship and verify it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- Resolve all differences.
- Check safety, including compliance with and upgrading of accident prevention plan and activity hazard analysis. Review activity analysis with each worker.

The initial phase should be repeated any time acceptable specified quality standards are not being met.

## Follow-up Phase

Daily checks should be performed to ensure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. These checks should be made a matter of record in the CQC documentation. Final follow-up checks should be conducted and all deficiencies corrected prior to the start of additional features of work that might be affected by the deficient work. As the contractor, you should never build on or conceal non-conforming work.

## Additional Preparatory and Initial Phases

Additional phases should be conducted on the same definable features of work if the quality of ongoing work is unacceptable; if there are changes in the applicable CQC staff, on-site production supervision, or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop. A "definable feature of work" is "a task that is separate and distinguishable from other tasks."

## QUALITY CONTROL MANAGER'S QUALIFICATIONS AND CERTIFICATION

The CQC system manager's qualifications and certification are required by section 0145 00 of the contract, which states that he or she will be an individual within the onsite work organization who will be responsible for overall management of CQC and have the authority to act in all CQC matters for you as the contractor. The CQC system manager usually must be a graduate engineer, a graduate architect, a graduate of construction management, or an engineering technician with at least two years of college and an International Code Council (ICC) certification as a commercial building
inspector (residential building inspector certification is required for military family housing projects), with a minimum of five years of construction experience on construction similar to the current contract. However, this requirement is sometimes waived if the proposed CQC system manager has a certain amount of experience.

The CQC system manager should be on the site at all times during construction, be employed by the prime contractor, and be assigned no other duties. An alternate for the CQC system manager must be identified in the plan to serve in the event of the CQC manager's absence. The requirements for the alternate should be the same as those for the designated CQC system manager, but he or she may have other duties in addition to serving in a temporary capacity as the acting CQC manager.

In addition to the above experience and education requirements, the CQC system manager must have completed the course entitled "Construction Quality Management for Contractors." This course is required for any person who will oversee a CQC program. Because people get sick, go on vacation, or quit unexpectedly, you should have several people at the site who have at least taken the "Construction Quality Management for Contractors" course. Quite often, Associated General Contractors offers the course.

## INSPECTOR'S QUALIFICATIONS

The contract (section 014505 ) will quite often require specialized CQC personnel to perform QC activities, such as witnessing tests or performing inspections. The requirements and CQC personnel qualifications follow.

In addition to CQC personnel specified elsewhere in the contract, you as the contractor need to provide as part of the CQC organization specialized personnel to assist the CQC system manager in the electrical, mechanical, plumbing, civil, structural, environmental, and architectural areas. These personnel may be employees of the prime or subcontractor and may be responsible to the CQC system manager. They are not intended to be full-time, but they must be physically present at the construction site during work in their areas of responsibility. They also must have the necessary education and/or experience in accordance with the experience matrix provided here. These persons may perform other duties but must be allowed sufficient time to perform their assigned quality control duties as described in the QC plan. One person may cover more than one area, provided he or she is qualified to perform QC activities for the designated areas below and has adequate time to perform these duties.

## EXPERIENCE MATRIX

- Civil-Graduate civil engineer or construction manager with four years of experience in the type of work being performed on this project or engineering
technician with five years of related experience.
- Mechanical-Graduate mechanical engineer or construction manager with four years of related experience or engineering technician with an ICC certification as a commercial mechanical inspector with five years of related experience.
- Electrical-Graduate electrical engineer or construction manager with four years of related experience or engineering technician with an ICC certification as a commercial electrical inspector with five years of related experience.
- Structural-Graduate structural engineer or construction manager with four years of related experience or person with an ICC certification as a reinforced concrete special inspector and structural steel and bolting special inspector (as applicable to the type of construction involved) with five years of related experience.
- Plumbing-Graduate mechanical engineer or construction manager with four years of related experience or person with an ICC certification as a commercial plumbing inspector with five years of related experience.
- Concrete, Pavements, and Soils Material Technician (present while performing tests)Two years of experience for the appropriate area.
- Testing, Adjusting and Balancing (TAB) Specialist-Must be a member of American Association of Air Balance Council (AAABC) or an experienced technician of the firm certified by the National Environmental Balancing Bureau (NEBB) (present while testing, adjusting, and balancing).
- Design Quality Control Manager-Registered architect or professional engineer (not required on the construction site).
- Registered Fire Protection Engineer-Four years of related experience.

Even though the contract states that the specialized CQC personnel must be physically present at the work site during the work in their areas of responsebility, the government will usually agree that the specialized CQC person needs to be present only for specific tests and inspections. Usually these tests and inspections will have to be clearly shown in the schedule and in the CQCP. It is also recommended that a professional inspection company be employed to provide specialized inspection services.

## RMS/QCS

The use of RMS/QCS for USACE contracts is required by section 014502 of the contract. QCS is a Windows-based program that can be used on a stand-alone personal computer or on a network. It is highly recommended that the software be set up for a network with remote access. RMS/QCS is used for government-contractor electronic exchange of information to facilitate the management and oversight of the project. The use of this system is mandatory for all U.S. Army contracts.

QCS is the government-furnished "Construction Contractor Module" of RMS. You, as the contractor, will use QCS to record, maintain, and submit various information throughout the contract period. The contractor module, user manuals, updates, and training information can be downloaded from the RMS website. QCS provides you with the means to input, track, and electronically share information with the government in the following areas:

- Administration
- Finances
- Quality control
- Submittal monitoring
- Scheduling
- Import/export of data
- Request for information
- Accident reporting
- Safety exposure man-hours.

Some USACE districts offer training on RMS/QCS, but most do not. The user manual and video can be downloaded from the RMS website at https://rms.usace.army.mil.

## 6

## Safety

Safety Program and Safety Plans
> Accident Prevention Plan
> EM 385-1-1 Safety Manual
Contractor and Subcontractor Safety Training Requirements
> Activity Hazard Analysis (AHA)
Environmental Protection Plan
This chapter discusses the requirements for the federal government's safety programs and plans and the required use of the U.S. Army Corps of Engineers safety manual, EM 385-1-1. It is not, however, meant to teach safety; it must be assumed that the contractor is well versed in OSHA requirements. Although EM 385-1-1 is a USACE manual, all the agencies in the federal government normally require its use. Some small projects might be the exception; however, all agencies must follow the OSHA requirements found in 29 CFR part 1910 and 29 CFR part 1926.

The important factor to remember is that state safety requirements do not apply on a federal reservation; however, they may apply if the facility is being built on a property being leased by the federal government for its use, i.e., by the General Services Administration. These requirements are based on the normal requirements for a large design-build project and could vary somewhat for a small project. A small project might require only minimal staffing and safety plans.

The objectives of this chapter are to familiarize you with the safety requirements of a federal government construction contract; help you to comprehend what is required for the safety program, safety plans, accident prevention plan, hazardous material identification, and drug-free workplace; and acquaint you with the requirements for the use of USACE manual EM 385-1-1 and its contractor and subcontractor safety training requirements.

## SAFETY PROGRAM AND SAFETY PLANS

Federal contracts require that the contractor, subcontractors, and vendors comply with 29 CFR part 1910 and 29 CFR part 1926 for safety. This means that all contractors must comply with OSHA guidelines. In addition, FAR clause 52.236-13, Accident Prevention, requires compliance with not only OSHA regulations but also the USACE Safety and

Health Requirements Manual, EM 385-1-1, if the requirement is included in the contract. You will have to develop an accident prevention plan in accordance with EM 385-1-1. Appendix A of that manual details the "Minimum Basic Outline for Accident Prevention Plans." This plan must be a site-specific plan and must interface with the corporate health and safety program, and a copy of each of these plans must be available at the site. Other appendices will need to be added to the plan as necessary in accordance with the requirements of EM 385-1-1.

The contractor will have to appoint a site safety and health officer at the beginning of each project. The requirements can vary by contract, generally depending upon the size and complexity of the project, but the most prevalent is a Level III site safety and health officer.

The site safety and health officer requirements and qualifications follow.
The contractor must employ a competent person at each project to function as the site safety and health officer (SSHO) in accordance with EM 385-1-1, section 01.A.17. The SSHO should have at least the minimum qualifications listed below.

- A Level III SSHO, whose SSHO duties will be his or her sole, full-time responsibility, should be provided. The SSHO must have, as a minimum:
„Five years of safety work on a similar type of construction
Thirty-hour OSHA construction safety class or equivalent within the last five years
An average of at least 24 hours of formal safety training each year for the past five years

Competent person training as required based on applicability (scaffolds, cranes, fall protection, confined space, or others).

The accident prevention plan will be the basis for all on-site safety requirements. Appendix A of EM 385-1-1 provides the requirements.

FAR Clause 52.236-13, Accident Prevention
As prescribed in 36.513 , insert the following clause:
Accident Prevention (Nov 1991)
(a) The Contractor shall provide and maintain work environments and procedures which will-
(1) Safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities;
(2) Avoid interruptions of Government operations and delays in project completion dates; and
(3) Control costs in the performance of this contract.
(b) For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall-
(1) Provide appropriate safety barricades, signs, and signal lights;
(2) Comply with the standards issued by the Secretary of Labor at 29 CFR Part 1926 and 29 CFR Part 1910; and
(3) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for the purposes are taken.
(c) If this contract is for construction or dismantling, demolition or removal of improvements with any Department of Defense agency or component, the Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation.
(d) Whenever the Contracting Officer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the Contracting Officer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action. This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.
(e) The Contractor shall insert this clause, including this paragraph (e), with appropriate changes in the designation of the parties, in subcontracts.
(End of clause)

As the contractor, you are required by FAR clause 52.223-3, Hazardous Material Identification and Material Safety Data, to list up-front with the proposal any hazardous material that you expect to be used on the project. Identification of the material and material safety data sheets (MSDSs) must also be submitted at the same time. Generally, identification of hazardous materials is seldom done this way because very few of the hazardous materials are known before the proposal is submitted. Even though the CO can declare that a bidder is nonresponsive if the list does not accompany the proposal,
this rarely happens because the CO is then required to determine which hazardous materials were not listed. However, you must prepare a list of all hazardous materials as soon as they become known and promptly make the list available to the CO whenever it is updated.

## FAR Clause 52.223-3, Hazardous Material Identification and Material Safety Data

 As prescribed in 23.303, insert the following clause:Hazardous Material identification and Material Safety Data (Jan 1997)
(a) "Hazardous material," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).
(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material (If none, insert "None") Identification No.
(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.
(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200 (g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.
(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.
(f) Neither the requirements of this clause nor any act or failure to act by the

Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.
(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.
(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:
(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to-
(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;
(ii) Obtain medical treatment for those affected by the material; and
(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.
(2) To use, duplicate, and disclose data furnished under this clause, in accordance with paragraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.
(3) The Government is not precluded from using similar or identical data acquired from other sources.
(End of clause)

A drug-free workplace is a requirement of all federal contracts. FAR clause 52.223-6, Drug-Free Workplace, mandates that the contractor develop and maintain a drug-free awareness program. This clause lists the various requirements for actions that must be taken with employees, what needs to be in the drug-free awareness program postings, and notifications. It is highly recommended that you develop a formal drug-free awareness program and implement random drug testing. The program should include mandatory drug testing after any workplace accident.

## FAR Clause 52.223-6, Drug-Free Workplace

As prescribed in 23.505, insert the following clause:
Drug-free Workplace (May 2001)
(a) Definitions. As used in this clause-
"Controlled substance" means a controlled substance in schedules I through V of
section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11-1308.15.
"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.
"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.
"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract where employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.
"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance. "Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.
(b) The Contractor, if other than an individual, shall-within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration-
(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;
(2) Establish an ongoing drug-free awareness program to inform such employees about-
(i) The dangers of drug abuse in the workplace;
(ii) The Contractor's policy of maintaining a drug-free workplace;
(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and
(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
(3) Provide all employees engaged in performance of the contract with a copy of the statement required by paragraph (b) (1) of this clause;
(4) Notify such employees in writing in the statement required by paragraph (b)(1) of this clause that, as a condition of continued
employment on this contract, the employee will-
(i) Abide by the terms of the statement; and
(ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction;
(5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;
(6) Within 30 days after receiving notice under subdivision (b)(4) (ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:
(i) Taking appropriate personnel action against such employee, up to and including termination; or
(ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and
(7) Make a good faith effort to maintain a drug-free workplace through implementation of paragraphs (b)(1) through (b)(6) of this clause.
(c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.
(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract or default, and suspension or debarment.
(End of clause)

## ACCIDENT PREVENTION PLAN

An accident prevention plan must be submitted and approved prior to any work starting in the field. Although FAR clause $52.236-13$ does not specifically require an accident prevention plan, it references the requirement to use the USACE safety manual, EM 355-$1-1$, which requires an accident prevention plan. Use Appendix A of that manual for the basic outline of your plan.

The plan needs to be submitted as quickly as possible so that demolition and construction can begin. Section 013300 , Scheduling, allows the government a minimum of 15 calendar days to review a submittal, with the usual time being 15 to 30 calendar days. The USACE normally requires changes before it will approve the plan, so the time for approval can take 8 to 10 weeks from initial submittal.

This plan requirement is also a flowdown requirement that must be included in all subcontracts (see FAR 52.236-13 (e)). This requirement mandates that each subcontractor comply with the provisions of EM 385-1-1 but not necessarily provide the prime contractor with an accident prevention plan.

This type of project does not fall under the legal authority of any state's safety and health agency, but it does fall under the rules and regulations of OSHA, so it is highly recommended that all subcontractors provide a hazardous communications plan at a minimum.

## EM 385-1-1 SAFETY MANUAL

The USACE Safety and Health Requirements Manual, EM 385-1-1, is the safety manual required for all government contracts. As noted earlier, the use of this manual is required by FAR clause $52.236-13$, Accident Prevention. All safety requirements for government contracts emanate from this manual. The manual dictates the requirements for all safety and health plans and accident prevention plans, as well as all requirements for safe working environments.

EM 385-1-1 is supposed to follow OSHA requirements very closely; however, it should be noted that there might be some differences. Crane safety, for example, is very strict: The crane must be tested every time it comes onto a military base even though it might be up-to-date with all state certifications and inspections. Whenever a difference exists between EM 385-1-1 and OSHA requirements, EM 385-1-1 is usually stricter.

The "Government Construction Agent" (i.e., USACE), other than OSHA, cannot cite a contractor on a government facility but may only stop the job. Only OSHA has police powers. In addition, the state has no authority on a federal government installation. The manual can be downloaded at www.usace.army.mil/ceso/pages/home.aspx.

## CONTRACTOR AND SUBCONTRACTOR SAFETY TRAINING REQUIREMENTS

The prime contractor is required to conduct indoctrination and training of all new employees and employees new to the site of the work in accordance with EM 385-1-1, paragraph 01. B. Employees must be provided with safety and health indoctrination prior to the start of work, as well as continuous safety and health training to enable them to perform their work in a safe manner. All training and indoctrination must be
documented in writing by date, name, content, and trainer.
Indoctrination and training should be based on the existing safety and health program as outlined in your approved safety and health plan, and it should include (but need not be limited to):

- Requirements and responsibilities for accident prevention and the maintenance of safe and healthful work environments
- General safety and health policies and procedures and pertinent provisions of EM 385-1-1
- Employee and supervisor responsibility for reporting all accidents

Provisions for medical facilities and emergency response and procedures for obtaining medical treatment or emergency assistance

- Procedures for reporting and correcting unsafe conditions or practices
- Job hazards and the means to control/eliminate them, including applicable activity hazard analyses (AHAs)
- Specific training as required by EM 385-1-1.

All workers must attend a weekly toolbox safety meeting. The meeting must be documented in writing, as should the indoctrination briefing. It is highly recommended that you issue a hardhat sticker or some other visible sign.

## ACTIVITY HAZARD ANALYSIS (AHA)

The AHA is required by EM 385-1-1, paragraph 01.A.13, and must be prepared before beginning each work activity presenting hazards not experienced in previous project operations or where a new work crew or subcontractor is to perform the work. The contractor(s) performing that work activity must prepare an AHA. See Figure 1-2 of EM 385-1-1 for an outline of an AHA. An electronic AHA can be found on the HQUSACE Safety Office anticipated hazards, site conditions, equipment, materials, and control measures to be implemented to eliminate or reduce each hazard to an acceptable level of risk. Work may not begin until the AHA for the work activity has been accepted by the government and discussed with all those engaged in the activity, including you as the contractor, subcontractor(s), and government on-site representatives at preparatory and initial control phase meetings.

The names of the competent/quality person(s) required for a particular activity (for example, excavations, scaffolding, fall protection, and other activities as specified by

OSHA and EM 385-1-1) must be identified in the AHA. Proof of their competency/qualifications must be submitted to the government for acceptance prior to the start of that work activity. The AHA will be reviewed and modified as necessary to address changing site conditions, operations, or change of competent/qualified person(s).

All MSDSs for the materials included in the AHA must be attached to the AHA. The government will not allow the particular item of work to start until the AHA has been accepted. All employees who are to perform the work in accordance with the AHA must be made familiar with its requirements.

## ENVIRONMENTAL PROTECTION PLAN

The environmental protection plan must be submitted and approved before commencing any demolition or construction activities. It is required by section 013300 of the contract as a preconstruction submittal and by section 015720 defining the plan requirements. This plan should be submitted as quickly as possible. Contract section 01 33 00, Scheduling, allows the government a minimum of 15 calendar days to review a submittal; the usual time is 15 to 30 days. The USACE normally requires changes before approving the plan, so the time for approval can take eight to ten weeks from initial submittal.

## Contract Clauses

> FAR Clauses by Reference vs. Full Text
> Professional and Consultant Service Costs
> Security
> Liquidated Damages
> Order of Precedence
> Price Evaluation Preferences
> Small Business Subcontracting Plan
„Clause Inclusion and Flowdown
» Recordkeeping
> Davis-Bacon Act (Prevailing Wages)
" General FAR Requirements
„ Who Is Allowed to Work
»Site of the Work
» Wage Determination
„Pay Determination
„Work Hours
„Payrolls and Basic Records
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»Contract Flowdown
> Contract Flowdown
> Buy American Act
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„ Progress Payments
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» Interest Penalty
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„ Who Is Covered by the Miller Act
» Who Is Not Covered by Payment Bonds
Getting a Copy of the Contractor's Bond
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Coverage for Taxes in the Performance Bond
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> Differing Site Conditions
> Site Investigations and Conditions Affecting the Work
> Use and Possession Prior to Completion
> Schedules
> Suspension of Work
> Changes
> Government-Furnished Property
> Inspection of Construction
> Warranty of Construction
> Value Engineering
> Default
> Indian Incentive
> Government Rights
> Levies on Contract Payments
This chapter is designed to acquaint you with the most generally used and important Federal Acquisition Regulation (FAR) clauses that might be found in a solicitation. The list in this chapter is not intended to be a complete listing because there are far too many clauses for the scope of this book.

The objective of this chapter is to detail the meaning of each FAR clause and discuss how
and when each should be used. This will empower you with the knowledge to understand your rights under federal law and thus protect yourself whenever a challenge from the federal government arises. A clear understanding of these clauses will greatly help you to avoid claims situations. It will help you to file the proper documentation and give the necessary notifications to the government in order to protect your rights.

## FAR CLAUSES BY REFERENCE VS. FULL TEXT

The FAR clauses for a contract/RFP are listed as "Clauses by Reference" or "Clauses by Full Text." Some contracts/RFPs have only clauses by full text. Clauses by reference are inserted into the contract/RFP by FAR number and name only, while clauses by full text are inserted using the full written text of the clause. Most people think that just because the text is fully written, it has more meaning or takes precedence over a clause by reference. This is not the case. Reference clauses and full-text clauses are equal in importance except when a clause specifically allows precedence of a clause by full text over a clause by reference.

You should be aware that many FAR and DFARS clauses have references to other clauses and that those clauses might require additional work, notifications, forms, and flowdown requirements that might not be readily apparent. It is recommended that you obtain copies of all FAR and DFARS clauses referenced in the contract/RFP. They can be downloaded at http://acquisition.gov/farandatwww.acq.osd.mil.

## FAR Clauses by Reference vs. Full Text

- P.L.-Public Law, i.e. 92-500. Laws passed by Congress and signed by the president.
- U.S.C.-The United States Code is the codification by subject matter of the general and permanent laws of the United States. It is divided by broad subjects into 50 titles and published by the Office of the Law Revision Counsel of the U.S. House of Representatives. Since 1926, the U.S.C. has been published every six years. Between editions, annual cumulative supplements are published to present the most current information (e.g., 2 U.S.C. 661).
- CFR-The Code of Federal Regulations is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government. It is divided into 50 titles that represent broad areas subject to federal regulation. Each volume of the CFR is updated once each calendar year and issued on a quarterly basis.
- FAR-The Federal Acquisition Regulation is the implementation of rules for the acquisition of contract services for the federal government (e.g., 52.213-12).
- DFARS-The Defense Federal Acquisition Regulation Supplement is the DoD supplement to the FAR (e.g., 252.213-7001).


## PROFESSIONAL AND CONSULTANT SERVICE COSTS

These costs are allowable if they meet the criteria set forth in FAR clause 31.205-33, Professional and Consultant Service Costs. Professional and consultant services might need to be used on various construction contracts, such as IDIQ contracts, and quite often they will be required if a contractor is going to file a claim. There also might be a need when a contractor has to prepare a contract modification and a specialty consultant is required. I highly recommend that you keep accurate records to support the use of consultants.

## FAR Clause 31.205-33, Professional and Consultant Service Costs

(a) Definition. "Professional and consultant services," as used in this subsection, means those services rendered by persons who are members of a particular profession or possess a special skill and who are not officers or employees of the contractor. Examples include those services acquired by contractors or subcontractors in order to enhance their legal, economic, financial, or technical positions. Professional and consultant services are generally acquired to obtain information, advice, opinions, alternatives, conclusions, recommendations, training, or direct assistance, such as studies, analyses, evaluations, liaison with Government officials, or other forms of representation.
(b) Costs of professional and consultant services are allowable subject to this paragraph and paragraphs (c) through (f) of this subsection when reasonable in relation to the services rendered and when not contingent upon recovery of the costs from the Government (but see 31.205-30 and 31.205-47).
(c) Costs of professional and consultant services performed under any of the following circumstances are unallowable:
(1) Services to improperly obtain, distribute, or use information or data protected by law or regulation (e.g., 52.215-1(e), Restriction on Disclosure and Use of Data).
(2) Services that are intended to improperly influence the contents of solicitations, the evaluation of proposals or quotations, or the selection of sources for contract award, whether award is by the Government, or by a prime contractor or subcontractor.
(3) Any other services obtained, performed, or otherwise resulting in violation of any statute or regulation prohibiting improper business practices or conflicts of interest.
(4) Services performed which are not consistent with the purpose and scope of the services contracted for or otherwise agreed to.
(d) In determining the allowability of costs (including retainer fees) in a particular case, no single factor or any special combination of factors is necessarily determinative. However, the contracting officer shall consider the following factors, among others:
(1) The nature and scope of the service rendered in relation to the service required.
(2) The necessity of contracting for the service, considering the contractor's capability in the particular area.
(3) The past pattern of acquiring such services and their costs, particularly in the years prior to the award of Government contracts.
(4) The impact of Government contracts on the contractor's business.
(5) Whether the proportion of Government work to the contractor's total business is such as to influence the contractor in favor of incurring the cost, particularly when the services rendered are not of a continuing nature and have little relationship to work under Government contracts.
(6) Whether the service can be performed more economically by employment rather than by contracting.
(7) The qualifications of the individual or concern rendering the service and the customary fee charged, especially on non-Government contracts.
(8) Adequacy of the contractual agreement for the service (e.g., description of the service, estimate of time required, rate of compensation, termination provisions).
(e) Retainer fees, to be allowable, must be supported by evidence that-
(1) The services covered by the retainer agreement are necessary and customary;
(2) The level of past services justifies the amount of the retainer fees (if no services were rendered, fees are not automatically unallowable);
(3) The retainer fee is reasonable in comparison with maintaining an inhouse capability to perform the covered services, when factors such as cost and level of expertise are considered; and
(4) The actual services performed are documented in accordance with paragraph ( f ) of this subsection.
(f) Fees for services rendered are allowable only when supported by evidence of the nature and scope of the service furnished (see also 31.205-38(c)). However,
retainer agreements generally are not based on specific statements of work. Evidence necessary to determine that work performed is proper and does not violate law or regulation shall include-
(1) Details of all agreements (e.g., work requirements, rate of compensation, and nature and amount of other expenses, if any) with the individuals or organizations providing the services and details of actual services performed;
(2) Invoices or billings submitted by consultants, including sufficient detail as to the time expended and nature of the actual services provided; and
(3) Consultants' work products and related documents, such as trip reports indicating persons visited and subjects discussed, minutes of meetings, and collateral memoranda and reports.

## SECURITY

This clause requires identity verification for all employees to show that they have a legal right to work in the United States. Base security performs documentation verification when a person requests a base pass; however, the prime contractor is still responsible for all employee identity verification and documentation. You must enroll in the EVerify program within 30 calendar days after contract award if not enrolled already. Once enrolled in the E-Verify system, you will not have to enroll again, and once the employee's background check is completed, he or she will not need to have one completed again.

## FAR Clause 52.222-54, Employment Eligibility Verification

As prescribed in 22.1803, insert the following clause:
Employment Elugibuty Verification (Jan 2009)
(a) Definitions. As used in this clause-
"Commercially available off-the-shelf (COTS) item"-
(1) Means any item of supply that is-
(i) A commercial item (as defined in paragraph (1) of the definition at 2.101);
(ii) Sold in substantial quantities in the commercial marketplace; and
(iii) Offered to the Government, without modification, in the same form in which it is sold in the commercial marketplace; and
(2) Does not include bulk cargo, as defined in section 3 of the Shipping Act
of 1984 ( 46 U.S.C. App. 1702), such as agricultural products and petroleum products. Per 46 CFR 525.1 (c) (2), "bulk cargo" means cargo that is loaded and carried in bulk onboard ship without mark or count, in a loose unpackaged form, having homogenous characteristics. Bulk cargo loaded into intermodal equipment, except LASH or Seabee barges, is subject to mark and count and, therefore, ceases to be bulk cargo.
"Employee assigned to the contract" means an employee who was hired after November 6, 1986, who is directly performing work, in the United States, under a contract that is required to include the clause prescribed at 22.1803 . An employee is not considered to be directly performing work under a contract if the employee-
(1) Normally performs support work, such as indirect or overhead functions; and
(2) Does not perform any substantial duties applicable to the contract.
"Subcontract" means any contract, as defined in 2.101, entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract. It includes but is not limited to purchase orders, and changes and modifications to purchase orders.
"Subcontractor" means any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a prime Contractor or another subcontractor.
"United States", as defined in 8 U.S.C. 1101(a)(38), means the 50 States, the District of Columbia, Puerto Rico, Guam, and the U.S. Virgin Islands.
(b) Enrollment and verification requirements.
(1) If the Contractor is not enrolled as a Federal Contractor in E-Verify at time of contract award, the Contractor shall-
(i) Enroll. Enroll as a Federal Contractor in the E-Verify program within 30 calendar days of contract award;
(ii) Verify all new employees. Within 90 calendar days of enrollment in the E-Verify program, begin to use E-Verify to initiate verification of employment eligibility of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); and
(iii) Verify employees assigned to the contract. For each employee assigned to the contract, initiate verification within 90 calendar days after date of enrollment or within 30 calendar days of the employee's assignment to the contract, whichever date is later (but see paragraph (b) (4) of this section).
(2) If the Contractor is enrolled as a Federal Contractor in E-Verify at time of contract award, the Contractor shall use E-Verify to initiate verification of employment eligibility of-
(i) All new employees.
(A) Enrolled 90 calendar days or more. The Contractor shall initiate verification of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); or
(B) Enrolled less than 90 calendar days. Within 90 calendar days after enrollment as a Federal Contractor in E-Verify, the Contractor shall initiate verification of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); or
(ii) Employees assigned to the contract. For each employee assigned to the contract, the Contractor shall initiate verification within 90 calendar days after date of contract award or within 30 days after assignment to the contract, whichever date is later (but see paragraph (b)(4) of this section).
(3) If the Contractor is an institution of higher education (as defined at 20 U.S.C. 1001(a)); a State or local government or the government of a Federally recognized Indian tribe; or a surety performing under a takeover agreement entered into with a Federal agency pursuant to a performance bond, the Contractor may choose to verify only employees assigned to the contract, whether existing employees or new hires. The Contractor shall follow the applicable verification requirements at (b)(1) or (b)(2) respectively, except that any requirement for verification of new employees applies only to new employees assigned to the contract.
(4) Option to verify employment eligibility of all employees. The Contractor may elect to verify all existing employees hired after November 6, 1986, rather than just those employees assigned to the contract. The Contractor shall initiate verification for each existing employee working in the United States who was hired after November 6, 1986, within 180 calendar days of-
(i) Enrollment in the E-Verify program; or
(ii) Notification to E-Verify Operations of the Contractor's decision to exercise this option, using the contact information provided in the E-Verify program Memorandum of Understanding

## (MOU).

(5) The Contractor shall comply, for the period of performance of this contract, with the requirements of the E-Verify program MOU.
(i) The Department of Homeland Security (DHS) or the Social Security Administration (SSA) may terminate the Contractor's Mou and deny access to the E-Verify system in accordance with the terms of the MOU. In such case, the Contractor will be referred to a suspension or debarment official.
(ii) During the period between termination of the MOU and a decision by the suspension or debarment official whether to suspend or debar, the Contractor is excused from its obligations under paragraph (b) of this clause. If the suspension or debarment official determines not to suspend or debar the Contractor, then the Contractor must reenroll in E-Verify.
(c) Website. Information on registration for and use of the E-Verify program can be obtained via the Internet at the Department of Homeland Security Website: http://www.dhs.gov/E-Verify.
(d) Individuals previously verified. The Contractor is not required by this clause to perform additional employment verification using E-Verify for any employee-
(1) Whose employment eligibility was previously verified by the Contractor through the E-Verify program;
(2) Who has been granted and holds an active U.S. Government security clearance for access to confidential, secret, or top secret information in accordance with the National Industrial Security Program Operating Manual; or
(3) Who has undergone a completed background investigation and been issued credentials pursuant to Homeland Security Presidential Directive (HSPD)-12, Policy for a Common Identification Standard for Federal Employees and Contractors.
(e) Subcontracts. The Contractor shall include the requirements of this clause, including this paragraph (e) (appropriately modified for identification of the parties), in each subcontract that-
(1) Is for-
(i) Commercial or noncommercial services (except for commercial services that are part of the purchase of a COTS item (or an item that would be a COTS item, but for minor modifications), performed by the COTS provider, and are normally provided for that COTS item); or
(ii) Construction;
(2) Has a value of more than $\$ 3,000$; and
(3) Includes work performed in the United States.
(End of clause)

## LIQUIDATED DAMAGES

Most federal government contracts contain a liquidated damages clause. This clause alleviates you of liability for actual damages flowing from a breach and fixes your liability at an established amount for each day that project completion is inexcusably delayed. Liquidated damages must approximate the foreseeable actual damages, and if they appear to act as a penalty, the courts have held that the provision is unenforceable. This clause can actually act to your benefit in cases where the potential for actual damages could be very high. Liquidated damages continue until the substantial completion of the project or the "Beneficial Occupancy Date" by the government. The government may also withhold all payments otherwise due you once the project goes into liquidated damages.

## FAR Clause 52.211-12, Liquidated Damages-Construction

As prescribed in 11.503(b), insert the following clause in solicitations and contracts:
Lleutdated Damages-construction (Sept 2000)
(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of _____ [Contracting Officer insert amount] for each calendar day of delay until the work is completed or accepted.
(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

## ORDER OF PRECEDENCE

The order of precedence for a government design-build contract is of primary importance to you, and it is shown in section 007300 of the RFP. When you submitted a proposal in accordance with an RFP solicitation from the government detailing how you would meet the requirements of the RFP, the government accepted that proposal and now expects you to provide all that you proposed. The contract requires that the solicitation (RFP) and the "Accepted Proposal" constitute the "Contract." To complicate the process, however, the government includes "Betterments" and design products as
part of the "Order of Precedence," which for this type of contract is:

1. Betterments: Any portions of the accepted proposal that both conform to and exceed the provisions of the solicitation, defined as any component or system that exceeds the minimum requirements stated in the RFP.
2. The provisions of the solicitation.
3. All other provisions of the accepted proposal.
4. Any design products including, but not limited to, plans, specifications, engineering studies and analyses, shop drawings, equipment installation drawings, etc. These are "deliverables" under the contract and are not part of the contract itself. Design products must conform to all provisions of the contract in order of precedence.

## FAR Clause 52.214-29, Order of Precedence-Sealed Bidding

Any inconsistency in a solicitation or contract shall be resolved by giving precedence in the following order:
(a) The schedule (excluding the specifications);
(b) Representations and other instructions;
(c) Contract clauses;
(d) Other documents, exhibits, and attachments; and
(e) The specifications.

## PRICE EVALUATION PREFERENCES

Many solicitations that are not set-asides contain these clauses. They are designed to give HUBZone small business concerns and small disadvantaged business concerns a price preference in winning federal contracts. The price evaluation preferences are designed to assist firms owned and controlled by economically and socially disadvantaged persons in entering the economic mainstream. They are one way the federal government assists such firms. The price evaluation preference is used only to determine whether a HUBZone small business concern or a small disadvantaged business concern can be considered the low bidder but not necessarily the lowest most responsive, responsible bidder. If the HUBZone small business concern or the small disadvantaged business concern does not waive its right to this price evaluation preference, then the 10 percent adjustment (for the HUBZone small business concern) or the designated percentage as shown in FAR clause 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns, will be added to the price of all offers, except offers from HUBZone small business concerns that have not waived the
evaluation preference and otherwise successful offers from small business concerns.
The solicitation may contain both FAR clause 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns, and FAR clause 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns. However, the price evaluation preference for the small disadvantaged business concern will be added separately after all other factors have been added. If a contractor is certified as both a HUBZone small business concern and a small disadvantaged business concern, both factors may be added.

The contractor may waive the price evaluation preference as either a HUBZone small business concern or a small disadvantaged business concern. If it does, the contractor does not have to comply with the agreements in paragraph (d) of either FAR clause. If the contractor does not waive the price evaluation preference, it must comply with the agreements shown in paragraph (d).

This process does not necessarily determine the firm that will be awarded the contract because the other evaluation factors included in the solicitation could weigh more on the contract award than the price.

FAR Clause 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns

As prescribed in 19.1308(b), insert the following clause:
Notice of Price Evaluaron prefrrence for HUBZone Small Business Concerns (July 2005)
(a) Definition. "HUBZone small business concern," as used in this clause, means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.
(b) Evaluation preference.
(1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except-
(i) Offers from HUBZone small business concerns that have not waived the evaluation preference; and
(ii) Otherwise successful offers from small business concerns.
(2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.
(3) A concern that is both a HUBZone small business concern and a small disadvantaged business concern will receive the benefit of both the

HUBZone small business price evaluation preference and the small disadvantaged business price evaluation adjustment (see FAR clause 52.219-23). Each applicable price evaluation preference or adjustment shall be calculated independently against an offeror's base offer. These individual preference amounts shall be added together to arrive at the total evaluated price for that offer.
(c) Waiver of evaluation preference. A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraph (d) of this clause do not apply if the offeror has waived the evaluation preference.
(d) Agreement. A HUBZone small business concern agrees that in the performance of the contract, in the case of a contract for-
(1) Services (except construction), at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern or employees of other HUBZone small business concerns;
(2) Supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern or other HUBZone small business concerns;
(3) General construction, at least 15 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns; or
(4) Construction by special trade contractors, at least 25 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns.
(e) A HUBZone joint venture agrees that in the performance of the contract, the applicable percentage specified in paragraph (d) of this clause will be performed by the HUBZone small business participant or participants.
(f) A HUBZone small business concern nonmanufacturer agrees to furnish in performing this contract only end items manufactured or produced by HUBZone small business manufacturer concerns This paragraph does not apply in connection with construction or service contracts.
(End of clause)

## Disadvantaged Business Concerns

As prescribed in 19.1104, insert the following clause:
Notice of Price Evaluation Adjustuent for Small Disadvantaged Business Concerns (Oct 2008)
(a) Definitions. As used in this clause-
"Historically black college or university" means an institution determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. For the Department of Defense (DoD), the National Aeronautics and Space Administration (NASA), and the Coast Guard, the term also includes any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.
"Minority institution" means an institution of higher education meeting the requirements of Section 365(3) of the Higher Education Act of 1965 (20 U.S.C. 1067k), including a Hispanic-serving institution of higher education, as defined in Section 502(a) of the Act (20 U.S.C. 1101a).
"Small disadvantaged business concern" means an offeror that represents, as part of its offer, that it is a small business under the size standard applicable to this acquisition; and either-
(1) It has received certification by the Small Business Administration as a small disadvantaged business concern consistent with 13 CFR Part 124, subpart B; and
(i) No material change in disadvantaged ownership and control has occurred since its certification;
(ii) Where the concern is owned by one or more disadvantaged individuals, the net worth of each individual upon whom the certification is based does not exceed $\$ 750,000$ after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and
(iii) It is identified, on the date of its representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration (PRO-Net).
(2) It has submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR Part 124, subpart B , and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted. In this case, in order to receive the benefit of a price evaluation adjustment, an offeror must receive certification as a small disadvantaged business concern by the Small Business Administration prior to contract award; or
(3) Is a joint venture as defined in 13 CFR 124.1002(f).
(b) Evaluation adjustment.
(1) The Contracting Officer will evaluate offers by adding a factor of [Contracting Officer insert the percentage] percent to the price of all offers, except-
(i) Offers from small disadvantaged business concerns that have not waived the adjustment; and
(ii) An otherwise successful offer from a historically black college or university or minority institution.
(2) The Contracting Officer will apply the factor to a line item or a group of line items on which award may be made. The Contracting Officer will apply other evaluation factors described in the solicitation before application of the factor. The factor may not be applied if using the adjustment would cause the contract award to be made at a price that exceeds the fair market price by more than the factor in paragraph (b) (1) of this clause.
(c) Waiver of evaluation adjustment. A small disadvantaged business concern may elect to waive the adjustment, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraph (d) of this clause do not apply to offers that waive the adjustment.

## ___ Offeror elects to waive the adjustment.

(d) Agreements.
(1) A small disadvantaged business concern, that did not waive the adjustment, agrees that in performance of the contract, in the case of a contract for-
(i) Services, except construction, at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern;
(ii) Supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern;
(iii) General construction, at least 15 percent of the cost of the contract, excluding the cost of materials, will be performed by employees of the concern; or
(iv) Construction by special trade contractors, at least 25 percent of the cost of the contract, excluding the cost of materials, will be performed by employees of the concern.
(2) A small disadvantaged business concern submitting an offer in its own name shall furnish in performing this contract only end items
manufactured or produced by small disadvantaged business concerns in the United States or its outlying areas. This paragraph does not apply to construction or service contracts.
(End of clause)

Alternate I (June 2003). As prescribed in 19.1104, substitute the following paragraph (d)(2) for paragraph (d)(2) of the basic clause:
(2) A small disadvantaged business concern submitting an offer in its own name shall furnish in performing this contract only end items manufactured or produced by small business concerns in the United States or its outlying areas. This paragraph does not apply to construction or service contracts.
Alternate II (Oct 1998) As prescribed in 19.1104, substitute the following paragraph (b)(1)(i) for paragraph (b)(1)(i) of the basic clause:
(h) Offers from small disadvantaged business concerns, that have not waived the adjustment, whose address is in a region for which an evaluation adjustment is authorized;

## SMALL BUSINESS SUBCONTRACTING PLAN

This plan is required by FAR clause 52.219-9, Small Business Subcontracting Plan, for contracts awarded to large businesses. Some contracts may require that small businesses also develop this plan. Normally the goals for subcontractor participation by small businesses, HUBZone small businesses, small disadvantaged businesses, women-owned small businesses, and veteran-owned and service-disabled veteran-owned small businesses are mandated by the contract. Sometimes the solicitation requires that the contractor meet these minimum goals and then gives the contractor the option of increasing these targets in the proposal as a means of strengthening an evaluation factor for small business participation. This option should be considered carefully because the penalties for not meeting the goals can be severe.

As the contractor, you must make a "good faith effort" to subcontract with the various small businesses and small disadvantaged businesses. Proper documentation and recordkeeping is of paramount importance in showing a good faith effort. The following actions are recommended to comply with the good faith effort requirement:

- Develop and promote company policy statements that demonstrate the company's support for awarding contracts and subcontracts to small businesses, HUBZone small businesses, small disadvantaged businesses, women-owned small business concerns, and veteran-owned and service-disabled veteran-owned small
businesses.
- Develop and maintain bidders' lists of all the above small business concerns from all possible sources.
- Ensure periodic rotation of potential subcontractors on bidders' lists.
- Ensure that all these businesses are included on the bidders' list for every subcontract solicitation for products and services they are capable of providing.
- Ensure that subcontract procurement "packages" are designed to permit the maximum possible participation of said small businesses.
- Review subcontract solicitations to remove statements, clauses, etc. that might tend to restrict or prohibit these small businesses' participation.
- Ensure that the subcontract bid proposal reviewer documents his or her reasons for not selecting any low bids submitted by these business concerns.
- Oversee the establishment and maintenance of contract and subcontract award records.
- Attend or arrange for the attendance of company counselors at business opportunity workshops, minority business enterprise seminars, trade fairs, etc.
- Request sources from the SBA's Procurement Marketing and Access Network (PRONet).
- Directly or indirectly counsel these small business concerns on subcontracting opportunities and how to prepare bids to the company.
- Provide notice to subcontractors concerning penalties for misrepresentations of business status as small businesses, HUBZone small businesses, small disadvantaged businesses, women-owned small business concerns, and veteranowned and service-disabled veteran-owned small businesses for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the contractor's subcontracting plan.
- Conduct or arrange training for purchasing personnel regarding the intent and impact of Public Law 95-907 on purchasing procedures.
- Develop and maintain an incentive program for buyers that supports the subcontracting program.
Monitor the company's performance and make any adjustments necessary to achieve the subcontract plan goals.
- Prepare and submit timely reports.

Coordinate the company's activities during compliance reviews by federal agencies.

## Clause Inclusion and Flowdown

FAR clause $52.219-9(\mathrm{~d})(9)$ requires that you provide assurances that you will include the FAR clause 52.219-8, Utilization of Small Business Concerns, in all subcontracts that offer further subcontracting opportunities.

FAR clause $52.219-9(\mathrm{~d})(9)$ also requires that you agree in this plan to require all subcontractors, except small business concerns, that receive subcontracts in excess of $\$ 1$ million for construction to adopt a plan that complies with the requirements of FAR clause 52.219-9, Small Business Subcontracting Plan.

## Recordkeeping

FAR clause $52.219-9(\mathrm{~d})(11)$ requires a list of the types of records your company will maintain to demonstrate the procedures adopted to comply with the requirements and goals in the subcontracting plan. These records include, but are not limited to, the following:

Small, HUBZone small, small disadvantaged, women-owned small business concerns, veteran-owned and service-disabled veteran-owned small businesses source lists, guides, and other data identifying such vendors.

- Organizations contacted for these same small businesses' sources.
- On a contract-by-contract basis, records on all subcontract solicitations over $\$ 100,000$ that indicate for each solicitation:
„Whether small business concerns were solicited, and if not, why not
»Whether HUBZone small business concerns were solicited, and if not, why not
»Whether small disadvantaged business concerns were solicited, and if not, why not
»Whether women-owned small business concerns were solicited, and if not, why not
Whether service-disabled veteran-owned small business concerns were solicited, and if not, why not

Reasons for the failure of said solicited business concerns to receive the subcontract award.

Records to support other outreach efforts, e.g., contacts with minority and small business trade associations, attendance at procurement conferences and trade fairs for small, HUBZone small, minority, and women-owned small business concerns, and veteran-owned and service-disabled veteran-owned small

- Records to support internal activities to (1) guide and encourage purchasing personnel, e.g., workshops, seminars, training programs, incentive awards, and (2) monitor activities to evaluate compliance.
- On a contract-by-contract basis, records to support subcontract award data, including the name, address, and business size of each subcontractor. Note: This item is not required for company commercial plans.
- Other records to support your compliance with the subcontracting plan.

Paragraph (d)(10)(iii) of this clause requires that SF 294 be submitted to the government semiannually and at project completion. The form is to be used for each individual project. This same clause also requires that SF 295 be submitted semiannually on March 31 and September 30 of each year. Correctly completing these forms is essential. Every attempt should be made to meet the goals as agreed to in the contract. FAR clause 52.219-16, Liquidated Damages - Subcontracting Plan, allows the government to assess liquidated damages in an amount equal to the actual dollar amount by which you as the contractor failed to achieve each subcontract goal.

The instructions on the back side of these forms explain how to fill them out; however, it is very important that the instructions for blocks 10a through 16 be read very carefully and followed very closely. There are numerous places where a subcontractor may overlap into more than one block; e.g., a women-owned small business that may also qualify as a HUBZone small business would be added to block 12 and block 14. If you do not follow these instructions carefully, the report might become skewed and erroneously show that you are not making your goals when in fact you are meeting them.

SF 295 is a summary subcontract report that encompasses all the active federal contracts you currently have. If you have only one federal contract, the SF 295 will have the same dollars and percentages as the SF 294. Distribution is as shown on the forms.

FAR Clause 52.219-9, Small Business Subcontracting Plan
As prescribed in 19.708(b), insert the following clause:
Small Business Subcontracting Plan (Apr 2008)
(a) This clause does not apply to small business concerns.
(b) Definitions. As used in this clause-
"Alaska Native Corporation (ANC)" means any Regional Corporation, Village Corporation, Urban Corporation, or Group Corporation organized under the laws of the State of Alaska in accordance with the Alaska Native Claims Settlement Act, as amended (43 U.S.C. 1601, et seq.) and which is considered a minority and economically disadvantaged concern under the criteria at 43
U.S.C. $1626(\mathrm{e})(1)$. This definition also includes ANC direct and indirect subsidiary corporations, joint ventures, and partnerships that meet the requirements of 43 U.S.C. 1626(e)(2).
"Commercial item" means a product or service that satisfies the definition of commercial item in section 2.101 of the Federal Acquisition Regulation.
"Commercial plan" means a subcontracting plan (including goals) that covers the offeror's fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (e.g., division, plant, or product line).
"Electronic Subcontracting Reporting System (eSRS)" means the government wide, electronic, web-based system for small business subcontracting program reporting. The eSRS is located at http://www.esrs.gov.
"Indian tribe" means any Indian tribe, band, group, pueblo, or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act ( 43 U.S.C.A. 1601 et seq.), that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs in accordance with 25 U.S.C. 1452(c). This definition also includes Indian-owned economic enterprises that meet the requirements of 25 U.S.C. 1452(e).
"Individual contract plan" means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror's planned subcontracting in support of the specific contract, except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.
"Master plan" means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved. "Subcontract" means any agreement (other than one involving an employeremployee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.
(c) The offeror, upon request by the Contracting Officer, shall submit and negotiate a subcontracting plan, where applicable, that separately addresses subcontracting with small business, veteran-owned small business, servicedisabled veteran-owned small business, HUBZone small business concerns, small disadvantaged business, and women-owned small business concerns. If the offeror is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns, with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The
subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate the subcontracting plan shall make the offeror ineligible for award of a contract.
(d) The offeror's subcontracting plan shall include the following:
(1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and womenowned small business concerns as subcontractors. The offeror shall include all sub-contracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs. In accordance with 43 U.S.C. 1626:
(i) Subcontracts awarded to an ANC or Indian tribe shall be counted towards the subcontracting goals for small business and small disadvantaged business (SDB) concerns, regardless of the size or Small Business Administration certification status of the ANC or Indian tribe.
(ii) Where one or more subcontractors are in the subcontract tier between the prime contractor and the ANC or Indian tribe, the ANC or Indian tribe shall designate the appropriate contractor(s) to count the subcontract towards its small business and small disadvantaged business subcontracting goals.
(A) In most cases, the appropriate Contractor is the Contractor that awarded the subcontract to the ANC or Indian tribe.
(B) If the ANC or Indian tribe designates more than one Contractor to count the subcontract toward its goals, the ANC or Indian tribe shall designate only a portion of the total subcontract award to each Contractor. The sum of the amounts designated to various Contractors cannot exceed the total value of the subcontract.
(C) The ANC or Indian tribe shall give a copy of the written designation to the Contracting Officer, the prime Contractor, and the subcontractors in between the prime Contractor and the ANC or Indian tribe within 30 days of the date of the subcontract award.
(D) If the Contracting Officer does not receive a copy of the ANC's or the Indian tribe's written designation
within 30 days of the subcontract award, the Contractor that awarded the subcontract to the ANC or Indian tribe will be considered the designated Contractor.
(2) A statement of -
(i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;
(ii) Total dollars planned to be subcontracted to small business concerns (including ANC and Indian tribes);
(iii) Total dollars planned to be subcontracted to veteran-owned small business concerns;
(iv) Total dollars planned to be subcontracted to service-disabled veteran-owned small business;
(v) Total dollars planned to be subcontracted to HUBZone small business concerns;
(vi) Total dollars planned to be subcontracted to small disadvantaged business concerns (including ANCs and Indian tribes); and
(vii) Total dollars planned to be subcontracted to women-owned small business concerns.
(3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to-
(i) Small business concerns;
(ii) Veteran-owned small business concerns;
(iii) Service-disabled veteran-owned small business concerns;
(iv) HUBZone small business concerns;
(v) Small disadvantaged business concerns; and
(vi) Women-owned small business concerns.
(4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.
(5) A description of the method used to identify potential sources for solicitation purposes (e.g., existing company source lists, the Central Contractor Registration database (CCR), veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the

Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and womenowned small business trade associations). A firm may rely on the information contained in CCR as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining a small, veteran-owned small, service-disabled veteranowned small, HUBZone small, small disadvantaged, and womenowned small business source list. Use of CCR as its source list does not relieve a firm of its responsibilities (e.g., outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.
(6) A statement as to whether or not the offeror included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with-
(i) Small business concerns (including ANC and Indian tribes);
(ii) Veteran-owned small business concerns;
(iii) Service-disabled veteran-owned small business concerns;
(iv) HUBZone small business concerns;
(v) Small disadvantaged business concerns (including ANC and Indian tribes); and
(vi) Women-owned small business concerns.
(7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.
(8) A description of the efforts the offeror will make to assure that small business, veteran-owned small business, service-disabled veteranowned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns have an equitable opportunity to compete for subcontracts.
(9) Assurances that the offeror will include the clause of this contract entitled "Utilization of Small Business Concerns" in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of $\$ 550,000$ ( $\$ 1,000,000$ for construction of any public facility) with further subcontracting possibilities to adopt a subcontracting plan that complies with the requirements of this clause.
(10) Assurances that the offeror will-
(i) Cooperate in any studies or surveys as may be required;
(ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;
(iii) Submit the Individual Subcontract Report (ISR) and/or the Summary Subcontract Report (SSR), in accordance with paragraph (1) of this clause using the Electronic Subcontracting Reporting System (eSRS) at http://www.esrs.gov. The reports shall provide information on subcontract awards to small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions. Reporting shall be in accordance with this clause, or as provided in agency regulations;
(iv) Ensure that its subcontractors with subcontracting plans agree to submit the ISR and/or the SSR using eSRS;
(v) Provide its prime contract number, its DUNS number, and the e-mail address of the Government or Contractor official responsible for acknowledging or rejecting the reports, to all first-tier subcontractors with subcontracting plans so they can enter this information into the eSRS when submitting their reports; and
(vi) Require that each subcontractor with a subcontracting plan provide the prime contract number, its own DUNS number, and the e-mail address of the Government or Contractor official responsible for acknowledging or rejecting the reports, to its subcontractors with subcontracting plans.
(11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the offeror's efforts to locate small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated):
(i) Source lists (e.g., CCR), guides, and other data that identify small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business
concerns.
(ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, servicedisabled veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.
(iii) Records on each subcontract solicitation resulting in an award of more than $\$ 100,000$, indicating-
(A) Whether small business concerns were solicited and, if not, why not;
(B) Whether veteran-owned small business concerns were solicited and, if not, why not;
(C) Whether service-disabled veteran-owned small business concerns were solicited and, if not, why not;
(D) Whether HUBZone small business concerns were solicited and, if not, why not;
(E) Whether small disadvantaged business concerns were solicited and, if not, why not;
(F) Whether women-owned small business concerns were solicited and, if not, why not; and
(G) If applicable, the reason award was not made to a small business concern.
(iv) Records of any outreach efforts to contact-
(A) Trade associations;
(B) Business development organizations;
(C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and
(D) Veterans service organizations.
(v) Records of internal guidance and encouragement provided to buyers through-
(A) Workshops, seminars, training, etc.; and
(B) Monitoring performance to evaluate compliance with the program's requirements.
(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name,
address, and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.
(e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:
(1) Assist small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owned small business, servicedisabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.
(2) Provide adequate and timely consideration of the potentialities of small business, veteran-owned small business, service-disabled veteranowned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all "make-orbuy" decisions.
(3) Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business firms.
(4) Confirm that a subcontractor representing itself as a HUBZone small business concern is identified as a certified HUBZone small business concern by accessing the Central Contractor Registration (CCR) database or by contacting SBA.
(5) Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small, veteran-owned small business, HUBZone small, small disadvantaged, or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.
(f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided-
(1) The master plan has been approved;
(2) The offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer; and
(3) Goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.
(g) A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than solely to the Government contract. Once the Contractor's commercial plan has been approved, the Government will not require another subcontracting plan from the same Contractor while the plan remains in effect, as long as the product or service being provided by the Contractor continues to meet the definition of a commercial item. A Contractor with a commercial plan shall comply with the reporting requirements stated in paragraph (d)(10) of this clause by submitting one SSR in eSRS for all contracts covered by its commercial plan. This report shall be acknowledged or rejected in eSRS by the Contracting Officer who approved the plan. This report shall be submitted within 30 days after the end of the Government's fiscal year.
(h) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.
(i) A contract may have no more than one plan. When a modification meets the criteria in 19.702 for a plan, or an option is exercised, the goals associated with the modification or option shall be added to those in the existing subcontract plan.
(j) Subcontracting plans are not required from subcontractors when the prime contract contains the clause at $52.212-5$, Contract Terms and Conditions Required to Implement Statutes or Executive Orders-Commercial Items, or when the subcontractor provides a commercial item subject to the clause at 52.244-6, Subcontracts for Commercial Items, under a prime contract.
(k) The failure of the Contractor or subcontractor to comply in good faith with-
(1) The clause of this contract entitled "Utilization of Small Business Concerns;" or
(2) An approved plan required by this clause, shall be a material breach of the contract.
(1) The Contractor shall submit ISRs and SSRs using the web-based eSRS at http://www.esrs.gov. Purchases from a corporation, company, or subdivision
that is an affiliate of the prime Contractor or subcontractor are not included in these reports. Subcontract award data reported by prime Contractors and subcontractors shall be limited to awards made to their immediate next-tier subcontractors. Credit cannot be taken for awards made to lower tier subcontractors, unless the Contractor or subcontractor has been designated to receive a small business or small disadvantaged business credit from an ANC or Indian tribe.
(1) ISR. This report is not required for commercial plans. The report is required for each contract containing an individual subcontract plan and shall be submitted to the Administrative Contracting Officer (ACO) or Contracting Officer, if no ACO is assigned.
(i) The report shall be submitted semi-annually during contract performance for the periods ending March 31 and September 30. A report is also required for each contract within 30 days of contract completion. Reports are due 30 days after the close of each reporting period, unless otherwise directed by the Contracting Officer. Reports are required when due, regardless of whether there has been any subcontracting activity since the inception of the contract or the previous reporting period.
(ii) When a subcontracting plan contains separate goals for the basic contract and each option, as prescribed by FAR 19.704(c), the dollar goal inserted on this report shall be the sum of the base period through the current option; for example, for a report submitted after the second option is exercised, the dollar goal would be the sum of the goals for the basic contract, the first option, and the second option.
(iii) The authority to acknowledge receipt or reject the ISR resides
(A) In the case of the prime Contractor, with the Contracting Officer; and
(B) In the case of a subcontract with a subcontracting plan, with the entity that awarded the subcontract.
(2) SSR.
(i) Reports submitted under individual contract plans-
(A) This report encompasses all subcontracting under prime contracts and subcontracts with the awarding agency, regardless of the dollar value of the subcontracts.
(B) The report may be submitted on a corporate, company or subdivision (e.g. plant or division operating as a separate profit
center) basis, unless otherwise directed by the agency.
(C) If a prime Contractor and/or subcontractor is performing work for more than one executive agency, a separate report shall be submitted to each executive agency covering only that agency's contracts, provided at least one of that agency's contracts is over $\$ 550,000$ (over $\$ 1,000,000$ for construction of a public facility) and contains a subcontracting plan. For DoD, a consolidated report shall be submitted for all contracts awarded by military departments/agencies and/or subcontracts awarded by DoD prime Contractors. However, for construction and related maintenance and repair, a separate report shall be submitted for each DoD component.
(D) For DoD and NASA, the report shall be submitted semi-annually for the six months ending March 31 and the twelve months ending September 30. For civilian agencies, except NASA, it shall be submitted annually for the twelve month period ending September 30. Reports are due 30 days after the close of each reporting period.
(E) Subcontract awards that are related to work for more than one executive agency shall be appropriately allocated.
(F) The authority to acknowledge or reject SSRs in eSRS, including SSRs submitted by subcontractors with subcontracting plans, resides with the Government agency awarding the prime contracts.
(ii) Reports submitted under a commercial plan-
(A) The report shall include all subcontract awards under the commercial plan in effect during the Government's fiscal year.
(B) The report shall be submitted annually, within thirty days after the end of the Government's fiscal year.
(C) If a Contractor has a commercial plan and is performing work for more than one executive agency, the Contractor shall specify the percentage of dollars attributable to each agency from which contracts for commercial items were received.
(D) The authority to acknowledge or reject SSRs for commercial plans resides with the Contracting Officer who approved the commercial plan.
(iii) All reports submitted at the close of each fiscal year (both individual and commercial plans) shall include a Year-End Supplementary Report for Small Disadvantaged Businesses. The report shall include subcontract
awards, in whole dollars, to small disadvantaged business concerns by North American Industry Classification System (NAICS) Industry Subsector. If the data are not available when the year-end SSR is submitted, the prime Contractor and/or subcontractor shall submit the Year-End Supplementary Report for Small Disadvantaged Businesses within 90 days of submitting the year-end SSR. For a commercial plan, the Contractor may obtain from each of its subcontractors a predominant NAICS Industry Subsector and report all awards to that subcontractor under its predominant NAICS Industry Subsector.

## (End of clause)

Alternate I (Oct 2001). When contracting by sealed bidding rather than by negotiation, substitute the following paragraph (c) for paragraph (c) of the basic clause:
(c) The apparent low bidder, upon request by the Contracting Officer, shall submit a subcontracting plan, where applicable, that separately addresses subcontracting with small business, veteran-owned small business, servicedisabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns. If the bidder is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns, with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be submitted within the time specified by the Contracting Officer. Failure to submit the subcontracting plan shall make the bidder ineligible for the award of a contract.

Alternate II (Oct 2001). As prescribed in 19.708(b)(1), substitute the following paragraph (c) for paragraph (c) of the basic clause:
(c) Proposals submitted in response to this solicitation shall include a subcontracting plan that separately addresses subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and womenowned small business concerns. If the offeror is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and womenowned small business concerns, with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated
within the time specified by the Contracting Officer. Failure to submit and negotiate a subcontracting plan shall make the offeror ineligible for award of a contract.

## FAR Clause 52.219-16, Liquidated Damages-Subcontracting Plan

As prescribed in 19.708(b) (2), insert the following clause:
Lleutiated Damages-subcontracting Plan (Jan 1999)
(a) "Failure to make a good faith effort to comply with the subcontracting plan," as used in this clause, means a willful or intentional failure to perform in accordance with the requirements of the subcontracting plan approved under the clause in this contract entitled "Small Business Subcontracting Plan," or willful or intentional action to frustrate the plan.
(b)Performance shall be measured by applying the percentage goals to the total actual subcontracting dollars or, if a commercial plan is involved, to the pro rata share of actual subcontracting dollars attributable to Government contracts covered by the commercial plan. If, at contract completion or, in the case of a commercial plan, at the close of the fiscal year for which the plan is applicable, the Contractor has failed to meet its subcontracting goals and the Contracting Officer decides in accordance with paragraph (c) of this clause that the Contractor failed to make a good faith effort to comply with its subcontracting plan, established in accordance with the clause in this contract entitled "Small Business Subcontracting Plan," the Contractor shall pay the Government liquidated damages in an amount stated. The amount of probable damages attributable to the Contractor's failure to comply shall be an amount equal to the actual dollar amount by which the Contractor failed to achieve each subcontract goal.
(c) Before the Contracting Officer makes a final decision that the Contractor has failed to make such good faith effort, the Contracting Officer shall give the Contractor written notice specifying the failure and permitting the Contractor to demonstrate what good faith efforts have been made and to discuss the matter. Failure to respond to the notice may be taken as an admission that no valid explanation exists. If, after consideration of all the pertinent data, the Contracting Officer finds that the Contractor failed to make a good faith effort to comply with the subcontracting plan, the Contracting Officer shall issue a final decision to that effect and require that the Contractor pay the Government liquidated damages as provided in paragraph (b) of this clause.
(d) With respect to commercial plans, the Contracting Officer who approved the plan will perform the functions of the Contracting Officer under this clause on behalf of all agencies with contracts covered by the commercial plan.
(e) The Contractor shall have the right of appeal, under the clause in this contract entitled, Disputes, from any final decision of the Contracting Officer.
(f) Liquidated damages shall be in addition to any other remedies that the Government may have.

## DAVIS-BACON ACT (PREVAILING WAGES)

The Davis-Bacon Act of 1931 is a federal law that established the requirement for paying prevailing wages on public works projects. All federal government construction contracts-and most contracts for federally assisted construction over $\$ 2,000$-must include provisions for paying workers on-site no less than the locally prevailing wages and benefits paid on similar projects.

## General FAR Requirements

The following FAR clauses (all offshoot clauses from the Davis-Bacon Act of 1931) constitute the requirements for labor, labor payroll/reporting, and penalties incurred in all federally funded construction projects: 52.222-3, Convict Labor; 52.222-4, Contract Work Hours and Safety Standards Act-Overtime Compensation; 52.222-5, Davis-Bacon Act-Secondary Site of the Work; 52.222-6, Davis-Bacon Act; 52.222-7, Withholding of Funds; 52.222-8, Payrolls and Basic Records; 52.222-9, Apprentices and Trainees; and 52.222-11, Subcontracts.

## Who Is Allowed to Work

All persons except convict labor (see FAR clause 52.222-3, Convict Labor) are allowed to work. Persons that have served their sentences, are out of prison on parole or probation, are in a work-release program, have been pardoned, or are otherwise legally authorized to work are allowed to work on government contracts.

## Site of the Work

The sites of work are defined as:

1. The primary site of the work, which is the physical place(s) where the construction called for in the contract will remain when work on it is completed;
2. The secondary site of the work, if any, as well as any other site where a significant portion of the building or work is constructed, provided that the site is located in the United States and is established specifically for the performance
of the contract or project. This includes any fabrication plants, mobile factories, batch plants, borrow pits, job headquarters, tool yards, etc., provided they are dedicated exclusively, or nearly so, to performance of the contract or project.
The secondary site of the work does not include permanent home offices, branch plant establishments, fabrication plants, or tool yards of a contractor or subcontractor whose locations and continuance in operation are determined wholly without regard to a particular federal contract or project. In addition, fabrication plants, batch plants, borrow pits, job headquarters, yards, etc., of a commercial or material supplier established by a supplier of materials for the project before opening of bids and not on the project site are not considered a "secondary site of the work." Such permanent, previously established facilities are not a part of the project site even if the operations for a period of time may be dedicated exclusively, or nearly so, to the performance of a contract.

## Wage Determination

Each federally funded contract will have at least one and as many as three wage determinations-"Heavy-Highway," "Building," and "Residential." The wage determination in effect on the date of contract award will be the wage determination used for the entire contract. A new wage determination may not be used unless it is added by contract modification and a cost increase. Wage determinations dictate only the "minimum" hourly rate that must be paid.

## Pay Determination

Each employee of the contractor, subcontractor, or lower-tier subcontractor who performs work at the project site or secondary site of the work as defined above must be paid according to the applicable wage determination. Site management personnel, such as project managers, superintendents, project engineers, foremen, and administrative personnel, are exempt from this requirement unless they spend 20 percent or more of the workweek performing craftsman-type work for the project. All workers must be paid weekly.

Determining the proper worker classification and pay rate is critical to avoiding a Department of Labor audit and penalties. Subcontractors quite often see this as a way to save money, but it can be devastating for you as the contractor. If a worker is to be paid without any benefits, then the "fringes" shown in the wage determination for a particular work classification must be added to the hourly wage rate. You may pay some of the fringe benefits, but you must clearly show what each fringe benefit is and what it costs. The rest of the fringe benefit must be made up in the hourly rate of pay.

## Work Hours

The work hours are generally limited to between 7 a.m. and 4 p.m., Monday through Friday. Federal holidays are stipulated in the contract. The workers may work 40 hours per week before overtime, for which one and one-half times the regular rate of pay must be given. There is no limit as to how many hours per day may be worked, and federal holidays do not count toward the 40 -hour workweek. The workweek must be your or the subcontractor's normal stated workweek, and it may not change during the contract period.

## Payrolls and Basic Records

As the contractor, you must maintain payrolls and basic records relating to the contract during the course of the work. These records should contain the name, address, and SSN of each worker; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents of the types described in section 1(b)(2)(B) of the Davis-Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid.
You should maintain records showing that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that it has been communicated in writing to the laborers or mechanics affected, as well as records that show the costs anticipated or the actual cost incurred in providing such benefits. If you employ apprentices or trainees under approved programs, you should maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

You must submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the CO. The payrolls submitted should set out accurately and completely all the information required to be maintained. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-$00014-1$ ) is available for this purpose and can be downloaded from the Internet. As the prime contractor, you are responsible for the submittal of copies of payrolls by all subcontractors.

Each payroll submitted must be accompanied by a "Statement of Compliance" signed by you or the subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract. The statement should certify:

- That the payroll for the payroll period contains the information required and that it is correct and complete
- That each laborer or mechanic (including each helper, apprentice, and trainee)
employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate (meaning there can be no kickback to the employer), either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions
- That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

The weekly submittal of a properly executed certification set forth on the reverse side of Optional Form WH-347 satisfies the requirement for submittal of the required "Statement of Compliance." Falsification of any of the required certifications may subject you or your subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 3729 of title 31 of the United States Code.

You or your subcontractor must make the required records available for inspection, copying, or transcription by the CO or his or her authorized representatives or the Department of Labor. You or your subcontractor must permit the CO or his or her representatives or the Department of Labor to interview employees during working hours on the job. If you or your subcontractor fails to submit the required records or to make them available, the CO may, after written notice to you, take any action as may be necessary to suspend any further payments and can lead to debarment.

Within 14 days after award of the contract, you must deliver to the CO a completed SF 1413 Statement and Acknowledgment for each subcontract for construction within the United States, including the subcontractor's signed and dated acknowledgment that the clauses in FAR 52.222-11, paragraph (b), have been included in the subcontract. Within 14 days after the award of any subsequently awarded subcontract, you must deliver to the CO an updated completed SF 1413 for this additional subcontract.

You should perform random weekly labor interviews of subcontractors and lower-tier subcontractors. These should be used as a check against the certified payroll to eliminate potential fraud. Remember, as the prime contractor, you are ultimately responsible for payment of all workers.

## Apprentices and Trainees

## Apprentices

An apprentice will be permitted to work at less than the predetermined rate for the work performed when employed:

- Pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer, and Labor Services (OATELS) or with a State Apprenticeship Agency recognized by the OATELS; or
- In the first 90 days of probationary employment as an apprentice in such an apprenticeship program, even though not individually registered in the program, if certified by the OATELS or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification may not be greater than the ratio permitted to the contractor for the entire workforce under the registered program. The contractor must watch this very closely as subcontractors sometimes will use the wrong ratio of apprentices to journeymen in order to save money.

Any worker listed on a payroll at an apprentice wage rate who is not registered or otherwise employed as stated above must be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates specified in the contractor's or subcontractor's registered program must be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination.

Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable apprentice classification; fringes must be paid in accordance with that determination.

In the event OATELS, or a State Apprenticeship Agency recognized by OATELS, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

## Trainees

Trainees may not be permitted to work at less than the predetermined rate for the work
performed unless they are employed pursuant to and individually registered in a program that has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer, and Labor Services (OATELS). The ratio of trainees to journeymen on the job site may not be greater than that permitted under the plan approved by OATELS.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees must be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees must be paid the full amount of fringe benefits listed in the wage determination unless the administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination that provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by OATELS must be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program must be paid not less than the applicable wage rate in the wage determination for the work actually performed.

In the event OATELS withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

## Withholding of Funds

The CO will, upon his or her own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under any federal contract with the same prime contractor, or any other federally assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the CO may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

The CO will generally require that the contractor show proof that the back wages owed
have been paid. This proof typically includes a copy of the canceled check showing that the back wage amount has actually been received. The CO may also request that the bonding company pay the back wages owed if no action is taken by the contractor. Remember, as the contractor you are ultimately responsible for the proper payment of wages to all employees, including those of all subcontractors. All contractors should constantly monitor their subcontractors' payrolls for compliance with the Davis-Bacon Act requirements.

## Contract Flowdown

The contractor must insert in each subcontract the FAR clauses that are listed in FAR clause 52.222-11, Subcontracts.

## INSTRUCTIONS FOR COMPLETING PAYROLL FORM WH-347

General: The use of the WH-347 payroll form is not mandatory. This form has been made available for the convenience of contractors and subcontractors required by their federal or federally-aided construction-type contracts and subcontracts to submit weekly payrolls. Properly filled out, this form will satisfy the requirements of Regulations, Parts 3 and 5 (29 CFR, Subtitle A), as to payrolls submitted in connection with contracts subject to the Davis-Bacon and related acts.

This form meets needs resulting from the amendment of the Davis-Bacon Act to include fringe benefits provisions. Under this amended law, the contractor is required to pay not less than fringe benefits as predetermined by the Department of Labor, in addition to payment of not less than the predetermined rates. The contractor's obligation to pay fringe benefits may be met either by payment of the fringes to the various plans, funds or programs or by making these payments to the employees as cash in lieu of fringes.
This payroll provides for the contractor's showing on the face of the payroll all monies to the employees, whether as basic rates or as cash in lieu of fringes and provides for the contractor's representation in the statement of compliance on the rear of the payroll that he is paying to other fringes required by the contract and not paid as cash in lieu of fringes. Detailed instructions concerning the preparation of the payroll follow:

Contractor or Subcontractor: Fill in your firm's name and check appropriate box.
Address: Fill in your firm's address.
Column 1-Name, Address, and Social Security Number of Employee: The employee's full name and Social Security Number must be shown on each weekly payroll submitted. The employee's address must also be shown on the payroll covering the first week in which the employee works on the project. The address need not be shown on subsequent weekly payrolls unless the address changes.

Column 2-Withholding Exemptions: This column is merely inserted for the employer's convenience and is not a requirement of Regulations, Part 3 and 5.

Column 3-Work Classifications: List classification descriptive of work actually performed by employees. Consult classification and minimum wage schedule set forth in contract specifications. If additional classifications are deemed necessary, see Contracting Officer or Agency representative. Employee may be shown as having worked in more than one classification provided accurate breakdown or hours so worked is maintained and
shown on submitted payroll by use of separate entries.
Column 4-Hours worked: On all contracts subject to the Contract Work Hours Standard Act enter as overtime hours worked in excess of 8 hours per day and 40 hours a week.

Column 5-Total: Self-explanatory
Column 6-Rate of Pay, including Fringe Benefits: In straight time box, list actual hourly rate paid the employee for straight time worked plus in cash in lieu of fringes paid the employee. When recording the straight time hourly rate, any cash paid in lieu of fringes may be shown separately from the basic rate, thus $\$ 3.25 / .40$. This is of assistance in correctly computing overtime. See "Fringe Benefits" below. In overtime box show overtime hourly rate paid, plus any cash in lieu of fringes paid the employee. See "Fringe Benefits" below. Payment of not less than time and one-half the basic or regular rate paid is required for overtime under the Contract Work Hours Standard Act of 1962. In addition to paying no less than the predetermined rate for the classification which the employee works, the contractor shall pay to approved plans, funds or programs or shall pay as cash in lieu of fringes amounts predetermined as fringe benefits in the wage decision made part of the contract. See "FRINGE BENEFITS" below.

FRINGE BENEFITS-Contractors who pay all required fringe benefits: A contractor who pays fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Secretary of labor shall continue to show on the face of the payroll the basic cash hourly rate and overtime rate paid to his employees just as he has always done. Such a contractor shall check paragraph 4(a) of the statement on the reverse of the payroll to indicate that he is also paying to approved plans, funds or programs not less than the amount predetermined as fringe benefits for each craft. Any exceptions shall be noted in section 4(c).

Contractors who pay no fringe benefits: A contractor who pays no fringe benefits shall pay to the employee, and insert in the straight time hourly rate column of the payroll, an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the applicable wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringes, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on basic or regular rate, plus the required cash in lieu of fringes at the straight time rate. In addition, the contractor shall check paragraph 4 (b) of the statement on the reverse of the payroll to indicate that he is paying fringe benefits in cash directly to his employees. Any exceptions shall be noted in Section 4(c).

## Use of Section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination requires is obliged to pay the deficiency directly to the employees as cash in lieu of fringes. Any exceptions to Section 4(a) or 4(b), whichever the contractor may check, shall be entered in section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid the employee as cash in lieu of fringes and the hourly amount paid to plans, funds, or programs as fringes. The contractor shall pay, and shall show that he is paying to each such employee for all hours (unless otherwise provided by applicable determination) worked on Federal or Federally assisted project an amount not less than the predetermined rate plus cash in lieu of fringes as shown in Section 4(c). The rate paid and amount of cash paid in lieu of fringe benefits per hour should be entered in column 6 on the payroll. See paragraph on "Contractors who pay no fringe benefits" for computation of overtime rate.

Column 7-Gross Amount Earned: Enter gross amount earned on this project. If part of the employees' weekly wage was earned on projects other than the project described on this payroll, enter in column 7 first the amount
earned on the Federal or Federally assisted project and then the gross amount earned during the week on all projects, thus $\$ 63.00 / \$ 120.00$.

Column 8-Deductions: Five columns are provided for showing deductions made. If more than five deduction should be involved, use first 4 columns; show the balance deductions under "Other" column; show actual total under "Total Deductions" column: and in the attachment to the payroll describe the deduction contained in the "Other" column. All deductions must be in accordance with the provisions of the Copeland Act Regulations, 29 CFR, Part 3. If the employee worked on other jobs in addition to this project, show actual deductions from his weekly gross wage, but indicate that deductions are based on his gross wages.

## Column 9—Net Wages Paid for Week: Self-explanatory

Totals-Space has been left at the bottom of the columns so that totals may be shown if the contractor so desires.
Statement Required by Regulations, Parts 3 and 5: While this form need not be notarized, the statement on the back of the payroll is subject to the penalties provided by 18 USV 1001, namely, possible imprisonment of 5 years or $\$ 10,000.00$ fine or both. Accordingly, the party signing this statement should have knowledge of the facts represented as true.

Space has been provided between items (1) and (2) of the statement for describing any deductions made. If all deductions made are adequately described in the "Deductions" column above, state "See Deductions column in this payroll." See paragraph entitled "FRINGE BENEFITS" above for instructions concerning filling out paragraph 4 of the statement.

## CONTRACT FLOWDOWN

Many FAR clauses have a requirement that they be specifically included in any subcontracts. FAR clause 52.222-11, Subcontracts (Labor Standards), requires that specific clauses be included in all subcontracts.

To properly protect you as the contractor, it is highly recommended that the subcontracts include all FAR clauses shown in the contract. This is because many FAR clauses require flowdown, and it is easy to miss one of them. This also ties the subcontractor to all the FAR clauses for which you are responsible.

FAR Clause 52.222-11, Subcontracts (Labor Standards)
As prescribed in 22.407(a), insert the following clause: Subcontracts (Labor Standards) (July 2005)
(a) Definition. "Construction, alteration or repair," as used in this clause, means all types of work done by laborers and mechanics employed by the construction Contractor or construction subcontractor on a particular building or work at the site thereof, including without limitation-
(1) Altering, remodeling, installation (if appropriate) on the site of the work of items fabricated off-site;
(2) Painting and decorating;
(3) Manufacturing or furnishing of materials, articles, supplies, or equipment on the site of the building or work;
(4) Transportation of materials and supplies between the site of the work within the meaning of paragraphs (a)(1)(i) and (ii) of the "site of the work" as defined in the FAR clause at 52.222-6, Davis-Bacon Act of this contract, and a facility which is dedicated to the construction of the building or work and is deemed part of the site of the work within the meaning of paragraph (2) of the "site of work" definition; and
(5) Transportation of portions of the building or work between a secondary site where a significant portion of the building or work is constructed, which is part of the "site of the work" definition in paragraph (a)(1)(ii) of the FAR clause at 52.222-6, Davis-Bacon Act, and the physical place or places where the building or work will remain (paragraph (a)(1)(i) of the FAR clause at 52.222-6, in the "site of the work" definition).
(b) The Contractor shall insert in any subcontracts for construction, alterations and repairs within the United States the clauses entitled-
(1) Davis-Bacon Act;
(2) Contract Work Hours and Safety Standards Act-Overtime Compensation (if the clause is included in this contract);
(3) Apprentices and Trainees;
(4) Payrolls and Basic Records;
(5) Compliance with Copeland Act Requirements;
(6) Withholding of Funds;
(7) Subcontracts (Labor Standards);
(8) Contract Termination-Debarment;
(9) Disputes Concerning Labor Standards;
(10) Compliance with Davis-Bacon and Related Act Regulations; and
(11) Certification of Eligibility.
(c) The prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor performing construction within the United States with all the contract clauses cited in paragraph (b).
(d)
(1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed Standard Form (SF) 1413, Statement and Acknowledgment, for each subcontract for construction within the United States, including the subcontractor's signed and
dated acknowledgment that the clauses set forth in paragraph (b) of this clause have been included in the subcontract.
(2) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed SF 1413 for such additional subcontract.
(e) The Contractor shall insert the substance of this clause, including this paragraph (e) in all subcontracts for construction within the United States.
(End of clause)

## BUY AMERICAN ACT

There are three "Buy American Act" FAR clauses: 52.225-4, Buy American Act-Free Trade Agreements—Israeli Trade Act; 52.225-9, Buy American Act-Construction Materials; and 52.225-11, Buy American Act-Construction Materials under Trade Agreements. There are also two "Recovery Act," "Buy American Act" FAR clauses: 52.225-21, Required Use of American Iron, Steel, and Other Manufactured Goods-Buy American Act-Construction Materials, and 52.225-23, Required Use of American Iron, Steel, and Other Manufactured Goods-Buy American Act-Construction Materials under Trade Agreements. Any one of these clauses could be inserted into a contract/RFP.

FAR clause 52.225-9, Buy American Act-Construction Materials, is the most restrictive of the clauses. It allows only U.S.-manufactured construction materials and products; however, foreign materials may be used if the cost for a domestically produced product is at least 6 percent more than that for the foreign-produced product.

FAR clause 52.225-21, Required Use of American Iron, Steel, and Other Manufactured Goods-Buy American Act-Construction Materials, implements the Buy American ActConstruction Materials and section 1605 of the American Recovery and Reinvestment Act of 2009 (Public Law 111-5). This clause mandates the use of only U.S.-manufactured goods and materials and changes the difference in cost limitation between domestic and foreign material from 6 percent per material to a 25 percent increase in cumulative cost of the entire contract. This is a very restrictive clause and effectively denies the use of any non-domestic products, including NAFTA-manufactured products.

FAR clause 52.225-4, Buy American Act—Free Trade Agreements—Israeli Trade Act, includes the United States, Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Morocco, Nicaragua, Oman, Peru, and Singapore. This act allows the use of products from "Free Trade Agreement" countries.

FAR clause 52.225-11, Buy American Act-Construction Materials under Trade Agreements, is the most liberal of the FAR clauses. This clause allows use of products from most countries in the world, including the United States, Aruba, Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan, United Kingdom, Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Mexico, Morocco, Nicaragua, Oman, Peru, Singapore, Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, East Timor, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Laos, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, Samoa, Sao Tome, Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Tanzania, Togo, Tuvalu, Uganda, Vanuatu, Yemen, and Zambia.

FAR clause 52.225-23, Required Use of American Iron, Steel, and Other Manufactured Goods-Buy American Act-Construction Materials Under Trade Agreements, lifts the restrictions of the Buy American Act and section 1605 of the American Recovery and Reinvestment Act of 2009 (Public Law 111-5). This clause mandates the use of material manufactured only in the United States, Aruba, Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan, United Kingdom, Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Mexico, Morocco, Nicaragua, Oman, Peru, or Singapore, Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, East Timor, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, GuineaBissau, Haiti, Kiribati, Laos, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Tanzania, Togo, Tuvalu, Uganda, Vanuatu, Yemen, or Zambia.

The end product must be at least 50 percent by cost of a material made either in the United States or in another designated country as appropriate. "Construction material" also includes an item brought to the site preassembled from articles, materials, or supplies. As long as the cost of the preassembled item has at least 50 percent made in the United States or a trade agreements country, as appropriate, the item is considered to meet the requirements of the Buy American Act. Emergency life safety systems, such as emergency lighting, fire alarms, and audio evacuation systems, that are discrete
systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Each Buy American Act FAR clause is significantly different; however, they all allow for a foreign material to be used if the cost of the domestic material exceeds the cost of the foreign material by more than 6 percent. However, the recently passed American Recovery and Reinvestment Act of 2009, section 1605, mandates the use of the Buy American Act and changes the 6 percent requirement for domestic and foreign cost differential to a 25 percent contract cumulative contract increase. If FAR clause 52.225-21, Required Use of American Iron, Steel, and Other Manufactured Goods -Buy American Act-Construction Materials, is included in the contract, care must be taken during the bidding process to ascertain that all the materials are manufactured in the United States.

The Buy American Act FAR clauses have a procedure that must be followed to obtain the waiver. That procedure is as follows: Any contractor requesting to use foreign construction material must include adequate information for government evaluation of the request, including:

- A description of the foreign and domestic construction materials
- Unit of measure
- Quantity
- Cost
- Time of delivery or availability
- Location of the construction project
- Name and address of the proposed supplier
- A detailed justification of the reason for use of foreign construction materials.

A request based on unreasonable cost must include a reasonable survey of the market and a completed cost comparison table (see below).The cost of construction material must include all delivery costs to the construction site and any applicable duty. Any contractor request for a determination submitted after contract award must explain why the contractor could not reasonably foresee the need for such a determination and could not have requested the determination before contract award. If the contractor does not submit a satisfactory explanation, the CO need not make a determination.

If the government determines after contract award that an exception to section 1605 of the American Recovery and Reinvestment Act of 2009 or the Buy American Act applies and the CO and the contractor negotiate adequate consideration, the CO will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable cost of a domestic construction material, adequate
consideration is not less than the differential established above. Note: A contractor seldom knows whether a product is domestic or foreign-manufactured when the project is bid, and thus there will be no savings to the contractor from using the foreign product. This must be emphasized when requesting a CO's decision.

Unless the government determines that an exception to section 1605 of the American Recovery and Reinvestment Act of 2009 or the Buy American Act applies, use of foreign construction material other than that covered by trade agreements is noncompliant with the applicable act.

The FAR Buy American clauses follow.
FAR Clause 52.225-10, Notice of Buy American Act Requirement-Construction Materials
As prescribed in 25.1102(b)(1), insert the following provision:
Buy American Act-Construction Materials (Feb 2009)
(a) Definitions. As used in this clause-
"Commercially available off-the-shelf (COTS) item"-
(1) Means any item of supply (including construction material) that is-
(i) A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);
(ii) Sold in substantial quantities in the commercial marketplace; and
(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and
(2) Does not include bulk cargo, as defined in section 3 of the Shipping Act of 1984 ( 46 U.S.C. App. 1702), such as agricultural products and petroleum products.
"Component" means an article, material, or supply incorporated directly into a construction material.
"Construction material" means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or
components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material. "Cost of components" means-
(3) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or
(4) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.
"Domestic construction material" means-
(1) An unmanufactured construction material mined or produced in the United States;
(2) A construction material manufactured in the United States, if-
(i) The cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic; or
(ii) The construction material is a COTS item.
"Foreign construction material" means a construction material other than a domestic construction material.
"United States" means the 50 States, the District of Columbia, and outlying areas.
(b) Domestic preference.
(1) This clause implements the Buy American Act (41 U.S.C. 10a - 10d) by providing a preference for domestic construction material. In accordance with 41 U.S.C. 431, the component test of the Buy American Act is waived for construction material that is a COTS item (See FAR 12.505(a)(2)). The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b) (3) of this clause.
(2) This requirement does not apply to the construction material or components listed by the Government as follows:
(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that-
(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;
(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or
(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.
(c) Request for determination of inapplicability of the Buy American Act.
(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including -
(A) A description of the foreign and domestic construction materials;
(B) Unit of measure;
(C) Quantity;
(D) Price;
(E) Time of delivery or availability;
(F) Location of the construction project;
(G) Name and address of the proposed supplier; and
(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.
(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.
(iii) The price of construction material shall include all delivery costs to the construction site and any applicable
(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.
(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.
(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.
(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

| Foreign and Domestic Construction Materials Price Comparison |  |  |  |
| :---: | :---: | :---: | :---: |
| Construction Material Description | Unit of Measure | Quantity | $\begin{array}{\|c} \hline \text { Price } \\ \text { (Dollars) } \end{array}$ |
| Item 1: |  |  |  |
| Foreign construction material |  |  |  |
| Domestic construction material |  |  |  |
|  |  |  |  |
| Item 2: |  |  |  |
| Foreign construction material |  |  |  |
| Domestic construction material |  |  |  |
| [List name, address, telephone nu Attach copy of response; if oral, att [Include other applicable supporting [* Inc/ude all delivery costs to the (whether or not a duty-free entry c | contact for <br> nary.] <br> tion.] <br> n site and <br> issued). | ny app | surveyed <br> able duty |

## FAR Clause 52.225-3, Buy American Act-Free Trade Agreements-Israeli Trade Act

As prescribed in $25.1101(\mathrm{~b})(1)(\mathrm{i})$, insert the following clause:

## Buy American Act-Free Trade Agreements-Israel Trade Act (June 2009)

(a) Definitions. As used in this clause-
"Bahrainian, Moroccan, Omani, or Peruvian end product" means an article that-
(1) Is wholly the growth, product, or manufacture of Bahrain, Morocco, Oman, or Peru; or
(2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in Bahrain, Morocco, Oman, or Peru into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.
"Commercially available off-the-shelf (COTS) item"-
(1) Means any item of supply (including construction material) that is-
(i) A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);
(ii) Sold in substantial quantities in the commercial marketplace; and
(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and
(2) Does not include bulk cargo, as defined in section 3 of the Shipping Act of 1984 ( 46 U.S.C. App. 1702), such as agricultural products and petroleum products.
"Component" means an article, material, or supply incorporated directly into an end product.
"Cost of components" means-
(3) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the end product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or
(4) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable
overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.
"Domestic end product" means-
(1) An unmanufactured end product mined or produced in the United States;
(2) An end product manufactured in the United States, if-
(i) The cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind as those that the agency determines are not mined, produced, or manufactured in sufficient and reasonably available commercial quantities of a satisfactory quality are treated as domestic. Scrap generated, collected, and prepared for processing in the United States is considered domestic; or
(ii) The end product is a COTS item.
"End product" means those articles, materials, and supplies to be acquired under the contract for public use.
"Foreign end product" means an end product other than a domestic end product.
"Free Trade Agreement country" means Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Morocco, Nicaragua, Oman, Peru, or Singapore.
"Free Trade Agreement country end product" means an article that-
(1) Is wholly the growth, product, or manufacture of a Free Trade Agreement country; or
(2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in a Free Trade Agreement country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.
"Israeli end product" means an article that-
(1) Is wholly the growth, product, or manufacture of Israel; or
(2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in Israel into
a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed.
"United States" means the 50 States, the District of Columbia, and outlying areas.
(b) Components of foreign origin. Offerors may obtain from the Contracting Officer a list of foreign articles that the Contracting Officer will treat as domestic for this contract.
(c) Delivery of end products. The Buy American Act (41 U.S.C. 10a - 10d) provides a preference for domestic end products for supplies acquired for use in the United States. In accordance with 41 U.S.C. 431, the component test of the Buy American Act is waived for an end product that is a COTS item (See 12.505(a) (1)). In addition, the Contracting Officer has determined that FTAs (except the Bahrain, Morocco, Oman, and Peru FTAs) and the Israeli Trade Act apply to this acquisition. Unless otherwise specified, these trade agreements apply to all items in the Schedule. The Contractor shall deliver under this contract only domestic end products except to the extent that, in its offer, it specified delivery of foreign end products in the provision entitled "Buy American Act-Free Trade Agreements-Israeli Trade Act Certificate." If the Contractor specified in its offer that the Contractor would supply a Free Trade Agreement country end product (other than a Bahrainian, Moroccan, Omani, or Peruvian end product) or an Israeli end product, then the Contractor shall supply a Free Trade Agreement country end product (other than a Bahrainian, Moroccan, Omani, or Peruvian end product), an Israeli end product or, at the Contractor's option, a domestic end product.

Alternate I (Jan 2004). As prescribed in 25.1101(b)(1)(ii), add the following definition to paragraph (a) of the basic clause, and substitute the following paragraph (c) for paragraph (c) of the basic clause:
"Canadian end product" means an article that-
(1) Is wholly the growth, product, or manufacture of Canada; or
(2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in Canada into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.
(c) Delivery of end products. The Contracting Officer has determined that NAFTA applies to this acquisition. Unless otherwise specified, NAFTA applies to all items in the Schedule. The Contractor shall deliver under this contract only domestic end
products except to the extent that, in its offer, it specified delivery of foreign end products in the provision entitled "Buy American Act-Free Trade AgreementsIsraeli Trade Act Certificate." If the Contractor specified in its offer that the Contractor would supply a Canadian end product, then the Contractor shall supply a Canadian end product or, at the Contractor's option, a domestic end product.
Alternate II (Jan 2004). As prescribed in 25.1101(b)(1)(iii), add the following definition to paragraph (a) of the basic clause, and substitute the following paragraph (c) for paragraph (c) of the basic clause:
"Canadian end product" means an article that-
(1) Is wholly the growth, product, or manufacture of Canada; or
(2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in Canada into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.
(c) Delivery of end products. The Contracting Officer has determined that NAFTA and the Israeli Trade Act apply to this acquisition. Unless otherwise specified, these trade agreements apply to all items in the Schedule. The Contractor shall deliver under this contract only domestic end products except to the extent that, in its offer, it specified delivery of foreign end products in the provision entitled "Buy American Act-Free Trade Agreements-Israeli Trade Act Certificate." If the Contractor specified in its offer that the Contractor would supply a Canadian end product or an Israeli end product, then the Contractor shall supply a Canadian end product, an Israeli end product or, at the Contractor's option, a domestic end product.

FAR Clause 52.225-21, Required Use of American Iron, Steel, and Other Manufactured Goods-Buy American Act-Construction Materials
As prescribed in 25.1102(e), insert the following clause:
Required Use of American iron, Stell, and Manufactured Goods-Buy American Act-Construction Mattrials (Mar 2009)
(a) Definitions. As used in this clause-
"Construction material" means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life
safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material. "Domestic construction material" means-
(1) An unmanufactured construction material mined or produced in the United States; or
(2) A construction material manufactured in the United States.
"Foreign construction material" means a construction material other than a domestic construction material.
"Manufactured construction material" means any construction material that is not unmanufactured construction material.
"Steel" means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.
"United States" means the 50 States, the District of Columbia, and outlying areas.
"Unmanufactured construction material" means raw material brought to the construction site for incorporation into the building or work that has not been
(1) Processed into a specific form and shape; or
(2) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.
(b) Domestic preference.
(1) This clause implements-
(i) Section 1605 of the American Recovery and Reinvestment Act of 2009 (Recovery Act) (Pub. L. 111-5), by requiring, unless an exception applies, that all iron, steel, and other manufactured goods used as construction material in the project are produced in the United States; and
(ii) The Buy American Act ( 41 U.S.C. 10a -10 d ) by providing a preference for unmanufactured domestic construction material.
(2) The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraph (b)(3) and (b)(4) of this clause.
(3) This requirement does not apply to the construction material or components listed by the Government as follows:
[Contracting Officer to list applicable excepted materials or indicate "none"]
(4) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) of this clause if the Government determines that-
(i) The cost of domestic construction material would be unreasonable.
(A) The cost of domestic iron, steel, or other manufactured goods used as construction material is unreasonable when the cumulative cost of such material will increase the cost of the contract by more than 25 percent;
(B) The cost of unmanufactured construction material is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;
(ii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or
(iii) The application of the restriction of section 1605 of the Recovery Act or the Buy American Act to a particular construction material would be inconsistent with the public interest.
(c) Request for determination of inapplicability of Section 1605 of the Recovery Act or the Buy American Act
(1) (i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including-
(A) A description of the foreign and domestic construction materials;
(B) Unit of measure;
(C) Quantity;
(D) Cost;
(E) Time of delivery or availability;
(F) Location of the construction project;
(G) Name and address of the proposed supplier; and
(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(4) of this clause.
(ii) A request based on unreasonable cost shall include a reasonable
survey of the market and a completed cost comparison table in the format in paragraph (d) of this clause.
(iii) The cost of construction material shall include all delivery costs to the construction site and any applicable duty.
(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.
(2) If the Government determines after contract award that an exception to section 1605 of the Recovery Act or the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable cost of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b) (4)(i) of this clause.
(3) Unless the Government determines that an exception to section 1605 of the Recovery Act or the Buy American Act applies, use of foreign construction material is noncompliant with section 1605 of the American Recovery and Reinvestment Act or the Buy American Act.
(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

$\left.$| ForeIGN AND DomESTIC Construction MATERIALS PRICE ComPARISON |  |  |
| :--- | :--- | :--- | :--- |
| Construction Material Description | Unit of <br> Measure | Quantity | | Cost |
| :---: |
| (Dollars) | \right\rvert\,

FAR Clause 52.225-23, Required Use of American Iron, Steel, and Other Manufactured Goods-Buy American Act-Construction Materials Under Trade Agreements
As prescribed in 25.1102(e), insert the following clause:
Requred Use of American Iron, Steel, and Other Manufactured Goods-Buy American ActConstruction Materials Under Trade Agreements (Aug 2009)
(a) Definitions. As used in this clause-
"Construction material" means an article, material, or supply brought to the construction site by the Contractor or subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.
"Domestic construction material" means-
(1) An unmanufactured construction material mined or produced in the United States; or
(2) A construction material manufactured in the United States.
"Foreign construction material" means a construction material other than a domestic construction material.
"Free trade agreement (FTA) country construction material" means a construction material that-
(1) Is wholly the growth, product, or manufacture of an FTA country; or
(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in an FTA country into a new and different construction material distinct from the materials from which it was transformed.
"Least developed country construction material" means a construction material that-
(1) Is wholly the growth, product, or manufacture of a least developed country; or
(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a least developed country into a new and different construction material distinct from the materials from which it was transformed.
"Manufactured construction material" means any construction material that is not unmanufactured construction material.
"Recovery Act designated country" means any of the following countries:
(1) A World Trade Organization Government Procurement Agreement (WTO GPA) country (Aruba, Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan, or United Kingdom);
(2) A Free Trade Agreement country (FTA)(Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Mexico, Morocco, Nicaragua, Oman, Peru, or Singapore); or
(3) A least developed country (Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, East Timor, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Laos, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Tanzania, Togo, Tuvalu, Uganda, Vanuatu, Yemen, or Zambia).


#### Abstract

"Recovery Act designated country construction material" means a construction material that is a WTO GPA country construction material, an FTA country construction material, or a least developed country construction material. "Steel" means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.


"United States" means the 50 States, the District of Columbia, and outlying areas.
"Unmanufactured construction material" means raw material brought to the construction site for incorporation into the building or work that has not been
(1) Processed into a specific form and shape; or
(2) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials. "WTO GPA country construction material" means a construction material that-
(1) Is wholly the growth, product, or manufacture of a WTO GPA country; or
(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a WTO GPA country into a new and different construction material distinct from the materials from which it was transformed.
(b) Construction materials.
(1) The restrictions of section 1605 of the American Recovery and Reinvestment Act of 2009 (Pub. L. 111-5) (Recovery Act) and the Buy American Act (41 U.S.C. 10a-10d) do not apply to Recovery Act designated country construction material. Consistent with U.S. obligations under international agreements, this clause implements-
(i) Section 1605 of the Recovery Act by requiring, unless an exception applies, that all iron, steel, and other manufactured goods used as construction material in the project are produced in the United States; and
(ii) The Buy American Act by providing a preference for unmanufactured domestic construction material.
(2) The Contractor shall use only domestic or Recovery Act designated country construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.
(3) The requirement in paragraph (b)(2) of this clause does not apply to the construction materials or components listed by the Government as follows:

## [Contracting Officer to list applicable excepted materials or indicate "none".]

(4) The Contracting Officer may add other construction material to the list in paragraph (b)(3) of this clause if the Government determines that-
(i) The cost of domestic construction material would be unreasonable.
(A) The cost of domestic iron, steel, or other manufactured goods used as construction material is unreasonable when the cumulative cost of such material will increase the overall cost of the contract by more than 25 percent;
(B) The cost of unmanufactured construction material is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;
(ii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality; or
(iii) The application of the restriction of section 1605 of the

Recovery Act or the Buy American Act to a particular construction material would be inconsistent with the public interest.
(c) Request for determination of inapplicability of section 1605 of the Recovery Act or the Buy American Act.
(1) (i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including-
(A) A description of the foreign and domestic construction materials;
(B) Unit of measure;
(C) Quantity;
(D) Cost;
(E) Time of delivery or availability;
(F) Location of the construction project;
(G) Name and address of the proposed supplier; and
(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(4) of this clause.
(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed cost comparison table in the format in paragraph (d) of this clause.
(iii) The cost of construction material shall include all delivery costs to the construction site and any applicable duty.
(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.
(2) If the Government determines after contract award that an exception to section 1605 of the Recovery Act or the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable cost of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b) (4)(i) of this clause.
(3) Unless the Government determines that an exception to the section 1605 of the Recovery Act or the Buy American Act applies, use of foreign construction material other than that covered by trade agreements is noncompliant with the applicable Act.
(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

| Construction Material Description | Unit of <br> Measure | Quantity | Cost <br> (Dollars)* |
| :--- | :--- | :--- | :--- |
| Item 1: |  |  |  |
| Foreign construction material |  |  |  |
| Domestic construction material |  |  |  |
|  |  |  |  |
| Item 2: |  |  |  |
| Foreign construction material |  |  |  |
| Domestic construction material |  |  |  |
| [List name, address, telephone number, and contact for suppliers surveyed. <br> Attach copy of response; if oral, attach summary.] <br> [Include other applicable supporting information.] <br> [* Include all delivery costs to the construction site.] |  |  |  |

## PROMPT PAYMENT ACT

When FAR clause 52.232-27, Prompt Payment for Construction Contracts, is included in a contract, it sets out the requirements for an acceptable invoice and allows payment within 14 calendar days. The key element is that the invoice must be an "acceptable" invoice. There are several types of invoice payments that may occur under construction contracts. The contract may also have other requirements in various sections that mandate additional requirements for an acceptable invoice, e.g., Q system and schedules.

## Progress Payments

Progress payments are based on CO approval of the estimated amount and value of work or services performed, including payments for reachin gmilestones in any project. The due date for making such payments is 14 days after the designated billing office receives a proper payment request. If the designated billing office fails to annotate the payment request with the actual date of receipt at the time of receipt, the payment due date is the 14th day after the date of the contractor's payment request, provided the designated billing office receives a proper payment request and there is no disagreement over quantity, quality, or contractor compliance with contract requirements.

The due date for payment of any amounts retained by the CO in accordance with FAR clause 52.232-5, Payments under Fixed-Price Construction Contracts, is 30 days after approval by the CO for release to the contractor.

## Final Payments

Final payments are based on completion and acceptance of all work and presentation of release of all claims against the government arising by virtue of the contract and payments for partial deliveries that have been accepted by the government (e.g., each separate building, public work, or other division of the contract for which the price is stated separately in the contract).

The due date for making such payments is the later of the following two events:

- The 30th day after the designated billing office receives a proper invoice from the contractor.
- The 30th day after government acceptance of the work or services completed by the contractor. For a final invoice when the payment amount is subject to contract settlement actions (e.g., release of claims), acceptance is deemed to occur on the effective date of the contract settlement.

If the designated billing office fails to annotate the invoice with the date of actual receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or contractor compliance with contract requirements.

The contractor should prepare and submit invoices to the billing office specified in the contract. A proper invoice must include the items listed below. If the invoice does not comply with these requirements, the designated billing office must return it with an explanation within seven days after receipt. When computing any interest penalty owed the contractor, the government will take into account whether it has notified the contractor of an improper invoice in an untimely manner.

- Name and address of the contractor.
- Invoice date and invoice numbers. (The contractor should date invoices as close as possible to the date of mailing or transmission.)
- Contract number or other authorization for work or services performed, including order number and contract line item numbers.
- Description of work or services performed.
- Delivery and payment terms (e.g., discount for prompt payment terms).
- Name and address of CO to whom payment is to be sent (must be the same as in the contract or in a proper notice of assignment).
- Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.
For payments described above, substantiation of the amounts requested and certification in accordance with the requirements of FAR clause 52.232-5, Payments under Fixed-Price Construction Contracts.
- Taxpayer Identification Number (TIN). The contractor should include the TIN on the invoice only if required elsewhere in the contract.
- Any other information or documentation required by the contract.


## Payment Requests-U.S. Army Corps of Engineers

All progress payment requests must be prepared using QCS. The contractor must complete the payment request worksheet, prompt payment certification, and payment invoice in QCS. The work completed under the contract, measured as a percent or as specific quantities, must be updated at least monthly. After the update, the contractor will generate a payment request report using QCS. The contractor must submit the payment requests, prompt payment certification, and payment invoice with supporting data by using the government's Secure File Transfer Protocol (SFTP) repository, built into the QCS export function. If permitted by the CO, e-mail or a CD-ROM may be used. A signed paper copy of the approved payment request is also required, and it will govern in the event of a discrepancy with the electronic version. Other items such as photographs may be required.

## Interest Penalty

The designated payment office will pay an interest penalty automatically, without request from the contractor, if payment is not made by the due date and a proper invoice has been accepted. When the due date falls on a Saturday, Sunday, or legal holiday, however, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

The contractor must meet the following requirements for the government to pay interest on a late payment:

- The designated billing office must have received a proper invoice from the contractor.
- The government processed a receiving report or other documentation authorizing payment and there was no disagreement over quantity, quality, contractor
compliance with any contract term or condition, or requested progress payment amount.
- In the case of a final invoice for any balance of funds due the contractor for work or services performed, the amount was not subject to further contract settlement actions between the government and the contractor.


## Computing Penalty Amount

The government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315. For the sole purpose of computing an interest penalty that might be due the contractor for payments described above, government acceptance or approval is deemed to occur constructively on the seventh day after the contractor has completed the work or services in accordance with the terms and conditions of the contract. If actual acceptance or approval occurs within the constructive acceptance or approval period, the government will base the determination of an interest penalty on the actual date of acceptance or approval. Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, or contractor compliance with a contract provision.

## Additional Interest Penalty

The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315, in addition to the interest penalty amount if:

- The government owes an interest penalty of $\$ 1$ or more;
- The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and
- The contractor makes a written demand to the designated payment office for additional penalty payment, postmarked not later than 40 days after the date the invoice amount is paid. The contractor must support written demands for additional penalty payments with the following data. The contractor must:

Specifically assert that late payment interest is due under a specific invoice and request payment of all overdue late payment interest penalty and such additional penalty as may be required;
Attach a copy of the invoice on which the unpaid late payment interest was due; and

State that payment of the principal has been received, including the date of receipt.

## Prompt Payment for Subcontractors

FAR Clause $52.232-5$ is a payment clause that not only requires payment to the contractor but also obligates the contractor to pay the subcontractor for satisfactory performance under its subcontract. This payment must be made not later than seven days from receipt of payment out of such amounts as are paid to the contractor under the contract. Further, the contractor cannot withhold funds from the subcontractor for the work that it has certified unless the government withholds funds from the contractor.

## FAR Clause 52.232-5, Payments Under Fixed-Price Construction Contracts

As prescribed in 32.111(a)(5), insert the following clause:
Payments Under Fixed-Price Construction Contracts (Sept 2002)
(a) Payment of price. The Government shall pay the Contractor the contract price as provided in this contract.
(b) Progress payments. The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer.
(1) The Contractor's request for progress payments shall include the following substantiation:
(i) An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested.
(ii) A listing of the amount included for work performed by each subcontractor under the contract.
(iii) A listing of the total amount of each subcontract under the contract.
(iv) A listing of the amounts previously paid to each such subcontractor under the contract.
(v) Additional supporting data in a form and detail required by the Contracting Officer.
(2) In the preparation of estimates, the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site also may be taken into consideration if-
(i) Consideration is specifically authorized by this contract; and
(ii) The Contractor furnishes satisfactory evidence that it has
acquired title to such material and that the material will be used to perform this contract.
(c) Contractor certification. Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made: (However, if the Contractor elects to delete paragraph (c)(4) from the certification, the certification is still acceptable.)
I hereby certify, to the best of my knowledge and belief, that-
(1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;
(2) All payments due to subcontractors and suppliers from previous payments received under the contract have been made, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of Chapter 39 of Title 31, United States Code;
(3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and
(4) This certification is not to be construed as final acceptance of a subcontractor's performance.
(Name)

## (Title)

## (Date)

(d) Refund of unearned amounts. If the Contractor, after making a certified request for progress payments, discovers that a portion or all of such request constitutes a payment for performance by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall-
(1) Notify the Contracting Officer of such performance deficiency; and
(2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in paragraph ( j ) of this clause) equal to interest on the unearned amount from the 8th day after the date of receipt of the unearned amount until-
(i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or
(ii) The date the Contractor reduces the amount of any subsequent
certified request for progress payments by an amount equal to the unearned amount.
(e) Retainage. If the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds. Also, on completion and acceptance of each separate building, public work, or other division of the contract, for which the price is stated separately in the contract, payment shall be made for the completed work without retention of a percentage.
(f) Title, liability, and reservation of rights. All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as-
(1) Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or
(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.
(g) Reimbursement for bond premiums. In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provisions in paragraph (e) of this clause shall not apply to that portion of progress payments attributable to bond premiums.
(h) Final payment. The Government shall pay the amount due the Contractor under this contract after-
(1) Completion and acceptance of all work;
(2) Presentation of a properly executed voucher; and
(3) Presentation of release of all claims against the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 15).
(i) Limitation because of undefinitized work. Notwithstanding any provision of this contract, progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes.
(j) Interest computation on unearned amounts. In accordance with 31 U.S.C. 3903(c) (1), the amount payable under paragraph (d)(2) of this clause shall be-
(1) Computed at the rate of average bond equivalent rates of 91-day Treasury bills auctioned at the most recent auction of such bills prior to the date the Contractor receives the unearned amount; and
(2) Deducted from the next available payment to the Contractor.
(End of clause)

## FAR Clause 52.232-27, Prompt Payment for Construction Contracts

As prescribed in 32.908(b), insert the following clause:
Prompt Payment for Construction Contracts (Oct 2008)
Notwithstanding any other payment terms in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a) (3) concerning payments due on Saturdays, Sundays, and legal holidays.)
(a) Invoice payments-
(1) Types of invoice payments. For purposes of this clause, there are several types of invoice payments that may occur under this contract, as follows:
(i) Progress payments, if provided for elsewhere in this contract, based on Contracting Officer approval of the estimated amount and value of work or services performed, including payments for reaching milestones in any project.
(A) The due date for making such payments is 14 days after the designated billing office receives a proper
payment request. If the designated billing office fails to annotate the payment request with the actual date of receipt at the time of receipt, the payment due date is the 14th day after the date of the Contractor's payment request, provided the designated billing office receives a proper payment request and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.
(B) The due date for payment of any amounts retained by the Contracting Officer in accordance with the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts, is as specified in the contract or, if not specified, 30 days after approval by the Contracting Officer for release to the Contractor.
(ii) Final payments based on completion and acceptance of all work and presentation of release of all claims against the Government arising by virtue of the contract, and payments for partial deliveries that have been accepted by the Government (e.g., each separate building, public work, or other division of the contract for which the price is stated separately in the contract).
(A) The due date for making such payments is the later of the following two events:
(1) The 30th day after the designated billing office receives a proper invoice from the Contractor.
(2) The 30th day after Government acceptance of the work or services completed by the Contractor. For a final invoice when the payment amount is subject to contract settlement actions (e.g., release of claims), acceptance is deemed to occur on the effective date of the contract settlement.
(B) If the designated billing office fails to annotate the invoice with the date of actual receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or (2) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(2)(i) through (a)(2) (xi) of this clause. If the invoice does not comply with
these requirements, the designated billing office must return it within 7 days after receipt, with the reasons why it is not a proper invoice. When computing any interest penalty owed the Contractor, the Government will take into account if the Government notifies the Contractor of an improper invoice in an untimely manner.
(i) Name and address of the Contractor.
(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of mailing or transmission.)
(iii) Contract number or other authorization for work or services performed (including order number and contract line item number).
(iv) Description of work or services performed.
(v) Delivery and payment terms (e.g., discount for prompt payment terms).
(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).
(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.
(viii) For payments described in paragraph (a)(1)(i) of this clause, substantiation of the amounts requested and certification in accordance with the requirements of the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts.
(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.
(x) Electronic funds transfer (EFT) banking information.
(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.
(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer),
contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer-Central Contractor Registration, or 52.232-34, Payment by Electronic Funds TransferOther Than Central Contractor Registration), or applicable agency procedures.
(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.
(xi) Any other information or documentation required by the contract.
(3) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.
(i) The designated billing office received a proper invoice.
(ii) The Government processed a receiving report or other Government documentation authorizing payment and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.
(iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.
(4) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR Part 1315.
(i) For the sole purpose of computing an interest penalty that might be due the Contractor for payments described in paragraph (a)(1)(ii) of this clause, Government acceptance or approval is deemed to occur constructively on the 7th day after the Contractor has completed the work or services in accordance with the terms and conditions of the contract. If actual acceptance or approval occurs within the constructive acceptance or approval period, the Government will base the determination of an interest penalty on the actual date of acceptance or approval. Constructive acceptance or
constructive approval requirements do not apply if there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. These requirements also do not compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.
(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes, and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.
(5) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR Part 1315.
(6) Additional interest penalty.
(i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR Part 1315 in addition to the interest penalty amount only if-
(A) The Government owes an interest penalty of $\$ 1$ or more;
(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and
(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(6)(ii) of this clause, postmarked not later than 40 days after the date the invoice amount is paid.
(ii) (A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall-
(1) Specifically assert that late payment interest is due under a specific invoice,
and request payment of all overdue late payment interest penalty and such additional penalty as may be required;
(2) Attach a copy of the invoice on which the unpaid late payment interest was due; and
(3) State that payment of the principal has been received, including the date of receipt.
(B) If there is no postmark or the postmark is illegible-
(1) The designated payment office that receives the demand will annotate it with the date of receipt provided the demand is received on or before the 40th day after payment was made; or
(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.
(b) Contract financing payments. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.
( c) Subcontract clause requirements. The Contractor shall include in each subcontract for property or services (including a material supplier) for the purpose of performing this contract the following:
(1) Prompt payment for subcontractors. A payment clause that obligates the Contractor to pay the subcontractor for satisfactory performance under its subcontract not later than 7 days from receipt of payment out of such amounts as are paid to the Contractor under this contract.
(2) Interest for subcontractors. An interest penalty clause that obligates the Contractor to pay to the subcontractor an interest penalty for each payment not made in accordance with the payment clause-
(i) For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and
(ii) Computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.
(3) Subcontractor clause flowdown. A clause requiring each subcontractor to
(i) Include a payment clause and an interest penalty clause conforming to the standards set forth in paragraphs (c) (1) and
(c)(2) of this clause in each of its subcontracts; and
(ii) Require each of its subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or supplier.
(d) Subcontract clause interpretation. The clauses required by paragraph (c) of this clause shall not be construed to impair the right of the Contractor or a subcontractor at any tier to negotiate, and to include in their subcontract, provisions that-
(1) Retainage permitted. Permit the Contractor or a subcontractor to retain (without cause) a specified percentage of each progress payment otherwise due to a subcontractor for satisfactory performance under the subcontract without incurring any obligation to pay a late payment interest penalty, in accordance with terms and conditions agreed to by the parties to the subcontract, giving such recognition as the parties deem appropriate to the ability of a subcontractor to furnish a performance bond and a payment bond;
(2) Withholding permitted. Permit the Contractor or subcontractor to make a determination that part or all of the subcontractor's request for payment may be withheld in accordance with the subcontract agreement; and
(3) Withholding requirements. Permit such withholding without incurring any obligation to pay a late payment penalty if-
(i) A notice conforming to the standards of paragraph (g) of this clause previously has been furnished to the subcontractor; and
(ii) The Contractor furnishes to the Contracting Officer a copy of any notice issued by a Contractor pursuant to paragraph (d)(3) (i) of this clause.
(e) Subcontractor withholding procedures. If a Contractor, after making a request for payment to the Government but before making a payment to a subcontractor for the subcontractor's performance covered by the payment request, discovers that all or a portion of the payment otherwise due such subcontractor is subject to withholding from the subcontractor in accordance with the subcontract agreement, then the Contractor shall-
(1) Subcontractor notice. Furnish to the subcontractor a notice conforming to the standards of paragraph $(\mathrm{g})$ of this clause as soon as practicable upon ascertaining the cause giving rise to a withholding, but prior to the due date for subcontractor payment;
(2) Contracting Officer notice. Furnish to the Contracting Officer, as soon as practicable, a copy of the notice furnished to the subcontractor pursuant to paragraph (e)(1) of this clause;
(3) Subcontractor progress payment reduction. Reduce the subcontractor's progress payment by an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (e)(1) of this clause;
(4) Subsequent subcontractor payment. Pay the subcontractor as soon as practicable after the correction of the identified subcontract performance deficiency, and-
(i) Make such payment within-
(A) Seven days after correction of the identified subcontract performance deficiency (unless the funds therefore must be recovered from the Government because of a reduction under paragraph (e)(5)(i)) of this clause; or
(B) Seven days after the Contractor recovers such funds from the Government; or
(ii) Incur an obligation to pay a late payment interest penalty computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty;
(5) Notice to Contracting Officer. Notify the Contracting Officer upon-
(i) Reduction of the amount of any subsequent certified application for payment; or
(ii) Payment to the subcontractor of any withheld amounts of a progress payment, specifying-
(A) The amounts withheld under paragraph (e)(1) of this clause; and
(B) The dates that such withholding began and ended; and
(6) Interest to Government. Be obligated to pay to the Government an amount equal to interest on the withheld payments (computed in the manner provided in 31 U.S.C. 3903(c)(1)), from the 8th day after receipt of the withheld amounts from the Government until-
(i) The day the identified subcontractor performance deficiency is corrected; or
(ii) The date that any subsequent payment is reduced under paragraph (e)(5)(i) of this clause.
(f) Third-party deficiency reports-
(1) Withholding from subcontractor. If a Contractor, after making payment to a first-tier subcontractor, receives from a supplier or subcontractor of the first-tier subcontractor (hereafter referred to as a "second-tier subcontractor") a written notice in accordance with the Miller Act (40 U.S.C. 3133), asserting a deficiency in such first-tier subcontractor's performance under the contract for which the Contractor may be ultimately liable, and the Contractor determines that all or a portion of future payments otherwise due such first-tier subcontractor is subject to withholding in accordance with the subcontract agreement, the Contractor may, without incurring an obligation to pay an interest penalty under paragraph (e)(6) of this clause-
(i) Furnish to the first-tier subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon making such determination; and
(ii) Withhold from the first-tier subcontractor's next available progress payment or payments an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (f)(1)(i) of this clause.
(2) Subsequent payment or interest charge. As soon as practicable, but not later than 7 days after receipt of satisfactory written notification that the identified subcontract performance deficiency has been corrected, the Contractor shall-
(i) Pay the amount withheld under paragraph (f)(1)(ii) of this clause to such first-tier subcontractor; or
(ii) Incur an obligation to pay a late payment interest penalty to such first-tier subcontractor computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.
(g) Written notice of subcontractor withholding. The Contractor shall issue a written notice of any withholding to a subcontractor (with a copy furnished to the Contracting Officer), specifying-
(1) The amount to be withheld;
(2) The specific causes for the withholding under the terms of the subcontract; and
(3) The remedial actions to be taken by the subcontractor in order to receive payment of the amounts withheld.
(h) Subcontractor payment entitlement. The Contractor may not request payment
from the Government of any amount withheld or retained in accordance with paragraph (d) of this clause until such time as the Contractor has determined and certified to the Contracting Officer that the subcontractor is entitled to the payment of such amount.
(i) Prime-subcontractor disputes. A dispute between the Contractor and subcontractor relating to the amount or entitlement of a subcontractor to a payment or a late payment interest penalty under a clause included in the subcontract pursuant to paragraph (c) of this clause does not constitute a dispute to which the Government is a party. The Government may not be interpleaded in any judicial or administrative proceeding involving such a dispute.
(j) Preservation of prime-subcontractor rights. Except as provided in paragraph (i) of this clause, this clause shall not limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or a subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or nonperformance by a subcontractor.
(k) Non-recourse for prime contractor interest penalty. The Contractor's obligation to pay an interest penalty to a subcontractor pursuant to the clauses included in a subcontract under paragraph (c) of this clause shall not be construed to be an obligation of the Government for such interest penalty. A cost-reimbursement claim may not include any amount for reimbursement of such interest penalty.
(1) Overpayments. If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall-
(1) Remit the overpayment amount to the payment office cited in the contract along with a description of the overpayment including the-
(i) Circumstances of the overpayment (e.g., duplicate payment, erroneous payment, liquidation errors, date(s) of overpayment);
(ii) Affected contract number and delivery order number if applicable;
(iii) Affected contract line item or subline item, if applicable; and
(iv) Contractor point of contact.
(2) Provide a copy of the remittance and supporting documentation to the Contracting Officer.

## DISPUTES

FAR clause 52.233-1, Disputes, is used whenever a contractor files a claim, which means a written demand or assertion requesting an adjustment or interpretation of the contract. Normally this happens for work that the government has told you to perform but you consider out of the scope of the contract. The claim notification must be submitted to the Armed Services Board of Contract Appeals (ASBCA) no later than 90 calendar days after the CO's "final" decision. The ASBCA has held that this notification must be strictly adhered to for it to hear the case. The claim may be filed within six years after the CO's decision.

The proper method for submitting a claim is to submit a "Request for Equitable Adjustment" and then await the CO's decision. If the CO denies the REA, then request a CO's final decision. Alternative dispute resolution may then be requested; however, if this is not mutually agreed upon, you may file a claim with the ASBCA.

Documentation of the reasons for the claim, cost, and certification as required by the "Disputes" clause will win or lose the claim. After receiving the REA (and before you submit your claim), the government will try to refute the evidence presented with the REA. You will have to include additional evidence in a claim if it is to be upheld by the court. You might need to submit daily reports, correspondence, documentation of verbal or written directives, schedules, etc. Proof that notifications were properly given will be critical.

The two parties should use alternative dispute resolution (ADR) instead of going to the ASBCA because the attorney's fees can be very expensive and, under federal law, cannot be recouped. Also note that only 17 percent of the cases before the ASBCA are won by the contractor.
You must proceed diligently with the work in dispute pending final resolution if so directed by the CO.

Except as provided in the act, all disputes arising under or relating to the contract wil be resolved under this clause.

You must proceed diligently with performance of the contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and you must comply with any decision of the CO.

## FAR Clause 52.233-1, Disputes

As prescribed in 33.215, insert the following clause:
Disputes (July 2002)
(a) This contract is subject to the Contract Disputes Act of 1978 , as amended (41 U.S.C. 601-613).
(b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.
(c) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding $\$ 100,000$ is not a claim under the Act until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
(d) (1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.
(2) (i) The Contractor shall provide the certification specified in paragraph (d)
(2)(iii) of this clause when submitting any claim exceeding $\$ 100,000$.
(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.
(iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am duly authorized to certify the claim on behalf of the Contractor."
(3) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.
(e) For Contractor claims of $\$ 100,000$ or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over $\$ 100,000$, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.
(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.
(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim
by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative dispute resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the offer.
(h) The Government shall pay interest on the amount found due and unpaid from (1) the date that the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in FAR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6 -month period as fixed by the Treasury Secretary during the pendency of the claim.
(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and comply with any decision of the Contracting Officer.
(End of clause)
Alternate I (Dec 1991). As prescribed in 33.215, substitute the following paragraph (i) for paragraph (i) of the basic clause:
The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.

## THE MILLER ACT

The Miller Act (1935; 40 U.S.C. sections 3131 to 3134) is a federal law that requires contractors to post surety bonds on construction projects. The law also provides significant protection through the payment bond requirement for subcontractors and vendors that have direct contract relationships with the prime contractor and for lowertier subcontractors and vendors that have direct contract relationships with those same subcontractors and vendors.

## Requirements

The Miller Act requires that a contractor on a federal project post two bonds:

- A performance bond
- A labor and material payment bond.

The surety company issuing the bonds must be listed as a qualified surety on the Treasury List, which the U.S. Department of the Treasury issues each year. The bonds must be provided by a contractor before a contract that exceeds $\$ 100,000$ in amount for construction, alteration, or repair of any building or public work of the United States is awarded. The performance bond is in an amount the CO deems adequate to protect the interest of the United States. The bond amount is usually 100 percent of the contract price.

There is a separate payment bond for the protection of suppliers of labor and materials. The amount of the bond is equal to 50 percent of the contract price when the contract is less than $\$ 1$ million and 40 percent when the contract is from $\$ 1$ million to $\$ 5$ million. Contracts in excess of $\$ 5$ million require a payment bond in the amount of $\$ 2.5$ million.

## Alternatives to Payment Bonds

The FAR provides alternatives to payment bonds as payment protections for suppliers of labor and materials for contracts that are more than $\$ 25,000$ and not more than \$100,000.

- The contractor may provide an "Irrevocable Letter of Credit" in accordance with FAR clause 52.228-14, Irrevocable Letter of Credit, as an alternative to a performance and payment bond.
- The contractor may pledge assets in accordance with FAR clause 52.228-4003, Individual Sureties.

The requirements for these alternatives are very stringent and must be approved by the CO.

## Who Is Covered by the Miller Act

- Subcontractors and suppliers who have direct contracts with the prime contractor. These are called first-tier claimants.
- Subcontractors and material suppliers that have contracts with a subcontractor, but not those who have contracts with a supplier. These are called second-tier claimants.

Anyone farther down the contract chain not considered a second-tier claimant is considered too remote and may not assert a claim against a Miller Act payment bond posted by the contractor.

## Getting a Copy of the Contractor's Bond

A subcontractor or supplier may request a copy of the payment bond from you, and you must promptly provide a copy as required by FAR clause $52.228-12$, Prospective Subcontractor Requests for Bonds. The CO must furnish a certified copy of a payment bond and the contract for which it was given to any person applying for a copy who submits an affidavit stating that he or she has supplied labor or material for work described in the contract and payment for the work has not been made or that he or she is being sued on the bond. The applicant should pay any fees required to cover the cost of preparing the certified copy.

## Non-payment Recourse under the Miller Act

A person who has furnished labor or material in carrying out work provided for in a contract for which a payment bond is furnished and has not been paid in full within 90 days after the day on which the last of the labor was formed or the material was furnished may file a claim. The person for which the claim is made must have a direct contractual relationship with the contractor. He may then bring civil action on the payment bond for the amount unpaid at the time the civil action is brought and may prosecute the action to final execution and judgment for the amount due. Note: This action does not require prior notification.
A person having a direct contractual relationship with the subcontractor but no contractual relationship with the contractor furnishing the payment bond may bring a civil action on the payment bond on giving written notice to the contractor within 90 days from the date on which the person performed the last of the labor or furnished or supplied the last of the material for which the claim is made.

This civil action requires 90 -day notification to the contractor. The action must state with substantial accuracy the amount claimed and the name of the party to whom the material was furnished or supplied or for whom the labor was performed. The notice may be served by any means that provides written, third-party verification of delivery to the contractor, at any place the contractor maintains an office or conducts business or at the contractor's residence; or in any manner in which the U.S. marshal of the district in which the public improvement is situated by law may serve a summons.

A civil action must be:

- Brought in the name of the United States for the use of the person bringing the
action
- Brought in the United States District Court for any district in which the contract was to be performed and executed, regardless of the amount in controversy
- Brought no later than one year after the day on which the last labor was performed or material was supplied by the person bringing the action.

The government is not liable for the payment of any costs or expenses of any civil suit brought under the Miller Act.

## Waiver of Right to Civil Action

This waiver is commonly called the "Release of Claims and Waiver of Lien." Contractors generally want it signed before making partial and final payments to a subcontractor or supplier. The waiver is void unless:

- It is in writing.
- It is signed by the person whose right is waived.
- It is executed after the person whose right is waived has furnished labor or material for use in the performance of the contract.


## Coverage for Taxes in the Performance Bond

Every performance bond required under the Miller Act should provide coverage for taxes the government imposes, which are collected, deducted, or withheld from wages the contractor pays in carrying out the contract for which the bond is furnished.

The government must give the surety on the bond written notice, with respect to any unpaid taxes attributable to any period, within 90 days after the date when the contractor files a return for the period, except that notice must be given no later than 180 days from the date when a return was required to be filed under the Internal Revenue Code of 1986 ( 26 U.S.C. 1 et seq.). In addition, the government may not bring a civil suit on the bond for the taxes unless the required notice is given and if more than one year after the day on which the notice is given has passed.

## WORK BY THE CONTRACTOR

The federal government, to ensure adequate interest in and supervision of all work involved in larger projects, from time to time requires the contractor to perform a significant part of the contract work with its own forces. The contract will express this requirement in terms of a percentage that reflects the minimum amount of work the
contractor must perfor mwith its own forces (see FAR clause 52.236-1, Performance of Work by the Contractor). This percentage is as high as the CO considers appropriate for the project, consistent with customary or necessary specialty subcontracting and the complexity and magnitude of the work. It is ordinarily not less than 12 percent unless a greater percentage is required by law or agency regulation. Specialties such as plumbing, heating, and electrical work are usually subcontracted and are not normally considered in establishing the amount of work required to be performed by the contractor. This percentage is sometimes further defined as labor only, exclusive of materials and management costs.

## FAR Clause 52.236-1, Performance of Work by the Contractor

As prescribed in $36.501(\mathrm{~b})$, insert the following clause: [Complete the clause by inserting the appropriate percentage consistent with the complexity and magnitude of the work and customary or necessary specialty subcontracting (see 36.501 (a)).]

Performance of Work by the Contractor (Apr 1984)
The Contractor shall perform on the site, and with its own organization, work equivalent to at least ____ [insert the appropriate number in words followed by numerals in parentheses] percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.
(End of clause)
FAR Clause 52.236-5, Material and Workmanship, requires that all material be "new"; that references to product names, makes, or catalog numbers only establish a level of quality and not be construed as limiting competition; and that material and equipment, including samples, be submitted when required by the contract or at any other time that the CO determines and that payment will not be made for the work until the submittal is approved. It also requires that all work be accomplished in a skillful and workmanlike manner and allows the CO to remove from the work any employee that he or she deems incompetent, careless, or otherwise objectionable.

The most important part of this clause is that it allows the use of equipment, materials, or patented processes that meet the level of quality of the equipment/materials, etc. shown using proprietary brand names. That is why this clause is sometimes called the "or equal" clause. To prove that the product you are proposing to use is an "equal," you must show that your product has all the same "salient" characteristics.

FAR Clause 52.236-5, Material and Workmanship

As prescribed in 36.505 , insert the following clause:
Material and Workmanship (Apr 1984)
(a) All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.
(b) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.
(c) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require, in writing, that the Contractor remove from the work any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable.
(End of clause)
The superintendent is arguably the most important person on the job site because he or she directs all the on-site, day-to-day activities and is responsible for the overall quality of the project and its on-time completion. The government understands this and requires, through FAR clause 52.236-6, Superintendence by the Contractor, that you as the contractor have a superintendent satisfactory to the CO on the job site at all times. Most government solicitations require that proposals include the name and resume of the superintendent, and the government expects to see that person on the job. If there is to be a substitution at any time during the project, you must submit the substitute's
name and resume in writing to the CO for approval. Generally this person must have at least the same or more experience.

## FAR Clause 52.236-6, Superintendence by the Contractor

As prescribed in 36.506, insert the following clause:
Superintendence by the Contractor (Apr 1984)
At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the worksite a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.
(End of clause)

## DIFFERING SITE CONDITIONS

A differing site condition or changed condition can be defined as a physical condition encountered in performing the work that was not visible and known to exist at the time of bidding and is materially different from conditions believed to exist at the time of bidding. This changed condition is one of the major causes of disputes in the construction industry. The use of this FAR clause actually places the risk of differing site conditions on the government. As the contractor, you must show that the physical condition encountered was one that a reasonably intelligent contractor, experienced in the particular field of work involved, could be expected to discover upon a reasonable site investigation.

To receive compensation, you must be careful to follow the notification procedures in this clause. The work must be stopped, and the CO must be promptly notified, in writing, and given sufficient time to inspect and evaluate the conditions. If the CO finds that the condition constitutes a "differing site condition," you must "Request an Equitable Adjustment" in accordance with DFARS clause 252.243-7002.

## FAR Clause 52.236-2, Differing Site Conditions

As prescribed in 36.502, insert the following clause:
Differing Stte Conditions (Apr 1984)
(a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of-
(1) Subsurface or latent physical conditions at the site which differ materially from those indicated in this contract; or
(2) Unknown physical conditions at the site, of an unusual nature, which
differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.
(b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.
(c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in paragraph (a) of this clause for giving written notice may be extended by the Contracting Officer.
(d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.
(End of clause)

## SITE INVESTIGATIONS AND CONDITIONS AFFECTING THE WORK

FAR clause 52.236-3, Site Investigations and Conditions Affecting the Work, is almost always included in a federal government construction solicitation. You will be required to make a site visit to ascertain exactly what the existing conditions are. Such a requirement does not automatically nullify the effect of a differing site conditions clause if one is present and does not necessarily obligate you to discover hidden conditions at your peril. The federal courts have held that the adequacy of the site investigation is measured by what a reasonable, intelligent contractor, experienced in the particular field of work involved, could be expected to discover-not what a highly trained expert might have found.

Documents that are presented at the site investigation are also considered part of the site investigation. The federal courts have held that a review of these documents (e.g., as-built drawings, soil boring logs, dredging reports) carries the same importance as a site investigation even if they are only made available to the contractor at the site. Although there appears to be no court decision dealing with this issue, it is imperative that you request a copy of the documents upon award of the contract. If the request is denied, you should always notify the CO of a change under the "Differing Site Conditions" clause.

Attending the site visit is mandatory in the eyes of the federal courts in order to collect damages for changed site conditions. The federal courts have held that any claims for damages that are based on defective design or specifications that could have been reasonably seen during a site visit will be denied.

## FAR Clause 52.236-3, Site Investigation and Conditions Affecting the Work

As prescribed in 36.503, insert the following clause:
Stte Investigation and Conditions Affecting the Work (Apr 1984)
(a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, and roads; (3) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as
from the drawings and specifications made a part of this contract.
Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.
(b) The Government assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Government. Nor does the Government assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.
(End of clause)

## USE AND POSSESSION PRIOR TO COMPLETION

FAR clause 52.236-11, Use and Possession Prior to Completion, authorizes the government to take possession of a facility or any part of a facility prior to project acceptance. The government does this for many reasons; however, the most common is that the government has work to be performed in the facility prior to its being occupied by the user or the user has an overriding requirement to use the facility.

The government will make a list (punch list) of items remaining to be completed prior to taking possession, and these items must be completed prior to final project acceptance. All other loss or damage after the government takes possession is the government's responsibility.

You must notify the CO in writing if a delay in the progress of the work or any additional expenses, such as added cost due to work-arounds, are incurred. The CO will then make an equitable adjustment to the contract price or time of completion through a contract modification.

FAR Clause 52.236-11, Use and Possession Prior to Completion As prescribed in 36.511, insert the following clause:

Use and Possession Prior to Compietion (Apr 1984)
(a) The Government shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of
items of work remaining to be performed or corrected on those portions of the work that the Government intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The Government's possession or use shall not be deemed an acceptance of any work under the contract.
(b) While the Government has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the work resulting from the Government's possession or use, notwithstanding the terms of the clause in this contract entitled "Permits and Responsibilities." If prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.
(End of clause)

## SCHEDULES

FAR clause 52.236-15, Schedules for Construction Contracts, mandates the requirement for project schedules, and section 013201 of the contract describes in detail the requirements for them. The government puts a high level of importance on properly done schedules. The requirements are such that only a true professional scheduler should attempt to create and update schedules for the government. Currently the government uses Primavera Version 6, and it is highly recommended that any software chosen be compatible with that software. Government personnel are highly trained in the use and analysis of schedules, and they will perform a very detailed review of all schedules. The government uses the schedule for progress payments and to ensure that the contract can be completed on time.
Five types of schedules are required:

1. Preliminary project schedule-Includes all activities up to 90 calendar days after NTP.
2. Initial project schedule—Includes all activities including design and construction.
3. Design package schedule-A FRAGNET schedule extracted from the current Preliminary, Initial, or Updated Schedule. It covers all activities associated with that design package.
4. Updated schedule-Submitted as may be requested by the CO but no less than monthly. It is an update of the current schedule.
5. FRAGNET schedule-Used to document changes to the schedule caused by specific
events such as a change order request. These schedules are submitted as required.
The progress schedule is a cost-loaded schedule. Because of this, great care should be exercised to balance the cost and duration of each activity in order to make it a useful tool for completing the project.

## FAR Clause 52.236-15, Schedules for Construction Contracts

As prescribed in 36.515, insert the following clause:
Schedules for Construction contracts (apr 1984)
(a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments until the Contractor submits the required schedule.
(b) The Contractor shall enter the actual progress on the chart as directed by the Contracting Officer, and upon doing so shall immediately deliver three copies of the annotated schedule to the Contracting Officer. If, in the opinion of the Contracting Officer, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the Government. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.
(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this contract.

## (End of clause)

## SUSPENSION OF WORK

A suspension of work is a form of delay caused by the owner's purposeful interruption of the work. You can generally recover damages under this clause for costs generated by (1) delays in making the site available, (2) delays in issuing change orders, and (3) delays caused by defective plans and specifications. The suspension of work must be from the CO and must be in writing. To claim under this clause, you must notify the CO in writing within 20 days of the act or failure to act.

## FAR Clause 52.242-14 Suspension of Work

As prescribed in 42.1305(a), the following clause must be inserted in solicitations and contracts when a fixed-price construction or architect-engineer contract is contemplated:
Suspension of Work (Apr 1984)
(a) The Contracting Officer may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the Government.
(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of the contract, or (2) by the Contracting Officer's failure to act within the time specified in the contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of the contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of the contract.
(c) A claim under this clause shall not be allowed-
(1) For any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order); and
(2) Unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or
interruption, but not later than the date of final payment under the contract.

## CHANGES

FAR clause 52.243-4, Changes, is used to authorize changes as the CO deems necessary. The CO may specifically make changes:

■ In the specifications (including drawings and designs)

- In the method or manner of performance of the work
- In the government-furnished facilities, equipment, materials, services, or site
- Directing acceleration in the performance of the work.

Any other written or oral order (which, as used in this FAR clause, includes direction, instruction, interpretation, or determination) from the CO that causes a change will be treated as a change order provided that you give the CO written notice stating:

■ The date, circumstances, and source of the order

- That the contractor regards the order as a change order.

Except as otherwise provided in this FAR clause, no order, statement, or conduct of the CO should be treated as a change or entitle you as the contractor to an equitable adjustment.

If any change causes an increase or decrease in your cost of, or time required for, the performance of any part of the work under the contract, whether or not it was changed by any such order, the CO will make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under this FAR clause will be made for any costs incurred more than 20 days before you give written notice as required (termed the notification period). In the case of defective specifications for which the government is responsible, the equitable adjustment will include any increased cost reasonably incurred by you in attempting to comply with the defective specifications.
You must assert your right to an adjustment under this clause within 30 days after (a) receipt of a written change order or (b) the furnishing of a written notice by submitting to the CO a written statement describing the general nature and amount of the proposal, unless this period is extended by the government. The request for adjustment may be included in the notice as discussed above. No proposal for an equitable adjustment will be allowed if asserted after the final payment under the contract. If a claim is still in dispute at the conclusion of the contract, the "Waiver of Claims" and
"Release of Lien" should be qualified to reserve your right to get a final payment and prosecute the claim. The number of the claim (if known), the date, the amount, and reasons should all be stated on the "Waiver of Claims" that accompanies the final invoice.

## FAR Clause 52.243-4, Changes

As prescribed in 43.205 (d), insert the following clause: "The 30-day period may be varied according to agency procedures."
Changes (June 2007)
(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes-
(1) In the specifications (including drawings and designs);
(2) In the method or manner of performance of the work;
(3) In the Government-furnished property or services; or
(4) Directing acceleration in the performance of the work.
(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; Provided, that the Contractor gives the Contracting Officer written notice stating-
(1) The date, circumstances, and source of the order; and
(2) That the Contractor regards the order as a change order.
(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.
(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.
(e) The Contractor must assert its right to an adjustment under this clause within

30 days after (1) receipt of a written change order under paragraph (a) of this clause or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of the proposal, unless this period is extended by the Government. The statement of proposal for adjustment may be included in the notice under paragraph (b) of this clause.
(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.
(End of clause)

## GOVERNMENT-FURNISHED PROPERTY

The government may from time to time require that a contractor use governmentfurnished property, or GFP. This may be done for a number of reasons. For example, the government might have a piece of equipment on hand it wants to use, or the equipment might be very specialized and/or proprietary to the government. Sometimes the government provides special designated funds, such as funds for furnishings. Whatever the reason, you need to be aware that this clause requires you to accept the property "as is, where is." You must inspect the equipment, test it if necessary to make sure it performs as required for its intended purpose, and make sure it is available at the time of installation. If shipping charges or taxes have to be paid, e.g., state use/sales taxes, you must include them in the bid. It is also important to understand that if the GFP is damaged or destroyed, you will be responsible for fixing or replacing it. You should verify that your builder's risk insurance covers this item.

## FAR Clause 52.245-2, Government Property Installation Operation Services

As prescribed in 45.107(b), insert the following clause:
Government Property Installation Operation Services (June 2007)
(a) This Government Property listed in paragraph (e) of this clause is furnished to the Contractor in an "as-is, where is" condition. The Government makes no warranty regarding the suitability for use of the Government property specified in this contract. The Contractor shall be afforded the opportunity to inspect the Government property as specified in the solicitation.
(b) The Government bears no responsibility for repair or replacement of any lost, damaged or destroyed Government property. If any or all of the Government property is lost, damaged or destroyed or becomes no longer usable, the Contractor shall be responsible for replacement of the property at Contractor expense. The Contractor shall have title to all replacement property and shall continue to be responsible for contract performance.
(c) Unless the Contracting Officer determines otherwise, the Government abandons all rights and title to unserviceable and scrap property resulting from contract performance. Upon notification to the Contracting Officer, the Contractor shall remove such property from the Government premises and dispose of it at Contractor expense.
(d) Except as provided in this clause, Government property furnished under this contract shall be governed by the Government Property clause of this contract.
(e) Government property provided under this clause:

## (End of clause)

## INSPECTION OF CONSTRUCTION

FAR clause 52.246-12, Inspection of Construction, authorizes the government to inspect and re-inspect any item of completed work within reasonable limitations. You must give notice that you require an inspection under the contract terms and give the government proper notification-usually at least 48 hours unless otherwise specified in the contract. The government must make all inspections in a manner that will not unnecessarily delay the work.

The government may accept or reject the work. If the work is rejected, you must promptly correct it. The government may also charge you for any additional cost of reinspection or test when work is not ready at the time you specified.

Paragraph (h) of the clause is probably the most important part. It tells you that if the government decides to examine already completed and covered work, you must open it up for examination. If this examination reveals the work was nonconforming to the contract requirements, you will have to bear all costs incurred to correct the work and the government's costs for re-examining the work. If the examination reveals that the work conforms to the contract requirements, the government must pay all of your expenses for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, a time extension. You must request an equitable adjustment from the CO citing the "Inspection of Construction" clause of the contract.

## FAR Clause 52.246-12, Inspection of Construction

As prescribed in 46.312, insert the following clause:
Inspection of Construction (Aug 1996)
(a) Definition. "Work" includes, but is not limited to, materials, workmanship, and manufacture and fabrication of components.
(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.
(c) Government inspections and tests are for the sole benefit of the Government and do not-
(1) Relieve the Contractor of responsibility for providing adequate quality control measures;
(2) Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;
(3) Constitute or imply acceptance; or
(4) Affect the continuing rights of the Government after acceptance of the completed work under paragraph (i) of this section.
(d) The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.
(e) The Contractor shall promptly furnish, at no increase in contract price, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.
(f) The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.
(g) If the Contractor does not promptly replace or correct rejected work, the Government may-
(1) By contract or otherwise, replace or correct the work and charge the
cost to the Contractor; or
(2) Terminate for default the Contractor's right to proceed.
(h) If, before acceptance of the entire work, the Government decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet contract requirements, the Contracting Officer shall make an equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.
(i) Unless otherwise specified in the contract, the Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's rights under any warranty or guarantee.
(End of clause)

## WARRANTY OF CONSTRUCTION

All government contracts contain FAR clause 52.246-21, Warranty of Construction. This clause requires that you warrant all construction for at least one year from the date of acceptance. This may be for the total project or for a portion. The warranty may be for longer time frames if there are manufacturer's extended warranties involved, such as those for mechanical equipment. The one-year warranty time frame also runs from the date an item, such as an air-conditioning unit, may have been fixed.

The more complex projects generally require a detailed warranty management plan that requires you to specify response times to fix various items depending upon the criticality of the item. There is also the requirement for a joint government/contractor four-month, nine-month, and final warranty inspection, which will have to be held and a warranty list developed. The performance bond is not released until this one-year period is reached and all items needing correction have been completed.

You also have a responsibility to fix any latent defects and defects caused by design. The time limitation is dependent upon the statute of limitations and the statute of repose. However, if a defect is caused by government-furnished equipment or design, you are not responsible for correcting it. This can be very important because an RFP is

## considered a government-furnished design.

## FAR Clause 52.246-21, Warranty of Construction

As prescribed in $46.710(\mathrm{e})(1)$, the CO may insert a clause substantially as follows in solicitations and contracts when a fixed-price construction contract (see 46.705(c)) is contemplated, and the use of a warranty clause has been approved under agency procedures:
Warranty of $^{\text {Construction (Mar 1994) }}$
(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (i) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.
(b) This warranty shall continue for a period of 1 year from the date of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.
(c) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Government-owned or controlled real or personal property, when that damage is the result of-
(1) The Contractor's failure to conform to contract requirements; or
(2) Any defect of equipment, material, workmanship, or design furnished.
(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.
(e) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.
(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.
(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall-
(1) Obtain all warranties that would be given in normal commercial practice;
(2) Require all warranties to be executed, in writing, for the benefit of the Government, if directed by the Contracting Officer; and
(3) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.
(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.
(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.
(j) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.
(End of clause)

## VALUE ENGINEERING

Value engineering is the analysis of the functions of a program, project, system, product, equipment, building, facility, service, or supply to improve performance, reliability, quality, safety, and life-cycle cost. Note the broad range of analysis-it's much more than just design! This process works on just about anything. And notice that the emphasis is not on cost reduction. Cost is a measure of resource expenditure. It's good to spend just what you must for what you need.

The government uses the "Value Engineering Job Plan" developed by the U.S. Army Corps of Engineers. It is a systematic approach in five phases that analyzes a project in terms of its functions. The five phases are:

1. Information Phase, in which documents are studied and the background, functions, and cost/worth of the functions are identified.
2. Speculation Phase, which identifies what else can do what must be done. Free use of imagination (with no judgment) is essential.
3. Analysis Phase, in which alternative solutions in terms of quality with realistic judgment are ranked.
4. Development Phase, in which the details of the best alternatives are put into written proposals.
5. Implementation Phase, in which you try to sell the proposals to the client and

The process for value engineering was mandated by Public Law 104-106, National Defense Authorization Act, FY 1996, which amended the Office of Federal Procurement Policy Act to state: "Each executive agency shall establish and maintain cost-effective value engineering procedures and processes." This led to the creation of FAR clause 52.248-3, Value Engineering-Construction, to implement the requirements of Public Law 104-106.

The process dictated by this FAR clause is very lengthy in both time and work. Although FAR clause 52.248-3, Value Engineering, allows you to share in the cost savings, the time involved in preparing the proposal can be one to four weeks, and the government review time is allowed to be 45 days and possibly longer. There is also no guarantee that the CO will accept the value engineering change proposal (VECP), and therefore you must proceed with the project as is if no VECP had been proposed. The decision to propose a VECP must be made early in the project and must be taken into account so as not to slow the project down.

The VECP process is used more commonly on traditional design-bid-build projects and very seldom on design-build projects. This is because design-build projects by their very nature are performance-based, so the contractor has usually done his or her own value engineering just to win the bid.

## FAR Clause 52.248-3, Value Engineering-Construction

As prescribed in 48.202, insert the following clause:
Value Enginerring-Construction (Sept 2006)
(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP's, in accordance with paragraph ( f ) of this clause.
(b) Definitions. "Collateral costs," as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.
"Collateral savings," as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.
"Contractor's development and implementation costs," as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.
"Government costs," as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.
"Instant contract savings," as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor's development and implementation costs, including subcontractors' development and implementation costs (see paragraph (h) of this clause).
"Value engineering change proposal (VECP)" means a proposal that-
(1) Requires a change to this, the instant contract, to implement; and
(2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; provided, that it does not involve a change-
(i) In deliverable end item quantities only; or
(ii) To the contract type only.
(c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in paragraphs (c)(1) through (7) of this clause. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:
(1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, and the effect of the change on the end item's performance.
(2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.
(3) A separate, detailed cost estimate for (i) the affected portions of the existing contract requirement and (ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) of this clause.
(4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.
(5) A prediction of any effects the proposed change would have on collateral costs to the agency.
(6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.
(7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contrac(d) Submission. The Contractor shall submit VECP's to the Resident Engineer at the worksite, with a copy to the Contracting Officer.
(d) Government action.
(1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45 -day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP's expeditiously; however, it will not be liable for any delay in acting upon a VECP.
(2) If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.
(3) Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.
(e) Sharing-
(1) Rates. The Government's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by-
(i) 45 percent for fixed-price contracts; or
(ii) 75 percent for cost-reimbursement contracts.
(2) Payment. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to-
(i) Accept the VECP;
(ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and
(iii) Provide the Contractor's share of savings by adding the amount calculated to the contract price or fee.
(f) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount by 20 percent of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price or estimated cost, at the time the VECP is accepted, or $\$ 100,000$, whichever is greater. The Contracting Officer is the sole determiner of the amount of collateral savings.
(g) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract of $\$ 55,000$ or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) of this clause, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; provided that these payments shall not reduce the Government's share of the savings resulting from the VECP.
(h) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

These data, furnished under the Value Engineering-Construction clause of contract , shall not be disclosed outside the

Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations.

If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27

## of the Federal Acquisition Regulation.)

## DEFAULT

FAR clause 52.249-10, Default, authorizes the government to take over the work and terminate the contractor for default, and it allows the government to take over part of the work that has been delayed and to notify the sureties of this. The liability to the government includes the cost to complete the work and any damages to the government. All of these costs may be recouped by the government from the contractor or the surety. However, this clause also states the following:
A. The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause, if -

1. The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include
a. Acts of God or of the public enemy,
b. Acts of the Government in either its sovereign or contractual capacity,
c. Acts of another Contractor in the performance of a contract with the Government,
d. Fires,
e. Floods,
f. Epidemics,
g. Quarantine restrictions,
h. Strikes,
i. Freight embargoes,
j. Unusually severe weather, or delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and
2. The Contractor, within 10 days from the beginning of any delay (unless extended by the Contracting Officer), must notify the Contracting Officer in writing of the causes of the delay. The Contracting Officer will ascertain the facts and the extent of delay. If, in the judgment of the Contracting Officer, the findings of fact warrant such action, the time for completing the work will be extended. The findings of the Contracting officer will be final and conclusive on the parties, but subject to appeal under the Disputes clause.
B. If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Government.

This clause is used to support a claim or contract extension whenever the above-listed activities may occur and delay the work. Official weather data, daily reports, strike notices, etc., should be used as backup documentation. As stated above, notification within 10 days of the beginning of any delay is crucial.

FAR Clause 52.249-10, Default (Fixed-Price Construction)
As prescribed in 49.5049 (c) (1), insert the following clause:
Defaut (Fixed-Price Construction) (Apr 1984)
(a) If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract including any extension, or fails to complete the work within this time, the Government may, by written notice to the Contractor, terminate the right to proceed with the work (or the separable part of the work) that has been delayed. In this event, the Government may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Government resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Government in completing the work.
(b) The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause, if-
(1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include-
(i) Acts of God or of the public enemy,
(ii) Acts of the Government in either its sovereign or contractual capacity,
(iii) Acts of another Contractor in the performance of a contract with the Government,
(iv) Fires,
(v) Floods,
(vi) Epidemics,
(vii) Quarantine restrictions, (viii) Strikes,
(ix) Freight embargoes,
(x) Unusually severe weather, or
(xi) Delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and
(2) The Contractor, within 10 days from the beginning of any delay (unless extended by the Contracting Officer), notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of delay. If, in the judgment of the Contracting Officer, the findings of fact warrant such action, the time for completing the work shall be extended. The findings of the Contracting Officer shall be final and conclusive on the parties, but subject to appeal under the Disputes clause.
(c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Government.
(d) The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.
(End of clause)

## INDIAN INCENTIVE

DFARS clause 252.226-7001, Utilization of Indian Organizations and Indian Owned Economic Enterprises, and Native Hawaiian Small Business Concerns, allows a contractor to obtain 5 percent of a subcontract's value if it is with a bona fide Indian, Native Indian, or Native Hawaiian subcontractor. The firm must be 51 percent owned by an Indian, Native Indian, or Native Hawaiian. An Indian or Native Indian firm need not be considered a small business concern; however, the Native Hawaiian firm must be. Two things must happen to receive this money. First, the money must be available. A special account within the DoD budget, this money has normally been available in the past, but there is no guarantee that it will be available. Second, the contractor must request the money as detailed in the clause. The request process is not difficult and can be very rewarding.

You should keep this incentive in mind when determining which subcontractor to use on
a contract. You should aggressively pursue using Indian-owned subcontractors because the 5 percent obtained by using these firms will go directly to your profit margin.

## DFARS Clause 252.226-7001, Utilization of Indian Organizations, Indian-Owned Economic Enterprises, and Native Hawaiian Small Business Concerns.

As prescribed in 226.104, use the following clause:
Utilzation of Indian Organizations, Indian-Owned Economic Enterprises, and Native Hawaitan Small Business Concerns (Sep 2004)
(a) Definitions. As used in this clause-
"Indian" means-
(1) Any person who is a member of any Indian tribe, band, group, pueblo, or community that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs (BIA) in accordance with 25 U.S.C. 1452(c); and
(2) Any "Native" as defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.).
"Indian organization" means the governing body of any Indian tribe or entity established or recognized by the governing body of an Indian tribe for the purposes of 25 U.S.C. Chapter 17.
"Indian-owned economic enterprise" means any Indian-owned (as determined by the Secretary of the Interior) commercial, industrial, or business activity established or organized for the purpose of profit, provided that Indian ownership constitutes not less than 51 percent of the enterprise.
"Indian tribe" means any Indian tribe, band, group, pueblo, or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, that is recognized by the Federal Government as eligible for services from BIA in accordance with 25 U.S.C. 1452(c).
"Interested party" means a contractor or an actual or prospective offeror whose direct economic interest would be affected by the award of a subcontract or by the failure to award a subcontract.
"Native Hawaiian small business concern" means an entity that is-
(1) A small business concern as defined in Section 3 of the Small Business Act (15 U.S.C. 632) and relevant implementing regulations; and
(2) Owned and controlled by a Native Hawaiian as defined in 25 U.S.C. 4221(9).
(b) The Contractor shall use its best efforts to give Indian organizations, Indianowned economic enterprises, and Native Hawaiian small business concerns the
maximum practicable opportunity to participate in the subcontracts it awards, to the fullest extent consistent with efficient performance of the contract.
(c) The Contracting Officer and the Contractor, acting in good faith, may rely on the representation of an Indian organization, Indian-owned economic enterprise, or Native Hawaiian small business concern as to its eligibility, unless an interested party challenges its status or the Contracting Officer has independent reason to question that status.
(d) In the event of a challenge to the representation of a subcontractor, the Contracting Officer will refer the matter to-
(1) For matters relating to Indian organizations or Indian-owned economic enterprises:
U.S. Department of the Interior

## Bureau of Indian Affairs

Attn: Chief, Division of Contracting and
Grants Administration
1849 C Street NW, MS-2626-MIB
Washington, DC 20240-4000
The BIA will determine the eligibility and will notify the Contracting Officer.
(2) For matters relating to Native Hawaiian small business concerns:

Department of Hawaiian Home Lands
PO Box 1879

## Honolulu, HI 96805

The Department of Hawaiian Home Lands will determine the eligibility and will notify the Contracting Officer.
(e) No incentive payment will be made-
(1) While a challenge is pending; or
(2) If a subcontractor is determined to be an ineligible participant.
(f) (1) The Contractor, on its own behalf or on behalf of a subcontractor at any tier, may request an incentive payment in accordance with this clause.
(2) The incentive amount that may be requested is 5 percent of the estimated cost, target cost, or fixed price included in the subcontract at the time of award to the Indian organization, Indian-owned economic enterprise, or Native Hawaiian small business concern.
(3) In the case of a subcontract for commercial items, the Contractor may receive an incentive payment only if the subcontracted items are produced or manufactured in whole or in part by an Indian organization, Indian-
owned economic enterprise, or Native Hawaiian small business concern.
(4) The Contractor has the burden of proving the amount claimed and shall assert its request for an incentive payment prior to completion of contract performance.
(5) The Contracting Officer, subject to the terms and conditions of the contract and the availability of funds, will authorize an incentive payment of 5 percent of the estimated cost, target cost, or fixed price included in the subcontract awarded to the Indian organization, Indian-owned economic enterprise, or Native Hawaiian small business concern.
(6) If the Contractor requests and receives an incentive payment on behalf of a subcontractor, the Contractor is obligated to pay the subcontractor the incentive amount.
(g) The Contractor shall insert the substance of this clause, including this paragraph (g), in all subcontracts exceeding \$500,000.

## (End of clause)

## GOVERNMENT RIGHTS

This clause grants the government unlimited rights to use all documents developed by the contractor and his or her designers for use on the project and to use them at any time anywhere in the world. The clause supersedes all patent and copyright laws. In construction, this clause is generally used as a basis for standardization of facilities for the DoD throughout the world and is sometimes used to ensure compatibility in facilities such as barracks, dining facilities, transportation facilities, and operations facilities. The contractor, and especially the designers, must understand this clause when preparing drawings and specifications, especially if something unique that normally would be patented or copyrighted has been developed.

## DFARS Clause 252.227-7022, Government Rights (Unlimited)

As prescribed at 227.7107-1(a) use the following clause:
Government Rights (Unimitted) (Mar 1979)
The Government shall have unlimited rights, in all drawings, designs, specifications, notes and other works developed in the performance of this contract, including the right to use same on any other Government design or construction without additional compensation to the Contractor. The Contractor hereby grants to the Government a paid-up license throughout the world to all such works to which he may assert or establish any claim under design patent or copyright laws. The Contractor for a period of three (3) years after completion of the project agrees to furnish the original or copies of all such works on the request of the Contracting Officer.
(End of clause)

## LEVIES ON CONTRACT PAYMENTS

DFARS clause 252.232-7010, Levies on Contract Payments, is used only when the Internal Revenue Service issues a notice to the contractor that it is going to impose a levy on the contract payments for taxes owed. The IRS has full authority to make this levy on any and all contracts the contractor has. The clause states that the contractor must notify the PCO if the contractor feels that it will limit him or her in performing the contract. The contractor must also send a copy of the notification to the administrative CO.

If you find yourself in this position, it's best to include in the letter a complete assessment of the effects on your ability to perform the remaining work due to this levy, along with rationale and all supporting documentation. It is especially important to stress the effects on national security and subcontractor ability to perform without getting paid. You need to understand that the PCO does not have to agree with the rationale and that he or she may direct you to proceed to complete the work and still allow the IRS to collect the levy. You will get only one chance to convince the PCO that the levy will affect the project, so the rationale must be very strong. There is no notification time period stated in the clause, but you should notify the PCO as soon as you are notified by the IRS. Also, no appeal of the PCO's decision is allowed; his or her decision is final.

DFARS Clause 252.232-7010, Levies on Contract Payments
As prescribed in 232.7102 , use the following clause:
Levies on Contract Payments (Dec 2006)
(a) 26 U.S.C. 6331(h) authorizes the Internal Revenue Service (IRS) to continuously levy up to 100 percent of contract payments, up to the amount of tax debt.
(b) When a levy is imposed on a payment under this contract and the Contractor believes that the levy may result in an inability to perform the contract, the Contractor shall promptly notify the Procuring Contracting Officer in writing, with a copy to the Administrative Contracting Officer, and shall provide-
(1) The total dollar amount of the levy;
(2) A statement that the Contractor believes that the levy may result in an inability to perform the contract, including rationale and adequate supporting documentation; and
(3) Advice as to whether the inability to perform may adversely affect
national security, including rationale and adequate supporting documentation.
7.106
(c) DoD shall promptly review the Contractor's assessment, and the Procuring Contracting Officer shall provide a written notification to the Contractor including-
(1) A statement as to whether DoD agrees that the levy may result in an inability to perform the contract; and
(2)
(i) If the levy may result in an inability to perform the contract and the lack of performance will adversely affect national security, the total amount of the monies collected that should be returned to the Contractor; or
(ii) If the levy may result in an inability to perform the contract but will not impact national security, a recommendation that the Contractor promptly notify the IRS to attempt to resolve the tax situation.
(d) Any DoD determination under this clause is not subject to appeal under the Contract Disputes Act.
(End of clause)

## Modification Proposals

> Modifications
»Modification Price Guidelines
"Modification Format and Profit Calculation
> Indirect Cost Allowability
$>$ Equipment Pricing for Modifications
Subcontractor Cost or Pricing Data—Modifications
Modification Markup Meeting
Guidelines for Pricing Modifications
Schedules (FRAGNET)
This chapter describes the federal government's modification (change order) pricing process. This process must be followed whether it is used for a REA or through the RFP process. In either case, the scope of work must be well defined before beginning this pricing process. This chapter details the federal government's modification price guidelines, format, and profit calculations; U.S. Army Corps of Engineers (USACE) forms; costs allowable for overhead costs; requirements for subcontractor cost or pricing data and when it must be used; costs allowed for modifications and definitions for each; and when and why to use a FRAGNET schedule.

The objective of this chapter is to give you the ability to prepare a complete modification price proposal ready to negotiate with the federal government.

## MODIFICATIONS

Change orders, in government language, are called modifications because they "modify" the contract. Modifications may be required for many different reasons, and the government will require that you give a complete cost breakdown along with full justification and a FRAGNET schedule if a time extension or extended overhead will be requested. DFARS clause 252.236-7000, Modification Proposals—Price Breakdown, delineates what needs to be included as part of the modification proposal.

The government has developed modification pricing guidelines in accordance with FAR requirements and court decisions. The different agencies have their own forms for accomplishing this, but for the purposes of this manual, we will concentrate on the methods and forms used by the USACE. The USACE requires that a nonbinding agreement be made between it and you that sets out what the various factors pertaining to indirect costs will be. This system has proven to be very effective because it is agreed upon once at the beginning of the contract and is used throughout the life of the contract. Other agencies might have the agreement as part of the contract or might just define what may be included as part of a modification and what may not.
The USACE guidelines, as shown in Modification Markup Meeting and Guidelines for Pricing Modifications, clearly define what is required and/or allowed for each factor. The same factors should be used for each subcontractor, but you might need to negotiate these factors separately. Profit factors will be calculated for each modification based upon the USACE's "Weighted Guidelines Profit Analysis" sheet, included below in the Modification Format and Profit Calculation section of this manual.

Field office overhead will normally be the most significant amount on any modification that may justify a time extension. It is important to include all items, including those that might be provided for the government's use, such as an office trailer, furniture, cleaning services, etc.

Home office overhead is always a point of contention with the government, and unless you have an audited general and administrative (G\&A) factor or overhead factor that has been performed in the past year, the government will try to dictate the percentage. It is recommended that each firm have this audit performed at least once every year. This requirement also pertains to subcontractors.

## Modification Format and Profit Calculation

The USACE has developed an Excel spreadsheet for costing modifications. The spreadsheet incorporates all the markups you agreed to in the modification markup meeting and includes the direct costs and profit as calculated using the "Profit Analysis" sheet. This spreadsheet should be used for all costing modifications and should also be a requirement for subcontractors.

You should include this spreadsheet in all subcontracts because it will ensure the subcontractors will give you their breakdown with the same information and in the same format you will have to give the government.

Profit analysis is a very subjective calculation. Naturally, you want the highest profit you can attain and the government wants the lowest. The government will allow a 7.5 percent profit on all modifications; however, the profit analysis could show a profit as
high as 12 percent. Generally, the profit will calculate out to around 8 percent. Designbuild contracts should have the higher profit margins because they carry the highest risk.

Note that this format also takes into consideration all bond costs, taxes, equipment costs, labor, materials, etc.

## DFARS Clause 252.236-7000, Modification Proposals-Price Breakdown

As prescribed in 236.570(a), use the following clause:
Modification Proposals—Price Breakdown (Dec 1991)
(a) The Contractor shall furnish a price breakdown, itemized as required and within the time specified by the Contracting Officer, with any proposal for a contract modification.
(b) The price breakdown-
(1) Must include sufficient detail to permit an analysis of profit, and of all costs for- [Please fix alignment of subbullets below and check format of all quoted FAR sections for consistency]
(i) Material;
(ii) Labor;
(iii) Equipment;
(iv) Subcontracts; and
(v) Overhead; and
(2) Must cover all work involved in the modification, whether the work was deleted, added, or changed.
(c) The Contractor shall provide similar price breakdowns to support any amounts claimed for subcontracts.
(d) The Contractor's proposal shall include a justification for any time extension proposed.
(End of clause)

## INDIRECT COST ALLOWABILITY

FAR clause 31.205 , Selected Costs, delineates what costs are allowed and disallowed in the home office overhead calculations. The government will require you to include an overhead factor in each contract modification based upon the cost principle in FAR clause 31.205 . The government also will usually allow a home office overhead of 5 percent if you choose not to provide the information required by this clause.

The government allows contractors to use a home office overhead factor of more than 5 percent if the contractor has had an audit performed in accordance with FAR clause 31.205 within the last year by a CPA who certifies what the home office overhead factor actually is. This is highly recommended for both prime contractors and subcontractors. Specialty subcontractors generally have home office overhead costs that are very high due to equipment costs being included in this overhead.

## EQUIPMENT PRICING FOR MODIFICATIONS

The government requires you to use USACE pamphlet EP 1110-8 for determining construction equipment ownership and operating costs in lieu of using actual costs for contractor-owned equipment. This is a very complicated process, and it usually yields very low rates. The government allows you to use rental equipment, and you can recoup 100 percent of the costs in the modification.

You should use rental equipment for all modification work if at all possible because its cost is 100 percent recoverable. Profit/overhead may be added to this.

You can download USACE pamphlet EP 1110-1-8, Construction Equipment ownership and operating expense schedule, online at http://140.194.76.129/publications/eng-pamphlets/ep1110-1-8_\(Nov_09\)_Vol_1-12/toc.html

## SUBCONTRACTOR COST OR PRICING DATA-MODIFICATIONS

FAR clause 52.215-13, Subcontractor Cost or Pricing Data-Modifications, is used whenever a modification is contemplated to exceed $\$ 650,000$. As the contractor, you must require the subcontractor to submit the "Certificate of Current Cost or Pricing Data" along with the pricing for the modification. The certificate certifies that the data submitted was accurate, complete, and current as of the date of the agreement. The government uses this certification when an awarded subcontract already exists and there would likely be no way to change subcontractors, thus making the government rely on the pricing of only one subcontractor. The data required and the government's detailed review can sometimes make this a lengthy, drawn-out procedure.

If any additional contract time and/or extended overhead will be justified, the subcontractor and, subsequently, you need to include this in the modification. This clause must also be included in every subcontract. The "Certificate of Current Cost and Pricing Data" must be completed and signed by the subcontractor but does not have to be signed by you. If the government later determines that the subcontractor withheld cost or pricing data or significant information that could have changed the cost downward, the subcontractor may be prosecuted in federal court.

FAR Clause 52.215-13, Subcontractor Cost or Pricing Data-Modifications

As prescribed in $15.408(\mathrm{e})$, insert the following clause: Subcontractor cost or Pricing Data-Modifications (Oct 1997)
(a) The requirements of paragraphs (b) and (c) of this clause shall-
(1) Become operative only for any modification to this contract involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4; and
(2) Be limited to such modifications.
(b) Before awarding any subcontract expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, on the date of agreement on price or the date of award, whichever is later; or before pricing any subcontract modification involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, the Contractor shall require the subcontractor to submit cost or pricing data (actually or by specific identification in writing), unless an exception under FAR 15.403-1 applies.
(c) The Contractor shall require the subcontractor to certify in substantially the form prescribed in FAR 15.406-2 that, to the best of its knowledge and belief, the data submitted under paragraph (b) of this clause were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.
(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in each subcontract that exceeds the threshold for submission of cost or pricing data at FAR 15.403-4 on the date of agreement on price or the date of award, whichever is later.

## FAR Clause 15.406-2, Certificate of Current Cost or Pricing Data

(a) When cost or pricing data are required, the CO will require you to execute a "Certificate of Current Cost or Pricing Data" using the format in this paragraph and must include the executed certificate in the contract file.

Certificate of Current Cost or Pricing Data
This is to certify that, to the best of my knowledge and belief, the cost or pricing data (as defined in section 2.101 of the Federal Acquisition Regulation (FAR) and required under FAR subsection 15.403-4) submitted, either actually or by specific identification in writing, to the Contracting Officer or to the Contracting Officer's representative in support of _____ are accurate, complete, and current as of _____**. This
certification includes the cost or pricing data supporting any advance agreements and forward pricing rate agreements between the offeror and the Government that are part of the proposal.
Firm
Signature
Name $\qquad$

## Title

Date of execution***

* Identify the proposal, request for price adjustment, or other submission involved, giving the appropriate identifying number (e.g., RFP No.).
** Insert the day, month, and year when price negotiations were concluded and price agreement was reached or, if applicable, an earlier date agreed upon between the parties that is as close as practicable to the date of agreement on price.
*** Insert the day, month, and year of signing, which should be as close as practicable to the date when the price negotiations were concluded and the contract price was agreed to.
(End of certificate)
(b) The certificate does not constitute a representation as to the accuracy of the contractor's judgment on the estimate of future costs or projections. It applies to the data upon which the judgment or estimate was based. This distinction between fact and judgment should be clearly understood. If the contractor had information reasonably available at the time of agreement showing that the negotiated price was not based on accurate, complete, and current data, the contractor's responsibility is not limited by any lack of personal knowledge of the information on the part of its negotiators.
(c) The Contracting Officer and Contractor are encouraged to reach a prior agreement on criteria for establishing closing or cutoff dates when appropriate in order to minimize delays associated with proposal updates. Closing or cutoff dates should be included as part of the data submitted with the proposal and, before agreement on price, data should be updated by the contractor to the latest closing or cutoff dates for which the data are available. Use of cutoff dates coinciding with reports is acceptable, as certain data may not be reasonably available before normal periodic closing dates (e.g., actual indirect costs). Data within the Contractor's or a Subcontractor's organization on matters significant to Contractor management and to the Government will be treated as reasonably available. What is significant depends upon the circumstances of each acquisition.
(d) Possession of a Certificate of Current Cost or Pricing Data is not a substitute for examining and analyzing the contractor's proposal.
(e) If cost or pricing data are requested by the Government and submitted by an offeror, but an exception is later found to apply, the data shall not be considered cost or pricing data and shall not be certified in accordance with this subsection.


## MODIFICATION MARKUP MEETING

The U.S. Army Corps of Engineers has developed a Modification Markup Meeting form that is intended to clarify what modification markups need to be negotiated to be used in future modifications. This method has proved to be very successful and eliminates disputes during modification negotiations.

## CHECKLIST

Contract: $\qquad$ Date: $\qquad$
Contractor: $\qquad$
Contractor Representative(s): $\qquad$
Government Representative(s): $\qquad$
The following worksheet contains a non-binding agreement between contractor and government representatives on the modification process. This agreement does not discuss direct costs. The contractor (and subcontractors) will provide proposals in sufficient detail for government cost verification. The contractor will separately provide a proposal template reflecting agreed markups.

1. Direct Labor. The contractor agreed to submit hourly (Davis-Bacon at a minimum) wages, with a separate markup for fringe benefits/labor burden. We agreed to:
2. $\qquad$ apply ___ \% average labor burden applied to related trades OR
3. $\qquad$ the contractor provided backup to support separate markups for each trade.
4. Direct Supervision. We agreed the contractor may not add costs for salaried supervisors; they belong in field overhead percentage. For hourly paid supervision (job foremen), we agreed to:
5. $\qquad$ \% (normally 15\%) applied to direct labor OR
6. $\qquad$ charge hourly based on level of required effort.
7. "Contingencies." We allow contingencies to the extent we expect the contractor to bear a higher level of risk. For example, we might pay a percentage waste on
lumber and concrete. However, we do not pay for unsubstantiated contingency markups. We agreed to no separate percentage markup for:

## Safety (if required, itemize as a direct cost)

___ Miscellaneous material (allocated to Small Tools \& Consumables)
____ Material handling
____ Warranty
$\qquad$ As-built drawings (for a reasonable number of changes without significant design effort)
$\qquad$ Estimating, negotiating, and scheduling changes
8. Small Tools \& Consumables. The contractor will apply ___ \% (typically 0-3\%) to direct labor for small tools and consumables. By accepting a percentage, the contractor will not submit itemized proposals for wire nuts, tape, etc.
9. Field Overhead (FOOH). FOOH only applies if a mod extends time due solely to Government action. To establish a baseline for possible extending overhead costs, the contractor provided bid documentation to support \$___ /workday FOOH prorated straight-line over the intended project duration-or (rarely used) \% applied to all changes regardless of time extension. The actual FOOH daily rate, if required for a time extension, will depend on the stage of construction. To support a time extension, the contractor must submit a schedule analysis to prove a mod affects the critical path. The same requirements apply to subcontractors requesting FOOH .
10. Project Management. We agreed the itemized cost for project management belongs in Field Office Overhead (FOOH). See Item 5.
11. Home Office Overhead ( HOOH or $\mathbf{G \& A}$ ). The contractor has accounting records to support ___ \% (typically 4-5\%) G\&A. The G\&A rate does not include unallowable or unallocable costs per FAR 31.205.
12. Profit. FAR requires a method to calculate profit on each change. The corps uses the Weighted Guidelines Method, where profit varies from 3\% to $12 \%$ dependent on weight of seven factors. Using this method, average profit would calculate to $7.5 \%$. We encourage all contractors to use the Corps method to calculate profit. The government can furnish an Excel spreadsheet for profit calculations.
13. Bond, Insurance, B\&O. We prefer to only pay for one bond. The government expects the contractor to set up a bond arrangement that has subcontractors share in the prime's bonding cost.
$\qquad$ The contractor will use a combined rate of $\qquad$ \% or
The contractor will apply separate rates of ___ \% bond, ___ \% insurance, \% B\&O.

The contractor does does not require separate bonds from subcontractors. If so, separate bond applies to these subcontractors:
14. Extended Overhead. We allow costs for extended FOOH , to the extent a contractor can prove damage and delays caused solely by the government. (We allow HOOH overhead as a percentage markup on all changes.) To receive compensation, the contractor must provide detailed justification with before and after (approved) schedules to document time-related costs. The government will not pay for concurrent delays. If weather or contractor actions contribute to time growth, the contractor will not receive monetary compensation but may receive additional time.
15. Credit Modifications. Contractors must return overhead, profit, insurance, and bond on credit modifications. We recognize that a contractor cannot recover sunk costs for FOOH. Consequently, we expect the contractor to return G\&A, bidclimate profit, bond, insurance, and $\mathrm{B} \& \mathrm{O}$. The contractor agreed to these rates for credit mods:

## \$0 FOOH

___ \% G\&A
____ \% profit (typically 5\%) \% bond/insurance/B\&O (typically 2\%)
16. Release Language. FAR requires that we insert a contractor release statement in each modification. The release statement, in effect, requires the contractor to acknowledge that the modification represents full accord and satisfaction for the scope of work and its effects on the schedule and contractor's operations. We do not see a need for or accept blanket contractor reservations attached to the modification. New events, such as unanticipated effects on unchanged work or the impact and ripple of a multiplicity of changes, stand on their own merit and do not belong in a reservation of rights.

Government Representative
Contractor's Representative

## GUIDELINES FOR PRICING MODIFICATIONS

The government has pricing restrictions and traditions that might differ from your experience with other companies or state and local governments. Before you submit a modification proposal, I recommend you review your pricing structure against the following guidelines, which address typical areas that cause delays to successful negotiations. The guidelines were developed by the U.S. Army Corps of Engineers to explain what can be included in modifications. They should be used in conjunction with
the Modification Markup Meeting. The list is as complete and well defined as any list the government uses.

- As-built Drawings Markup. Typically not allowed. Federal boards determined contractors must include an allowance for annotating modifications to as-built drawings in the original bid. The only exception involves a contract with an unusually large number of difficult changes that exceed those in a normal contract.

Bond, Insurance, B\&O Tax. We allow actual costs. Unlike the state, we allow $\mathrm{B} \& \mathrm{O}$ as a separate markup, if not already included in your overhead percentage. Normally we will only pay for one bond. The government expects the contractor to set up a bond arrangement that has subcontractors share in the prime's bonding cost.
Contingencies. Typically not allowed as an unsubstantiated markup. We consider contingencies a factor evaluated to establish the profit percentage based on who assumes the risk.

Credit Modifications. Federal boards determined contractors must return overhead, profit, insurance, and bond on credit modifications. We expect you to return bid-climate markups.
Direct Equipment. Do not submit "price book" rates for owned equipment. You may not charge more than rates in EP 1110-1-8, Construction Equipment Ownership and Operating Expense Schedule, available online at http://www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep.htm. Clearly separate owned from rental equipment. If you use rental equipment, you pay sales tax based on where you use the equipment, not on where you rented it. We generally allow actual (relative to Blue Book) rates for rental equipment. You may not charge separately for any vehicles, such as pickups, carried under your field or home office overhead percentage.

- Direct Labor. Do not submit "price book" labor rates. Use actual hourly wages paid (Davis-Bacon minimum), with a separate markup for fringe benefits and labor burden. In your first proposal, submit a breakdown to verify the components of your labor markup.
- Direct Material. Provide detailed lists of all planned material, with actual direct costs for each component. As with labor, avoid "price book" material costs. Calculate tax based on where you will install the material, not the point of purchase. In lieu of detailed lists, we usually will accept vendor quotes, if you have three sources to verify competitive pricing. List all discounts. (Failure to disclose discounts to deliberately mislead the government is fraud.)
Direct Supervision. States generally allow $15 \%$ labor markup for supervision. We allow a percentage labor markup for supervision by working foremen
provided you have no direct hours in the proposal for the effort. Either list actual hours or use a percentage markup, never both. You may not add costs for salaried supervisors; they belong in your field overhead percentage.
■ Estimating, Scheduling, and Negotiating Fees. Typically not allowed. Federal boards determined contractors must include an allowance for modifications in the original bid. The exception involves a contract with an unusually large number of or difficult changes that exceed expectations of a normal contract.

Extended Overhead. We allow costs for FOOH to the extent a contractor can prove damage and delays caused solely by the government. To receive compensation, you must provide detailed justification with before and after (approved) schedules to document time-related costs. The government will not pay for concurrent delays. If weather or contractor actions contribute to time growth, you will not receive monetary compensation but may receive additional time.

- Material Handling. We consider delivery costs included in your material price. We consider uncrating and handling costs included in your labor price. This office typically rejects percentage markups for material handling.
Miscellaneous Material. Not allowed. We consider this a contingency already covered by an allowance for small tools and consumables.
Overhead. We expect you to list actual HOOH (general and administrative expenses, or G\&A) on each proposal. FAR Part 31.205 addresses allowable overhead costs. You must reduce the G\&A percentage for unallowable costs such as advertising, charities, contributions, donations, recruiting, bad debts, entertainment, fines, penalties, interest, and federal income tax. For small subcontractors, we typically allow 5\% G\&A. Any subcontractor or prime receiving pass-through costs typically receives G\&A and reduced profit. Special note: An October 1996 ASBCA decision determined a contractor may not add a percentage to modifications for FOOH . The board held that a contractor normally does not incur additional FOOH costs to administer modifications that do not extend contract time. The government will only allow FOOH as a daily rate to the extent your schedule proves the government has sole responsibility for the time extension.

Profit. Per FAR, you must use a method to calculate profit on modifications. The government uses the USACE Weighted Guidelines Method, where profit varies from $3 \%$ to $12 \%$ dependent on seven weighted factors. Using this scale, average conditions would equate to $7.5 \%$ profit.
Project Management. Boards consider project management part of either home or field overhead. We will not allow separate payment for project management unless you can clearly prove your job costing system excludes project managers from overhead.

- Safety. The government typically does not allow a separate markup for safety. The government considers safety already included in either your labor burden or FOOH. The government will allow direct safety costs for one-time applications related specifically to a modification. For example, if we extend a roof, we would allow costs to extend roof barriers. We would not, however, pay for portable barriers you intend to reuse on other projects.
Small Tools \& Consumables. We typically allow up to $3 \%$ of labor for prime or subcontractor trades that actually use small tools and consumables. We will not allow separate markups for both small tools and consumables. We also will not allow percentage markups on proposals that contain detailed breakdowns for consumables such as nails, wire nuts, tape, etc.
- Subcontracts. Provide breakdowns in the same detail as pricing by the prime. Exclude FOOH unless the subcontractor requires a time extension.
- Technical Submittals. Boards consider the effort to engineer field changes part of either home or field overhead. We will not allow separate payment for preparing submittals unless you can clearly prove your job costing system excludes engineering from overhead.
- Travel. We expect contractors to use local trades and avoid travel expenses. When you can justify bringing in outside workers or specialists, travel and subsistence may not exceed rates established by GSA for federal employees; i.e. no first-class accommodations or first-class travel.
- Warranty Markup. Not allowed. (Manufacturers already provide warranties on equipment and material.) This means a contractor markup for warranty would equate to a contingency for poor workmanship.


## SCHEDULES (FRAGNET)

Whenever the government contemplates a change or the contractor submits a REA or claim, a fragmented network analysis (FRAGNET) should be submitted with the request to show the impact on the critical path of the schedule. The FRAGNET schedule must clearly show the as-planned and as-built critical paths and the effect that the change had. The government then needs to determine whether the delay is:

- Non-excusable-It's the contractor's problem to straighten out.
- Excusable, but non-compensable-It is neither the contractor's nor the government's fault; e.g., excessive rainfall, union strike, etc.
- Excusable and compensable-It is not the contractor's but the government's fault. The contractor has the burden to prove this.

The government will not consider a time extension or time-related costs for a REA or
claim unless a FRAGNET schedule is submitted along with the REA or claim. The ASBCA will not entertain a claim based on delay unless the FRAGNET is submitted with the claim and clearly shows the government was at fault.

## 9

## Claims

## Requests for Equitable Adjustment

Documentation Required for a Claim

## Notifications

## Contracting Officer's Final Decision

- Armed Services Board of Contract Appeals

This chapter deals with the federal claims process and its requirements. It explains what a "Request for Equitable Adjustment" is; what constitutes a REA or claim and how it must be processed; the documentation required of you as the contractor to prove your REA or claim; a notice checklist; what the CO's "final" decision means and when it must be obtained; and what the Armed Services Board of Contract Appeals is and what authority it has. This chapter is not meant to be a law class; instead, it gives you direction as to the process, documentation required, and notice requirements so that you can set up procedures to be able to identify potential claim situations and can understand what will be required in order to avoid a claim.

You should engage the services of a competent and experienced construction law attorney if a claim is to be filed. Federal construction law is very different from state construction law, so choosing an experienced federal construction attorney will increase your chances of winning a federal claim.

The objective of this chapter is to enable you to determine what the REA and claim process entails and how to set yourself up to avoid claims by being thoroughly prepared to handle them. A thorough understanding of the process and the details should enable you to avoid claims. Remember, the burden of proof is on you, so you must be able to present all the documentation necessary to prove your case.

## REQUESTS FOR EQUITABLE ADJUSTMENT

As the contractor, you may submit a REA in accordance with DFARS clause 252.2437002, Requests for Equitable Adjustment, at any time and for any reason. If you feel that the government is requiring you to perform work that is not required by the contract, you should file a REA. Special attention should be given to the notification requirements (see Chapter 9), which can be done by letter or e-mail and then followed with the REA at a later time. Quite often, after the notification is given, the CO will
issue an RFP for a contract modification.
When submitting a REA, take care to provide the certification required in the DFARS clause, as well as all necessary documentation. The documentation must be complete and must clearly support the reasons and costs associated with the REA. Remember, you may get only one chance to present your case for the REA.

Cost and pricing data and certification may be required in accordance with FAR clause $15.403-4$ in certain circumstances if the contract modification is greater than $\$ 650,000$. This means that all data used in pricing the contract modification must be submitted to the government and that the contractor certifies that the data is correct to "the best of his knowledge and belief" at the time the proposal is prepared.

## DFARS Clause 252.243-7002, Requests for Equitable Adjustment

As prescribed in 243.205-71, use the following clause:
Requests for Equitable Adjustment (Mar 1998)
(a) The amount of any request for equitable adjustment to contract terms shall accurately reflect the contract adjustment for which the Contractor believes the Government is liable. The request shall include only costs for performing the change, and shall not include any costs that already have been reimbursed or that have been separately claimed. All indirect costs included in the request shall be properly allocable to the change in accordance with applicable acquisition regulations.
(b) In accordance with 10 U.S.C. 2410(a), any request for equitable adjustment to contract terms that exceeds the simplified acquisition threshold shall bear, at the time of submission, the following certificate executed by an individual authorized to certify the request on behalf of the Contractor:
I certify that the request is made in good faith, and that the supporting data are accurate and complete to the best of my knowledge and belief.
(Official's Name)

## (Title)

(c) The certification in paragraph (b) of this clause requires full disclosure of all relevant facts, including-
(1) Cost or pricing data if required in accordance with subsection 15.403-4 of the Federal Acquisition Regulation (FAR); and
(2) Information other than cost or pricing data, in accordance with subsection $15.403-3$ of the FAR, including actual cost data and data to support any estimated costs, even if cost or pricing data are not
required.
(d) The certification requirement in paragraph (b) of this clause does not apply to-
(1) Requests for routine contract payments; for example, requests for payment for accepted supplies and services, routine vouchers under a cost-reimbursement type contract, or progress payment invoices; or
(2) Final adjustments under an incentive provision of the contract.
(End of clause)

## DOCUMENTATION REQUIRED FOR A CLAIM

The two basic elements of any claim are entitlement and quantum. The entitlement portion establishes the factual and contractual basis supporting your right to recover from the federal government. The quantum portion requires that you state a "sum certain" under the Contract Disputes Act and the "Disputes" clause.

The entitlement portion requires that you show how the federal government injured you by its actions, such as a misinterpretation of a specification. You must describe and prove that you had to perform extra work and experienced delay due to this action.

The quantum portion of a monetary claim requires you to describe the amount of money and time to which you are entitled and must relate the "cause to effect," relating the federal government's actions to the cost incurred. The relation of cause and effect can be very difficult because it normally requires issues of scheduling, cost accounting, and support for estimates.

As a matter of routine, you should set policies and procedures that will provide adequate documentation should a claim situation arise. This same documentation will normally be required if a REA is contemplated. Contracting officers will tell you there are three key words to remember for a successful REA or claim-documentation, documentation, and documentation. This documentation may include daily reports, correspondence (mail, email, faxes, telephone logs, RFIs, etc.), documentation of verbal or written directives, quality control reports, subcontractor daily reports, daily inspection reports, design clarifications, submittal registers, etc. Schedules might need to be submitted, especially if time is a factor in the claim. The schedule should be a FRAGNET schedule that clearly supports your claim to time impact. Make sure you follow the rules for preparing a FRAGNET schedule according to the rules of law. Proof that notifications were provided in the proper time frame will also prove critical.

I highly recommended that you employ a method to isolate all costs associated with a potential REA or claim because doing so will make proving your case much easier.

## NOTIFICATIONS

Timely notifications made to the government about what a contractor deems a change, a contracting officer's direction, or other circumstances are critical to protect the contractor's rights to make a claim. Notification requirements are included in the various FAR clauses but can be confusing and may not be readily apparent. The following Notice Checklist can be used to simplify this requirement.

## NOTICE CHECKLIST

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## CONTRACTING OFFICER'S FINAL DECISION

The requirements for a CO's "final" decision are contained in FAR clause 33.211, Contracting Officer's Decision. The decision must be based on a review of the facts pertinent to the claim, assistance from legal and other services (i.e., COR), and coordination with the contract administration officer or CO and any other sources that might be necessary.

The written decision must include:

- A description of the claim or dispute
- A reference to the pertinent contract terms
- A statement of the factual areas of agreement and disagreement
- A statement of the CO's decision with supporting rationale
- Various paragraphs as required by the clause.

The CO's final decision will generally not be given unless you specifically request it in writing. If you are contemplating filing a claim, this decision is mandatory prior to filing the claim. By requesting this decision, you are forcing the government to answer formally with its rationale. This sometimes can have the effect of overturning a previous decision, such as a decision rendered by the administrative contracting officer (ACO). If a REA is denied, it is highly recommended that you request a CO's "final" decision.

The CO has 60 days in which to respond to this request if the certified claim is less than $\$ 100,000$; it may take more than 60 days if the certified claim is more than $\$ 100,000$, but the CO must render a decision in a "reasonable time."

## FAR Clause 33.211 Contracting Officer's Decision

(a) When a claim by or against a contractor cannot be satisfied or settled by mutual agreement and a decision on the claim is necessary, the contracting officer shall-
(1) Review the facts pertinent to the claim;
(2) Secure assistance from legal and other advisors;
(3) Coordinate with the contract administration officer or contracting office, as appropriate; and
(4) Prepare a written decision that shall include-
(i) A description of the claim or dispute;
(ii) A reference to the pertinent contract terms;
(iii) A statement of the factual areas of agreement and disagreement;
(iv) A statement of the contracting officer's decision, with supporting rationale;
(v) Paragraphs substantially as follows:
"This is the final decision of the Contracting Officer. You may appeal this decision to the agency board of contract appeals. If you decide to appeal, you must, within 90 days from the date you receive this decision, mail or otherwise furnish written notice to the agency board of contract appeals and provide a copy to the Contracting Officer from whose decision this appeal is taken. The notice shall indicate that an appeal is intended, reference this decision, and identify the contract by number.
With regard to appeals to the agency board of contract appeals, you may, solely at your election, proceed under the board's-
(1) Small claim procedure for claims of $\$ 50,000$ or less or, in the case of a small business concern (as defined in the Small Business Act and regulations under that Act), $\$ 150,000$ or less; or
(2) Accelerated procedure for claims of $\$ 100,000$ or less. Instead of appealing to the agency board of contract appeals, you may bring an action directly in the United States Court of Federal Claims (except as provided in the Contract Disputes Act of 1978, 41 U.S.C. 603, regarding Maritime Contracts) within 12 months of the date you receive this decision"; and
(vi) Demand for payment prepared in accordance with 32.604 and 32.605 in all cases where the decision results in a finding that the contractor is indebted to the Government.
(b) The contracting officer shall furnish a copy of the decision to the contractor by certified mail, return receipt requested, or by any other method that provides evidence of receipt. This requirement shall apply to decisions on claims initiated by or against the contractor.
(c) The contracting officer shall issue the decision within the following statutory time limitations:
(1) For claims of $\$ 100,000$ or less, 60 days after receiving a written request from the contractor that a decision be rendered within that period, or within a reasonable time after receipt of the claim if the contractor does not make such a request.
(2) For claims over $\$ 100,000$, 60 days after receiving a certified claim; provided, however, that if a decision will not be issued within 60 days, the contracting officer shall notify the contractor, within that period, of the time within which a decision will be issued.
(d) The contracting officer shall issue a decision within a reasonable time, taking into account-
(1) The size and complexity of the claim;
(2) The adequacy of the contractor's supporting data; and
(3) Any other relevant factors.
(e) The contracting officer shall have no obligation to render a final decision on any claim exceeding $\$ 100,000$ which contains a defective certification, if within 60 days after receipt of the claim, the contracting officer notifies the contractor, in writing, of the reasons why any attempted certification was found to be defective.
(f) In the event of undue delay by the contracting officer in rendering a decision on a claim, the contractor may request the tribunal concerned to direct the contracting officer to issue a decision in a specified time period determined by the tribunal.
(g) Any failure of the contracting officer to issue a decision within the required
time periods will be deemed a decision by the contracting officer denying the claim and will authorize the contractor to file an appeal or suit on the claim.
(h) The amount determined payable under the decision, less any portion already paid, should be paid, if otherwise proper, without awaiting contractor action concerning appeal. Such payment shall be without prejudice to the rights of either party.

## ARMED SERVICES BOARD OF CONTRACT APPEALS

The Armed Services Board of Contract Appeals (ASBCA) is an administrative law court authorized by 41 U.S.C. section 601 et seq. It was originally set up in 1962 and revised in 1979 to hear contractors' appeals of COs' decisions. The Board reports directly to the Secretary of Defense. The court decisions are based in U.S. public law and are binding on the parties involved.

The ASBCA has 36 rules under the Rules of the Armed Services Board of Contract Appeals that must be strictly adhered to. Rule 1 is "Appeals, How Taken," which explains when an appeal has to be filed and how and where it must be filed. Appeals have been dismissed just for being sent to the wrong office. Rule 2 is "Notice of Appeal, Contents of," and it tells what must be included in the appeal, such as what paperwork must be included and who must receive it. You and your attorney must learn these rules and comply with them explicitly.

A review of numerous ASBCA decisions indicates that the court is adamant about proper notifications, proper certifications, and adequate backup documentation for a contractor to prove a claim. Many decisions have been handed down dismissing a case based solely on a small technicality. These decisions have clearly shown that the contractor must have adequate documentation to prove a claim and show that all notifications, certifications, and other ASBCA rules have been adhered to.

Before deciding to file a claim, you should be aware that only 17 percent of claims cases brought before the ASBCA are decided in favor of the contractor and that the legal fees required to process and pursue the claim cannot usually be recouped.

Refer to the ASBCA rules, decisions, etc. at www.docs.law.gwv.edu/asbca.

## Acronyms

ACASS
ACO
ADR
A/E
AHA
AIS
ASBCA
ASPA
BAFO
B\&O
BOD
BOSC
BRAC
CAAC
CADD
CAO
CCASS
CCD
CCN
CCP
CCR
CFE
CFM
CFR
CICA

Architect Contract Appraisal Support System administrative contracting officer alternative dispute resolution
architect/engineer
activity hazard analysis
automated information system
Armed Services Board of Contract Appeals
Armed Services Procurement Act of 1947
best and final offer
business and occupation tax
beneficial occupancy date
Base Operating Support Contract
Base Realignment and Closure
Civilian Agency Acquisition Council
computer-aided design and drafting
Contract Administration Office
Construction Contract Appraisal Support System contract completion date contract change notice contract change proposal

Central Contractor Registration
contractor-furnished equipment
contractor-furnished material
Code of Federal Regulations
Competition in Contracting Act

## CLIN

contract line item number
contracting officer
continental United States contracting officer's representative cost/pricing data critical path method contractor quality control contractor quality control plan

Construction Specifications Institute designer approval

Defense Acquisition Regulatory Council
Defense Contract Audit Agency
design configuration management design clarification report

Defense Finance and Accounting Service
Department of Defense
designer of record
estimated completion date
Engineering Field Activity
Engineering Field Division
electronic funds transfer
Engineer in Charge
Employer Identification Number
engineer manual
executive order
Federal Acquisition Regulation
contracting officer's technical representative

Defense Federal Acquisition Regulation Supplement

FDR
final or formal design review

FedBizOpps

## FF\&T

FFP
FOOH
FOUO
FPASA
G\&A
GAO
GE
GFE
GFM
GFP
HAZCOM
HAZMAT
HAZOP
HOOH
HUB
IDIQ
IFB
IG
IGCE
IM\&TE
IQC
ITAR
ITP
ITR
JOC

Federal Business Opportunities
furniture, fixtures, and equipment
firm-fixed-price
field office overhead
For Official Use Only
Federal Property and Administrative Services Act of 1949
general and administrative
Government Accountability Office
government estimate
government-furnished equipment
government-furnished material
government-furnished property
hazard communication
hazardous material
hazardous operations
home office overhead
Historically Underutilized Business
indefinite delivery indefinite quantity
invitation for bid
Inspector General
independent government cost estimate
inspection measuring and test equipment
indefinite quantity contract
International Traffic in Arms Regulations
integrated test plan
initial technical review
job order contract
contracting officer (also CO)

KTR/Ktr
LD
LEED
MACC
MATOC MILCON

MIL-HDBK
MILSPEC
MOD
MOU
MPIN
MSDS
NAICS
NAVFAC
NBC
NTE
NTP
OBE
O\&M
OMB
OPR
ORCA
OSHA
OTP
PCO
PDR
P\&L
contractor
liquidated damages
Leadership in Energy and Environmental Design multiple-award construction contract
multiple-award task order contract
military construction (appropriation)
military handbook
military specification
modification
memorandum of understanding
Marketing Partner Identification Number
Material Safety Data Sheet
North American Industry Classification System
Naval Facilities Engineering Command
nuclear, biological, and chemical
not to exceed
notice to proceed
overcome by events
operation and maintenance
Office of Management and Budget
office of primary responsibility
Online Representations and Certifications Application
Occupational Safety and Health Administration operational test plan
procuring contracting officer preliminary design review profit and loss
P.L.

RMS
RMS/QCS
SABER
SADBU
SATOC
SBA
SDB
SDBUP
SECDEF

SFTP
SID
SIOH
SIPRNET
public law
point of contact
period of performance
public works
performance work statement
quality assurance
quality assurance evaluator
quality control
quality control system
request for bid
request for information
request for proposal
request for quotation
Resident Management System
Resident Management System/Quality Control System simplified acquisition of base engineering resources
small and disadvantaged business utilization
single-award task order contract
Small Business Administration
small disadvantaged business
Small Disadvantaged Business Utilization Program
Secretary of Defense
standard form
Secure File Transfer Protocol
structural interior design
supervision, inspection, and overhead
Secret Internet Protocol Router Network

Standardized Military Drawing Program
Solutions order contract

SOP
SOW
SPEC
SSHO
SSN
TBD
TFC
TFD
TIN
TM
TO
TOC
TQM
UCA
UFGS
UI
U.S.C.

USACE
USG
USGBC
VAT
VE
VECP
VOSB
WIP
WOSB
standard operating procedure statement of work
specification
site safety and health officer
Social Security Number
to be determined or developed
termination for convenience
termination for default
Taxpayer Identification Number
technical manual
technical order
task order contract
Total Quality Management
undefinitized contract action
Unified Facility Guide Specifications
unit of issue
United States Code
United States Army Corps of Engineers
United States Government
U.S. Green Building Council
value-added tax
value engineering
value engineering change proposal
veteran-owned small business
work in place
women-owned small business

## Government Contracts Glossary

## acquisition

The acquiring of supplies or services by the federal government with appropriated funds through purchase or lease.

## affiliates

Business concerns, organizations, or individuals that control each other or that are controlled by a third party. Control may include shared management or ownership; common use of facilities, equipment, and employees; or family interest.

## best and final offer (BAFO)

For negotiated procurements, a contractor's final offer following the conclusion of discussions. The BAFO is now called a final proposal revision.

## Business Information Centers (BICs)

One-stop locations for information, education, and training designed to help entrepreneurs start, operate, and grow their businesses. The centers provide free on-site counseling, training courses, and workshops and have resources for addressing a broad variety of business startup and development issues.

## Certificate of Competency

A certificate issued by the Small Business Administration (SBA) stating that the holder is "responsible" (in terms of capability, competency, capacity, credit, integrity, perseverance, and tenacity) for the purpose of receiving and performing a specific government contract.
certified 8(a) firm
A firm owned and operated by socially and economically disadvantaged individuals and eligible to receive federal contracts under the Small Business Administration's 8(a) Business Development Program.
contractyA mutually binding legal relationship obligating the seller to furnish supplies or services (including construction) and the buyer to pay for them.

## contracting

Purchasing, renting, leasing, or otherwise obtaining supplies or services from nonfederal sources. Contracting includes the description of supplies and services required, the selection and solicitation of sources, the preparation and award of contracts, and all phases of contract administration. It does not include grants or cooperative agreements.

A person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings.

## contractor team arrangement

An arrangement in which two or more companies form a partnership or joint venture to act as a potential prime contractor or an agreement by a potential prime contractor with one or more other companies to have them act as its subcontractors under a specified government contract or acquisition program.

## Defense Acquisition Regulatory Council (DARC)

A group composed of representatives from each military department, the Defense Logistics Agency, and the National Aeronautics and Space Administration. It is in charge of the Federal Acquisition Regulation (FAR) on a joint basis with the Civilian Agency Acquisition Council (CAAC).

## defense contractor

Any person who enters into a contract with the United States for the production of material or for the performance of services for national defense.

## electronic data interchange

Transmission of information between computers using highly standardized electronic versions of common business documents.

## emerging small business

A small business concern whose size is no greater than 50 percent of the numerical size standard applicable to the Standard Industrial Classification code assigned to a contracting opportunity.

## equity

An accounting term used to describe the net investment of owners or stockholders in a business. Under the accounting equation, equity also represents the result of assets less liabilities.

## fair and reasonable price

A price that is fair to both parties, considering the agreed-upon conditions, promised quality, and timeliness of contract performance. The "fair and reasonable" price is subject to statutory and regulatory limitations.

## Federal Acquisition Regulation (FAR)

The body of regulations that is the primary source of authority governing the government procurement process. The FAR, which is published as chapter 1 of title 48 of the Code of Federal Regulations, is prepared, issued, and maintained under the joint auspices of the Secretary of Defense, the Administrator of the General Services Administration, and the Administrator of the National Aeronautics and Space

Administration. Actual responsibility for maintenance and revision of the FAR is vested jointly in the Defense Acquisition Regulatory Council (DARC) and the Civilian Agency Acquisition Council (CAAC).

## full and open competition

With respect to a contract action, a competition in which all responsible sources are permitted to compete.

## intermediary organizations

Organizations that play a fundamental role in encouraging, promoting, and facilitating business-to-business linkages and mentor-protégé partnerships. These can include both nonprofit and for-profit organizations-chambers of commerce; trade associations; local, civic, and community groups; state and local governments; academic institutions; and private corporations.

## joint venture

In the SBA Mentor-Protégé Program, an agreement between a certified 8(a) firm and a mentor firm to perform a specific federal contract.

## mentor

A business, usually large, or other organization that has created a specialized program to advance strategic relationships with small businesses.

## negotiation

Contracting through the use of competitive or other-than-competitive proposals and discussions. Any contract awarded without using sealed bidding procedures is a negotiated contract.

## North American Industrial Classification System (NAICS)

The standard used by federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

## One-Stop Capital Shops (OSCSs)

OSCSs are the SBA's contribution to the Empowerment Zones/Enterprise Communities Program, an interagency initiative that provides resources to economically distressed communities. The shops provide a full range of SBA lending and technical assistance programs.

## partnering

A mutually beneficial business-to-business relationship that is based on trust and commitment and enhances the capabilities of both parties.

## prime contract

A contract awarded directly by the federal government.

## PRO-Net

SBA's Procurement Marketing Access Network, a "virtual" one-stop procurement shop. The database offers an electronic search engine for contracting officers and serves as a marketing tool for small businesses that register with the system. It contains the profiles of thousands of small firms.

## protégé

A firm in a developmental stage that aspires to increasing its capabilities through a mutually beneficial business-to-business relationship.

## request for proposal (RFP)

A document outlining a government agency's requirements and the criteria for the evaluation of offers.

## Service Corps of Retired Executives (SCORE)

A 12,400 -member volunteer association sponsored by the SBA. SCORE matches volunteer business-management counselors with present prospective small business owners in need of expert advice.

## small business

A business smaller than a given size as measured by its employment, business receipts, or business assets.

## Small Business Development Centers (SBDCs)

Centers that offer a broad spectrum of business information and guidance, as well as assistance in preparing loan applications.

## Small Business Innovative Research (SBIR) contract

A type of contract designed to foster technological innovation by small businesses with 500 or fewer employees. The SBIR contract program provides for a three-phase approach to research and development projects-technological feasibility and concept development, the primary research effort, and the conversion of the technology to a commercial application.
small disadvantaged business concern
A small business concern that is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged. This may include a publicly owned business that has at least 51 percent of its stock unconditionally owned by one or more socially and economically disadvantaged individuals and whose management and daily business are controlled by one or more such individuals.

## Standard Industrial Classification (SIC) code

A code representing a category within the Standard Industrial Classification System
administered by the Statistical Policy Division of the U.S. Office of Management and Budget. The system was established to classify all industries in the U.S. economy. A twodigit code designates each major industry group, which is coupled with a second twodigit code representing one of a number of subcategories.

## subcontract

A contract between a prime contractor and a subcontractor to furnish supplies or services for the performance of a prime contract or subcontract.

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