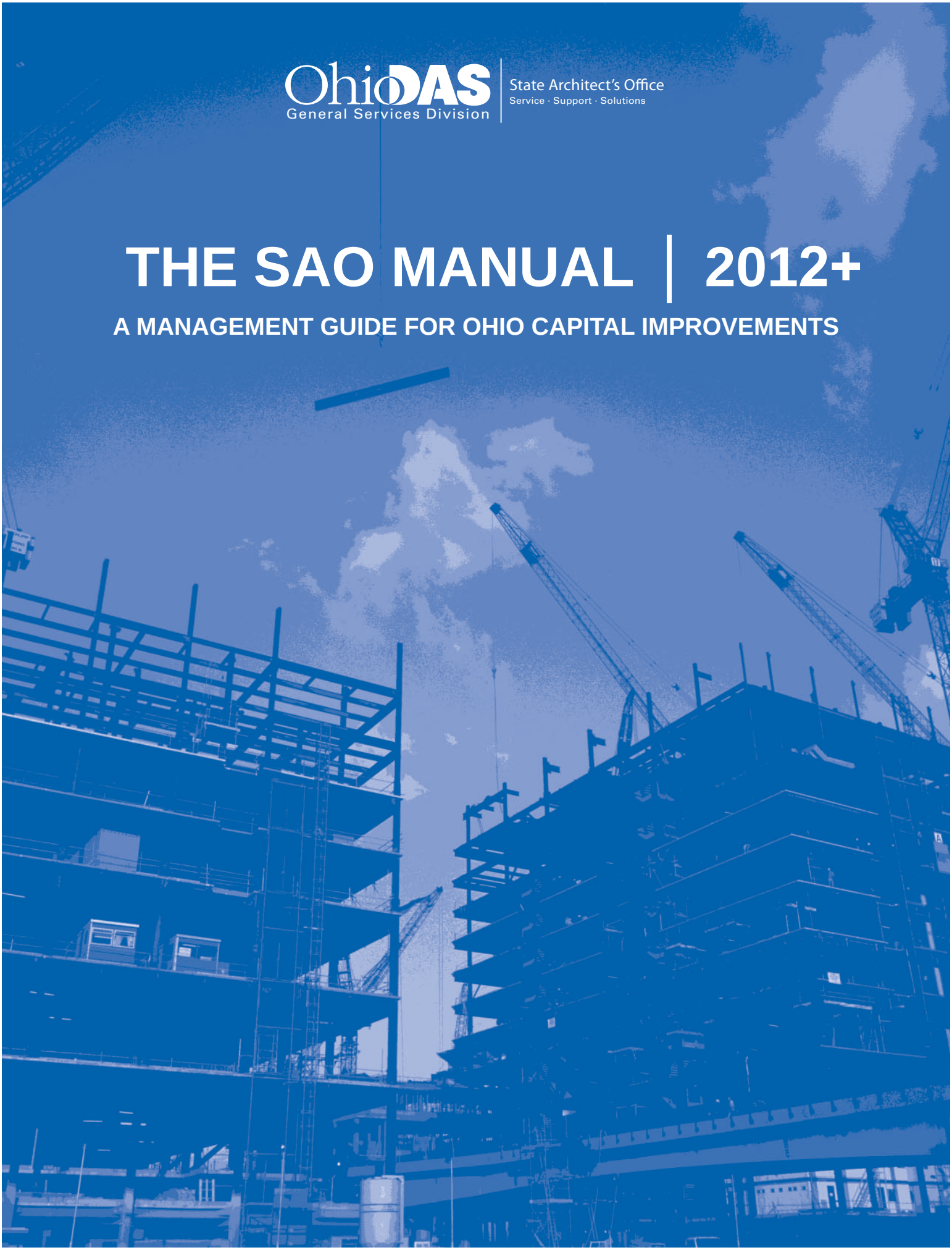
OhioDAS
General Services Division

State Architect's Office
Service · Support · Solutions

# THE SAO MANUAL | 2012+

## A MANAGEMENT GUIDE FOR OHIO CAPITAL IMPROVEMENTS



The Mission of the State Architect's Office is to effectively
and efficiently lead capital planning, design, and construction of public facilities
through quality service, expertise, and knowledge sharing.

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# Introduction

## Purpose and Intent

This Manual outlines the procedures used by the State Architect's Office ("SAO") to manage capital projects. It also details standard office procedures associated with the day-to-day operation of SAO. Each section of the Manual describes the current practices and procedures required to undertake and successfully complete capital projects for Ohio agencies.

Variations in the sequence of activities may be required due to unique project circumstances. For example, it is not uncommon for an issue to arise in a project, which requires some activities to be performed piecemeal, or in non-typical sequence, or both. In such cases, the reader must use professional judgment in interpreting and applying the requirements.

Other clarifications, which will facilitate using the Manual:

- The content of this Manual is not intended to conflict with or contradict any federal regulation or State code, and in the case of any apparent conflict or contradiction, the federal regulation or State code will prevail.
- The provisions of this Manual are not to be interpreted as superseding any requirements of the Architect/Engineer Agreement, Construction Management Agreement, Consultant Agreement, Contactor Contract, or the "State of Ohio Standard Requirements for Public Facility Construction.
- The material in this Manual cannot address all situations and should not be interpreted as containing definitive requirements, which supersede the use of good professional judgment.
- The procedures outlined in detail are appropriate for large, complex projects. SAO may, in consultation with the Owner, agree to modify or delete some elements of a procedure in simpler projects.
- Where reference is made to the "Architect/Engineer and CM" or "Architect/Engineer or CM," or a reference is otherwise made to a CM, the reader should disregard the reference to CM on projects in which no CM is involved. The references typically apply to the CM as Agent delivery method, in which the CM is an agent of, or adviser to, the owner.

## Style and Graphics

The Manual is subdivided into sections, which are numbered and titled to correspond to the coding system, which SAO uses to identify project activities for naming and filing of documents. Although the coding system is primarily chronological, it does deviate from a chronological model in some respects, which may seem counterintuitive and require explanation. For example:

- While retaining the services of a specialty Consultant may occur during or even after construction, information on procurement of all Consultants is located under the general heading "Procurement" in the 100 series to place it with other procurement processes, most of which occur earlier in the project process.
- Although payment of Architect/Engineers, Consultants, and CMs typically occur throughout a project, information on those activities is presented under the general heading "Design" in the 200 series - as payment to them usually occurs, for the first time, during the Design Stage of the project.
- Even though a Constructability Review Consultant is frequently retained when a project is in the Design Stage, (information on the procurement of such a Consultant is located in the 100 series) information on the Constructability services is located under the general heading "Extra Services" in the 500 series.

The exhibits, which are typically standard forms created by SAO, are identified by the technical document names used for filing purposes as well as by the formal document title. The technical document names follow SAO's coding system, thus the documents can be readily associated with the sections to which they primarily pertain.

SAO's intent is that the Manual will be available as a fully interactive web-based document, which will include hyperlinks to referenced topics within the Manual, as well as links to documents on the Web sites of SAO

and other agencies. Hyperlinks are shown in the Manual in boldface font and underlined, thus: **Link To Other Location**. The user can activate the link by a "click" of the mouse button. Where links to documents are not yet active, or where the document is not yet available, the inactive link or item is noted in the text as "in progress."

### Anticipating Change and Working with Changes

Readers should check the SAO website to confirm that they are using the current version of the applicable portion of the Manual. As text in the Manual is revised, the area in *The SAO Manual* containing a revision from the previous version, whether the change is an addition, a deletion, or a modification, will be indicated with a vertical line in the margin of the page. Also, the footer of each page will indicate the original issue date and the date of the most current change, even if the individual page does not contain a revision.

SAO will retain electronic versions of earlier editions of *The SAO Manual*. The State Library also maintains a collection of previous versions as PDF files.

## Stakeholders

Each project requires the services of numerous individuals, firms, agencies and organizations all working together to advance the successful execution of each building program. Members of each project team become a stakeholder in the process and each have a vested interest in the successful outcome of the program.

The project stakeholders on typical projects and some of their roles and responsibilities are shown below:

- The **Contracting Authority** is an entity which is legally empowered to administer State capital construction projects, including entering into contracts with design professionals and contractors. For most projects not administered by Owners under local authority, however, SAO exercises that authority on behalf of DAS and therefore SAO may be considered the Contracting Authority for most purposes. Some business processes in OAKS Capital Improvements ("OAKS CI") use the term in lieu of State Architect or Institutional Designee.
- The **Owner** is typically any State-funded college, university, agency, board, or commission. "Sponsoring Agency" and "Using Agency" are other terms commonly used to connote the Owner. This Manual generally uses the term "Owner" to represent any of these entities. (The Contracting Authority and the Owner may, on occasion, be the same entity.)
- **Users** may include employees, visitors, clients, students, patients, inmates, etc. The Owner commonly acts on behalf of the Users of the facility. If the interests of the Users do not closely coincide with those of the Owner, or the Users are not represented by the Owner in the project, or both, the Users should be considered as separate stakeholders.
- The **Ohio Department of Administrative Services** ("DAS" or the "Department") provides services to all State agencies, as well as other political subdivisions and quasi-government agencies. The General Services Division is one of its Divisions. The **Director** is the chief executive of the Department.
- The **General Services Division** ("GSD" or the "Division") provides or supports a variety of functions for its customers through several program units. The State Architect's Office is one of the Division's nine program units. The **Deputy Director** is the chief executive of the Division.
- The **State Architect's Office** ("SAO") is available to manage capital improvement projects for any State agency, including any board, commission, college, university, or others as requested and within the intent of controlling statute and policy. SAO can assist agencies in all types of projects and in any phase of a project. SAO can provide services, which extend from early planning of a project through design and construction and into occupancy. When SAO manages a project on behalf of an Owner, the Owner or defined set of users is the client of SAO, and SAO acts as the Contracting Authority.

- SAO is subdivided into customer service teams that facilitate effective management of the activities of the office:
  - The Capital Planning Services group assists agencies and colleges in the development of strategic capital master plans in preparation of their biennial capital budget requests to the state.
  - SAO provides Project Services through the review of local administration requests and the direct management of design and construction projects. This unit is further subdivided into Segments named for the clients they serve (Agency, Corrections, and Higher Education).
  - Energy Services provides design as well as auditing and contracting opportunities for the efficient use of energy resources in state government facilities and operation.
  - The Program Services unit provides enterprise-wide standard contracting documents for capital improvement projects.
- The State Architect is the chief officer of SAO, is responsible for the vision and mission of the office, and directs all activities of the organization.
- Segment Managers: A Segment Manager leads a customer service team, which serves a certain set of agencies. Each is a design professional or professional manager with substantial experience in the management of capital projects and personnel management. A Segment Manager may act in the capacity as Project Manager on certain projects. Each Segment Manager manages a team of Project Managers, Project Coordinators and other specialists. These individuals are the primary contact for Stakeholders for daily management of SAO administered projects.
- Services Managers: A Services Manager leads a customer service team, which serves special needs of all agencies and institutions, and supports SAO staff. A Services Manager is a design professional or professional manager with substantial experience in the management of capital projects, personnel management, and contract documents preparation. The Services Manager functions in a role similar to a Segment Manager, and may serve in a dual role with the responsibilities of each. The Services Manager may also act in the capacity as Project Manager on certain projects.
- Other SAO Personnel include:
  - Project Managers are typically licensed architects or engineers and are responsible for the day-to-day management of the capital projects assigned to them. Their responsibilities are broad and they operate with limited supervision.
  - Project Coordinators are responsible for performing many of the critically important and time-sensitive administrative functions, which do not require professional licensing. They generally administer bidding, contract preparation and execution, processing of change orders and payment requests from A/Es and Contractors, and provide frequent general coordination between any of the project team members.
  - Energy Specialists are Project Managers who function in SAO Energy Services in roles similar to other Project Managers. They are typically engineers with special expertise in energy analysis and conservation.
  - The Communications Specialist prepares and publishes all major SAO publications such as the Ohio Register and SAO eNews, produces SAO marketing and communication documents, and maintains the SAO website and associated electronic communications.
  - Fiscal Officers perform general accounting services, including accounts payable and receivable and provide fiscal management and planning for SAO operations.
  - Administrative Support staff assist the entire office in the administration of SAO, including assisting with development of SAO policy and procedures, generation and management of internal forms and documents, performing basic personnel management tasks, organizing and staffing SAO training programs, and managing filing, mailing, telephones, supplies, vehicles and other operational matters.

- The Office of Budget and Management ("OBM") is a cabinet level agency within the executive branch of Ohio government. The primary mission of OBM is to provide fiscal accounting and budgeting services

to State government. These services include coordination, development and generalized monitoring of agency operating and capital budgets.

- The State Controlling Board is administered by OBM and is comprised of members of the State legislature. It authorizes the expenditure of capital funds. The President of the Controlling Board is appointed by the Governor and serves as an employee of the OBM per statute.

## Communication

Written correspondence of any nature that is related to a project should include the assigned project number. Failure to include the project number may cause a delay in delivering the document to its intended party. Send correspondence addressed to the individual most directly related to the issue or concern and if desired, provide a courtesy copy ("cc") to other individuals within SAO and other parties as appropriate.

With few exceptions, nearly all routine project management and administration is within the purview of the Project Manager, the Project Coordinator, or the Fiscal Officer. The following chart illustrates many types of documents normally sent to SAO and indicates the recommended addressees. Address the document to the primary recipient; send copies to others.

| Project Related | Primary | Secondary | Courtesy |
|---|---|---|---|
| Routine Project Correspondence | PM | PC | OPT |
| Non-routine Project Correspondence | SM | SA | PM, PC |
| Payment Requests | PC | PM | OPT |
| Notice of Lien | FO | PC | PM |
| Application for Local Administration | SM | PS | DIR |
| Bid Package (for bids at SAO) | PC | PM | OPT |
| Ohio Register Advertisement | PS | SM | FO |
| Notification of Claims | SA | SM | PM |
| Article 8 Dispute Resolution Request | SA | DD | PM |
| Other | PM | SA | OPT |

**LEGEND**
DD = Deputy Director, GSD
DIR = Director, DAS
FO = Fiscal Officer
GSD = General Services Division
N/A = Not Applicable
PC = Project Coordinator
PM = Project Manager
SA = State Architect
SM = Segment Manager
PS = Program Services
OPT = Optional by Sender

| Non-Project Related | Primary | Secondary | Courtesy |
|---|---|---|---|
| SAO general office | SA | N/A | OPT |
| Invoices for SAO business items | FO | SA | OPT |
| Other | SA | OPT | OPT |

Electronic Mail ("E-mail")

SAO requests that the senders of email put the Project Number in the subject line of email—preferably at the beginning, followed by a brief (2-6 word) description of the email topic. Ask those that send email to the office to do the same for all project-related emails. This will assist in sorting the email for filing and archiving.

OAKS CI Unifier Mail ("U-mail")

The Unifier product includes a simple electronic mail system with an inbox associated with each project. The rules of use are similar as e-mail. Use this tool with caution as the seach and retrieval of these communications are limited. Each OAKS CI user has the opportunity to select the notification options when a

task is assigned to them, or when they are copied on a step in the business process workflow. This will send a regular e-mail to the user.

### Telephones

For a listing of all State office and employee telephone numbers, please see the Web link: http://das.ohio.gov/Divisions/GeneralServices/StateArchitectsOffice/SAOStaffDirectory/tabid/402/Default.aspx or http://ohio.gov/phonedir/query.aspx.

## SAO History

Public Works was originally a Board formed for the purpose of building and maintaining Ohio's canal transportation system. Created in 1921, the Office of the State Architect and Engineer was originally established in the Department of Highways and Public Works, located in the Ohio-Hartman Building, formerly the Hartman Hotel, at 275 South Fourth Street.

It was listed as the Division of Public Lands and Buildings in the 1923 Columbus City Directory. In 1927, the Department was split between Highways and Public Works. In 1930, the office was listed as the Division of Architects and Engineers in the Department of Public Works, and in 1933 moved to the new Departments of State Building, now the Thomas J. Moyer Ohio Judicial Center, at 65 South Front Street.

In 1974, Public Works was "demoted" to a Division when the departments of Finance, State Personnel, and Public Works were reorganized into the Department of Administrative Services (DAS) and the Office of Budget and Management, and moved to the new State Office Tower, subsequently named for Governor James A. Rhodes, at 30 East Broad Street.

It became an office in the General Services Division (GSD) of DAS in 1995, and the office moved to the General Services Center at 4200 Surface Road. After being located downtown since its inception, the office moved to the West side of Columbus just inside the I-270 outerbelt. For a short period of time in the late 1990s, it was known as the Office of Construction Management.

Prior to the establishment of the Office of the State Architect and Engineer in 1921, the individual state Boards engaged outside architects and contractors to serve their construction needs on an ad hoc basis. Consolidation of authority in one agency allowed for consistency of policy and procedure, as well as standardized contracts and conditions.

The Administrative Act of 1921 provided an architectural expert employed by the state, which allowed centralized planning and administration. In 1921, the only agency exempt from central administration was the Adjutant General. Over the years, this authority has eroded significantly, and state institutions of higher education have had varying degrees of interaction with the office. The following 19 individuals served as the appointed State Architects since the inception of the office:

Robert S. Harsh..... 1921 - 1924
Herbert B. Briggs..... 1924 - 1929
T. Ralph Ridley..... 1929 - 1931
John P. Schooley ..... 1931 - 1940
Robert B. Schildknecht..... 1940 - 1942
Thomas E. Brand ..... 1943 - 1944
Floyd F. Glass ..... 1947 - 1948
H. G. Allen ..... 1948 - 1958
Carl E. Bentz ..... 1958 - 1978
Don Welsch ..... 1978 - 1981
George Hodge ..... 1981 - 1983
Lee Martin..... 1983 - 1985
Carole Olshavsky ..... 1985 - 1989
Jack Frost ..... 1989 - 1991
Joe Busch ..... 1991 - 1994
Randy Fischer ..... 1994 - 1997
Roger B. Booker ..... 2000 - 2007
Craig Weise ..... 2007 - 2011
Lane J. Beougher ..... 2011 - 2012

With the passage of Am. Sub. H.B. 487 by the 129th General Assembly, signed by Governor John R. Kasich on June 11, 2012, the State Architect's Office will merge with the Ohio School Facilities Commission to create the Ohio Facilities Construction Commission, with an effective date of September 10, 2012. The dedicated staff of SAO are looking forward to turning the page of yet another chapter in the history of the State of Ohio's Capital Improvements Program.

# 000 | Concept Development

Sections in this Group describe the steps from the earliest conception of a project to the conclusion that a project is feasible and that funding is available. The Sections consist of the following:

010 | Owner Vision

020 | Project Definition

030 | Planning

040 | Feasibility

050 | Budgeting

060 | Funding

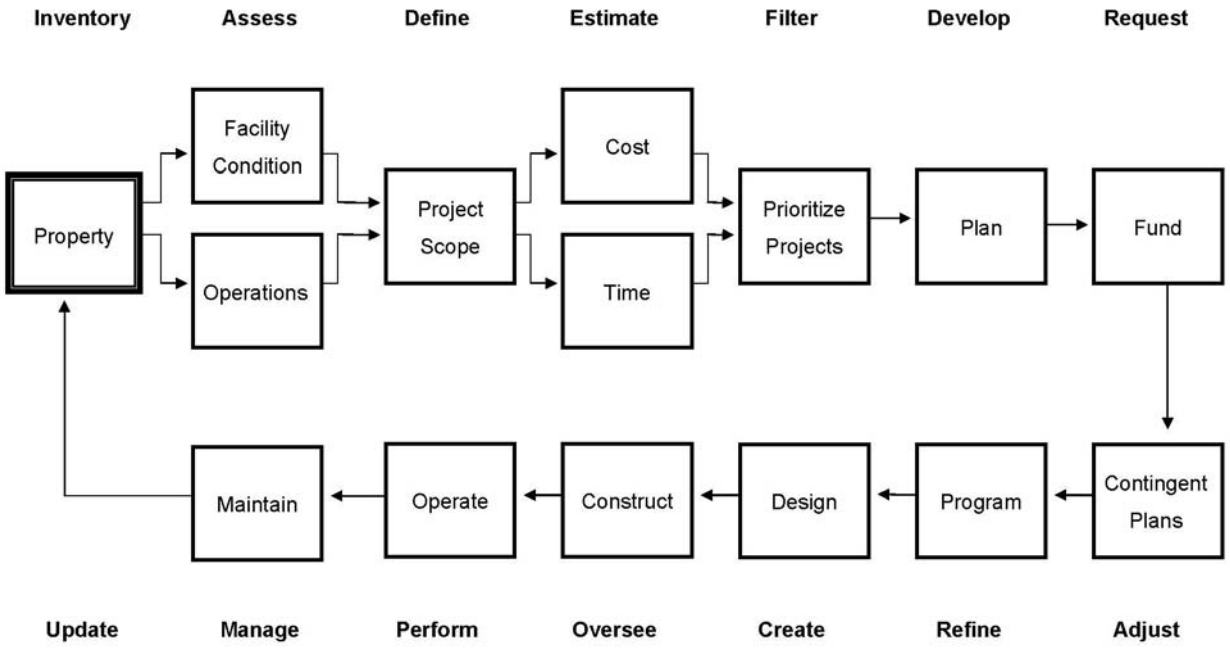
070 | Local Administration

080 | Selecting a Project Delivery Method

085 | Design-Bid-Build

090 | Construction Management

095 | Design-Build




Capital Planning Lifecycle Figure 000.1

# 010 | Owner Vision

This Section discusses how an Owner becomes aware that a need or problem exists, and outlines a process to determine whether the solution might be acquisition, modification, or construction of buildings or other facilities. It also describes creation of the initial statement of goals and objectives, operational problems to address, and physical elements to be included.

## Perceived Need

An Owner may become aware that a need or situation exists for which a design and construction project may be the answer, or part of the answer. In planning jargon this is often referred to as a "perceived need." While some needs will be perceived as they develop, some may be foreseen years before the issue actually manifests itself. An Owner may discover such needs by a myriad of means.

While the term "perceived need" implies a reactive posture, an Owner may sense opportunities or conceive of operational changes proactively. Such efforts may respond to an indicator that shows performance below the performance of peer institutions, such as: declining applications for service, ineffective service delivery, high operating costs, inadequate quality or reliability, high employee absenteeism or turnover, staff health problems, etc. An aspect of the operation may play a strategically significant role in the quality, efficiency, or effectiveness of service delivery, and resulting effort to actively seek improvements or innovation, perhaps even to be a leader in its field.

While many projects arise out of and are driven by a perceived need, often it is the availability of funds which brings operational issues to a head or which initiates a process to identify worthy construction projects. Many Owners maintain a "wish list" of desired projects, some of which may remain on the list for years and, because of their low priority or insufficient availability of funding, may never be formally proposed, receive funding, or be performed. The Owner may have an internal process for evaluating such proposals, which projects must maneuver before they reach consideration at a higher level.

The State of Ohio utilizes a formal process by which Owners may submit projects for consideration for funding. On a biennial basis, Owners of State facilities may submit proposed projects for consideration for capital funding.

In addition to State capital funds, the availability of other sources of funding may foster interest in pursuing a construction project. Such funds may be used by the Owner or, for facilities owned by an entity other than the State, constitute matching funds.

## Facility Needs Assessment

A Facility Needs Assessment is a tool to help the Owner determine what facilities are available to address its needs, and whether those facilities are sufficient, or whether they need to be modified or supplemented. The Facility Needs Assessment can also be seen as an interactive study, which considers how the Owner's operations may be modified to suit existing or proposed facility resources. It is a step, which represents the first effort to fill what the Owner wants to accomplish in a project.

The Facility Needs Assessment involves an analysis of the Owner's current facility inventory, space utilization, deficiencies, and conditions with regard to the long-range goals the Owner has for a facility, as well as the apparent needs of a proposed project. For a project which involves the use or creation of space in buildings, the Owner of a facility of some complexity, the Facility Needs Assessment is the step which makes the initial determination as to whether, at the most basic level, the facility has sufficient space, a shortage or a surplus of space of certain types, and whether the proposed project will involve use of existing space, relocation of other activities to permit that use, the acquisition or construction of new facilities, or other options.

While a Facility Needs Assessment is most commonly thought of as tool to analyze the use of, or need for, floor area in buildings, the concept is applicable to the assessment of other kinds of facilities.

The scope of the Facility Needs Assessment should strike an appropriate balance between cost, time, and the relative significance of the issues to be studied. For a very simple project, the Facility Needs Assessment

may be as simple as an acknowledgement that a piece of equipment needs to be replaced in its existing location, and that the project need not involve any of the other Owner's facilities. A Facility Needs Assessment for a project of moderate complexity may be as straightforward as determining whether there is sufficient square footage in an existing building for a proposed expanded use, and consist of a simple analysis and a few thoughts regarding functionality and cost. A Facility Needs Assessment for a large, complex project may include analyses of building use patterns, estimation of future growth, assessment of the functionality and life expectancy of existing facilities, and, at the extreme, could evolve into a full-fledged Master Planning exercise.

The ultimate goal of the Facility Needs Assessment is the fundamental determination as to whether the project will involve renovation or new construction, or even demolition, and the approximate magnitude of each. Additional information of interest includes what kind of facilities or space is appropriate and assessing the economics of the various alternatives.

Although the Facility Needs Assessment is presented as a required step in the Owner Vision, note that a simple project, which does not involve expansion or the relocation of activities, will probably not require a Facility Needs Assessment. A single building occupied by a single user group may involve such straightforward issues that a Facility Needs Assessment is not warranted. A simple Facility Needs Assessment may be performed early in the formative stages of project, or it may have been performed in some other context and in fact predate the project.

## Vision Statement

Finally the Owner must consolidate and articulate the various concepts into a single vision. The statement may include a commentary about the philosophical, social, or corporate intent that the Owner wishes to address or wishes to accomplish with the culmination of the project. In essence, this becomes the Owner's Vision Statement.

To create this document, the Owner should Include a project justification statement. This statement includes the problem statement, the goals and objectives, and spells out the Owner's intentions for the project.

## Problem Statement

Once an Owner realizes that it has a problem, or opportunity, one of its first tasks is to achieve consensus among the stakeholders as to the essence of the problem, and to define the problem in a problem statement. To do so, it must of course identify the stakeholders, and determine their roles in the process. This may be a complex, difficult task in itself.

For simple problems, the problem statement may be a single, obvious declarative sentence such as "renovate the HVAC system to replace aged equipment and provide reliable, cost-efficient heating and cooling." For complex problems, the problem statement may have to address many issues and will therefore contain numerous statements. In drafting the problem statement, the Owner should try to ensure that, the statements are discrete, do not conflict with each other, are not mutually exclusive, and are worded generally enough so that they do not unnecessarily presuppose a solution, or bias the decision process toward a certain solution.

The ability to state the problem presupposes that the Owner can determine what organizational outcome is desired for the problem. For problems of no more than moderate complexity, it is safe to say that an Owner will probably find the acceptable solution within fairly well defined boundaries. For example, faced with a space shortage, the desired organizational outcome may be that the program has enough space to operate, but will probably *not* be to abandon the program or raise user fees to discourage usage. For unusual problems, determining the desired organizational outcome may not be so simple, and may require a substantial and sophisticated effort.

## Goals and Objectives

Once the problem has been defined and stated, the Owner should list the goals and objectives it hopes to achieve in resolution of the problem. “Goals” are general statements of purpose. “Objectives” are more specific, often measurable statements of what should be achieved.

Once they are determined, the Owner should prioritize its goals and objectives for the project. Prioritizing may be politically difficult and may require a substantial effort to achieve consensus.

Each goal or objective may not easily fit into a single category. For example, the variables quantity, quality, and the time it takes to complete a project may interact to permit more than a single combination of those elements. A minimum quality and size might be required in a project, but a higher *quality* of space might make a lower *quantity* of space acceptable. The goal and objective statements should be crafted to permit addressing such tradeoffs where they occur.

## Operational Plans

After identifying the goals and objectives, the Owner should develop alternative operational plans to achieve those goals and objectives. Alternative plans may be generated by staff input, brain storming, focus groups, or any number of procedures for generating ideas.

For complex problems, there may be several operational plans, which show promise. In addition to actually implementing the day-to-day operational elements or physical plant requirements of each plan, each may involve diverse requirements such as coordination with a strategic plan, staffing requirements, approval by a board of directors, obtaining licenses, arranging operating funds, etc. In a business context, for example, a plan may involve all departments of the organization including: human resources, finance, accounting, operations, legal, marketing, strategic planning, etc.

In most circumstances it is natural that Owners will look for solutions which are purely operational, and solutions which are the simplest, least costly, and easiest to implement. Where the situation requires, consideration of alternatives may extend to more costly and time-consuming solutions, including those involving construction. The implications of a particular plan for an Owner’s physical plant may be minimal, or very substantial.

It would be pointless to conceive of operational plans without some regard for operational feasibility. An Operational Plan must be analyzed for operational feasibility. Doing so requires that the various stakeholders and disciplines involved review all aspects of the plan to ensure that it will work as an integrated whole and that no critical ingredient is missing.

Creation of operational alternatives and testing their operational feasibility is usually an iterative process, with refinement of the alternatives going hand-in-hand with increasingly rigorous reviews of feasibility. The feasibility review should intensify as the range of alternatives is narrowed.

The analysis of physical structures and proposed construction projects for feasibility involves a large number of issues, which are unique to construction and therefore merits separate treatment.

To narrow the field of potential solutions, the Owner must compare and evaluate them. While the focus of this Manual is primarily design and construction projects, some ways in which plans can be compared are equally applicable to plans, which involve the physical plant and to those which do not.

Many large facilities have a Master Plan, which is used to guide and control development, and coordinate the content and sequence of different projects. The Owner must determine whether each alternative requires the completion of other projects, interacts or conflicts with other projects, or complies or conflicts with principles articulated in the Master Plan.

## Project Complexity

Although the focus of this Section thus far has been primarily the *substance* of a *particular* plan or project, an Owner which is considering or actually defining a construction project should have a basic understanding of the factors which may make the plan relatively easy or extremely difficult to achieve. Cost, quality, and the time and resources required for implementation, and other issues interact in complex ways. Underestimation of the complexity of a project may mean that, from the outset, it is misconceived and will have a low probability of successful completion.

Construction is a unique industry; a discussion of the characteristics of construction projects in the abstract is warranted. Following is an attempt to identify some of the characteristics, which distinguish simple projects from complex ones, and to identify resources which an Owner may need to employ to deal with that complexity. While the language used is rather general, the items are formulated with an eye to their particular relevance to construction projects. For the sake of illustration, projects will be discussed in categorical terms, very simple and very complex. The Owner must consider where on the continuum of complexity the project lies, be aware of the risks which that complexity implies, and take appropriate steps to manage it.

# 020 | Project Definition

This Section deals with the process the project team should follow after it has determined that a construction project is part of the preferred solution to the Owner's goals and objectives, which it has identified. This task primarily involves the creation of a formal, written definition of the project, the Space and Functional Program, and assessment of existing relevant facilities.

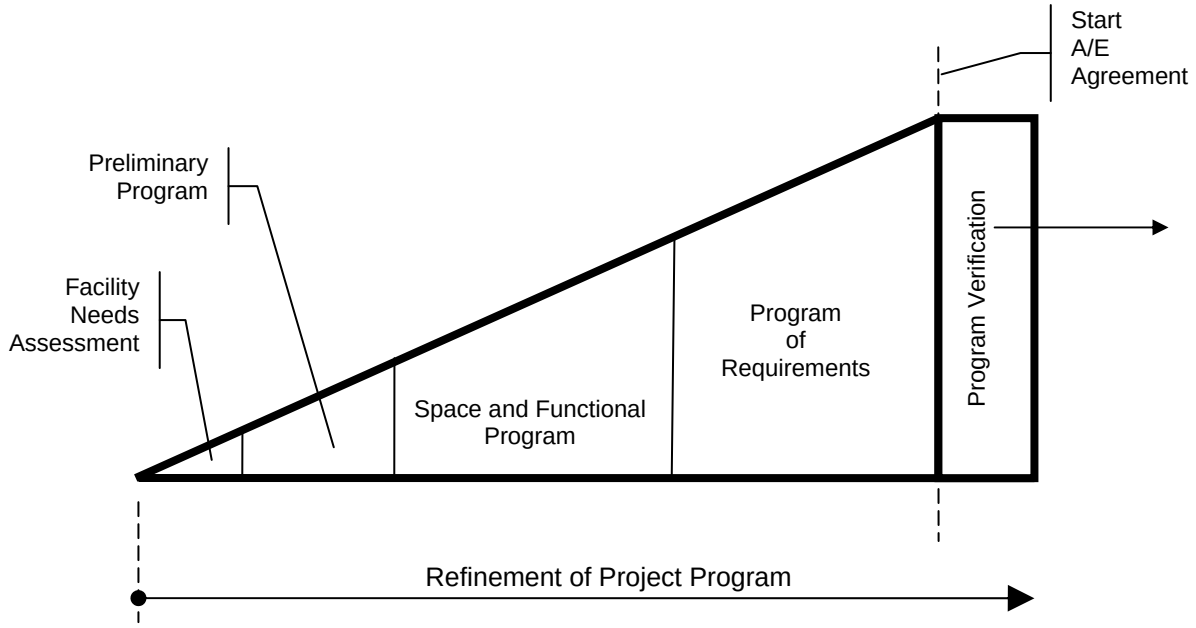
## Programming Overview

Generally, programming is the process of defining, describing, and quantifying the physical and qualitative and quantitative requirements of a project, determining the probable cost required to achieve those requirements, and identifying and analyzing issues which will impact the project. The process may address tangible as well as intangible requirements. The finished product is an architectural program, or simply, the Program.

Developing the program is a process, which occurs at several points in the development of a project. The level of detail required increases as the development of the project evolves. In the model utilized in this Manual, those points and the respective terms used to identify them are as follows:

- Preliminary Program
- Space and Functional Program
- Program of Requirements
- Verification of the Program

Although the Manual presents programming as a series of discrete activities identified by specific terms, programming is inherently an iterative process, and there are no hard and fast rules for exactly what level of detail is required at each step, and the terms used by some may differ from those used in the Manual. The Manual presents the concepts in accordance with the above model, with the understanding that the programmer may modify the structure of the process as the project and situation warrant.




Concept Development Process — Figure 020.1

The earliest steps in the programming process are those in which the Owner's insights are most essential and where it would be difficult for a Consultant to perform the programming. The latter steps in the programming process require professional skills and specialized resources, which suggest that a Consultant may be required. The Manual will present comments on the use of Consultants and the management of the programming process in several areas. With regard to a particular project, that information may be applicable

to an earlier or later stage of the programming process, or not at all, depending on how much of the programming is performed by the Owner or a Consultant.

## Administration of the Programming Process

The term ”programmer” as used in this Section should be interpreted as the Owner, Owner’s staff, Consultant or other entity which performs the programming. The programmer may be an individual or team of individuals.

If the Owner chooses to retain a Consultant to prepare the Space and Functional Program, the Owner will have to exercise considerable care in outlining the project and clarifying how the Consultant will obtain the information and insights needed to prepare the program.

The Owner identifies any unusual issues which may be involved in the project. This will help the Owner determine whether the Owner’s staff or a Consultant would be most appropriate to perform the programming. If the Owner chooses to have a Consultant to perform the programming, the Owner must define project sufficiently so that the Consultant can identify and quantify the tasks to be performed. The fundamental question for a Consultant in determining a fee is: “How many person-hours of work will be involved and by persons of what job descriptions”? The fee negotiated must fairly reflect the scope and complexity of the services required.

## Preliminary Program

The Preliminary Program represents the first effort to identify and list the various activities which need to be accommodated, the kinds of spaces or other construction elements required in a project, and to generate a preliminary budget. It constitutes the most fundamental ideas about the content of project preliminary budget and can only be prepared by the Owner.

The Preliminary Program should include all of the information developed in the Owner Vision, a list of the kinds of areas or other specific design elements of interest are required, a statement about the size or capacity of those facilities or spaces, an estimate of the total square footage involved, and a project budget.

## Space and Functional Program

After the Owner has created a Preliminary Program and has reason to believe that further investment in the concept is warranted, the Owner must prepare a Space and Functional Program. The Space and Functional Program is the first complete statement of what the project is intended to include and accomplish, and must identify the quality, quantity and cost of the project in considerable detail.

Project involving substantial renovation or construction should include the following items in the Space and Functional Program:

- The Preliminary Program, updated to reflect the additional detail developed below. Any significant changes should be specifically noted.
- Where the floor area involved is an appropriate measure of the quantity of work involved, a listing of the number and approximate size of each room or space, as well as estimates of the size of all ancillary spaces, and the size of the entire building or area involved in the construction. The net area, net to gross and gross areas.
- Where floor area is not an appropriate measure of the quantity of work involved, a listing of relevant facilities, as appropriate. For simple projects not involving the renovation or creation of floor area, the description of the physical elements involved may be on a system-by-system basis, or may be a list of components, equipment, etc.
- A listing of all other improvements, including site work, as applicable.
- An estimate of the total square footage involved or other measure of other facilities, as appropriate.
- An updated project budget.

# 030 | Planning

This Section serves as a general guide to the Planning Stage of a project, in which major project issues are addressed in detail, and a detailed program, the Program of Requirements, is created.

## Planning Overview

The planning process is the step, which defines the project and resolves any discrepancies or omissions in the users' needs before the primary responsibility for completing the project is transferred to the A/E. It involves formal complex processes that the Owner may elect to have a substantial portion of the work performed by a Consultant or Consultants. Generally, the tasks involved fall into two categories:

- The Program of Requirements (POR) is the formal statement of what the construction project is intended to include and accomplish. The POR must identify the quality, quantity and cost of the project in sufficient detail that designers can proceed with the project based on its contents. It also serves as the basis for the A/E Agreement, the negotiation of fees for the Agreement, and the A/E's services themselves, so it must be thorough enough so that the Owner and all members of the design team understand all of the requirements for the project and the services required to accomplish it, and there is as little room as possible for misunderstanding on any issue.
- In the planning process, the Owner must finalize the issues, which will not be addressed in the POR or by the A/E in the design of the project. Such issues will vary widely depending the project. They may include (where applicable):
  - Operational issues
  - Obtaining consensus for the project among all interested parties
  - Licenses or other approvals not related to the design and construction
  - Site acquisition
  - Resolving any zoning conflicts
- Verifying funding sources and the approximate amounts of funds required
- Resolution of such issues is generally the Owner's responsibility.

## Program of Requirements

Facility programming is the process of defining the Owner's project needs and the relationships of the various project components. The final product of facility programming activities is the Program of Requirements (POR). It is usually prepared by the Owner or a Consultant qualified in detailed facilities programming. PORs for projects at Universities and Colleges must be approved by the Board of Regents.

SAO requires that the Owner have an acceptable POR before SAO issues or publishes a Request for Qualifications (RFQ) for Professional Design Services for the project. The Owner must make complete copies of the POR available upon request prior to the due date for the responses to the RFQ.

Alternatively, the Owner may include the preparation of a POR in the A/E's scope of work. Such work will be considered an Additional Service and Owners will identify these Additional Service needs if required, with the project announcement or request for project management by SAO.

**OAKS Capital Improvements Procedure**

The A/E or the Owner must submit the POR and any changes or revisions for approval through the Program of Requirements business process.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E or the Owner may transmit the POR and any changes or revisions using traditional means as directed by the Contracting Authority.

The Owner may revise the POR at its own expense prior to beginning of any design stage. If the Owner makes any such revisions, the Owner will redate and reissue the revised POR. Revisions to the POR subsequent to commencement of design may result in additional fees and may delay progress on the project. These are important issues which must be taken into account prior to making any modifications to the POR. After the POR is first made available to A/Es, SAO requires all revisions to the POR be formally issued and approved in writing by the Owner. The A/E must identify all deviations from the POR at each submittal in the design stage.

# 040 | Feasibility

This Section addresses the process of determining whether a design and construction project which previously has been somewhat defined is actually viable. Where there are multiple alternatives available to achieve the Owner's objectives, this Section also addresses the process of determining which of those alternatives is the most attractive.

## Feasibility Concept

In the State of Ohio, physical facilities that are functional and durable are normally very high on every Owner's priority list. There are probably very few projects in which the highest need, goal, or objective is aesthetics. Although the State traditionally uses a competitive bid process to obtain the lowest cost to construct a design, it is not normally the State's intention to construct "cheap" buildings.

Architects and Engineers are selected on the basis of their qualifications, including their experience, expertise, and ability to convert the Owner's conceptual desires into physical reality. They are given a budget as a constraint, as a challenge, and as a parameter to advise them toward the limits of the design.

Operational flow and the effect of the concept on operations are key components of a highly rated feasible concept. The cost of operating a facility is always greater than the cost of construction, therefore, an operational scheme with high efficiency is desirable. The effect that the project will have on the Owner's operation is a high-ranking consideration. Most State agencies must operate effectively and efficiently at all times.

Feasibility Analysis should be performed when the Owner needs to know fundamentally in what direction a project should go, such as whether a proposed site or building is physically capable of supporting, and is appropriate for the project. Where the Owner is not faced with such major decisions, or where there are no options to consider, a Feasibility Analysis is not required.

## Analysis of a Single Scheme

At the simplest level, Feasibility Analysis may be conducted to determine whether a single proposed scheme can be accomplished within certain constraints. Such constraints may include constraints imposed by a specific site or existing building.

Analysis of the feasibility of a single proposed scheme primarily involves determining whether a sufficient number of the highly ranked goals and objectives can be met with the funds reasonably expected to be available to make the project worth performing.

The analyst should identify the goals and objectives which can be achieved, and those which cannot. If an acceptable number of goals and objectives can be achieved, the project may be said to be "feasible". Although cost is generally a secondary consideration, the analyst should offer an opinion of the probable cost required to attain the achievable goals and objectives.

## Analysis of Alternatives

Feasibility Analysis may also be performed when there are distinct alternatives to compare and evaluate, such as when an Owner must compare alternatives, which may include utilizing an existing facility, renovating an existing facility, constructing a new facility, or leasing a facility.

Fundamentally, a Feasibility Analysis involving multiple alternatives considers the restrictions inherent in the sites, opportunities inherent in the sites, the quality of the "fit," which can be achieved between the Owner's goals and objectives and the site, after construction is complete, for each alternative.

Although a choice between alternatives may be made on a holistic basis, it is usually more useful to analyze the differences between one alternative and another on a issue-by-issue basis.

Generally, a Feasibility Analysis focuses on the physical issues involved in a project, with only a secondary consideration of any direct economic implications. Public Owners generally are dealing with an established facility and therefore do not have a large range of options (as would a private firm seeking to expand or

relocate) and has public service objectives, which are not directly quantifiable in economic terms. Accordingly, the range of issues, which a public Owner must consider is probably a narrower range than that which a private owner would have to consider.

Issues which deal with long-term operational costs, or future capital costs which may be required, represent a level of economic analysis which is generally beyond the scope of a Feasibility Analysis and is appropriate only when the Owner Is not associated with any institutional identity or location, has many site choices over a significant geographical area, or has objectives which are largely financial in nature. Analysis of such considerations may involve full–blown real estate investment analysis, which transcends the scope of a typical Feasibility Analysis.

The Feasibility Analysis may identify more than one alternative, which is feasible. In which case, the analyst must focus on those few alternatives, which satisfy more of the project requirements and present those in full detail.

## Performing the Feasibility Analysis

Feasibility Analysis can be a very complex undertaking. On projects of low or moderate complexity, the issues of interest can usually be narrowed to a select list, and the scope of study can be limited. Absent those simplifications, a full Feasibility Analysis, which would be required for a number of very different alternatives, involves the following steps:

- Identify and describe the alternatives;
- Quantify the differences between the alternatives;
- Analyze the differences;
- Total the total costs or points;
- Consider abstract, qualitative or other differences, which cannot be fairly analyzed by costs or points; and
- Make a recommendation.

Buildings are complex objects. Listing the differences between them, let alone assigning costs, values, or relative importance to those differences is no small task. The difficulty of the analysis required will vary depending on the scope of the project:

- Renovation for Re-use: The existing facility may be otherwise functional or perhaps is relatively old and has experienced significant deterioration or obsolescence.
- Addition to an Existing Facility: The existing facility is otherwise functional and appropriately located.
- New Building Construction: This kind of project starts with a relatively “clean slate.” Aside from the site, there are often no truly fixed features, which need to be analyzed. Review of alternatives is an inherent and integral part of the ordinary design process, which will often be sufficient for this kind of project. Regardless, a Feasibility Analysis may be required when there are fundamentally different design approaches, such as building configurations, number of stories, or energy use concepts which need to be compared and evaluated.
- Construction of New Multi-Building Facilities or Campus: Design of multiple buildings inherently involves multiple options, street layouts, utilities and other infrastructure, significant investment in construction, many complex issues, and will usually require a Feasibility Analysis to evaluate major alternatives.

## Site Selection

Whether or not a formal Feasibility Analysis is used, evaluation of alternative parcels of property is a common element of some construction projects, and the principles outlined above for feasibility studies are fully applicable. Issues specific to the selection of sites will be addressed here. The following issues apply to

the evaluation of potential sites, whether they are already owned by the Owner or are candidates for purchase.

Evaluation of alternative parcels for purchase, whether they contain structures or not, is an integral part of the purchasing process. Accordingly, the mechanics of property purchase will be briefly discussed here.

- Property adjoining an existing facility may be available for outright purchase, or may be available for lease or trade through various mechanisms including “land swap”, easement grants, and service sharing arrangements.
- Realtors can provide information on available parcels.
- Other State-owned land may be available. Information on such property can be obtained from the DAS Office of Real Estate and Planning.
- Formal steps in acquisition may include:
  - Appraisal,
  - Phase 1 environmental assessment,
  - Making an offer,
  - Approval of funding,
  - Closing of the sale or transfer,
  - Transfer of property from another State agency, and
  - Transfer of property from another political subdivision.

## Related Concepts

Real estate, particularly buildings, is an expensive, long-lived asset, so it is important to make sound decisions with regard to their use. When evaluating structures, whether candidates for use, renovation, addition, or purchase, the following are basic concepts which define differences which must be addressed when comparing facilities, and which define the limits of financially sound decisions:

- Expected Useful Life: Facilities do not last forever. Well-designed, well-built construction or components will produce a service life longer that poorly designed or cheaply built structures or components. The expected useful life of a building is that age at which the increasing expenditures required to maintain and operate the facility are not economically justifiable. While the expected useful life of a facility can be extended by good maintenance and investment in upgrading, most buildings which do not have some unique inherent value (such as irreplaceable historic buildings) eventually reach a point at which they are obsolete and it is not cost-effective to keep them in service.
- Physical Condition: All building components and systems “age”. The expected useful lives of components range from as few as several years for an awning, to perhaps indefinitely for building foundations.
- Effective Age: Although a structure was initially constructed in a certain year, its simple chronological age does not reflect improvements, which have been made, building additions, maintenance performed or not performed, or deterioration which has occurred, and which affects the structure’s remaining expected useful life. A calculation may be made which takes into account the effective ages of the various components of a facility and their share of the area or value of the facility to yield the weighted average age, or “effective age” of the entire structure.
- Functional Obsolescence: In evaluating the suitability of a facility for purchase, renovation, continued use, or abandonment, the Owner must take into account any obsolescence which may have occurred. If the facility in question currently houses the proposed activity, functional obsolescence describes the ways in which the structure physically no longer suits the specific activity it purports to support. If the facility *does not* currently house the proposed activity, functional obsolescence describes the characteristics of the facility in a more general way, which make it less desirable than new construction custom built to suit the use.

# 050 | Budgeting

This Section is a general guide to understanding the process of creating a budget for a project for developing and requesting the funds for a project; and for reconciling the project budget after the funds for the project are finally available for use. It itemizes the issues to consider in the creation of the project budget and explains the purpose of the project contingency.

## Responsibility

The Owner is responsible for establishing the overall project budget and to obtain the funding for the project.

The Owner must anticipate all potential future costs when creating a budget for the project. Owners with substantial experience in this area may produce budgets using their internal resources whereas others will need expert guidance from others. Many Owners enlist the services of an Estimating Consultant for assistance in estimating construction costs and budget development.

SAO is available to assist in developing budgets upon request.

**OAKS Capital Improvements Procedure**

The Owner or the Project Manager must establish the Project budget and any changes or revisions through the **Budget - Iniital** and **Budget - Revised** business processes.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the Owner or the Project Manager may transmit the budget and any changes or revisions using traditional means as directed by the Contracting Authority.

## Budget Considerations

Pre-Funding Budget Development (Performed prior to funds request): This is the period in which most Owners prepare the project budget based on the best information available and the best projection of the perceived needs of the users and the program developed to date. The budget is then processed through the State budgeting and legislative process – a period that can be months and event years to complete. Obviously, many elements associated with the project will change during that period: budgeting restrictions placed by other agencies and the legislature, programmatic changes within the Owner or User realm, revenue shortfalls, interest rate changes, and many other very real issues. The bottom line is: the budget rarely, if ever, remains unchanged from conception to implementation.

Post-Funding Budget Reconciliation (Performed after funds entitlement): After the funds are designated for the project, usually through the legislative process for Capital Funding, the Owner must begin the all-too-common shocking process of reconciling the budget to the funds provided and known to be available for the project.

In developing a Project Budget, one should be aware that budget costs are categorized into several cost groupings. The most basic of these will include:

- “Soft” costs, which include items directly related to construction (all fees, permits, quality assurance testing, etc.).
- “Firm” costs, which include related expenses, but not necessary actual construction (land, independent studies, furnishings, equipment, etc.).
- “Hard” costs, which include bricks and mortar (construction contracts, construction contingency, etc.).
- Owner reserves, which include funds for the unexpected (must also include a “bid reserve contingency” of not less than 10 percent of the construction budget).

The Budget, especially a pre-funding budget must include all items relevant to the scope. The Owner must consider that all project costs are borne (certainly most of the time) by the Owner. The following list indicates

many, but not necessarily all, costs for various parties. Not all projects will incur all the cost categories shown. The costs, which are initially paid by entities other than the Owner are identified as such.

Reconciling a Post-Funding Project Budget: After the amount of funds is made available to the project, the diligent Owner must go review the approved pre-funding total project budget and compare it to the funds that are available. In a sense, the exercise becomes a "reverse" analysis. It is done by asking the same questions, but starting at the bottom line and working backwards through the list of project criteria.

After determining the Post-Funding Project Budget, the Owner must consider if the updated Construction Contract Funding is adequate. Some adjustment to the scope of the project may be necessary or the Owner may need to seek budget amendments to meet the Owner's established project requirements..

## Contingency

The construction contingency is an important line item in the Project Budget. *Capital funds for a project will not be released by the Controlling Board without this reserve*.

The construction contingency is used to pay costs resulting from unanticipated or differing project conditions, to comply with rulings regarding building and other codes, to correct construction due to errors and omissions in Contract Documents, and to pay the cost of settlements and judgments related to the Project. Further, the contingency can be used to benefit the project by paying for selective schedule acceleration due to unseasonable or severe weather so that the construction force can maintain the overall project schedule and momentum.

The contingency amount must reflect the issues unique to the project and generally will be within the following ranges:

- New construction: 5 to 8 percent of construction budget
- Remodeling / renovation: 10 to 20 percent of construction budget
- Monumental or Historical Restoration: 15 to 30 percent

In the initial stages of the project, the Owner established the contingency in its budget. Upon initiating a project with SAO, the Project Manager will review the budget with the Owner and recommend changes as necessary to any line item in the budget, including a recommending of contingency amount or contingency percentage adjustments.

After the project progresses, the A/E becomes a part of the project management team. As such, their expertise and insight will be an asset to the project and should be used as deemed appropriate for adjusting the budget, including the contingency amounts. The design team considers all aspects of the design and the implications of current construction trends, the season for the construction activities for potential weather issues, the building type, the project site, and other factors. As may be appropriate, the A/E will recommend adjustments to or approval of the contingency amount. The Project Manager must analyze the contingency and accept it or direct the A/E to make the necessary corrections or adjustments.

With each phase completion submittal the A/E should advise the Project Manager and the Owner of the adequacy of the budgeted contingency and advise if any adjustments necessary to the budget.

The contingency is not intended to be used for Owner-requested scope changes during construction until the risks of the project are minimized.

# 060 | Funding

This Section serves as a general guide to the process of approval of a Capital Bill and approval of funding for a specific project.

## Public Capital Funds

Public Capital Funds may only be used for the construction of buildings and structures, and the remodeling and renovations of buildings and structures and related expenses. See the current Capital Appropriation Bill.

Funding sources for capital projects are generally referred to as "State Funds" and "local funds."

- State Funds, are appropriations made available by the Ohio General Assembly. The funds are identified, initially, in the Capital Appropriation Bill, which is usually passed by the General Assembly in the fall of even numbered years and are available for use 90 days after the Bill is approved. The Bill usually identifies the amount of funds allocated for each project.
- Local funds are generally funds from other than State government, such as funds from other political jurisdictions. The Owner is responsible to ensure that appropriated and allocated local funds are used in accordance with the Owner's policies and procedures, and in accordance with Ohio law.

The Owner must ensure that Capital funds are not used to purchase equipment that is not an integral part of, or that is not directly related to the basic purpose or function of a Project for which moneys have been appropriated. Types of prohibited equipment include, but are not limited to:

- Vehicles
- Normal or routine supplies
- Services for normal maintenance

Certain equipment integrated into the building infrastructure may be allowable under OBM and legislated guidelines.

The Capital Budget is prepared every two years. Owners must submit requests for funding for projects through the Capital Budgeting Process, which is administered by the Office of Budget and Management. The funds requested for a project in the Capital Budgeting Process should be based on the budget developed for the project.

The Office of Budget and Management ("OBM") and the State Controlling Board ("CB") are responsible for "releasing" or approving the expenditure of appropriated State funds. State funded contracts must receive Controlling Board approval before the contract can be executed.

The CB generally meets twice monthly. The CB provides a list of meeting dates on the its Web site. Owners and representatives of the Owner attend meetings of the Controlling Board at which funding requests for the Owner's projects are being considered for approval to answer any questions, which may arise. A representative of SAO also attends the meeting to answer any questions which may arise with regard to SAO administered Projects. The Owner, or, where appropriate to the nature of the question asked, the SAO representative, will respond to questions from the Controlling Board. The Owner must answer all Controlling Board questions on its locally administered projects.

Funding Requests for A/E and CM agreements and Contractor contracts are requested and approved by the following process:

- The Owner and SAO prepare the required documents requesting the release of funds (a "Controlling Board Request".) The Owner makes the request for release or approval of expenditure of appropriated funds on the Controlling Board's General Request form.
- The Owner may request that the A/E and Construction Manager provide information to the Owner for use in the writing CB request, or determine that the information shown on the request is accurate.

- The Owner files the CB request with the CB Secretary 18 days prior to a CB meeting to be considered for placement on the agenda for that meeting. The Owner may initiate the request to the Director of OBM or the CB for release of the particular appropriation, according to language in the Capital Bill.
- After the Controlling Board approves the request, the action is considered a release and enables the Owner to write encumbrances against the funds. Allow 30 to 40 days processing time from the submission of the request to approval. Less time may be required if a Director sign-off option is available for the request in question.
- Upon receipt of the approved request, SAO sends the Agreement or Contract to DAS and the Attorney General for signatures. Work can begin once SAO receives the signed Agreement or Contract and the OBM approved encumbrance.
- The following additional procedures apply to higher education projects:
  - The Ohio Board of Regents ("OBR") reviews the funding request for all higher education projects prior to submittal to the OBM.
  - The Owner files a State-funded college and university request with the OBR. OBR will process the request, and when completed on the acceptable form, OBR will forward the request to the CB.
  - No capital appropriation for a State-supported or State-assisted Institution of Higher Education will be expended until the particular appropriation has been recommended for release by the OBR and released by the Director of OBM.

Capital improvement appropriations will be released for planning, renovation, and for projects in construction on real property owned by the Contracting Authority, or for the following circumstances:

- The institution has a long-term (at least 15 year) lease of, or other interest (such as an easement) in, the real property;
- The OBR certifies to the CB that undue delay will occur if planning does not proceed while the property or property interest acquisition process continues. In this case, the CB may approve the release of funds to pay for planning through the development of Schematic Design Drawings only;
- In the case of an appropriation for capital facilities for a State-supported or State-assisted Institution of Higher Education which, because of its unique nature or location, will be owned or will be part of facilities owned by a separate nonprofit organization or public body and made available to the Institution of Higher Education for its use, the nonprofit organization or public body will:
  - Either own or have a long-term (at least 15 year) lease of the real property or other capital facility to be improved, or;
  - Have entered into a joint or cooperative use agreement approved by the OBR, with the Institution of Higher Education for that institution's use of and right to use the capital facilities being financed and improved, the value of which use or right to use being reasonably related to the amount of the appropriation as determined by the parties.

## Other Funding Sources

Local funding sources may include:

- Grants
- Bonds
- Certificates of Participation
- Private Funding

# 070 | Local Administration

This Section discusses procedures that certain Owners may use in requesting authorization to administer a project with its own staff, identifies requirements for Owners which locally administer projects, and outlines the DAS role, through the State Architect's Office, in processing the application, monitoring, and supporting locally administered projects.

## Application of DAS Policy and Procedures

Owners, which locally administer projects, are generally required to comply with the provisions of the Ohio Revised Code ("ORC") and to follow the procedures outlined in this Manual. The specific job titles and position responsibilities referred to in this Manual may be unique to SAO and not those position requirements typically used by the Owner. In such cases, the Owner must exercise appropriate judgment to translate the job functions and responsibilities in an appropriate and professional manner.

## Application Process

Owners must observe the following procedures to obtain SAO approval for Local Administration of a project:

- Within 60 days after the effective date of an approved Capital Appropriation Bill, the Owner may informally review with the responsible Segment Manager the list and scope of projects it proposes to locally administer. The Owner will, if requested, attend a meeting with the Segment Manager to discuss the scope of the proposed project(s), and, if multiple projects are involved, the Owner's preferred sequence (priorities) for performing them, rationales for combining or subdividing them, and other factors which might suggest performing them in a certain sequence.
- After reviewing the project list with the Segment Manager, within 60 days after the effective date of an approved capital appropriation bill, the Owner may make a request in writing to SAO for the authority to locally administer each project which it intends to administer. The request must be made using the SAO Local Administration Request form (F070-01). The form includes sheets in which the Owner must provide information on the following subjects:
  - A description of the Project;
  - Project Cost and Budget showing a break-down of the estimated costs, including fees, construction costs, contingency, SAO fees, constructability review fees, and any other project costs;
  - Identify proposed project personnel, with qualifications, including: Project Designee, Project Manager and Fiscal Officer;
  - Current projects being administered;
  - Proposed time frame; and
  - Management Experience of the staff proposed for the project.
- Name and credentials of the Owner Designee. It is suggested that this individual be a Deputy Director, Department Head or a registered Architect or Engineer (Owner's employee) with construction or project administration experience. Provide a list of projects which demonstrates the individual's experience. Indicate the size of the project and the activities accommodated. Document the Owner Designee's ability to fulfill the Owner's role in Alternative Dispute Resolution and Article 8 Hearings.
- Proposed staffing for the project. Provide the qualifications and experience of the Project Manager, which must be appropriate for the size and type of project for which approval is being requested.
- The Owner must indicate the amount of the Project Manager's time which will be dedicated to project management duties in general, and the amount of the Project Manager's time which will be dedicated to the proposed project.
- The Owner must provide the name and credentials of the Fiscal Officer and other individuals who will perform administrative duties required for the project, such as handling State encumbrances and vouchers. Provide the qualifications for each individual, which demonstrate both accounting and administrative experience. Each individual must follow State procedures, and be familiar with the policy and procedure of State Accounting, and with the State Auditor's role in construction payments.

- Each Owner must have a Master Escrow Account, and the Fiscal Officer or Owner Designee must be qualified to administer this Account. Identify who will perform this duty.
- The Owner must provide information and statistics, which document the Owner's performance in the past 3 to 5 years on construction project administration, particularly administration of projects which are indicative of the Owner's abilities, or which are comparable to the project for which Local Administration is requested.
- The Owner must provide any other relevant information, which SAO may request or require.

**OAKS Capital Improvements Procedure**

A state agency must submit its application to self administer the Project through the Local Administration Authorization Request business process.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the Owner must submit its application to self administer the Project using traditional means as directed by the Department of Administrative Services.

The Owner must submit any proposed change to the staff approved by SAO for the positions listed above to SAO for approval. The qualifications required of the originally approved staff will also be required of the replacement staff.

Consultants retained to perform other services for the Owner must not perform project management for the Owner on locally administered projects.

## Review Process

SAO will conduct a preliminary review and will request the Owner to supply any additional information required to complete the review.

Within 2 weeks after all the information has been received by SAO, and any required meeting has taken place, the request will be evaluated and returned to the Owner as approved or rejected. The Owner will be informed by SAO of any items which are not deemed to be in compliance with SAO requirements. If the Owner corrects the deficiencies, the project will be re-reviewed.

If Local Administration authority is rejected, the project will be administered by SAO. Projects initiated by SAO may be returned to the Owner for Local Administration at the sole discretion of SAO.

Provide the Local Administration Request form with required information concerning the project administrative duties of each Designee, Project Manager and Fiscal Officer. The information may include descriptions of other locally administered projects administered by the proposed staff, and must demonstrate the adequacy of the proposed staffing.

The Local Administration Request form must indicate if a project will be phased (e.g., with multiple bid dates and award processes) and discuss the phasing in sufficient detail to fully and completely describe the entire project and the entire amount of funds involved. Projects for which total funds are expected to exceed the Local Administration authorization limit must be identified. *Information must not be limited to just the initial phase*. The information will be deemed incomplete unless the total project amount is identified. Possible future expansion of the project for the same or similar purposes, or on an adjacent site must be identified and disclosed. Subdivision of what is apparently a single project will be considered in the evaluation or in subsequent evaluations.

SAO policy for Local Administration require the Owner to use SAO documents, policy and procedures on all projects. If any deviations are proposed, the Owner must obtain prior SAO approval in writing. The documents which the Owner must use include, without limitation, the Architect/Engineer Agreement, the Construction Management Agreement and the "State of Ohio Standard Requirements for Public Facility

Construction," other "front end" documents listed in SAO's sample Project Manual Table of Contents, and other forms cited as being part of SAO's standard procedures.

Failure of the Owner to use SAO documents or follow SAO policy and procedures may result in rejection of Local Administration authority on subsequent projects.

## Performance of the Project

The Owner must follow all of the requirements outlined in ORC Chapters 123 and 153 applicable to a public improvement project.

When Local Administration is granted for a project, the Owner must use the latest edition of the "State of Ohio Standard Requirement for Public Facility Construction," and "Professional Design Services Agreement" with no revisions except: the term "Department" may be changed to the Owner's name, and "State Architect" may be changed to the Institutional Designee's name. The Owner must submit any other proposed changes in writing to SAO for approval, and must not make any other changes without written approval by SAO.

The standard SAO fees for local administration apply to and must be included in the budget for each project. The Owner may charge administrative fees to its operating units for approved Locally Administered projects, but such fees must not exceed the SAO standard management fees.

The Owner must follow all SAO procedures for the selection of A/Es and Consultants, and all ORC requirements for procurement of Professional Design Services.

Where required by statute, the Owner must announce the project, and issue an RFQ for Professional Design Services in the Ohio Register in the form and manner required by SAO. Such announcements are generally not required when the cost of all services provided by the A/E or Consultant to the Owner in any fiscal year, and which are not acquired through the SAO administered selection process, does not exceed $25,000.

Owners must answer all Controlling Board questions relative to their locally administered project.

## DAS Support - General

SAO will provide Standard Support Services as described below on all Locally Administered projects:

- In the normal course of locally administered projects, the assigned Owner's Project Manager may have questions or require clarifications regarding SAO policies and procedures. SAO will answer questions of a broad and general nature, but will not answer questions predicated on the facts of a specific problem or project. Where the question is complex, SAO may require that the question and all relevant information be submitted in writing.
- Provide updated "Front End" Documents for insertion into Construction Documents for Bidding.
- In addition to placing general notices in The Ohio Register and on the SAO internet site, SAO will inform the Owner of changes in policy and details of administration and procedure.
- Provide access to the Ohio Construction Bid Net Announcement Web Page.
- SAO will assess a fee based on the total budget of each locally administered project. A fee schedule, which is updated periodically, is available from SAO.

## DAS Support - Additional Services

SAO can provide additional services, when requested, at an hourly or negotiated rate. Annually updated fee schedules are available on request. The services may be requested by contacting a Project Manager or Sement Manager. Approval by a Segment Manager is required.

- SAO will obtain qualified document reviews for Constructability or other aspects of a project. A Constructability Review will identify areas where document clarity should be improved and attempt to

identify areas where scheduling, trade stacking, bid structure or related construction issues may impact project delivery.

- When requested, SAO can perform an assessment of construction conditions, claim status or other vital issues. Consultants may be assigned when available.
- Detailed claims analysis may be obtained through qualified consultants selected from SAO's pre-qualified lists or other Contracts. Use of pre-qualified consultants is annually authorized by the Controlling Board, and such consultants are selected through an additional competitive selection process.
- SAO can provide access to qualified mediators under Contract with SAO, and can administer the mediation process.
- SAO can provide assistance in identification and selection of consultants and can provide historical fee comparisons for scheduling, construction management, claims, environmental issues including architectural and engineering disciplines, site, civil and survey consultants.
- Selected projects may be developed and administered by SAO staff with the assistance of firms from SAO's consultant list. A standard percentage fee schedule or an hourly rate may be used as appropriate.
- Seminars and training programs may be provided by SAO to benefit agency project management staff.

# 080 | Selecting a Project Delivery Method

This Section discusses procedures that public authorities in Ohio may use in selecting the most appropriate method of project delivery for a project. Sections 085, 090, and 095 discuss the advantages and disadvantages each method has to offer. These four Sections include excerpts and graphics from the Construction Specifications Institute's *Project Delivery Practice Guide* (PDPG). Public projects, from the simplest buildings to the most complex infrastructure work, require a number of specialized individuals, firms, and companies that participate in a vast array of complex activities to design and construct a facility. The size of this group may be large or small, depending on the project type, size, and complexity.

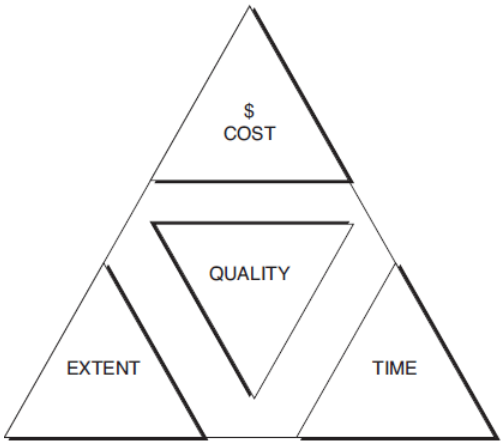
## The Nature of Project Delivery

Project delivery is the contractual relationships necessary to establish a sequential process of design and construction activities that converts a conceptual idea into a completed and occupied facility. Project delivery for public authorities in Ohio may now be accomplished by any of the following methods:

- Design-bid-build (D-B-B)
  - Multiple-prime contracting (The traditional and default method for Ohio public authorities)
  - General contracting (Single-Prime)
- Construction management (CM)
  - CM as agent/adviser (Used in conjunction with D-B-B multiple-prime)
  - CM at risk (CM holds the construction contracts)
- Design-build (D-B)
  - The owner holds a single contract for design and construction. Ohio law stipulates a bridging type model of D-B delivery with a Criteria A/E to develop the program, early design concepts, and the request for proposal to select the design-build team.
  - Ohio also has a mature program to implement Energy Performance Contracts, which is essentially a Design-Build project with Best Value Selection of an Energy Service Company to perform design and construction services and guarantee energy savings over the term of the financing.

Competitive market forces frequently compel owners to select a project delivery method that will achieve a balance between the following factors to establish the quality of the project, as illustrated in Figure 080.1.

- Extent (scope)
- Cost (budget)
- Time (schedule)




Cost, extent, and time factors affect quality and influence project delivery selection (PDPG) Figure 080.1

These three factors comprise the essence of any contractual arrangement. How these are defined by the project priorities, as well as the owner's capacities are necessary for the owner to make an informed decision about which project delivery method to select. Selection of the project delivery method will also directly influence the nature and extent of the work required for the design and construction of the project, including the contracts among the participants.

## Owner's Capability

There is a wide variety of experiences and qualifications that owners can have regarding the design and construction of a new project. The success of the delivery of a project depends heavily on the owner having a good understanding of the many decisions required to direct and guide the design and construction process. Many factors determine if the owner has the experience, qualifications, and capability to handle the project, or whether the owner should take another course of action to ensure the owner's expectations are met. The owner's capabilities directly influence which project delivery method is selected.

The complexity of a project delivery method requires specialized knowledge. Having an intimate familiarity with the uniqueness of the design and construction process is an important asset for an owner. Since the new facility will be for specific purposes of an owner, the owner is better than anyone for ensuring the project priorities are accomplished and their interests are protected.

Owners experienced with one or more of the project deliver methods will be in a position to effectively direct, administer, and manage the complex delivery process. They will be aware of the importance of timely decisions and will be familiar with the implications and issues of the many process activities. A smooth process depends on managing those activities that are the responsibility of the owner and are necessary for the participants in the process.

For owners that only build a project occasionally, familiarity with the design and construction process will in all likelihood not be an asset. Owners with little or no experience will either place their trust and protection of their interests in the design and construction professionals that participate in the delivery process, or will retain the State Architect's Office to assist with directing and administering the various stages, phases, and individual activities. Also, an owner with little or no experience will impede the process because of the decisions that are required or how to handle the issues that arise.

## Extent

The magnitude, form, function, and complexity of a project will have a direct bearing on the project delivery method and the number and role of the participants. Generally, the greater the magnitude of the project, the greater the number of participants, the more the construction process is compounded. Small projects and projects of limited extent of work may involve only the owner, A/E, and contractor. For example, for the construction of a small pedestrian bridge, the owner may rely solely on the services of an A/E and a contractor, or a design-builder, to complete the work. The A/E will probably not require the services of large numbers of consultants, perhaps only a landscape architect and a structural engineer. The contractor may do much of the skilled work using direct-hire employees rather than relying primarily on subcontractors to accomplish the work.

On large projects with a complex scope, large teams will be necessary to complete the design and construction. The A/E will have many consultants on the design team to complete the portion of the design within their area of expertise. The A/E will be required to carefully coordinate the work and the contributions from the different consultants. The contractor will require the services of many different subcontractors and suppliers. For example, a new performing arts facility will require a large, multidiscipline team for design and construction. Such a project will include not only the site and the structure, but also the interior spaces, performance facilities, sound systems, acoustics, lighting, seating, and public facilities. On projects with complex scopes of work or multiple-facility requirements, the services of multiple design and construction professionals may most likely be needed. Examples of such projects are a hospital, a multiple-structure manufacturing/process facility, or a campus-type facility for senior living, education, or business use.

## Time

The magnitude, form, function, and complexity of a project will have a direct bearing on the project delivery method and the number and role of the participants. Generally, the greater the magnitude of the project, the greater the number of participants, the more the construction process is compounded. Small projects and projects of limited extent of work may involve only the owner, A/E, and contractor. For example, for the construction of a small pedestrian bridge, the owner may rely solely on the services of an A/E and a contractor, or a design-builder, to complete the work. The A/E will probably not require the services of large numbers of consultants, perhaps only a landscape architect and a structural engineer. The contractor may do much of the skilled work using direct-hire employees rather than relying primarily on subcontractors to accomplish the work.

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Sequencing: Not to be confused with scheduling, sequencing means performing one portion of the work prior to another portion in a either a logical order or in a predetermined order. For example, the design of a project is performed in a logical sequence beginning with programming the project, conceptual design, schematic design, design development, procurement documents, construction documents, and ending with construction. The construction of a project also is conducted in a logical sequence beginning with preparing the ground for construction, placing the foundation, erecting the structural frame, enclosing the structure with an exterior envelope, building out the interior spaces, and ending with taking occupancy.

In addition to sequencing normal construction activities, activities within and around existing facilities might require the portions of the work to be sequenced in a particular order. For example, in the case of improvements or additions to existing facilities, business operations and functions may need to be maintained while the new portion is under construction. This might require one portion of the work to be completed prior to another in order to relocate ongoing activities. Another example is for road widening or improvement projects where the entire road cannot be closed for an extended period. Work in and around existing facilities often requires relocation of existing functions to temporary locations and provisions for temporary utilities and support systems. Modifications of existing facilities often require protection of existing construction that will not be demolished, pedestrian protection, detours or other road traffic diversion, and other special sequence considerations. Most sequencing of projects will be accomplished during design, documentation, and construction stages; however, existing facilities might require consideration of project delivery methods.

Scheduling: Not to be confused with sequencing, scheduling involves establishing time frames for activities by establishing starting and finishing dates for each activity. Significant dates are sometimes referred to as milestones. Determining the appropriate scheduling for a project may influence the decision for which method of project delivery should be selected.

If projects are not completed within the time frame designated for the work, the consequences can be onerous for all concerned.

- For the owner, it could mean decreased revenue from business lost because of a delay, additional rental expense to accommodate occupants longer than anticipated, or finding temporary space for occupants who cannot move into a new facility at the appropriate time.

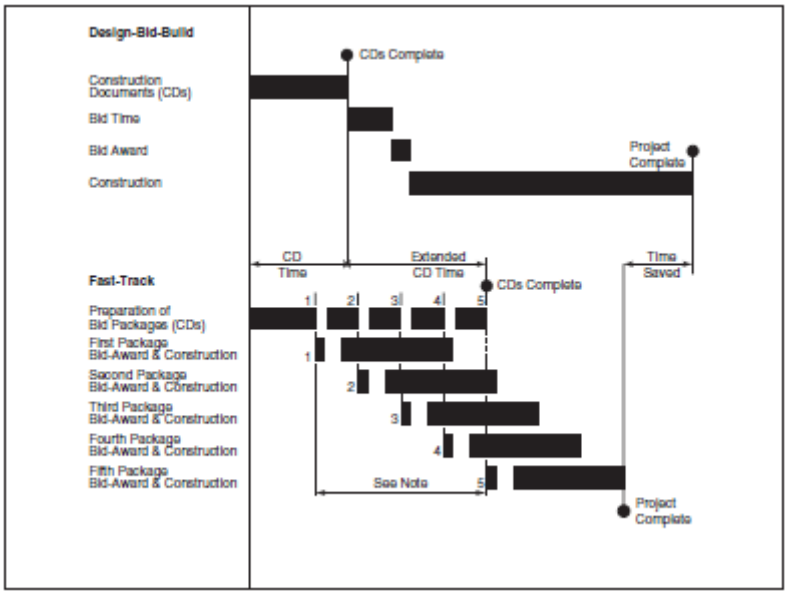
- For the contractor, it may affect scheduled new work, the loss of early completion incentive payments, paying liquidated damages to the owner, and damage to the contractor's business reputation for not completing the project on time (if the contract calls for any of these things).
- For the A/E, it may mean additional construction administration work, due to the extended period of time, until the work is completed, which may not be recovered.

In addition to a construction schedule, it is prudent to have a master project schedule which involves all stages of a project from conception through occupancy, and includes the variety of participants and their involvement in the project. This plan of activities illustrates the relationship of design and construction as well as significant decisions that are involved with the project. The project schedule may include program development (owner's requirements), site acquisition, separate contracts for remedial measures such as hazardous materials removal, different design phases, and construction. Construction is usually separately scheduled, with its many activities, and should coordinate with the master project schedule to ensure completion within the timeframe or by the dates established.

There are several types of schedules, and usually they are illustrated graphically:

- The simplest form of a schedule is a Gantt Chart which is essentially a type of bar chart. A list of sequential activities is developed and listed vertically. Start dates, finish dates, and a duration times are assigned to each activity and shown horizontally. The schedule is then articulated so that there is alignment between the activities so that a continuous path can be traced through all activities and time frames. The simplicity or complexity of a Gantt Chart is determined by the number of activities that are developed and the level of detail of the time that is assigned to each.
- A more sophisticated scheduling technique is known as the critical path method (CPM). A computer based schedule, CPM utilizes mathematically based algorithms to establish various types of relationships between activities and the dates when they start and stop. The goal is to establish the sequence of activities that constitutes the shortest path through all of the activities, which is identified as the critical path. If the work follows the critical path through the schedule, the work will be completed at the earliest possible time.

Fast Track Scheduling: Fast-track is not a project delivery method by itself, but instead is a scheduling technique that, while it can be used with any project delivery method, is primarily used with the two construction management project delivery methods. Fast-track often utilizes the technique of separating work into multiple contracts based upon project scheduling to ensure project completion in a condensed period.




Fast Track Scheduling Technique (PDPG) Figure 080.2

Fast-track is the process of overlapping activities to permit portions of construction to start prior to completion of the overall design. The project schedule may require that portions of the design and construction occur concurrently. For example, the lengthy process of site preparation, earthwork, and foundations may be under construction while the balance of the project design is being completed. With fast-track, the overall project cost may be difficult to determine, as certain portions may not be bid or contracted for until later in the project schedule. Adjustments to the contract amounts may be required as each portion of the design work is completed. The preparation of separate bid packages and contract documents for each additional portion of the work requires significant additional work and experience by the A/E.

The nature of fast-track is such that the A/E may be simultaneously involved in design, construction documents, development of contract packages, procurement (bidding/negotiating/purchasing), and contract administration. This multiplicity of activities and required staffing may add considerably to the cost of the A/E services. Figure 080.2 illustrates the overlapping activities of fast-track process.

In addition to preparing numerous contract packages, the A/E may also be required to review the detailed applications for payment from multiple contractors. Each contract package also requires coordination with adjacent or prior construction to ensure nothing required for the complete installation of a product or system is omitted. This requirement of multiple contract packages adds to the responsibilities of the A/E, and a larger portion of construction document time is necessary than for an identical project for which the design is completed prior to obtaining construction contracts. In the design-bid-build project delivery, the combined specification sections define the materials necessary for the entire project while the contractor determines the scope of subcontracts. In a fast-track project the combined specification sections of each separate package describe the total project, and packages represent the individual extent of these intended contracts. The scope of work for each package needs to be determined. In order to monitor costs and keep the owner informed, the A/E, CM, or design builder must periodically prepare and revise estimates of construction costs based on constantly changing design documentation.

When portions of the work are completed, subsequent changes to in-place construction may be unavoidable and, hence, more costly as modifications become necessary. For example, a fast track project with a bid package for precast concrete must clearly indicate whether embedded items to attach to the adjacent construction are included in this or in another contract package. If embedded items are required, it may be necessary to include miscellaneous steel and other specification sections in addition to the precast concrete sections. The size and number of contract packages will vary depending on the size, scope, and type of project.

The construction documents may have to be prepared in bursts of concentrated effort for each package instead of flowing from a natural design sequence. The time necessary to prepare contract packages for a project and to coordinate the interfaces of each is greater than typical preparation of all construction documents at one time. Additional time requirements are necessary for fast-track contracts. Allowances for these time increases should be made by including adequate professional service fees in the owner-A/E contract. Major items with large time impacts include the following:

- Extended contract document preparation due to fast-track multiple contract packages
- Reassembly of the separate packages into one coordinated set of contract documents
- Extensive preparation and coordination time for development of contracts, conditions of the contract, and Division 01 – General Requirements for each separate contract
- Detailed review of multiple monthly applications for payments

The administrative effort required of the A/E and owner for a fast-track project is greater with multiple contractors. However, a design-bid-build project is administratively more complex since simultaneous contract document production, procurement, and contract administration will occur during a large portion of the construction stage. Design development and changes during a fast-track project may affect along-lead-time items that have already been ordered or a part of the construction already in place. Design modifications may also affect multiple design phases. Due to the changing nature of design completion on fast-track projects, it is not unusual to have a greater number of requests for information and change orders than on a similar project where the design was completed prior to construction.

# Cost

Contracts record the agreed-upon cost of the work and establishes the basis of payment. A number of different methods are used for determining and stating amounts of cost or compensation within contracts. When a contract is bid or negotiated, the basis of payment that will be used in the contract is clearly stated in the procurement documents. When the contract is executed, the bid or negotiated basis of payment is included in the contract.

Stipulated Sum (or Lump Sum): An agreed amount for a described extent of work, based upon complete or partially complete construction documents. This is the simplest method of stating the basis of payment wherein a single amount is agreed upon for completion of the entire contract. The principal advantage to the parties to the contract is that the amount is clearly established in advance.

Unit Price: Payment is made at a stipulated rate multiplied by the quantity completed. Unit prices are used in cases where the exact extent or quantity of work cannot be calculated accurately or otherwise determined in advance of actually performing the work. The unit price basis of payment is commonly used for civil engineering projects where the types of work, such as unsuitable soil or rock excavation, can be identified during the design of the project but the actual quantities of such work items can only be estimated. The types of work are divided into specific items with estimated quantities of each type. A cost per unit of work is established during the procurement (bid/negotiation) process for each identified type of work. The contract would then contain these established unit prices as the basis of payment. As the work is performed, the completed work is documented and verified with the contractor compensated only for actual quantities of completed work.

Cost Plus a Fee – Fixed Fee – Guaranteed Maximum Price: The cost-plus-a-fee basis of payment is usually used only with negotiated contracts. The contract calls for compensation for the actual cost of direct expenses, plus an additional fee for overhead and profit. The fee is usually a percentage of the direct expenses but also may be a fixed fee amount. In most cases this type of contract also contains contract language that establishes a guaranteed maximum price (GMP). A GMP may be negotiated when the project design is in the early design phase, such as design development, and may be only sufficiently complete to allow adequate project definition. A contingency amount in the project budget should be included to allow for the inevitable changes and a resulting increase to the GMP. Schematic design or design development documents with “preliminary project descriptions” or “outline specifications” are not complete construction documents, and assumptions and omissions may occur during the negotiating(pricing) stage. The thoroughness of these suppositions is influenced by the contractor’s prior experience and ability to project the undocumented items. The types of items that might lead to additional costs are usually details and specifics that are developed during the final completion of construction documents. Items that may be overlooked can include scheduled items such as finishes and details such as flashings and connections. These design refinements, if not considered initially by the contractor, may lead to claims of increased project costs along with an accompanying change to the GMP.

The cost-plus-fee arrangement provides significant control over such things as scheduling commitments and flexibility in such things as refinements, but also means that there is risk to the owner for the cost and final outcome of the project. The cost-plus-fee method also allows the entire team the opportunity to be involved in preconstruction budget and control of extent (scope). As the design of the project evolves to its final form, cost estimates can be refined and constructability reviewed. With contractor input, the design may be altered to maintain the project cost within the owner’s budget.

The owner may try to control costs by negotiating the cost of the work plus a fee as a basis for payment. The fee maybe a fixed fee or a percentage fee, and the project program may not yet be established. If the contractor has a percentage fee connected to the cost of construction, there may be little motivation to control construction costs since to do so will also reduce the fee. The owner may provide an incentive for cost control by including a shared savings clause in the owner-contractor contract. The owner is partially protected from excessive costs if the contract includes a shared savings clause. The contractor will usually establish a GMP that is somewhat higher than the estimated costs of construction in order to cover contingencies, since the estimated costs might be derived from incomplete construction documents. When the construction contract is based on a GMP with a fixed fee and a shared savings, the contractor will be

encouraged to find ways to reduce construction costs. If the owner and contractor have a shared savings clause, the A/E can expect to review many product and system substitutions. The submittal review time for these shared savings may exceed the review time normally expected of a conventional construction project. A project with a shared savings clause obligates the A/E to spend more review time and possibly assume more liability, consequently reducing the A/E's own profit while helping the contractor make money and the owner save money. On most cost-plus contracts, the contractor is required to submit detailed supporting documentation with each application for payment. This may include receipts for materials, labor, equipment rental, and costs associated with administrative and procedural requirements.

Penalties, Bonuses and Incentives: In addition to the basic elements of contracts, provisions are sometimes added to contracts to ensure completion in a timely manner. These provisions are important to emphasize that "time is of the essence" and to avoid compounding financial damage by the owner.

There are a number of different methods to encourage on-time completion. These contract clauses are employed in different ways and with varying results. They may be very effective if properly supported by all members of the project team.

A clause providing a penalty of a daily amount for not completing the work in the allotted time or by the agreed-upon date can be included in the contract. However, if there is a penalty clause in the contract, it is best accompanied by language that pays the contractor a bonus/incentive amount for early completion. Usually the per-day amount for penalty and bonus/incentive are the same amount. The benefit of early completion may save financing charges and allow the owner earlier occupancy and leasing of retail or commercial space.

Shared Savings: A shared savings provision can be utilized to reduce initial costs and may be used with a GMP contract as an incentive for completing the project below the GMP contract price. With this form of "shared savings," the amount is made based on an agreed-upon portion, usually a percentage, of the difference between the original cost (stated or agreed) and the actual amount spent for the work. The savings are shared on a percentage basis between the parties to the contract. This incentive provision may require additional A/E fees to evaluate the proposed changes to the design and contract requirements.

Liquidated Damages: Liquidated damages are usually a fixed monetary amount per day, deducted from monies due the contractor for failure to substantially complete the work within a stipulated time or by a stated calendar date. Some form of documentation is desirable to substantiate the potential loss from delay of completion. If the amount for liquidated damages is not based upon financial loss and is an excessive arbitrary amount, disproportionate to the value of the performance, it might be considered a penalty and become unenforceable. Penalties may be considered unreasonable if a dispute results from the claim of failure to complete. Other causes, such as unusual weather conditions, may create claims for change in the contract time. Projects constructed under multiple contracts do not lend themselves to the provisions of liquidated damages because of the difficulty in assessing the independent responsibility for time delays of several contracts. Liquidated damage clauses should not be confused with penalty clauses.

## Methods of Project Delivery

As indicated at the beginning of this Section, there are several types of project delivery methods, each of which include a different mixture of contractual arrangements and processes that optimize the primary factors indicated previously. Understanding each delivery method requires an understanding of the roles of the stakeholders and participants, as well as their benefits and limitations. The decision to utilize a particular delivery method affects the participant relationships and how they will design and construct a project.

Availability of Contractors with sufficient bonding capacity may influence the decision of selecting a project delivery method. With multiple-prime contracts under D-B-B or CM Agent, each contractor is responsible for providing a performance and payment bond for the amount of its contract. With general contracting, CM at Risk, and D-B project delivery, a single entity may be requied to provide a performance and payment bond for the entire project. As we transition from multiple-prime D-B-B and CM Agent to other project delivery options, and given a sluggish economy with many contractors experiencing diminished financial resources, it may take time for the Ohio construction community to adapt their business model to the new project delivery

methods. The owner should consider whether sufficient competition exists under the delivery method selected for their project.

Project delivery requires significant decisions early in the facility life cycle. These decisions involve consideration of services, delivery methods, and participants to carry a project from conception to physical reality. Assembling the necessary participants and establishing the basis of contracts along with the elements of extent, time, and cost will determine the type of project delivery method to be utilized to accomplish the project. The project delivery method will define the relationships of the participants and their respective roles and responsibilities.

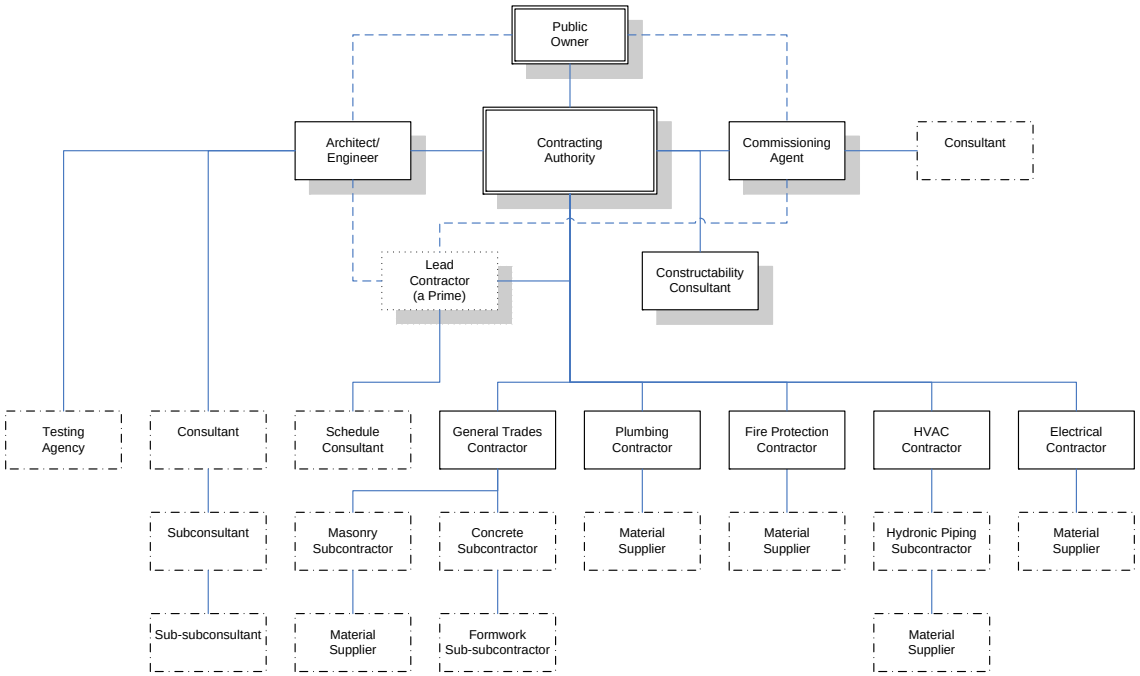
The owner's, A/E's, and contractor's capabilities and experience along with the type of project will affect the decision for the project delivery method. The selected project delivery method will determine how the project is designed, procured, and constructed. The subsequent stages of the project life cycle can be performed under individual contracts such as design-bid-build or as a part of consolidated project delivery such as design build. The requirements established during project conception can now be given to the project team to execute in a manner that will utilize the efficiencies of the selected project delivery method.

This Section discusses the Design-Bid-Build method of project delivery. As illustrated in Figures 085.1 and 085.2, the design-bid-build project delivery method, abbreviated as D-B-B, is the traditional method of moving a project from its conception to its completion, and has the longest history of use.

For state and local government projects in the state of Ohio, multiple-prime D-B-B (Figure 085.1) was used almost exclusively, with single-prime D-B-B (Figure 085.2) as an option limited to very small projects, from 1877 until 2009, when House Bill 318 authorized three construction reform demonstration projects. In 2011, House Bill 153 added CM at Risk and Design-Build to the permissible project delivery methods available to state agencies, state institutions of higher education, counties, townships, municipal corporations, and special purpose districts.

D-B-B is a linear sequence of activities generally occurring in the following order: project conception, design (including schematic design and design development), construction documents, bidding, and then construction. The basis of D-B-B is twofold:

- The design and the bidding and construction documents are completed prior to bidding and construction
- The contractor is determined by selecting one of several bidders that have bid the work competitively.



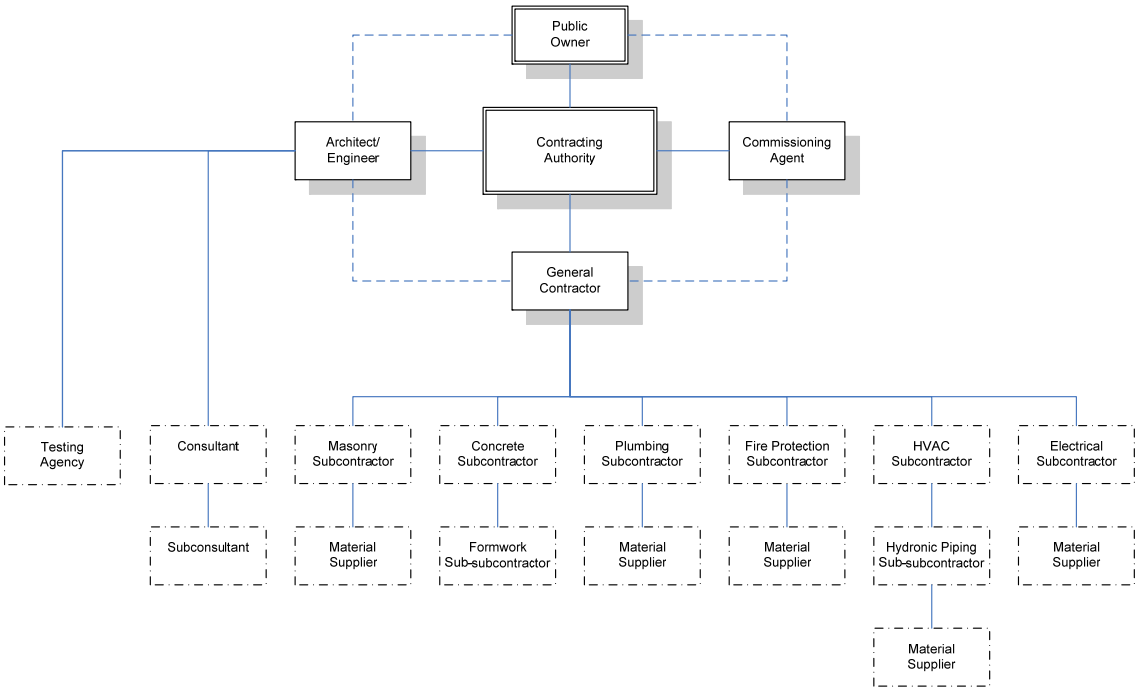

Design-Bid-Build Project Delivery (Multiple-Prime) Figure 085.1

## The Nature of Competitive Bidding

Competitive bidding is the most effective method of determining the least cost for constructing the work that is described and defined by the bidding documents. Competitive bidding creates an environment where bidders at every level, contractor, subcontractor, and supplier, must carefully and seriously consider every aspect of their bid in the attempt to be awarded the work by providing a lower price than any of the other bidders. A bid states, or stipulates, the price the bidder will charge to perform the work (including overhead and profit) and may, if requested by the bidding documents, include the length of time required to complete the work.

The project design is developed and 100 percent complete bidding documents prepared by the A/E are made available to bidders. There are two categories of bidding procedures, and the method of project delivery will determine which category is used for a project:

- Open Bidding: Any interested bidder, that has the experience and qualifications if specified, may submit bids. This is the procedure for selecting Contractors in Ohio's traditional multiple-prime contracting as well as the general contracting method.
- Closed Bidding: Only those bidders that have been pre-qualified may submit bids. This is the procedure for selecting Subcontractors in Ohio's CM at Risk and Design-Build project delivery methods.




Design-Bid-Build Project Delivery (Single-Prime/General Contracting) Figure 085.2

The following discussion will apply primarily to the Open Bidding category, but has elements of Closed or Invited Bidding that will be discussed further in Sections 090 and 095.

In order for the bidding process to be equally fair and openly competitive between the various bidders, the process requires a specific set of rules for preparing and submitting a bid. Also the process includes procedures for proposing and approving or rejecting substitutions.

Bids are confidentially prepared by each respective bidder and are submitted at a specified time, date, and place, after which the bids will be compared and evaluated. Unless there is a compelling reason to do otherwise, such as bid irregularities, the owner selects the responsible bidder and responsive bid with the lowest price and whose bid is in conformance with the requirements of the bidding documents. Bids may be considered irregular or non-responsive for various reasons, including but not limited to, bids containing incomplete information, bids improperly prepared, bids that include alterations to the bid form, bids submitted after the required time and date, or bids with qualifications or other questionable information.

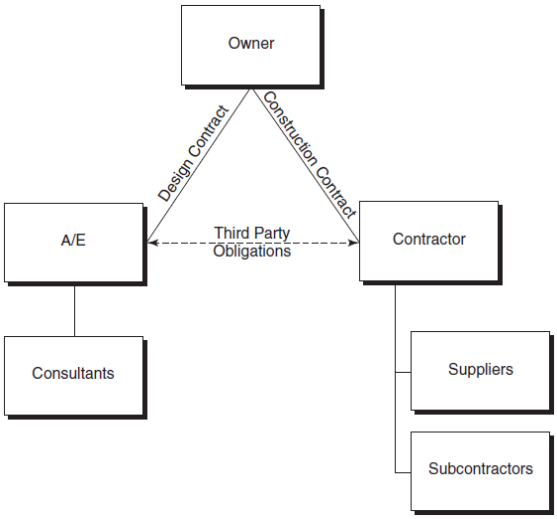
While the initial construction costs are established when the owner contracts with the successful bidder, the total costs cannot be known until all changes in the work are discovered and the contract is almost complete. To manage this risk, prudent owners establish a contingency amount to cover revisions, scope changes, or changed site conditions. Refer to Section 050 – "Budgeting" for recommendations on the amount of contingency for various types of projects.

When the extent of work is contingent upon the funds available, certain provisions may be necessary to obtain costs for specific portions of the work. These portions of the work can be defined as alternates that will

permit separate costs to be determined. After a project is bid, the extent of work can be adjusted based upon the alternate bids and the owner's priorities. This process of alternate bids allows the owner to expand or contract the extent of work in order to align the cost with the funds available.

## Roles of the Stakeholders and Participants

The basic relationship between the owner, the A/E, and the contractor is shown in Figure 085.3 and is described in CSI's *Project Delivery Practice Guide* as the tripartite relationship. The tripartite relationship is first established by the owner-A/E contract and then second by the owner-contractor contract. While there is no contractual relationship between the A/E and the contractor, a third-party relationship is established by the contracts with the owner. For example, the owner-A/E agreement specifies certain duties be performed by the A/E acting on behalf of the owner. The contractor has a right to rely on the proper performance of these duties. The A/E relies on the contractor to perform certain duties identified in the owner-contractor contract.




Tripartite Relationship of Owner, A/E, and Contractor (PDPG) Figure 085.3

Owner: The owner contracts first with an A/E to design the project and to prepare bidding documents. The owner then obtains bids through the competitive bidding process from bidding contractors. When one of the bidders is selected by the owner, the owner will either directly enter into the contract or engage the contractor through the State Architect's Office as the authorized Contracting Authority.

Architect/Engineer: The A/E usually provides full professional design services the scope of which begins at project conception and includes schematic design, design development, construction documents, competitive bidding, construction contract administration, and closeout.

Contractor: The contractor is the bidder that has been selected and awarded the contract by the owner or Contracting Authority. The contractor provides construction project management to construct the project according to the contract documents and includes contracting with various specialty subcontractors and suppliers.

Subcontractors and Material Suppliers: To determine the price to bid, a bidder obtains sub-bids from specialty subcontractors and material suppliers that are based on respective portions of the bidding documents. When the owner enters into a contract with the selected bidder, that bidder becomes the contractor who then enters into individual subcontracts with specialty subcontractors and purchase orders with material suppliers. Subcontractors and suppliers then provide the required labor and materials to construct the project according to the contract documents. As there is no contractual relationship between the A/E and the contractor, there is also no contractual relationship between the A/E and subcontractors and material suppliers.

Product Representatives: Product representatives can be a good resource to the owner, A/E, and contractor by providing accurate technical information about the products they represent. For those materials that benefit from or require the installers to be certified, approved, authorized, or otherwise acceptable, representatives can identify those that are so qualified. They can also assist those specialty subcontractors and material suppliers by ensuring their bids are properly based on their products that are specified and offering technical assistance during installation.

## Benefits of the Design-Bid-Build Method

The most significant advantage of D-B-B is that all participants in the design professions and construction industries are familiar with this method of delivering a project. Participant roles and responsibilities are well established, contract relationships are well understood, and conditions of the contract are similar from project to project. Familiarity with D-B-B promotes efficiencies in conceiving, designing, and constructing a project.

The owner is entitled to expect the contractor to construct the project for the cost that was bid and made the contract sum. Also, the contractor is entitled to expect the construction documents to be sufficient to accurately bid and construct the project. While this is true of every delivery method, it is especially true for D-B-B projects.

Project schedules are easier to establish because the various stages and phases of the project are easier to estimate since they do not overlap as do other delivery methods.

An owner who does not have staff with construction experience, qualifications, or the ability to bid and negotiate construction contracts might find D-B-B as the most desirable delivery method. Competitive bidding is often required by governmental agencies to ensure the taxpayer is paying a fair price for public facilities.

## Limitations of the Design-Bid-Build Method

One of the primary disadvantages of D-B-B is “bid-day surprise” which occurs when all of the bids received exceed the owner’s budget for the project. Should the owner decide to not immediately proceed with the project at a higher cost, significant delays and additional costs will occur while the project is being redesigned and rebid. It is also possible that the project may be postponed or cancelled altogether.

The D-B-B delivery method is inherently adversarial. Competitive bidding requires that a contractor bid as low as possible to obtain the work and still make a profit. Unfortunately, on occasions when market conditions are extremely competitive, bidders may be tempted to bid the project with little or no profit in order to survive as a business and maintain profitability by continuing to construct projects. In this scenario, the contractor may be motivated to extract as much profit from the project as possible by constantly seeking change orders.

Unlike the other delivery methods, contractors that bid and construct D-B-B projects cannot rely on the owner carrying a contingency fund for scope of work inconsistencies that develop. Since it is not possible to prepare perfect construction documents or to perfectly bid the work, scope of work inconsistency problems develop when errors, discrepancies, omissions, and/or contradictory information are found in the construction documents or the contractors bids which can lead to change orders, claims, and disputes. Just as competitive bidding provides the lowest cost, it also allows little margin for error. Every scope of work inconsistency can place an A/E firm or contractor in an unfortunate difficult situation, where that firm will need to minimize any potential loss from that error.

Sometimes a bid for a D-B-B project may become a gamble when some unknowns are not considered. Some bidders may be tempted to bid a low price knowing that there are unknowns and then try to capitalize on the unknowns during construction for the purpose of making up the differences between the bid and the actual cost. D-B-B projects can result in a considerable number of requests for information and multiple changes. The shortness of the bid period forces everyone to respond quickly without proper consideration.

Just as the name implies, the competitive bidding process makes everyone an individual competitor, and places participants on opposite sides of the playing field which requires some form of refereeing. In the competitive bidding process the A/E has a duty to administer the construction contract.

Another limitation of D-B-B is that when the owner selects a bidder to be the contractor, the selection also includes accepting whichever subcontractors and material suppliers the contractor intends to use. Also, the owner has little influence on how the contractor buys out the work or if the contractor engages in "bid shopping" among the potential subcontractors and suppliers in the effort to improve the contractors profit. Unlike the other project delivery methods, the owner usually has no influence with how the contractor conducts construction project management.

## Decision to Use the Design-Bid-Build Method

Public agencies are expected to be effective stewards of taxpayers' money and to obtain the best possible price for the project. The D-B-B process permits the cost of the project to be known before contracts are executed. To facilitate the competitive bidding process, public agencies are obligated to establish an environment in which bidders can fairly and competitively compete for the work and protect the objectivity of the contract award process.

Historically, D-B-B has been the primary process of fulfilling these requirements and obligations on behalf of the taxpayers. Many projects have been successfully constructed for decades by this method. However, in Ohio D-B-B may now be replaced by one of the other project delivery methods, such as the CM at Risk or Design-Build project delivery methods.

Availability of Contractors with sufficient bonding capacity may influence the decision of selecting multiple-prime or general contracting D-B-B. With multiple-prime contracts, each Contractor is responsible for providing a performance and payment bond for the amount of its contract. With general contracting, a single contractor must provide a performance and payment bond for the entire project. As we transition from multiple-prime D-B-B and CM Agent to other project delivery options, and given a sluggish economy with many contractors experiencing diminished financial resources, it may take time for the Ohio construction community to adapt their business model to the new project delivery methods. The owner should consider whether sufficient contractors are available to competitively bid for their project.

When D-B-B is used, the A/E represents the owner, provides services throughout the project, and makes design decisions based on the project and the best interests of the owner. The contractor provides a completed project that complies with the contract documents for a stipulated price. The contractor cannot represent the owner because the contractor has interests that are different from owner.

# 090 | Construction Management

This Section discusses the two types of Construction Management project delivery. One of the influencing factors regarding which project delivery method should be selected for a project is the experience and qualifications that the owner may or may not possess. It is prudent for an owner to be represented by knowledgeable professional expertise before proceeding with a project. One of the most popular project delivery methods is construction management, abbreviated as CM.

## The Nature of Construction Management

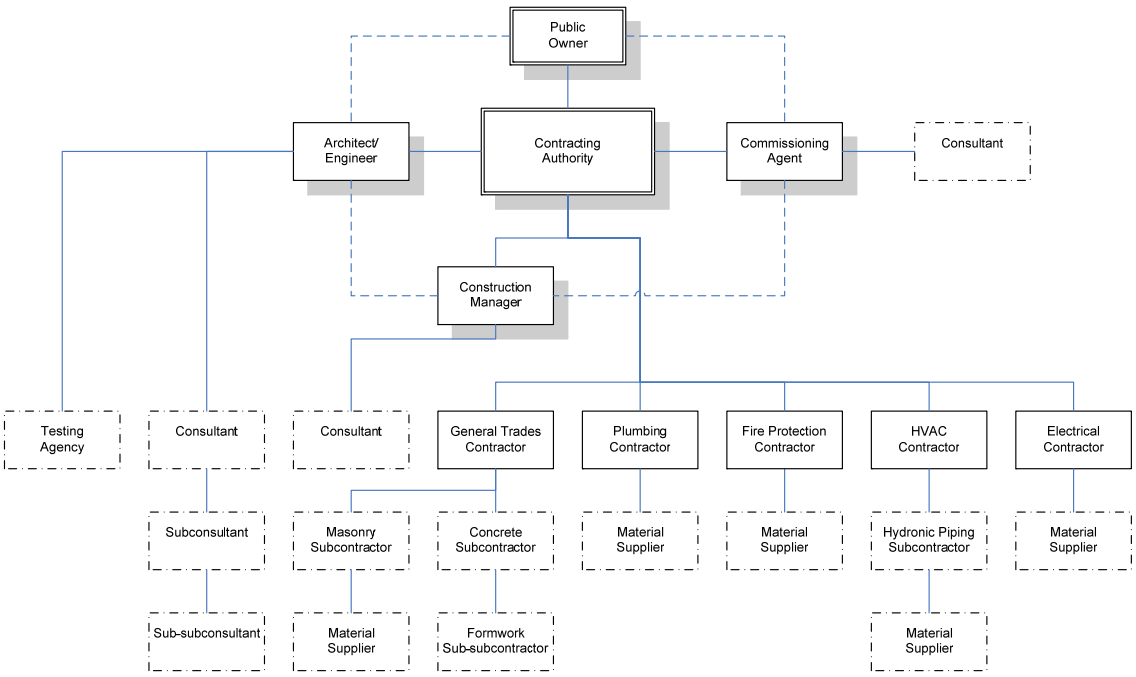
CM is the process of applying professional management expertise to a construction project for the purposes of managing the project extent, cost, and time. It is most often implemented on projects with complex schedules or budgets, those that require extensive coordination between disciplines, and those where the owner has limited expertise with regard to design and construction. Used appropriately, the additional fees paid by the owner to a CM are offset by removing the burden of oversight of complex projects from the owner or the owner's staff.

A CM is an individual frequently having a background as an architect, engineer, or contractor. CMs are granted differing degrees of authority by the owner, depending on how the project is organized and the contracts arranged.

There are two variations of construction management project delivery:

Construction manager as agent or adviser, abbreviated in this Section as CM/A

Construction manager as contractor, abbreviated in this Section as CM/R




Construction Management Project Delivery (CM as Agent or Adviser with Multiple-Prime Contractors) Figure 090.1

## Construction Manager as Agent / Adviser

As illustrated in Figure 090.1, one variation of CM is when the CM serves as an agent or adviser to the owner, and is characterized by the following:

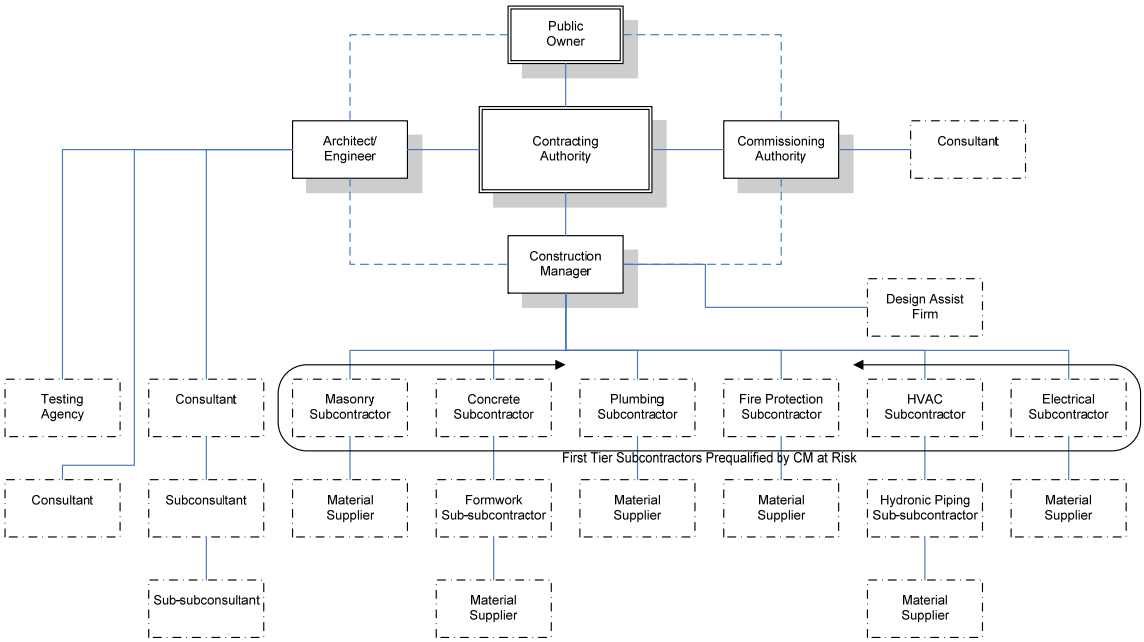
- The role of the CM/A is to advise the owner on the management of the design and construction of the project.

- Depending on the contractual arrangement, the CM/A may or may not have the authority to represent and act on behalf of the owner. In the Standard Requirements, the CM/A has a limited role related to approving changes in the work or other modifications on behalf of the owner.
- The owner maintains direct contractual relationships with the A/E and either a single prime contractor, or multiple prime contractors (actually specialty subcontractors and material suppliers) depending on the project structure.
- The CM/A does not bear financial risk for the design and construction.
- CM/A may be used for any type of project but is most appropriate for owners who do not have the expertise or the time to manage a complex or difficult project.
- CM/A has been the model utilized by the Ohio School Facilities Commission to manage its program at each school district. In this scenario, the CM/A is sometimes referred to as a Program Manager.

## Construction Manager at Risk

As illustrated in Figure 090.2, the other variation of CM is when the CM serves as, and bears the financial risk in the same manner as a contractor.

The CM/R consults with the A/E and owner, prepares a preliminary project schedule, makes recommendations for phased construction, prepares preliminary cost estimates, and, when documents are sufficiently complete, proposes a cost which is usually capped by a guaranteed maximum price (GMP), and finally executes the construction as a contractor who holds the subcontracts.




Construction Management Project Delivery (CM at Risk holds Subcontracts) Figure 090.2

## Roles of the Stakeholders and Participants

The CM's relationship with the owner is different from the relationship with either the A/E or the contractor and depends on whether the CM is performing the role of agency or adviser, or at risk. The CM may provide professional management services throughout the project from the conception of design through postconstruction services, regardless of which type of CM the owner elects to utilize. As an adviser or agent, the CM is generally acting in that role earlier in the project than the CM would be in the at-risk role. These services may include cost management, detailed estimating, constructability reviews, milestone and critical path scheduling, and value engineering.

Owner: Because the owner will contract with each prime contractor, the CM should review these contracts and make recommendations to the owner before the owner executes them.

The owner must establish budget and program requirements and convey this information to the CM.

Architect/Engineer: The A/E is responsible for producing design and construction documents that comply with the owner's requirements and applicable codes and ordinances. The A/E services under CM are similar to those provided to an owner under D-B-B. These services include review of the owner's requirements, preparation of alternate designs, schematic design documents, design development documents, and construction documents. The A/E determines the design and selects materials consistent with the cost limitations set by the owner's requirements and budget. The CM may make recommendations during the design phases that influence the budget and ensure constructability. If the CM has budgetary oversight or control, these decisions may also influence the A/E's design.

CM may diminish the A/E's role, especially during construction. The following responsibilities may shift from the A/E to the CM:

- Prequalification/evaluation of bidders
- Evaluating change orders
- Providing full-time on-site representation
- Processing applications for payment
- Providing interpretations of scope issues for each contract
- Preparing change documentation
- Resolving claims and avoiding disputes
- Communicating directly with the owner
- Processing submittals

Some owners consider shifting site representation from the A/E to the CM an advantage because of the CM's knowledge of construction. This also allows the A/E to concentrate on design issues, not construction issues.

The A/E should recognize and understand the additional time requirements necessary for construction management projects and make allowance for these differences by including adequate professional service fees in the owner-A/E agreement. Major items with lengthy time requirements include the following:

- Extended contract document preparation time due to multiple bid packages
- Reassembly of these separate packages into one complete set of contract documents
- Preparation and coordination for the owner-A/E agreement, the owner-CM agreement, the conditions of the contract, and Division 01 sections
- Extended substitution review time because of value analysis, which may include redesign to accommodate substituted items
- Detailed review of numerous monthly applications for payments on multiple-prime projects
- More complex submittal process

The administrative effort required of the A/E for a fast-track CM project is more complicated than for a conventional D-B-B projects because simultaneous contract document production, procurement, and contract administration will occur for a portion of the project life.

Construction Manager: The CM usually develops a construction management plan, often consisting of the following items:

- Project description

- Milestone schedule
- Project schedule
- Project organization chart and staffing plan
- Explanation of roles, responsibilities, and authority of team members
- Reference to project procedures (i.e., documenting activities throughout the design and construction)
- Bid packaging, contract scoping, and contracting strategy
- Site mobilization and use plan.

The CM will manage quality assurance and quality control activities, including site observation and payment requests, and is responsible for ensuring that the completed project complies with the plan.

When the CM has responsibility for providing services that influence the design process, a conflict of interest may develop. For example, the CM may encourage use of an inexpensive product without the necessary performance characteristics. The relationship between the CM and the A/E is critical to a successful project. Mutual respect and open communication are necessary to allow each party to perform properly without duplicated effort.

Contractors: Companies that can be general contractors for D-B-B can be a single prime contractor under CM/R, but can also be one of the multiple prime contractors under CM/A, depending on the contractual arrangements.

Subcontractors and Material Suppliers: Companies that can be specialty subcontractors and material suppliers for D-B-B can not only be a subcontractor for a single prime contractor under CM/R, but can also be one of the multiple prime contractors under CM/A, depending on the contractual arrangements.

Design-Assist Firms: House Bill 153 allows early engagement of specialty contractors to assist the design team with their construction knowledge and expertise for the CM/R method of project delivery. This concept is known as Design Assist. These subcontractors have much in common with a design-builder except they are not required to provide a licensed design professional, but work with the A/E, who remains responsible to design and seal drawings and specifications submitted to the Department of Commerce or local certified building department for plan approval. Design-assist subcontractors may perform the construction work under certain conditions.

Product Representatives: Product representatives can be a valuable resource to the owner, A/E, and the CM by providing accurate technical information about the products they represent. For those materials that benefit from or require the installers to be certified, approved, authorized, or otherwise acceptable, representatives can identify those that are so qualified. And they can assist those specialty subcontractors and material suppliers by ensuring their bids are properly based on their products that are specified.

## Benefits of the Construction Manager Method

CM projects are usually those involving multiple contracts, fast tracking, or are of such a complex nature that intense professional management is necessary. Such projects usually require services beyond those the A/E generally provides through its basic services, and typically exceed the capability of the owner's staff. The use of CM and the respective contracts will most likely offset additional A/E fees and costs associated with developing bid packages.

The CM's knowledge of construction, systems cost, and scheduling is a good reason to involve the CM during the design phases. This allows the CM to influence product selections by providing information regarding costs, availability, and performance. The CM may also have helpful information regarding design and constructability of project elements, components, and details. Many CM entities are staffed with architects, engineers, contractors, estimators, value analysts, and other professionals knowledgeable about design and construction. CMs usually have particular expertise in the following areas:

- Coordination of construction

- Information management
- Cost management
- Time management
- Quality assurance
- Job-site safety

A CM can help reduce change orders and cost overruns by aiding communications among the parties, during the design and construction stages.

Assistance given to the A/E during the design is another substantial benefit of CM. The A/E's design can benefit from information provided by those who will be responsible for construction. Because the CM usually monitors selection of products during the design, the CM may maintain budgetary control by initiating contracts for early purchase of materials and equipment.

When the CM has control of early purchase, construction progress schedules can be prepared with increased accuracy. The CM's expertise and participation can help achieve an effective design, by avoiding redesign, to meet budget requirements. Usually the A/E is relieved of primary budgetary responsibility when the CM provides cost management. The CM's responsibility for complying with the budget should give the A/E some assurance that the A/E will not have to perform costly redesign.

CM by its very nature can be tailored to fit the needs of a particular project. CM's flexibility allows application of selected services required to supplement those already available to the owner through an in-house staff.

## Limitations of the Construction Management Method

Projects that are small and simple in scope and contracted under a single stipulated sum are usually not suitable for CM. Also, projects that have little or no time constraints may not be appropriate. If an owner requires single-source responsibility or does not have time to devote to a construction project involving multiple phases or multiple contracts, then another type of project delivery method may be more appropriate.

The owner often pays a greater total amount for professional fees to the CM and A/E than would be paid on the same project where only an A/E and contractor are employed. Also, the selection and hiring process for a CM can increase the overall time frame for the project.

The additional level of authority resulting from the use of a CM requires communication, reporting, and other contract administration paperwork to be passed through the CM for processing and record keeping. An increase in these types of requirements can reduce overall contract administration efficiency and can be time consuming and expensive for the A/E and the contractor(s). These hidden cost increases are typically passed on to the owner through higher fees and prices.

The use of a CM may restrict direct communication between the owner and the A/E or contractor. This may result in the owner having to compromise on some aspect of the design or constructed work. When using construction management, the owner is relying heavily on the expertise and professional integrity of the CM, A/E, and contractor to deliver a project that will meet expectations.

When one party is advising the owner as well as constructing the project, the potential exists for conflicts of interest. The greater the financial stakes that one person has, the greater the potential for conflicts. When a CM/R performs a portion of the work, the CM/R assumes a direct financial interest in producing a profit on that portion of the work, which may not always be in the owner's best interest. The CM/R may be reluctant to make changes that will directly influence profitability.

## Decision to Use the Construction Management Method

No specific rules determine when CM would be more beneficial than another delivery method. However, general factors to consider in the decision include the project's size and complexity, as well as economic considerations, including projected inflation and interest rates, short time schedules, and success of previous

construction projects. When owners have critical needs to achieve project completion on time or have to achieve very ambitious project schedules, CM may be used beneficially. Conditions requiring project leadership not available from within the owner's staff are another reason for choosing CM.

The following questions and issues should be considered before deciding to use CM:

- Does the project's complexity necessitate intense professional management?
- Does the owner have capable personnel to assign to the project?
- Are multiple contracts including several parties involved?
- Are long-lead items involved?
- Will using CM be cost-effective or will it add a layer of management that provides no significant value?
- Is there a need to reduce the risk of potential cost and schedule overruns?

Management of construction time is another reason for choosing CM. Events may be sequential; that is, contract documents are completed before construction begins. However, the fast-track scheduling technique is often used. The fast track scheduling technique encourages design decisions to be made and documented earlier in the process through the cooperative efforts of the project team, consisting of the owner, CM, A/E, and contractors/subcontractors. Fast tracking creates an overlap in contract documentation and construction, with construction beginning before all contract documents are complete. Some projects may be divided into several contracts, each of which can be fast tracked.

The decision to use CM should take into consideration the type of project, the owner's resources for preparing project requirements, the legal requirements in the area of the project, and the availability of CMs. CMs provide benefits that some owners want, including specialized expertise during design, economy in cost and time, and maximized value of the finished project.

When the owner decides to use CM, the owner then must decide which form of CM meets its objectives: CM/A or CM/R.

The roles of the parties involved in a construction management contract should be carefully defined in their respective contracts. The capability of the owner's staff to respond to the issues involved should be closely evaluated. When an A/E or a contractor acts in a dual role, the potential for conflict exists and should be evaluated. Construction management firms are usually staffed with personnel from the design professions and the construction industry. This allows the CM to provide management services from project conception through construction stages of a project.

Availability of CMs with sufficient bonding capacity may also influence the decision of selecting CM/R or CM/A project delivery. With multiple-prime contracts under D-B-B or CM/A, each contractor is responsible for providing a performance and payment bond for the amount of its contract, while the CM provides financial assurance only for the amount of its fee, if applicable. With CM/R, a CM is required to provide a performance and payment bond for the entire project. As we transition from multiple-prime D-B-B and CM Agent to other project delivery options, and given a sluggish economy with many contractors experiencing diminished financial resources, it may take time for the Ohio construction community to adapt their business model to the new project delivery methods. The Owner should consider whether sufficient CMs are available to submit proposals for their project to receive competitive pricing.

CM allows owners to control the project from beginning to end with a higher level of assurance that the project will be on time and within budget.

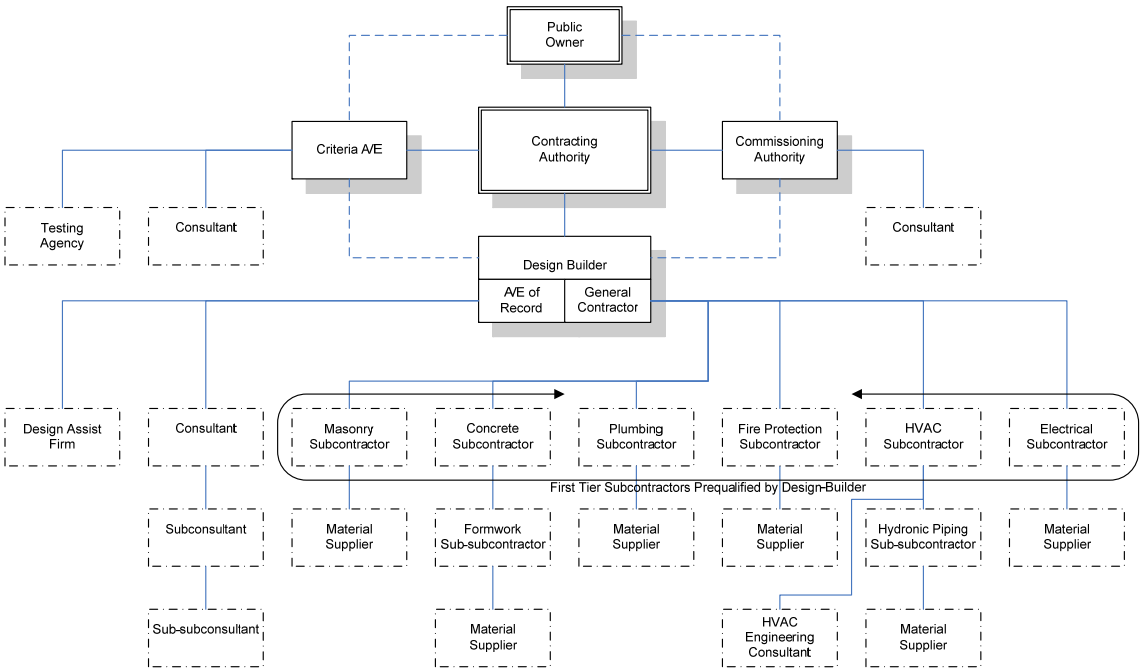
# 095 | Design-Build

This Section discusses the Design-Build method of project delivery. Some owners, projects, and circumstances have unique requirements and may need a more simplified contract arrangement or there may be a desire to explore multiple design options. Selection of the design-build project delivery method, abbreviated as D-B, may be preferred because the owner can contract with a single entity to provide all the design and construction services necessary for a project as illustrated in Figure 095.1.

## The Nature of Design-Build

Design-build entities exist in a variety of forms, depending on the type of firm that offers the primary services in the design-build entity. In each of the following D-B variations, the principles are similar:

- An owner may contract with an A/E for DB services and the A/E then subcontracts with a contractor for construction services.
- An A/E and a contractor may form a joint venture and contract with an owner to provide design-build services.
- An owner may contract with the contractor and then subcontract with an A/E for architectural and engineering services.
- A design-builder may be a single company capable of providing both design and construction services from the staff.




Design-Build Project Delivery (Criteria A/E as Agent of the Owner) Figure 095.1

There are several ways an owner can utilize D-B, however, the process starts by the owner preparing a project description of the performance-based requirements that establishes the required extent (scope), time (schedule), and cost (budget). How the project design is established is the principle difference in the several variations of D-B.

One way is when the owner contracts directly with a design-builder who is then responsible for developing the design, providing the contract documents, and finally constructing the project.

A second way is when the owner wishes to have greater control over the design decisions of the project and engages a Criteria A/E to create the project design and prepare schematic design documents, known as "bridging documents," that become the basis of the contract with a DB entity. The Criteria A/E is not the "A/E

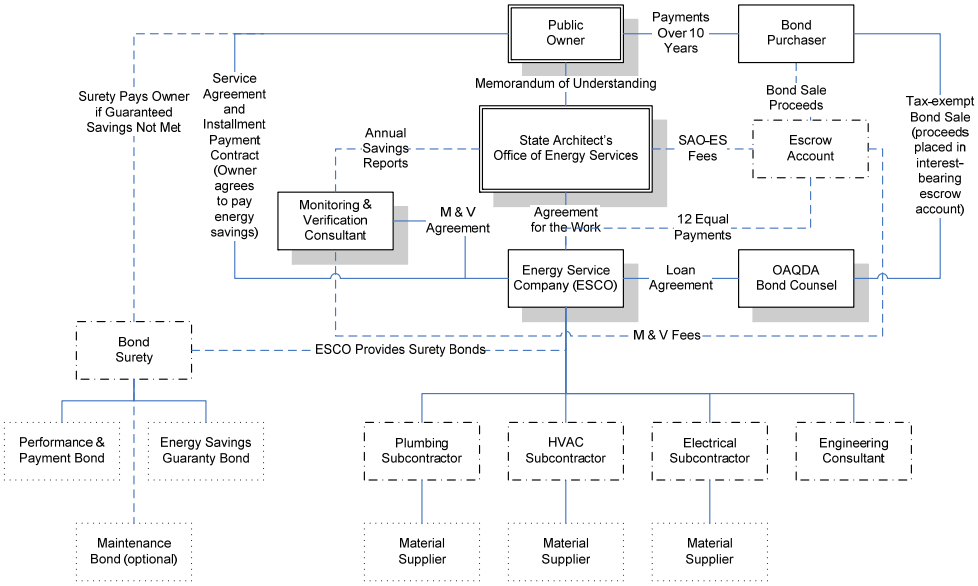
of record" and is precluded from also being retained by the design-builder. This is the method recommended by the Ohio Construction Reform Panel and codified in House Bill 153.

Third, some owners may be inclined to request competitive proposals for design and construction services from several DB entities. To reduce the risks involved in competitive bidding, a modified selection process may be used that uses a combination of negotiations and competitive bidding. Initially the owner prepares the project description then requests proposals in two phases:

- Phase I: Usually requiring only minimal investment, a proposed project design and cost is submitted to the owner by each participating design-builder. The proposals are evaluated and either one design is selected, or several designs are selected if the process is competitive. The preferred design, or designs, may not always provide the least initial cost, so value decisions may have to be made. The selection process may conclude in negotiations with each of the design-builders or the process may continue to a second phase requiring more developed design and cost for each of the design-build proposals being considered.
- Phase II: The second phase can be time consuming and expensive for design-builders since only the selected design-builder will be fully compensated. To encourage participation, the owner may offer to pay a fee to cover all or part of the expenses involved in preparing second phase proposals. Participating design-builders submit more developed versions of the design and cost selected in the first phase. Again the proposals are evaluated and the owner makes a final selection and then negotiates the contract.

An additional feature of D-B is that other professional services can be offered that are in excess of the traditional design and construction services. Such services might include, but not be limited to, purchase and financing of the land, purchase and installation of specialized furnishings and equipment, building commissioning, and facility management. If these services are included in the DB contract, then the contract could be considered a turnkey contract. Turnkey contracts mean that one entity provides all the services an owner needs to accomplish a new facility ready for occupancy and use.

While some public agencies continue to utilize D-B-B, many public and governmental agencies have turned to D-B as a more efficient way of obtaining new facilities. D-B fulfills the need for agencies to be stewards of taxpayers' money and obtain the best possible price for a project. Even when competitive bidding does not occur between DB's, it occurs among specialty subcontractors and material suppliers for the purchase of materials and their installation in the project. Selection of firms providing DB services, for design and construction are not subject to the same requirements as for competitively bid D-B-B.




Energy Performance Contract (ESCO performs design and construction) Figure 095.2

Energy Performance Contracts: The State Architect's Office of Energy Services ("SAO-ES") has a long history of administering Energy Performance Contract projects as shown in Figure 095.2. This type of project is conducted in accordance with ORC Chapter 156 and begins with an Energy Specialist conducting an energy audit of an agency's or institution's facility or facilities and review of their utility bills to determine potential opportunities to include in a request for proposal ("RFP"). The RFP is published and establishes the criteria for the project and selection. Energy service companies ("ESCO") submit proposals to SAO-ES and the Energy Specialist and representatives of the agency or institution score the submissions to determine the best value to the State. Once the ESCO and SAO-ES execute an agreement, the ESCO designs the energy conservation measures and engages subcontractors to perform the work. Thus, this type of project results in a D-B type project using Best Value Selection.

## Role of the Stakeholders and Participants

D-B places the DB, including the AOR, in a relationship with the owner that is similar to the relationship of a vendor with a purchaser: the DB agrees to provide a completed project that meets the owner's requirements for an agreed-upon price.

Owner: The owner is responsible for preparing a project description that establishes the required extent (scope), time (schedule), and cost (budget) upon which prospective design-builders can base their proposals, or upon which a contract can be negotiated. For large projects, this can be a complex task and the owner may elect to have the project description prepared by a separate entity, usually an architect or engineer. In Ohio public construction law, that entity is known as the Criteria Architect/Engineer or Criteria A/E. Many of the subjects that should be addressed in the project description reflect early design decisions made during the project conception and programming. At a minimum, the project description should include the following items:

- Project overview
- Project timing
- Performance program requirements
- Submittal, testing and inspection, substitution, and warranty requirements
- Environmental requirements and site information
- Proposal requirements
- Proposal evaluation criteria
- Contract type

After the design-build contract is awarded, the owner may be left out of many day-to-day decisions and will have less contact with project activities than in D-B-B. The owner should, however, be actively involved in the process unless an administrative professional, under a separate contract with the owner, provides these services for the owner. The Criteria A/E may be retained by the owner to provide some of these services, such as oversight of quality control/quality assurance activities during design and construction and/or construction contract administration.

Design-Builder: The design-builder is responsible for providing a completed project that meets the owner's project description. Quality assurance and quality control activities, including site observation, and payment requests are all managed by the design-builder with oversight by the owner or the owner's Criteria A/E. The combined activity of design and construction results in efficient project management since the process inherently ensures cooperation between the designer and the contractor.

Architect/Engineer: As previously mentioned, the A/E is not a representative of the owner because the A/E's services are performed in the interest of the design-builder and there is no contractual obligation or contractual relationship between the A/E and the owner. In Ohio public construction law, that entity is known as the Architect/Engineer of Record. The A/E services provided to the design-builder are similar to those provided to an owner using D-B-B. These services include review of the owner's project description, preparation of alternative designs, preparation of preliminary design documents, and preparation of

construction documents. The A/E determines the design and selects materials consistent with the cost limitations set by the design-builder and the owner's project description and budget, and in compliance with applicable codes and ordinances. All communication with the owner is conducted through the design-builder.

The design-builder has final responsibility for the project design, not the A/E as under other project delivery methods.

Contractor: The contractor, as a member of the design-build entity, performs the construction work. The construction activities of the project include providing not only materials, labor, and equipment necessary to complete the work, but also control over the means, methods, and techniques necessary to complete the project. This means that the contractor lends the necessary skills to the design-build entity, including project management, subcontractor management, supervisory duties, and superintendence for the work.

Because the design-build entity provides a proposal to the owner for the project before the construction documents are complete, the contractor is heavily involved in the preconstruction activities. This input allows the contractor to provide construction experience, cost estimating, logistics, and other project management expertise to the design as it is developed. The contractor can also make suggestions during the design phases regarding materials and systems selections. Working together as part of the design-build entity, both the contractor and the A/E have an obligation to the owner to meet the project requirements.

The design-builder has final responsibility for the project construction, not the contractor as under other project delivery methods.

Subcontractors and Material Suppliers: Companies that can be prime contractors, specialty subcontractors, and material suppliers for D-B-B may be subcontractors under D-B.

Design-Assist: House Bill 153 allows early engagement of specialty contractors to assist the design team with their construction knowledge and expertise for the Design-Build method of project delivery. These design assist firms have much in common with a design-builder except they are not required to provide a licensed design professional, but work with the A/E, who remains responsible to design and seal drawings and specifications submitted to the Department of Commerce or local certified building department for plan approval. Design-assist firms may be prequalified and bid to perform portions of the construction.

Product Representatives: The design-builder determines the most economical and efficient materials and methods to produce a project complying with established requirements. The product representative should work closely with the design-builder and the A/E to offer products that fit the project description established by the owner.

## Benefits of the Design-Build Method

The primary benefit to the owner is that a single entity is responsible for design and construction. The single-contract arrangement also offers more control over project timing and costs. Fast-track scheduling is an available option for minimizing construction time and the design-builder is able to maximize the value of the project by fulfilling the project description in the shortest time for the least cost.

Because of the close coordination between the A/E and contractor during the design phases, the contractor can influence product selections by providing information regarding cost, availability, and performance. The design-builder may also have specialized information regarding design and constructability of project elements, components, and details. Examples include:

- Structural systems (e.g., using a precast concrete system may avoid the cold-weather delays of cast-in-place concrete)
- Exterior wall component supports (e.g., panelized components may save expensive field labor)
- Details involving multiple trades

Design-builders usually specialize in particular types of projects, such as institutional facilities, manufacturing facilities, utilities, speculative offices, or warehouses, where their construction experience is a significant

factor. Design-builders provide benefits that some owners desire, including specialized expertise during design, economy in cost and time, and maximized value of the finished project.

## Limitations of the Design-Build Method

Preparation of the project description may be a difficult task for the owner. If the project requirements are complex and the owner does not have in-house staff familiar with construction projects, a third party Criteria A/E may be needed to assist the owner.

Because the A/E is working for the design-builder, the owner should not expect the same level of professional service to protect the owner's interest as normally performed during a conventionally delivered project. Some owners will engage the services of a Criteria A/E to act in the owner's interest.

Since the design-builder is creating the project design, the extent of documentation may not be the same (e.g., specifications may be replaced by manufacturer's data sheets). The design-builder usually will not perform any services not required by the owner's project description. Items normally taken for granted, such as shop drawings, product data, samples, testing and inspection, and extended warranties, may not be provided to the owner at all if not required by codes and regulations or by the owner's project description.

If not stated otherwise in the project description, material selections are usually left to the design-builder. If the owner wants to change a material or upgrade the design, a change order will likely be necessary. The owner's project description should clearly indicate necessary submittals, including the design documentation, as well as quality assurance/quality control submittals such as shop drawings, samples, testing and inspection, extended warranties, and product requirements.

Design-build contract administration requires attentive management on the part of the owner. Although the design builder is responsible for site administration and verification that the materials and products are included as specified, the owner may employ a Criteria A/E to monitor the project during the construction stage. The Criteria A/E may perform such activities as submittal review, site observation, payment request assistance, and determination of compliance with the contract.

Dispute resolution may require more of the owner's time. In D-B-B, the A/E, as a representative of the owner, maintains records of project administration, which are valuable in helping to resolve disputes when they arise. The owner in a design-build situation should also maintain such records for use if disputes arise.

The design-builder may have increased risk due to expanded roles in design and construction. In a stipulated sum contract between the owner and design-builder, the design-builder bears the risk of design and construction cost increases. The design-builder has made assurances to the owner that the work will meet the owner's project description, which usually includes limitation on contract sum and time. Any errors, discrepancies, omissions, and/or contradictory information in the contract documents also become a liability of the design-builder.

## Decision to Use the Design-Build Method

The most important benefit to the owner is the single point of accountability that a single contract offers. Having a single contract also improves coordination between design and construction. Any type of project may be a candidate for D-B; however, these projects are usually those with reasonably predictable project requirements that the owner is able to describe clearly and completely.

Legal requirements influencing the decision to use D-B include the existence of state licensing laws permitting such entities to be formed. Both the contractor and the A/E may be required to be licensed to perform their respective services. The decision to use D-B should consider the availability of qualified design-builders for the project.

Availability of design-builders with sufficient bonding capacity may influence the decision of selecting D-B project delivery. With multiple-prime contracts under D-B-B or CM Agent, each contractor is responsible for providing a performance and payment bond for the amount of its contract, while the CM provide financial assurance only for the amount of its fee, if applicable. With D-B project delivery, a design-builder may be

required to provide a performance and payment bond for the entire project. As we transition from multiple-prime D-B-B and CM Agent to other project delivery options, and given a sluggish economy with many contractors experiencing diminished financial resources, it may take time for the Ohio construction community to adapt their business model to the new project delivery methods. The Owner should consider whether sufficient design-builders are available to submit proposals for their project.

The roles of the parties involved in a design-build contract should be carefully defined in the contract. The owner's loss of a direct relationship with the A/E and reduced contact with construction activities should be evaluated and possibly offset by employing a Criteria A/E to act as the owner's representative.

# 100 | Procurement

Sections in this Group describe the process of selecting and contracting with various parties to the project process. The Sections consist of the following:

105 | SAO Procurement

110 | A/E Procurement

120 | CM Agent Procurement

130 | Consultant Procurement

140 | Contractor Procurement

150 | General Contractor Procurement

160 | Energy Services Procurement

170 | CM at Risk Procurement

180 | Design-Build Procurement

190 | Subcontractor Procurement

# 105 | SAO Procurement

This Section describes how SAO clients or customers initiate a project with SAO. It also outlines the scope of SAO services and the mechanics of contracting with and doing business with SAO.

## Initial Contact

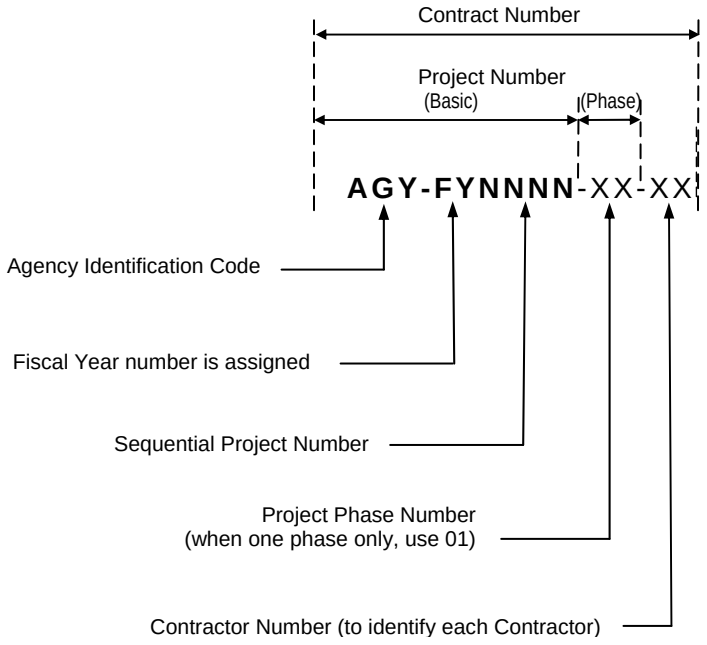
Any State agency or State institution of higher education that is not familiar with the capital improvement process for State of Ohio projects should contact SAO when they recognize a need for a project. SAO welcomes customers seeking more information about the process.

SAO staff who receive a call or a letter from such individuals should direct the correspondence to the Segment Manager responsible for that customer group or to the State Architect.

While many Owners are experienced in the State capital improvement process and in working with SAO, SAO encourages those Owners to contact SAO as early as possible in the project, and certainly not later than the date the Owner creates the scope and budget of the proposed project.

## Establishing a New Project

After the Owner indicates the existence of a project to SAO, and the Segment Manager agrees that the project is indeed a viable project, the SAO staff contacted by the Owner will request a project number from the Owner for the project, if one has not already been assigned. The Office of Budget and Management maintains the list of project numbers with the OAKS Financial module.




Project Number Breakdown — Figure 105.1

Owners must include the Project Number on all correspondence and all project documents. The Project Numbering System also is a tool for project management and business operation functions.

The first 10 characters constitute the basic (and typical) Project Number. It should routinely be preceded by the phrase “Project Number”. Use of the suffixes varies by context. Use the suffixes to indicate the overall project Phase number and Contractor number. The suffixes, when used with the basic project number, constitute the “contract number”. It is used primarily on internal SAO documents, and on documents utilized

during the performance of a specific Contract in a specific phase. These suffixes are not generally used on documents issued prior to award, such as design phase documents or the Solicitation.

Based on a number of factors, such as the project scope, size, and estimated project value, SAO will recommend to the Owner, the appropriate process for the project.

## SAO Services

SAO provides *project management* and *contract administration* upon request for State-funded capital projects for any State agency or institution of higher education. A/E and CM firms, perform professional services for the project, under contracts managed by SAO. Construction contractors build the facilities and improvements under contracts managed by SAO. Basic Services provided by SAO include:

- Assist Owner in creating a Professional Services RFQ
- Advertise RFQ on the OAKS Capital Improvements website
- Receive / Review / Rate A/E Responses
- Create and send interview notices
- Conduct A/E interviews and create the Short List
- Create and send A/E Short List notification letter
- Produce and manage RFP
- Analyze Proposals from A/E
- Negotiate Professional Service Fees and Contracts
- Prepare Recommendation Letter for the Owner to Fund A/E Agreement
- Prepare Controlling Board Criteria
- Distribute A/E Agreement
- Process A/E Payments from design through construction
- Obtain and manage Constructability Review Consultants
- Produce Constructability Contracts and Payments
- Manage Constructability Review Process
- Conduct Design Stage Organizational Meeting
- Manage and participate in Design process
- Manage and participate in Advertising, Bidding and Award process
- Manage Preconstruction, Construction, and Closeout
- Promote, Manage and Participate in Dispute Avoidance and Dispute Resolution
- Provide and Manage CM Contracts and Amendments

SAO Additional Services: SAO provides additional services for its customers on an as-needed basis, an as-requested basis, or both. At the onset of a project, or at the time the need or desire for the additional services becomes known, the Project Manager reviews the additional services with the Owner. The Project Manager then evaluates the special circumstances and specific needs of the project, prepares the fee, and reviews it with the Segment Manager.

After the Segment Manager approves the Scope of Additional Services, the related SAO fee is discussed with the Owner for potential adjustment. When all adjustments are finalized, the fees are delineated in a service agreement between SAO and the Owner. SAO requires payment for all Additional Services in addition to the payment for Basic Services.

Examples of Additional Services are listed below. The list is not intended to be all-inclusive or restrictive.

- Manage Contractor default takeover process
- Litigation beyond Article 8
- Project Programming and Budgeting
- Site Evaluation and Selection Analysis
- Constructability Services
- Space Planning
- Building Commissioning
- Warranty Resolution
- Forensic Analysis
- Post Occupancy Evaluation
- Equipment Purchases Coordination
- Exigency Services

SAO Extra Services: These types of services are generally described as any service not related to a current project, and those services or the projects typically are of a nature not normally associated with State-funded capital improvements.

## SAO Fees and Payment

SAO is funded using a rotary account system and must assess fees for its services. SAO fees are calculated on the project construction cost. SAO fees for additional services and extra services are based on specific services required, and Local Administration fees are calculated on the total project cost.

On typical SAO-administered projects, SAO invoices for payments at the following predetermined points in the life of the project:

- 40 percent of the fee (based on the estimated construction cost) at the execution of the A/E Agreement. The Owner must encumber funding for SAO on the same Controlling Board request for as the release of A/E fees.
- The balance of the fee (nominally 60 percent of the estimated fee) as adjusted to the actual construction cost which was determined by bidding and which was stated in the Construction contract recommendation letter.
- Change Order fees are calculated upon execution of each Change Order and are invoiced by SAO shortly thereafter.

On Projects on which SAO acts as the A/E, SAO calculates its fees based on the fees of any Consultants, plus a mark-up. The Consultant fees and mark-up are confirmed in the Agreement for Services: SAO and Agency (C105-01). The fees are usually billed on monthly basis.

# 110 | A/E Procurement

This Section identifies the requirements and process for the selection of and contracting with professional design services firms. Selection of design professionals is based on the Qualifications Based Selection ("QBS") process outlined in the Federal Brooks Act. These firms, after entering into an agreement with the Department, are known as the "Architect/Engineer" or "A/E."

Professional Design services, typically architectural, engineering and other professional firms, are contracted according to the requirements of ORC 153.65 through 153.73 et. seq. These requirements do not apply to any project with an estimated Professional Design fee of less than $50,000 or any project determined by SAO to be a Public Exigency under ORC 123.15.

## Selection Process

"Professional Design Services" refers to services within the scope of practice of an Architect or Landscape Architect registered under ORC Chapter 4703, or a Professional Engineer or Surveyor registered under ORC Chapter 4733. Due to the complex nature of current design needs, SAO has adopted the term for other providers of professional services as well.

SAO will recommend start of the selection process once the program planning is complete and funding is available.

The process is summarized in the following Table:

| Tasks Required to Select an Architect/Engineer | Approximate Calendar Days |
|---|---|
| SAO review/approve Owner's Program of Requirements, SAO accepts project | 7 |
| Owner delivers draft Announcement for Ohio Register; SAO reviews / comments / revises | 7 |
| Ohio Register announcement based on the Request for Qualifications (RFQ) | 5 |
| Receive responses and A/E Statement of Qualifications (SOQ) forms | 30 |
| Review SOQs and create shortlist | 21 |
| Notify shortlisted firms, schedule and conduct interviews, make selection | 21 |
| Request a technical proposal from the selected firm; receive, review and obtain modifications; negotiate fee | 21 |
| SAO sends recommendation letter to Owner | 3 |
| Owner prepares Controlling Board request, SAO provides Owner with Controlling Board Criteria, Owner submits to C.B., gets on agenda, obtains approval | 28 |
| Funding approval appears in OAKS FIN, purchase order generated by Owner | 10 |
| Obtain signature of Attorney General | 3 |
| Total (days) | 156 |
| Total (weeks) | 22 |

There are six major processes, procedures and requirements which must be followed in the selection of an Architect/Engineer. The process is based on Qualifications Based Selection. The six steps are:

- Advertisement: SAO publishes an announcement of the project, which includes a Request for Qualifications (RFQ) prepared by the Owner, in the Ohio Register on the OAKS Capital Improvements website: http://ci.oaks.ohio.gov.
  - In addition to the announcement in the Ohio Register, the advertisement may be sent to:
    - Architect, landscape architect, engineer, and surveyor associations;
    - The news media;
    - Any publications or other public media, including electronic media.
- Receive Responses: Interested design firms submit a response to the RFQ (e.g., "Statement of Qualifications", or "SOQ"; "Response to the RFQ" or "Response"), in the format identified or approved by SAO.
- Evaluate Responses and Create Short List: The qualifications are reviewed by representatives of the State Architect's Office and the Owner, who evaluate and score the response to the RFQ submitted by each firm. The scores are compiled to become the basis of creating a "short list" comprised of 3 or more qualified firms.
- Interview and Selection: The representatives of SAO and the Owner interview the short-listed firms to determine selection of firms ranked in order, based on the results of the interviews.
- Proposal: Soon after determining the short list, SAO will issue a Request for Technical Proposal (RFP) to the most preferred firm. The selected firm must submit a Technical Proposal to indicate the firm's understanding of and proposed approach to the project, the budget and proposed fees for the project, and to serve as a reference during the negotiation process. The RFP and the Technical Proposal are referenced by the Agreement.
- Fee Negotiation and Contract Award: The selected firm and SAO will negotiate the fees necessary to perform the required services, which, with the concurrence of the Owner, will result in a formal agreement between the firm and the Department of Administrative Services

Request for Qualifications: The Owner must submit a request to the respective Segment Manager of its intent to have SAO publish a project announcement for a project. The Owner will include in its request a draft of the project announcement and submit it in the sample format provided by SAO. The Segment Manager or Project Manager will, in consultation with the Owner, review and, if necessary, modify the Owner-provided project announcement and score sheet information.

Response to the Announcement: A/E's interested in submitting their qualifications on a particular project should respond to the announcement as instructed in the Ohio Register, by using an A/E Statement of Qualifications (F110-330) for each specific project.

Review and Selection Team: Within a week of publication of the announcement in the Ohio Register, SAO will request the Owner appoint persons for the evaluation team and the interview panel. The representatives of the Owner and SAO will independently evaluate the qualifications of the responding firms to establish the short list. The interview panel may consist of the Segment Manager, Project Manager, or other SAO personnel, and the Owner's Representatives. The number of SAO representatives on the team will match the number of Owner representative on the teams, usually two each.

Required Content of the Statement of Qualifications: Each block should be filled in completely, with special attention to the blocks requiring information, experiences, or qualifications relevant to the proposed project or services requested. The F110-330 form has two parts:

- Part I may be used in the evaluation process to develop the short list of firms to interview. Part I is similar to the previous ADM-0255 form. Both parts must be submitted for a specific project RFQ.
- Part II is used to define the organization and past experience of the prime and consultants that make up the team. Part II is similar to the previous ADM-0254 form.

Evaluating the Responses: Reviewers should review the submitted SOQ forms and judge the submittals based on the following characteristics:

- Overall presentation
- Firm experience and qualifications
- Understanding of and suitability for the project
- Staff Qualifications and Experience
- Relationship between applicant and proposed consultants

Architect/Engineer Short Listing Procedures:

- Initial scoring: SAO and the Owner each assign two representatives to evaluate and score the responses. Each representative will review and score the proposals independently, but generally concurrently with other reviewers. All reviewers will use the same standard Architect/Engineer Selection Rating form, as provided with the project in the RFQ announcement. All four reviewers review each response and insert a score for each responding firm. Upon receipt, all proposals are given to the Project Manager for scoring of the Technical Parameters using the Consultant Selection Rating Form.
- Scoring Consolidation by SAO: After all reviewers have completed their review and scoring of all responses, they will each forward their score sheets to the State Architect's Office where they will be compiled into a scoring summary sheet.
- A Segment Manager will review the scoring summary sheet and establish, based on the scores, a short list of no fewer than 3 firms. Based on the scores, or the size of the project, the short list may be comprised of more than 3 firms. Preferably, no more than 5 firms will be short listed.
- The State Architect approves the short list and interviews are scheduled. The summary of the short list will remain in the Ohio Register until the Architect/Engineer Agreement is executed.
- Short List Notification Letters: All firms not included on the short list will be notified in writing. All short listed firms are notified of the date and time of the interview, by letter, signed by the State Architect.

Architect/Engineer Interview and Selection Process:

- The interviews may occur either at the offices of SAO or, when possible, at a location established by the Owner. Interviews may include discussion of A/E's Statement of Qualifications, scope and nature of the services the A/E would provide, and various technical approaches the A/E may use for the project.
- Interviewing firms should visit the proposed project site, especially for renovation work, have the primary firm and consultant staff who were proposed for the project attend the interview, not bring proposed designs to the interview, unless requested by SAO, notify SAO and the Owner of any substitutions of the members proposed in their SOQ. This should be done as soon as possible and must be done prior to the interview. Significant changes in key personnel or consultants may be cause for SAO to rescind the invitation to participate in the selection process.
- Interview Voting Structure: SAO and the Owner will have equal numbers of evaluators with scoring authority on the interview team. Another individual will be present to observe the interview and be available to vote in the event of a tie. This individual may be furnished by either SAO or the Owner. The Owner may bring additional people to the interview. However, they will not submit interviewing scores, unless one individual is the designated tie-breaker. Each interviewing team member will submit one score sheet, ranking the firms as first, second, third, etc. While eliciting the independent view of each team member is an essential part of this process, the team will make every effort to reconcile differences of opinion so that the final interview scoring does not result in a tie. A round-table discussion of each team member's assessment of the firms, before the final scores are recorded may help achieve consensus. If two or more firms receive top ranking, the designated tie-breaker will submit their rankings to break the tie. All firms interviewed will be notified of the selection in writing by the Segment Manager.

## Technical Proposal Requirements

Upon selection and approval of the preferred firm, SAO will issue a Request for Technical Proposal (RFP) from the selected firm. The RFP will stipulate the time frame in which to submit the Technical Proposal, and will direct the A/E to simultaneously send a copy to both SAO and the Owner. The primary purpose of the Technical Proposal is to indicate the firm's understanding of the project and to serve as reference document in the negotiation process.

The RFP will require and the Proposal must include:

- A statement of the firm's understanding of the project and the Program of Requirements (POR) to demonstrate that it understands the scope of work and services required. Some RFPs may require that the A/E meet with the Owner, visit the site, etc., to ensure a thorough understanding of the POR.
- Firm's management approach to perform the project
- Firm's approach to project delivery to ensure the best cost and time effectiveness
- Preliminary project schedule and other information which indicates that the firm understands and can provide the necessary services and complete the project in the time-frame required by the Owner.
- Proposed basic services, additional services, consultant fees, and projected reimburseable expenses necessary for the project
- Summary of the project budget including proposed fees, estimated reimburseable expenses, etc.
- Professional project liability insurance parameters (when requested)
- A statement of the A/E's understanding of project security requirements and concerns.
- EEO Certificate Statements
- A list of contracts with State Agencies for the previous 24 months.
- Other relevant information

SAO and the Owner will review the Proposal. The A/E and SAO will review the project requirements and negotiate compensation which is fair and reasonable for the project. The compensation will reflect the following:

- Basic services and fees
- Appropriate additional services and fees
- Reimbursables and allowances for the project
- Change order fee allowance
- Any contract language revisions, such as modification to Basic Services

## Fee Negotiation

The Project Manager will negotiate fees which reflect the scope of services required, based on the technical proposal, and in accordance with standard practices and fee parameters for basic and additional services, reimbursables, and allowances utilized by SAO.

SAO will determine, in consultation with the Owner, the budgeted construction contingency, which will be based on the size and complexity of the project.

## Negotiation Failure

If the A/E which is ranked most qualified and SAO do not successfully negotiate an Agreement, SAO will notify the firm, in writing, of the termination of negotiations.

SAO may then enter into negotiations with the firm ranked next most qualified by the short listing process. If negotiations again fail, the same procedure may be followed with each firm, in order of ranking until a contract is negotiated, or the State chooses to end the selection and award process.

If negotiation fails with all selected firms, additional firms may be considered from the short listing process, or the project may be re-announced.

## Award Process

Following the completion of successful negotiations, SAO will forward the Architect/Engineer recommendation letter and Controlling Board (CB) criteria to the Owner to secure the release of funding. SAO will send a copy of the recommendation letter to the A/E.

SAO will send the Architect/Engineer Agreement to the A/E for signature with a copy of the transmittal letter to the Owner. The transmittal will direct the A/E to sign the agreement and forward all four copies to the Owner for signature. The Owner signs and returns the Architect/Engineer Agreement to SAO for further processing and execution.

At the same time, the Owner uses the SAO Architect/Engineer Recommendation Letter (L110-01) and Controlling Board Criteria information provided by SAO to request release of funding from the Office of Budget and Management/Controlling Board ("CB").

The Owner initiates the Contract Encumbrance Form following approval of the CB, and sends it to SAO for the approval and processing by the Office of Budget and Management ("OBM").

Following encumbrance approval by OBM, SAO forwards the Architect/Engineer Agreement, a copy of the A/E's Workers Compensation Certificate, and proof of funding to the Attorney General for review and signature. Upon approval of the Attorney General, SAO will distribute the executed Architect/Engineer Agreement to the A/E and the Owner.

## Agreement

The Architect/Engineer Agreement (C110-01) and its variations are used by SAO for contracting with the A/E. Similar Standard Forms of Agreement are used when a CM is involved in the project, when the Owner is pursuing certification under the Leadership in Energy and Environmental Design ("LEED") green building rating system for the project, or both.

The A/E should be familiar with the Agreement and all supplemental documents. The Agreement itemizes fees in the following categories:

- Basic Services
- Additional Services
- Reimbursable Expenses

The A/E's Technical Proposal is an attachment to and supplements the Agreement. It provides additional information on how the A/E will complete the agreement. The contents of the Proposal do not supersede any provisions of the Agreement unless specifically stated and included in Exhibit #1 - Scope of Architect/Engineer Agreement.

| OAKS Capital Improvements Procedure | Traditional Paper-based Procedure |
| --- | --- |
| The A/E must submit its Technical Proposal using the the Agreements business process. | If the Project is not administered using OAKS CI, the A/E may submit its Technical Proposal using traditional means as directed by the Contracting Authority. |

An Agreement will be issued which is based on the negotiated fee and which incorporates the Request for Proposal and the Proposal by reference.

Actions to correct discrepancies in the estimated Construction Budget:

- If for any reason the A/E's estimate exceeds the Construction Budget during the Design Stage, the A/E must notify the Project Manager and the Owner of the cause of differences in writing.
- The A/E will be requested to analyze the program requirements in relation to the budget and make recommendations to the Owner to correct the budget differences. The A/E may be required to redesign the project to comply with the Construction Budget.

A/E's Construction Stage representation:

- The Architect/Engineer Agreement will specify the number of hours per week the A/E must be represented on-site during the Construction Stage.
- The number of hours will exclude travel, any time expended performing contract administration at the A/E's place of business, and time expended performing contract administration activities at the site which could be easily performed in the A/E's place of business.
- The A/E will be responsible to have any consultant attend the project at such intervals required by the Agreement, or as may be deemed necessary by SAO to review the work and to achieve the results intended by the Contract Documents.

## Amendment

If a change to the Agreement is required, the A/E begins the process by sending a request in writing to SAO and the Owner outlining the scope of work revisions and any applicable adjustments in fee or reimbursables.

The A/E's request is reviewed and validated by SAO after discussions with the Owner.

The proposed fee is negotiated if necessary. If the request is approved, and funds are provided and encumbered by the Owner, SAO prepares an Amendment to the Agreement.

SAO sends the Amendment to the A/E for signature.

The A/E returns the signed Amendment to SAO for further processing. The Amendment is executed by SAO upon receipt of the appropriate proof of funding from the Owner.

Without exceeding the total compensation for the agreement, the allocation of costs may be adjusted upon request of the A/E and approval by the Contracting Authority without a formal signed amendment.

**OAKS Capital Improvements Procedure**

The A/E must submit its request for an Amendment or allocation adjustment using the the Amendments business process.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E may submit its request for an Amendment or allocation adjustment using traditional means as directed by the Contracting Authority.

# 120 | CM Agent Procurement

This Section identifies the requirements and process for the selection and contracting of Construction Management Firms for capital funded construction projects. Construction Management services are contracted according to the requirements of ORC 9.33 through 9.335 et.seq.

## CM Agent Services

A **Construction Manager** ("CM") is a firm with substantial experience and knowledge to schedule, plan, estimate, coordinate and manage all phases of a project for the construction, demolition, alteration, repair or reconstruction of any public building, structure or other improvement.

Construction management services are specialized services and are utilized only for specific projects. Generally, construction management services are utilized for projects with budget in excess of $25 million or are of a difficult or complicated nature, as a project in a dense urban environment with significant site limitations or one requiring an expedited fast-tracked completion. Owners must request concurrence of SAO to use construction management.

For many years, public authorities in the state of Ohio were limited to using CM services as their agent under multiple-prime Design-Bid-Build and were prohibited from using CM at Risk services. House Bill 153 passed in June 2011 permitted the use of General Contracting, CM at Risk, and Design-Build as additional project delivery methods.

## Request for Qualifications

On projects on which the Owner desires to retain a CM, at the start of a project, the Owner must provide SAO with written justification to utilize a CM.

Upon agreement to employ a CM, SAO will publish a notice of its intent to employ a CM by placing a Request for Qualifications ("RFQ"), one time in a newspaper of general circulation in the county where the contract is to be performed. The advertisement will include a general description of the Project, a statement of the specific services required, and a description of the minimum qualifications required to be considered for the Project. Depending on the location of the project, the announcement may be placed in other newspapers.

In addition to the newspaper advertisement, SAO will publish the RFQ for CM services on the OAKS Capital Improvements website at http://ci.oaks.ohio.gov in accordance with OAC Section 153:1-5-01. The RFQ may also be published on the State's public notification website when it becomes available. The electronic notification will be distributed to EDGE-certified CM and construction firms, or other members of diversity and inclusion programs required by SAO or applicable law. SAO maintains a list of Minority Business Assistance Centers (MBAC) and Procurement Technical Assistance Centers (PTAC) that have agreed to receive solicitations from State agencies and institutions of higher education. The electronic notification should indicate where a potential CM/R may find a full description of the Project and how to submit a proposal.

## Application Procedures

Applicants for CM services must respond to the RFQ by submitting qualifications responsive to the RFQ and representative of the services necessary to perform Construction Management services for the Project, including, as a minimum:

- A general overview of their firm's organization and structure
- Resumes of the key personnel proposed for the project, identifying their competence and experience in performing the required management services required by the Project. Prospective applicants must identify their key in-house personnel and consultants proposed for the project. Applicants must identify technical training, education and experience of the CM's personnel and consultants who will be assigned to the Project.
- A statement of the availability in terms of workload of the specific personnel, who are proposed to perform the services, and which identifies any associated equipment and facilities to be utilized

- A statement identifying its past performance, as reflected by the evaluations of previous clients with respect to factors such as quality control processes and procedures, scheduling, packaging, cost development and control processes, quality of work and meeting deadlines
- Audited financial statements for the reporting period most recently completed
- Other additional information relevant to the Project

## Short Listing Procedure

SAO and the Owner will concurrently review and score responses to the RFQ. The Owner will submit their scores to SAO who will consolidate the scores and rank the submittals. Based on the ranking, SAO and the Owner will short list no fewer than 3 firms for interviews. Short listed firms will be notified by SAO with the interview details. All non-short listed firms will be notified in writing by SAO.

## Interview and Selection Process

When possible, interviews will be held in the Owner's location. Interview format and time frame will be determined on a project by project basis. SAO and the Owner will rate each CM on the CM Selection Rating Form. CM's will be notified in writing with the results of the evaluation.

## Negotiation

Following the interview process, the top ranked firm will be requested to submit an Implementation Plan and a Fee Proposal. SAO and the Owner will review the Implementation Plan and Fee Proposal and may require revisions, corrections or it may reject the proposal and require the firm to revise and resubmit. The Implementation Plan should include:

- Statement of firm's understanding of the project
- Firms management and project approach
- A preliminary Project Schedule
- Proposed fee and reimbursables
- Project budget summary
- Insurance parameters
- EEO Certificate information
- Staffing Plan
- Compensation Plan outlining:
  - Direct personnel expense and benefits
  - Overhead expenses
  - General Conditions items and costs
  - Reimbursable expenses

## Negotiation Failure

If the CM ranked most qualified fails to successfully negotiate an Agreement, the firm will be informed, in writing, of the termination of negotiations. Negotiations will begin with the firm ranked next most qualified. If negotiations again fail, the same procedure will be followed with each firm, in order of ranking, until a contract is negotiated. If negotiation fails with all selected firms, additional firms from the short listing process will be identified and ranked for interviewing and follow the process above, or the advertisement may be re-announced.

## Agreement

Following successful negotiations, SAO will send copies of the CM recommendation letter to the Owner and CM, and SAO will provide Controlling Board criteria for the Controlling Board Request as required.

| OAKS Capital Improvements Procedure | Traditional Paper-based Procedure |
| --- | --- |
| The CM must submit its Implementation Plan using the the Agreements business process. | If the Project is not administered using OAKS CI, the CM may submit its Implementation Plan using traditional means as directed by the Contracting Authority. |

The Owner will submit requests for release of capital funding from the Office of Budget and Management/ Controlling Board ("CB").

The Owner will initiate a Contract Encumbrance Form following approval of the CB and send it to SAO for signature and the approval of OBM.

Following encumbrance approval by OBM, SAO will attach the copies of the Agreement and certification of funding and forward the packet to the Director of DAS or his/her designee for execution.

## Amendment

Material changes or revisions of the scope of work after execution of the Agreement, through no fault of the CM, may result in an adjustment of the CM's compensation.

Without exceeding the total compensation for the agreement, the allocation of costs may be adjusted upon request of the CM and approval by the Contracting Authority without a formal signed amendment.

| OAKS Capital Improvements Procedure | Traditional Paper-based Procedure |
| --- | --- |
| The CM must submit its request for an Amendment or allocation adjustment using the the Amendments business process. | If the Project is not administered using OAKS CI, the CM may submit its request for an Amendment or allocation adjustment using traditional means as directed by the Contracting Authority. |

# 130 | Consultant Procurement

This Section identifies the availability of Consultants for capital funded construction projects.

## Consultant List

SAO uses the term “Consultant” to denote firms retained through a process which is independent of and less complex than the A/E selection process. SAO maintains a list of Consultants who are available to provide design and other services to any of its customers.

Listed Consultants are utilized for small projects or specialized tasks in which the A/E selection process would be unnecessarily cumbersome. The use of Consultants from the list enables the Consultant, in most cases, to begin work within two weeks of selection, resulting in significant time and administrative cost savings.

When Listed Consultants are utilized, they perform their services under a limited personal services contract with SAO, and therefore can only be utilized on SAO-administered projects.

To utilize a Listed Consultant, the Owner should contact a Segment Manager or Project Manager, who will provide assistance. The Owner should provide a budget and scope of work and an acceptable Program of Requirements to SAO at that time. Professional services may be utilized as the project requires. Consultants are available to perform services in the following disciplines:

- Architecture
- Asbestos and Other Hazardous Material Abatement
- Landscape Architecture
- Structural Engineering
- Mechanical Engineering
- Electrical Engineering
- Geotechnical Testing and Engineering
- Energy Auditing Services
- Energy Conservation Design Services
- Environmental Engineering
- Civil Engineering
- Concrete/Structural/Materials Testing Services
- Partnering Services
- Scheduling/Claims Analysis
- Surveyors
- Construction Management
- Interior Design Services
- Relocation Management Service

# 140 | Contractor Procurement

This Section identifies the documents, which are ordinarily required to be submitted as a Bid, and the documents, forms and submittals involved in creating and processing the Contractor's Contract.

## Procurement Information

Complete descriptions of the process of procurement of A/Es, CMs and Consultants are contained in Sections 110, 120, and 130 respectively in the "Procurement" (100) series sections. However, the description of the process and requirements involved in selecting a Contractor and preparing and issuing the Contractor's Contract are contained in Section 250 – Bid & Award (D-B-B).

The content of this Section is primarily limited to presentation of the *documents* involved in the Contractor procurement process. The Contractor procurement process is presented in this way for the following reasons.

- SAO's filing/coding system was designed to follow the flow of a typical project chronologically. Whereas the A/E, CM and Consultant are typically acquired early in a project, the Contractor is acquired at a much later point in the process, so the filing/coding system was structured to include the bulk of the Contractor procurement information in the number series for the Bid and Award process in Section 250.
- Whereas agreements for professional services have unique content which actually defines the scope of services required, the Contractor's Contract itself is a standard, relatively straightforward document which contains little specific information about the project. The Contract Documents in their entirety contain the unique information which constitutes the Contract. Accordingly, the design of the coding system was based on the premise that the documents associated with the Contractor contract could be separated from the description of the procurement process with little loss of continuity.
- The forms and submittals associated with Contractor procurement constitute a substantial list of documents. This Section provides a convenient place in which to present them in one concise area.

## Contract-Related Documents

The following documents are issued and processed as a component of Contactor procurement. Many of the documents are issued within the Procurement Documents.

- Documents submitted by the Bidder with its Bid:
  - Bid Form: This is the form on which the Bidder submits his Bid and is included in the Contract Documents issued to all Bidders.
  - Bid Security Form: This form, upon which the Bidder submits its Bid and Performance Bond, is included in the Contract Documents issued to all Bidders.
  - Power of Attorney: This form is issued by the Bidder's surety and certifies that the issuer of the bond is authorized to do so on behalf of the surety.
  - Bank check, certified check, or letter of credit: This serves as the Bid Bond if the Bidder does not submit the standard Bid Guaranty and Contract Bond.
- Documents issued by SAO:
  - Bid Rejection Notice: This form is issued by SAO to the Bidder if it is necessary to notify the Bidder that the Bidder's Bid is not being accepted because it was found to be non-responsive or the Bidder was found to be not responsible.
  - Contractor Recommendation Letter: This letter is sent to the Owner and is used as the basis for the Owner's Controlling Board request.
  - Subcontractor and Material Supplier Declaration: This form is used by Contractors to identify and provide information on their Subcontractors and Material Suppliers. It must be submitted to the A/E. After the A/E approves it, the A/E will forward it to SAO. It must be approved by SAO before SAO can process the Contractor's first Contractor Payment Request.

- Payment Release Affidavit: This form is used by the Contractor to certify that all Subcontractors and Material Suppliers on the project have complied with prevailing wage regulations and have been paid in full.
- Payroll Schedule: This form is used by the Contractor and Subcontractors to indicate the dates on which thier payroll periods terminate, as a means to assist SAO in monitoring the Contractor's payroll reports.
- Contractor Payment Request: This form provides pages for cost breakdown information, including the Schedule of Values, and is used for very large contracts where the extra detail sheets are required. It must be completed by the Contractor, and submitted and approved before payments may be made.
- Escrow Agreement Transmittal and Escrow Agreement: These forms are used by the Contractor to indicate the Contractor's consent to the establishment of an escrow account to receive retainage on the Contract.
- Certified Payroll Report: This form is used by the Contractor to provide payroll reports.
- IRS W-9 Form: This form is used by the Contractor to formally notify SAO of its company name and tax I.D. number so that they can be entered into SAO's and State Accounting's databases.
- Electronic Funds Transfer Authorization: This form is used by the Contractor to indicate the Contractor's consent to receive payment by direct deposit.
- Tax Exempt Certificate: This form is issued to the Contractor to documentation that that the materials incorporated into the project are exempt from State sales tax. The Contractor is free to reproduce this form and give a copy it to its suppliers and Subcontractors.
- Notice of Commencement of Public Improvement: This form is issued to the Contractor to identify the Contracting Authority, the Contactors, their sureties, and to provide other information of interest to Subcontractors and Material Suppliers.
- Bid Extension Request Letter: This letter is issued to the Contractor in the event that SAO needs to request that the Contractor extend the period during which the Contractor's bid is valid beyond the 60 days required in the Contract Documents.
- Certification of Contractor's Signature: This form is used by the Contractor to notify SAO which officials have signature authority for the firm.
- Notice of Intent to Award: This form is issued to the Contractor to indicate SAO's intent to award the Contractor a Contact, to request that the Contractor submit requested information, and to enable the Contactor to proceed with preparation of shop drawings and other preliminary work to expedite the performance of the Contract.
- Notice to Proceed: This form is issued to the Contractor to establish the start date for the performance of the Contact.
- Contract Form: This form is the same form as the sample included in the Procurement Documents except that it has been completed to identify the project, the name of the Contactor, the contract amount, and other information, and has been signed by all parties to evidence the existence of an agreement between the Contracting Authority and the Contractor.

- Documents submitted to SAO or others by an apparent low Bidder or Contractor:
  - All documents listed above which are required to be returned to SAO, and
  - Bid Information Escrow Agreement: This information is submitted to the bonded storage facility designated by SAO and may be used as a record of the Bidder's bid calculations in the event of dispute.
  - Performance and Payment Bond Form: This form serves as a Contract Bond. It is only required if the Bidder submitted a bank check, certified check or letter of credit as a Bid Bond in lieu of a standard Bid Guaranty and Contract Bond.
  - Power of Attorney: This form is issued by the Bidder's surety and certifies that the issuer of the bond is authorized to do so on behalf of the surety, and is usually submitted with the Bid. The Power of Attorney is required to be submitted after bidding only if the Bidder submitted a bank

check, certified check or letter of credit as a Bid Bond instead of the standard Bid Guaranty and Contract Bond.

- Certificate of Compliance: This certificate is issued by the Department of Insurance, to certify that the Surety for the Contractor's bond(s) is licensed to do business in Ohio.
- Certificate of Good Standing: This form is issued by the Secretary of State to certify that the Contractor is registered to do business in the State of Ohio. This form is only required from Contractors which are incorporated outside the State of Ohio.
- Ohio Workers' Compensation Certificate: This certificate is issued by the Ohio Bureau of Workers Compensation to indicate that the Contractor is in compliance with its regulations.
- Certificate of Compliance with Affirmative Action Programs: This certificate is issued by DAS, Equal Opportunity Division to indicate that the Contractor is in compliance with its regulations.
- Certificate of Insurance (ACORD form): This form is issued by the Contractor's insurer to document the limits of insurance under which the Contractor is covered.
- Proof of licensing: This form is issued by the Department of Commerce, Industrial Compliance Division, Ohio Contractors Industry Licensing Board (OCILB) pursuant to ORC Chapter 4740, for Contractors performing plumbing, electrical, hydronics, refrigeration; or heating, ventilating and air conditioning (HVAC).
- Declaration Regarding Material Assistance/Non-assistance to a Terrorist Organization: This form, also known as the DMA Form, is issued by the Ohio Department of Public Safety and must be certified by any vendor with annual State contracts exceeding $100,000. Due to the degree of difficulty in ascertaining the value of all contracts held with a vendor, SAO requires all contracts have this form.

- Other Documents:
  - Certification of Contractor Contract Requirements: This certification is issued by the Contracting Authority to the Office of the Attorney General (OAG) to certify that certain legal requirements have been met prior to the OAG's signing of the Contractor's Contract. The OAG has variations of this form available on its website for agencies, universities, and two-year colleges

# 150 | Energy Services Procurement

This Section discusses the procurement of energy services companies ("ESCO") for energy performance contract projects.

## Procurement Information

The State Architect's Office of Energy Services ("SAO-ES") has a long history of administering Energy Performance Contract projects as shown in Figure 095.2. This type of project is conducted in accordance with ORC Chapter 156 and begins with an Energy Specialist conducting an energy audit of an agency's or institution's facility or facilities and review of their utility bills to determine potential opportunities to include in a request for proposal ("RFP").

The RFP is published and establishes the criteria for the project and selection. Energy service companies ("ESCO") submit proposals to SAO-ES and the Energy Specialist and representatives of the agency or institution score the submissions to determine the best value to the State. Once the ESCO and SAO-ES execute an agreement, the ESCO designs the energy conservation measures and engages subcontractors to perform the work.

# 160 | General Contractor Procurement

This Section discusses the procurement of an General Contracting firm in a manner that is very similar to bidding multiple-prime contracts.

## Procurement Information

Complete descriptions of the process of procurement of A/Es, CMs and Consultants are contained in Sections 110, 120, and 130 respectively in the "Procurement" (100) series sections. However, the description of the process and requirements involved in selecting a *General Contractor* and preparing and issuing the Contractor's Contract are contained in Section 250 – Bid & Award (D-B-B).

General contracting means constructing and managing an entire public improvement project, including the plumbing, fire protection, HVAC, and electrical trades, under the award of a single aggregate lump sum contract.

# 170 | CM at Risk Procurement

This Section identifies the requirements and process for the selection and contracting of Construction Management Firms for capital funded construction projects. Construction Management at Risk services are contracted according to the requirements of ORC 9.33 through 9.335 et.seq.

## CM at Risk Services

A **Construction Manager at Risk** ("CM/R") is a firm with substantial discretion and authority to plan, coordinate, manage, direct, and construct all phases of a project for the construction, demolition, alteration, repair, or reconstruction of any public building, structure, or other improvement and who provides the public authority a guaranteed maximum price as determined in ORC Section 9.334.

Construction management services are specialized services and are utilized only for specific projects. Generally, construction management services are utilized for projects with budget in excess of $25 million or are of a difficult or complicated nature, as a project in a dense urban environment with significant site limitations or one requiring an expedited fast-tracked completion. Owners must request concurrence of SAO to use construction management at risk project delivery.

The process for acquiring CM/R services is known as Best Value Selection. This is a two-step process, consisting of a qualifications phase and a request for proposal phase, in which proposals contain both pricing and performance components, and award is based upon a combination of pricing and performance considerations to determine the offer deemed most advantageous and of the greatest value to the State.

## Qualifications Phase

The intent of the Qualifications Phase is to determine a short list of 3 to 5 CM/R firms that will advance to the Request for Proposal Phase for the Project. Before announcing the contract for CM/R services, SAO in consultation with the Owner will establish criteria and the scoring method for evaluating a CM/R firm's qualifications. At a minimum, the following criteria must be included:

- Competence to perform the required CM/R services as indicated by the technical training, education, and experience of the CM/R's personnel, especially the employees who it proposes to staff the Project;
- Ability in terms of workload and availability of qualified personnel, equipment, and facilities to perform the required CM/R services competently and expeditiously, and experience working on similar projects;
- Past performance reflected by the evaluation of previous clients with respect to factors such as control of costs, quality of work, dispute resolution, administration of subcontractors, and meeting deadlines;
- Financial responsibility, including evidence of the capability to provide the performance bond and payment bond in accordance with OAC Section 153:1-4-02(A);
- History of performance meeting the goals of any required diversity and inclusion programs including, but not limited to the EDGE program, and compliance with affirmative action programs; and
- Other qualifications consistent with the scope and needs of the Project including, but not limited to, knowledge of the local area and working relationships with local Subcontractors and Material Suppliers.

Upon agreement to employ a CM/R, SAO will publish a notice of its intent to employ a CM/R by placing a Request for Qualifications ("RFQ"), one time in a newspaper of general circulation in the county where the contract is to be performed in accordance with ORC Section 9.331. The advertisement will include a general description of the Project, a statement of the specific services required, and a description of the minimum qualifications required to be considered for the Project. Depending on the location of the project, the announcement may be placed in other newspapers.

In addition to the newspaper advertisement, SAO will publish the RFQ for CM/R services on the OAKS Capital Improvements website at http://ci.oaks.ohio.gov in accordance with OAC Section 153:1-5-01. The RFQ may also be published on the State's public notification website when it becomes available. The electronic notification will be distributed to EDGE-certified CM and construction firms, or other members of diversity and inclusion programs required by SAO or applicable law. SAO maintains a list of Minority

Business Assistance Centers (MBAC) and Procurement Technical Assistance Centers (PTAC) that have agreed to receive solicitations from State agencies and institutions of higher education. The electronic notification should indicate where a potential CM/R may find a full description of the Project and how to submit a proposal.

The RFQ must include the following:

- The qualifications criteria required for the Project
- The performance and pricing criteria required for the Project and how they will be evaluated and weighted in the request for proposal phase of the selection;
- Any minimum or mandatory technical requirements for the Project.

Records of decisions made at all stages of the selection process will be maintained and made public upon request after the announcement of the selected firm.

Applicants for CM/R services must respond to the RFQ by submitting qualifications responsive to the RFQ and representative of the services necessary to perform CM/R services for the Project, including, as a minimum:

- A general overview of their firm's organization and structure
- Resumes of the key personnel proposed for the project, identifying their competence and experience in performing the required management services required by the Project. Prospective applicants must identify their key in-house personnel and consultants proposed for the project. Applicants must identify technical training, education and experience of the CM/R's personnel and consultants who will be assigned to the Project.
- A statement of the availability in terms of workload of the specific personnel, who are proposed to perform the services, and which identifies any associated equipment and facilities to be utilized
- A statement identifying its past performance, as reflected by the evaluations of previous clients with respect to factors such as quality control processes and procedures, scheduling, packaging, cost development and control processes, quality of work and meeting deadlines
- Audited financial statements for the reporting period most recently completed
- Other additional information relevant to the Project

Evaluation committee: SAO will convene an evaluation committee consisting of SAO and the Owner's staff. If an A/E has been selected for the Project, employees of the A/E may support the evaluation process and advise on technical and pricing issues, but will not be permitted to score the responses. SAO and the Owner will concurrently review and score responses to the RFQ. The Owner will submit their scores to SAO's selection coordinator, who will consolidate the scores and rank the submittals. Based on the ranking, SAO and the Owner will short list no fewer than 3 CM/R firms to receive a Request for Proposal ("RFP"). Short-listed firms will be notified by SAO with the RFP and interview details. All firms that are not short listed will be notified in writing by SAO.

## Request for Proposal Phase

SAO will provide each selected firm with a description of the project, including a statement of available design detail, a description of how the guaranteed maximum price for the project shall be determined, including the estimated level of design detail upon which the guaranteed maximum price shall be based, the form of the CM contract, and the RFP.

Pricing criteria: In preparation for the pricing component of the RFP, SAO in consultation with the Owner, will establish pricing criteria, which shall contain the following components:

- A fee proposal divided into a preconstruction fee, a construction fee, and the portion of the construction fee to be at risk in a guaranteed maximum price;
- A statement of the general conditions and contingency requirements; and

- If applicable at the time proposals are requested, a guaranteed maximum price proposal.

Performance criteria: In preparation for the technical component of the RFP, SAO in consultation with the Owner, will establish performance criteria, which may include evaluation of the CM/R's proposed:

- Schedule;
- Approach to the Work, including any anticipated self-performed Work;
- Sequencing of the Work;
- Performance history;
- Approaches to performance specifications when used;
- Plan for anticipated procurement difficulties;
- Plan for meeting the published EDGE participation goals for the Project, or other diversity and inclusion goals required by the Owner or applicable law; and
- Plan for additional considerations, which may include technical approach, quality of its proposed list of key personnel for the Project, and its management plan.

Request for pricing and technical proposal: Once the evaluation committee has determined the short-listed firms, SAO will release the request for pricing and technical proposals ("RFP") to the short-listed CM/R firms. The RFP will include the following:

- A description of the Project, including a statement of available design detail;
- A description of the required preconstruction services;
- The form of CM/R contract;
- A description of how the guaranteed maximum price for the Project will be determined, including the estimated level of design detail upon which the guaranteed maximum price will be based, if not otherwise set forth in the CM/R contract; and
- A request for a pricing proposal, including the estimated cost of construction for the Project, for the purpose of calculating the fees proposed by a CM/R.

Pricing proposal: A proposer for CM/R services must include the following in its pricing proposal:

- A list of key personnel for the Project;
- A statement of the general conditions and contingency requirements; and
- A fee proposal divided into a preconstruction fee, a construction fee, and the portion of the construction fee to be at risk in a guaranteed maximum price.

Technical proposal: A proposer for CM/R services must include the following in its technical proposal:

- A Project-specific plan;
- The identity of its proposed team;
- The Project-specific approach to deliver the expected services; and
- The performance criteria components identified above.

Pre-proposal submission meetings: Prior to the submission of pricing and technical proposals, SAO and the Owner may meet with each short-listed firm individually to permit the firm to ask questions regarding the proposal requirements.

## Determination of Best Value

The evaluation committee will interview each short-listed firm that submits a pricing and technical proposal. The purpose of the interview is to allow each firm an opportunity to clarify and respond to questions related to its proposal. SAO may provide a list of questions to the firms prior to the interview. The interview will not be scored or included in the scoring of the proposal. If SAO finds a major discrepancy or irregularity in a pricing proposal, SAO will notify the affected firm in writing to address the concerns at the interview and require that the firm provide a response in writing no later than the date of the interview.

The committee will evaluate each pricing and technical proposal utilizing the established pricing and performance criteria. The committee will evaluate the pricing criteria separately from the performance criteria, then combine the evaluations to reach a final evaluation. The committee will rank the firms based on the final evaluation of each proposal to determine the best value.

## Negotiation

Once the committee has completed ranking the CM/R firms, SAO will announce the firm determined to be the be the best value and enter into negotiations for a CM/R contract. Contract negotiations shall be directed toward:

- Ensuring that SAO and the firm mutually understand the essential requirements involved in providing the required CM/R services, including the provisions for the use of contingency funds and the possible distribution of savings in the final costs of the project;
- Ensuring that the firm will be able to provide the necessary personnel, equipment, and facilities to perform the CM/R services within the time required by the contract;
- Agreeing upon a procedure and schedule for determining a guaranteed maximum price using an open book pricing method that shall represent the total maximum amount to be paid by the Owner to the CM/R for the project and that shall include the costs of all the work, the cost of its general conditions, the contingency, and the fee payable to the CM/R.

If the CM/R ranked the best value fails to successfully negotiate a contract, the firm will be informed in writing of termination of negotiations. Negotiations may begin with the firm ranked next best value. If negotiations again fail, the same procedure may be followed with each firm, in order of ranking, until a contract is negotiated. If negotiation fails with all selected firms, additional firms from the short listing process may be identified and ranked for interviewing and follow the process above, or the contract may be re-announced.

## Agreement

Following successful negotiations, SAO will send copies of the CM/R recommendation letter to the Owner and CM/R, and SAO will provide Controlling Board criteria for the Controlling Board Request as required.

| OAKS Capital Improvements Procedure | Traditional Paper-based Procedure |
|---|---|
| The CM/R must prepare and submit the terms of its agreement using the the Agreements business process. | If the Project is not administered using OAKS CI, the CM may submit the terms of its agreement using traditional means as directed by the Contracting Authority. |

The Owner will submit requests for release of capital funding from the Office of Budget and Management/ Controlling Board ("CB").

The Owner will initiate a Contract Encumbrance Form following approval of the CB and send it to SAO for signature and the approval of OBM.

Following encumbrance approval by OBM, SAO will attach the copies of the agreement and certification of funding and forward the packet to the Director of DAS or his/her designee for execution.

## Amendment

Material changes or revisions of the scope of work after execution of the agreement, through no fault of the CM/R, may result in an adjustment of the guaranteed maximum price.

Without exceeding the guaranteed maximum price, the allocation of costs may be adjusted upon request of the CM/R and approval by the Contracting Authority without a formal signed amendment.

### OAKS Capital Improvements Procedure

The CM/R must submit its request for an Amendment or allocation adjustment using the the Amendments business process.

### Traditional Paper-based Procedure

If the Project is not administered using OAKS CI, the CM/R may submit its request for an Amendment or allocation adjustment using traditional means as directed by the Contracting Authority.

# 180 | Design-Build Procurement

This Section identifies the requirements and process for the selection and contracting of Design-Build Firms for capital funded construction projects. Design-Build services are contracted according to the requirements of ORC 153.65 through 153.73 et.seq.

Refer to Section 110 for the requirements for selecting a Criteria Architect/Engineer.

## Design-Build Services

A **Design-Builder** ("DB") is a firm or team qualified to provide services that form an integrated delivery system for which a person is responsible for both the design and construction, demolition, alteration, repair, or reconstruction of a public improvement.

Design-build services are specialized services and are utilized only for specific projects. Generally, design-build services are utilized for projects with budget in excess of $5 million or would benefit from having a single contract for improved coordination between design and construction. Any type of project may be a candidate for D-B; however, these projects are usually those with reasonably predictable project requirements that the Owner is able to describe clearly and completely. Owners must request concurrence of SAO to use Design-Build project delivery.

The process for acquiring DB services is known as Best Value Selection. This is a two-step process, consisting of a qualifications phase and a request for proposal phase, in which proposals contain both pricing and performance components, and award is based upon a combination of pricing and performance considerations to determine the offer deemed most advantageous and of the greatest value to the State.

## Qualifications Phase

The intent of the Qualifications Phase is to determine a short list of 3 to 5 DB firms that will advance to the Request for Proposal Phase for the Project. Before announcing the contract for DB services, SAO in consultation with the Owner will establish criteria and the scoring method for evaluating a DB firm's qualifications. At a minimum, the following criteria must be included:

- Competence to perform the required DB services as indicated by the technical training, education, and experience of the DB's personnel, especially the employees who it proposes to staff the Project, including the proposed A/E of record;
- Ability in terms of workload and availability of qualified personnel, equipment, and facilities to perform the required DB services competently and expeditiously, and experience working on similar projects;
- Past performance reflected by the evaluation of previous clients with respect to factors such as control of costs, quality of work, dispute resolution, administration of subcontractors, and meeting deadlines, and the past performance of the proposed A/E of record;
- Compliance with ORC Sections 4703.182, 4703.332, and 4733.16, including the use of a licensed design professional for all design services;
- Financial responsibility, including evidence of the capability to provide the performance bond and payment bond in accordance with OAC Section 153:1-4-02(A);
- History of performance meeting the goals of any required diversity and inclusion programs including, but not limited to the EDGE program, and compliance with affirmative action programs; and
- Other qualifications consistent with the scope and needs of the Project including, but not limited to, knowledge of the local area and working relationships with local Subcontractors and Material Suppliers.

Upon agreement to employ a DB, SAO will publish the RFQ for DB services on the OAKS Capital Improvements website at http://ci.oaks.ohio.gov in accordance with OAC Section 153:1-1-01. The RFQ may also be published on the State's public notification website when it becomes available. The electronic notification will be distributed to EDGE-certified CM and construction firms, or other members of diversity and inclusion programs required by SAO or applicable law. SAO maintains a list of Minority Business Assistance Centers (MBAC) and Procurement Technical Assistance Centers (PTAC) that have agreed to receive

solicitations from State agencies and institutions of higher education. The electronic notification should indicate where a potential DB may find a full description of the Project and how to submit a proposal.

The RFQ must include the following:

- The qualifications criteria required for the Project
- The performance and pricing criteria required for the Project and how they will be evaluated and weighted in the request for proposal phase of the selection;
- Any minimum or mandatory technical requirements for the Project.

Records of decisions made at all stages of the selection process will be maintained and made public upon request after the announcement of the selected firm.

Applicants for DB services must respond to the RFQ by submitting qualifications responsive to the RFQ and representative of the services necessary to perform DB services for the Project, including, as a minimum:

- A general overview of their firm's organization and structure
- Resumes of the key personnel proposed for the project, identifying their competence and experience in performing the required design and management services required by the Project. Prospective applicants must identify their key in-house personnel and consultants proposed for the project. Applicants must identify technical training, education and experience of the DB's personnel and consultants who will be assigned to the Project.
- A statement of the availability in terms of workload of the specific personnel, who are proposed to perform the services, and which identifies any associated equipment and facilities to be utilized
- A statement identifying its past performance, as reflected by the evaluations of previous clients with respect to factors such as quality control processes and procedures, scheduling, packaging, cost development and control processes, quality of work and meeting deadlines
- Audited financial statements for the reporting period most recently completed
- Other additional information relevant to the Project

Evaluation committee: SAO will convene an evaluation committee consisting of SAO and the Owner's staff. If a Criteria A/E has been selected for the Project, the Criteria A/E may support the evaluation process and advise on technical and pricing issues, but will not be permitted to score the responses. SAO and the Owner will concurrently review and score responses to the RFQ. The Owner will submit their scores to SAO's selection coordinator, who will consolidate the scores and rank the submittals. Based on the ranking, SAO and the Owner will short list no fewer than 3 DB firms to receive a Request for Proposal ("RFP"). Short-listed firms will be notified by SAO with the RFP and interview details. All firms that are not short listed will be notified in writing by SAO.

## Request for Proposal Phase

SAO will provide each selected firm with a description of the project, including a statement of available design detail, a description of how the guaranteed maximum price for the project shall be determined, including the estimated level of design detail upon which the guaranteed maximum price shall be based, the form of the CM contract, and the RFP.

Pricing criteria: In preparation for the pricing component of the RFP, SAO in consultation with the Owner, will establish pricing criteria, which shall contain the following components:

- A fee proposal divided into a design services fee, a preconstruction fee, a DB services fee, and the portion of the DB services fee to be at risk in a guaranteed maximum price;
- A statement of the general conditions and contingency requirements; and
- If applicable at the time proposals are requested, a guaranteed maximum price proposal.

Performance criteria: In preparation for the technical component of the RFP, SAO in consultation with the Owner, will establish performance criteria, which may include evaluation of the DB's proposed:

- Schedule;
- Approach to the Work, including any anticipated self-performed Work;
- Sequencing of the Work;
- Performance history;
- Approaches to performance specifications when used;
- Plan for anticipated procurement difficulties;
- Plan for meeting the published EDGE participation goals for the Project, or other diversity and inclusion goals required by the Owner or applicable law; and
- Plan for additional considerations, which may include technical approach, quality of its proposed list of key personnel for the Project, and its management plan.

Request for pricing and technical proposal: Once the evaluation committee has determined the short-listed firms, SAO will release the request for pricing and technical proposals ("RFP") to the short-listed DB firms. The RFP will include the following:

- A description of the Project and project delivery,
- The design criteria produced by the Criteria A/E;
- A description of the required preconstruction services;
- A description of the proposed design services;
- The form of DB services contract;
- A description of how the guaranteed maximum price for the Project will be determined, including the estimated level of design detail upon which the guaranteed maximum price will be based, if not otherwise set forth in the DB contract; and
- A request for a pricing proposal, including the estimated cost of construction for the Project, for the purpose of calculating the fees proposed by a DB.

Pricing proposal: A proposer for DB services must include the following in its pricing proposal:

- A list of key personnel for the Project;
- A statement of the general conditions and contingency requirements;
- A preliminary Project schedule; and
- A fee proposal divided into a design fee, a preconstruction fee, a construction fee, and the portion of the construction fee to be at risk in a guaranteed maximum price.

Technical proposal: A proposer for DB services must include the following in its technical proposal:

- A Project-specific plan;
- The identity of its proposed team;
- The Project-specific approach to deliver the expected services; and
- The performance criteria components identified above.

Pre-proposal submission meetings: Prior to the submission of pricing and technical proposals, SAO and the Owner may meet with each short-listed firm individually to permit the firm to ask questions regarding the proposal requirements.

## Determination of Best Value

The evaluation committee will interview each short-listed firm that submits a pricing and technical proposal. The purpose of the interview is to allow each firm an opportunity to clarify and respond to questions related to its proposal. SAO may provide a list of questions to the firms prior to the interview. The interview will not be scored or included in the scoring of the proposal. If SAO finds a major discrepancy or irregularity in a pricing proposal, SAO will notify the affected firm in writing to address the concerns at the interview and require that the firm provide a response in writing no later than the date of the interview.

The committee will evaluate each pricing and technical proposal utilizing the established pricing and performance criteria. The committee will evaluate the pricing criteria separately from the performance criteria, then combine the evaluations to reach a final evaluation. The committee will rank the firms based on the final evaluation of each proposal to determine the best value.

## Negotiation

Once the committee has completed ranking the DB firms, SAO will announce the firm determined to be the be the best value and enter into negotiations for a DB contract. Contract negotiations shall be directed toward:

- Ensuring that SAO and the firm mutually understand the essential requirements involved in providing the required DB services, including the provisions for the use of contingency funds and the possible distribution of savings in the final costs of the project;
- Ensuring that the firm will be able to provide the necessary personnel, equipment, and facilities to perform the DB services within the time required by the contract;
- Agreeing upon a procedure and schedule for determining a guaranteed maximum price using an open book pricing method that shall represent the total maximum amount to be paid by the Owner to the DB for the project and that shall include the costs of all the work, the cost of its general conditions, the contingency, and the fee payable to the DB.

If the DB ranked the best value fails to successfully negotiate a contract, the firm will be informed in writing of termination of negotiations. Negotiations may begin with the firm ranked next best value. If negotiations again fail, the same procedure may be followed with each firm, in order of ranking, until a contract is negotiated. If negotiation fails with all selected firms, additional firms from the short listing process may be identified and ranked for interviewing and follow the process above, or the contract may be re-announced.

## Stipend

The Owner may provide a stipend for a responsive pricing and technical proposal received for the non-selected short-listed firms. The decision to award a stipend will be determined by the Owner in consultation with SAO.

The amount of the stipend will be determined by SAO in consultation with the Owner and may be a lump sum amount or a percentage based on the level of effort anticipated to be expended to meet the proposal requirements.

After the award of the DB contract and submission of complete and acceptable documentation of all actuial costs of preparing the response, the remaining eligible DB firms may receive payment up to the amount specified in the paragraph above, or the DB firm's actual costs of preparing the proposal, whichever is less.

## Agreement

Following successful negotiations, SAO will send copies of the DB recommendation letter to the Owner and DB, and SAO will provide Controlling Board criteria for the Controlling Board Request as required.

**OAKS Capital Improvements Procedure**

The DB must prepare and submit the terms of its agreement using the the Agreements business process.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the DB may submit the terms of its agreement using traditional means as directed by the Contracting Authority.

The Owner will submit requests for release of capital funding from the Office of Budget and Management/ Controlling Board ("CB").

The Owner will initiate a Contract Encumbrance Form following approval of the CB and send it to SAO for signature and the approval of OBM.

Following encumbrance approval by OBM, SAO will attach the copies of the agreement and certification of funding and forward the packet to the Director of DAS or his/her designee for execution.

## Amendment

Material changes or revisions of the scope of work after execution of the agreement, through no fault of the DB, may result in an adjustment of the DB's compensation.

Without exceeding the total compensation for the agreement, the allocation of costs may be adjusted upon request of the DB and approval by the Contracting Authority without a formal signed amendment.

**OAKS Capital Improvements Procedure**

The DB must submit its request for an Amendment or allocation adjustment using the the Amendments business process.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the DB may submit its request for an Amendment or allocation adjustment using traditional means as directed by the Contracting Authority.

# 190 | Subcontractor Procurement

This Section identifies the requirements and process for the prequalification and selection of Subcontractors for CM at Risk and Design-Build projects. In this Section, the term Subcontractor includes Material Suppliers.

## Applicability of Bidding Requirements

The following Subcontractor procurement requirements apply to all Work during the Construction Stage (including the CM's procurement of long-lead-time items before the Date of Commencement) except:

- The CM/R's or DB's management and administration of the entire Work, including the administration of subcontracts;
- The Work identified in the General Conditions Costs Description attached to the Agreement;
- Non-specialty Work valued in the aggregate for the Project at less than the below threshold if the CM obtains SAO's written approval before the commencement of that Work; and

| Contract Sum | Bid threshold for non-specialty Work |
|---|---|
| Less than $5,000,000 | $50,000 |
| From $5,000,000.01 to $10,000,000 | $100,000 |
| From $10,000,000.01 to $50,000,000 | $150,000 |
| More than $50,000,000 | $200,000 |

- The balance of the Work under a subcontract where the CM/R or DB terminated the subcontract for cause and the CM/R or DB obtains SAO's written approval before the commencement of that portion of the subcontracted Work.

## Design-Assist Firms

If the CM/R or DB engages a "design-assist firm" as described under ORC Section 153.50, that entity (1) will be considered a consultant under the contract during the Preconstruction Stage and (2) before that entity performs any Work during the Construction Stage, it shall be subject to all applicable law and contract provisions concerning the prequalification, bidding, selection, and engagement of subcontractors and shall enter into a subcontract with the CM/R or DB. Subject to the foregoing requirements, the CM/R or DB may engage a design-assist firm at any point in the Project that is appropriate or necessary to facilitate the Project's design and construction.

- Example: The CM/R or DB may engage a design-assist firm as a consultant immediately after the CM/R or DB enters into the contract or at another appropriate time. That design-assist firm may thereafter (1) participate in the development of one or more bid packages, (2) proceed through the below-described bidder prequalification process, and (3) if prequalified, submit a bid for that Work along with other bidders to ultimately become a subcontractor as also described below. Under this example, the CM/R or DB would not be obligated to engage the design-assist firm to provide the associated Work as a subcontractor, but could under applicable law award the subcontract to the design-assist firm even if the design-assist firm does not submit the lowest bid.
- Example: Immediately after the CM/R or DB enters into the contract or at another appropriate time, the CM/R or DB may prepare a bid package which includes both design-assist services and construction services. Under this example, design-assist firms would be prequalified and submit bids for that bid package.
- The above examples are intended to illustrate sequences that may be followed when engaging a design-assist firm but are not intended (1) to illustrate all permitted sequences or (2) to indicate that the CM/R or DB would be prohibited from self-performing design-assist services or associated Work.
- Under both of the above examples and all other cases, in order to facilitate compensation of the design-assist firm and the establishment of the contract sum through the GMP Amendment, the selected design-assist firm shall be a consultant under the contract during the Preconstruction Stage and a subcontractor during the Construction Stage.

## Prequalification Criteria

A **Construction Manager at Risk** ("CM/R") or **Design-Builder** ("DB") is required to establish criteria for prequalification of prospective bidders on subcontracts. The prequalification criteria must be developed in accordance with standards established by OAC Section 153:1-7-01 and at a minimum must:

- Include the experience of the bidder, the bidder's financial condition, conduct and performance on previous contracts, facilities, management skills, and ability to execute the associated subcontract properly;
- Further the published EDGE participation goals for the Project, or other diversity and inclusion goals required by the Owner or applicable law;
- Require a prospective Bidder to submit a valid certificate of compliance issued by the EOC under ORC Section 9.47 to establish it has not been found in violation any affirmative action program during the last 5 years preceding the date of the prequalification application; and
- Require a prospective bidder to submit proof of current licenses to perform the associated Work as required by SAO or applicable law.

SAO may require the CM/R or DB to include additional criteria for specific subcontracts that are consistent with the scope and needs of the Project including, but not limited to, knowledge of the local area and working relationships with local Material Suppliers.

The prequalification criteria established by the CM/R or DB are subject to the approval of SAO, who may approve or reject the criteria, in whole or in part. SAO will also use the approved prequalification criteria for analysis of any bidder's responsibility to perform a subcontract.

The same criteria established for a subcontract, as approved by SAO, shall apply to any self-performed Work by the CM/R or DB, if such self-performed Work is allowed by SAO.

## Prequalification Process

The CM/R or DB must complete the prequalification process 10 days before it intends to solicit bids for that subcontract, unless otherwise agreed to by SAO.

During the prequalification process, the CM/R or DB must:

- Develop bidder's interest in the Projects; and
- Invite at least 3 prospective bidders to submit qualifications for evaluation.
  - SAO may require the CM/R or DB to invite more than 3 prospective bidders, including any prospective bidders identified by the Owner or SAO, if any.

To reach prospective bidders, the CM/R or DB may place a notice on the OAKS Capital Improvements website at http://ci.oaks.ohio.gov or the Owner's or other websites such as approporiate trade associations.

Unless SAO agrees in writing, the CM/R or DB will evaluate the qualifications of each solicited prospective bidder that timely submits its qualifications, and identify at least 3 prospective bidders that are qualified to bid on the Subcontract. The CM/R or DB will submit the names and qualifications of the qualified prospective bidders to SAO. The CM/R or DB may submit the names of fewer than 3 qualified prospective bidders if it submits satisfactory documentation to SAO that fewer than 3 qualified prospective bidders are available. SAO, the Owner, the A/E, and the CM/R or DB may meet to review the qualifications of the prospective bidders on the list the CM/R or DB submits to SAO.

SAO will verify that the prospective bidders, on the list the CM/R or DB submits, meet the prequalification criteria. SAO may eliminate any prospective bidder it determines is not qualified and notify the CM/R or DB. The CM/R or DB must promptly notify the prospective bidder in writing of SAO's decision to eliminate the bidder. If the CM/R or DB receives a written objection from the eliminated prospective bidder within 5 days after the eliminated prospective bidder receives notice of SAO's decision, the CM/R or DB must promptly

deliver the eliminated prospective bidder's written objection to SAO. SAO may respond to the objection in writing through the CM/R or DB.

## Subcontractor Bidding Process

The CM/R or DB must create a bid package for each subcontract and solicit bids from the qualified prospective bidders identified for that bid package in accordance with the constructions schedule.

During the subcontract bidding process, the CM/R or DB will:

- Issue bidding documents to prospective bidders;
- Conduct prebid conferences with prospective bidders;
- As appropriate, forward questions from bidders to the A/E (A/E of record in a D-B project)
- As appropriate, assist the A/E with the preparation of addenda for issuance to the CM/R or DB; and
- Receive all bids, prepare bid analyses, conduct pre-award conferences, and report that information to the Owner and the A/E.

At the completion of the bidding process for each subcontract and no later than 15 days before the Work is scheduled to begin under that subcontract, the CM/R or DB and SAO will meet to review the bids of the qualified prospective bidders for that subcontract and to determine to which bidder the CM/R or DB will award the subcontract. During the review meeting, the CM/R or DB will identify the bidder to whom the CM/R or DB proposes to award the subcontract. SAO may reject the proposed bidder as non-responsible.

- If SAO does not reject the proposed bidder as non-responsible, the CM/R or DB must enter into the subcontract with that bidder.
- If SAO rejects the proposed bidder as non-responsible, the CM/R or DB must identify another bidder to whom the CM/R or DB proposes to award the subcontract. The CM/R or DB will not be entitled to any adjustment of the Contract Sum, the Contract Times, or both on account of SAO's rejection of a proposed bidder as non-responsible.
- Each bidder to whom the CM/R or DB proposes to award the subcontract shall be qualified to perform the applicable portion of the Work and have submitted a bid conforming to the requirements of the Contract Documents without reservations or exceptions.

The CM/R or DB will prepare all subcontracts. All subcontracts must at a minimum incorporate the General Conditions of the CM/R or DB contract and shall be on the subcontract form prescribed in OAC Section 153:1-03-02. All subcontracts will be between CM/R or DB and the respective subcontractors.

The CM/R or DB may not replace any subcontractor after execution of the subcontract without the prior written approval of SAO.

## Self-Performed Work

Neither the CM/R or DB, nor an entity affiliated with the CM/R or DB, shall directly perform with its own employees or other resources any Work on the Project during the Construction Stage except:

- Work not subject to bidding as described under the Applicability of Bidding Requirements paragraph above; or
- As otherwise provided in this Section.

If the CM or a CM Affiliated Entity intends to Bid on any Work subject to Bidding:

- During the preparation of the Subcontracting Plan, the CM/R or DB shall notify SAO that the CM/R or DB, or an entity affiliated with the CM/R or DB, may bid on a portion of the Work. SAO, the CM/R or DB, and the A/E (Criteria A/E in a D-B project) shall review that Work in detail and agree on its scope before the CM/R or DB finalizes the Subcontracting Plan.

- At least 14 days before issuing bidding documents for the scope of Work the CM/R or DB, or an entity affiliated with the CM/R or DB, intends to Bid on, the CM/R or DB must, in writing, seek SAO's permission for the CM/R or DB, or an entity affiliated with the CM/R or DB, on that particular Work.

If SAO permits the CM/R or DB, or an entity affiliated with the CM/R or DB, to submit a bid:

- The CM/R or DB, or an entity affiliated with the CM/R or DB, (as applicable) shall meet in all respects the bidder prequalification criteria approved by SAO.
- The bidding documents shall specifically state that the CM/R or DB, or an entity affiliated with the CM/R or DB, may submit a bid for that Work.
- The CM/R or DB must ensure strict separation of the personnel of the CM/R or DB, or an entity affiliated with the CM/R or DB, involved with bidding on the Work from the personnel of the CM/R or DB, or an entity affiliated with the CM/R or DB, otherwise involved in the Project. That separation includes, without limitation, prohibiting any communication (other than communication that is permitted by all bidders) between those two groups before SAO opens the associated bids.
- The CM/R or DB, or an entity affiliated with the CM/R or DB, (as applicable) will be subject to all requirements applicable to the other bidders for that Work.
- The CM/R or DB, or an entity affiliated with the CM/R or DB, (as applicable) and all other bidders for that Work shall submit their sealed bids to SAO no less than 4 hours before the deadline for bidders' submission of bids for that scope of Work.

If the CM/R or DB, or an entity affiliated with the CM/R or DB, (as applicable) submits a bid as described and less than 2 other bidders submit bids for the same Work, SAO may require that Work to be rebid.

If SAO awards to the CM/R or DB, or an entity affiliated with the CM/R or DB, the right to self-perform a particular scope of Work, the CM/R or DB may not use Contingency for that Work. The foregoing prohibition applies specifically but not exclusively to using Contingency to make up for the CM/R's or DB's underestimation of that scope of Work in the detailed estimate of the Cost of the Work.

# 200 | Design

The Sections in this Group describe the design process and related issues. Penalties of non-compliance may potentially result in litigation and/or losing authority to locally administer projects. These Sections are based on the Design-Bid-Build project delivery method and may be used with appropriate variations in the CM at Risk and Design-Build project delivery. The Sections consist of the following:


200 | General Design Requirements

205 | Professional Services Payment

210 | Program Verification

220 | Schematic Design

230 | Design Development

240 | Construction Documents

250 | Bid & Award

# 200 | General Design Requirements

The Design Stage is the portion of the process in which the project is transformed from ideas, concepts, and broad-brush thoughts to specific materials, details, and contractual instructions to implement the competitive bidding and construction of physical facilities. Design is subdivided into four Stages: Program Verification, Schematic Design, Design Development, and Construction Documents. This Section contains requirements which apply to all four stages of Design.

## General Design Responsibilities

Design activities make up a significant portion of the A/E's services for the project. Design represents the portion of the project in which the A/E transforms the Owner's functional priorities and goals into the specific detailed instructions on which Contractors base their bids and construct facilities. The development of the documents requires an interactive process between the Owner and the design professionals.

The A/E is not only the lead professional who interprets these abstract concepts, but also the facilitator responsible to seek and obtain all information relevant to the project. The A/E must also present written and graphic information to record, analyze, interpret, synthesize and illustrate the Owner's conceptual ideas in physical form. The design process is organized into several Stages to give the Owner several opportunities to review and approve the A/E's work as it progresses, to verify that the cost and physical form meet expectations, and to verify that the conceptual information provided by the Owner has not been misinterpreted by the A/E.

## Procedures

The following guidelines must be utilized in the development of each of the Stages of Design:

- The A/E must follow SAO policy and procedures to develop the Contract Documents for all capital construction projects.
- The Owner will indicate its acceptance in writing of each of the Stages of Design by completion of the Design Service Acceptance Form and sending a copy to SAO and the A/E. This approval will authorize the A/E to proceed to the next Stage, or Bidding if Design is completed. Agencies may modify the form to conform to names and location of the Local Administration Contracting Authority.
- SAO will ensure that the A/E is using the most current edition of the "State of Ohio Standard Requirements for Public Facility Construction" as the design is developed.
- SAO will ensure that a Constructability Review is performed prior to the final acceptance of the Construction Documents Stage.
- Throughout the Design stages the A/E must provide a Meeting Record that documents the participants, the meeting objective(s), the significant points of the meeting, and the action required prior to the next meeting. Meeting Record responsibilities start with the Organizational Meeting.
- The A/E must perform all stages of Design unless SAO combines or deletes specific stages in the A/E's agreement.
- At the end of each stage of Design, the A/E must submit a Statement of Probable Construction Cost, an update of the entire Project Budget, an update of the approved POR, an update of the project schedule, along with backup information for all above, plus the specific drawings and specification information required. The Owner and SAO will review the submittal and provide to the A/E all review comments no later than 21 days after the A/E's submittal of documents. The A/E must prepare a written response to the Owner's, SAO's, and any Constructability Consultant's comments.
- The A/E must prepare all documents to conform to all State of Ohio Statues, Laws and Acts in effect during the "Bid Period" of the project, or for multiple phase projects, for the Bid Period of each phase.
- The A/E must submit documents and obtain a Certificate of Plan Approval from the appropriate building authority prior to bidding. It is the A/E's responsibility to monitor all follow-up plan review submittals to ensure that there is a "final plan approval" of the documents prior to bidding.

- It is the A/E's responsibility to seek from the Owner all Owner-originated design criteria or design standards required to be used on the project.
- The A/E may benefit from input from the Constructability Consultant as early as the Program Verification or Schematic Design stages, particularly if complicated scheduling issues are involved. On large projects, a second opinion from the Constructability Consultant at Schematic Design and Design Development stages may be useful before the A/E makes any major design decisions. The A/E should consult with SAO as to at what point in the Project the Constructability Consultant should begin to be involved.

## Life Cycle Cost Analysis

Unless it is specifically excluded in Exhibit #1 - Scope of Architect/Engineer Agreement, the A/E must conduct a preliminary Life Cycle Cost Analysis (LCCA) during the Schematic Design Stage for every public improvement project. The analysis must actually be a number of independent studies of various building elements, and must take into account the following:

- Initial cost of construction ('first cost")
- Maintenance cost
- Operational costs
- Management cost
- Expected useful life
- Replacement cost

The Life Cycle Cost Analysis addresses two distinct aspects of the design: Energy Consumption, and Performance of Other Building Components and Systems.

### Energy Consumption:

- Pursuant to ORC 153.01(F) and 123.011, the A/E must conduct a Life Cycle Cost Analysis ("LCCA") for energy consuming systems and equipment. The LCCA will be a primary consideration in the selection of the final design.
- The benchmark for energy consumption is the version of ASHRAE/IES 90.1 referenced in the Ohio Building Code currently in effect.
- The purpose of the LCCA is to define the energy consumption for the facility by determining the reasonable expected energy cost, including the required investment, maintenance and replacement cost adjusted to present values over the life of the facility. The LCCA is a method of evaluating energy conservation ideas by comparing the present and future cost of each proposal using a discounting technique to adjust future cost to present values.
- The analysis must include the cost for illumination, power, heating, cooling, ventilation and control of energy consuming equipment, and may include consideration of architectural features such as building orientation and fenestration. SAO will endeavor to see that energy conservation goals are observed in the design, construction, renovation and utilization of State facilities in a manner that will minimize the consumption of energy used in the operation and maintenance of such facilities.
- The A/E can receive a waiver of the LCCA for projects in which the construction or renovation area is less than 5,000 square feet. A waiver can also be requested for renovation projects greater than 5,000 square feet, if the renovation is not intended to substantially change the energy consumption of the building. A waiver may also be obtained for leased space less than 20,000 square feet. However, should the scope of the project change, or the conditions for the waiver be altered, a LCCA may be required.

Performance of Other Building Components and Systems:

- The A/E must identify other building materials, components and systems which merit study and perform Life Cycle Cost Analyses on each to evaluate alternative designs for cost-effectiveness over the life of the material, component or system. This portion of the analysis is often referred to as "value engineering". The A/E must use professional judgment and experience to determine how many and which components or systems to study. The A/E must select components and systems for study which have characteristics which include, without limitation, the following:
  - Have benefited from analysis in the A/E's previous experience
  - Are high-cost items, where the benefit might be substantial
  - May have a positive synergistic impact on other components or systems
  - Involve high maintenance or operating cost
  - Have a relatively short expected useful life

Final Life Cycle Cost Analysis:

- The A/E must also conduct a final LCCA in the Design Development Stage, for both HVAC systems and equipment, as well as other building components and systems to confirm that the assumptions, choices and criteria used in the LCCA performed in the Schematic Stage are still valid.

## Codes and Regulations

The A/E is responsible for designing the project to meet or exceed the requirements of all Local, State and Federal codes, statutes, ordinances and regulations pertaining to the construction, renovation and occupancy of buildings.

## Document Content

The A/E must utilize SAO policy and procedures to develop the bidding documents for all capital construction projects. The following information is provided to guide the A/E in the preparation of the required deliverables.

Meeting Minutes: The A/E is responsible to record and issue all conference and meeting minutes of meetings attended by the A/E.

Schedules: During the Design Stage the A/E must produce, periodically update and submit three types of schedules, each of which serves different objectives. The three types of schedules are:

Project Schedule:

- The Project Schedule is developed at the onset of the project as a "broad brush" tool by the Owner to establish a start and anticipated finish point for the life of the project. Once the A/E is participating on the project, the A/E refines the schedule elements into events and milestones based on the Owner's definition of the project's priorities and goals.
- The A/E must update the Project Schedule at each of the four stages of Design. The Project Schedule will become more definitive as the A/E refines and develops the design and the documents.

Design Schedule:

- The Design Schedule is actually a small portion of the Project Schedule. It is the A/E's work plan and shows the anticipated scheduled submittal dates for each of the event milestones during the stages of Design. The A/E must update the Design Schedule at the end of each stage of Design.
- The schedule must identify the review meetings, milestone dates for anticipated and required deliverables, and other discrete activities of each Stage of Design.

Diagrammatic Construction Sequence Schedule:

- The Diagrammatic Construction Sequence Schedule is a graphical indication to the Bidders of specific milestones events, or sequences of construction work that the Contractor(s) must incorporate within the final construction schedule.
- The schedule also informs Bidders of the construction phases, planned Owner disruptions, closeout period to perform corrective punch list activities, equipment start-ups, demonstration and training periods which must be completed prior to the Contract Completion Date.
- The A/E, Construction Manager if applicable, the Owner, and SAO will provide input regarding a required sequence of events to be included in the schedule.
- The simplest Diagrammatic Construction Sequence Schedule shows the anticipated start of construction, the major milestones, and the anticipated construction completion date noting the number of calendar days between the start of construction and completion.
- Reconciliation of schedules is required when two or more are prepared.
- More complex schedules will be required to identify phased construction, owner-required disruption periods in construction, and required closeout procedures.

## Management of the Budget

Once the Project is identified and a budget is established, the Project Manager is responsible for managing the cost of the Project. The Project Manager will establish a meeting with the Owner to review the Project budget and scope. The objective of this meeting is to ensure that any activities and services not performed by the Owner's work forces are included in the Scope of Work and are accounted for in the budget.

The Project Manager will notify the Owner in writing of discrepancies between the project budget and estimated actual costs. When the Project Manager anticipates a shortfall in the funds budgeted, the Project Manager will recommend a scope in project change, a shift in funds from one line item to another or that the Owner encumber additional funds to reconcile the discrepancy.

- It is imperative that the Owner and the Project Manager establish real line-item budget funds, monitor the actual cost, and anticipate cost issues before those issues become a crisis for the project.
- Since the capital budget for the cost of construction is established early during the conceptual planning stages, it is important for the design team, including the Project Manager, to evaluate the various budget line items to verify they are consistent with anticipated current cost. During the Design Stage of the project as the design becomes more detailed, the associated cost information should be updated to reflect that detailed information.
- At each Stage of the Design Stage the A/E, and CM if applicable, must provide a "Statement of Probable Construction Cost" that is based on the most recent detailed information available. Upon acceptance of the Statement of Probable Construction Cost from the A/E, the Project Manager will update the Budget Management Form and make a recommendation for proceeding.
- Early in the design process the A/E, and CM if applicable, must confer with the Owner to begin to identify Alternates which can be used to adjust the award amount to deal with any variances between the A/E's estimate and the low bids. It is good practice to create alternates which total approximately 10 percent of the construction estimate.

Actions to Correct Discrepancies in the Estimated Construction Budget:

- If for any reason, the Construction Budget is exceeded during the Design Stages, the A/E, and CM if applicable, must notify SAO and the Owner in writing.
- The A/E, and CM if applicable, will be required to evaluate the reasons for the discrepancies and make recommendations to the Owner and SAO for revisions in the project to comply with the Budget. The Owner will decide whether to reduce the scope of work, require redesign of the Work or provide additional funding, or some combination of the above to reconcile the Project and the Budget.

## General Design / Specification Guidelines

The A/E must give appropriate consideration to products of Ohio manufacturers wherever possible and in accordance with ORC 153.012.

The A/E must specify the use of steel products made in the United States in accordance with ORC 153.011.

Materials specified must be institutional grade, of the highest quality within available funds and suitable for their intended purpose.

In addition to aesthetic considerations, on remodeling projects, the A/E must strive to standardize and match the existing materials and building components. The A/E may obtain, from the Owner, a list of commonly used finish materials, hardware, equipment and other stocked items regularly utilized by the Owner. When specifying components, the A/E must make an effort to minimize the number of items that the Owner must maintain in stock.

The A/E must verify the scope of the work on remodeling projects. If asbestos-containing materials or other hazardous materials are expected to be encountered, and design of abatement is not included in the A/E's Agreement, the A/E must recommend to SAO that a Design Consultant which specializes in the removal of the hazardous material to meet to meet Occupational Safety and Health Administration ("OSHA") and Ohio Environmental Protection Agency ("OEPA") guidelines be retained.

General Standards:

- The Procurement Documents must allow for unrestricted competition among interested suppliers and manufacturers to the extent that it is feasible. Specifications for public projects cannot unreasonably restrict sources of products, materials or equipment.
- With regard to the selection of equipment or materials, there are four basic methods of specifying: descriptive, performance, reference standard and proprietary. Of these methods, performance and proprietary have the potential to limit competition. Performance specifications do not refer to any particular brand or product. Instead, the specifications state certain performance capabilities which the equipment or material must meet. The A/E is required to develop performance-based specifications such that a minimum of three products are capable of meeting the requirements for the equipment or material. Each of the three products will be functionally and qualitatively equivalent to the others.
- The performance requirements of a given product cannot be so narrow as to restrict competition. Any component of other manufacturers' or vendors' product which meets the performance requirements of the Procurement Documents may be considered equally acceptable provided the component is submitted to the A/E as a substitution request prior to bid opening with sufficient time for the design professional to review, approve and notify all bidders by issuing an addendum.
- Proprietary specifications call for a particular brand and model to be used. Whenever any product is specified by brand name (e.g. manufacturers' or suppliers' name or trade name and catalog or model number or name), the intent is to establish a standard of quality which the A/E has determined is necessary. In order to foster competition, the A/E is required to develop specifications such that a minimum of three manufacturers are named. If less than three manufacturers are named, the A/E must submit a waiver request as detailed below. When the A/E lists components produced by specific manufacturers to denote kind, quality, or performance requirements, the component listed first in the specifications is the Basis of Design Component.
- During the bidding period, the Bidder may propose another manufacturer or competing product giving the same or superior function, performance and quality level. The Bidder is to indicate precisely why and how the proposed material or item meets or exceeds all function, performance and quality criteria of the specified item. The A/E is obligated to evaluate a Bidder's submittal requesting approval of a proposed Substitution, in accordance with the requirements of the Instructions to Bidders (IB 2.5).
- Components must be, in the opinion of the A/E, of equivalent substance and function. If a proposed substitution possesses all the "salient characteristics" of the specified brand, it may be considered acceptable. The salient characteristics are the physical properties and performance capabilities that

reasonably meet the needs for the Project. Obviously, opinions frequently differ as to whether or not a proposed alternate product is equivalent to the proprietary product listed in the specifications; however, the A/E's decision is final and binding.

Use of Sole Source Specifications:

- Sole source specifications have the effect of eliminating competitive bidding and the instances in which its use is permitted have been limited. Under some circumstances, the specifications may call for patented materials, articles, or items which may not be offered by two or three manufacturers. An owner has the ability to include a sole source specification only when it is clearly in the public interest to do so, after carefully considering the serviceability and cost of the material or article for which the contract is made.
- Instances that may support an exception are cases where a specified material must match an existing material in appearance or a system or component must match an existing system or components for functional reasons (e.g. hardware keying systems). The specification of a limited number of manufacturers may in some cases be justified in order to achieve a specific design intent provided that the value of the specified goods is insignificant in relation to the overall project. In all cases, the scope of work that is covered by a sole source specification should be as small as necessary to achieve the intended benefit (e.g. lock cylinders instead of door hardware).

Waiver of Three Manufacturer Requirement:

- If the A/E should name less than three manufacturers in a proprietary specification or stipulated performance specifications, which cannot be satisfied by three or more manufacturers, then the A/E shall specifically identify such specifications at the time of submitting the drawings and specifications to the Contracting Authority for review, along with a written justification for such specification. The Project Manager/Administrator will review such justifications and will approve or deny a requested variance from the requirements of this policy.

Vendor Assistance with Specification Writing:

- During the development of a Project's specifications, the A/E may find it helpful or even necessary to seek technical assistance from vendors (e.g. manufacturers' representatives and suppliers) to better understand and evaluate alternative products or systems for incorporation into the specifications. While this practice allows design professionals to gain technical expertise in the various components to be included within a project, it does not transfer or substitute the design and specification writing responsibility of the A/E to the vendor. Vendor assistance in directly writing a project's specifications should be limited. The A/E should carefully review drafted specifications from vendors to ensure they are open, competitive and at least three manufacturers are capable of meeting the specified requirements.
- In the event a vendor has provided direct assistance to the A/E by producing the specifications that are used for a project, and intends to bid the work or perform as a Subcontractor for the same project, the A/E shall inform the Contracting Authority of the circumstances. The Contracting Authority reserves the right to not approve a contract or subcontract based upon a determination that a conflict of interest or competitive advantage exists. An exception is when a product or system that is being sole sourced has been justified and approved by the Contracting Authority prior to bidding.

## Project Manual Development

The A/E must develop the Project Manual from the current version of the "State of Ohio Standard Requirements for Public Facility Construction" ("Standard Requirements"), the Owner's Supplementary Conditions, the prevailing wage rate information, and the A/E's specification sections. As the project progresses through the various Stages of Design, the Project Manual will have an increasing level of completeness.

The Program Verification Stage does not require submission of a Project Manual. The Schematic Design, Design Development, and Construction Document Stages each require differing levels of completeness. See the section for each Design Stage for minimum submission requirements.

The Project Manager will ensure that the A/E utilizes the current version of the "State of Ohio Standard Requirements for Public Facility Construction." The Owner's Representative will ensure that the A/E is using the current version of the Owner's Supplementary Conditions, if any. The A/E will review these documents early in the Program Verification stage to identify phasing or other construction issues that may affect the project.

Contracting Authorities performing locally administered projects shall follow instructions to adapt Owner-specific requirements as Owner's Supplementary Instructions and Conditions. All modifications to the "State of Ohio Standard Requirements for Public Facility Construction" require written authorization from SAO.

Project Manuals must be organized according to the latest edition of *MasterFormat* published by the Construction Specifications Institute ("CSI"). Additional numbers and titles shall be assigned in accordance with the *MasterFormat* Applications Guide and coordinated with revisions approved by CSI and posted to www.masterformat.com. Specification sections should be organized in general conformance with CSI *SectionFormat*, and *PageFormat*.

The A/E may modify SAO documents as indicated in Table 200.1 as follows:

| Forms the A/E **must not** modify | Forms the A/E **may** modify | Forms the A/E **must** modify |
|---|---|---|
| SAO Forms (Note 1) | SAO Forms | SAO Forms |
| Instruction to Bidders<br>Bid Security Form<br>Bidder's Qualifications<br>EDGE Affidavit<br>Contracting Definitions<br>General Conditions<br>Wage Rate Requirements | Division 01 Specifications, e.g., Section 01 32 16 – "Construction Progress Schedule"<br>(Modify to reduce scope of services for small, less complex projects, e.g. the requirement for cost and manpower loading may be deleted in projects under approx. $2 million.) | Table of Contents<br>Solicitation<br>Bid Form<br>Contract Form |
| Owner Forms (Note 2) | Facility Forms | A/E must create: |
| Owner's Supplementary Instructions and Supplementary Conditions (if any have been approved by the Department) | Section 01 14 00 – "Work Restrictions" may be created by the Owner to stipulate facility-specific requirements. | Specifications including Division 01 – "General Requirements" Sections applicable to the Project |

Notes to Table 200.1:

- These SAO documents may not be modified directly. They may be modified *by reference only* in the Owner's Supplementary Conditions, which must be reviewed and approved by SAO. Common violations of this principle include:
  - Provisions in Division 01 which conflict with the General Conditions
  - Provisions in mechanical and electrical specifications which conflict with the General Conditions
- Owner's Supplementary Conditions may amend the State's Standard General Conditions where there is sufficient justification. Supplementary Conditions may be submitted by the Owner to SAO no more than once annually for review and approval of proposed changes. Approval is valid for two years.

Project Manual Contents:

- SAO currently uses 3 versions of the "State of Ohio Standard Requirements for Public Facility Construction" for Design-Bid-Build project delivery: "Multiple-Prime," "Agency CM," and "General Contracting" versions.
  - The Multiple Prime version assigns work to multiple prime Contractors and assigns the management and coordination of all prime Contractors to one Contractor, known as the Lead Contractor. The Standard Requirements outline specific responsibilities for the Lead Contractor.
  - The Agency CM version must be used for Design-Bid-Build projects that include a Construction Manager.
  - Single prime Contracts may use the General Contracting version. Management and coordination responsibilities are assigned to the General Contractor.

The Project Manual for every project must include the following items:

- "State of Ohio Standard Requirements for Public Facility Construction"
- Owner's Supplementary Instructions (written by the Owner and approved by SAO)
- Owner Supplementary Conditions (written by the Owner and approved by SAO)
- Other Project-specific items:
  - Dated wage rates
  - Geotechnical Data or Reports (if any)
  - Environmental Data or Reports (if any)
  - Specifications

The A/E must follow the Instructions to the Architect/Engineer and incorporate the above items into the Contract Documents in the order listed on the Table of Contents.

The specifications must be organized according to the latest edition of the CSI's *MasterFormat*.

# 205 | Professional Services Payment

This Section identifies the requirements and process for the payment of Architectural/Engineering firms, Construction Management firms, and other professional services vendors.

## A/E Payment

Payments for basic services are made in accordance with the percentage of fee stipulated in the Agreement for the respective Stage. Typical percentages for a project produced with Computer Aided Design (CAD) tools are as follows:

Program Verification.....5.0%
Schematic Design .....15.0%
Design Development.....15.0%
Construction Documents.....30.0%
Bid & Award.....5.0%
Conformed Documents .....2.0%
Construction Administration .....25.0%
Contract Closeout.....3.0%

SAO understands that projects produced with Building Information Modeling (BIM) tools require investment of more time at the beginning of a project and less during Construction Documents. SAO has published the following percentages for projects produced with BIM authoring software:

Program Verification.....5.0%
Schematic Design .....20.0%
Design Development.....20.0%
Construction Documents.....20.0%
Bid & Award.....5.0%
Conformed Documents .....2.0%
Construction Administration .....25.0%
Contract Closeout.....3.0%

Any modifications to these standard percentages must be stipulated in Exhibit #1 - Scope of Architect/Engineer Agreement for the project.

Payments for Additional Services will be made commensurate with the service performed.

Allowances and reimbursements will be paid when the expenses are incurred. A Request for Payment, which includes such items must be accompanied by appropriate invoice(s).

## A/E Payment Routing and Approval

### OAKS Capital Improvements Procedure

A/E payments are processed using the the **Professional Services Pay Requests** business process. EDGE participation is also reported through this business process.

The A/E completes the Pay Request record, attaches scanned receipts of reimbursable expenses, and forwards it to the Contracting Authority for processing.

The PM and PC verify the request, and on approval forward it to the Owner for vouchering and processing through State Accounting.

### Traditional Paper-based Procedure

If the Project is not administered using OAKS CI, the A/E must use the **Professional Services Payment Request** form (F110-01). This form has tabs to allow the A/E to report its EDGE participation to the Contracting Authority.

The A/E completes and signs the form, then sends it to the Contracting Authority for processing.

The Contracting Authority verifies and signs the request, vouchers and processes the payment.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

The A/E may access the Ohio Shared Services website (http://ohiosharedservices.ohio.gov/Home.aspx) to determine when Electronic Funding Transfer (EFT) payments will be made to its named financial institution.

## Interim A/E Payments

Payment will be made on a monthly basis not to exceed the percentage of the Basic Fee for the respective Stage stipulated in the Agreement.

Payments may not exceed 95 percent of each stage until the stage is satisfactorily completed and accepted by SAO and the Owner.

Payments for phased projects should be apportioned to the value of each phase.

Final payment will be made only when all record and project close out documents have been accepted by SAO as complete.

## Changes in the A/E Agreement

Substantive changes or revisions to the scope of work after execution of the Agreement, through no fault of the A/E, may result in an adjustment of the A/E's compensation. Such changes must be effected by an Amendment to the A/E's Agreement.

Without exceeding the total compensation for the agreement, the allocation of costs may be adjusted upon request of the A/E and approval by the Contracting Authority without a formal signed amendment.

| OAKS Capital Improvements Procedure | Traditional Paper-based Procedure |
| --- | --- |
| The A/E must submit its request for an Amendment or allocation adjustment using the the Amendments business process. | If the Project is not administered using OAKS CI, the A/E may submit its request for an Amendment or allocation adjustment using traditional means as directed by the Contracting Authority. |

The A/E must indicate the Amendments on the Payment Request form and will be paid accordingly.

## A/E Payments for Change Orders

The A/E will not receive a fee for deduct Change Orders, unless the A/E can document that a significant amount of the A/E's time was expended in the change. Fees for deductive Change Orders require the prior written consent of SAO.

Change Orders that include "add" and "deduct" components must be evaluated to determine the appropriate payment for "add" items of work. Change Order fees are typically paid at a fixed percentage rate specified in the Agreement.

Work involved in creating and administering Change Orders may be paid at an hourly rate only on an exception basis, when justified in writing by the A/E and approved by SAO prior to the occurrence.

Change Orders resulting from Errors/Omissions (E/O):

- The A/E will not receive compensation for work performed by the A/E to correct errors or omissions in the Contract Documents.
- Change Orders resulting from errors or omissions (E/O) must not be combined with other Change Orders. If a specific Change Order results from a combination of E/O and non-E/O issues, the A/E must specify on the Change Order the percentage of the cost which results from the error/omission.

- If a Project Manager determines that a Change Order resulted from an error or omission and the A/E disputes the determination, the A/E may dispute the determination in accordance with Article 7 of the Architect/Engineer Agreement.

The A/E will not receive a fee for claim resolutions through the General Conditions Article 8 process executed as change orders, unless additional services are authorized by SAO. Compensation should be at a negotiated amount.

## CM Payment

Payments for Direct Personnel Expense will be made as the expense is incurred.

Payments of the Basic Fee are made in accordance with the Agreement and are generally made by Stage as indicated by a percentage of the total fee:

Program Verification.....5.0%
Schematic Design .....7.5%
Design Development.....12.5%
Construction Documents.....20.0%
Bid & Award.....10.0%
Construction Administration .....40.0%
Contract Closeout.....5.0%

Any variations in the standard Agreement percentages will be included in the executed Agreement for the project. Allowances and reimbursements will be paid when incurred.

## CM Payment Routing and Approval

**OAKS Capital Improvements Procedure**

CM payments are processed using the the **Professional Services Pay Requests** business process. EDGE participation is also reported through this business process.

The CM completes the Pay Request record, attaches scanned receipts of reimbursable expenses, and forwards it to the Contracting Authority for processing.

The PM and PC verify the request, and on approval forwards it to the Owner for vouchering and processing through State Accounting.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the CM must use the **Professional Services Payment Request** form (F110-01). This form has tabs to allow the CM to report its EDGE participation to the Contracting Authority.

The CM completes and signs the form, then sends it to the Contracting Authority for processing.

The Contracting Authority verifies and signs the request, vouchers and processes the payment.

The CM may access the Ohio Shared Services website (http://ohiosharedservices.ohio.gov/Home.aspx) to determine when Electronic Funding Transfer (EFT) payments will be made to its named financial institution.

## Interim CM Payments

Payment may be requested at intervals during each Stage. Payments will be made only once a month.

Payments for phased projects must be apportioned to the value of each phase.

Final payment will be made only when all punch list items and corrections are satisfactorily completed by the Contractors..

## Changes in the CM Agreement

Substantial changes or revisions of the scope of work after execution of the Agreement, through no fault of the CM, may result in an adjustment of the CM's compensation.

Without exceeding the total compensation for the agreement, the allocation of costs may be adjusted upon request of the CM and approval by the Contracting Authority without a formal signed amendment.

**OAKS Capital Improvements Procedure**

The CM must submit its request for an Amendment or allocation adjustment using the the Amendments business process.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the CM may submit its request for an Amendment or allocation adjustment using traditional means as directed by the Contracting Authority.

The CM's Payment Request form will be adjusted appropriately to reflect the amended Agreement amounts paid according to the payment process.

# 210 | Program Verification

Program Verification, formerly known as Predesign, is the first stage described in the Basic Services of the Architect/Engineer Agreement and is the point in which the A/E begins active involvement in the project, establishes basic project procedures, and verifies that the Program of Requirements presented by the Owner is valid and feasible in relationship the budget. If it is not valid or feasible, the A/E works with the Owner to establish a plan to reshape the scope or budget to bring them into agreement. Rework or creation of the Program of Requirements is considered Additional Services and the A/E may require an amendment to the Architect/Engineer Agreement. The CM may also begin its involvement in the Project before or during the Program Verification stage. The CM will assist the A/E to determine the validity of the Owner's budget and schedule.

## Organizational Meeting

The initial step in the design process once the A/E's agreement is approved is a pre-design conference, or Organizational Meeting, with the design team and the Owner. This meeting is to establish the distribution of deliverables and correspondence, specific formats for information, the contact person(s), and the person(s) who has the final approval. SAO recommends that the following parties attend the Organizational Meeting:

- The Owner – "User Group" Representative(s)
- The Owner – Project Manager
- SAO – Project Manager
- The A/E:
  - Principal-In-Charge
  - Project Manager
  - Project Designer
  - Project Engineer
  - Other Design Consultants (if any)

Organizational Meeting Agenda:

- The Owner delivers the following items to the A/E:
  - Program (See Section 030)
  - Project budget (See Section 050)
  - Project objectives and priorities
  - Project design process time constraints (See Section 030)
  - Supplementary Conditions (See Section 200)
  - Owner Policies and Standards (See Section 200)
  - Existing drawings, surveys, geotechnical reports or other documentation
- Owner target events and milestone dates
- Standard format for all submittal information
- Lines of communication and distribution of information
- Review and approval authorities
- Define probable and anticipated deliverables
- Determine the type of Standard General Conditions (See Section 200)
- Establish the day of the week and frequency for standing design process meetings
- Establish issues and events concerning the design process schedule
- Establish the agenda and goals for the next meeting

**OAKS Capital Improvements Procedure**

If the Project is administered using OAKS CI, the A/E will distribute the agenda and minutes for the Kickoff Meeting and subsequent meetings through the **Meeting Minutes** business process.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E may transmit the agenda and minutes for the Kickoff Meeting and subsequent meetings using traditional means as directed by the Contracting Authority.

## Objectives

The first objective of this stage is to verify that the A/E has a complete understanding of the total scope of the project. This includes:

- The Owner's priorities and objectives
- Functional needs
- Code and zoning restrictions
- Space and equipment requirements and relationships
- Milestone and schedule constraints
- Owner budget and funding constraints

The second objective is for the A/E to verify that all of the information and assumptions contained in the Program of Requirements (POR) is still valid and, in the A/E's view, achievable within the budget and proposed timeframe.

## Program Verification

The A/E will review the entire POR, including program technology, site constraints, space allocation and adjacencies, operational issues, time constraints and monetary constraints. The A/E must retrace some of the steps performed to create the POR, and verify that it still expresses the Owner's needs and is up-to-date in every aspect. Following are some reasons why this step is necessary:

- The A/E needs to agree that the Owner has given the A/E a complete and valid program, or if it has not, identify the problematic elements.
- The A/E needs to view the entire project with fresh eyes, begin to take ownership of the "facts" and requirements with which the A/E is presented in the program, and make an independent determination as whether the program is sound and can be achieved with the budget provided and within the timeframe allowed.
- The funding, which was approved may bear little relationship to the funding which was requested. The scope in which the project was conceived and which is defined in the POR may not be feasible. Additional services fees should be reviewed and qualified as required.
- If the project languished for a significant time before funding was obtained:
  - The funding may not reflect inflation, which occurred between the request and the approval.
  - The Owner's needs may have been clarified or changed.
  - The Owner's staff may have changed and have new perspectives on the project.
  - Codes or regulations may have changed.
  - Existing facilities or a site, which was intended to be used in the project may no longer be available, which may invalidate the assumption used in the budget.
  - LEED or sustainable design requirements or objectives for the project.

If the A/E does not concur that the POR is valid and achievable within the budget and proposed timeframe, the A/E will assist the Owner in prioritizing the various work items so that consensus is achieved on what the project will ultimately include, and the A/E will modify the POR accordingly and the changes must be approved in writing by the Owner.

## Statement of Probable Construction Cost

The Statement of Probable Construction Cost, which the A/E, or the CM if applicable, submits at the conclusion of the Program Verification Stage must be based upon its experience, professional judgment, and appropriate back-up information, such as cost per square foot. Current industry market conditions for the proposed types of construction, site development, infrastructure, code, and phasing issues must be anticipated and incorporated into the proposed Statement of Probable Construction Cost.

Contingencies for design and bidding within the Statement of Probable Construction Cost.

- The contingencies carried within the Statement of Probable Construction Cost are not the same contingency within the Project Budget for the Construction Administration portion of the project.

## Deliverables

**OAKS Capital Improvements Procedure**

The A/E, and the CM if applicable, must submit any changes or revisions of the POR and related Program Verification Stage deliverables to the Contracting Authority and the Owner for approval through the Program of Requirements business process.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E may transmit any changes or revisions of the POR and related Program Verification Stage deliverables using traditional means as directed by the Contracting Authority.

Program Verification deliverables include the following:

- Project directory and distribution list of key individuals on project team (See Section 200)
- Minutes of program interview meetings
- A separate listing of modifications to the Program of Requirements, with a narrative identifying and justifying the modifications
- An updated Space and Functional Program, with any changes highlighted
- Design and construction approach narrative including approach to phasing (if required)
- Statement of construction challenges for the project
- Narrative of anticipated building character or special features
- Analysis of site conditions, attributes and constraints
- Analysis of any available existing geotechnical and other information about the site, including information, which may be determined or inferred from existing projects on the same site or adjacent sites. This may include information about previous use of the site, which may have involved hazardous materials, and related EPA documentation. Such information will be used to verify the feasibility of use of the proposed site and must be reflected in the Statement of Probable Construction Cost.
- Any cost impacts related to required phasing of construction
- A/E recommendation for a final space and functional Program and corresponding construction budget (See Section 030)
- Preliminary detailed Design Process Schedule (See Section 200)
- Preliminary milestone dates of major project events

- Preliminary Construction Schedule (See Section 200)
- Narrative of code review and associated issues:
  - The A/E will review the requirements of all applicable codes and referenced standards as part of the Program Verification Stage. The A/E is expected to inform and consult with the Owner regarding applicable codes and referenced standards which may relate to the program and design. The A/E is responsible for designing the project to meet or exceed the requirements of all Local, State and Federal codes and regulations pertaining to the construction, renovation and occupancy of buildings. There are some circumstances in which a local building authority may take precedence over the State jurisdiction.

The Program Verification Stage concludes with the Owner's acceptance, in writing, of the deliverables noted above.

# 220 | Schematic Design

The Schematic Design Stage is the portion of Design in which the Program of Requirements is first expressed in graphic form. The Stage begins after completion of the Program Verification and ends with the Owner's approval of, and the A/E's submission to SAO, of the Design Service Acceptance form for this Stage.

## Preliminary and Final Concept Design

The Schematic Design Stage is divided into 2 distinct portions; the preliminary concept design and the final concept design.

- The preliminary concept design portion investigates:
  - Multiple design concepts to test functional program relationships
  - Building massing related to concepts
  - The preliminary life cycle cost impacts of each concept
  - Construction feasibility and impacts related to each concept
  - LEED and sustainable design and construction considerations
- The final conceptual design addresses more detailed analysis and presentation of the preliminary concept design. Analysis of the concepts and resulting studies usually leads to the development of the final concept and establishes a single solution for the development of character, project scope, and cost information that satisfies the Owner's budget and programmatic needs.

## Objectives

### Preliminary Concept Design

- The primary objective is to assure the Owner that several options have been reviewed and analyzed before the Owner accepts a final scheme for development. This requires the A/E to present different scenarios and concepts to the Owner for consideration including relationship to Owner's site master plan, contextual relationships to the Owner's site, and environmental sustainability application. The A/E will compare each concept in the following terms:
  - Advantages
  - Disadvantages
- The advantages and disadvantages must address each scheme's ability to satisfy the Owners objectives and priorities within the budget and operational constraints. The preliminary concept design portion investigates:
  - Multiple design concepts to test functional program relationships
  - Building massing related to concepts
  - Life cycle cost impacts of each concept
  - Construction feasibility and impacts related to each concept
- Different approaches for new projects might investigate building shape and massing. Renovation projects might examine different functional approaches to solving the program's space requirements. Building systems, site flow, facility character, number of floors, code issues are all conceptual design attributes for early examination and comparison.
- Analysis of the concepts and resulting studies leads to the advancement of a specific scheme into a final concept for development.
- To advance from Preliminary Schematic Design to the Final Concept Documents the A/E must obtain written acceptance of the Preliminary Schematic Design from the Owner and SAO.

### Final Concept Design

- The primary objective is to better define site and building relationships and character. The final concept documents must define site flow, construction phasing, building shape, and massing and floor plan room layouts to meet the Program of Requirements.
- An important element of the process is the Life Cycle Cost Analysis which is utilized to identify possible savings in first cost construction verses long term operating and replacement cost.
- The A/E must define all mechanical systems and building systems anticipated in the design.
- The A/E must report the concept's ability to meet program objectives and goals as well as budget and code constraints.
- To advance from Final Concept Documents and the Schematic Design Stage to the Design Development Stage the A/E must obtain written acceptance of the Schematic Design Stage from the Owner and SAO.

## Deliverables

### Preliminary Concept Design

- The Preliminary concept deliverables must be appropriate to the project scope. Preliminary concept deliverables for a new building or substantial addition include, at a minimum, the following:
  - Site plans
  - Floor plans
  - Elevations
  - Cost information
  - Preliminary scheme evaluations

### Final Concept Design

- At the conclusion of the Preliminary Concept portion, a final concept is selected for further development.
- Final concept deliverables must be appropriate to the project scope. Final concept deliverables for a new building or substantial addition include, at a minimum, the following:
  - Site drawings – Show adjacent buildings, existing and proposed elevation contours, existing and new site utilities, vehicular and pedestrian flow, parking, service access and special construction required.
  - Floor plans – Illustrate proposed structural bays with room layouts that include door swings, program room numbers, names and areas. Identify mechanical, electrical and equipment rooms with fire walls, stairs and elevators. Show roof plans and proposed screen and parapet walls. Partial plans will include key plans.
  - Fire Resistance Floor Plans – Illustrate all fire walls and means of egress for all phases of construction. Each phase of construction will comply with life safety and means of egress during the construction period. The Drawings must illustrate temporary measures for means of egress during any sequence or phase of construction.
  - Elevations – Develop all elevations and exterior canopies. Define anticipated grade, floor and bearing elevations.
  - Building Sections – develop a section through the entire building illustrating relationships of architectural and structural features and elements. Show all anticipated floor, ceiling, roof and exterior grade elevations.
  - Equipment and Furniture – Illustrate furniture and equipment defined in the Program.
  - Massing studies – Study models and computer generated graphics of the building, illustrating mass relationships and entrances of the facility.

- Geotechnical and survey drawings – Services acquired, and reports received which justify and support the final location of the construction, which is established in this stage.
- Specifications - An outline specification indicating materials, types of construction, proposed mechanical systems, plumbing systems, fire protection, security systems and proposed electrical and life cycle analysis investigations.
- A written narrative of the energy and life cycle analysis investigation
- An updated Project Schedule
- An updated detailed Design Process Schedule
- A Statement of Probable Construction Cost. Construction cost estimates will be within available budget constraints and will give appropriate mention of and respect for seasonal construction constraints. Scope change elements in the design process or current state of design affecting the original budget requirements will be identified and defined.
- An updated Space and Functional Program specifically identifying any modifications
- Life Cycle Cost Analysis

**OAKS Capital Improvements Procedure**

The A/E, and the CM if applicable, must submit the Schematic Design Stage deliverables and any changes or revisions of the POR to the Contracting Authority and the Owner for approval through the **Design Review** business process.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E may transmit the Schematic Design Stage deliverables and any changes or revisions of the POR using traditional means as directed by the Contracting Authority.

## Review Meeting

A review meeting should be held 2 weeks after the above requirements are received from the A/E.

The Owner will provide written comments on the submittal to be issued to the A/E at the review meeting. The A/E will document and provide a written response to each comment or question.

**OAKS Capital Improvements Procedure**

The A/E will distribute the agenda and minutes for the Schematic Design Stage Review Meeting through the **Meeting Minutes** business process.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E may transmit the agenda and minutes for the Schematic Design Stage Review Meeting using traditional means as directed by the Contracting Authority.

Once the Owner and SAO accept the comments, the Schematic Design stage is complete.

Upon SAO's receipt of the Design Service Acceptance form approved by the Owner, and upon written authorization by SAO, the A/E may proceed to the Design Development stage.

# 230 | Design Development

The Design Development Stage is the portion of Design in which the project is transformed from ideas, concepts, and broad-brush thoughts to specific materials, details and contractual instructions to implement the competitive bidding and construction of physical facilities. This stage begins after the completion of the Schematic Design stage and ends with the Owner's approval of, and the A/E's submission to SAO, of the Design Service Acceptance form for this Stage.

## Objectives

The primary objective of the Design Development is to complete all design required for the project. This requires interaction between the Owner and the A/E's team of professionals to verify all the pieces and parts of the design. A formal internal review or external constructability consultation must investigate costs of elements, Owner's standards, and prior assessments potentially missed or compromised.

The Design Development Stage must define all products and manufacturers necessary to implement the design. Each and every item specified must be defined within the technical specification with a design standard with equal manufacturers unless the Contracting Authority provides specific written authorization to use a proprietary manufacturer or product for the project.

The A/E must graphically illustrate the design to address all exterior and interior architectural and environmental elements as well as site design to communicate the total concept. The drawings must be complete enough to prepare detail quantities of elements, systems and construction sequencing to determine a detailed cost estimate for the various prime contractors.

The A/E identifies modifications, if any, from the original program of requirements and the budget constraints. The Owner approves that the design meets the goals and objectives, the program of requirements and the budget and funding constraints. Final design approval from Owner.

## Deliverables

Based on the approved Schematic Design Documents, the updated Program, approved Statement of Probable Construction Cost and the approved Project Schedule, the A/E must prepare Design Development Documents appropriate to the scope of the project. Design Development Documents deliverables for a new building or substantial addition include, at a minimum, the following:

- Architectural & Civil Disciplines:
  - Site Layout and Materials Plan – Illustrate the design forms and materials to be used. Major dimensions will be indicated. All appearance-related design issues should be addressed, resolved and shown. LEED and sustainable design and construction should be considered.
  - Site Grading and Drainage Plan – Show developed drainage concepts, include existing and new contours, drainage structures (numbered for general reference), and spot grade elevations.
  - Site Utilities Plan – Indicate the plan relationships of existing and proposed utilities. Vertical relationship of the utilities will be noted by plan notations and profiles. Site plan including grading and site utilities, utility connection points and a stormwater management design.
  - Planting Plan – Illustrate the centerpoints at desired spacing of major plantings. A key will explain the proposed form and design characteristics of the plants (large shade tree, flowering ornamental tree, low evergreen shrub, etc.). Existing trees to remain will have "o's" for centerpoints. Proposed trees will have "x's" for centerpoints or appropriate legend indicators.
  - Design Details – Show the design or detailing to be used in the site development. These details will clarify the relationship of vertical and horizontal surfaces, steps, walls and pavements, etc., including edge conditions at adjacent surfaces.
  - Dimensioned floor plans indicating structural bay sizes and overall building dimensions. Floor Plan should show dimensions of major elements, and final partition locations, including all openings.
  - Exterior and core wall sections showing final dimensional relationships, materials and component relationships.

    - Floor Plan showing all fixed and loose equipment
    - Large scale plans and sections
    - Room finish schedule identifying all finishes
    - Building sections
    - Door and hardware schedule showing door, frame and hardware type, and fire ratings, if any
    - Window schedule showing types and sizes
    - Preliminary development of details
    - Reflected ceiling plan including ceiling grid, light fixtures and all devices that penetrate or are mounted upon finished ceiling
    - Interior movable furniture, office equipment, demountable partitions and system furniture, layouts for all departments and floors including proposed building signage system
    - Gross and net area calculations by department to determine compliance with Program of Requirements
    - A thorough outline technical specification including selected acceptable manufacturers
- Structural Discipline:
    - Foundation drawings
    - Floor plan with all structural members located and sized
    - Footing, beam, column and connection schedules
    - Final floor elevations
- Plumbing & Mechanical Disciplines:
    - Heating and cooling load calculations for each individual space, including cooling requirements for heat loads generated by office equipment, personal computers, etc.
    - Mechanical equipment schedule indicating size and capacity
    - Plumbing Fixtures Schedule
    - Floor plans showing mechanical equipment and plumbing fixtures. All equipment and fixtures should be shown and located.
    - Floor plans showing main ductwork distribution, branch ductwork and plumbing piping. All ductwork and piping should be located and sized to coordinate with structural framing system
    - All ceiling mounted devices should be located
    - Legend showing all symbols used on drawings
- Electrical Disciplines:
    - Floor plan locating all power consuming equipment with a description of the equipment load characteristics
    - Estimate total electric load, confirm Design Manual required excess capacity
    - Floor plan showing all major electrical equipment (switchgear, distribution panels, emergency generator, transfer switches, UPS system, etc.) which will be dimensioned and drawn to scale
    - Site plan showing preliminary site lighting design with pole and fixture type designations
    - Floor plan showing lighting layout, power, telecommunications and office automation devices and switches with preliminary circuiting
    - Light fixture schedule should be finalized
    - Estimate interior electrical loads for systems furniture, receptacles, lighting, food service equipment and any other special use areas, etc.
    - Preliminary Distribution Panel Schedule

- Other Deliverables:
  - Schedule of Spaces – Provide a comparative schedule of spaces arranged in tabular form, listing the building's various spaces and showing the original square footage allotted in the approved Program for each space. Any deviations from the approved Space and Functional Program, involving square footages or otherwise, must be clearly indicated.
  - Survey and geotechnical information are required as part of the Design Development.
  - Project Manual complete with all Division 01 – "General Requirements" sections and technical sections. General Requirements sections unique to the project, such as including temporary facilities, and Supplementary Conditions, must be fully developed. (SAO standard documents, which will be included unmodified in the final Project Manual may be represented by the first sheet of each such document.) With each technical specification section, for each product or material specified, include a photocopy of a cut sheet of the basis of design components and at least two acceptable components specified.
  - Final Life Cycle Cost Analysis
  - Information provided outside the initial scope of services and based on subsequent written authorization must be clearly noted.

**OAKS Capital Improvements Procedure**

The A/E, and the CM if applicable, must submit the Design Development Stage deliverables and any changes or revisions of the POR to the Contracting Authority and the Owner for approval through the Design Review business process.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E may transmit the Design Development Stage deliverables and any changes or revisions of the POR using traditional means as directed by the Contracting Authority.

## Statement of Probable Construction Cost

The cost information reported by the A/E at the conclusion of the Design Development Stage is based on detailed information from the drawings and specifications. It is anticipated that all major building components, systems and design aspects are defined during the design development stage. The type, quantity, quality, and difficulty of construction should be identifiable at the conclusion of this stage.

The Statement of Probable Construction Cost is based upon supportive information derived from a detailed cost estimate. The estimate must be prepared to parallel and cross-reference the numbers and titles from the Project Manual.

Group the estimate by each anticipated bid trade for the base bid separately from the proposed alternates. Each item must list the material and labor to illustrate the quantity, unit, cost per quantity, and expanded sum of the total.

## Review Meetings

The A/E must conduct a meeting or series of meetings, as appropriate, to review the design with the Owner and to review proposed product manufacturers and equipment. The following is a list of suggested topics:

- Product and equipment selections
- Interior room elevations
- Hardware type and function
- Security, data and communication systems
- Elevator capacity function, speed and finishes

- Exterior materials and finishes
- Mechanical system (HVAC)
- Plumbing fixtures and accessories
- Communication and data systems
- Lighting and power requirements
- Signage – interior and exterior*
  - *The A/E will assist in coordinating furniture, art, graphics and signage if these services are not part of the A/E's scope of work. The A/E will provide electronic drawing files to the Owner to facilitate the performance of these services by others.

A document review meeting with the Owner and the Contracting Authority is required no more than 2 weeks after the Design Development Documents are issued to discuss the Owner and Contracting Authority's review comments. The A/E must respond, in writing, to each comment.

**OAKS Capital Improvements Procedure**

The A/E will distribute the agenda and minutes for the Design Development Stage Review Meeting through the Meeting Minutes business process.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E may transmit the agenda and minutes for the Design Development Stage Review Meeting using traditional means as directed by the Contracting Authority.

To advance from the Design Development Stage to the Construction Document Stage the A/E must obtain written acceptance of the Design Development Stage from the Owner, which the A/E must submit to SAO. At this point the design of the project should be complete and fixed.

The A/E may proceed with the Construction Document Stage upon written direction from SAO.

# 240 | Construction Documents

The Construction Documents stage is the portion of Design, which identifies the specific materials, details, and contractual instructions to implement the competitive bidding and construction of physical facilities. The Stage begins after completion of the Design Development stage and ends with the Owner's approval of, and the A/E's submission to SAO of, the Design Service Acceptance form for this Stage.

## Objectives

The primary objective of the Construction Documents Stage is to produce the Procurement Documents for the various work trade contractors. The A/E must complete the coordination and the details of drawings and written instructions for obtaining public bids from contractors to implement the project design. The documents will also be used to obtain plan approval for construction from the appropriate building authorities and agencies.

In this stage, the final notes, tables, and instructions for execution of the construction for the project are specifically defined into contract packages for prime contractor trades. The design should not be substantially changed from the approved Design Development Stage documents.

The detailed cost estimate at the completion of the Construction Document Stage must update the current market place cost and final quantities of the Design Development Stage detailed estimate to verify that the construction cost are within the Owners budget constraints.

The A/E must verify that the design is responsive to the approved project program and priorities.

The A/E must verify that the Owners schedule of Milestones and sequences are identified for the bidders.

The Contracting Authority's objective is to assure that the Documents represent the design in enough detail and clarity that the Bidders can provide bids that represent the design intent and anticipated duration scheduled for construction.

At the conclusion of this stage, Contract Documents will be 100 percent complete and in final form and suitable for construction.

The A/E will not significantly change the scope, scheme, major design features, or specifications from the approved Design Development submission except for changes authorized by SAO and the Owner.

During this stage of document development, the A/E will verify all Owner furnished equipment or materials of work to be performed by the Owner.

The A/E will meet with the Contracting Authority to verify the Supplementary Conditions and Owner work requirements. Supplementary Conditions must have written authorization by the State Architect's Office.

The A/E will submit progress drawings and specifications for review at a level of completeness of 50 percent and between 85 to 95 percent.

<u>The A/E will obtain plan approval prior to advertisement for bids</u>.

The A/E will conduct a full constructability review to identify any and all missing pieces, parts, or items as to remedy latent error and ambiguity in the construction documents. These errors and ambiguities add risk to projects and may lead to confusion in bidding or later risk in the form of disputes, conflict, and/or additional costs as change orders.

## Deliverables

Based on the Approved Design Development Documents, the updated Program, Approved Statement of Probable Construction Costs and the Approved Schedule, the A/E will prepare Construction Documents appropriate to the scope of the project. Construction Documents deliverables for a new building or substantial addition include, at a minimum, the following:

- Cover Sheet:
  - Name, address of Owner, Construction Manager (if applicable), Architect, Consultants, Project Number
  - Vicinity map
  - Location map
  - Index to all drawings
  - Site Plan (optional)
  - Code Analysis Information such as: Fire resistance plans and building code construction type and occupancy information
  - Gross and net area calculations of all departments and floors
  - Abbreviation and symbol glossary
- Site Plan(s):
  - A certified plot plan, (sealed by an Ohio licensed Land Surveyor)
  - A grading plan 1'-0" or 2'-0" increments with appropriate sections
  - Sedimentation Control and Storm Water Management Plans and profiles
  - Local governing utility standards included in all utility details
  - Standard details must be modified to suit project conditions. All non-applicable information must be deleted.
  - Existing and proposed electrical, gas, sewer, water, storm drainage, telephone and TV cable utilities must be identified.
  - Utility designs must show plan, profile and all fittings and details required by code and local government standards.
- Landscape:
  - An overall site plan showing plantings, irrigation and drainage system, site lighting and all site development features.
  - Details and sections of all site development features, sidewalks, curbs, paving stones, bollards, ramps, exterior stairs, lawn areas showing seeding methods, etc.
  - All landscape conditions should be thoroughly detailed.
  - A symbol glossary
  - Planting schedule
  - Seeding schedule
  - Modify standard details to suit project conditions. Delete all non-applicable information.
- Architectural:
  - A basic floor plan of the entire facility showing minimal detail with a grid or column reference system showing overall building layout dimensions, core spaces, Owner numbered or named rooms, room square footage, floor opening penetrations, etc. Fire ratings of all partitions, fire doors, etc. should be clearly denoted.

- A dimensioned floor plan locating all interior partitions and exterior wall partitions from the grid or column reference system. Floor plan should include room and workstation designations, interior and exterior door and window designations.
- A dimensioned floor plan showing wire management system with openings located for voice, data, video and electrical and outlet locations.
- Room wall elevations for all non-typical walls
- Casework floor plan complete with schedule, details and elevations
- Interior and exterior window, door and frame schedule, complete with elevations and details for all head, jamb and sill conditions
- Interior and exterior finish and color schedule (exposed finished mechanical and electrical items will be clearly addressed).
- A reflected ceiling plan showing all grid, access doors, drapery tracks, light fixtures, grills, diffusers, sprinkler heads, security devices, fire alarm devices, intercom system, exit devices and acoustic treatment. Ceiling heights and type should be indicated on the reflected ceiling plan.
- Details to illustrate transitions between finish materials and construction types. Major building sections in at least two directions. A sufficient number of details to clearly indicate the method of construction for all building components and include, but not be limited to: walls, floors, roofing assemblies, waterproofing systems, insulating systems, interior and exterior finishes, architectural details, interior stairs and elevators.
- Interior signage locations must be shown on the floor plan complete with details and schedules.
- Final locations must be shown on the floor plan with associated floor loadings being shown on the structural drawings.
- Partition type schedule and section details for all interior, exterior and floor wall conditions
- Roof plan showing all roofing material, roof drains, overflows, access hatches, roof walk pads, roof drainage slopes and elevations, scuppers, skylights and mechanical and plumbing penetrations. Details must be provided for all edge, parapet and flashing conditions.
- All exterior building elevations showing finish materials, exterior door and window openings and designations, lights, louvers, grilles, signage, speakers and other devices
- All structural members included in, or enclosed by the architectural details must be closely coordinated, with and the size verified by the structural engineer. Details must indicate the framing and furring method wherever possible.
- All mechanical/electrical elements included in, or enclosed by the architectural details must be closely coordinated with and the size verified by the design engineer. Details must indicate the framing and furring method wherever appropriate.

- Structural:
  - A dimensioned foundation plan showing and locating in plan and in elevation all footing, foundations, foundation piers, caissons, grade beams, reinforcement with all layouts for masonry and anchor bolts.
  - A dimensioned floor plan for each floor, showing all beams, beam sizes, duct and piping penetrations, construction joints, expansion joints, edge conditions, imbedded anchors and frames thickened slabs, recessed slabs stair penetrations, elevator shafts, floor loading, top of structure elevation and reinforcement.
  - Footing, column, grade beam, caissons, piers, reinforcement, and beam schedules
  - Dimensioned to scale details showing all conditions, connections, and structural sizes
  - Shear walls clearly shown on plan and schedule if symbol code is used
  - Abbreviation and symbol glossary
  - Fastener/connection schedule
  - Elevations of all footings, elevations to top of all beams, columns, recesses and floors

    - Roof beam plan, elevator hoist beams
- Mechanical:
    - Abbreviation and symbol glossary
    - Mechanical equipment schedule
    - Exterior louver schedule, as coordinated with architectural louvers
    - Floor plans indicating ductwork with sizes, ductwork mechanical devices, beams for floor above with ductwork penetrations
    - Reflected ceiling plan showing final location of all ceiling mounted mechanical devices which include but are not limited to; diffusers, return air grilles and thermostats
    - Floor plan indicating the sprinkler and standpipe riser systems including all required pumps and control devices
    - Fire damper schedule and location of dampers on each floor
    - Ductwork sound attenuation schedule
    - Vibration isolation schedule
    - Terminal control box schedule, with electrical and air volume requirements
    - Chilled water, condenser, refrigerant, fuel oil, steam and gas riser piping floor plans and riser diagrams and schematics including pipe sizes. Piping schematics must be in large enough scale to clearly indicate all control devices, valves, unions and miscellaneous appurtenances.
    - Areas of concentrated mechanical equipment must be enlarged from the basic floor plan to not less than 1/4"=1'0" illustrating detailed ductwork and equipment within the mechanical room in both plan and section views; coil access and filter access are to be shown to scale as verification of clearance.
    - Access doors both wall and ceiling, must be called out at each applicable location as coordinated with the architectural drawings (rated where applicable).
    - Floor plans should indicate housekeeping pads and weight of concentrated loads.
    - Duct/piping penetrations of all walls, floors, roofs, beams, columns and foundations must be coordinated with and verified by the structural engineer. Code complying firestopping must be detailed for penetrations through fire rated assemblies.
    - Locate on the floor plans all controls system equipment and provide a panel and device schedule, indicator and panel graphics complete with sequence of operation and control system program diagram.
- Plumbing:
    - Fixture/connection schedule
    - Abbreviations/symbol glossary
    - Floor plans indicating domestic hot and cold water, storm, waste, vent and gas piping plans, including all valves, unions, fixtures, pipe sizes, and risers diagrams, etc.
    - Piping and insulation jacket dimensions are to be coordinated with architectural finishes and casework; all exposed piping is to be verified with the Architect.
    - Plan drawing of all water and sanitary branch piping for installation of interior equipment and fixtures.
    - Typical piping riser schematics for all gravity flow piping systems
    - Areas of concentrated plumbing equipment (hot water heaters, circulating pumps, etc.) must be enlarged from the basic floor plan to not less than 1/4"=1'-0" detail in both plan and section views.
    - Access panels, doors and provisions in both walls and ceilings are to be shown on floor plans for all valves, cleanouts and caps, etc.

    - Connections to existing and new building utilities must be clearly shown. Requirements of governing utilities must be determined and clearly detailed and shown. Connection details and elevations must be checked and coordinated with applicable civil drawings.
    - Design details
    - Piping penetrations of all walls, floors, roofs, beams, columns and foundations must be coordinated with and verified by the structural engineer. Code complying firestopping must be detailed for penetrations through fire rated assemblies.
- Electrical:
    - Lighting fixture schedule
    - Lighting control schedule, switches, emergency lighting
    - Power riser diagram for interior lighting systems
    - Abbreviations and symbol glossary
    - Panel schedules with panel locations shown on the floor plan
    - Fan/motor control schedule/diagram
    - Floor plan showing location of all fire alarm device/panel schedule, indicator graphics, riser diagram including activated hardware and pull stations. Confirm activated hardware with hardware schedule.
    - Floor plan showing location of all intercom devices, panel schedule and location and program riser diagram
    - Floor plan showing location of all security devices, panel schedule and locations and riser diagram
    - Floor plan showing location of all intercom and TV outlets and devices
    - Power riser diagram and main distribution panel layout in large enough scale so each run can be clearly seen.
    - Telephone board schedule and riser diagram coordinated to equipment size requirements and connection provisions with the governing telephone utility and Owner requirements.
    - TV terminal/splitter and riser diagram coordinated as to equipment size requirements and connection provisions to antenna and cable TV system.
    - Floor plan indicating wire management wiring for power, receptacles, voice, video and data communications including circuiting, and connections to systems furniture, etc.
    - Separate plans for power, voice and data must be provided.
    - Floor plan indicating power connections to all mechanical equipment
    - Reflected ceiling plan indicating above ceiling wiring and circuits for lighting/electrical switches, security, fire alarm, emergency exit lighting and intercom controls, etc.
    - Main service entrance connection diagram as verified and coordinated with the governing power utility; locations of services entrances and transformers must be verified with the Architect.
    - Areas of concentrated electrical equipment, and electric vault rooms in particular, must be enlarged from the basic floor plan to not less than 1/4"=1’0” and must be shown in plan and elevation.
    - Sheet notes must be applicable to each sheet. Standard notes and details must be modified to specific conditions.
    - Access to systems must be verified. Doors, panels or other provisions must be called out in all wall and ceiling locations for junction boxes, controls or any other device requiring access.
    - Raceway penetrations of all walls, floors, roofs, beams, columns and foundations must be coordinated with and verified by the structural engineer. Code complying fire-stopping must be detailed for penetrations through fire rated assemblies.

**OAKS Capital Improvements Procedure**

The A/E, and the CM if applicable, must submit the Construction Documents Stage deliverables and any changes or revisions of the POR to the Contracting Authority and the Owner for approval through the **Design Review** business process.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E may transmit the Construction Documents Stage deliverables and any changes or revisions of the POR using traditional means as directed by the Contracting Authority.

## Statement of Probable Construction Cost

The cost information reported by the A/E at the conclusion of the Construction Document Stage must be based upon supportive cost information from the updated detailed cost estimate prepared from the Design Development Stage. The detailed estimate must account for the refined information of quantity or product information adjustments required in the development of the details to construct the design and incorporate the Constructability Review comments.

## Review Meeting

A document review meeting with the Owner and SAO is required two weeks after the Construction Documents are submitted for review to discuss the Owner's and SAO's review comments. The A/E must respond in writing to each comment.

**OAKS Capital Improvements Procedure**

The A/E will distribute the agenda and minutes for the Construction Documents Stage Review Meeting through the **Meeting Minutes** business process.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E may transmit the agenda and minutes for the Construction Documents Stage Review Meeting using traditional means as directed by the Contracting Authority.

## Activities to Prepare for Bidding

The following issues must be properly addressed and completed in the project development process prior to advertising for Bids:

- **Prevailing Wages:** A Contractor performing construction services for a public improvement project, except for public schools K – 12, is required to pay Prevailing Wage Rates of the project locality to laborers and mechanics performing work on the project. Construction is defined in ORC 4115.03(B) to mean the following:
  - Construction of any public improvement, the total overall project cost of which is fairly estimated to be more than the Prevailing Wage Threshold Level, which is adjusted biennially by the Ohio Department of Commerce ("DOC") pursuant to ORC 4115.034, (no active link) and performed by other than full-time employees who have completed their probationary periods in the classified service of a public authority.
  - As of September 29, 2011, the Prevailing Wage Threshold Level for reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting of any public improvement that does not involve roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction is $38,000, and the threshold for new construction is $125,000. On September 29, 2012, these thresholds increase to $60,000 and $200,000 respectively. On September 29, 2013, the thresholds will increase to $75,000 and $250,000 respectively.

- For any public improvement that involves roads, streets, alleys, sewers, ditches and other works connected to road or bridge construction, as of January 1, 2012 the Prevailing Wage Threshold Level for reconstruction, enlargement, alteration, repair, remodeling, renovation, or painting of any public improvement is $24,609, and the threshold for new construction is $82,137.
- For the current Prevailing Wage thresholds, visit http://www.com.ohio.gov/laws/PrevailingWageThresholdLevels.aspx. A public authority shall not defeat the intent of the Prevailing Wage law by subdividing a project into component parts or projects, the cost of which is fairly estimated to be less than the threshold levels set forth in divisions (B)(1) and (2) of ORC 4115.03, (no active link) unless the resulting projects are conceptually separate and unrelated, or encompass independent and unrelated needs of the public authority, per ORC 4115.033 (no active link).
- SAO will access the Department of Commerce, Wage and Hour Bureau, internet site www.com.state.oh.us and provide the wage rates to the A/E for the Procurement Documents. The A/E must coordinate the timing and means of delivery with SAO. If the wage rates expire on or before the bid date, SAO will provide new wage rates to the A/E, who will issue them by Addendum to all plan holders. (With the consent of the Project Coordinator, the A/E may download the wage rates directly, and provide any updates if necessary.)
- The Contractor must monitor the Prevailing Wage website for changes in the wage rates during the construction period and update, post and pay the new rates when changes become effective. A more complete discussion of this matter is contained in Section 310 of this Manual.
- See the prevailing wage rates for apprentice requirements regarding payroll. A Contractor employing an apprentice on the project, must attach a copy of the Apprenticeship Agreement to the Contractor's certified payroll at the first involvement by an apprentice. The Contractor must maintain the proper ratio of apprentices to journeymen as required in the Wage Rate Schedule.

- Plan Approval: The A/E is responsible for obtaining the basic State plan approval(s) (structural, plumbing and electrical) for the project from the Department of Commerce, Division of Industrial Compliance (or other body having jurisdiction if the project does not occur on State-owned property.) This may include obtaining pre-submittal reviews, submitting plans and specifications, paying fees, responding to questions and correction letters, and making any design changes required to obtain plan approval.
- The A/E must request that 4 sets of "approved" Contract Documents be returned for distribution. The *original* approval stamps of these authorities must be visible on the drawings and the specifications. Non-original copies are not acceptable. One set of these documents will be distributed to each of the following:
  - SAO
  - Owner
  - General Contractor, Lead Contractor, or CM, as applicable
  - A/E
- The A/E is required to secure the National Pollutant Discharge Elimination System ("NPDES") general permit from the Ohio EPA and prepare a stormwater pollution prevention plan, if required.
- The A/E is required to secure zoning approval (if the project does not occur on State-owned property and is within the jurisdiction of a local zoning ordinance.)
- Any other required permit is to be secured by the Contractor. Such permits may include, without limitation:
  - Permit for abatement of hazardous materials
  - Demolition permit
  - Permit to install a sewer
  - Permit to install or remove a fuel storage tank
  - Permit and inspection of boilers

- The Contractor is responsible for scheduling all inspections required by all permits, and for scheduling the required State Fire Marshal and local fire official inspections required as part of obtaining approval for occupancy.
- EDGE Business Enterprise Program Participation Goal: Ensure that the Public Bid Advertisement (e.g., the newspaper legal advertisement) includes the Encouraging Diversity, Growth, and Equity ("EDGE") Business Development Program Participation Goal.
- Ensure that the Procurement Documents and the Contract Documents include appropriate and required information about the EDGE Program in text throughout the documents in areas such as, but not limited to:
  - Solicitation
  - Instructions to Bidders
  - Bid Form
  - Bidder's Qualifications form
  - EDGE Affidavit
  - Good Faith Effort form
- EDGE Participation Goal:
  - The Director has assigned a goal of 5 percent for all construction projects with Bid Openings on and after October 15, 2005.
  - The Director may authorize a different goal from time to time. Prior to publishing the Public Bid Advertisement (PBA) and before issuing the Procurement Documents, verify the current goal percentage with the ODAS Equal Opportunity Division (the "EDGE Office") and use the most current goal in the PBA and the Procurement Documents.
- Public Bid Advertisement: Public Improvements that exceed $200,000 in aggregate cost must be competitively bid per ORC Chapter 153 and, as such, a Public Bid Advertisement is required. Prior to publication, the A/E must submit the following documents to the Project Coordinator (PC):
  - One set of Contract Documents, approved by the Division of Industrial Compliance
  - One copy each of the Solicitation, the Bid Form and the Detailed Cost Estimate. For any alternate bid item, a cost estimate of each alternate, by trade contractor, must be included in the Detailed Cost Estimate.
- The Project Coordinator, with the assistance of the A/E and Project Manager, determines the advertisement and bid due dates, and prepares the legal advertisement to be placed in the local newspaper(s) in the county of the project to be bid. The Project Coordinator contacts the newspaper and arranges for the Ad to be placed and billed to the A/E.
- The legal advertisement must be published once a week for 3 consecutive weeks, with the bid opening no sooner than 8 days following the last bid advertisement. Additional bid advertisements may be placed in other newspapers to solicit Bidder participation, as determined by the A/E, Project Manager and Owner.
- The Advertisement is generally based on information contained in the Solicitation. The Ad must include the following items:
  - Location, date and time when bids will be opened
  - Project name and number
  - A/E contact information
  - Estimates for each Base Bid and the total of the alternates for each Contract
  - Location, date and time of Pre-Bid Meeting
  - Domestic Steel Notice per ORC 153.011
  - Bid document purchase information

    - Locations where Procurement Documents are available
- The A/E must provide Proof of Publication to SAO to document compliance with the statute. Proof of publication is a notarized statement and a copy of the Ad provided by the newspaper.
- Although bids are generally opened at SAO, the Owner may request that they be opened near the project site. The criteria, which SAO uses to consider such a request, are the location of the facility, and the experience of the Owner, the A/E or CM, in construction contract bid openings.
- If any or all bids are rejected by SAO, and the work is to be rebid, the advertisement for bids must be published once, not less than 5 business days preceding the date of the bid opening. The A/E must coordinate rebidding with SAO.
- Public Improvements that do not exceed $200,000 in aggregate cost may be awarded in a manner other than competitive bidding or competitive selection. The Project Manager will use the following contract award process:
    - Identify at least 3 Contractors, when possible, who can perform the work and seek proposals from those entities.
- The Project Manager will document the process for award using the letterhead bid format, and provide a summary. This record will be retained in the project file.

Acceptance: When the Owner signs and the A/E submits to SAO a Design Service Acceptance form for this stage, the A/E and the project may proceed to the Bid and Award Stage.

# 250 | Bid & Award

This Section identifies the procedures for bidding and contract award. The activities that are necessary to perform before the project will be released for bidding as discussed in Section 240 – Construction Documents, including the preparation for bidding, bidding, the evaluation of bids, and award and funding of construction contracts. It begins with steps prior to advertising and ends with issuance of the Notice to Proceed.

## Bidding Process

The bidding process involves the follow elements:

### Distribution of Procurement Documents

- The A/E or CM may contract with a printing company, known as a reprographer, to print and distribute the Procurement Documents (proposed Contract Documents, Procurement Requirements, and Available Information) to prospective bidders and plan rooms. The A/E, or CM must require the printing company to maintain an accurate accounting of all entities to whom documents are issued and all associated costs for the services rendered. In some cases the A/E or Owner may distribute documents, in which case the Plan Holder list must be coordinated among the various issuers.
- A Bidder may obtain the Procurement Documents in whole or in part from a printing company designated by the A/E, or other issuer if applicable. The prospective Bidder must make payment in a form acceptable to the reprographer in the amount of the actual cost of reproducing the documents, plus shipping charges when the prospective Bidder requests delivery. The payment for the Procurement Documents is not refundable. The Bidder must dispose of the documents after bidding is completed.
- The A/E must direct the reprographer to furnish a complete set of the Procurement Documents to each of the Public Plan Rooms listed in the Soliciation and other appropriate plan rooms approved by SAO for review by prospective Bidders, free of charge. The A/E will be reimbursed for the cost of reproduction and shipping of documents to plan rooms and SAO from the printing allowance included in the A/E agreement.

### Pre-Bid Meeting

- SAO, in conjunction with the A/E, and CM if applicable, will set a time and place for a pre-bid meeting, which will be indicated in the Solicitation. The Project Coordinator may attend the pre-bid meeting, review bidding requirements for those present, and answers any related questions. All Bidders are strongly encouraged to attend the pre-bid meeting. Pre-bid meeting attendance cannot be mandatory.
- The pre-bid meeting is an opportunity for prospective Bidders to examine the site, and identify and ask questions, and to attain a more complete understanding of the Procurement Documents. The A/E should also familiarize prospective Bidders with requirements of equal employment opportunity, prevailing wage, the EDGE program, the OBWC Drug Free Safety Program, campaign contribution limits, ethics compliance, Sustainability Requirements, an overview of OAKS CI, and other requirements, as necessary.
- At the pre-bid meeting the A/E must make no verbal interpretations of the Procurement documents, and will state that any statements made by the A/E, the Owner, or its representatives are not binding, and that any and all changes to the Procurement Documents will be made by written addendum. If substantive questions are raised at the pre-bid meeting which are not addressed in the Procurement Documents, the A/E will prepare an Addendum clarifying, expanding, or correcting the Procurement Documents in response to any issues identified at the pre-bid meeting and furnish it to all plan holders of record. If subsequent to the award of any Contract, there is a need to interpret, enforce or otherwise resolve any ambiguity, inconsistency, error or omission in the Contract Documents or between the Contract Documents and applicable laws, such interpretation, enforcement or resolution will be made with a preference to accomplishment of the purpose of the Contract, without additional cost to the Owner, if by any reasonable inference, the basis for such action could have been raised and resolved at the pre-bid meeting.

### Addendum to Procurement Documents

- If a Bidder perceives any conflict, error, omission or discrepancy on or between any of the Procurement Documents, or between the Procurement Documents and any applicable law, the Bidder may submit a request to the A/E for an interpretation or clarification. An Addendum will be used as the means to respond to any and all parties who request an interpretation or clarification.
- In response to any request for interpretation or clarification, the A/E will prepare an Addendum, which clarifies, expands, or corrects the Procurement Documents. The A/E will provide with the Addendum any drawings necessary and will identify any issued drawings within the written body of Addendum. Before issuing the Addendum the A/E will submit the Addendum by facsimile transmission or other means to SAO, and review the proposed content with SAO. SAO is primarily concerned with changes to General and Supplementary Conditions, the Bid Form, the Instructions to Bidders or any additions/deletions of Alternates. Changes to any of these items must be brought to SAO's attention on the facsimile transmission cover sheet and will require confirmation that SAO does not take exception to any item before the Addendum can be issued to Bidders.
- The A/E will send a copy of each addendum to each plan holder of record, SAO, the Owner, the CM if applicable, and to the plan rooms identified in the Solicitation. The A/E may direct a printer to print and distribute Addenda, or the A/E may perform this task. The cost of printing and distributing Addenda will be estimated by the A/E and included in the price for the Procurement Documents.
- The A/E will issue no Addendum later than 72 hours prior to bid opening, excluding Saturdays, Sundays and legal holidays without SAO approval. In order to prevent an extension of the bid opening, the Bidder is encouraged to make all requests for interpretation or clarification a minimum of 7 days before the bid opening. If a Bidder makes a request for interpretation or clarification at a time which is close to the 72 hour deadline before the bid opening, the A/E must consult with SAO before proceeding. SAO will determine if the significance of the issue(s) warrant issuing an Addendum and extending the bid date. If any Addendum is issued within 72 hours prior to the published time for the bid opening, excluding Saturdays, Sundays and legal holidays, the bid opening will be extended at least 7 days. The A/E, and CM if applicable, are required to coordinate any bid opening extension with SAO and the Owner. See ORC 133.12.
- Any interpretation or clarification of the Procurement Documents made in any manner other than a written Addendum will not be binding and the Bidder is not to rely upon any such interpretation or clarification. The A/E must not give verbal interpretations or clarifications during the bidding process. While professional judgment must be exercised in determining whether every answer should be distributed to each Bidder, the Instructions to Bidders requires a written response to each request for information or clarification.
- If no request for interpretation or clarification is made by the Bidder prior to the bid opening, the Instructions to Bidders provides that a Bidder will not be compensated for a claim alleging insufficient data, incomplete Procurement Documents, or incorrectly assumed conditions regarding the nature or character of the work. The intent of this provision is that the Bidder is obligated to notify the State of any apparent ambiguity in the Procurement Documents or inconsistency between the Procurement Documents and applicable law during the bidding period.

### Public Bid Opening

- The Project Coordinator conducts the bid opening. The Project Manager or the assigned Segment Manager must be available at all times by telephone or in person.
- The Project Coordinator must obtain from the A/E, prior to the bid date, a list of plan holders, including the presumed trade of each, and prepare the bid tabulation sheet prior to the Bid Opening.
- Prior to the bid opening, the Project Coordinator distributes to Bidders in attendance a **Bid Tabulation** form on which the Bidders may record the Bid Results.
- At the location indicated in the Notice to Bidders, and immediately after the time indicated, the Bids will be opened and read aloud. Any Bid which arrives after the time set for the bid opening will be returned to the Bidder unopened. The Project Coordinator opens and reads the Bids, and the A/E, Owner or

other person authorized by SAO records the Bids on the Bid Tabulation form. The Project Coordinator reads the following information from each Bid:

- Base Bid for each item bid
- Alternates (if any)
- Combined Base Bid
- Alternates (if any)

The Project Coordinator will also announce whether a bond and power of attorney are included with the bid.

- Following the bid opening, the Project Coordinator and another person who officiated in the bid opening sign the Bid Tabulation form. The Project Coordinator makes a copy of the completed Bid Tabulation form available to all Bidders present. The Project Coordinator provides the completed the Bid Tabulation to the Communications Specialist for posting on the SAO website.
- The Bid Tabulation form and the contents of all bid envelopes become public records and may be inspected at the bid opening or at any appointed time after the bid opening.

Low Bid Determination / Preliminary Responsiveness Review

- The A/E, the Project Manager, the Project Coordinator and the Owner conduct an informal review of the apparent low Bidder(s) for Bidder responsiveness. They will address the following issues:
  - There are no apparent defects or omissions on each apparent low Bidder's Bid Form, including:
    - Bid Guaranty and Power of Attorney are provided
    - All Addenda are acknowledged
    - Bid Form is signed
    - Responsible Bidder Information is attached (If not, the PC asks the Bidder to provide it to SAO within 3 business days)
    - EDGE Goal Participation response indicated (Bidder met or exceeded advertised EDGE Goal or will request a waiver)
  - Evaluate which Contractor(s) are the apparent low Bidders and in what amounts. To make this determination, the Total Base Bid will be added to the total of the Alternates proposed to be accepted. Alternates may be accepted in any order. A blank entry, or an entry of "No Bid", "N/A", or similar entry on any Alternate will cause the bid to be rejected as non-responsive only if that Alternate is accepted.
  - If any Combined Bids are submitted, all combinations of Bids will be considered to determine which combination of bids results in the lowest cost.
  - The total of the proposed award(s) to the apparent low Bidder(s) is within the Owner's project budget.
  - The proposed award amount is not more that 10 percent over the A/E's estimate for that combination of items.
  - The Project Coordinator checks the following components of the apparent low Bidder's bid:
    - Verifies that the Bidder is enrolled in an OBWC-approved Drug-Free Safety Program
    - Checks the State Auditor's website to determine whether the Bidder has any Unresolved Findings for Recovery as required by ORC 9.24
    - Checks the financial rating of the bonding company to verify that it is not lower than "A-"
    - Verifies that the Bidder included an EDGE Commitment To Participate form (M140-01-07) and that one of the Options is marked
  - The project team establishes assignments for completing the responsiveness/responsibility review.
  - If the bid opening is at the Owner's facility and a representative of SAO is not present, the Owner will provide a copy of the completed Bid Tabulation form showing the bid results to SAO by e-mail

immediately following the bid opening. The Owner will make a copy of the Bidder's Qualifications forms for the apparent low Bidders and furnish them to the A/E for further evaluation. All original bids, including envelopes, will be delivered to SAO the next business day.

- The Project Coordinator verifies that the certified EDGE business or businesses that are listed by the on the apparent low Bidder's bid are actually indicated on the EDGE website as being certified; or, if appropriate, confirms that the Demonstration of Good Faith is acceptable. This may require SAO to request that the Bidder deliver its Demonstration of Good Faith effort within the period required.
  - If the lowest Bidder indicates with its Bid that it meets or exceeds the EDGE participation goal and provides acceptable documentation on the form provided for such purpose by the Department through SAO which is signed by both the Bidder and the EDGE-certified business(es) indicating their intent to contract and perform on the project if the contract is awarded to the Bidder, the Project Coordinator will include the form with other required documentation to determine responsiveness and responsibility of the Apparent Low Bidder.
  - If the lowest Bidder indicates with its bid that it does not meet the advertised EDGE-participation goal, the bidder must submit its Demonstration of Good Faith within the time period required by the Department. The bidder must provide a complete Demonstration of Good Faith form and sufficient documentation of the Bidder's good faith effort to meet the advertised EDGE participation goal (refer to OAC 123:2-16-09 (no active link) for requirements to demonstrate a good-faith effort). Upon receipt of a completed form and the supporting documentation, the Project Manager will forward the form and the supporting good-faith documentation to the State Architect for review.
  - The State Architect will review, and if appropriate, investigate the good-faith documentation provided by an apparent low-bidder on the construction project contract. The State Architect will evaluate each of the 7 areas of good-faith effort outlined in OAC 123:2-16-09 (D)(1-7). The State Architect will provide an evaluation of each of the seven areas in writing and maintain such evaluations in the project file.
  - If the State Architect finds that the Bidder met each of the seven areas of good-faith effort required in the Administrative Rule, the State Architect will consider the bidder responsive and responsible relative to the EDGE participation goal for the contract.
  - If the State Architect determines that the bidder did not demonstrate sufficient good-faith effort in each of the seven areas required in the Administrative Rule to include the advertised level of EDGE participation in its bid, the State Architect will indicate such in a written report to the Director or the Director's delegated authority, who may determine that the Bidder is not responsive or responsible relative to the EDGE participation goal for the contract and therefore will not qualify for award of the contract.

## Bid Evaluation and Recommendation

### Bid Withdrawal, Bid Rejection and Appeal, and Re-bid

- Contractors may withdraw bids within 48 hours of the bid opening per Instructions to Bidders, Article 4.
- SAO will determine whether any or all bids are rejected. If all bids are rejected, the PC will issue a Notice of All Bids Rejected (L250-01). The Bidder may file a written protest of the bid rejection within 5 days of the bid rejection.
- SAO will determine if a re-bid is required by statute in accordance with Article 3 through Article 6 in the Instructions to Bidders.

### Responsible Bidder Evaluation

- The Contracting Authority will determine whether any Bidder is rejected as not responsible, in which case a Bid Rejection Notice is required. The Bidder may file a written protest of the bid rejection within 5 days of the bid rejection.

### Recommendations for the Award of Construction Contracts

- After the bid opening, the Project Coordinator (PC) makes a copy of the Bid Form and other bid enclosures of the apparent low Bidder(s) for the A/E. The A/E conducts a evaluation of those bid(s) for responsiveness and responsibility and consults with the Owner as to which Alternates should be accepted. The A/E must confer with SAO if it believes that the Bidder is non-responsive or not responsible. The A/E submits a Letter of Recommendation to the Project Coordinator. The letter must include language that states that the recommendation is being made with the concurrence of the Owner or after consultation with the Owner, and the following:
  - Each recommended Contractor's name, base bid, accepted Alternate(s), and total contract amount
  - A subtotal of the amount of construction contracts
  - The recommended amount of the Owner's construction contingency, also stated as a percentage of the construction contracts
- The PC contacts the Owner to confirm the availability of funds needed for the recommended contracts and contingency. The PC prepares SAO's letter of recommendation and faxes and mails it to the Owner for use in its Controlling Board request. The PC also faxes and mails a copy of the letter of recommendation to the A/E. SAO requires the Owner to send a copy of the Controlling Board request to SAO.
- The Owner prepares the purchase order and sends to the PC for SAO approval. The PC secures the appropriate SAO Segment Manager's signature and forwards the encumbrance to State Accounting. The PC monitors the OAKS Financial system for the purchase order approval date.
- The PC requests that the Contractor provide a bid extension letter if it appears that the 60 day period during which the Bid is valid may expire before the contract is executed. If the Contractor does not provide such letter within the 60 day period, and the period elapses before the contract is signed, the Bid is invalid. In the event that the Contractor is not willing to provide an extension letter, the PC may ask the next low Bidder who is found to be responsive and responsible to do so. If that Bidder provides an extension letter within the 60 day period, that Contractor may be awarded the Contract after the 60 day period has elapsed.

# 300 | Construction

The Sections in this Group describe the construction process and related issues. The Sections consist of the following:

310 | Contracts

320 | Construction Schedule

330 | Contractor Payment

340 | Interpretation & Modification

350 | Meetings & Reports

360 | Notices & Correspondence

370 | Submittals

380 | Claims & Disputes

390 | Contractor Closeout

# 310 | Contracts

This Section identifies the procedures for selecting and approving Subcontractors, Material Suppliers, and Consultants.

## Contract Award and Execution

### The Contract and Related Documents

- The award and execution of the Contract is based upon the expectation that the lowest responsive and responsible Bidder will comply with all conditions precedent for Contract Execution within the timeframe specified in the Notice of Intent to Award (L250-09).
- As soon as possible after receipt of the A/E's Letter of Recommendation, the Project Coordinator will issue a Notice of Intent to Award, which will notify the apparent successful Bidder that, subject to the Contractor's compliance with all conditions precedent for Contract Execution within the time specified, SAO intends to award a Contract to the Bidder. SAO reserves the right to rescind any Notice of Intent to Award if it determines that the Notice was issued in error.
- The Notice of Intent to Award directs the Contractor to provide the following submittals within 10 days of the date of the Notice of Intent to Award.
  - "Bid Information" to be held in escrow – instructions concerning the content and handling the Bid Information Escrow are in the Instructions to Bidders
  - Contract Bond (if, in lieu of a Bid Guaranty and Contract Bond, the Contractor submitted with its bid a certified check, cashier's check or letter of credit as its bid guaranty)
  - Certificate of Compliance issued by the Department of Insurance, showing the Surety for all bonds is licensed to do business in Ohio
  - Power of Attorney (for a contract bond only)
  - Certificate of Good Standing issued by the Secretary of State to certify that the firm is registered to do business in the State of Ohio (required for firms incorporated outside the State of Ohio only)
  - Signature Authorization (if the bid was signed by a person other than the company president)
  - Ohio Workers' Compensation Certificate
  - Certificate of Compliance with Affirmative Action Programs, issued pursuant to ORC 9.47
  - Certificate of Insurance (ACORD form is acceptable) with indicated Builder's Risk or Installation Floater for the amount required by the General Conditions, and copy of additional insured endorsement. SAO reserves the right to request a certified copy of the Contractor's insurance policies. The Certificate or form must include the correct project number and name.
  - Proof of licensing by the Department of Commerce, Industrial Compliance Division, Ohio Construction Industry Licensing Board (OCILB) pursuant to ORC Chapter 4740 for Contractors performing plumbing, electrical, hydronics, refrigeration; or heating, ventilating and air conditioning.
  - For all projects issued for bidding using a DAS construction contract model, all Bidders for projects must be enrolled in, and in good standing in a Drug-Free Safety Program (DFSP) approved by the Ohio Bureau of Workers' Compensation prior to submitting its Bid. Further, the successful Bidder must require that in its subcontracts with any subcontractors that provide or performs labor on the project site to also be enrolled in a OBWC-approved DFSP before providing or performing labor on the project site. Refer to OAC 4123:17 and the Standard Requirements for additional information.
- If necessary, the PC communicates with the Contractor and attempts to ensure that the Contactor provides the required documents in the required time frame.
- If the Bidder fails to provide the submittals within the required time, SAO may cancel the Notice of Intent to Award, and award the Contract to the next low responsive and responsible Bidder or rebid the Contract.
- The PC will ask the Bidder to provide a bid extension letter to extend the bid through the anticipated Contract Execution Date, if there is a chance that the Contract may not be awarded within 60 days of

the bid opening. If the Contract is awarded within 60 days of the bid opening, any increases in material, labor and subcontract costs will be borne by the Bidder without alteration of the amount of the bid. If the cause of the failure to execute the Contract within 60 days of the bid opening is due to matters for which the State is solely responsible, the Bidder will be entitled to a Change Order authorizing payment of verifiable increased costs in materials, labor or subcontracts. If, however, the approved increase in cost makes the Bid higher than another Bid, the Contract may be awarded to the Contactor who submitted that lower Bid, or all the bids on the Contract may be rejected and the Contract may be rebid.

- Next, the Project Coordinator prepares the following documents (formerly known as the merge package):
  - Contract Form (M140-01-00 52 00-CF)
  - Contract and a related cover letter
  - Certified payroll information, requesting a payroll schedule and including a sample payroll reporting form
  - A completed Tax Exemption Certificate
  - IRS W-9 form
  - Certification of Contractor's Signature form, for use if any documents will be signed by a person other than the company president
- As soon as possible after issuance of the Notice of Intent to Award, the Project Coordinator sends these documents to the Contractor for it to sign and return, or retain and use, as applicable. This is concurrent with the Owner's effort to obtain Controlling Board approval of release of the required funds.
- The A/E, and CM if applicable, will review and recommend or deny any requested increase. If any increase is determined to be due, the A/E, and CM if applicable, must write a letter to the Bidder, with copies to SAO and the Owner, indicating the recommended increased cost. Any increase will be the first order of business when the Contract is issued and will be approved via Change Order. The A/E is required to prepare the Change Order in advance of the pre-construction meeting for signing at that meeting. If a mutual agreement cannot be made regarding increased costs, the State reserves the right to determine the amount.
- If the cause of the failure to execute the Contract within 60 days of the bid opening is due to matters for which the Contractor is responsible, no request for increased costs will be granted.

### Funding

- As soon as possible after the issuance of SAO's Letter of Recommendation, the Owner must provide to SAO evidence of funding for the Contracts, Owner's Construction Contingency and other obligations.
- The Project Coordinator will generate and send to the Owner a Construction Recommendation Letter (L140-01), which provides basic information required by the Controlling Board.
- The Owner must submit a Controlling Board request to obtain release of the State capital funds required to fund the construction contracts and related expenses. Occasionally it may also be necessary to transfer previously released funds from another line item to the line item for the project. A list of Controlling Board meeting dates and the submission deadlines for requests is available from the Controlling Board, Office of Budget and Management. The Owner must follow the policies and procedures of the Controlling Board. Guidance for completing Controlling Board requests is available on-line at http://ecb.ohio.gov/.
- The Owner must have a representative attend the Controlling Board meeting at which the request will be heard to respond to any questions. SAO will have a representative at the meeting who will also support the agency's request if required.
- Approval by the Controlling Board will result in the issuance of an encumbrance document which will serve as evidence of funding.
- The Owner must also encumber any other funds which may be involved and send a copy of the encumbrance to SAO.

### Contract Execution

Once the PC has received evidence of funding, the PC will forward the Contract to the State Architect for the DAS Director's signature. The Project Coordinator will then forward the Contract to the Business Counsel Section of the Attorney General's Office for signature. The Attorney General will return the executed contracts back to the Project Coordinator. The Project Coordinator sends one executed contract and a Notice to Proceed to the Contractor, with copies to the A/E and Owner. The Project Coordinator also sends a copy of the Notice to Proceed to the Project Manager. The Notice to Proceed authorizes the Contractor to proceed with the work and establishes the date for commencement of the Contract and the required Contract Completion Date.

None of the rights, duties, and obligations described in the Contract Documents become binding and effective until the Contract Form is executed by DAS and approved by the Attorney General.

When the Contact Form has been approved, the Project Coordinator will notify the Contractor's Surety and the agent of the Surety of the award in writing. See **Surety Notice of Award** (L250-14).

## Plan Approval and Conformed Documents

At the start of construction, the A/E will deliver the Certificate(s) of Plan Approval and a complete set of the original, stamped/signed Permit Documents approved by the Division of Industrial Compliance, with addenda and any adjudication letters, to the job site and give them to the General Contractor, Lead Contractor, or CM. In the Design-Build project delivery method, the Design-Builder is responsible for obtaining the Plan Approval and Permit Documents. The General Contractor, Lead Contactor, CM, or Design-Builder will post the Certificate of Plan Approval(s) in a conspicuous place in the temporary facilities, and the place the approved drawings and specifications in a secured location for the Division of Industrial Compliance's use only.

No later than 7 days after the issuance of the Notice to Proceed, the A/E will deliver to the Contractor Contract Documents into which all Addenda issued during the bidding stage have been incorporated. The number of sets to be issued to the Contractor is stipulated in the General Conditions. The A/E will also distribute one set of the revised documents to the Owner and SAO. The cost of reproduction and shipping will be paid for by the A/E, which will be reimbursed from the printing allowance included in the A/E agreement. The Contractor or others may obtain additional copies of the documents from the printer at the cost of reproduction, plus shipping if the Contractor requests delivery.

## Subcontractors and Material Suppliers

**OAKS Capital Improvements Procedure**

The Contractor must submit and the A/E, and CM if applicable, will review and recommend approval or disapproval to the Contracting Authority of each Subcontractor and Material Supplier through the **Subcontractor Supplier Declaration** business process.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the Contractor must identify its proposed Subcontractors and Material Suppliers on the **Subcontractor & Material Supplier Declaration** form (F310-01).

This form, along with the related instructions for completion, is available on the SAO website at http://ohio.gov/sao, then click on "Forms."

The State reserves the right to reject any Subcontractor or Material Supplier not identified through the Subcontractor Supplier Declaration business process or on the Subcontractor & Material Supplier Declaration form. Failure of the A/E or CM to notify the Contractor within 10 days of submitting the Subcontractor Supplier Declaration will constitute notice that the State has no objection to the firms listed. Should the State reject any Subcontractor or Material Supplier, the Contractor must replace the Subcontractor or Material Supplier at no additional cost.

The Contractor must not replace any Subcontractor or Material Supplier after execution of the Contract without written approval of the Project Manager. The Contractor must submit an amended form and a written justification for any change to the Contractor's Subcontractors or Material Suppliers.

- The Contractor must timely provide a certified statement from any displaced EDGE-certified business indicating that it no longer wishes to participate in the project contract and agrees to hold harmless the Contractor and the State and that it will protect and defend the State and the Contractor from any action resulting from the displaced certified EDGE business enterprise not participating in the project contract.
- In the event the displaced EDGE-certified business does not supply such a certification, the Contractor must timely provide certification that the Contractor will hold harmless and protect and defend the State against any action resulting from the displaced EDGE-certified business not participating in the project contract.

The Project Coordinator also reviews the Subcontractor & Supplier Material Declaration and confirms that all subcontractors listed on the form are enrolled in the BWC Drug Free Safety Program and that all subcontractors and material suppliers indicated as EDGE-certified businesses are identified on the EDGE-certified business listing on the Equal Opportunity Department's EDGE website. The Project Coordinator also checks the SAO files to determine if there are any contractor evaluations that might cause the Project Manager to further evaluate the use of a subcontractor. The Project Coordinator forwards all of these documents and the superintendent resume to the Project Manager for signature and acceptance.

In the CM at Risk and Design-Build project delivery methods, first tier Subcontractors are prequalified by the CM or DB in consultation with the contracting authority. Lower tier Subcontractors are evaluated through a process very similar to the process delineated above.

## Schedule Consultant / Manager

### Obtaining the Schedule Consultant

- Under the Multiple-Prime project delivery method without a CM, the Schedule Consultant for a project is engaged by the Lead Contractor, in consultation with the Contracting Authority as described below, and compensated through an Allowance. See Section 200 – General Design Requirements. On General Contracting projects, the Contractor typically provides scheduling services. On Construction Management projects, the CM typically provides scheduling services. For Design-Build projects, the DB typically provides scheduling services. The Contracting Authority may also provide scheduling services for the project, or engage their own consultant to perform schedule analysis.
  - The Lead Contractor is required to submit qualifications of three Schedule Consultants to SAO. The Scheduling Consultant will be selected by SAO based upon qualifications and experience, not cost.
  - The Lead Contractor must enter into agreement with the Schedule Consultant for the Consultant to provide services as outlined in the specifications.
    - The Schedule Consultant is responsible to preparing the initial schedule, updating the schedule, and making visits to the construction site.
    - Payment for schedule modifications required due to a Contractor's lack of performance must be paid by the Contractor responsible for non-performance, not paid from the Schedule Consultant Allowance.
  - Once engaged, the Schedule Consultant is referred to in the General Conditions as the Schedule Manager.

### Schedule Manager

- The Schedule Manager must attend and participate in the Pre-Construction Meeting.
- The Schedule Manager may be paid by the Lead Contractor but is a obligated to facilitate the project for all Contractors, the A/E and the Owner.

- The Lead Contractor is responsible to report all variances from the approved schedule, in writing, to the A/E at the weekly Progress Meeting, or, by mutual agreement, prior to the Progress Meeting, and to the Scheduling Consultant on at least a monthly basis.
- All Contractors are responsible to report their weekly progress with regard to the approved construction schedule. Schedule deviations or delays caused by the Contractors to perform in accordance to the approved schedule must be reported by the Contractor involved in writing to the A/E and the Schedule Manager no later than the first weekly progress meeting after the occurrence.

# 320 | Construction Schedule

This Section identifies the procedures for creating and updating the Construction Progress Schedule.

## Construction Scheduling

### Approved Schedule

- The Schedule Manager will develop in consultation with the Contractors, a comprehensive schedule, which is acceptable to the Contractors. The Schedule will be used as the management tool to govern the sequences and the length of tasks to perform the Work during the Construction Period.
- All Contractors *approve* the Construction Schedule. The A/E, Construction Manager, the Owner, and SAO *accept* the Construction Schedule. All parties agree to manage their Work according to the approved schedule.
- In a D-B-B project delivery method, the Schedule Manager must prepare an interim schedule for use by all parties to guide and coordinate Work until the approved project schedule is produced and accepted. The approved Construction Schedule must be produced no later than 90 days after the start of construction. In the CM at Risk and Design-Build delivery methods, the Construction Schedule is typically prepared during the Construction Documents Stage.

Where required in the Project Manual, the Lead Contractor must obtain the services of an independent Schedule Consultant, who will create a Construction Progress Schedule. See Section 200. The Lead Contractor must include an allowance in its bid to cover the cost of the Scheduling Consultant.

The allowance can only be used for work performed by the Schedule Consultant to coordinate, prepare, and update the Construction Schedule for the project based on the requirements of the specifications.

The Contractor includes in its Base Bid all costs to participate in the preparation of the schedule and in the schedule update process including developing and furnishing schedule information regarding the Contractor's work. These costs are not part of the allowance for the independent scheduling consultant.

The Lead Contractor, through its Schedule Consultant, General Contractor, CM, or DB, is responsible for preparing and coordinating the Construction Schedule in cooperation with the other Contractors, if applicable. The development of the schedule will start with a kickoff meeting. The purpose of this meeting is to restate the schedule requirements and what is expected of all Contractors on the project with regard to creating the schedule.

The Contractors, Owner, SAO, CM and Schedule Manager are required to attend the schedule kickoff meeting. The agenda for this meeting includes the following items for discussion:

- Schedule submittal due dates
- Contract Notice to Proceed and contract completion date
- Milestones as identified within the Contract Documents
- Work tasks, sequence and phasing
- Schedule format and details
- Resource loading
- Monthly updates and signoff requirements
- Float – ownership and use
- Activity duration
- Schedule of Values and coordination with schedule activities
- Weekly schedule information:
  - Previous progress
  - Scheduled progress

- Anticipated possible problems
- Explanation of out of sequence work

**OAKS Capital Improvements Procedure**

The Schedule Manager must distribute original and revised schedules to each Contractor, the Contractors will review and approve and forward the schedule to the A/E, and the CM if applicable, who will receive, review and distribute the schedule to each Contractor, the Contracting Authority, and the Owner through the **Schedule Approvals** business process.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the Schedule Manager may distribute original and revised schedules to each Contractor, the Contractors will review and approve and forward the schedule to the A/E, and the CM if applicable, who will receive, review and distribute the schedule to each Contractor, the Contracting Authority, and the Owner through traditional means as directed by the Contracting Authority.

The Construction Schedule must be completed within 90 days after the Notice to Proceed and comply with the following guidelines:

- Approved and signed by all Contractors
- Includes a critical path
- A schedule format that reports both scheduled and actual dates
- Place the following information on the first page of the schedule:
  - SAO project number, project number and phase, if applicable
  - Name of Owner
  - Notice to Proceed date(s) and completion date(s)
  - Legend defining symbols used
  - Revision box with the date of the original schedule date and spaces where all updates can be recorded and retained throughout the project
- Each schedule page will be numbered as a page of the total pages e.g., “Page 1 of 3”
- Use a standard computer sheet size of 24” x 36”, 36” x 42”, or 11” x 17”
- Schedule line items are separate. Each line item is labeled identifying the responsible Contractor
- Provide a horizontal time schedule on each page indicating the month and the date of the first work day (Monday) of each week, and to identify a weekly schedule of activities.
- List the schedule of activities in chronological order, identified by the Construction Specifications Institute’s *MasterFormat* number for major divisions of work, followed by specific tasks and subtasks. It is often useful and appropriate to cross-reference specification sections when possible. This list must include period(s) for construction close out including correction of punch list items, testing and balancing, document submittals and demonstration.
- The first or last page of the Construction Schedule also includes the company name, address, and telephone number of the A/E, the CM and all Contractors, including space for review, approval and acceptance by these stakeholders.
- The A/E reviews the Construction Schedule and recommends the Schedule to the Project Manager for their review and acceptance. The Project Manager returns copies of the accepted schedule to the A/E and the Contractors. The Project Coordinator documents the Schedule accepted date on Contractor Payment Ledger.
- The A/E or CM will not process any Application for Payment after the interim Schedule without a Construction Schedule approved by all Contractors and accepted SAO.

- The Contractor will prepare and submit a written report each week to the A/E prior to the weekly Progress Meeting outlining the following:
  - Activities that have started or have been completed during the preceding week
  - Activities that have been completed during the preceding week
  - Work in progress; percent complete
  - Remaining duration
  - Projection of all activities to be started or completed in the following 2 to 6 weeks

The Schedule Manager will update the Construction Schedule monthly. Each updated Construction Schedule must be signed by the Contractors that serve as an affirmation that the Contractors can meet and will adhere to the requirements of the updated schedule.

A Contractor which does not perform Work in compliance with the critical path of the schedule is subject to a 72-Hour Notice issued by the A/E or the Department. See Section 360 | Notices & Correspondence for additional details related to 72-Hour Notice.

The Lead Contractor or CM must provide monthly progress reports to the A/E, SAO, and the Owner which include, if required, recommendations for adjusting the construction progress schedule to meet project milestones and contract completion dates.

The A/E or CM review the monthly progress reports and confirm the recommendations, or make other recommendations for adjustment relative to the project milestones and contract completion date. Recommendations may include but are not limited to the following:

- Increase Contractor's workforce to eliminate backlog of work
- Increase working hours per shift
- Increase shifts per workday
- Increase workdays per week
- Quantity of construction equipment
- Rescheduling activities
- Any combination of the above

# 330 | Contractor Payment

This Section identifies the procedures for Interpreting and Modifying the Contract Documents, and Contractor Payment.

## Schedule of Values

### OAKS Capital Improvements Procedure

The Contractor must develop its draft Schedule of Values on the Contract SOV Upload Template (F140-02), which is an Excel spreadsheet, and submit it via e-mail to the A/E, the CM if applicable, and the Contracting Authority prior to uploading it to the OAKS CI database.

Once the draft SOV on the upload template is acceptable to the Project Manager, the Contractor may submit and the A/E, and CM if applicable, will review and recommend approval or disapproval to the Contracting Authority of the Contractor's Schedule of Values through the Contract Schedule of Values business process.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

### Traditional Paper-based Procedure

If the Project is not administered using OAKS CI, the Contractor must submit its proposed Schedule of Values on the Contractor Payment Request form (F140-01) or the "short form" version (F140-02).

These forms, along with the related instructions for completion, are available on the SAO website at http://ohio.gov/sao, then click on "Forms."

The Contractor must obtain the form and review the instructions prior to sending a completed Schedule of Values to the A/E for review and recommendation to SAO for approval.

The Schedule of Values must be used to breakdown the construction cost into line items. Include specific detail for what each line item represents. The following represents items required:

- The Contractor must complete items using an accurate and detailed breakdown for the work. The breakdown must cross-reference the *MasterFormat* numbers and titles used in the Project Manual.
- Mechanical and Electrical Contractors must include separate line items for all major pieces of equipment and group the smaller equipment items by type.
- A "Per Floor" or "Per Wing" breakdown may also be used, depending on building configuration.
- The line items for labor and material must accurately reflect the cost for each item, including overhead and profit.
- Allowance items must be identified separately and provide sufficient detail to determine the progress for each allowance item.
- The Schedule of Values must identify in sufficient detail the type(s) and cost(s) of labor, materials, goods, and services provided by each certified EDGE business on the project contract and must clearly identify which certified EDGE business provided the indicated labor, materials, goods, or services.

The Contractor must submit the completed Schedule of Values within 30 days of Notice to Proceed to the A/E and CM. The A/E and CM review and recommend the Schedule of Values to SAO for its acceptance.

SAO will return the Schedule of Values to the Contractor for re-submittal if it does not meet the required line items and details of the work.

SAO will review the Schedule of Values for accuracy and the distribution of dollars between material and labor.

The Project Coordinator forwards the proposed Schedule of Values to the PM for review and acceptance. Upon the PM's acceptance, the Schedule of Values may be used in conjunction with future Payment Requests. No Application for Payment will be processed without an approved Schedule of Values.

## Payment Requests

| OAKS Capital Improvements Procedure | Traditional Paper-based Procedure |
| --- | --- |
| The Contractor must submit and the A/E, and CM if applicable, will review and recommend approval or disapproval to the Contracting Authority of the Contractor's Payment Request through the **Contractor Payment Request** business process. | If the Project is not administered using OAKS CI, the Contractor must submit its Payment Request on the **Contractor Payment Request** form (F140-01) or the "short form" version (F140-02), in accordance with the instruction sheets. |

Payment of funds for work or material by a Subcontractor or Material Supplier cannot be made prior to its approval on the Subcontractor & Material Supplier Declaration.

The Contractor monthly payment request process includes the following:

- Contractor submits a draft (pencil copy) of the payment request approximately 1 week before final review.
- The A/E, the CM and the Project Manager review the pencil copy for formal submittal and execution.
- Contractor submits up to 5 copies of the Payment Request for signature and processing. Verify exact number of copies at the preconstruction meeting.
- The Contractor must submit one Certified Payroll Report with each Payment Request on the Payroll for Contractors & Subcontractors on the Payment Request form, Part G, and in accordance with Document 00 73 43 – "Wage Rate Requirements." The Certified Payrolls Report should be attached to the back of the second copy of the Payment Request.
  - One Certified Payroll Report is required for each week of work reflected on the Payment Request.
  - Use of computerized payroll or other reports containing the required information are acceptable.
  - If a Payment Request is submitted for a period when no labor was performed by the Contactor, the Contactor must submit a Certified Payroll Report stating, "no labor was performed during this period".
  - If a subcontractor performed no work in a period for which a Payment Request is submitted, a payroll report is not required to be submitted for the subcontractor.
- The A/E, the CM, and the Project Manager sign in blue ink indicating their approval. The A/E, the CM, the Project Manager and the Contractor will keep a copy of each Contractor Payment Request. Approved copies will only be returned if SAO makes a change.
- The Payment Request must be sent by the A/E or CM directly to SAO. SAO will reviews, approve, and send the application for payment to the Owner who will attach a voucher and send to State Accounting. State Accounting will direct deposit the payment into the contractor's account.

Payment must be made for an approved Payment Request within 30 days from the date of approval of A/E.

### Retainage and Escrow Account

- Retainage will be withheld from the Application for Payment in the amount of 8 percent of the labor for only the first 50 percent of the contract.
- The first payment application after the contract is 50 percent complete will not have additional funds retained from payments for labor. Retainage is not withheld on projects whose total awarded contract amounts are less than $15,000.
- The Project Coordinator will issue a cover letter, attaching a copy of the contractor's payment request and signed escrow agreement, notifying the Owner that it needs to prepare a voucher to set up an escrow account. The Project Coordinator will update the electronic escrow file. (An escrow account is set up after 50 percent of the contract is completed as evidenced by payment including approved change orders to date).

- The Owner will prepare the voucher and send it to the GSD Business Office, which will forward the voucher to State Accounting. Upon receipt of the check from State Accounting, the check is forwarded to the Fiscal Officer. The Fiscal Officer sends the check and a signed copy of the escrow agreement to escrow bank that receipts the deposit. A signed copy of the escrow agreement will also be sent to the master file.

Payment for Stored Material

- A Contractor may request payment for not more than 92 percent of the value of stored material delivered to the project site or other approved storage site. The Contractor must prepare and submit with the Payment Request for the stored material a Letter of Certification that includes the following information and attachments.
  - Invoice for the materials stored
  - Identification of the storage site, which must be acceptable to the A/E.
  - Proof of Insurance
  - Certification that the materials are in conformity with the Specifications
  - Certification the materials have been tagged with the project name and number
- The Contractor must pay all costs for the A/E or CM, if applicable, to visit a storage site other than the project location. Such costs may include, without limitation, the following:
  - Airfare
  - Car Rental
  - Lodging
  - Meals
  - Direct Personnel Expense

Change Orders

- Work performed on an approved Change Order during a period covered by the Contractor Payment Request may be invoiced by the Contractor in that Payment Request.

## Prevailing Wages

Within 7 business days after receipt of a notice of a change in the prevailing wage rates, the Project Coordinator will notify the Contractor of the change. The Contractor must obtain the wage rate revisions from the Department of Commerce, Wage and Hour Bureau and pay any wage rate increase during the term of the Contract.

The Contractor is required to submit payroll reports with each Application for Payment. The reports are to be certified by the Contractor that the payroll is correct and complete, and the wage rates shown are not less than those required by the Contract. The Contractor will be responsible for submitting all payroll reports of the Contractor's Subcontractors. The payroll reports must comply with the requirements provided in Document 00 73 43 – "Wage Rate Requirements."

If a Contractor does not perform work on the site during a given pay period, the Contractor must submit a payroll report form annotated "No work performed" with the respective Payment Request. If a subcontractor does not perform work at the site in a given pay period, the Contractor is not required to submit a payroll report for that subcontractor.

If a Contractor employs an apprentice on the project, the Contractor must attach a copy of the Apprenticeship Agreement to the Contractor's certified payroll at the first involvement by an apprentice. The Contractor is also required to maintain the proper ratio of apprentices to journeymen as required in the Wage Rate Schedule.

## Liens

If the A/E or CM receives a Claim Affidavit for Lien, it must be immediately forwarded to the Fiscal Officer. A Subcontractor, Material Supplier or Laborer requesting information or assistance regarding payment from a Contractor, should be referred to the Notice of Commencement of Public Improvement (F310-06) for further information. The Notice provides the necessary information for a Subcontractor, Material Supplier or Laborer to file a Claim Affidavit or make a claim against the Contractor's Bond.

It is not the responsibility of the A/E or CM to make judgment as to the validity of a claim or to withhold payments from the Contractor because of the claim. All Contractor Applications are to be processed and forwarded to SAO which will take the appropriate actions regarding a lien. SAO may direct the A/E or CM to make appropriate reductions on Payment Requests to avoid payment delays. This approach may be recommended if the Owners are issuing vouchers prior to SAO approval of Payment Requests.

# 340 | Interpretation & Modification

This Section identifies the procedures for Interpreting and Modifying the Contract Documents, and Contractor Payment.

## Requests for Interpretation

The Contractor, Owner, or other party may submit to the A/E a formal request for interpretation or clarification of the Contract Documents via a Request for Interpretation (RFI). The Contractor may indicate whether, in the Contractor's opinion, the issue raised may involve an adjustment in the Contract Sum or Contract Time or both.

**OAKS Capital Improvements Procedure**

The Contractor or Owner must submit its request and the A/E must render its interpretations to the Contracting Authority, the Owner, the CM if applicable, and each Separate Contractor through the Request for Interpretations business process.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the Contractor must submit its request on the Request for Interpretation form (F310-07).

This form is available on the SAO website at http://ohio.gov/sao, then click on "Forms."

The A/E must respond to each RFI within 3 business days and distribute the response to each Contractor. A Contractor that submitted an RFI may respond to the A/E's response within 3 days to indicate any adjustment to the Contract, which the Contractor believes may result from the A/E's response. The Project Manager will verify that the A/E and Contractor are providing timely responses to RFIs.

## Changes in the Work

When the need arises during construction to make a change in a Contract or Contracts, the A/E may use one of three processes to initiate the change. The following identifies the processes and provides guidance in making the determination of which process to use.

- Change Directive
  - Immediate or urgent need
  - Must be converted to Change Order within 14 days of issuing a Change Directive except when performed on a time and materials basis
- Change Order via Proposal Request (PR)
  - Used when a change in the Work will not have an imminent impact on the Construction Schedule.
  - May affects multiple Contractors
  - May involve matters of low or moderate complexity
  - May be relatively complex and require detailed work descriptions.
  - The Owner reserves the right to decline to perform the proposed work.
- Change Order via Request for Change Order
  - Sometimes initiated by a Contractor after the A/E's response to an RFI.

When considering a change, the A/E will make preliminary inquiries to determine the cost or impact that requested changes may have on the project, and will determine whether the change should be initiated as a Change Directive or a Proposal Request. The selection of the appropriate process for each change may vary somewhat by individual and circumstance, but is a matter requiring sound professional judgment. The A/E will consult with the Project Manager to verify the appropriate use of each process.

The A/E reviews all Requests for Change Orders and recommends justifiable changes to the Owner and SAO for a Change Order. The A/E will include a cost estimate to determine the Owner's exposure of the Change Order as part of the A/E's recommendations. The Project Manager and Owner may authorize the A/E to prepare documents for the Change Order. The A/E will direct minor changes on an issue by issue basis. This Section will focus on changes of a substantial nature, are required and for which a formal Change Order process is necessary.

A separate Change Order may be issued for each change or small group of closely related changes. Unrelated issues must not be combined on a Change Order. Accordingly, each Change Order must have a single justification (or in unusual situations, a combination of justifications.)

The Change Order form (F310-04), with attachments, is required to formally incorporate the change into the Contract. Refer to detailed instructions in Article 7 of the General Conditions.

## Change Directives

A Change Directive (F310-12), formerly called a Field Work Order, is used for any change to the project scope that requires immediate attention or is urgent. The Change Directive is prepared by the A/E or CM. It is signed by the Owner confirming that funds are available, and signed by SAO and an authorized Department signatory so that the work can start immediately.

**OAKS Capital Improvements Procedure**

The A/E may issue and distribute Change Directives using the Change Order business process.

If the A/E issues the Change Directive as a paper document, it must subsequently attach the executed paper forms to the Change Directive record within OAKS CI and process it through the Change Order workflow.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E may issue and distribute Change Directives through traditional means as directed by the Contracting Authority.

Within 14 days after issuing a Change Directive the A/E must prepare a Change Order and circulate it for signatures. This action is required regardless of whether the Change Order pricing documentation provided by the Contractor is complete or acceptable to the A/E. The intent is to ensure that the work of any Contractor is not delayed while detailed issues are resolved.

The Contractor must complete all required or necessary components of the Contract which is included in an Allowance that is a part of the Contract. Change Directives are not required to authorize work which is paid for from an Allowance (because the allowance is part of the Contract) but a Change Directive may be used to document an authorization to proceed with the work. The work of each Allowance must be identified in the Schedule of Values as an Allowance and be presented in sufficient detail to determine the progress of the Allowance work. The A/E and the Project Manager must review and approve the progress of the Allowance work with each Contractor Pay Application. Upon determining the anticipated actual cost of the Allowance work, the A/E will implement a Change Order to adjust the Contract. At the completion of the project, if any funds remain in an Allowance, the A/E will issue and all parties will execute a Change Order to deduct the balance of the Allowance from the Contract.

## Proposal Requests

A Proposal Request may be a letter, sketch, specification, or other communication which the A/E provides to the Contractor to solicit a proposal for a change in the Work. The A/E will issue and distribute the PR to all Contractors with a copy to the Owner, CM, and SAO.

| OAKS Capital Improvements Procedure | Traditional Paper-based Procedure |
| --- | --- |
| The A/E must issue and distribute Proposal Requests using the **Change Order** business process. | If the Project is not administered using OAKS CI, the A/E may issue and distribute Proposal Requests through traditional means as directed by the Contracting Authority. |

Each Proposal Request must include notice to the Contractor of a specified period within which the Contractor must report the cost and time impacts of the change on the Contract.

After receiving the Contractor's proposal, the A/E will review it and make a recommendation to the Owner whether it should be converted into a Change Order. If the Owner chooses to accept the proposal, the A/E will issue an appropriate Change Order.

Each Proposal Request must incorporate a request for the proposed cost and time adjustment for the proposed change and must give notice to the Contractors of a specified time period within which the Contractors must report the cost and time impacts of the change in the Work on the Contracts. The A/E will issue a Change Order at the end of the response period. If the Contractor does not respond within the period specified, the A/E may issue a zero-cost adjustment Change Order and describe the adjusted scope of work. The Proposal Request may incorporate a Change Directive that authorizes the Contractor(s) to begin some work immediately; however this must be done with careful discernment.

## Request for Change Order

A Request for Change Order is a formal request by the Contractor(s) with the cost and time impact from the proposed change(s).

If the A/E responds to a Request for Interpretation (RFI) by instructing the Contractor to perform Work that the Contractor believes is beyond the scope of the Contract, the Contractor must notify the A/E in writing no more than 3 days after receiving the RFI response.

The Contractor may then submit a Request for Change Order to the Contract associated with the RFI response no more than 7 days after giving the required notice. The allowable time for the Contractor's response may be adjusted by mutual consent of the Contractor and the A/E.

| OAKS Capital Improvements Procedure | Traditional Paper-based Procedure |
| --- | --- |
| The Contractor must submit its Request for Change Order using the **Change Order** business process. | If the Project is not administered using OAKS CI, the Contractor may submit its Request for Change Order through traditional means as directed by the Contracting Authority. |

If the Contractor does not notify the A/E, does not submit a Request for Change Order, or does not request an extension of response time, the Contractor will have accepted the RFI response without an adjustment to the Contract.

## Change Order Fees

Except for Change Orders issued to correct an error or omission, each Change Order results in a fee for the A/E. The fee is paid with funds from the Change Order Fee Allowance established in the Architect/Engineer Agreement. A/Es are NOT compensated for their work which results from an error or omission. The Change Order fee percentage for the Project is stipulated in the Architect/Engineer Agreement.

## Time Extensions

All requests for additional time resulting from issues, which affect items on the critical path require careful consideration with regard to the sequence of activities on the Schedule. The A/E will not consider requests

for extensions if activities on the critical path are not affected. Change Orders, which involve substantial site work or address below-grade soil problems, may warrant additional time due their effect on the critical path of the schedule.

Each Proposal Request must indicate that the cost for which the Contractor proposed to accomplish the change will reflect work accomplished within the allotted time and sequence of the approved project schedule, and will reflect no time extension. By so doing, the A/E ensures that progress of the project will not be slowed by the change. However, the Proposal Request may request and the Contractor must identify any premiums to the Owner for cost of acceleration to allow the Owner the option to approve a time extension instead of accepting the cost of the accelerated work schedule.

The A/E and CM will review the various proposals, determine if an extension is in the best interest of the Owner and project. If, after consulting with the Owner and Project Manager, the A/E and CM determine that a time extension is warranted, they will determine the proper additional time and revised Contract Completion Date, which will be indicated on the Change Order. In general, small Change Orders issued early in the project will rarely warrant additional time for completion, however, changes during the last 25 percent of construction period often warrant additional time.

In order to receive a time extension for Change Order Work, the Contractor must conclusively demonstrate, within the context of the approved Construction Schedule, that the added work will affect Critical Path activities throughout the schedule, such that the completion date is affected. Time extensions modify the Contract Completion date and apply to the project in its entirety, not just a single activity or group of activities.

## Contingency

Construction contingency reserve funds are established to pay for approved scope changes in the Contractor's Work. The justification for the scope changes varies. The following represent the acceptable justifications for scope changes to the Contractor's Work:

- Errors and Omissions
- Differing Site Condition
- Field Resolution
- Value Engineering
- Owner's Request (the Project Manager should review sufficiency of remaining funds)
- Other:
  - Acceleration of Schedule
  - Code Requirements
  - Severe Weather Conditions

Additionally, construction contingency funds are used to resolve issues that are in dispute or gray areas for the betterment of the project and to facilitate a positive outcome for all stakeholders. These issues are not true legal disputes but are conflicts that can readily be resolved to allow the project to progress. The justification for such items will be indicated as "Field Resolution".

# 350 | Meetings & Reports

This Section identifies the procedures for Meetings and Reports.

## Meetings Prior to Construction

The A/E, the CM, the Owner and the Project Manager will meet prior to the pre-construction meeting ("Construction Stage Kickoff Meeting") to address the following topics:

- The amount of time and frequency that the A/E's field representative(s) will spend on the job site. SAO reviews and approves the qualifications and experience of the A/E's field representative.
- The A/E identifies the mechanical, electrical and specialty consultants and their project representatives. The Consultant's role and time commitment to the project is assessed and approved by the Project Manager.
- The requirements for monitoring the schedule, including unusually severe weather or events such as lost time due to strikes or delivery delays. Identify the process for tracking time extension requests by all Contractors.
- Review the requirements for processing the Contractors' Applications for Payment, including on site and off-site stored material payments.
- Confirm the shop drawing submittal process. Identify submittal turn around time from the A/E and consultant. Identify any unusual time which will be required for approval of shop drawings, other submittals, or fabrication and delivery. Identify the process and timing of color submittals, selections and sample approvals. Submittal turn around time is to be included on the Schedule as a line item.
- Identify the process for preparing and processing Change Orders.
- Identify the process by which the field representatives of the A/E and any consultant and CM will confirm that materials and equipment meet Specifications.
- Identify procedure and time frames by which Contractor will notify the A/E of required inspections or special testing.
- Establish paperwork routing. Copies of all correspondence are to be transmitted to all parties involved, including the Owner and the Project Manager. Show the distribution on the bottom of all correspondence. Advise all parties to use the Project Name and number on all documents.
- A copy of the Division of Industrial Compliance plan approval set of Contract Documents, and permits will be kept on the Project site at all times.

**OAKS Capital Improvements Procedure**

The A/E or CM will distribute the agenda and minutes for the Construction Stage Kickoff Meeting through the Meeting Minutes business process.

Issues identified during the Construction Stage Kickoff Meeting that requires resolution by one or more participants, shall be documented through the Action Items business process.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E or CM may transmit the agenda and minutes for the Construction Stage Kickoff Meeting using traditional means as directed by the Contracting Authority.

## Pre-construction Meeting

The Pre-construction Meeting starts the Construction Stage of the project. Representatives from the following project stakeholders must attend:

- A/E: Project manager, field representatives, consultants
- CM, if applicable
- SAO: PM, and on occasion, PC
- Owner: Owner's project manager, administrative representative, operational representative, maintenance and security personnel
- Contractors: Project managers, superintendents, administrative staff

The A/E or CM schedules the Pre-construction Meeting following the Notice to Proceed and prior to mobilization by the Contractors. The A/E or CM conducts the Pre-construction Meeting, writes and distributes the meeting minutes.

- If the Project is administered using OAKS CI, the A/E or CM will attach the agenda and minutes for the Pre-Construction Meeting to the Project record through the Meeting Minutes business process. For additional information, refer to Appendix C | Guide to OAKS CI and the associated Help File within OAKS CI.
  - Issues identified during the Pre-Construction Meeting that requires resolution by one or more participants, shall be documented through the OAKS CI Action Items business process.

The A/E and the CM prepares the meeting agenda, in consultation with the Owner and SAO. The following is the outline used for a pre-construction meeting (based on the Multiple-Prime Section numbers):

- Introductions
- Communications
- Partnering (General Conditions ("GC") 5.1) (M160-01-00 72 13-GC, M140-01-00 72 16-GC, or M140-01-00 72 26-GC).
- Contractor Responsibilities (GC Article 1, Article 5, and Article 6, et. seq.).
- Status of Contracts
- Permits. Turnover of approved plans to Contractor
- Confirm delivery of a sufficient number of sets of Contract Documents to each Contractor
- Project Coordination (GC Article 5 and GC 6.8, et. seq.).
- Construction Scheduling (GC 6.6) and Specification Sections 01 21 00, 01 32 16, and others, as applicable)
- Meetings (Progress & Coordination) (GC 6.7 and GC 6.8).
- Project Reports
- Contractor Payment Request (GC 9.4)
- Process (e.g., Subcontractor and Material supplier declaration, schedule of values and certified payroll reports)
- Onsite/Offsite Material Payments (GC 9.6.2)
- Submittals (GC 6.21)
- Change Orders (GC Article 7)
- Preparation

- Process
- Construction Facilities, Utilities, and Equipment (GC 6.15)
- Project sign, and other temporary signage
- Owner Project Rules (GC 1.9) and Owner's Supplementary Conditions
- As-Built Drawings and Specifications (GC 6.28)
- Materials and Employees (GC 6.12 and GC 6.13)
- Storage of Materials (GC 6.12)
- Fire Protection and Safety (GC 6.14)
- Cleaning (GC 6.16 and GC 6.26)
- Completion and Acceptance (GC 6.27 through GC 6.30)
- Final Payment (GC 9.9)
- Payroll Reports and Apprentice Agreements (Document 00 73 43 - "Wage Rate Requirements")
- Drug Free Safety Program (IB 2.10.15, IB 6.1.9 and GC 1.6)
- Conditions unique to the project; building authority requirements; and other relevant topics

## Partnering Process

To most effectively and efficiently accomplish the construction of the project, SAO encourages the formation of a cohesive, mutually beneficial partnering arrangement among all project stakeholders. As such, SAO makes this a contract obligation.

This arrangement strives to draw on the strengths, skills and knowledge of each of the stakeholders in an effort to achieve a quality project, within budget and on schedule.

### Purpose

- "Can't we all just get along?" is the common message and desire of SAO and the Owner. The purpose of the partnering arrangement is to build cooperative relationships between the stakeholders in order to avoid or minimize disputes and to strengthen a more collaborative sense of duty that is characterized by trust and teamwork.
- It is intended that this process fosters an attitude of shared risks and responsibilities for the entire project.

### Partnering Session

- All stakeholders will meet for the purpose of developing a partnering arrangement. The arrangement should identify:
  - Common goals and objectives
  - A problem solution and dispute resolution strategy including a formal set of procedures for Alternative Dispute Resolution
  - Clear lines of communication
  - An Implementation Plan
- A neutral facilitator will moderate the Partnering session in a location neutral to all stakeholders.

### Session Participants

- Key project stakeholders will attend the Partnering session. At a minimum, the following should participate:
  - SAO – Segment Manager and Project Manager

  - Owner – Primary Representative
  - A/E – Project Manager, field representatives, major consultants
  - CM – Principal-in-Charge and Project Manager
  - Contractors – Principal-in-Charge or Project Manager, and Superintendent
  - Major Subcontractors (masonry, fire protection) – Principal-in-charge, Project Manager or Superintendent
  - Scheduling Consultant – Scheduler
- Participants must be management level, empowered with the ability to make decisions and speak on behalf of their firm or organization.

### Stakeholder Commitment

- Throughout the project, the stakeholders must be:
  - Willing to honor the commitment
  - Reasonable and cooperative
  - Prepared to utilize an alternative dispute resolution process
  - Open-minded
  - Pro-Active

### Partnering Allowance

- The A/E will include an allowance in the "Allowances" Section in Division 01 in the Contract Documents to cover the cost of the partnering facilitator and neutral location. The allowance will usually be in the Lead Contractor's Contract. However, it may also be included in the A/E or CM agreement as a reimbursable expense.

## Progress Meetings

The A/E or CM must schedule weekly construction progress meetings in consultation with the Project Manager and the Owner. The purpose of the meetings is to review progress of the work during the previous week, discuss anticipated progress during the following weeks, and review critical operations and potential issues.

Each representative attending the Progress Meeting must have signature authority to make decisions regarding possible modification of the Contract Documents. The Contractor must have any of the Contractor's Subcontractors and Material Suppliers attend the progress meeting as necessary, or as requested by the A/E or CM.

The A/E, or on projects with a CM, the CM, will conduct the meeting and is solely responsible for generating the written record or minutes of each Progress Meeting. The A/E distributes progress meeting minutes to the Owner, SAO and the Contractor(s). All objections or corrections are noted as such at the next progress meeting or in writing to the A/E. A/E is to be notified at the next progress meeting or in writing explaining the objection. The minutes of the next Progress Meeting will reflect any objection or response by the A/E.

**OAKS Capital Improvements Procedure**

The A/E or CM will distribute the agenda and minutes for each Progress Meeting through the Meeting Minutes business process.

Issues identified during each Progress Meeting that requires resolution by one or more participants, shall be documented through the Action Items business process.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E or CM may transmit the agenda and minutes for each Progress Meeting using traditional means as directed by the Contracting Authority.

The Project Manager will attend progress meetings and file a written report for each meeting with the respective Segment Manager.

### Meeting Agenda

- The A/E and the CM prepare the typical meeting agenda, in consultation with the Owner and the Project Manager. The following is the recommended outline and process:
  - Distribute a sign-in sheet to confirm attendees. All principal parties not in attendance will be noted as such in the progress meeting minutes.
  - Review the previous meeting minutes item-by-item and update status or respond to any pending issues.
  - Contractors will report their current total job site workforce, including the number of workers by trade or subcontractor. Compare the construction schedule to the manpower requirements for compliance of the Work with the schedule. Report Subcontractor activities and review their manpower for schedule compliance as well.
    - This information may be reported in writing in a standardized format to reduce the note-taking required at the meeting. If provided in writing, the information will be read aloud so that all attendees cannot fail to be aware of the information.
  - As an alternative to performing the schedule review entirely in the meeting, on projects where management resources suffice, the information may be received in writing at some specific time before the meeting and analyzed by the A/E or others who can identify and raise relevant issues in the meeting.
  - Discuss problems, material delivery or shortages, site problems, RFI's, Shop Drawing submissions and approvals, construction conflicts, etc. An updated log of the status of these items will be attached to the meeting minutes.
  - Review the Contractor Progress Report and Construction Schedule. Identify all delays and their cause(s). Review and resolve action to regain lost time. The minutes will include documentation of lost time.
  - Discuss conflicts and concerns, particularly those pertaining to the schedule. Each Contractor will be given a specific opportunity to state whether or not the Contractor has any concerns. Identify the stakeholders not performing and resolve action to address the conflict or concern.
  - Discuss new business. All progress meeting participants will have an opportunity to speak, or indicate no new business.
  - Discuss status of Proposal Requests, Change Directives and Change Orders in progress.
  - Contractor payment topics are discussed in general, especially to verify the monthly cycle of pencil copies and payment approvals.
  - The Owner discussion points are coordination of Owner supplied equipment and Owner staff moves as it relates to renovation and occupancy.
  - Allow for a comments/questions period.
  - Verify the time and place of the next meeting.
  - Adjourn to the project site or group meetings in order to review on-site or specific problems.

## Project Coordination Meetings

The Lead Contractor or CM will schedule and conduct the weekly coordination meeting with all Contractors and appropriate Subcontractors and Material Suppliers.

The purpose of the project coordination meeting is to discuss the following:

- The sequence of construction consistent with the Construction Schedule.
- The sharing of construction lay-down/storage space.

- The exact location of each piece of equipment, pipe, duct, conduit or other component of the project.
- Coordination of anticipated deliveries of major equipment, supplies, and materials anticipated at the site will be coordinated to avoid conflicts.

The Lead Contractor or CM will prepare written minutes for each Coordination Meeting and distribute them to the Owner, A/E, Project Manager, Contractors and all attendees.

**OAKS Capital Improvements Procedure**

The A/E or CM will distribute the agenda and minutes for each Coordination Meeting through the **Meeting Minutes** business process.

Issues identified during each Coordination Meeting that requires resolution by one or more participants, shall be documented through the **Action Items** business process.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E or CM may transmit the agenda and minutes for each Coordination Meeting using traditional means as directed by the Contracting Authority.

## Project Reports

The project reports and logs must document and track the progress of construction. Additionally, the reports must document submittal or review turnaround deadline extensions and whether or not they affect stakeholders.

**OAKS Capital Improvements Procedure**

The A/E, the CM if applicable, and the Contracting Authority will issue written reports through the **Field Reports** business process. Reports of on-site observations may be recorded on the **Field Report** form (F310-10) and uploaded to OAKS CI.

The business process logs within OAKS CI may be used in lieu of a formal report for items such as RFIs, Submittals, Change Orders upon authorization of the Contracting Authority.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E or CM may issue written reports of on-site observations using the **Field Report** form (F310-10). Reports may be distributed using traditional means as directed by the Contracting Authority.

This form is available on the SAO website at http://ohio.gov/sao, then click on "Forms."

The following list identifies the required reports, logs, and suggested formats, and the party responsible for preparing the reports:

### Architect/Engineer or CM

- The following reports must be submitted by the A/E if a CM is not involved in the project, or by the CM otherwise:
  - Request for Interpretation Log
  - Submittal Log
  - Change Order/Proposal Request/Change Directive Log
  - Non-Compliance Log
  - Daily Job Report
  - On projects in which a Construction Manager is involved, the CM must provide the following additional reports:
    - Monthly Status Report
    - Budget Tracking Report

Contractor

- Daily Job Report
- Contractor Progress Report
- Safety-Tool Talks Report
- Monthly work progress update submitted to the Schedule Manager
- EDGE Participation Reports:
  - Monthly, or other interval, with each Contractor Pay Request; and,
  - Final Report and Certification of EDGE Participation, delivered in the Construction Closeout Period of the Construction Stage, with or prior to the final pay application for all contracts. (See Section 390)

# 360 | Notices & Correspondence

This Section addresses notices and correspondence related to the Contract. This section also describes the termination process. Many variables can affect the decisions and actions that are required when there is a termination.

## 72-Hour Notice

A Contractor that fails to perform Work in compliance the Contract Documents or within the critical path of the schedule is subject to a 72-Hour Notice issued by the A/E or the Contracting Authority. The A/E and CM with the approval of the Project Manager will notify the Contractor(s) in writing to correct defective work or perform in accordance to the Approved Schedule. The notice must state the specific areas of non-conformance, define the action steps, and time that the Contractor must bring work into conformance.

- Failure to comply with the 72-Hour Notice, within 3 days is grounds for the A/E to recommend that the cost of work be deducted from the Contractor, and for SAO to assign the work to another contractor. Compliance of the 72-Hour Notice does not relieve the Contractor from damages that other contractors or the Owner suffers due to the failure or neglect to adhere to the requirements of the approved construction progress schedule. Costs to amend the Construction Progress Schedule is the responsibility of the Contractor causing the schedule amendments to be necessary.
- The A/E will issue a Change Order deducting the cost of the scope of work re-assigned from payments then or thereafter due the Contractor. The cost of reassigning work, damage(s) and schedule adjustment(s) must be paid by the Contractor, the Contractor's Surety, or both. The decision by the State to backcharge the Contractor is final.

**OAKS Capital Improvements Procedure**

The A/E or Contracting Authority will issue reports of Defective Work or failure to comply with the critical path of the schedule through the 72 Hour Notice business process.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E or Contracting Authority may issue reports of Defective Work or failure to comply with the critical path of the schedule on the 72-Hour Notice form (L310-03).

This form is available on the SAO FTP site at ftp.ohio.gov, then click on "Local." Contact SAO Program Services for the username and password.

## Emergency Notices

The Contractor must respond to emergencies as follows:

- Examples of Project Emergencies:
  - Death, loss of a limb, or life threatening injury on a job site
  - Building collapse
  - Fire
- Emergency Procedures:
  - Call 911 and report the incident.
  - Assist emergency personnel as they direct.
  - The Lead Contractor or CM must notify the Segment Manager in charge of the project or, if the Segment Manager is not available, the State Architect, by telephone as soon as possible (within no more than a few hours of the incident.) If neither is available, do not leave a voicemail message; give the information to another person at SAO and make a note of the person's name.

The Lead Contractor or CM must notify the manager of the facility where the emergency has occurred, or if that person is not available, another representative of the Owner, in person or by telephone as soon as

possible (within no more than a few hours of the incident.) Speak to a person; do not leave a voicemail message.

## Stop Work Order

The A/E or CM has the authority to disapprove or reject any item of work which is defective, or that does not conform to the Contract Documents, or that is inconsistent with the intent of the design. The A/E or CM must immediately notify the Contracting Authority and the Owner in writing at any time that work has been disapproved or rejected.

Only the Contracting Authority may issue a notice for the Contractor to stop work on the project or a portion thereof. The A/E or CM must provide justification to SAO regarding the basis for issuing a stop work order with SAO and the Owner.

## Suspension of the Work

The Contracting Authority reserves the right to suspend the work for such period as may be necessary. The Contractor must, upon receipt of the Notice of Suspension, cease work immediately and take all necessary or appropriate steps to minimize costs and losses. SAO must notify the Contractor's Surety at the time of any suspension.

In the event of a suspension of the work, the Contractor is to provide a report describing the status of the work, and any additional costs incurred resulting from the suspension. An extension of time will be allowed, as provided in the Contract Documents, should the suspension be considered no fault of the Contractor's performance. The Contractor is entitled to payment for work completed and additional costs incurred.

## Termination for Convenience

SAO reserves the right to terminate the contract in whole or in part for the Owner's convenience. Upon such termination, the Contractor is paid in accordance with the Schedule of Values for Work completed. This includes any amount retained, and the value of materials ordered and delivered, less any salvage or credit the Contractor may receive for them. The Contractor is to be paid a fair and reasonable profit for all work completed and all expenses directly attributable to the termination of the contract. Under no circumstances will the Contractor's compensation exceed the total contract price.

## Termination for Cause

If a Contractor consistently fails to adhere to the schedule or perform the work under contract, the A/E or CM may recommend to SAO that a 5-Day Notice (L310-04) be issued to the Contractor. The A/E or CM must forward their recommendations to the attention of the Project Manager and the Owner.

The A/E or CM may report to SAO that the Contractor's Work is failing to comply with the terms of the contract or Construction Progress Schedule and that the Contractor is failing to correct such deficiencies. The A/E or CM must indicate the reasonable opportunities given to the Contractor to correct the deficiencies, or to provide an explanation to which, if given, the A/E or CM will evaluate and respond to accordingly. It is important to recognize that delays in taking action by the A/E, CM and or the Contractor may cause further problems. Occurrence of progressive failures or multiple deficiencies requires immediate action by the A/E and or the CM.

A 5-Day Notice may be issued only by SAO to the Contractor and the Contractor's Surety based on the recommendation of the A/E and CM. The Contracting Authority may provide an additional force as is necessary or terminate the contract, if the Contractor fails to comply within 15 days of receipt of the notice to complete the work to the satisfaction of the A/E, CM and the Project Manager.

The A/E or CM will determine and recommend to SAO whether the Contractor has corrected the deficiencies prior the expiration of the specified 15 day period. SAO will decide whether the Contractor has failed to

respond appropriately, and whether to terminate the contract by issuing a Default /Termination Letter (L310-05). In the event of such termination, the Contractor will not be entitled to any further payment.

The Surety of the Contractor that is in default has the option, under Ohio law, to perform the contract. The Contractor's Surety has 10 days of the date on which they received the termination notice to commence performance of the contract. The State reserves the right to complete the work if the Surety does not commence work within the 10-day period. The provisions of the contract documents govern the Surety's performance of the Work. The Surety will be substituted for the Contractor in all such provisions, including without limitation, provision for payment for the work and provisions about the right of the State to complete the work.

The Contractor or the Contractor's Surety must pay for any cost beyond the balance of the contract price for the State to complete the work. The Contractor or the Contractor's Surety must also pay for any cost incurred by the State for consequential damages as a result of the termination of the Contract.

Options open to the Surety for the completion of work are as follows:

- A minor amount of work remaining with another on-site Contractor that has the resources to perform the work:
  - The Surety may elect to allow the A/E to assign by Change Order the Work to another Contractor. A deduct Change Order is processed against the defaulting Contractor's contract for the purpose of funding the work as an add Change Order to the other Contractor's Work. In such a case, an agreement is executed with the Surety to reflect the arrangements made to complete the work and close out the contract. There will usually not be sufficient funds in the defaulting Contractor's Contract, so the Surety will be required to pay the difference to the Contractor who completes the work.
- Surety-authority to contract with a Takeover Contractor:
  - The Surety may procure the completion of the work in any manner within the Surety's discretion, however, the work is subject to "prevailing wage requirements". In this situation, the Owner prepares a "Change of Vendor Name" encumbrance payable to the Surety. The new Contractor or Surety submits partial payment requests on the same Payment Request form which was used by the original Contractor. The name on the Payment Request form is changed to the Surety's name.
    - The experience of SAO is that a Surety held takeover contract is simpler because the Surety usually finishes the work and requests only a final payment. In such a case, SAO executes a Memorandum of Understanding with the Surety to reflect the arrangements made to complete the work and close out the contract.
- SAO authority to contract with a Takeover Contractor to perform the work:
  - SAO may contract with a Takeover Contractor to perform the work if, solely in the Department's opinion, the other Contractors are not capable of completing the work, and the Surety does not take timely action to begin completion of the work. The A/E or CM are to confirm the remaining scope of work for purposes of obtaining a Takeover Contractor. In such a case, SAO executes a Memorandum of Understanding with the Surety to reflect the arrangement agreed to to complete the work and close out the contract. The Takeover Contractor is required to comply with all the requirements for public improvement contracts, including Bonding, Prevailing Wage, Material and Supplier Lists, Certified Payroll Reports and the Drug Free Safety Program requirement.
    - For capital projects administered by SAO, SAO is authorized to contract, with the consent of the Director of OBM, without the competitive bidding process, a Takeover Contractor to complete work under an existing contract where the original Contractor is in default and the Surety has declined or failed to take over the project.
- Any cash received from the Surety as a settlement for completion of the project is deposited in the original fund from which the capital appropriation for the project was made. Notwithstanding any other provision of law to the contrary, the Director of OBM may approve contracting with the takeover Contractor. The Director of OBM may specify additional uses for the funds related to the completion of

the project without CB approval and increase the appropriation authority in the line item used to fund the project by the amount equal to the cash received from the Surety.

## Contractor Bankruptcy

The Contractor must provide written notification to SAO if the Contractor is files a bankruptcy petition. SAO will serve written notice on the Contractor and the Contractor's Surety stating that any failure of the Contractor to provide adequate assurances of continued performance is considered a rejection of the Contract, which will result in termination of the contract for cause.

# 370 | Submittals

This Section identifies the procedures for creating and reviewing various Project submittals.

## Action Submittals

Shop Drawings, Product Data, Samples, and other submittals for the A/E's review and action must be provided by the Contractor for any item required by the Contract Documents but not fully described in the Contract Documents, unless waived by the A/E, and include, but are not limited to:

- Construction of the various parts, method of joinery, type of materials, grade, quality and thickness of materials, alloy of materials, profiles of all sections, reinforcement, method of hanging doors or installing windows, anchorage, and type and grade of finish;
- Capacities, types of materials and performance charts that are pertinent to the materials, and performance charts that are pertinent to the equipment item; and
- Wiring diagrams, control diagrams, schematic diagrams, working and erection dimensions, arrangement and specifications.

Submittals are not Contract Documents. In the event of conflicts between submittals and the Contract Documents, the Contract Documents take precedence and govern the Work.

The A/E shall review Submittals for conformity with design intent and conformity with the Contract Documents within 14 days of receiving Submittals or in accordance with the approved submittal schedule, or other period as mutually agreed by the A/E and the Contractor.

The A/E shall also review drawings, calculations, and designs required of Contractors and provided with such Submittals (except calculations and designs of manufacturers of original equipment and systems to be installed in the Project and except calculations and designs which the Contract Documents expressly make the sole responsibility of one or more Contractors, Subcontractors, Material Suppliers or other persons).

The A/E must act upon resubmission of corrected Submittals within 14 days of receiving them, or other period as mutually agreed by the A/E and the Contractor.

A Contractor must review and stamp "approved" all Submittals before forwarding them to the A/E. If it is apparent to the A/E that the Contractor has not reviewed the Submittals, or has conducted an incomplete review, the A/E may reject the Submittals.

The A/E may hold samples and other Submittals used to coordinate finishes, colors, patterns, textures, or other characteristics until Submittals for adjacent materials are available. The A/E must issue a written notice to the Contractor stating that its Submittal is being held, within 7 days of receiving it.

**OAKS Capital Improvements Procedure**

If the Project is administered using OAKS CI, the Contractor must attached scanned submittals, and the A/E will receive and forward submittals to its Consultants, and return reviewed submittals to the Contractor, using the **Submittals** business process.

Refer to Appendix C | Guide to OAKS CI and the associated Help File within OAKS CI for additional information.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the Contractor will submit, and the A/E will receive and forward submittals to its Consultants, and return reviewed submittals to the Contractor through traditional means as directed by the Contracting Authority.

## Coordination Drawings

The purpose of HVAC Coordination Meetings is to identify areas of the project that require special attention (the "Coordination Areas") and the need for a Coordination Drawing for any Coordination Area. The Contractor responsible for the HVAC system will schedule and conduct the coordination meetings.

Usually all Contractors play some role in developing the Coordination drawings, accordingly, the general, fire protection, mechanical and electrical trades must participate.

The Coordination Drawing process, in accordance with GC 6.8 includes the following:

- The Contractor responsible for the HVAC system will prepare the preliminary coordination drawings, for each coordination area, showing all ductwork, equipment and HVAC pipe in plan and elevation.
- The Contractor responsible for the HVAC system will provide the preliminary Coordination Drawings to all Coordination Participants and the Prime Contractors for review and comment.
- Each Coordination Participant will use the Preliminary Coordination Drawings to develop drawings and illustrate work within each area.
- Each Coordination Participant marks the drawings illustrating the location of their work and returns its drawing to the Contractor responsible for the HVAC system.
- The Contractor responsible for the HVAC system will incorporate each participants' work and meets with all the participants to coordinate and agree on the final details. The HVAC responsible for the HVAC system will prepares the final Coordination Drawings that all the participants approve and utilize to sequence and install work.
- The Contractor responsible for the HVAC system will forward copies of the Coordination Drawings for comment to the following:
  - SAO
  - Owner
  - A/E and CM
  - Coordination Participants
  - Other Prime Contractors

**OAKS Capital Improvements Procedure**

If the Project is administered using OAKS CI, the Contractor responsible for the HVAC system must attach the Coordination Drawings, and the A/E will receive and forward the Coordination Drawings to its Consultants using the **Submittals** business process.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the Contractor responsible for the HVAC system will submit, and the A/E will receive and forward the Coordination Drawings to its Consultants through traditional means as directed by the Contracting Authority.

- Discrepancies are to be reported, in writing, to the Contractor responsible for the HVAC system within 3 business days of receipt.
- The A/E reviews the final Coordination Drawings in accordance with the General Conditions. Concerns are to be reported to the Coordination Participants within 10 business days of receipt.

## As-Built Documents

Throughout the performance of Work the Contractor must mark-up or otherwise modify one set of drawings to keep an accurate record of all approved changes made to the Drawings, and show conditions encountered, materials used, and locations where installation varied from the Work as shown in the Contract Documents as issued for bidding. Markings must be made neatly and in a contrasting color. Such drawings must show the exact location and depth of underground utility lines and the location of other concealed components which could be useful to the Owner after occupancy.

In the preparation of such documents the Contractor must cross out text and graphics pertaining to any Alternates which were not accepted, or Work which was deleted by Addendum, Change Order or other cause and label the item "Alternate Not Accepted", or "Deleted by Addendum No. x, item x", "Changed by Change Order x, item x" respectively, or other appropriate notation.

The Contractor must tape the document or portion of the document which created the change over the changed or voided area of the drawing, tape the document onto a blank area of the drawing, and, if more than one area of the drawings is affected, must circle the other changed items and manually note the changes on the drawings and provide a note which directs the reader to the actual document which created the change, which is taped to the back of the preceding drawing in the set. Any taped item which covers text or graphics must be taped at the top edge only, to permit review of the deleted or modified item below.

The Contractor must annotate one copy of the Project Manual indicating As-built conditions, changes or deviations from the installation requirements. Where multiple materials or manufacturers are specified, the Contractor must highlight with colored marker the items actually incorporated into the project. Only the Specifications portion of the Project Manual need be so annotated or modified. (Changes to General Requirements may be omitted.)

Where inserted items have been cut from the original document, to permit tracking the origin of the change, the Contractor must mark it with revision mark. Use a unique symbol for each kind of change, such as triangle for Change Order, circle for RFI, square for Addendum, etc. Assign each item a number and mark it in the symbol. Item numbers for each kind of change must be sequential and start from “1” on each sheet or page. Each change on drawings must be logged in a Revision Table on the drawing which identifies its document of origin. (Create such a Table and tape to the sheet if space requires.) The source of each change on a specification page must be noted on the page changed.

Added documents must be inserted into the drawings and Project Manual by unbinding them, inserting the new documents the appropriate location, and rebinding.

During the performance of the Work the Contractor must incorporate, each month and prior to submission of its Contractor Payment Request, all approved changes and other relevant issues into the Drawings and in the Specifications. Failure to do so may cause payment to be withheld or delayed.

### OAKS Capital Improvements Procedure

If the Project is administered using OAKS CI, the Contractor must attach the As-built Drawings, and the A/E will receive and forward the As-built Drawings to its Consultants using the Submittals business process.

### Traditional Paper-based Procedure

If the Project is not administered using OAKS CI, the Contractor will submit, and the A/E will receive and forward the As-built Drawings to its Consultants through traditional means as directed by the Contracting Authority.

# 380 | Claims & Disputes

This Section addresses the types of schedule impacts and processes for resolution that will be used to determine if the Contractor is entitled to either an extension of time, additional compensation or both. Many variables can affect the decisions and actions that are required when there is a project delay or dispute. The A/E or CM contacts the Project Manager to communicate a specific project issue(s) related to schedule impacts for assistance.

## Types of Delays and Remedies

Owner Caused Delay

- Example: Failure to provide the project site as scheduled. Failure to manage the oversight of the Contractor's project schedule or excessive design modifications.
- Remedy: Compensation and a time extension may be warranted.

Contractor Caused Delay

- Example: Failure to properly man or equip the project in accordance with agreed upon construction schedule.
- Remedy: No time extension or compensation is due from the Owner. The Contractors causing delays will be responsible to pay for a recovery schedule and remedies. Examples of such delays:
  - A manufacturer does not provide material or equipment in conformance with the schedule.
  - A Contractor performs work that does not comply with the Contract Documents and has to be removed and reconstructed.
  - A Contractor's subcontractor, for any reason, fails to perform its work in conformance with schedule.
- In each of these cases, if the work of other Contractors is delayed, the Contractor responsible for the delay will be required to reimburse the other Contractors for the cost of overtime and reduced efficiency when their work is accelerated to make up for the time lost, pay the Scheduling Consultant and the Contractors for preparation for the recovery schedule, and pay any other costs to any of the parties involved in the project.
- Delays caused by the Contractor's Subcontractor or Material Suppliers will be deemed to be delays within the control of the Contractor.

Other Delays

- Example: Labor strikes or unusually severe weather conditions which affect the critical path and which are not normally prevailing in the particular season.
- Remedy: A time extension only will be granted. If it is not possible due to Owner's need to occupy, compensation may be paid for Contractor acceleration.

## "No Damage for Delay" Clause

Concurrent delay involves one delay for which the Owner is responsible and another delay for which the Contactor is responsible. In such cases, the delay caused by the Owner is generally considered to be moot and the Contractor cannot collect damages from the Owner.

The A/E and CM are required to manage the project in a manner such that issues are identified and resolved promptly so that SAO or the Owner do not delay the project.

## Award of Separate Contracts

The Contractor acknowledges, by a certification on the Bid Form, that the award of separate contracts for the project will require sequential work, and work that is coordinated and interrelated which may create or involve

delays in the progress of the Contractor's work. To minimize the delays that typically occur in the day-to-day activity of a project, the Contractor must:

- Complete work in a reasonable, efficient and economical sequence;
- Cooperate with other Contractors, Subcontractors and Material Suppliers; and
- Perform the work in the sequence and duration shown in the Construction Schedule.

Delays due to the interference between several Contractors and lack of coordination will have the sole remedy of providing a time extension to complete the work with no additional compensation by the Owner.

## Third Party Beneficiary

A Contractor that enters into a contract with the State agrees to "third party beneficiary status" with the other Contractors on the project. The Contractor obtains the legal right to seek recovery from another Contractor who is responsible for any damages.

## Extension of Time with No Compensation

A delay which entitles a Contractor to an extension of time but no monetary compensation is referred as "excusable." The following causes may be deemed to be excusable and may be a basis to extend the completion date, with no additional compensation:

- Delay due to suspension of the work for which the Contractor is not responsible; unusually severe weather conditions not normally prevailing in the particular season; labor dispute; fire; flood;
- Neglect, delay or fault of any Contractor having a contract for adjoining work, or work in the same physical space as the Contractor.
- By any unforeseeable cause beyond the control and without fault or negligence of the Contractor.

Delays in completing a project are often the culmination of a number of events. The A/E and CM will facilitate and require compliance with the Construction Schedule in order to effectively manage the project and mitigate claims, especially those which result from protracted, unresolved issues which have consequential, often unforeseen impacts which can be particularly difficult and costly to resolve.

## Extension of time related to Change Orders

The completion date will not be extended for changes in the work, unless the change impacts the current Critical Path of the Construction Schedule. A time extension is granted if a Change Order substantially increases the scope of work to any Contractor. A Change Order also extends the contract completion date only for those specific elements so delayed, with the remaining work to be completed by the original completion date(s). A Change Order may further provide for equitable adjustment of Statutory Delay Forfeiture (Liquidated Damages).

## Extension of Time Request

The following steps outline the process for a Contractor to request a time extension:

- The Contractor must request an extension of time in writing to the A/E or CM within 10 days after the initial occurrence or condition that, in the Contractor's opinion, requires additional time. The Contractor will be determined to have waived any right of claim for extension of time or for mitigation of liquidated damages if the Contractor does not provide timely and proper notice.
- The A/E and CM will review the request for damages due to any delay to the work.
- The A/E or CM will provide written recommendation to SAO either denying or approving the request for an extension. A recommendation for approval will include a specific number of days for the extension that may be different from the number of days requested by the Contractor.

## Failure to Comply with the Schedule

The A/E or CM will document conditions that may impact the completion date. The A/E or CM will review the circumstances and initiates reasonable efforts to enforce the Construction Schedule. Any directive issued by the A/E or CM to a Contractor to modify the pace of its work to comply with the schedule must be issued in writing.

The A/E or CM will issue written notice to any Contractor causing damage to another Contractor due to failure or neglect in their work. See GC 6.24 for the description of the requirements to backcharge a Contractor for failure to perform.

## Acceleration

Acceleration of Work is the act of requiring Work to be performed prior to the approved schedule to accommodate or reflect any excusable delays (e.g., delays beyond the control and without fault of the Contractor). For example, unusually severe weather not normally prevailing in the particular season, or a strike during the project may cause a delay to the Schedule. The Owner or other Contractors may insist that the project still be completed in accordance with the schedule, in which case, the Contractor may make a claim for acceleration.

Under these circumstances, from the Contractor's point of view, the requirement to complete the work without an extension is equivalent to a Change Order to accelerate Work. When the situation is analyzed, if it is found that the Contractor submitted a proper request and was entitled to a time extension for excusable delay but was subsequently required to meet the original schedule, then the Contractor may be able to recover costs associated with the acceleration.

## Dispute Resolution

Any claim against the State must be submitted no more than 10 days after the initial occurrence of the events that are the basis of the claim. These claims must be in writing and filed prior to Contract Completion to the A/E, CM, and SAO. Failure of the Contractor to provide this information in a timely manner will constitute a waiver by the Contractor of any claim for additional compensation or for mitigation of liquidated damages.

The Contractor must provide a written claim with the following information as supporting documentation:

- Nature and amount of the claim;
- Identification of persons, entities and events responsible for the claim;
- Activities on the Construction Schedule affected by the claim or new activities created by any delay and the relationship with existing activities;
- Anticipated duration of any delay; and
- Action recommended avoiding or minimizing any future delay.

The Contractor must perform the work during any dispute resolution process, unless a written agreement otherwise is in place between the Contractor and SAO. The Owner must continue to make payment in accordance with the contract documents pending final resolution of a claim.

The dispute is to be resolved by the parties indicated in the contract documents, within the applicable periods, as provided in Article 8 of the General Conditions. The process generally consists of an initial effort to resolve the dispute at the field level by the A/E or CM, in conjunction with the Project Manager and the Owner.

The Contractor may appeal claims not resolved at the field level to the State Architect, for a final administrative decision on the merits of the claim. In the event that the Contractor is still not satisfied with the final administrative decision, the Contractor may then file a complaint in the Ohio Court of Claims.

## Contract Termination

Only the Contracting Authority can suspend or terminate a Contractor's contract and contact the Contractor's surety. It is important for the A/E and the CM to recognize that SAO requires accurate factual information in order to act upon a recommendation to suspend or terminate a contract.

The simplest form of default is abandonment. Abandonment also requires documentation and notification to the Contractor at the Contractor's last known address.

The Surety is responsible under the Bond to indemnify the State from any damages that may be incurred by failure of the Contractor to perform the work. It is important that the A/E and CM separately track any additional time they have spent resulting from a Contractor's failure to perform or subsequent default and provide written notification to SAO of the Costs of Recovery.

For specific issues, the A/E and CM may obtain assistance and directions from SAO. See Section 360 | Notices & Correspondence for additional information related to Contract Termination.

# 390 | Contractor Closeout

Closeout procedures are different for the various stakeholders of each project. This Section of the manual defines the responsibilities of the stakeholders and the approximate time required for completion of the task. The first stakeholder(s) to finish its part of the project is the Contractor(s). The closeout tasks of the remaining stakeholders are dependent on the completion and the closeout of the contractors.

The closeout task for the Contractors must be scheduled as part of the project construction schedule to allow all stakeholders to coordinate their closeout responsibilities.

The project as a whole is not technically complete until all of the stakeholders are completed with their closeout task responsibilities. Generally speaking, the closeout responsibilities for stakeholders are grouped into three closeout periods:

- Construction Closeout Period (Included in the Contract Completion Period)
- Architect/Engineer Closeout Period (See Section 410)
- Owner Closeout Period (See Section 420)

The Project Manager is responsible to manage and monitor all of the closeout periods to assure the completion of the project. The A/E and Owner Closeout Periods commence during the Construction Closeout Period, parallel the Contractor's Work, but are not completed until the Post-Construction Period.

## Construction Closeout Period

The project construction schedule must identify the Contractor closeout tasks, and associated sequence and duration of those tasks for each individual Contractor.

The commencement of the Construction Closeout Period is early in the Construction Contract Period when the outline of Contractor shop drawing submittals is issued to the A/E.

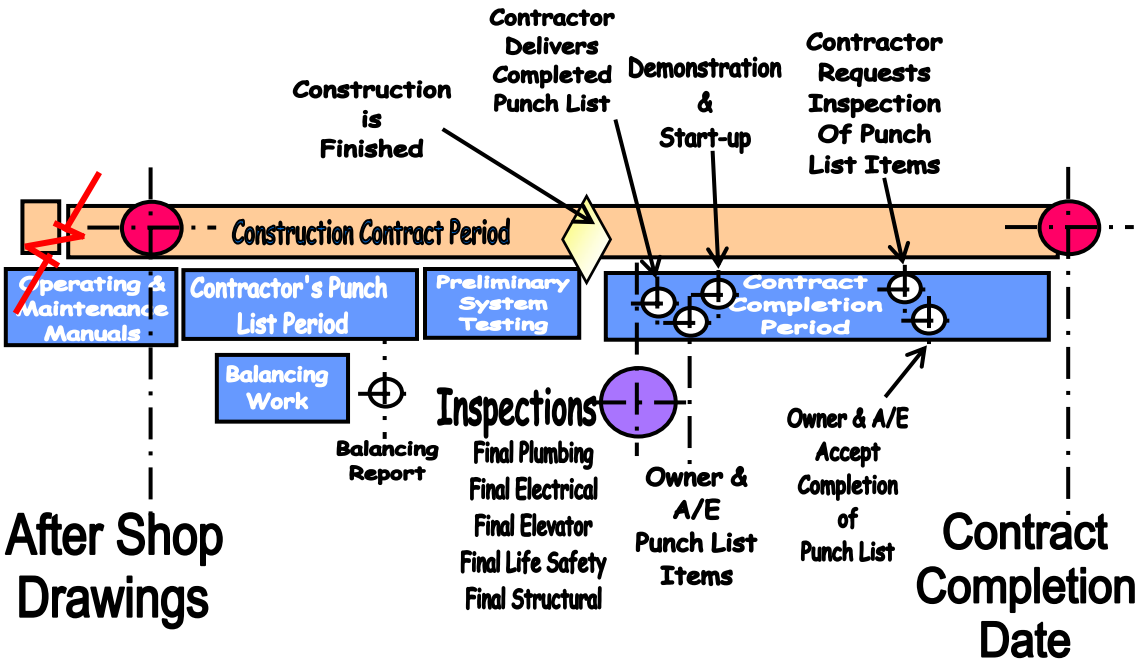
- The Contractor submits to the A/E a list of all submittals required for shop drawing submittals, identifying the related specifications section, and urgency of review necessary to maintain the project construction schedule. This submittal will establish the format of the future final operation and maintenance manual required at the completion of the project.
- As shop drawings, samples, product information, manufacturer's warranties, and MSD sheets are approved and returned, the contractor will incorporate these approved documents into the Operation & Maintenance Manuals (O&M Manuals) for final submittal at the completion of the project.

The Contract Completion Period commences after construction is complete and the Building Authorities approve the Project for occupancy.

The Construction Contract Period ends once the Contractor, A/E and CM, Owner and Project Manager sign the Certificate of Contract Completion form as "Complete" with no work remaining to be performed.

Before the Contractor requests and Building Authorities perform the life safety inspection the Contractor must complete all construction and following tasks (see Figure 310.T.1):

- The completion of the Contractor's Punch list including self-performed work and sub-contractor's work
- Submission of the balancing report
- The Contractor's equipment start-up and preliminary equipment test (shake-down period)
- Project Cleaning

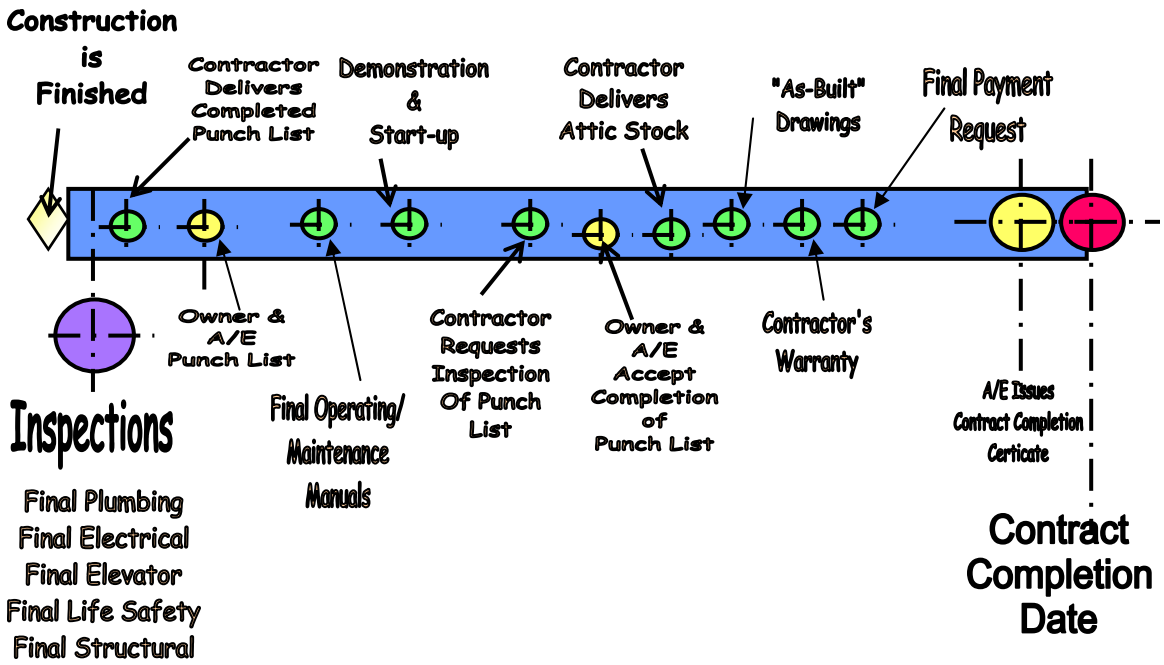



Construction Closeout Period — Figure 390.1

After the Building Authority has approved the project for occupancy, the Contractor may consider the Contractor's punch list to be complete and may request the Final Inspection by the A/E and Owner. The Contractor shall do so in writing to the A/E on the Contractor's "letterhead", stating that the Contractor's punch list has been completed, that the Contractor certifies that the construction is complete, and that the Contractor accepts responsibility for any costs which are incurred by the A/E or others as a result of the construction not actually being complete.

### Contract Closeout Period

- The "Contract Completion Period" is comprised of the tasks required to complete the Contractor's deliverables beyond the actual construction portion of the contract. (See Figure 390.1) The first task is the completion of the Contractor's Punch List. The last task is typically the approval of the Certification of Contract Completion as Final.




Contract Completion Period — Figure 390.2

Contractor's Punch List

- The Contractor, prior to request for final A/E inspection, must prepare the Contractor's Punch List identifying all non-compliant items remaining on the work. The Contractor must proceed to correct the non-compliant items and certify that the incomplete items on the Contractor's Punch List are an accurate and complete list before submitting a request for final inspection to the A/E or CM. The Contractor will provide a copy of the non-compliant items with the proposed steps of action to correct or complete to the A/E or CM. This represents the start of the Contract Completion Period.

The A/E's Review of the Work includes the following:

- The A/E and CM receive and accept, as legitimate, the final inspection request from the Contractor.
- The A/E and CM conduct the final inspection with the Contractor, the Project Manager and the Owner.
- Within 3 days, the A/E notifies the Contractor of any items remaining in a deficient or unacceptable condition. This is called the A/E's Punch List.
- The Contractor must complete and correct all items on the A/E's Punch List by the date indicated by the A/E and before the Contract Completion Date:
  - Work on the A/E's Punch List not completed by the designated date is subject to appropriate resolution of the issue. The A/E, the CM, SAO, and the Owner shall review for approval a time extension and damages to the Owner.
  - The A/E or CM may issue a 72-hour Notice according to Article 5.3 of the General Conditions. Work which remains incomplete after a 72-hour Notice, may be completed by another Contractor with the cost of the work deducted from the Contractor's Contract.
  - A/E Punch List items are to be completed to satisfaction of the A/E, the CM, SAO and the Owner.
  - The Demonstration Period for Equipment and Systems is performed after the Contractor's request for the Final Punch List. Punch List items from the Demonstration period are considered part of the A/E's Final Punch List.

## Operation & Maintenance Manuals and Equipment Demonstration

The Contractor must deliver Operation & Maintenance (O&M) Manuals to the Owner prior to the demonstration period and the Owner will review them before demonstration and training is performed.

The Contractor must schedule and manage the equipment startup demonstration as follows:

- Verify with all the appropriate parties that the equipment is ready for use in the demonstration and start-up activities.
- Schedule the date or dates with all appropriate parties. (e.g., A/E, Owner's personnel, Contractor, and manufacturer demonstrator/trainers)
- The A/E or the A/E's sub-consultant and a representative of the Owner must witness the demonstration.
- Major equipment shall be verified as operating properly before it will be accepted. Prior to completion of construction the A/E will issue a list of equipment which is subject to the Performance Period.
- Evaluation of equipment during the Performance Period will be conducted as follows:
  - The Performance Period begins on the date the equipment is placed in service and ends when the equipment has operated properly for a period of 30 consecutive days. A determination of proper operation will be made, when, in the opinion of the A/E, the equipment has performed fully and properly, as designed, and in conformance with the manufacturer's specifications as reflected in approved submittals or in the manufacturer's literature, which is included in the Operation Manual submitted by the Contractor, for a period of 30 consecutive days.
  - In the event the equipment does not perform properly during the initial 30 consecutive days, the Performance Period will be extended on a day-by-day basis until the equipment has performed properly for a total of 30 consecutive days. A separate Performance Period will be observed for any replacement equipment, and for equipment, which is added or field-modified after having completed a successful Performance Period.
  - If the equipment fails to operate properly after 90 calendar days from the date indicated in item a), SAO may require that the Contractor replace the equipment or take other corrective actions. The Contractor must reimburse the A/E for the A/E's expenses resulting from the improper performance.
  - All equipment proposed will be new, not reconditioned or refurbished. All equipment will be at the latest engineering change level (deliverable) as offered by the original manufacturer.
  - The A/E will complete and forward the Certificate of Equipment Demonstration to the Owner.
  - The A/E will also send a letter of transmittal with copies of the certificates to SAO, before the Contractor's final Payment Request will be processed.

**OAKS Capital Improvements Procedure**

The A/E must issue the Certification of Equipment Demonstration through the **Closeout - Contractor** business process.

Refer to Appendix C | Guide to OAKS CI and the associated Help File for additional information.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E will issue the Certification of Equipment Demonstration on the **Certification of Equipment Demonstration** form (F320-03).

This form is available on SAO website at http://ohio.gov/sao, then click on "Forms."

The Owner will review the O&M Manuals prior to participating in demonstration and training.

## Extra Materials

The Contractor will deliver the "extra materials" after the final Punch List Work is completed by the Contractor and accepted by the A/E. The Owner will designate where the extra materials are to be received. The

Contractor will transmit a copy of a transmittal of items, quantity, location and person receiving the extra materials.

## Original Documents / As-Built Documents

The Contractor will transmit the original plan approval drawing and specifications with the Building Authority's stamps to the A/E as part of the deliverables at the Contract Completion Period. Other deliverables that the Contractor transmits to the A/E are:

- Copies of the Building Authority's signed approval form or card
- Operation & Maintenance Manuals (deliver prior to the Equipment Demonstration & Training)
- Applicable Certifications, which may include:
  - Certification of elevator inspection & approval
  - Certification of pressure piping
  - Certificate of Piping Purification
  - Certificate of Boiler Inspection
  - Certification of Warranty Commencement (F390-02)
  - Certification of Equipment Demonstration (F390-03)
- Contractor's set of "As-Built" Documents
  - The "As-built" set of documents is a record of formal change orders as well as incidental modifications required to construct the facility.
  - Completing the As-Built Documents
    - The Contractor must complete the annotation and modification of the As-Built Documents as required by GC 6.24. In doing so, the Contractor may discard drawing sheets voided in their entirety by Addendum or Change Order, insert drawing sheets added by Addendum or Change Order, assemble the As-Built Documents into manageable bound sets.
    - If Addenda, Change Orders, or other changes to the Contract Documents issued during bidding or construction are too voluminous to be transcribed on or physically incorporated into the Record Drawings or Record Specifications, the Contractor must provide bound copies of such documents divided into sets or binders corresponding to those of the As-Built Drawings and As-Built Specifications. Documents in an 8-1/2 x 11 inch or similar format must be professionally bound or placed in 3-ring binders with major sections separated by labeled and tabbed dividers which are identified in a Table of Contents, and individual documents or small groups of documents separated by neatly labeled colored divider pages. All such documents must be clearly referenced by notation on the As-Built Drawings and As-Built Specifications where appropriate and the reader must be directed to the location of the referenced information.
    - Addenda, Change Orders, or other changes to the Contract Documents issued during bidding or construction, which did not involve changes to the Drawings or the Specifications must be assembled and included in the As-Built Documents, and may be assembled and bound with those documents which did change the Drawings and Specifications, or may be assembled and bound separately, as the content and format of the documents warrants, and as the Contractor sees fit. To avoid duplication of effort, unless otherwise specified in the Supplementary Conditions, the responsibility for assembling such documents lie solely with the Lead Contractor of Construction Manager if applicable.
    - Except for Project Manuals bound in their original covers, the Contractor must neatly mark the front of the sets or binders, in black ink, with the name of the project, project number, and the contents of the set or binder. Binders must be labeled on the front and the spine.

  - The Contractor must certify the accuracy of the revisions by indicating the Contractor's company name, and providing an authorized signature and date of submission on each cover sheet and on the original cover of each volume of the Project Manual.
  - Prior to the completion of the Work, the Contractor must deliver the Completed As-Built Documents to the A/E through the Construction Manager. The Construction Manager will review the Completed As-Built Documents and verify that, to the best of the Construction Manager's knowledge based upon the Construction Manager's observations during the progress of the Work, that the Completed As-Built Drawings detail the actual construction of the Project and are assembled is such a way as to be durable and convenient for use by the Owner. When the review is complete the A/E or the Construction Manager will deliver the As-Built Documents to the Owner. Before releasing the As-Built Documents, the A/E will use the documents in preparation of the Record Documents.
  - The Owner may thereafter use the Completed As-Built Documents for any purpose relating to the Project including completion of, renovation of, or additions to the Project.
- Contractor's Notice to the A/E that all final punch items are completed. (See Section 390)
- Payment Release Affidavit (F390-04)
- Certified Payroll Report (F330-03)
- Final Payment Request (See Section 390)
- Maintenance Bond (Optional)
- Final report and certification of EDGE participation.

## Final Payment

The Contractor sends the "final" Contractor Payment Request form to the A/E, which is 100 percent of the contract amount when the project is complete (including the punch list items). The Contractor also sends the A/E a separate Payment Request form for its retainage in escrow. The A/E will review and forward the approved requests to SAO for processing.

The Contractor sends an Affidavit with both billings. The A/E prepares the Contract Completion Certificate, which must be signed by the Contractor, A/E and Owner. The Project Coordinator processes the payment of all monies due the Contractor, once a FINAL Contract Completion Certificate is approved by all parties.

The Segment Manager signs the Contractor's final application for payment. The Project Coordinator processes the payment and transmits it to the Owner for its processing and approval for payment.

SAO does not support the partial release of retainage unless the Contractor is not the cause of the delay in completion, the completed work is available for use by the Owner, the amount of retainage is substantial, and the amount of time until the Contract will be complete is so long that it would be an unreasonable hardship on the Contractor for SAO to continue to hold the entire retainage amount until completion. Partial release of retainage is subject to approval by the A/E, the CM, and the Project Manager.

Retainage held in escrow is not intended to be held after corrections on punch list work has been completed. The A/E will not approve payment for work not completed and accepted in place as completed. Money will be held for independent line items to complete punch list items. 100 percent payment of a line item implies that the A/E is accepting the line item by the with all punch list items completed. Work found to be defective must be replaced at the Contractor's cost. Payment of retainage for work which is concealed and for which no later inspections will be made, such as foundations or buried utilities may be made when the work is covered.

Final payment requests must include the following:

- Contractor's Payment Request form
- Certified Payroll Reports for the period since the previous Payment Request
- Certification of Contract Completion

- Affidavit of Contractor and Waiver of Lien
- Final Report and Certification of EDGE Participation
  - With or prior to submitting it's Request for Final Payment, the Contractor must provide on its letterhead, to SAO, through the A/E and the CM, one original Final Report and Certification of EDGE Participation that provides an accounting of the Contractor's expenditures to each EDGE-certified business, including the Contractor's business if applicable, for the contract. Include a substantiating certification, which may be on the same document, signed by each applicable EDGE-certified business for the contract. Additionally, provide one identical original of the report directly to the Department's Equal Opportunity Division.
  - At the Contractor's option, the Final Report and Certification related to each EDGE business participant may be prepared and submitted at any time after the EDGE business has completed its required obligation and has been paid by the Contractor.

The accounting must indicate the expenditures both in dollars and in a percentage of the total construction contract. If the Contractor expends a lesser percentage to EDGE-certified firms than the advertised EDGE participation goal or the allowed percentage amount approved for the contract as provided by successful Demonstration of Good Faith , the Contractor must submit a reconciliation document to SAO detailing the difference between the advertised EDGE participation goal and the actual percentage of the construction project amount expended with EDGE-certified firms and must submit its explanation of why the EDGE participation was not achieved. SAO must review the EDGE reconciliation document and include the document in the Contractor's permanent evaluation file.

SAO will include a Contractor's EDGE participation performance in the final evaluation of the Contractor. The evaluation and all EDGE reconciliation documents will become part of the permanent Contractor performance evaluation file.

SAO and any interested party may consider the Contractor's conduct and performance concerning EDGE, in any future evaluation of the Contractor's qualifications for subsequent projects.

## Certification of Contract Completion

Certification of Contract Completion as "Final": The Certification of Contract Completion (CCC) is considered "Final" when there are no remaining contract obligations for the Contractor. The A/E drafts the CCC, as "Final" and obtains certification from the Contractor, and approval from the Construction Manager, SAO, and Owner.

- If the Owner elects to occupy the project prior to 100 percent of the Work being complete the A/E may issue a CCC as "Partial", and list the incomplete work or documents that the Contractor has not delivered or completed. This list must state the anticipated completion date for each item individually.
- All Work must be completed before the Contract Completion Date. Time extensions to complete work beyond the Contract Completion Date are subject to the standard liquidated damage clauses from the General Conditions.

**OAKS Capital Improvements Procedure**

The A/E must process the Certification of Contract Completion through the **Closeout - Contractor** business process.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E will issue the Certification of Contract Completion on the **Certification of Contract Completion** form (F390-01).

Certification of Contract Completion as "Partial:" A partial CCC is only issued when the Owner elects to occupy areas of the project prior to the completion of the Contractor's Work. A Partial CCC does not exempt the Contractor from the completing the work within the Contract Completion Date.

- The CCC is considered Partial when there are outstanding contract obligations for the contractor to complete. Outstanding Work may include construction work, closeout materials, demonstrations and training, commissioning, or warranty deliverables.
- If the Owner occupies a portion of the project while substantial portions remain uncompleted, as in a multi-phase project, the date of partial completion for each area so occupied will serve as the Warranty Commencement date for that area.
- If the Owner requires occupancy of a portion of the project contrary or additional to what was included in the contract documents, prior to Contract Completion, the A/E or CM will initiate the procedures to process a CCC. The area of Partial Occupancy requested must be approved for Temporary Occupancy by the Division of Industrial Compliance of the Ohio Department of Commerce.
- The following steps will occur in order to process Partial Occupancy Requirements by the Owner:
  - The area must be approved for Temporary Occupancy by the Division of Industrial Compliance of the Ohio Department of Commerce.
  - The Contractor will prepare a Contractor's Punch List remaining on the work in the Partial Occupancy area. (Correct items now or later?)
  - The A/E, the CM, the Project Manager, the Owner and the Contractor will inspect the Partial Occupancy area for conditions satisfactory for occupancy.
  - The A/E and CM will process the Certification of Contract Completion including all required signatures and forward it to SAO.
  - SAO approves the CCC and returns the executed copies to the A/E, the CM and the Project Manager.
- The Owner will be responsible for costs related to occupying the Partial Occupancy area.
- The Contractor must complete all Punch List items and continue to carry the required insurance during the performance of Punch List work. The final acceptance of the work or Contract Completion is dependent on the Contractor completing the Punch List, in addition to satisfying all other conditions of the Contract.
- Note: The CCC may be used to acknowledge acceptance and occupancy of a substantial portion of a project before Contract Completion, not to document lesser events. When the objective is to initiate the guarantee period on a piece of equipment or other product only, the appropriate procedure is to initiate a Certification of Warranty Commencement. Otherwise, the date of the State Architect's signature on the CCC will be the effective date for any guarantee on equipment listed on the CCC or otherwise included in the occupied area.

**OAKS Capital Improvements Procedure**

The A/E must process the Certification of Warranty Commencement through the **Closeout - Contractor** business process.

**Traditional Paper-based Procedure**

If the Project is not administered using OAKS CI, the A/E will issue the Certification of Warranty Commencement on the **Certification of Warranty Commencement** form (F390-02).

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# 400 | Post-Construction

The Sections in this Group describe the post-construction period and related issues. The Sections consist of the following:

410 | A/E's Project Closeout

420 | Owner's Project Closeout

430 | Owner Occupancy

440 | Correction Period

# 410 | A/E's Project Closeout

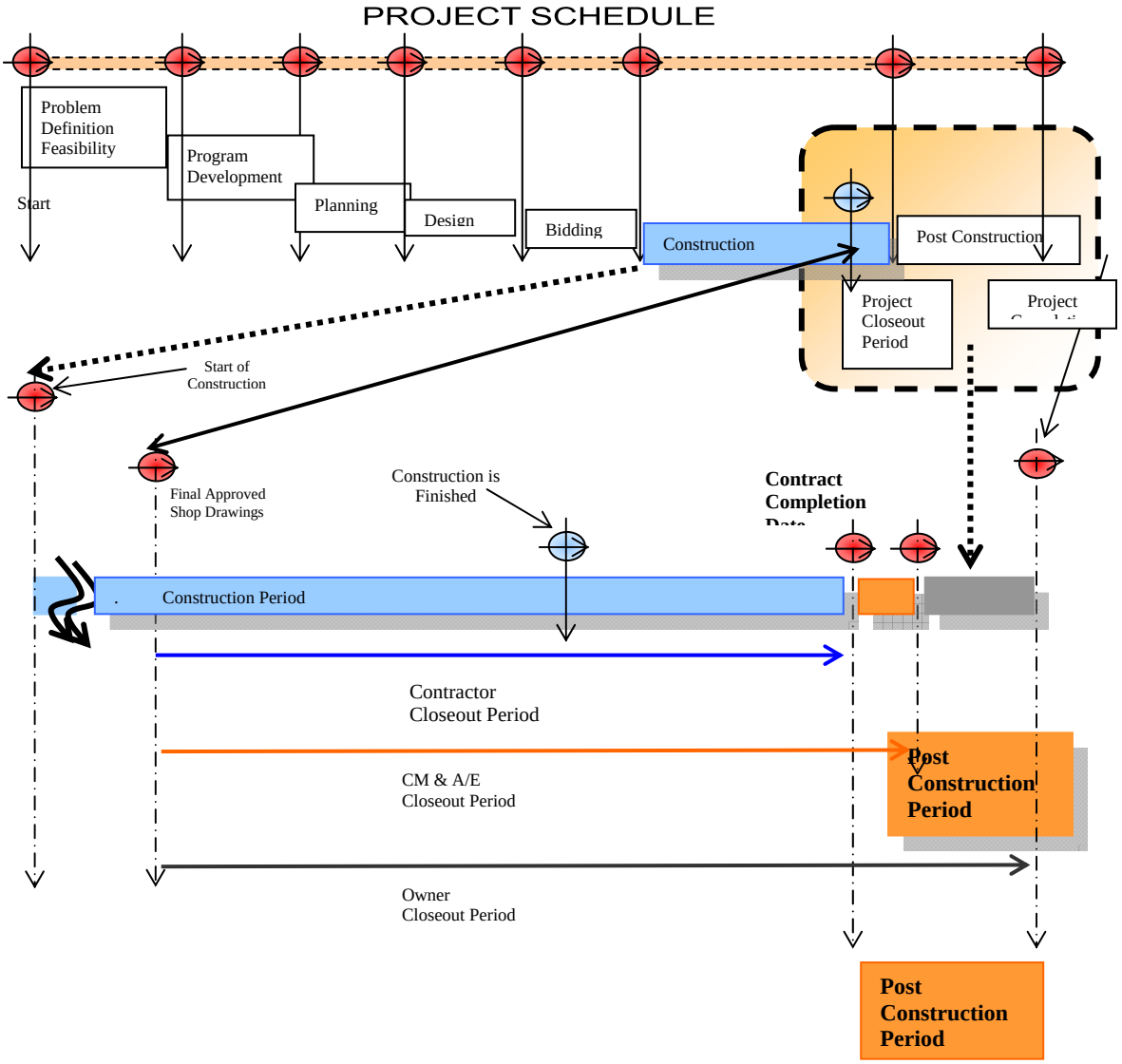
This Section will address the responsibilities of the A/E following the satisfactory completion of all of the Contractor's contractual obligations.

## Project Completion Concept

The completion of services and work varies from each of the Team Members. The contractual responsibilities, other than actual construction, are completed as part of the closeout process. For the Contractor, the closeout process starts concurrent to the final stages of construction and is completed after the construction is finished but prior to the *Contract Completion Date.* Since the Contractor, Construction Manager, A/E, Contracting Authority, and Owner have different closeout responsibilities, the *Closeout Period* is slightly different for each.

The Post Construction Stage is initiated only after the following is completely satisfied: Issuance of Certification of Contract Completion (F390-01) forms that evidences the satisfactory completion of all items listed in the "State of Ohio Standard Requirements for Public Facility Construction."

Diagrammatically, the closeout periods for the primary team members can be illustrated as follows:




Overall Project Schedule — Figure 410.1

## Architect/Engineer Closeout Responsibilities

The closeout responsibilities of the A/E commence with the closeout period of the Contractor and continue beyond the approval of the Certification of the Contract Completion into the Post Construction Stage. The following represents many of the closeout responsibilities of the A/E.

### Acceptance of O&M Manuals

- The A/E will review the preliminary submittal list of proposed Shop Drawings and Submittals from the Contractor for completeness and conformity to the specifications and addendum.
- The A/E establishes the Shop Drawing and Submittal Log to parallel the proposed Contractor's submittal list.
- The A/E receives and accepts the manuals prior to the equipment demonstrations. These manuals will be distributed to the Owner's Staff for review 7 days prior to the Contractor and Manufacturer's demonstrations to allow the Owner to become familiar with material prior to meeting with the manufacturer's representatives.

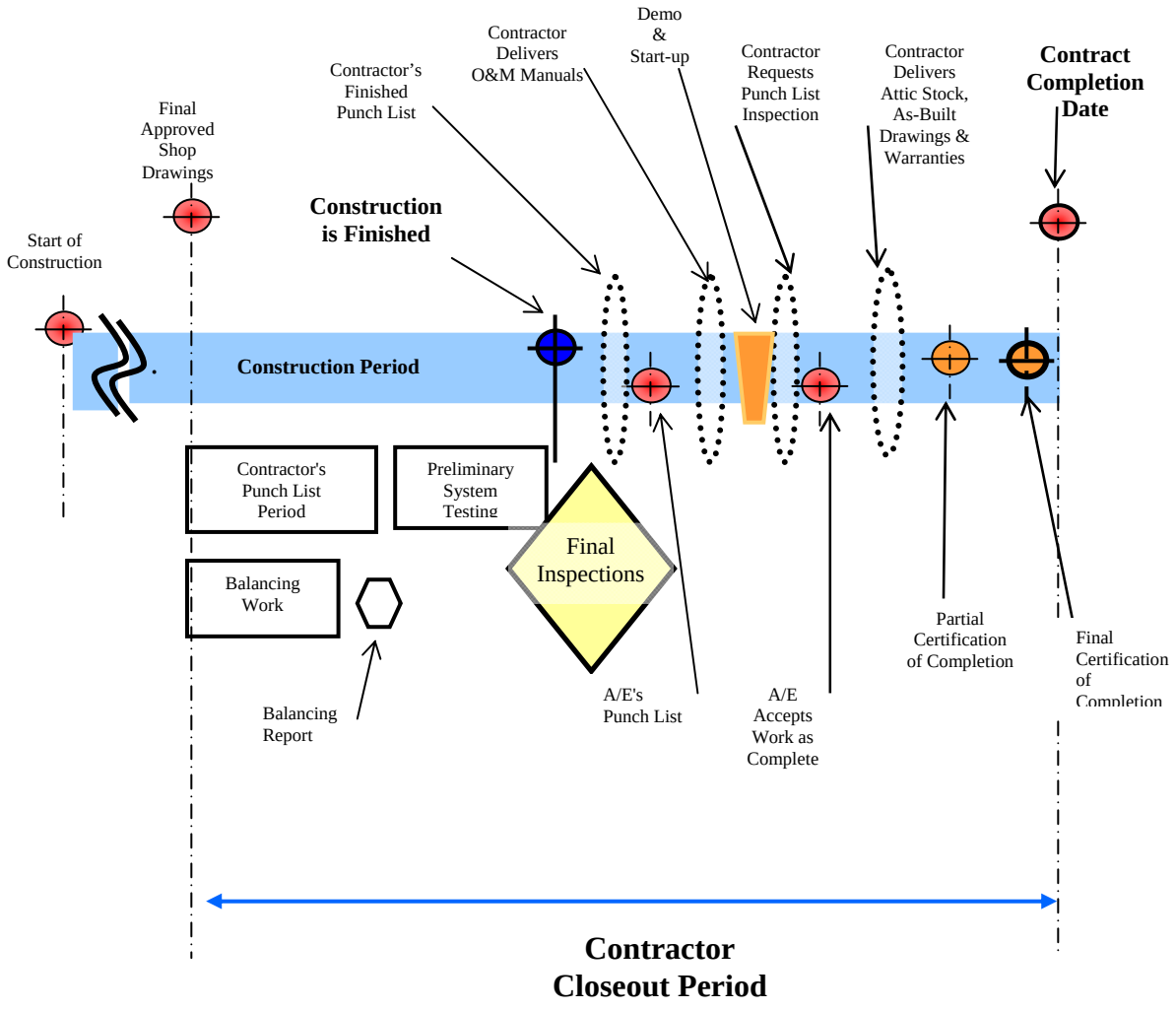
### Acceptance of Construction

- During the course of the construction process the A/E is responsible to review the construction work for acceptance of material and equipment installed. This includes earthwork and the conformance of construction to the design intent. Payment of Work implies the acceptance of Work in place. (This does not prohibit the A/E from directing any defective Work from being replaced.)
- The Contractor's retainage payment will not be withheld to fund the Contractors completion of Work. The A/E will not accept and recommend payment of Work not completed.

### Contractor's Closeout Checklist

- The A/E establishes a Contractor' Closeout Checklist for each Contractor. The Contractor specific closeout checklist is distributed to the associated Contractor with copies to the Owner and SAO when the construction commences.
- The A/E will record items on the Closeout Checklist as the Contractor completes and submits them. Dates received forwarded to the Owner will be documented.
- The A/E certifies that the Contractor's Checklist is inclusive of all items obligated by the contract from the Contractor.
- The A/E transmits a copy of Each Contractor's Closeout Checklist is to SAO as part of the Record Documents.

The Following Diagram represents many of the Contractor's activities:




Contractor Closeout Period — Figure 410.2

Special Testing

- Written Special Testing Reports, as defined by Department of Commerce, are delivered to both to Ohio Department of Commerce (building authority) and to SAO at the end of construction.
- Testing Services are an Additional Service to the A/E contract.
- Testing Services must be by a licensed firm specializing in testing services as defined by the Department of Commerce. Typical services may include:
  - Geotechnical testing – Soil Borings
  - Geotechnical testing – Construction Administration
  - Concrete testing
  - Masonry unit and mortar testing
  - Steel erecting and weld connections

Other special testing not required by the Department of Commerce:

- Air and water balancing reports:
  - The A/E will be responsible for retaining an independent professional consultant specializing in Testing Services. The independent Consultant will perform test and provide all test reports. This service is beyond the scope of the A/E's Basic Services and will be contracted as an Additional Service.
  - The Contractor must request in writing for balancing services. The Contractor must request balancing services once the systems and equipment are operational and prior to the Contractor's Punch List.
  - The Contractor must include corrections, adjustments, and conformance to the balancing report requirements prior to requesting the Final Inspections from the Building Authorities.
  - The A/E will be responsible to update any air and water balancing reports if Change Orders are required as part of the corrective Work. Updated balancing reports are considered part of the required "Record Documents".

Demonstration of Equipment and Mechanical Systems

- The A/E verifies that the Contractor demonstrates all equipment and mechanical systems by the manufacturer representatives.
- The A/E verifies that the Owner has received the manufacturer's operational literature, warranties, and manuals prior to the demonstrations.
- The A/E documents the Owner's questions and concerns during the demonstration period and verify responses are made in writing from the manufacturer representatives.
- The Contractor is responsible for completing Certification of Equipment Demonstration (F390-03) and transmitting it to the A/E as part of the Record Documents.

Extra Materials

- The A/E will establish, in consultation with the Owner, acceptable location(s) for the delivery of the Contractor's Extra Materials ("Attic Stock").
- The Contractor must obtains written a receipt of the date, location, and person that received the Extra Materials.
- The Contractor transmits to the A/E all copies of receipts of delivery to allow the A/E to visit location(s) to verify compliance of the specifications and addendum.
- The A/E delivers a copy of the Contractor's transmittals to SAO as part of the Record Documents.

Correction Period and Contact Numbers

- The A/E documents on Certification of Warranty Commencement (F390-02) the manufacturer name, length, commencement date, end date, and contact of each warranty.
- Service contact warranty phone numbers are referencing to a manufacturer's service department not an electronic recording machine.
- The A/E delivers a copy of the completed form to SAO as part of the Record Documents.

Contractor's Punch List Items

- The A/E reviews the Contractor's written Punch List to verify that all Work conforms to the design intent and is complete. (All Work must be complete; including the Contractor's final cleaning prior to the Final Punch List by the A/E.)
- The A/E is responsible for the coordination of a walk-through inspection with the Owner and SAO Representatives for the final punch list.

- The A/E is responsible to incorporate the Owner and SAO's punch list items into one punch list and distribute copies to the Contractor(s), Owner and SAO Representatives.

### Reviewing the Corrections of the Final Punch List Items

- The Contractor provides the A/E written notice of completion of the Final Punch List. Upon written notice, the A/E is responsible to review and provide written notice to the Contractor of acceptance or any further corrections necessary for the A/E's recommendation to the Owner for acceptance.
- The A/E sends written notice to the Contractor of acceptance of the completion of punch list items and issues a copy to SAO as part of the Record Documents.

### As-Built Documents

- The A/E establishes periodic meetings during Construction Administration to assure that each Contractor is recording their as-built conditions as the project progresses. The A/E reviews the documents once each month during the construction.
- The Contractor delivers the As-Built Drawings to the A/E at the completion of construction and not later than the A/E's acceptance of the Final Punch List item as completed.
- The Contractor incorporates all Change Orders, and Addendum items into the Contractor's As-Built Record Documents.

### Contractor Evaluation

- The A/E and CM will, at the request of SAO, provide documentation and recommendations for all issues pertaining to the Contractor Evaluation (F140-99) and deliver it to SAO as part of the Record Documents.
- SAO may incorporate the A/E's and CM's comments as part of the SAO final evaluation of the Contractor and place the evaluation in the permanent file.

### Record Documents

- The A/E is responsible to establish an outline of Record Documents at the beginning (i.e., within 60 days after the Notice To Proceed) of the construction period and for submitting it to SAO for acceptance.
- SAO acceptance does not preclude additional record documents being required by SAO.
- As a minimum, Record Documents specifically include Drawings, Specifications and Addendum that incorporate the Contractor(s) As-Built conditions.
- The A/E transmits a copy of an electronic file of Drawings and Specifications as part of the Record Documents required by SAO. The format is defined by the Contracting Authority as part of the A/E's agreement.
- The A/E must revise the original contract Drawing tracings or computer files as required by the A/E Agreement for Professional Design Service with the information contained on the As-Built Drawings provided by the Contractor. The revised original contract drawing tracings or computer files must be labeled "Record Drawings" and show the date of the A/E's revision. The A/E will deliver the Record Drawings to the Owner in the number and format required by the Agreement for Professional Design Services. The A/E will also deliver to the Owner the As-Built Drawings used in the preparation of the Record Drawings.
- The Owner may thereafter use the Record Documents for any purpose relating to the Project including, completion of, or renovation of, or additions to the Project.

## Project Closeout

SAO arranges a project closeout meeting with the Owner.

- The meeting identifies any the problems in the project's processes and identifies improvements to procedures, which can be implemented on subsequent projects.

SAO places a copy of all closeout documents in the SAO central file and delivers the second copy of Record Documents to the Owner for their records.

- The copy of record documents is available for Owners who misplace their files.
- SAO stores all documents as electronic files.

SAO compares the budget information from the initial budget to the actual cost to allow future cost information for other projects.

SAO and the Owner compare their records for funds still outstanding in the project.

SAO reviews the procedures for handling future warranty issues.

## Project Evaluation

The Project Manager will prepare makes the final evaluation of the Contractor, A/E, and Construction Manager.

All evaluations are placed in the permanent file for future reference during SAO's evaluation of qualifications or performances for subsequent projects.

Evaluations of a specific company will be available for review by that company upon request.

# 420 | Owner's Project Closeout

This Section will address the responsibilities of the Owner following the satisfactory completion of all of the Contractor's contractual obligations. The Owner's closeout responsibilities commence during the closeout period of the Contractor, during which the Owner must have increasing contact with the A/E and Contractor as the project is being completed and being prepared to be turned over to the Owner. The following represent the Owner closeout responsibilities.

## Receive and Review O&M Manuals

The Owner will provide a place to store the O & M Manuals and product information, and establishes procedures for access and retrieval by maintenance staff. The Owner will receive the Manuals from the Contractor. The Owner will identify staff who routinely operate and maintain or service the equipment or mechanical systems on which the Contractor provides education and training. The Owner will distribute the Manuals to its staff for review so that they may prepare for the demonstration and training and knowledgeably review warranty issues with the Manufacturer's representatives prior to the demonstration and training.

## Participate in Architect/Engineer's Punch List

The Owner's Representative may participate in the A/E's final punch list inspection and in the creation of the Punch List. The A/E will incorporate the Owner's punch list items as part of the A/E's final Punch List.

The Owner may give authorization to the A/E to proceed with the punch list inspection without input from the Owner's Representative, but forfeits the right to add punch list items. No second "Owner's Punch List is permitted. (A/E must appropriately document Owner's authorization.)

## Participate in Demonstration and Training

Arrange times for the demonstration and training with the Contractor and participate as required. Required demonstration and training should be listed in the specifications and usually include:

- HVAC equipment
- Electrical equipment
- Special systems

## Receive Extra Materials

The Owner will make an area available to receive and appropriately store the Extra Materials delivered by the Contractor. The Owner will, in person, receive the extra materials and sign a receipt for them. The Owner will not permit the unsupervised delivery of Extra Materials.

## Receive Record Documents

The Owner will provide an area for storage of Record Documents delivered by the A/E. The Owner will sign a receipt acknowledging that all Documents have been received.

## Performance Evaluation

The Owner may prepare recommendations and documentation pertaining to the performance of the Contractor, the A/E, and the Construction Manager and provide the information to SAO.

## Acceptance of the Project

After the A/E confirms that the Contractor has completed all Punch List items, the A/E recommends to the Owner that the Owner formally accept the project by signing the Contractor's final Payment Request, which the A/E will forward to SAO for processing and final payment.

The Owner will provide SAO with written acceptance of the project as completed. Written acceptance from the Owner assures that the facility is under general operations and that the building is occupied by its staff.

The Project Coordinator will verify that all Contractors, the A/E, the Construction Manager and SAO are 100 percent invoiced and paid. The Project Coordinator will review the findings with the SAO Fiscal Officer to confirm the results and send authorization to the Owner who may then cancel the balance of encumbrance funds on record.

# 430 | Owner Occupancy

This Section addresses activities performed by the Owner during the Owner's initial occupancy of the facility.

## Facility Startup

Facility Startup consists of activities performed by the Owner which are required to prepare the Project for occupancy.

### Common Facility Startup Activities

- Strip and wax floors
- Install artwork & special graphics
- Install signage not provided by the Contractor

### Reserved parking signs and equipment

- Emergency evacuation plan signage
- Employee workstation nameplates
- Install and clean furniture and movable equipment
- Install and set up computers, telephones and other equipment
- Stock cabinets, shelves and storage rooms
- Verify and issue keys; issue passes required for use with entry control systems
- Final building cleaning
- Install floor mats and other items provided by independent vendors
- Install window coverings
- Install and stock vending machines
- Install pay telephones
- Install cable TV service; install and connect TV's and connect to cable
- Provide paper products in restrooms
- Program thermostats to suit specific operational needs
- Install fire extinguishers if not provided by Contractor
- Establish telephone and communication numbers
- Install and test equipment
- Receive dietary stock (if required)

### Activities Other Than Facility Startup

- In addition to Facility Startup activities, the Owner may need to perform activities to permit occupancy which are not specifically related to the physical facility. They may include:
  - Train staff on emergency procedures
  - Create staff directories
  - Contracting with a moving company
  - Notification of customers, suppliers, the post office and others of the new address
  - Purchasing updated stationery, business cards, etc.
  - Correction of addresses on pre-printed forms and publications
  - Contract for maintenance, and supplies

- Arranging telephone service
- Contracting for other services such as HVAC maintenance, lawn care, and snow removal
- Establish internal operational procedures, e.g. mail pick-up and distribution
- Install live plants

## Partial / Phased Occupancy

Due to the complexities of the Project or the Owner's operation requirements, the Owner may have required that the Project sequence be organized, or formally phased, so that the Owner can occupy a portion(s) of the Project as it is completed. Commissioning activities, and other activities related to relocation, such as may need to be organized accordingly.

Such an arrangement probably means that work adjacent to the occupied area is not complete. The Owner may need to coordinate with the A/E and Contractors to ensure that the partially complete fire alarm system, telephone and data, PA system, emergency power system, etc., and all utilities and are properly configured and programmed to function in a configuration other than the completed project.

## Maintenance Program

### Preventive Maintenance

- The Owner should establish a preventive maintenance (PM) program in accordance with the recommendations of the manufacturers of the components, systems, and equipment. Such recommendations should be included the O&M Manuals.
- PM programs can be established by the Owner, as a simple log with dates, which remind staff what needs to be done when, and by whom (e.g. individual, outside contractors.) and blanks in which to indicate when the work was done, and by whom.
- A more elaborate PM program can be created by the Owner with software packages, which are available for the purpose, or by a consultant.

### Corrective Maintenance

- The Owner should refer to the O&M Manual and follow manufacturer's recommendations.

# 440 | Correction Period

This Section addresses activities of the Owner with regard to warranties and problems which become evident during occupancy of the facility.

## Responsibilities During the Correction Period

### Discovery and Resolution of Apparent Warranty Issues

- The A/E's responsibilities end after closeout of the project. Monitoring of the project during occupancy and resolving problems becomes the Owner's responsibility.
- The Owner will inspect the facility at regular intervals for issues which it believes may be possible warranty items. To provide proper documentation concerning any such discovered item the Owner should:
  - Keep a notebook or other organized system of notes with dated entries including when the problem was first noted, by whom, and what conditions were noted, and with similar information for subsequent observations.
  - Take measurements, photographs, samples, or collect other documentation as appropriate.
  - Identify the Contractor whom it appears is responsible for the problem and inform the Contractor of the findings in writing.
  - Meet with the Contractor to review the matter.
  - If the Contractor agrees that it is defect covered under the warranty, arrange a time for the Contractor to make repairs.
  - Determine in advance what corrective measures the Contractor proposes, approve or take exception to the proposed corrective measure as appropriate, and ensure that the Contractor performs the measures as both parties agreed they would be corrected.
  - If the Contractor does not acknowledge that the defect is covered under the warranty, the Owner should contact SAO for guidance. SAO may provide telephone consultation on warranty issues at no cost to the Owner, but reserves the right to charge an appropriate fee for issues which require travel, research, or prolonged communication.
  - If the problem is unresolved, the Owner should contact the Contractor's Surety and seek resolution. (The warranty is a part of the Contract, is in effect for one year after project completion. The Surety has a responsibility to complete any work not performed by the Contractor, including honoring the warranty.)
  - If the problem is substantial and both the Contractor and the Surety fail to resolve the matter, the Owner should seek legal advice.
  - If the Owner has noted a possible defect but has made no specific determination that a warranty issue exists, the Owner should monitor the issues more closely and conduct inspections more thoroughly as the end of the warranty period approaches.

### Inspection Before the Expiration of the Correction Period

- The Owner should conduct a thorough inspection of the facility in the eleventh month of the correction period.
- The A/E may have been contracted in the original design agreement to perform such an inspection as an extra service and may conduct it on the Owner's behalf. In such case the A/E will communicate any problems found to the appropriate Contractor. The A/E will most likely not take any further action on the Owner's behalf. (Such services are awkward contractually since it is not good practice to keep the A/E's contract open and retain part of the A/E's fee for a year pending completion of this item.)
- Any warranty items discovered should be addressed as described in the item above. It is important that the Owner notify the Contractor of any items found within the warranty period, and that proof of notice (such as the registered mail receipt) be kept.

## Incomplete or Defective Work

If the Owner discovers, either during, or after the expiration of a warranty, that the Contractor failed to complete work, or that work performed was not in compliance with the Contract Documents, that may be a contractual matter, not a simple warranty issue. The Owner should notify SAO and seek advice.

## Suspected Design Defects

If the Owner discovers suspected design defects, the Owner should notify SAO and seek legal advice.

## Longer Term Warranties

There may be building components or systems that have warranties provided by manufacturers which are longer than one year. Any such warranties should be identified in the O & M Manual. The Owner will treat such Warranties as described above.

Such warranties often apply to:

- Roofing. (20 year warranties are not uncommon)
- High quality finishes on architectural sheet metal. (20 year warranties against fading are common)
- Refrigeration equipment
- Compressors
- Pumps

It is important that the Owner be aware of these warranties and not inadvertently violate any provisions of them by efforts to make repairs. Such warranties may have strict language voids the warranty if the Owner has performed acts or omissions which are not in strict compliance with the terms of the warranty.

The Owner should contact the issuer of the warranty to make a claim. Names and phone numbers of the appropriate contact person (often a firm that acts as the manufacturer's representative) should be included in the O & M Manual.

# 500 | Extra Services

The Sections in this Group describe extra services, which may be performed in the course of a project. The Sections consist of the following:

510 | Constructability

520 | Commissioning

530 | Remediation

540 | Public Exigency

550 | Facility Performance Evaluation

# 510 | Constructability

This Section identifies the requirement for incorporating Project Constructability Services (PCS) into the project and outlines the responsibilities of the various parties involved.

## Review by Project Manager

On all projects, the Project Manager will conduct a complete review of the Contract Documents giving special attention to the Solicitation, Bid Form, Supplementary Conditions, Wage Rates, all Division 01 sections of the Specifications to verify that the Construction Documents are clear, accurate, and well coordinated.

## Types of Constructability Review

The PCS will be accomplished by one of two general methods:

- TYPE 1: Projects with a Construction Budget of less than $500,000:
  - The Project Manager will personally perform the PCS, with guidance and supervision by the Segment Manager.
- TYPE 2: Projects with a Construction Budget of $500,000 or more:
  - The PCS will be performed by a PCS Consultant selected by the Project Manager in consultation with the Project Owner.
  - The PCS Consultant will be selected from a list of pre-qualified professional services firms created and maintained by SAO. Alternatively, and at the discretion of the Segment Manager for the project, the PCS Consultant may be selected through a Qualifications Based Selection process approved by the State Architect.

Projects without a Construction Manager involved, at the discretion of the Segment Manager, may contract for PCS from a company on the current "On-call Constructability Services Consultants List" maintained by SAO.

Projects with a Construction Manager involved, will use the CM to perform the PCS.

- Basic PCS will normally be included in Basic Services in the CM Agreement. Additional Constructability Services may be contracted with the CM at the discretion of the Segment Manager.

## Scope of Constructability Services

Basic Constructability Services typically begin when the CDs are 95 percent complete and continue through completion of the CDs. At such period in the document preparation process, the CDs have been developed to the level at which the A/E is prepared to submit the CDs to the Division of Industrial Compliance at the Ohio Department of Commerce (DOC) for Plan Approval.

Prior to releasing the documents to the PCS Consultant or before performing an internal Project Manager constructability review, and before authorizing the A/E's submittal for plan review, the Project Manager will confirm that the CDs, including the technical specifications, are 95 percent complete.

Scope of Basic Constructability Services:

- Project Discovery
  - Convene and conduct meeting
    - Attendees: Owner, SAO, A/E and, if applicable, CM
    - Review the Program, Project Budget; current plans and specifications
    - Review Budget and Detailed Cost Estimate
- Analyze CDs for Constructability
  - Evaluate the plans and specifications
    - Check for completeness, clarity, consistency and coordination

        - Identify potential conflicts, overlaps and information gaps
- Produce a written report
    - Drawing review comments
        - Use directive, specific commentary
        - Do not use vague commentary
        - List by drawing sheet number, detail references
        - Provide relevant cross-referencing
        - Obtain prior approval by Project Manager if comments are not on provided on the drawings
    - Specification review comments
        - Use specification section number, page and paragraph references
        - Cross-reference to drawings as possible and appropriate
        - Use direct, specific commentary
        - Do not use vague commentary
- Present the Findings
    - Convene and conduct meeting
        - Attendees: Owner, SAO, A/E and, if applicable, CM
        - Sub-consultants may attend as applicable
        - Present, review, and discuss findings
- Architect/Engineer's Pre-bid Release
    - Before authorizing any project for bid advertisement, the Project Manager will obtain a signed statement from the A/E specifically stating that the A/E has considered the recommendations and suggestions from the constructability review and has incorporated all that the A/E deems appropriate. The statement will also include the A/E's justification for not incorporating a response to any review comment, recommendation, or suggestion.

## Additional Constructability Services

The Project may have or may develop special needs. In such situations, certain optional services may be appropriate to successfully manage the project. Such services should be considered as early in the project as possible and typically are an extra cost to the project budget.

In general, many Additional Constructability Services begin earlier in the design process than Basic Constructability Services and may even parallel the entire process.

Additional Constructability Services can be added to the project at anytime. These services may include, but are not limited to:

- Verify the logic and clarity of the breakdown of the work to be performed by the Contractor.
- Verify that the documents contain the information necessary to define which of the several Contractors will perform the specific work to bridge between two or more Contractor's areas of responsibility or scope of work.
- Evaluate the plans and specifications with regard to the feasibility of construction considering such factors as project schedule, project interfaces, utility relocations or shutdowns, material availability, site constraints, etc.
- Analyze any construction constraints imposed by design requirements, site constriction considerations, sequence of construction, means and methods, or construction materials.
- Evaluate the A/E's proposed time for contract completion on the Bid Form, comment on milestone dates and liquidated damages, if any; and phasing plans, if applicable.

- Evaluate the A/E's detailed cost estimate against the construction budget, project phasing, if any, and construction contract amounts and construction alternate estimates listed in the Solicitation.
- Value engineering of alternative building components or building systems.
- Review of the plans and specifications prior to release for bidding to ensure that the modifications conform to the comments from the constructability review(s).
- Analyze Addenda issued during the bidding process.
- Preparation of a target (or default) Construction Progress Schedule to be included in the Procurement Documents.
- Preparation of the Construction CPM Schedule as the independent scheduling consultant for the project. Such service may include schedule monitoring and updates.

## Cost of Constructability Review

At a very early stage of the project, the project team should identify the scope of the PCS. The Project Manager will coordinate with the Owner to ensure that appropriate funding is available.

# 530 | Remediation

This Section defines the usual types of remediation projects and the means utilized to accomplish remediation.

## Traditional Remediation Projects

Definition: Traditional remediation projects repair structures, equipment, or site work or replaces them at the end of their expected lives.

A traditional remediation project may be administered by an Owner which is authorized to locally administer projects if the estimated project cost falls within the approved limits of local administration authority. Otherwise, SAO will administer the project. All work must comply with ORC Chapter 153.

## Exigency Remediation Projects

Definition: All projects which are declared to be a "Public Exigency" by the Director of Administrative Services are considered remediation projects, whether a project is for a physical structure, obstruction of construction, or places people or facilities into an imminent danger of injury or obstruction. The project is the correction of an existing or imminent condition.

The scope of the project for exigency projects will be confined to the matters identified in the Declaration and will not be expanded to include unrelated or marginally related work.

The State Architect's Office may not enter into contracts to perform services until the Director of DAS sends notice to the Director of Budget and Management and the President of the Controlling Board.

The Director of Administrative Services has the authority to contract in accordance with ORC 123.15(C). See Section 530 of this Manual for the process of declaring a Public Exigency.

## Defective Work Remediation Projects

Definition: The State Architect may issue a declaration of "defective work" on the State Architect's own initiative or upon the request of an Owner. The State Architect's declaration will identify the specific defective work, damages incurred, if any, by the Owner, and the corrective action required to remedy the defects.

Testing, exploratory investigations and the work of any specialty consultants will initially be funded by the Owner. Should investigative reports confirm damage which warrants the State Architect to make a declaration of Defective Work and initiate a remediation project, the cost of investigation will become part of the corrective cost liability of the party which is determined to have caused the damages.

The State Architect will consider any one of the following items as justification to declare a "Defective Work" remediation project:

- *Failure* to construct or perform as contracted within the Contract Documents.
- *Failure* to design or adequately create documents to require the proper use of material(s), mechanical equipment, fire suppression, plumbing, electrical, communication, security, or other systems, failure to provide adequate structural load capacities, failure to perform or accommodate functional program requirements, or failure to follow manufacturers' recommendations or nationally accepted standards and guidelines.
- *Failure* in the design or construction of component systems or mis-use of a component system or individual elements within the whole system.
- *Failure* to construct to comply with the building codes or other regulations of the authority having jurisdiction, or comply with local building or licensing authorities concerning State, federal and local agencies of authority.

The State Architect will send notice to the Contractor, A/E or other party of its responsibility to provide corrective work as part of a "defective work" remediation project.

- The State Architect will enter into a Memorandum of Understanding with each Contractor and A/E, as appropriate, which will assign responsibilities for performing corrective measures to the appropriate parties, describe the procedures for accomplishing those measures, or both, and outline a specific schedule for the performance of the remediation.
- Failure of a Contractor, A/E or Consultant to enter into a Memorandum of Understanding will result in SAO contacting the respective party's surety or insurance company, and recording the noncompliance in the party's evaluation form in SAO's files.

Indication of a Contractor's or A/E's noncompliance on an evaluation form may cause SAO to not consider that Contractors or A/Es for selection to perform work or provide services on future projects.

# 540 | Public Exigency

This Section identifies the uses of "Public Exigency" for construction projects, how "Public Exigency" project processes differ from traditionally managed project processes and the procedures required to obtain the declaration of a "Public Exigency" for a project.

## Definition of a Public Exigency

The definition in ORC 123.15 and ORC 123.21 includes:

- An injury or obstruction that occurs in any public work and that materially impairs its immediate use or places in jeopardy property adjacent to it;
- An immediate danger of such an injury or obstruction; or
- An injury or obstruction, or an immediate danger of an injury or obstruction, that occurs during the process of construction of any public work and that materially impairs its immediate use or places in jeopardy property adjacent to it.

## Declaration of Public Exigency

### Department Request

- The initial step in the process is a written request signed by the Director of a State agency, or the Chief Executive Officer of an Institution of Higher Learning, that the Director of DAS declare that a Public Exigency exists for a particular situation. The request should be addressed to the Director of DAS, with a copy to the State Architect. The request should include the following information:
  - A detailed description and analysis of the problem, including the specific injury obstruction, jeopardy, etc.
  - Description and analysis of how the problem materially impairs the immediate use of the property
  - Any remedial steps, tests, etc. already completed
  - An estimate of the cost to remediate the situation
  - An estimated time frame to complete the remediation
  - The rationale for why the problem meets the requirements set forth in ORC 123.15
  - If local administration is requested, the rationale for that request
  - Any other information the agency Director or CEO deems appropriate
- In the case where the Director of DAS declares a Public Exigency on the Director's own initiative, SAO may create the equivalent of a request on the Director's behalf.

### SAO Evaluation

- The State Architect, or a licensed professional staff member designated by the State Architect, will review the request and prepare a memorandum outlining the State Architect's recommendation for the declaration of an exigency or the reasons against a declaration as it pertains to ORC 123.15, and forward the recommendation to the DAS Legal Counsel.

### Legal Counsel Review

- Subsequent to the SAO evaluation, DAS Legal Counsel will review the Request and SAO's recommendations and prepare a memorandum for the Director of DAS detailing a legal analysis of whether the situation described by the Agency meets the "Public Exigency" definition in ORC 123.15. DAS Legal Counsel will prepare a formal "Declaration" document to be issued by the Director. The Declaration must detail the specifics of the exigency project, including the specific problem, the remedial steps to alleviate the problem, the estimated amount necessary to remediate the problem, and the estimated time necessary for remediation. These documents and the analyses will be forwarded to the Deputy Director of GSD for further review and forwarding to the Director. See Exhibit (L540-03).

### Director's Review and Approval

- The Director of DAS will review the entire file associated with the Request, including the SAO and DAS Legal Counsel analysis and recommendation. If the Director determines an exigency exists, the Director will sign the documents prepared by DAS Legal Counsel.

### Declaration

- Upon the Director's determination and approval, the Director's Office will forward the signed documents to the appropriate parties and distribute photocopies and electronic copies as appropriate.

### Notification Memorandums

- The Director will also notify the President and members of the Controlling Board and the Director of the Office of Budget and Management of the Declaration. The Notification contains the details of the Declaration and provides similar information contained in the Declaration.

## Management of Exigency Projects

Once the Director notifies the Director of the Office of Budget and Management, DAS may enter into contracts for the performance of services to manage, furnish labor and materials, or construct any structures and buildings necessary for the remediation of the defined scope of the project declared as an exigency.

DAS will subsequently issue a recommendation for the requesting Agency to prepare a Controlling Board request so that the Agency may receive approval and encumber funds required for the payment of SAO project management and Public Exigency processing, A/E(s), Contractor(s), and others as required.

## Misconceptions about Exigency Projects

### All Public Exigency projects are emergencies.

- While an exigency constitutes an immediate problem, the definition of an exigency does not require that the matter be an emergency which requires immediate resolution, rather, that the matter is of such significance that it warrants expedited resolution.

### Every request made in the proper format by an Agency Director is declared a Public Exigency.

- The decision of the Director of Administrative Services to declare a public exigency is a legal decision. Therefore, a determination must be made that the facts presented meet the legal definition of a public exigency.

### Projects declared a Public Exigency do not require oversight by the Office of Budget and Management.

- While the project normally does not go before the Controlling Board, notice is required to be sent to the Director of the Office of Budget and Management.

### An Exigency may not be declared by the Director of the Department of Administrative Services (DAS) without a request from an Agency Director.

- The Director of DAS may issue a Public Exigency on his/her own initiative or upon the request of the director of any State agency.

### The Director of DAS does not have to comply with ORC 153 to execute Exigency projects.

- ORC 123.15 (B) states that the Director of DAS shall comply with ORC 153, with the exception of paragraph 123.15(C), which permits the Director of DAS to commence work on the Exigency once notice is made to the Director of the Office of Budget and Management.

# 600 | Fiscal

The Sections in this Group describe extra services, which may be performed in the course of a project. The Sections consist of the following:

602 | Accounts Receivable

605 | Accounts Payable

610 | Billing Rates

640 | Lien Requirements

650 | Escrow Accounts

670 | Project Tracking System

680 | Revenue Projections

# 602 | Accounts Receivable

This Section identifies the mechanisms for the processing of accounts receivable.

## SAO Billing Mechanisms

SAO invoices Owners of Projects for the services it provides by issuing an Intrastate Transfer Voucher (ISTV) for each billable service or event. The ISTV alpha codes are as follows:

- Project fees and change order fees: “N”
- Special Services: “ND”
- Energy Services: “NE” and “NN”
- SAO College: “NI”

When an Owner is unable to pay via an ISTV, the Owner may use the ISTV as an invoice and pay SAO by check.

Billings are processed monthly or as a service event occurs.

SAO also accepts payments for SAO College by check.

## Billing Structure

The standard SAO Fee initial billing is for 40 percent of the fee based upon the estimate of construction and is billed at the time the A/E’s contract is executed. The remaining 60 percent of this fee is billed at the time construction contracts are executed. Fees for the additional scope implemented by change orders are processed as the change orders occur.

When SAO acts as the A/E, provides services by listed Consultants, or provides other services, the service, known as SAO Additional Services or SAO Extra Services, are collectively referred to as “Special Services”. The fees for such services are billed monthly or as the project progresses through various stages, including Schematic, Design Development, Construction Documents, Bid/Award, Construction Administration, reimbursables, execution of constructability review contracts, or as is reasonable for other services. This information is entered into CIPTS monthly.

SAO invoices services performed by SAO Energy Services as follows:

- Energy Audits: 2 percent of the contract amount.
- Energy renovation projects: 9 percent for design and 2 percent for project management.
- Performance Contracts: 9 percent of the contract price, with:
  - 60 percent of that fee billed at the time of the contract signing;
  - 30 percent billed at construction, and then;
  - 1 percent yearly for the next ten years.
- The Energy Specialist communicates with the SAO Fiscal Officer, the Business Office Accounts Receivable Manager and the project’s owners regarding the timing of these fees.

The State Architect’s Office conducts educational seminars known as “SAO College”. SAO accepts payments for the seminars by check or by ISTV for State agencies. Fees are set by SAO and collected for each session for which an attendee registers.

# 605 | Accounts Payable

This Section identifies the procedures for the processing of SAO accounts payable.

The GSD Business Office receives all invoices and identifies them according to program unit. The Business Office payables clerk forwards invoices to the appropriate SAO staff for review and approval. The State Architect's Office designated employees include, for operating expenses, the Fiscal Officer, and, for Listed Consultant's fees, the Project Services Coordinator or Program Services Coordinator as applicable. These employees also initiate the purchasing documents as needed.

When the invoices are processed by the Business Office payables clerk, they are coded using the applicable spending responsibility center (SPRC) to identify the various projects or the internal sections.

# 610 | SAO Fees & Billing

This Section identifies the SAO Fee Structure and how fees are billed to agencies.

The State Architect's Office is funded by fees generated from services provided to Owners of State facilities. The following Rates and Procedures are the basis for determining the fees for Agency and Higher Education clients.

## SAO Basic Services

These fees are for the Basic Services provided by SAO on projects that are "typical" for their category, size, duration, and are produced using the contracting concepts and practices endorsed by SAO at the time this fee schedule is issued. SAO reserves the right to adjust its fee on special or complex projects and for additional services (e.g., quality assurance testing, constructability services, facility programming, technical surveying). As in the past, SAO shall apply the fee to the total construction cost.

| Fee | Total Construction Cost |
|---|---|
| 7.00% | first $250,000 |
| 3.00% | $250,001 up to $4 million |
| 1.00% | $4 million up to $20 million |
| 0.75% | $20 million and over |
| *Note: Rates are cumulative through the categories* | |

The Department will invoice the fees, which are due and payable upon their issue, as follows:

- 40% when the Architect/Engineer Agreement is executed
- 60% when the construction contracts are executed

## SAO Additional Services

In certain circumstances, projects may require more attention from SAO than routinely provided within the Basic Services category. SAO reserves the right to assess these fees for any type of professional services for any phase or portion of a project.

In such cases, SAO will review the services required with the customer representative to reach mutual understanding of the scope and intent of the services and the SAO fees necessary to cover the additional and special services. SAO will initiate a letterhead agreement for the SAO Additional Services that includes the pertinent information, including the payment schedule. Upon receiving a properly completed agreement, SAO will commence activity according to the terms of the agreements.

All special project and complex project work, such as, but not limited to SAO-design services, planning studies, structural analysis, cost estimating, environmental testing, etc., are SAO Additional Services and will be negotiated and treated on an individual basis, as noted above. In the case of complex projects, SAO may elect to use a multiplier to arrive at an equitable fee.

SAO also recognizes that the Owner can sometimes need to adjust the scope of the project late in the Construction Stage. For a variety of reasons, such "out of sequence" change orders can cause the construction period to extend well beyond the then-current approved completion date. As typical for all change orders, SAO will evaluate the proposed out of sequence scope change. If the standard SAO change order fee is sufficient to cover SAO services, no additional fees will be requested. However, when the proposed scope change is of a magnitude that cannot be properly supported within the standard SAO change order fee, SAO will assess the project for the additional services necessary to cover the differential cost between the change order fee and the actual cost of SAO services. The assessment for SAO additional services will not be applied to weather-related delays.

## Local Administration Fee

It is intended to offset a portion of the cost of processing requests for local administration, publishing the local administration advertisement in the Ohio Register, developing and maintaining the Standard Requirements and related documents, assisting with claims resolution processes that are specifically attributable to the locally-administered projects, and other points. As such, it is appropriate that SAO assess a fee to projects that are administered locally to more fairly recover the costs to SAO. The fee is described below.

The SAO fee for projects locally administered (e.g., projects funded in whole or in part by state funds and are approved for local administration by the Department of Administrative Services) is shown in the following chart. SAO will attach the fee assessment upon approval of the local administration request and prior to release of the project for advertisement in the Ohio Register.

| Local Administration Fee | |
|---|---|
| 1.00% | Total PROJECT Cost[1] |
| *[1]fees, contingencies, construction costs* | |

Periodic reporting of contract amounts is necessary, as described below. The fee will be invoiced and paid as follows:

- Initial Billing:
- Payable upon Controlling Board approval of Architect/Engineer's contract:
  - Estimated Total Project Budget x 1.00% x 80%
    - Initial billing amount based upon the <u>estimated</u> project budget in the request for local administration.
- Secondary Billing:
- Payable upon Controlling Board approval of Contractor contract; prior to Notice to Proceed.
  - Revised Total Project Amount (which includes all fees and contingencies) x 1.00% minus initial payment received (which includes release of contingency plus 1% for SAO).
    - The Local Authority must provide to SAO a certification of the revised project budget based upon the actual contract amounts, after the Local Authority opens all bids and prior to their issuing of a Notice to Proceed. Upon receiving the certification, SAO will adjust the fee to reconcile the difference between the estimated fee (based on the estimated budget) and the actual fee (based on the current project amount) and will issue an invoice for the adjusted balance. In this manner, the fee amounts are based on actual bid amounts.
- Final Billing:
- Payable after each fiscal year AND contract closeout (as appropriate).
- The intent of the end-of-fiscal-year billing is to reconcile the billings to date against the known cost of the project to date; and, for smaller and short-lived projects, to serve as the final billing. The intent of the final billing is to invoice and receive 1% of the Total Project Cost as determined at the end of the project.
  - Reconciled Project Total x 1.00% less previous payments received
    - At the end of each fiscal year, the Local Authority will provide a report to SAO for each project approved for local administration that indicates the original project amount, and the current project amount to date for each project. Within 90 days after each project is closed out, the Local Authority will provide a final cost report for each contract to SAO.

## CM Project Additional Services

The various Construction Manager methods of contracting, especially on projects of less than $20 million total project construction value, place a disproportionately larger work burden on state resources. Consequently, SAO will assess each CM project to determine the extent of the additional burden to the state

and to SAO specifically, that the CM contracting may create for the project. Should there sufficient indication of additional burden to SAO, the project will be assessed appropriate fees for the additional services.

The additional burden can occur in or as a result of many areas, such as, but not limited to, the CM selection process, contract negotiation and award process, administration and management of separate and multiple bid packages, processing CM payments, reviewing multiple bid package estimates, additional field inspection and observation, etc.

Due to the natural ability to customize CM options, SAO deems that it the best interest of all parties to tailor any additional CM-related fee for the individual project. Therefore, when a project is a candidate for CM contracting, SAO will meet with the Owner representatives to reach mutual understanding of the scope and impact of CM services and to establish the additional fee for the additional work.

Similar to the process for other additional or special fees for its services, SAO will treat the additional fees, if any, for the CM-type of project as an SAO Additional Service and initiate a letterhead agreement that includes the pertinent information.

Payment for the fees shall be due and payable in full at the time the CM contract is executed. Upon receiving a properly completed agreement, SAO will commence according to the terms of the agreement.

# 640 | Lien Requirements

This Section identifies the requirements relative to liens and the processing of liens. The procedure described below is not intended to serve as legal advice to any party. It is merely a statement of the general procedures used by SAO to comply with ORC 1311.25 to 1311.32. Owners, Contractors, and others should consult with an attorney for answers to specific legal questions.

## Mechanic's Liens

The process and requirements for filing a mechanic's lien is different for a public construction project than it is for a private project. Since liens for public improvement projects cannot be filed against the property, the liens are filed against the funds due the prime contractor. Refer to ORC 1311.25 to 1311.32 (no active link).

## Notice of Commencement

SAO will create a Notice of Commencement of Public Improvement as required by the ORC sections referenced above for all projects administered by SAO. The notice will list each of the Contractors and its bonding company, and will give the name and contact information of the official upon whom the lien affidavit should be served. For SAO administered projects, lien affidavits and related correspondence should be sent to:

- Sara Freetage, Fiscal Officer
- State Architect's Office.
- 4200 Surface Road
- Columbus, Ohio 43228-1395

Notices of Commencement of Public Improvement are posted on the SAO website at http://ohio.gov/sao.

## Lien Affidavit Requirements

The lien affidavit includes:

- Project number and name,
- Name of the prime contractor against which the line is being filed,
- Amount owed and the number of days since last labor/materials were furnished.

The affidavit must be signed and notarized.

## SAO Receipt of Lien

Upon receipt of a valid lien affidavit, SAO:

- Mails a copy of the affidavit to the Contractor against whose funds the lien has been filed along with a cover letter giving the Contractor 20 days from its receipt of the affidavit to dispute the lien.
- Places the amount of the lien into an escrow account pending resolution of the lien.

The funds in escrow may be released to the lien claimant if the Contractor does not dispute the lien within 20 days as required.

## Escrow Management

The lien and any amount in escrow is released upon SAO's receipt of:

- A signed release of lien document from the lien claimant or the attorney representing the claimant, or;
- A negotiated settlement signed by both the contractor and the lien claimant or their attorneys, or;
- A court order, or;

The Contractor provides to SAO a surety bond in the amount of one and a half times the amount of the lien, along with a copy of a notice to commence suit served upon the lien claimant.

# 650 | Escrow Accounts

This Section identifies the processing procedures for escrow accounts.

## Types of Escrow Accounts

There are three types of escrow accounts:

- Retainage
- Lien
- Miscellaneous funds
  - Retainage escrow agreements are signed by the Contractor at the beginning of a Contract. SAO keeps them on file until the project reaches 50 percent completion. At that time the Owner is given one copy of the retainage escrow agreement and directed to prepare a check for the amount of the retainage. Should the Owner need to add the bank's name and address to the OAKS Financial module ("FIN"), State Accounting will accept a copy of the escrow agreement as backup. The Owner then prepares the warrant/check and mails it to GSD's Business Office.
  - Lien and miscellaneous escrows do not require a Contractor's signature on the escrow agreement. When an agency/owner is directed by SAO to prepare a check for escrow they are also directed to mail it to DAS GSD's Business Office. Should the agency/owner need to add the bank's name and address to OAKS FIN, State Accounting will accept a copy of the escrow agreement as backup.

## Deposits and Accounts

All checks intended for deposit into escrow are received in the GSD Business Office. The Business Office logs them and sends a photocopy of each check to SAO's Fiscal Officer. The Fiscal Section identifies the check by project and type of escrow and prepares a "deposit letter" to accompany the deposit, and pulls the respective escrow agreement. The Fiscal Section gives this packet to the Business Office which mails it and the warrant/check to the recipient, and logs the event. In the escrow file, SAO keeps a copy of each check and the deposit letter.

Once retainage escrow checks are deposited, the files pertaining to them are moved to the main project file. Lien escrow and miscellaneous escrow files are kept in the Fiscal Section for further activity.

The Business Office reconciles the escrow accounts with each bank on a monthly basis. Any discrepancies are reported to the SAO Fiscal Officer to be resolved.

# 670 | Project Tracking

This Section identifies the process for tracking the fiscal data related to projects administered by SAO.

## OAKS Capital Improvements

SAO annually manages millions of dollars related to Capital Improvements Projects. Beginning in 2007, SAO participated in the development of the Ohio Administrative Knowledge System (OAKS), which is designed to replace many of the State's central systems. The Capital Improvements (CI) module within the OAKS project will replace SAO's legacy system, which was introduced in 1987. It features a Web-based project management system designed to virtually eliminate paper bidding, submittals, payment requests, change orders, etc. OAKS CI will eventually become the State's vehicle for reporting and collecting EDGE information for capital project contracts.

SAO began administering all active projects with OAKS CI on July 1, 2010. The 2012 Edition of the Standard Requirements and professional services agreements contains specific requirements for the use of OAKS CI for Contractors, A/Es, CMs, and others. The OAKS Capital Improvements Web site has additional news and information about the transition to the new system at http://ci.oaks.ohio.gov. For more information about OAKS CI, contact Steve Mayo at 614-728-4310 or steve.mayo@das.state.oh.us.

# 680 | Revenue Projections

This Section identifies the process for projecting revenue for the State Architect's Office operations.

## Sources of Information

In the normal course of fiscal planning, the SAO Fiscal Section maintains a projection of revenue. The projection is based on information obtained from the following sources:

- The Ohio Register,
- Contract Recommendation Letters,
- Letters granting Local Administration authority,
- Controlling Board requests,
- Encumbrances,
- Billings,
- Any other documents, which may provide updated information.

## Projections

Projections for revenue resulting from administration fees which, will be assessed on typical SAO administered projects are initially based on announcements which appear in the Ohio Register, which identify the initial estimates of construction cost, fees, and overall budget limits for all substantial projects. The Fiscal Section enters projects into the Fiscal Database as soon as they are announced. Projected dates for approval of funding for the A/E Agreement and the Construction Contracts dates, and consequent SAO billing dates are obtained from the Project Manager assigned to each project. The database is constantly updated as new information becomes available.

## Reconciliation

When the actual billing information is added to this database, it is reconciled against the projected billings and discrepancies are researched. The Project Manager should know of any delays in the project which would impact the timing of project fees. Updated projections are made. Any unresolved issues are reported to the SAO Fiscal Officer for further action.

# Appendix A | Terminology

## Definitions

| | |
|---|---|
| Acceptable Component | A component listed in the Specifications after the Basis of Design Component. |
| Addenda | The plural form of Addendum. |
| Addendum | A written or graphic instrument issued prior to the bid opening which modifies or interprets the proposed Contract Documents by additions, deletions, clarifications, or corrections. Addenda become part of the Contract Documents when the Contract Form is executed. |
| Allowance | A sum stipulated in the Contract Documents, included in the Base Bid, which includes overhead and profit for a defined scope of the Work that may not be completely defined at the time of bidding. |
| Alternate | A change in the proposed Project scope, which may include but is not limited to alternate materials or methods of construction, and an amount stated on the Bid form to be added to or deducted from the Base Bid if the corresponding Alternate is incorporated into the Contract. |
| Alternative Dispute Resolution | A voluntary and non-binding process for the administrative review, consideration, and attempted settlement of a dispute, without resort to judicial process, including but not limited to partnering, negotiation, mediation, impartial fact-finding, dispute review board, and mini-trials, but shall not include arbitration. |
| Applicable Law | All federal, state, and local codes, statutes, ordinances, and regulations that apply to the performance of the Work on the Project. |
| Architect/Engineer | The Person responsible for providing professional design services and construction contract administration for the Project as provided in the Contract Documents. The A/E shall be (1) a registered architect holding a license and certificate of authorization issued by the Ohio Architects Board pursuant to ORC Chapter 4703, (2) a landscape architect holding a license and certificate of authorization issued by the Ohio Landscape Architects Board pursuant to ORC Chapter 4703, or (3) a professional engineer or professional surveyor holding a license and certificate of authorization issued by the Ohio Engineers and Surveyors Board pursuant to ORC Chapter 4733. |
| Architect/Engineer of Record | The architect or engineer that serves as a member of the Design-Builder's team and as the final signatory on the plans and specifications for a design-build project. |
| As-Built Documents | Documents, including, but not limited to, Drawings, Addenda, Specifications, executed Change Orders, and other elements of the Contract Documents which the Contractor annotates and otherwise modifies to indicate changes made during the construction process, the location of concealed and buried items, and other information useful to the Owner throughout the life of the completed Project. |
| Base Bid | The amount stated in a Bid as the sum for which the Bidder offers to perform the Work in a particular trade or other category, which is described in the Contract Documents, excluding Alternates. |
| Basis of Design | A document that records the concepts, calculations, decisions, and product selections used to meet the Owner's Project Requirements and to satisfy applicable regulatory requirements, standards, and guidelines. The document includes both narrative descriptions and lists of individual items that support the design process. |
| Basis of Design Component | A component listed first in the Specifications. |
| Bid | A written proposal to perform a Contract, submitted on a completed Bid Form, accompanied by other required documents. |
| Bidder | A Person that submitted a Bid |

| | |
|---|---|
| Bid Form | A form furnished by the Contracting Authority with the proposed Contract Documents that is to be completed, signed, and submitted containing the Bidder's Bid. |
| Bid Guaranty | A bid bond or other instrument of security authorized by Ohio Revised Code Section 153.54 submitted with the Bid to provide assurance that the Bidder will execute the Contract Form. |
| Bond | A performance and payment bond in the format specified by Ohio Revised Code Section 153.57 submitted by the Contractor to provide assurance that the Contractor will perform the Work of the Contract, including making required payments to Subcontractors and Materials Suppliers. For CM at Risk and Design-Build contracts, OAC Chapter 153:1-4 specified the Performance Bond and Payment Bond forms to be used. |
| Building Information Model | A digital representation of physical and functional characteristics of a facility; a shared knowledge resource for information about a facility forming a reliable basis for decisions during its life-cycle, which is defined as existing from earliest conception to demolition. The term BIM may be used as a noun to describe a single model or multiple models used in the aggregate. The term BIM may also be used as a verb in the context of Building Information Modeling or Management, the process of creating, maintaining, and querying the model. |
| Certification of Contract Completion | A form used to document that the Contractor's Work is complete, and the Contractor has complied with all conditions precedent to final payment and release of retainage. This form may also be used to document partial completion. |
| Certified Claim | A demand or assertion, initiated by written notice, certified by one of the parties to the Contract seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time, or other relief with respect to the terms of the Contract. |
| Change Directive | A written document prepared by the Architect/Engineer and signed by the Contracting Authority and the Owner that directs a change in the Work. |
| Change Order | A written instrument prepared by the A/E and signed by the Contracting Authority, Owner, and a Contractor, which modifies the Contractor’s contract and states the signing parties agreement on a change in the Contractor’s Work, the amount of adjustment to the Contract Sum, if any, and the amount of adjustment to the Contract Time, if any. |
| Change Order Fee Allowance | The amount established by the Contracting Authority in the Architect/Engineer Agreement for the purpose of funding Change Order fees payable to the A/E resulting from increases in the construction cost by approved Change Orders. |
| Claim Affidavit | A sworn document used in conjunction with filing a lien, which contains a claim on the funds that are due to a Contractor, in favor of a Person supplying labor, materials, or services for the value of labor, materials, or services supplied. |
| CM Affiliated Entity | Under the CM at Risk project delivery method, any entity related to or affiliated with the CM or with respect to which the CM has direct or indirect ownership or control, including, without limitation, any entity owned in whole or part by the CM; any holder of more than 10% of the issued and outstanding shares of, or the holder of any interest in, the CM; any entity in which any officer, director, employee, partner or shareholder (or member of the family of any of the foregoing persons) of the CM or any entity owned by the CM has a direct or indirect interest, which interest includes, but is not limited to, that of a partner, employee, agent or shareholder. |
| CM’s Contingency | Under the CM at Risk project delivery method, a portion of the Contract Sum reserved for the CM's exclusive use (subject to the concurrence of the Owner and |

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| | the Contracting Authority) on account of certain unexpected events described in the General Conditions. |
| CM's Fee | Under the CM at Risk project delivery method, the aggregate of the CM's Overhead and profit related to the Project; provided, however, that the CM's Fee does not include the CM's compensation for Preconstruction Services. |
| CM's Payment Request | Under the CM at Risk project delivery method, the form furnished by the Department that is to be used by the CM in requesting payments and which, when signed by the CM, shall serve as an affidavit that payments requested are in proportion to the Work completed as shown on the Schedule of Values. |
| CM's Punch List | Under the CM at Risk project delivery method, a document prepared by the CM that consists of a list of items of Work to be completed or corrected by the CM as a condition precedent to the Architect/Engineer issuing the Punch List. |
| Combined Bid | Under multiple-prime Design-Bid-Build project delivery, a Bid that combines bid items for separate Contracts stated on the Bid Form. |
| Commissioning Agent | The Person identified by the Contracting Authority who leads, plans, schedules, and coordinates the commissioning team to implement the Commissioning Process for the Project. |
| Commissioning Plan | A document that outlines the organization, schedule, allocation of resources, and documentation requirements of the Commissioning Process. |
| Commissioning Process | A quality-focused process for enhancing the delivery of a project. The process focuses on verifying and documenting that the facility and all of its systems are planned, designed, installed, tested, operated, and maintained to meet the Owner's Project Requirements. |
| Commissioning Report | A document that records the activities and results of the Commissioning Process. The Commissioning Report is developed from the final Commissioning Plan with its attached appendices. |
| Conformed Documents | Contract Documents with all Addenda items and accepted Alternates incorporated by the Architect/Engineer, published, and issued to a successful Bidder for its use during performance of the Contract. |
| Construction Cost | The total cost for the CM's or DB's performance of the Work in the Construction Stage including all elements of the Project designed or specified by the A/E (at current market rates of labor and materials), plus the CM's or DB's Contingency, plus the CM's or DB's Fee. Construction Cost does not include the following: A/E fees, the cost of the land, right-of-way acquisition costs, or financing costs. |
| Construction Manager | A Person responsible, under the Agency Construction Manager version of the Department's General Conditions, for providing administration, management, and related services as required for scheduling the Project, coordinating the Contractors, and providing other services as provided in the Contract Documents. |
| Construction Manager at Risk | A Person responsible, under the Construction Manager at Risk version of the Department's General Conditions, for providing administration, management, and related services as required for scheduling the Project, coordinating Subcontractors, and providing other services as provided in the Contract Documents. In this Contract, the CM will, upon execution of the GMP Amendment, be responsible for the performance of Work on the Project in accordance with the Contract Documents. |
| Construction Progress Schedule | The critical path schedule for performance of the Contract; showing the time for completing the Work within the Contract Time; the planned sequence for performing the various components of the Work; the interrelationship between the activities of the Contractors, the Architect/Engineer, the Construction Manager if any, the |

Contracting Authority, and the Owner; and the Contractors' resource and cost loading information; as periodically updated during the performance of the Work.

**Construction Stage Personnel Costs** The Personnel Costs the CM earns and the Owner pays to the CM during the Construction Stage.

**Consultant** A Person engaged by the CM or a Subcontractor to provide professional services of various types for the Project including without limitation the services of a "design-assist firm" as described under O.R.C. Section 153.50. The term includes the Consultant's authorized representatives, successors, assigns, and subconsultants regardless of tier.

**Contract** The state of legal obligation entered into by the State and the Contractor, whereby they have agreed to an exchange of certain acts, materials, equipment, and services for certain monetary consideration, under all terms and conditions specified in the Contract Documents, which shall remain in full force and effect until such time as all obligations under the Contract have been lawfully and completely discharged, or the Contract is terminated under other conditions specified in the Contract Documents.

**Contract Completion** The schedule Milestone in the progress of any Phase when the Work is completed in accordance with the terms of the Contract Documents and Contractor has satisfied all of its other obligations under the Contract Documents, including, but not limited to, (a) all governmental authorities have given final, written approval of the Work, (b) a final unconditional certificate of occupancy has been granted and issued to the Owner by the appropriate governmental authorities, (c) the Contractor's Work is 100 percent complete, and (d) all Punch List items have been completed or corrected, and (e) the Contractor has complied with conditions precedent to final payment and release of retained funds.

**Contract Documents** Collectively, the documents that constitute the substance of the Contract including, but not limited to, Drawings, Specifications, Addenda if any, General and Supplementary Conditions of the Contract, Bid Form, Wage Rates; and the executed Contract Form, Bid Guaranty and Contract Bond, and Change Orders if any.

**Contract Form** The form furnished by the Contracting Authority that, when completed and signed by the Contractor and the Contracting Authority, and approved by the Attorney General, evidences entry into the Contract.

**Contract Sum** The amount stipulated in the Contract Form that is the total amount payable to the Contractor for performance of the Work, including adjustments authorized by executed Change Orders.

Under the Cm at Risk project delivery method, the amount stipulated as such in the GMP Amendment. The Contract Sum is the CM's entire compensation for the CM's proper, timely, and complete performance of the Work during the Construction Stage and subject to adjustment as provided in the Contract.

**Contract Time** The period stipulated in the Contract Form for performance of the Work, in consecutive days, beginning and ending on the dates established by the Notice to Proceed, including adjustments authorized by executed Change Orders.

**Contract Times** Under the CM at Risk project delivery method, the periods stipulated in the GMP Amendment for the achievement of associated Milestones, in consecutive days, beginning and ending on the dates established by the Notice to Proceed, including adjustments authorized by executed Change Orders.

**Contracting Authority** The Ohio Department of Administrative Services, acting by and through the General Services Division, State Architect's Office; or the director of an agency of the state

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| | of Ohio with the approval of the Department for local administration of a specific Project; or the chief executive officer of an Institution of Higher Education certified by the Department to perform local administration; or the legislative body of a political subdivision. |
| Contractor | A Person, which is party to the Contract for the performance of Work on the Project in cooperation with Separate Contractors and Persons, and in accordance with the Contract Documents. |
| Contractor Payment Request | The form furnished by the Department that is to be used by the Contractor in requesting payments and which, when signed by the Contractor, shall serve as an affidavit that payments requested are in proportion to the Work completed as shown on the Schedule of Values. |
| Contractor's Punch List | A document prepared by the Contractor that consists of a list of items of Work to be completed or corrected by the Contactor as a condition precedent to the Architect/Engineer and Construction Manager issuing the Punch List. |
| Coordination Drawings | Drawings and electronic files prepared by the Contractors to demonstrate how multiple-system and interdisciplinary work will be coordinated. Clash reports generated by BIM authoring software may be included in the Coordination Drawing submittals if applicable. |
| Cost of Self-Performed Work | The costs the CM at Risk or Design-Builder will incur to perform (either directly with its own employees or through a CM at Risk or Design-Builder Affiliated entity) the following Work during the Construction Stage: (1) non-specialty Work valued at less than $50,000 if the CM at Risk or Design-Builder obtains the Contracting Authority's written approval before the commencement of that Work and (2) Work the CM at Risk or Design-Builder is permitted to self-perform as a result of the bidding process described in the general Conditions. The "Cost of Self-Performed Work" specifically excludes all other costs listed in the definition of "Cost of the Work." |
| Cost of the Work | Under the CM at Risk or Design-Build project delivery methods, the Cost of the Work is the sum of: (1) General Conditions Costs, (2) Construction Stage Personnel Costs, (3) Subcontract Costs, and (4) Cost of Self-Performed Work. The Cost of the Work does not include any portion of the CM at Risk's or Design-Builder's compensation for Preconstruction Services. |
| Costs of Recovery | Costs incurred by a Contractor for acceleration of the Work in order to recover from a delay or other impact in which the Work falls behind the approved Construction Progress Schedule. |
| Criteria Architect/Engineer | The architect or engineer retained by a public authority to prepare conceptual plans and specifications, to assist the public authority in connection with the establishment of the design criteria for a design-build project, and, if requested by the public authority, to serve as the representative of the public authority and provide, during the design-build project, other design and construction administration services on behalf of the public authority, including but not limited to, confirming that the design prepared by the design-build firm reflects the original design intent established in the design criteria package. |
| day | A calendar day of 24 hours measured from midnight to midnight, unless otherwise expressly specified to mean a business day. |
| DB Affiliated Entity | Under the Design-Build project delivery method, any entity related to or affiliated with the Design-Builder ("DB") or with respect to which the DB has direct or indirect ownership or control, including, without limitation, any entity owned in whole or part by the DB; any holder of more than 10% of the issued and outstanding shares of, or the holder of any interest in, the DB; any entity in which any officer, director, employee, partner or shareholder (or member of the family of any of the foregoing persons) of the DB or any entity owned by the DB has a direct or indirect interest, |

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| | which interest includes, but is not limited to, that of a partner, employee, agent or shareholder. |
| DB's Contingency | Under the Design-Build project delivery method, a portion of the Contract Sum reserved for the DB 's exclusive use (subject to the concurrence of the Owner and the Contracting Authority) on account of certain unexpected events described in the General Conditions. |
| DB's Fee | Under the Design-Build project delivery method, the aggregate of the DB's Overhead and profit related to the Project; provided, however, that the DB's Fee does not include the DB's compensation for Preconstruction Services. |
| DB's Payment Request | Under the Design-Build project delivery method, the form furnished by the Department that is to be used by the DB in requesting payments and which, when signed by the DB, shall serve as an affidavit that payments requested are in proportion to the Work completed as shown on the Schedule of Values. |
| DB's Punch List | Under the Design-Build project delivery method, a document prepared by the DB that consists of a list of items of Work to be completed or corrected by the DB as a condition precedent to the Criteria Architect/Engineer issuing the Punch List. |
| Defective Work | Work that does not conform to the Contract Documents; or does not meet the requirements of any applicable statute, rule or regulation, inspection, reference standard, test or approval; or has been damaged prior to the Architect/Engineer's and Construction Manager's recommendation of final payment, unless responsibility for the protection thereof has been expressly assumed by the Owner; or that is not free from defects in workmanship, materials or equipment during the period of any warranty or guarantee. |
| Department | The Ohio Department of Administrative Services, the authorized contracting agent for public improvement Projects in accordance with Ohio Revised Code Chapters 123 and 153, acting by and through the General Services Division, State Architect's Office. |
| Design-Builder | A Person responsible, under the Design-Build version of the Department's General Conditions, for both the design and construction, demolition, alteration, repair, or reconstruction of a public improvement, including administration, management, and related services as required for scheduling the Project, coordinating Subcontractors, and providing other services as provided in the Contract Documents. In this Contract, the Design-Builder will, upon execution of the GMP Amendment, be responsible for the performance of Work on the Project in accordance with the Contract Documents. |
| Differing Site Conditions | Either (1) a subsurface or otherwise concealed physical condition encountered at the Site that differs materially from the condition indicated in the Contract Documents, or (2) an unknown physical condition of an unusual nature encountered at the Site that differs materially from that ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents. |
| Direct Personnel Expense | The portion of direct salaries and wages of all personnel of the A/E, or CM if applicable, or their Consultants, as applicable, including professional, technical, management, administrative and clerical employees, and principals engaged on the Project related to their time devoted to the Project and the portion of the cost of their mandatory and customary contributions and benefits related thereto such as employment taxes and other statutory employee benefits, social security contributions, insurance, sick leave, holidays, vacations, pensions, profit sharing, and similar benefits related to their time devoted to the Project. |
| Dispute Review Board | A form of Alternative Dispute Resolution that is typically comprised of three members, selected jointly by the Contractor and the Contracting Authority, to |

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| | monitor the progress of construction and provide recommended resolutions to disputes that are brought before them. |
| Drawings | Graphic portions of the Contract Documents, showing the design, type of construction, location, dimension, and character of the Work to be provided by the Contractor, which generally includes plans, elevations, sections, details, schedules, diagrams, notes, and text. |
| Enclosure, Permanent | The condition in which the permanent exterior walls and roofs are in place, insulated and weather tight, and permanent windows and entrances are in place. |
| Enclosure, Temporary | The condition in which the permanent exterior walls and roofs are in place, insulated and weather tight, and windows and entrances are provided with suitable temporary enclosures. |
| Estimated Construction Cost | The sum of the Estimated Contract Cost amounts published in the Solicitation, as modified by Addenda, for a phase of the Project. |
| Estimated Contract Cost | The estimated amount for the Contract published in the Solicitation, including the Base Bid estimate and the estimates of selected Alternates, if any, as modified by Addenda. |
| Extra Materials | Materials required by the Contract Documents that are not incorporated into the Project but are given to the Owner to be used for future maintenance or repairs. |
| Final Acceptance | The Contracting Authority's acceptance of the Work performed by the Contractor after certification by the Architect/Engineer, and Construction Manager, if any, of Contract Completion. |
| Final Inspection | The final review of the Work of the Contractor by the Architect/Engineer, and Construction Manager, if any, to determine whether issuance of the Certificate of Contract Completion is appropriate. |
| Force Majeure | An act of God, fire, tornado, hurricane, flood, earthquake, explosion, war, terrorism, embargoes, civil disturbance, unusually severe weather that is abnormal for the time of year (including named storms) or industry-wide labor strikes. |
| furnish | Supply and deliver to the Site, or other specified location, ready for installation. |
| General Conditions | The State's Standard General Conditions currently in effect, which may be modified by the Department from time to time. |
| General Conditions Costs | General Conditions Costs include only the CM's costs to provide the General Conditions Work. |
| Hazardous Materials | Any material, substance, pollutant, or contaminant that is defined, regulated, referenced, or classified in the Comprehensive Environmental Response, Compensation and Liability Act, the Federal Water Pollution Control Act, the Resource Conservation and Recovery Act, the Clean Air Act, the Hazardous Materials Transportation Uniform Safety Act, the Toxic Substances Control Act, or any other Applicable Law relating to any hazardous, toxic, or dangerous waste, substance, or material. Any substance or material that, after release into the environment or upon exposure, ingestion, inhalation, or assimilation, either directly from the environment or directly by ingestion through food chains, will, or may reasonably be anticipated to, cause death, disease, behavior abnormalities, cancer or genetic abnormalities and specifically includes, but is not limited to, asbestos, polychlorinated biphenyls ("PCBs"), radioactive materials, including radon and naturally occurring radio nuclides, natural gas, natural gas liquids, liquefied natural gas, synthetic gas, oil, petroleum and petroleum-based derivatives and urea formaldehyde. |

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| Indemnified Parties | The Contracting Authority, the Owner, the A/E, and their respective officials, officers, consultants, agents, representatives, and employees, in both individual and official capacities. |
| install | Put into use or place in final position, complete and ready for intended service or use. |
| Institution of Higher Education | Any state of Ohio university or college, community college, state of Ohio community college, technical college, university branch, community college district, technical college district, university branch district, and the applicable board of trustees or, in the case of a university branch district, any other managing authority. |
| Lead Contractor | The Contractor identified by the Architect/Engineer, under the Stipulated Sum version of the Department's General Conditions, when a Construction Manager is not involved in the Project, responsible for scheduling the Project, coordinating the Contractors, and providing other services identified in the Contract Documents. |
| Life Cycle Cost | The sum of present values of investment costs, capital costs, installation costs, energy costs, operating costs, maintenance costs, and disposal costs over the lifetime of the Project, product, or measure. |
| Life Cycle Cost Analysis | An economic method for assessing the total cost of facility ownership, taking into account all costs of acquiring, owning, maintaining, and disposing of a building or building system. Life Cycle Cost Analysis is also utilized to compare design alternatives that fulfill the same performance requirements, but differ with respect to initial costs and operating costs, in order to select the one that maximizes net savings. |
| Liquidated Damages | A sum established in the Contract Documents, pursuant to Ohio Revised Code Section 153.19, to be paid to the Owner due to the Contractor's failure to complete the Work within the Contract Time, or any applicable portion of the work on or prior to any Milestone date stated on the Contract Form. |
| Material Supplier | A Person who furnishes materials or supplies on the Project.<br><br>Under the CM at Risk and Design-Build project delivery methods, a Person under a contract with the CM or DB who furnishes materials or supplies in furtherance of the Work during the Construction Stage of the Project, including all such Persons in any tier. The term "Material Supplier" does not include any Separate Contractor unless expressly assigned in writing to the CM or DB by the Owner and accepted by the CM or DB. |
| mediation | A voluntary process in which a neutral third party meets with the parties who have a disagreement or dispute and attempts to facilitate a mutually satisfactory resolution. |
| Milestone | A significant date or event in the development of the Work identified in the Contract Documents and illustrated on the Construction Progress Schedule. |
| negotiation | A form of Alternative Dispute Resolution in which all parties involved are represented by those invested with the authority to agree to a determination of an adjustment in the Contract Sum, Contract Time, or both. |
| Notice of Commencement | A notice prepared by the Contracting Authority identifying the Project, the Contractors, the Surety for each Contractor, and the name of the Contracting Authority's representative upon whom a Claim Affidavit may be served. |
| Notice of Intent to Award | A written notice provided by the Contracting Authority to the apparent successful Bidder stating that upon satisfactory compliance with all conditions precedent for execution of a Contract within the time specified, the Contracting Authority intends to execute a Contract with the Bidder. |

**Notice to Proceed** A written notice provided by the Contracting Authority authorizing the Contractor to proceed with the Work and establishing the dates for commencement and completion of the Work.

**OAKS Capital Improvements** The State's Web-based capital program and project management information system, based on Unifier software licensed to the State by Skire, Inc., hosted on State servers.

**Ohio Administrative Knowledge System** The State's Enterprise Resource Planning system, known as the Ohio Administrative Knowledge System. OAKS Capital Improvements is one of several modules of the total OAKS system.

**Overhead** Under the CM at Risk and Design-Build project delivery methods, the term "Overhead" includes all of the following costs:

(1) home-office payroll, which includes (except where specifically allowed as a Personnel Cost): payroll costs and all other compensation (including without limitation membership in trade, business, or professional organizations; professional licenses; training; and bonuses or similar plans/arrangements related to performance on, or profit from, the Project) of the CM's officers, executives, principals (of partnerships and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by the CM in the CM's principal or a branch office (not including the CM's Site office) for general administration of the Work;

(2) home-office expenses, which include (except where specifically allowed as a Reimbursable Expense or General Conditions Cost): all expenses of the CM's principal and branch offices including without limitation home-office telephone, telephone charges, computers, fax, postage, photos, copies, legal services, and accounting services;

(3) all of the CM's capital expenses, including without limitation interest on the CM's capital employed for the Work and charges against the CM for delinquent payments;

(4) except where specifically allowed as a use of the CM's Contingency, all costs due to the negligence or breach of contract of the CM, a Subcontractor, a Consultant, or anyone for whom they may be liable, including without limitation the correction of Defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property;

(5) all costs related to insurance provided by the CM, whether required under the Contract or not, except Builder's Risk insurance premiums in the Construction Stage if those Builder's Risk insurance premiums are included as a General Conditions Cost;

(6) all travel, lodging, and parking costs, except where specifically allowed as a pre-approved Reimbursable Expense or General Conditions Cost;

(7) all applicable taxes of every kind except where otherwise specifically allowed;

(8) all other overhead or general administrative expenses of any kind and the costs of any item not specifically allowed: (a) as a Personnel Cost or a Reimbursable Expense in the Preconstruction Stage, or (b) as a Cost of the Work in the Construction Stage.

**Owner** The state of Ohio agency, university, college, or other instrumentality for whom the Project is being constructed.

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| Owner's Project Requirements | A written document that details the functional requirements of the Project and the expectations of how it will be used and operated. These include project goals, measureable performance criteria, cost considerations, benchmarks, success criteria, and supporting information. |
| Partial Occupancy | The condition that occurs when the Owner occupies or uses a portion of the Project prior to Contract Completion, temporary occupancy is approved by authorities having jurisdiction, and items of Work cannot be completed until a subsequent date. |
| partnering | A voluntary dispute prevention process involving team building activities to help define common goals, improve communication, and foster a problem solving attitude among a group of contracting parties that must work together throughout Contract performance to be less adversarial and more cooperative. |
| Person | An individual, corporation, business trust, estate, partnership, association, or other public or private entity. |
| Personnel Costs | The rates and fees to be paid by the Owner to the CM on account of the proper, timely, and complete performance of certain Work by the CM's employees, which rates and fees are fully loaded and include without limitation: the portion of direct salaries and wages of the CM's personnel, whether stationed at the CM's principal or branch offices or stationed at the Site, including professional, technical, management, administrative and clerical employees, and principals engaged on the Project to the extent of their time devoted to the Project and the portion of the cost of their mandatory and customary contributions and benefits related thereto such as employment taxes and other statutory employee benefits, social security contributions, insurance, sick leave, holidays, vacations, pension and profit sharing pursuant to plans qualified under federal law, and similar benefits related to their time devoted to the Project. Personnel Costs also include the costs of personal protective equipment (e.g., hard hats, safety glasses, hearing protection, etc.). The term "Personnel Cost(s)," when used without a modifier, refers to either a Preconstruction Stage Personnel Cost or a Construction Stage Personnel Cost. |
| Phase | A separation in the Work of the Project by sequence or time intervals, which may include Separate Contractors for each Phase. |
| Plan Holder | A prospective Bidder that received a set of Contract Documents prior to the bid opening. |
| Product Data | Manufacturer's standard illustrations, schedules, diagrams, performance charts, instructions, and brochures that illustrate physical appearance, size, and other characteristics of materials and equipment. |
| Project | A public improvement, of which the Work performed under the Contract Documents may be the whole or a part. |
| Project Coordinator | A permanent employee of the Contracting Authority assigned to the Project and responsible for performing many of the critically important and time-sensitive administrative functions. |
| Project Manager | A permanent employee of the Contracting Authority assigned to the Project, typically licensed architects or engineers, and authorized to perform specific responsibilities. |
| Project Manual | That part of Construction Documents which consists of bound volume(s) of primarily written material which generally contain Division 00 – "Procurement and Contracting Requirements," and Divisions 01 through 49 – "Specifications," and other documents pertaining to the Project. |
| Project Schedule | The critical path schedule for performance of the Architect/Engineer Agreement; and the Construction Management Agreement if applicable, showing the time for completing the Work within the Contract Time; the planned sequence for performing |

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| | the various components of the Work; the interrelationship between the activities of the Contractors, the A/E, the CM and/or CxA if applicable, the Contracting Authority, and the Owner; and the Contractors' resource and cost loading information; as periodically updated during the performance of the Work. |
| Proposal | The offer of a Contractor to perform the Work set forth in a Proposal Request. |
| Proposal Request | A document issued after execution of the Contract requesting a Proposal from the Contractor(s), which may initiate a Change Order to modify the Contract. |
| provide | Furnish and install, complete and ready for intended use. |
| Punch List | A document listing items of Work requiring correction or completion by the Contractor as a condition precedent to Contract Completion. |
| Record Documents | Electronic files and printed documents of all nature prepared by the Architect/Engineer, which incorporate the information shown on the Contractor's As-Built Documents. They consist of the "Record Drawings" and "Record Project Manual," the Certification of Contract Completion (as complete), Contractor's Warranty, Manufacturers' Warrantees, Certificate(s) of Occupancy, approved shop drawings and other action submittals, Change Directives, Proposal Requests, Requests for Interpretation, Addenda, Change Orders, Balancing Reports, and the final version of the approved Construction Progress Schedule. |
| Record Project Manual | The Project Manual of the Contract Documents, which has been revised by the Architect/Engineer to show the changes made during the construction process, based on the As-Built Project Manual furnished by the Contractor. |
| Reimbursable Expense | Actual expenditures incurred by the A/E, the CM if applicable, or their Consultants in the interest of the Project, approved by the Contracting Authority for reproduction of Contract Documents for distribution to Bidders, plan approval fees, building permits, and, if requested by the Owner or the Contracting Authority, reformatting Project Record Submittals to a computer medium different than the computer medium used by the A/E or CM. |
| Request for Change Order | A written notice from the Contractor accompanied by a Proposal for a change in the Work. |
| Request for Interpretation | A written request to the Architect/Engineer seeking an interpretation or clarification of the Contract Documents. |
| Samples | Physical examples, color selection items, field samples, and mock-ups furnished by the Contractor to illustrate functional and aesthetic characteristics of products, materials, equipment, or workmanship and establish criteria by which the Work shall be judged. |
| Schedule Consultant | If the Project does not involve a Construction Manager, the Person qualified to create and keep current the Construction Progress Schedule and schedule of submittals for the Project provided by the Lead Contractor. |
| Schedule of Values | A full, accurate, and detailed statement furnished by the Contractor reflecting a defined breakdown of the Contract Sum. |
| Schedule Manager | The Person responsible to create and keep current the Construction Progress Schedule and schedule of submittals for the Project. If the Project is being constructed under the Single-Prime contracting model, the Contractor is the Schedule Manager. If the Project is being constructed under the Multiple-Prime contracting model and the Estimated Construction Cost for the Project is less than $500,000, the Lead Contractor is the Schedule Manager. If the Project is being constructed under the Multiple-Prime contracting model and the Estimated Construction Cost for the Project is $500,000 or more, the Schedule Consultant is the Schedule Manager. If the Project is being constructed under the Construction |

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| | Manager contracting model, the Construction Manager is the Schedule Manager. If the Contracting Authority has contracted with a Schedule Consultant either directly or through the A/E, the Schedule Consultant is the Schedule Manager. |
| Separate Contractor | A contractor, other than the Contractor performing under the Contract, that is performing work on the Project. |
| Shop Drawings | Drawings, diagrams, illustrations, and schedules specifically prepared for the Project provided by the Contractor, a Subcontractor, or a Material Supplier to illustrate some portion of the Work. Shop Drawings are not Contract Documents. Shop Drawings on equipment shall include a written statement from the manufacturer of the equipment certifying the equipment is in compliance with the Contract Documents. |
| Site | The location designated for the Project. |
| Specifications | Those portions of the Contract Documents consisting of detailed written administrative, procedural, and technical requirements, included in Divisions 01 through 49, for the construction of the Work, whether physically on the Drawings or bound in separate volumes, including identification of acceptable materials, methods, equipment, quality, and workmanship. |
| Stage | A distinct period in the life cycle of a facility from concept through construction, to use and deconstruction or demolition. Typical Stages include Program Verification, Schematic Design, Design Development, Construction Documents, Bidding and Award, Construction, and Closeout. |
| Standard Requirements | The brief name of the "State of Ohio Standard Requirements for Public Facility Construction," including but not limited to Instructions to Bidders, General Conditions, and other Division 00 Documents and Division 01 Sections; currently in effect, which the Department may modify from time to time. |
| State | The state of Ohio, acting by and through the Ohio Department of Administrative Services, General Services Division, State Architect's Office, on behalf of the Owner, which Department serves as the contracting agent as authorized by Ohio Revised Code Chapters 123 and 153; or an agency of the state of Ohio with the approval of the Department for local administration of a specific Project; or an Institution of Higher Education of the state of Ohio certified by the Department to perform local administration; or the legislative body of a political subdivision of the state of Ohio. |
| State Architect | The public official who exercises the duties and responsibilities of the position of the State Architect and who administers the State Architect's Office. |
| State Architect's Office | An office in the Ohio Department of Administrative Services which acts under the authority of the Director of Administrative Services to administer capital improvement Projects. |
| Subcontract | Any contract or agreement between the Contractor and a Subcontractor for performance of a portion of the Work. |
| Subcontract Costs | The sum of the contract values of all of the Subcontracts the CM enters into in furtherance of the Work. |
| Subcontracting Plan | The CM- or DB-developed written plan which describes in detail the CM's or DB's strategy for packaging and scheduling bidding and for ensuring that the scopes of Work of the various Subcontractors is coordinated, all requirements for the Project have been assigned to the appropriate Subcontract, the likelihood of jurisdictional disputes between trades has been minimized, and proper coordination has been provided for phased construction (if any). |

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| Subcontractor | A Person who undertakes to perform any part of the Work on the Project under a contract with a Contractor or with any Person other than the State, including all such Persons in any tier.<br><br>Under the CM at Risk or Design-Build project delivery method, a Person under a contract with the CM or DB to perform any part of the Work during the Construction Stage of the Project, including all such Persons in any tier. The term "Subcontractor" includes Material Suppliers, but does not include any Separate Contractor unless expressly assigned in writing to the CM or DB by the Owner and accepted by the CM or DB. |
| Submittals | Shop Drawings, Product Data, Samples, and other items for the A/E's review and action provided by a Contractor for any item required by the Contract Documents, but not fully described in the Contract Documents. |
| Substitution | An article, device, material, equipment, form of construction, or other item, proposed by a prospective Bidder prior to the bid opening and approved by the Architect/Engineer by Addendum, for incorporation or use in the Work as being functionally and qualitatively equivalent to essential attributes of a Basis of Design or Acceptable Component specified in the proposed Contract Documents. |
| Supplementary Conditions | Amendments to the General Conditions, issued as a separate document, which describe conditions of the Contract unique to a particular Owner or Project, which may include provisions regarding the assignment of responsibility for refuse removal, safety and security precautions and programs, temporary Project facilities and utilities, weather and fire protection, scaffolding and equipment, materials and services to be used commonly by Contractors and requiring Contractors to provide assistance in the utilization of any applicable equipment system, preparation of operation and maintenance manuals, and training of Owner personnel for operation and maintenance of the Project. The General Conditions govern, take precedence over, and shall not be superseded or amended by Drawings and Specifications, unless so provided in Supplementary Conditions prepared by the Contracting Authority and approved by the Department. |
| Supplementary Instructions | Amendments to the Instructions to Bidders, issued as a separate document, which describe instructions unique to a particular Owner or Project. The Instructions to Bidders shall not be superseded or amended by Drawings and Specifications, unless so provided in Supplementary Instructions prepared by the Contracting Authority and approved by the Department. |
| Surety | A Person providing a Bid Guaranty or a Bond to a Bidder or a Contractor, as applicable, to indemnify the State against all direct and consequential damages suffered by failure of the Bidder to execute the Contract, or of the Contractor to perform the Contract and to pay all lawful claims of Subcontractors, Material Suppliers and laborers, as applicable. |
| Systems Manual | A system focused composite document that includes the operation manual, maintenance manual, and additional information of use to the Owner after they begin using the facility. |
| Unit Price | The cost of providing a unit of Work including labor, materials, services, overhead, profit, and associated expenses, which is included in the Base Bid of a Contract. |
| Work | The labor, materials, equipment, and services, individually or collectively which are required by the Contract Documents, to be performed or provided by the Contractor for the Project. |

# Abbreviations

| | |
|---|---|
| A/E | Architect/Engineer |
| ADA | Americans with Disabilities Act |
| ANSI | American National Standards Institute |
| BIM | Building Information Model |
| BOD | Basis of Design |
| CAD | Computer Aided Design |
| CCC | Certification of Contract Completion |
| CM | Construction Manager |
| CM/R | Construction Manager at Risk |
| CPL | Contractor Payment Ledger |
| CPM | Critical Path Method |
| CSI | Construction Specifications Institute |
| CxA | Commissioning Agent |
| DAS | Ohio Department of Administrative Services |
| DB | Design-Builder |
| DFSP | Drug-Free Safety Program |
| DOC | Ohio Department of Commerce |
| EFT | Electronic Funds Transfer |
| E/O | Error/Omission |
| EPA | Environmental Protection Agency |
| FF&E | Fixtures, Furnishings & Equipment |
| FNA | Facilities Needs Assessment |
| GC | General Conditions |
| GSD | General Services Division |
| GTC | General Trades Contractor |
| HVAC | Heating, Ventilating and Air Conditioning |
| IB | Instructions to Bidders |
| LCCA | Life Cycle Cost Analysis |
| NEC | National Electric Code |
| NPDES | National Pollutant Discharge Elimination System |
| OAC | Ohio Administrative Code |
| OAKS | Ohio Administrative Knowledge System |
| OAKS CI | OAKS Capital Improvements |
| OBC | Ohio Building Code |
| OBM | Office of Budget and Management |

| | |
|---|---|
| OBR | Ohio Board of Regents |
| O&M | Operations and Maintenance |
| OPR | Owner's Project Requirements |
| ORC | Ohio Revised Code |
| OSHA | Occupational Safety and Health Administration |
| PC | Project Coordinator |
| PCS | Project Constructability Services |
| POR | Program of Requirements |
| PM | Project Manager |
| RFI | Request for Interpretation |
| RFP | Request for Proposal |
| RFQ | Request for Qualifications |
| SAO | State Architect's Office |

# Appendix B | Forms & Documents

## 000 | Concept Development

F010-01 ..... OAKS CI Application for Access
F010-02 ..... OAKS CI New Vendor Information
F010-03 ..... OAKS CI Project Initiation
F050-01 ..... Capital Budget Planning Tool
F070-01 ..... Local Administration Request (State Agencies)
F070-02 ..... Enrollment Application for Local Administration Certification (Institutions of Higher Education)

## 100 | Procurement

C105-01 ..... SAO/Agency Agreement
C110-01 ..... Architect/Engineer Agreement
C110-02 ..... Architect/Engineer Amendment
C120-01 ..... Construction Management Agreement
C120-02 ..... Construction Management Amendment
C130-01 ..... Consultant Agreement for Professional Design Services
C130-02 ..... Consultant Amendment
F110-01 ..... Professional Services Payment Request
F110-02 ..... Architect/Engineer Request for Qualifications (SAO-administered projects)
F110-05 ..... Architect/Engineer Response (330) List
F110-06 ..... Equal Employment Opportunity Requirements
F110-07 ..... Architect/Engineer Statement of Qualifications Score Tally Sheet
F110-08 ..... Architect/Engineer Interview Scores
F110-09 ..... Architect/Engineer Interview Ranking
F110-12 ..... EDGE Participation / Statement of Intent
F110-13 ..... EDGE Participation / Demonstration of Good Faith Effort
F110-330 ..... Statement of Qualifications
F110-99 ..... Professional Services Evaluation
F140-99 ..... Contractor Evaluation
L110-01 ..... Architect/Engineer Agreement Recommendation
L110-02 ..... Architect/Engineer Amendment Recommendation
L110-03 ..... Controlling Board Criteria – Architect/Engineer Agreement
L110-04 ..... Controlling Board Criteria – Architect/Engineer Amendment
L110-06 ..... Transmittal – Agreement for Signature
L110-07 ..... Transmittal – Amendment for Signature
L110-08 ..... Transmittal – Agreement or Amendment and Notice to Proceed
L110-09 ..... Request for Approval (Director)
L110-10 ..... Request for Approval (Deputy Director)
L110-11 ..... Architect/Engineer Interview Notification
L110-12 ..... Architect/Engineer Selection Notification
L110-13 ..... Architect/Engineer Non-shortlist Notification

L110-14 ..... Architect/Engineer Non-selection Notification

L110-15 ..... Project Cancelled Notification

L140-01 ..... Construction Recommendation

L140-02 ..... Transmittal –Escrow Agreement

L140-03 ..... Escrow Agreement

M110-01 ..... Exhibit A - Architect/Engineer Standard Terms and Conditions

M110-13 ..... Exhibit B - Architect/Engineer's Scope of Services (General Contracting Project)

M110-16 ..... Exhibit B - Architect/Engineer's Scope of Services (Multiple-Prime Project)

M110-23 ..... Exhibit B - Architect/Engineer's Scope of Services (Construction Manager at Risk Project)

M110-26 ..... Exhibit B - Architect/Engineer's Scope of Services (Multiple-Prime with CM Agent Project)

M110-53 ..... Exhibit B - Criteria Architect/Engineer's Scope of Services (Design-Build Project)

## 140 | Standard Requirements (Multiple-Prime Contract)

(Listed in order of their *MasterFormat* number)

M140-01 ..... Consolidated Standard Requirements (PDF)

M140-01-00 00 01-IA ..... Instructions to the Architect/Engineer (PDF)

M140-01-00 00 02-VC..... Version Control Document (PDF)

M140-01-00 01 00-TC..... Document 00 01 00 - Table of Contents (Word)

M140-01-00 10 00-NB..... Document 00 10 00 - Solicitation (Word)

M140-01-00 21 13-IB ..... Document 00 21 13 - Instructions to Bidders (PDF)

M140-01-00 22 00-SI ..... Document 00 22 00 - Supplementary Instructions

M140-01-00 41 00-BF ..... Document 00 41 00 - Bid Form (Word)

M140-01-00 43 13-BS..... Document 00 43 13 - Bid Security Form (Fillable PDF)

M140-01-00 45 13-BQ..... Document 00 45 13 - Bidder's Qualifications (PDF)

M140-01-00 45 39-EA..... Document 00 45 39 - EDGE Affidavit (PDF)

M140-01-00 52 00-CF..... Document 00 52 00 - Contract Form (Word)

M140-01-00 61 13-PB..... Document 00 61 13 - Performance and Payment Bond Form (Fillable PDF)

M140-01-00 71 00-CD..... Document 00 71 00 - Contracting Definitions (PDF)

M140-01-00 72 16-GC ..... Document 00 72 16 - General Conditions – Stipulated Sum (Multiple-Prime Contract) (PDF)

M140-01-00 72 26-GC ..... Document 00 72 26 - General Conditions – Construction Manager (Multiple-Prime Contract) (PDF)

M140-01-00 73 00-SC..... Document 00 73 00 - Supplementary Conditions

M140-01-00 73 43-WR..... Document 00 73 43 - Wage Rate Requirements (PDF)

M140-01-00 73 43.50-WR..... Document 00 73 43 - Wage Rate Requirements – Federal Funded Project

M140-24 ..... Certification of Contactor's Signature

## 160 | Standard Requirements (General Contracting)

(Listed in order of their *MasterFormat* number)

M160-01 ..... Consolidated Standard Requirements (General Contracting) (PDF)

M160-01-00 00 01-IA ..... Instructions to the Architect/Engineer (General Contracting) (PDF)

M160-01-00 01 00-TC ..... Document 00 01 00 - Table of Contents (General Contracting) (Word)

M160-01-00 10 00-NB ..... Document 00 10 00 - Solicitation (General Contracting) (Word)

M160-01-00 21 13-IB ..... Document 00 21 13 - Instructions to Bidders (General Contracting) (PDF)

M160-01-00 41 00-BF ..... Document 00 41 00 - Bid Form (General Contracting) (Word)

M160-01-00 52 13-CF ..... Document 00 52 13 - Agreement Form (General Contracting) (Word)

M160-01-00 71 00-CD ..... Document 00 71 00 - Contracting Definitions (General Contracting) (PDF)

M160-01-00 72 13-GC ..... Document 00 72 13 - General Conditions (General Contracting) (PDF)

## 170 | Standard Requirements (CM at Risk)

(Listed in order of their *MasterFormat* number)

M170-01-00 52 23-CF ..... Document 00 52 23 - Agreement Form (CM at Risk) (Word)

M170-01-00 61 13.13-PB ..... Document 00 61 13.13 - Performance Bond Form (CM at Risk and Design-Build) (Fillable PDF)

M170-01-00 61 13.16-PB ..... Document 00 61 13.16 - Payment Bond Form (CM at Risk and Design-Build) (Fillable PDF)

M170-01-00 63 43-GA ..... Document 00 63 43 - GMP Amendment (CM at Risk) (Word)

M170-01-00 71 00-CD ..... Document 00 71 00 - Contracting Definitions (CM at Risk) (PDF)

M170-01-00 72 23-GC ..... Document 00 72 23 - General Conditions (CM at Risk) (PDF)

## 180 | Standard Requirements (Design-Build)

(Listed in order of their *MasterFormat* number)

M180-01-00 52 53-CF ..... Document 00 52 00 - Agreement Form (Design-Build) (Word)

M180-01-00 54 13-SS ..... Document 00 54 13 - Supplemental Scope Statement (AOR) (Word)

M180-01-00 63 43-GA ..... Document 00 63 43 - GMP Amendment (Design-Build) (Word)

M180-01-00 71 00-CD ..... Document 00 71 00 - Contracting Definitions (Design-Build) (PDF)

M180-01-00 72 53-GC ..... Document 00 72 53 - General Conditions (Design-Build) (PDF)

## 190 | Standard Requirements (Subcontract Form)

M190-01 ..... Subcontract Form (General Contracting, CM at Risk, Design-Build) (Word)

## 200 | Design

F250-02 ..... FTP Server Project Information
F250-11 ..... Tax Exemption Certificate
F299-02 ..... Design Service Acceptance
L240-01 ..... CD Review Documents
L250-01 ..... Notice of All Bids Rejected
L250-03 ..... Bid Extension Request
L250-04 ..... Transmittal – Contractor's Cashier Check
L250-06 ..... Transmittal – Return Late Bid
L250-07 ..... Non-responsive Bid Notice
L250-09 ..... Notice of Intent to Award
L250-10 ..... Letter of Intent – Notice to Proceed
L250-11 ..... Notice to Proceed
L250-12 ..... Bid Information Escrow Agreement Letter
L250-13 ..... Request for Responsible Bidder Information
L250-14 ..... Notice of Surety Award
M299-01 ..... Public Bid Advertisement

## 300 | Construction

F310-01 ..... Subcontractor Material Supplier Declaration
F330-01 ..... Contractor Payment Request (formerly F140-01)
F330-02 ..... Contractor Payment Request – Short Version (formerly F140-02)
F330-03 ..... Certified Payroll Report (formerly F310-03)
F340-01 ..... Request for Interpretation (formerly F310-01)
F340-04 ..... Change Order (formerly F310-04)
F340-06 ..... Change Directive (formerly F310-02 – Field Work Order)
F350-01 ..... Field Report (formerly F310-10)
F390-01 ..... Certification of Contact Completion (formerly F320-01)
F390-02 ..... Certification of Warranty Commencement (formerly F320-02)
F390-03 ..... Certification of Equipment Demonstration (formerly F320-03)
F390-04 ..... Payment Release Affidavit (formerly F399-01)
L310-03 ..... 72 Hour Notice
L310-04 ..... Notice of 5/15 Termination
L310-05 ..... Default/Termination Letter
L310-06 ..... Request for Approval - Change Order
L340-02 ..... Payroll Schedule (formerly F310-11)
M310-11 ..... Section 01 32 16 - Construction Progress Schedule
M310-12 ..... Section 01 21 00 - Allowances

## Miscellaneous

F640-01 ..... Notice of Commencement of Public Improvement (formerly F310-06)

M899-01 ..... SAO Organizational Structure
M970-01 ..... EDGE Requirement Checklist (formerly F999-01)

## SAO Policies

SAO Policy 01 ..... Ethics
SAO Policy 02 ..... Safety Equipment

## DAS Policy Documents

DAS Directive GS-D-07..... Required Use of Domestic Steel
DAS Directive GS-D-11..... Utilization of State Office Space
DAS Directive GS-D-13..... Policies and Procedures for the Office of the State Architect
DAS Directive GS-D-14..... Specification Standards
Public Exigency Sample Documents
- Declaration
- Request for Declaration
- Memorandum from Deputy Director, GSD to Director, DAS
- Memorandum from Director, DAS to Director, OBM
- Memorandum from Director, DAS to President, Controlling Board

## Ohio Administrative Code (OAC)

Selected relevant references

| | |
|---|---|
| OAC 123: 2-16 | |
| OAC 123:4-1 | Energy Conservation Standards |
| OAC 153:1-1 | Qualifications Based Selection of Professional Design Services |
| OAC 153:1-2 | Form of Contract Documents (CM at Risk and Design-Build) |
| OAC 153:1-3 | Subcontract Form (General Contracting, CM at Risk, and Design-Build) |
| OAC 153:1-4 | Surety Bonds (CM at Risk and Design-Build) |
| OAC 153:1-5 | Electronic Advertising for CM Services (CM Agency and CM at Risk) |
| OAC 153:1-6-01 | Best Value Selection of a CM at Risk |
| OAC 153:1-6-02 | Best Value Selection of a Design-Build Firm |
| OAC 153:1-7 | Prequalification of Prospective Bidders on Subcontracts |
| OAC 153:1-8 | Electronic Bidding (Construction Contracts) |
| OAC 3333-1-24 | |
| OAC 4123:17 | |

## Ohio Revised Code (ORC)

Selected relevant references

ORC General Provisions, Chapter 1
ORC 3.12
ORC 7.16
ORC 9.24
ORC 9.33

ORC 9.47
ORC 9.56
ORC Chapter 123
ORC 125.01
ORC 126.14
ORC 126.141
ORC 126.15
ORC 127.16
ORC 149.011
ORC 153.01 through ORC 153.20
ORC 153.50 through ORC 153.99
ORC Chapter 156
ORC Chapter 1311
ORC 3333.072
ORC 3345.01, 3345.03, 3345.12, 3345.50, 3345.51
ORC 3354.09
ORC 3357.09
ORC 3358.08
ORC 4113.62
ORC 4115.03
ORC 4115.033
ORC 4115.034
ORC Chapter 4703
ORC Chapter 4733
ORC Chapter 4740

## Documents / Forms of Other Agencies

Controlling Board Request (not attached)
Declaration of Material Assistance
DIR 1314, Application for Certificate of Plan Approval (not attached)
Warrants Deposit Electronic Funds Transfer Form (EFT)
IRS W-9 Form

# Appendix C | Guide to OAKS CI

## 72 Hour Notice

The purpose of the 72 Hour Notice Business Process ("BP") is to provide timely notification of a deficiency and assessment of the Contractor's response and course of action to resolve the deficiency.

Type: Project Level, Simple, with Workflow

Stages: This BP is used primarily during the Construction Stage, but may be used through Closeout.

Roles:

- The A/E or CM usually initiates the 72 Hour Notice and evaluates the Contractor's response and recommends acceptance or further action.
- The Contractor acknowledges and responds to the 72 Hour Notice.
- The PM may initiate the 72 Hour Notice, reviews the Contractor's response, and provides guidance to the A/E and CM.
- The PM Supervisor reviews the 72 Hour Notice and approves the Non-compliance Notice if necessary.

## Action Items

The Action Items BP allows users to document action items, assign responsiblity to a team member, route these assignments for resolution, and report back to the creator once the action item is completed. Action items can be linked to a specific Meeting Minute record if desired.

Type: Project Level, Collaboration type, with Workflow

Stage: This BP may be used during any stage of the project.

Roles:

- The Creator can initiate a new Action Item record. They also review the completed action item and close the record.
- Users in the following roles may create an Action Item: A/E, CM, PM, PM Supervisor, Project Coordinator, Fiscal Officer, and Schedule Manager.
- The Assignee is responsible for resolving the action item either through personal action or by delegating it to a responsible party.
- Any Project User may receive an action item for response.

## Advertisements

The Advertisements BP tracks the status of public improvement legal advertisements for competitive bidding by recording the publication source, publication dates, and attaches scanned copies of the legal advertisement and proof of publication.

Type: Project Level, Non-Workflow with Line Items. This is a single page web-based record and is intended for use by professional services providers, state agencies, and universities.

Stage: This BP is used primarily during the Bid & Award Stage, but may be used to for CM Procurement in earlier stages of the project.

Roles:

- The A/E creates and edits the Advertisement record for construction contracts.
- Program Services (Team Support in OAKS CI) creates and edits the Advertisement record for construction contracts when SAO is the A/E.

- The Owner usually creates and edits the Advertisement record for CM contracts.
- Program Services may create and edit CM Advertisements.

## Bid Planning Calendar

The Bid Planning Calendar is a tool used to plan, manage and coordinate public improvement bidding. All organizations using OAKS CI to manage public construction work will have access to it. The calendar collects the date and location of pre-bid meetings and bid openings for each project. Reports are available to summarize this information and assist in scheduling meetings to avoid conflicts with other nearby projects.

Type: Company Level, Simple, Non-Workflow

Stage: This BP is used during the Bid & Award Stage as an aid to the Contractor Procurement process, but could be used earlier in the project to plan effectively.

Roles:

- Bid Planners will enter and modify bid meeting information in the Bid Planning Calendar.
- A/Es and PMs will use the Bid Planning Calendar as a reference, planning, and reporting tool.

## Budget - Initial

The purpose of the Budget - Initial BP is to record the initial budget established for the project. The approval of the overall budget occurs externally. OAKS CI can track pending budget requests during the approval process in the Pending Budget column of the Cost Sheet. Once external approval is achieved, it is recorded in OAKS CI and moved to the Approved Budget column in the Cost Sheet.

Type: Project Level, Workflow, Generic, Cost (Line Item with Work Breakdown Structure (WBS)).

Stage: This BP will generally be used during the Concept Development Stage and influences the Planning, Design, and Construction Execution processes.

Roles:

- Various roles may be involved in the budget process depending of the organization sponsoring the project.
- The Creator creates the initial budget record.
- The Reviewer reviews the initial budget and enters approval once budget approval is received.

## Budget - Revisions

The purpose of the Budget - Revisions BP is to track revisions to the initial and approved budget. Two workflows are available: Budget - Revisions with Approval and Budget - Revisions without Approval. The approval of the overall budget occurs externally.

Type: Project Level, Workflow, Generic, Cost (Line Items with WBS)

Stage: This BP may be used at any stage of the project as the funding and budget develop.

Roles:

- Various roles may be involved in the budget process depending of the organization sponsoring the project.
- The Creator creates the revised budget record.
- The Reviewer reviews the revised budget and enters approval once external budget approval is received.

## Change Order

The Chage Order BP implements changes to the Contract following stringent and tested protocol and with minimal adverse effect to the contract. Change Orders are approved utilizing Work Breakdown Structure (WBS) codes to incorporate changes in the Schedule of Values (SOV) framework and the Project Cost Sheet.

Type: Project Level, Cost (Change Commit) Type (Line Item with WBS) multi-record with workflow

Stage: This BP is used primarily during the Construction Stage, but may be used to reconcile Allowances, Unit Prices, and other items during the Closeout Stage.

Roles:

- The A/E or Contractor may initiate the Change Order BP. The creator of the record must first select which of three change order initiation processes (Change Directive, PR, or RCO - see below) will be utilized, initiates the Change Order workflow record, and advances the record based on the type of change order being created.
- A Change Directive (formerly called a Field Work Order) is used for revisions requiring immediate or urgent attention that could adversely impact the project schedule, a safety issue, etc. The Change Directive is initiated by the A/E.
- A Proposal Request (PR) is used when the revision will not adversely impact the construction schedule or the finished product. The A/E initiates the PR and requests a proposal from the Contractor.
- A Request for Change Order (RCO) results from an RFI or other impact. The Contractor initiates the record at the creation step and enters detailed cost proposal information in the next step.

## Closeout - Contractor

Contract completion is not fully realized until all work is correctly completed and accepted. A major element of contract completion is the complete and acceptable submittal of all closeout requirements. The Contractor Closeout record documents receipt and acceptance of the contractors' closeout requirements.

Type: Project Level, Non-Workflow, Multiple Records

Stage: This BP is used exclusively during the Closeout Stage for facilitating closeout of the Contractor's Contract.

Roles:

- The A/E creates and updates the Contractor Closeout record as items are received from each Contractor. The closeout items are scanned and uploaded into the Document Manager. Hard copies are turned over to the Owner at the end of the project.
- Other project team members, including the PM, Project Coordinator, CM, and Owner's Representative may review the Contractor Closeout record.

## Closeout - Professional Services

Closeout of the Professional Services (PS) Agreement commences with the closeout period of the Contractor and continues beyond the project Contract Completion date into the Post-Construction Phase. The majority of the PS Closeout responsibilities require confirmation of satisfactory transmission of Contractor closeout requirements to the Contracting Authority and Owner.

Type: Project Level, Simple, Non-Workflow, Multiple Records

Stage: This BP is used exclusively during the Closeout Stage for facilitating closeout of the A/E and CM's Agreements.

Roles:

- The PM creates and updates the Closeout - Professional Services record as closeout items are received and transmitted to the Owner.
- Other project team members, including the Project Coordinator, A/E, CM, and Owner may review the PS Closeout record.

## Contracts

The purpose of this BP is to prepare and execute the contract following the Bidding process. The completion of this BP will result in a fully executed paper Contract, issuance of the Notice to Proceed, and entry of the contract value on the Project Cost Sheet. This BP starts with receipt of the bidder recommendation letter. Coordination with the Owner is important for the timely receipt of funding certification required for contract execution.

Type: Project Level, Cost Type (Line Items with WBS), with Workflow

Stage: This BP is used during the Bid & Award Stage.

Roles:

- The Project Coordinator creates the record; enters the contract sum into a single WBS code; issues the Notice of Intent to Award; facilitates the contract execution process; requests and reviews pre-award document submittals; receives and incorporates funding certification; and prepares and distributes the Notice to Proceed and Contract Form.
- The PM provides initial review of the Contract record, manages the contract execution process, and reviews and approves adjustments to the Contract.
- The Contractor prepares and submits the required contract submittals, reviews and approves the Contract record, and signs the Contract Form.
- The Director, or designee, reviews and approves the Contract record, and signs the Contract Form.
- The Attorney General reviews and approves the Contract record, and signs the Contract Form.

## Contract Schedule of Values

This BP provides for submission, review, and approval of the Contractor's Schedule of Values (SOV) utilizing Work Breakdown Structure (WBS) codes based on CSI MasterFormat. The SOV submitted and approved in this BP becomes the basis for Contractor pay requests. Once the SOV is approved, the entries for each WBS code replace the budget entries on the project Cost Sheet.

Type: Project Level, Cost Type (Line Item with WBS), Multi-record with Workflow.

Stage: This BP is used during the Construction Stage, prior to making payments to provide a manageable breakdown of the Contract. Before a vendor can be included on the SOV, the vendor must be approved through the Subcontractor Supplier Declaration BP.

Roles:

- The Contractor creates the SOV, identifies items of work provided by sbcontractors and material suppliers, and negotiates details with the A/E.
- The CM reviews the SOV and forwards it to the A/E.
- The A/E reviews the SOV, negotiates details with the Contractor, and recommends approval.
- The Project Coordinator reviews the SOV and determines that EDGE participation is accurately identified and forwards it to the PM.

- The PM reviews the SOV, requests clarification and updates from the Contractor, and apporves the record when complete.

## Contractor Evaluation

Contractor Evaluations are completed by the Contracting Authority during the progress of a project, upon completion of a phase of a project and/or completion of the project. The information in these evaluations will be retained in OAKS CI for use in determining the responsibility of a contractor for award of future contracts.

Type: Project Level, with Workflow

Stage: This BP is used primarily during the Closeout Stage, but may be performed at the conclusion of each phase for complex projects.

Roles:

- The Project Manager creates the evaluation record and evaluates the Contractor and forwards the record to the PM Supervisor.
- The PM Supervisor reviews the evaluation, returns it for clarification if needed, and approves the record when complete.

## Contractor Pay Request

The Contractor Pay Request BP provides a structured procedure for the timely submission, review, approval, and tracking of Contractor Pay Requests and enters expenditures into the Project Cost Sheet. The BP also tracks utilization of EDGE businesses, apprentices, and subcontractors during the pay period. The Contractor must also perform the Prevailing Wage Report BP to file Certified Payroll Reports associated with each application.

Type: Project Level, Cost Type (Line Item with WBS), multi-record with Workflow.

Classification: Payment Application

Stage: This BP is used primarily during the Construction Stage, but is used for Final Payment duing Closeout.

Roles:

- The Contractor creates the Pay Request record and provides clarifications and updates when requested. The CM if applicable, and the A/E review and recommend approval of the Pay Request.
- The Prevailing Wage Coordinator reviews the Pay Request to check compliance with prevailing wage regulations.
- The Project Coordinator reviews and validates the Pay Request.
- The PM reviews and approves the Pay Request.
- The PM Supervisor must review and approve the Final Pay Request.
- The Owner's Financial staff determines the source of funding (state or local funds) and creates the voucher to process the Request for Payment.

## Departments

A Department is a subdivision of an organization with its own name and identification (e.g., the State Architect's Office is a subdivision of the Department of Administrative Services). In this BP, all pertinent departmental information will be collected for reference in the Project Information BP and for reporting purposes.

Type: Company Level, Non-Workflow

Stage: This BP is used prior to beginning any project in which the organization is an Owner or Contracting Authority. The information entered will feed other BPs during every stage.

Roles:

- Company Administrators will enter and maintain this information for all projects.
- All Project Users will use this information for reference and reporting purposes.

## Design Reviews

The Design Reviews BP provides for electronic submission, review, and approval of the program verification, schematic design, design development, and construction documents. This BP must be performed at specific stages of the design process as defined in the A/E Agreement.

Type: Project Level, Document Type, with Workflow

Stage: This BP is used exclusively during the Design Stage.

Roles:

- The A/E creates the design documents, loads them into the Document Manager, creates the Design Review record, and submits it to the PM for review.
- The A/E also responds to comments from the review participants.
- The PM provides initial review to ensure completeness of items being submitted and facilitates the detailed review by all appropriate reviewers through a Discussion Group.
- The Review Participants perform detailed review of design documents and related submittals and submit a comment log to the PM.
- The Review Participants may include the PM, CM or Constructability Review Consultant, Commissioning Agent if applicable, SAO Energy Services, or others as appropriate.
- The A/E responds to comments from the review participants.

## Escrow Accounts

The purpose of the Escrow Accounts BP is to track and report any funds deposited in escrow on a project. This can include retainage, liens and statutory delay forfeiture (liquidated damages) and other miscellaneous escrows.

Type: Project Level, Line Item Type, Multi-record, Non-Workflow

Stage: This BP is used during the Construction Stage, but tracked funds may not be released until a project has been otherwise closed out.

Roles:

- The Fiscal Officer or Project Coordinator creates the Escrow Accounts record in support of a lien claim or project labor retainage.
- Monies are deposited into the escrow account and the account number is documented in the record.
- One or more releases may occur over time until all issues are resolved, monies released and the escrow account is closed.

## Facilities

The Facilities BP will create a Facilities record that will maintain specific attributes (year built, construction, description, square footage, etc) about a building or structure. Projects are related to a specific facility allowing reporting of project activity in a facility over time.

Type: Company Level, Non-Workflow

Stage: This BP is used prior to beginning any project at a given facility. The information entered will feed other BPs during every stage for projects at this facility. The Properties BP must precede this BP before a project may be initiated at a facility.

Roles:

- Company Administrators and Project Administrators will create and maintain Facility information.
- All Project Users will use this information for reference and reporting purposes.

## Field Reports

This BP provides a means to store Field Reports. Reports may be directly entered in OAKS CI or they may be attached to the record as a scanned file of the handwritten report prepared during a site visit. Note that scanned attachments cannot be searched at a later date to retrieve contents related to a topic of interest. Information entered directly and typed attachments may be searched.

Type: Project Level, Simple, Non-Workflow

Stage: This BP is used during the Construction Stage and Closeout.

Roles:

- The PM creates field reports on assigned projects to report activity and problems on the related project.
- The A/E and CM also have permission to create field reports if desired..

## Financial Institutions

The purpose of the Financial Institutions BP is to provide a record of all the financial institutions used for escrow by agencies and institutions using OAKS CI. The BP record includes the name, address and contact information for each financial institution for escrow accounts for retainage, lien escrow, and other withholdings.

Type: Company Level, Non-Workflow, with Line Items

Stage: This BP is generally used prior to beginning a project. The information entered will feed the Escrow Accounts BP during the Construction Stage.

Roles: The Fiscal Officer creates and maintains the financial institution record, coordinates escrow agreements with the financial institution, and manages the deposit and release of retained funds with the financial institution.

## Financial Risks

The purpose of this BP is to provide the PM with a management tool to account for future, unknown or unplanned costs expenses in the Project Cost Sheet. The PM should use this BP to record any unexpected or unplanned expenditures usually resulting from professional services amendments, change orders, and claims. Once the risk has been realized in the form of a amendment, change order, or miscellaneous expense it is closed in the Financial Risk log. Likewise, items that are never realized may be closed to remove them from the Project Cost Sheet.

Type: Project level, Cost, Line Items with WBS Code, Non-Workflow, Generic

Stage: This BP is used throughout the project, primarily beginning in the Design Stage and may extend beyond the Closeout Stage if claims or other risks remain unresolved.

Roles: The PM creates and edits the Financial Risks record, and closes the record when the risk is resolved as a contracted item or is cancelled.

## Fund Allocation

The purpose of this BP is to allocate funds to the project. Funds provided from various sources are allocated and are then reflected on both the project and company fund sheets.

Type: Project Level, Cost Type, Multi-Record, Line Items with Fund Code, with Workflow

Stage: This BP is usually used during the Concept Development Stage, but additional funding sources may be identified throughout the course of the project.

Roles:

- Various roles may be involved in the funding process.
- The Fund Allocation is typically entered by the Owner Financial, Project Controls Administrator, or Project Coordinator.
- The Creator creates and enters the Funding Allocation and Updates as per PM's request for clarification.

## Fund Release

The purpose of this BP is to document the release of funds to the project by the Controlling Board, a university board of trustees, or other authorizing group. The actual release of funds is performed outside OAKS CI. This BP also records the release of funds in the Company and Project Fund Sheets.

Type: Project Level, Cost Type, Multi-Record, Line Items with Fund Code and Workflow

Stage: This BP is used during the Concept Development Stage for property acquisition and professional services procurement, and during the Bid & Award Stage for contractor procurement.

Roles:

- Various roles may be involved in the funding process.
- The Fund Release is typically entered by the Owner Financial, Project Controls Administrator, or Project Coordinator.
- The Creator creates and approves the Fund Release record.

## Fund Transfer

The purpose of this BP is to transfer appropriations from one fund to another fund. The line item total will always be a "Net Zero" amount. Although this BP is at the Project Level, its effect is at the company level, where it modifies the appropriation of funds by transferring amounts between funds. If a new fund is been created by this transfer, it is necessary to contact a company administrator to first create the fund at the Company level, and then create the Fund Transfer record. This BP records transfers approved by the Controlling Board or a university board of trustees.

Type: Project Level, Cost Type, Multi-Record, Line Items with Fund Code, with Workflow

Classification: Generic

Stage: This BP may be used during any stage of the project. It may also be used after Closeout to transfer remaining fund balances to other projects.

Roles:

- Various roles may be involved in the funding process.
- The Fund Transfer is typically entered by Owner Financial, Project Controls Administrator, or Project Coordinator.

- The Creator creates and approves the Fund Transfer record..

## Liens

The purpose of this BP is to record, track and report project related liens. The BP records the liens by project and contractor, identifies when liens are filed and released, and records the original lien amount, amounts of releases, and the lien balance. A lien is a legal form of security interest filed to secure payment of a debt or other obligation against a specific vendor by material suppliers, subcontractors, or other providers of labor and/or materials for a public improvement contract. Under Ohio Lien law for public construction, liens can only be filed against funds due a prime contractor.

Type: Project Level, Cost Type, Multi-Record, Line Items with Fund Code, with Workflow

Classification: Generic

Stage: This BP is used during the Construction Stage, but may extend beyond project completion if liens remain unresolved.

Roles: The Fiscal Officer or Project Accountant creates the Liens record to document a claim filed against a specific vendor, and maintains and updates the status of each Lien record until released or resolved.

## Local Administration Authorization Request

This BP is used by an Agency or Institution of Higher Education to request authorization to manage their own construction project. An Agency must request authorization for every project under $1.5 million. A non-certified Institution of Higher Education must request authorization for every project over $4 million.

Type: Project Level, with Workflow

Stage: This BP is used initially during the Concept Development Stage, but may be used to request increases in authority based on increased project costs.

Roles:

- For an Agency:
  - The Agency PM Supervisor will request Local Administration.
  - SAO Program Services (Team Support in OAKS CI) will validate the request is complete, and will prepare necessary paperwork for SAO approval.
  - The SAO Fiscal Officer will review the application and recommend whether the request should be approved, add comments if necessary, and route it to the appropriate Segment Manager.
  - The SAO Segment Manager (DSA in OAKS CI) will send the LAR record for package generation (approved), return it to the creator for update or reject the request.
- For an Institution of Higher Education:
  - The Institutional Designee will initiate the request.
  - SAO Program Services and the SAO Fiscal Officer will have the same role as an agency request.
  - The SAO Segment Manager recommends approval to the GSD Deputy Director, who recommends approval to the Board of Regents, who approve and forward to the DAS Director for final approval.

## Meeting Minutes

This BP provides a means to store meeting agendas and minutes. Agendas and minutes are created as a Word document, loaded to the Document Manager and attached to the record. They can be accessed by all team members who are OAKS CI users.

Type: Project Level, Simple, with Workflow

Stage: This BP may be used at any stage of the project. Meetings can be documented early in Concept Development, through the Design, Bid & Award, Construction, and Closeout Stages.

Roles: Any user may create a Meeting Minutes record and attach meeting agendas or minutes.

## Miscellaneous Commit

This BP provides a means to record miscellaneous project related commitment in the Project Cost Sheet. The entries may include miscellaneous fees, permit costs, printing, FF&E, percent for art, and any other commitments not recorded as a part of Agreements, Amendment, Contracts, or Change Orders.

Type: Project Level, Workflow, Generic, Cost, Line Items with WBS

Stage: This BP may be used during any stage of the project.

Roles:

- The Owner may create the Miscellaneous Commit record.
- The Owner Financial may create the Miscellaneous Commit record.
- The Owner Financial obtains a purchase order for the commitment and enters the purchase order information on the record.
- The Project Coordinator may create the Miscellaneous Commit record.
- The Project Manager reviews and approves the Miscellaneous Commit record, and updates the record.

## Miscellaneous Invoice

This BP provides a means to allocate funds for payment of a Miscellaneous Commit previously created for a project. The expenses may include miscellaneous fees, permit costs, printing, FF&E, or any expense not covered by an Agreement, Amendment, Contract, or Change Order. This BP will be used primarily by the colleges and universities, and may be used by state agencies.

Type: Project Level, Cost, Line Items with WBS, General Spends

Stage: This BP may be used during any stage of the project.

Roles:

- The Project Coordinator creates the Miscellaneous Invoice record upon receipt of the invoice; submits the record to the PM for review and approval; and updates or corrects the record.
- The PM reviews and approves the Miscellaneous Invoice record; and forwards the record to the Owner Financial for Payment Processing.
- The Owner Financial obtains a voucher to pay the invoice; and documents the payment information on the Miscellaneous Invoice record.

## Memorandum of Understanding

The purpose of this BP is to maintain a record of completed Memorandums of Understanding (MOU) between project participants. All development, review, and approval of the MOU is completed outside of OAKS CI. The MOU is used to communicate and confirm ideas, directives, and other communications between persons within or between organizations.

Type: Project Level, Simple, Non-Workflow, Multi-record.

Stage: This BP is used early in the project, usually during Concept Development.

Roles: The PM or PM Supervisor may create and maintain the MOU record.

## Newspapers

The purpose of this BP is to provide a repository of newspapers providing legal advertisements for construction contracts and announcements of construction management selection processes and other required legal announcements.

Type: Company Level, Simple, Non-Workflow

Stage: This BP is used at any time to maintain the database of available newspapers.

Roles:

- The Project Coordinator enters and maintains the Newspaper record.
- The Project Coordinator will use the record to select the newspaper in which to advertise for a project.

## Organizations

This BP captures information about an Organization to be used as a reference for other business processes. Organization is intended to identify a State Agency or state-supported two- or four-year, college or university. Each Organization should be entered only once.

Type: Company Level, Non-Workflow

Stage: This BP is used before an organization begins using OAKS-CI.

Roles:

- Company Administrators will enter and maintain this information for all projects.
- All Project Users will use this information for reference and reporting purposes.

## Organization Vendors

An Organization Vendors record is formed by selecting an Organization and a Vendor. Local accounting information such as vendor number and address codes can be added to this record for use in documenting purchase orders and vouchers. One vendor may be used by many organizations resulting in many Organization Vendors records.

Type: Company Level, Non-Workflow

Stage: This BP is used at any time to maintain the database of available newspapers.

Roles:

- Project Administrators and Company Administrators set up vendors in this BP.
- All Project Users use this information for reference and reporting purposes.

## Prevailing Wage Report

This BP provides a consolidated reporting tool for Certified Payroll Report records within OAKS CI. Weekly payroll report records may be provided as an attachment to this BP or they may be provided on paper and delivered to the Contracting Authority. The prime contractor can use this BP as a tool to compile and amend or update payroll reports for its labor and subcontract labor during each Pay Request period.

Type: Project Level, Simple, Multi-Record, Non-Workflow

Stage: This BP is used during the Construction and Closeout stages.

Roles: The Contractor creates the prevailing wage report record for each pay request submitted.

## Professional Services Acquisition

The purpose of the Professional Services (PS) Acquisition BP is to provide electronic review and approval of the A/E, Construction Manager, and Consultant procurement process.

Type: Project Level, Simple-type, Multi-record,with Workflow

Stage: This BP is used during the Concept Development Stage for the A/E, but may be used during design to acquire a CM.

Roles:

- Team Support creates the record upon receipt of an F-110-330 form; distributes submissions and scoring sheets to evaluators and enters the scores; notifies short-listed and non-short-listed firms; arranges the interviews; distributes packets to the interview panel and enters the ranking; and notifies selected and non-selected firms.
- Reviewers / PMs evaluate and score the submissions, and evaluate and rank the interviewed firms.
- The PM Supervisor approves the short-listed firms, and recommends approval of the selected firm.
- The Contracting Authority approves the selected firm.

## Professional Services Agreements

This BP is used to execute the agreement with the selected design professional, CM or consultant. The BP utilizes the information presented in the Technical Proposal to develop the contract language and fee requirements for the Professional Services Agreement. Upon completion, the Professional Services Provider (A/E, CM, or Consultant) will receive a hard copy contract and authorization to proceed with the work. The BP also establishes the Schedule of Values (SOV) for Professional Services Pay Requests.

Type: Project Level, Cost Type (Line Item with WBS), Multi-record, with Workflow

Stage: This BP is used during the Concept Development Stage for the A/E, but may be used during design to acquire a CM.

Roles:

- The Professional Services Provider initiates the record, provides clarification and updates upon request, reviews and signs the resulting Agreement.
- The Project Coordinator may create the record from the provider's Technical Proposal, prepares the Recommendation Letter and Controlling Board Criteria, prepares and distributes the Agreement and Notice to Commence Services.
- The PM Supervisor reviews and approves the Owner Agreement in the "SAO with Internal A/E" schema.
- The Contracting Authority signs the Agreement and ensures certification of funding.
- The Owner concurs with the agreement and obtains funding in the form of a purchase order.
- The Attorney General signs the Agreement with approval as to form and reviews and approves the electronic record.
- The Professional Services Provider acknowledges the Notice to Commence Services.

## Professional Services Amendments

This BP is used to provide for the submission, review, and approval of amendments to the Professional Services Agreement. The BP provides the Amendment document and other necessary communication using custom prints. Once the approval process has been completed, which includes funding, a Notice to Proceed will be sent to the Professional Services Provider authorizing work to begin.

Type: Project Level, Cost Type (Line Items with WBS), Multi-record, with Workflow

Stage: This BP may be used during any stage of the project after execution of the Professional Services Agreement.

Roles:

- The Professional Services Provider initiates the amendment process, creates the amendment record, negotiates scope and terms of the Amendment, and signs the Amendment document.
- The Project Manager negotiates scope and terms with the Professional Services Provider, reviews the Amendment, and forwards to the Project Coordinator.
- The Professional Services Provider initiates the amendment process, creates the amendment record, negotiates scope and terms of the Amendment, and signs the Amendment document.
- The Project Manager negotiates scope and terms with the Professional Services Provider, reviews the Amendment, and forwards to the Project Coordinator.
- The PM Supervisor reviews and recommends approval or revisions to amendments negotiated by the Project Manager when SAO is serving as the project's A/E.
- The Owner concurs with the amendment and obtains funding in the form of a purchase order. The Contracting Authority reviews the Amendment and signs the completed Amendment.

## Professional Services Evaluation

A/E Evaluations will be completed by the Contracting Authority. Depending on the size of the project, the evaluation could be performed upon completion of each design stage or upon the completion of a project. The information in these evaluations will be retained in OAKS CI for use in determining the qualifications of an A/E for award of future contracts.

Type: Project Level, with Workflow.

Stage: This BP is used primarily during the Closeout Stage, but may be performed at the conclusion of each stage of design for complex projects.

Roles:

- The Project Manager creates the evaluation record and evaluates the A/E.
- The PM Supervisor reviews the evaluation, returns it for clarification if needed, and forwards it to the A/E.
- The A/E reviews the evaluation, submits any comments, and returns the it to the Contracting Authority.

## Professional Services Fee Allowance

This BP records the approved fee amount for each executed change order which enables the A/E to request payment for the services performed. The BP calculates the standard fee and allows the creator to make adjustments as needed. The BP executes a net-zero transfer on the schedule of values from the contract Change Order Fee Allowance to the A/E's Additional Services Change Order Fees.

Type: Project Level, Cost Type (Line Item with WBS), Non-Workflow

Stage: This BP is used during the Construction and Closeout stages.

Roles:

- The Project Manager creates the Change Order Fee Allowance record.
- The Project Coordinator may create the Change Order Fee Allowance record in lieu of the Project Manager.

## Professional Services Pay Request

This BP provides for the submission, review, and approval of interim or final payment requests for services completed by the provider. The BP references and relates directly to the Schedule of Values (SOV) Line Item amounts outlined in the Professional Service Provider's Agreement.

Type: Project Level, Cost Type (Line Items with WBS), General Spends, with Workflow.

Stage: This BP may be used during any stage of the project after execution of the Professional Services Agreement.

Roles:

- Professional Services Provider:
  - Creates the pay request record and submits the record to the Project Manager
  - Provides clarification and updates as requested and can also withdraw the payment request
- Project Manager:
  - Reviews the payment request record, requests clarification and updates and recommends approval.
- Project Coordinator:
  - Reviews and confirms that the mechanics of the pay request are accurate and ensures that all necessary information and forms are present
  - Requests clarification and updates (from either the Project Manager or the Professional Services Provider)
  - Sends the record to the Owner for payment
- Project Manager Supervisor:
  - Receives this record from the Project Coordinator when this is the final payment
  - Request clarification and updates from the Project Manager
  - Forwards the final payment to the Owner once it has been approved
- Owner's Representative:
  - Authorizes and initiates payment
  - Requests clarification or updates from the Project Manager
- Owner's Financial:
  - Creates the payment voucher to pay the request
  - Records the Voucher information if it was created manually

## Program of Requirements

This BP provides for the submission, review, and acceptance of the Program of Requirements (POR). The POR is the formal statement of what the project is intended to include and accomplish, and forms the basis of the A/E Agreement. The actual POR is not developed in OAKS CI. The completed documents that make up the POR are attached to the record and routed for acceptance via OAKS CI workflow.

Type: Project Level, Simple Type, Multi-record with Workflow

Stage: This BP is used early in the project, usually during Concept Development.

Roles:

- The roles associated with this BP vary depending on whether the POR is developed by the owner prior to hiring an A/E, or developed by the A/E as an Additional Service.

- The Owner or the A/E initiates the POR record and submits the competed POR for acceptance, and updates or clarifies the POR documents based on review comments.
- If the Owner develops the POR:
  - The Contracting Authority or PM Supervisor reviews, approves, and recommends acceptance.
  - The Project Manager reviews to ensure it is adequate for use in establishing an agreement with the A/E and accepts the POR.
- If the A/E develops the POR:
  - The Project Manager reviews, approves, and recommends acceptance.
  - The Owner reviews and accepts the POR at this step.

## Project Information

This BP captures static information related to the project including the description of the project, project status, geographical information, and names and contact information for key resources involved in the project. The information entered through this BP is primarily used for reference, populating custom print documents, and reporting purposes.

Type: Project Level, Line Item Type, Single Record, Non-Workflow

Stage: This BP is used prior to beginning a project. The information entered will feed other BPs during every stage of the project at this property. This BP must precede all other Project Level BPs. Additional information may be entered in the record as the project progresses.

Roles:

- The Project Administrator will create the Project Information record and enter information available at the time. Ownership of the record will be passed to the Project Manager.
- The Project Manager or their Designee update and edit the Project Information record.

## Project Vendors

This BP maintains contact and accounting information for all project vendors who hold a contract with the contracting authority of the project. Prime contractors, professional services providers and vendors holding a miscellaneous commit are documented. Subcontractors, material suppliers to the prime contractors, and unsuccessful bidders are not entered in the Project Vendors BP (see the Subcontractor Supplier Declaration BP). A Project Vendor record is formed by selecting an Organization Vendor record and adding project contact information.

Type: Project Level, Non-Workflow

Stage: This BP is used at any time to maintain the database of available newspapers.

Roles:

- The Project Administrator or a Project Coordinator will enter and maintain Project Vendors information.
- All Project Users use this information for reference and reporting purposes.

## Properties

This BP will collect and maintain information relative to each property for use by other business processes and for reporting purposes. A Property is defined as an area of land where a facility may be located.

Type: Company Level, Non-Workflow

Stage: This BP is used prior to beginning any project at a given property. The information entered will feed other BPs during every stage of each project at this property. This BP must precede the Facilities BP for any projects on the property.

Roles:

- The Company Administrator will enter and maintain Property information.
- All Project Users will use this information for reference and reporting purposes.

## Punch List

The purpose of this BP is to provide a structured process for the submission, evaluation, and final approval of the Contractor's work requirements. The process includes the submission and evaluation of a list of defective items in an attached punch list and a notification when the work is deemed to be acceptable. This BP may also be used to track the timeliness of inspections and the final acceptance process.

Type: Project Level, Simple Type, Multi-Record, with Workflow

Stage: This BP is used during the Closeout Stage.

Roles:

- The Contractor creates and submits the Punch List for Review to the A/E, through the CM if applicable, with an attached list of any remaining non-compliant work items. This list includes a justification for the incomplete work and a schedule for completing the non-compliant work items; provides updates of the list when requested; completes the Punch List requirements compiled by the A/E and submits for final inspection.
- The A/E reviews and accepts the Contractor's Punch List; evaluates the Contractor's work with the Project Manager and the Owner and compiles the A/E's Punch List; performs the final inspection (or re-inspection) of the completed or corrected work; when the work is satisfactorily completed, the A/E accepts the Punch List completing the workflow.

## P]urchase Orders

The purpose of this BP is to record purchase orders (PO) made in both OAKS FIN and any local accounting systems related to the project. PO records are accrued on the Fund Sheet to maintain a correct balance of funds encumbered by the project. The BP supports integration with OAKS FIN via the INF17 and INF18 integration modules. Through this interface, POs created in OAKS CI can be transferred to OAKS FIN. OAKS FIN returns status information to OAKS CI, which is posted to the correct BP record. The Purchase Order BP also supports manual creation of the purchase order in the system of record with duplicate entry of the purchase order data in OAKS CI.

Type: Project Level, Generic, Cost (Line Items with Fund Breakdown Structure), Multiple Record, Non-Workflow

Stage: This BP may be used at any stage of the project as agreements, contracts, and miscellaneous commits are executed. A Purchase Order precede contract execution, but is not required to initiate acquisition and procurement BPs.

Roles:

- Roles are dependent on whether integration is being used to create Purchase Order records in OAKS FIN.
- With Integration:
  - Owner Financial creates the PO record and sets the status to initiate integration. INF17 transfers the record to OAKS FIN. INF18 returns status information to OAKS CI and updates the PO record.
- Without Integration:

- Project Coordinator, Contract Administrator, or Owner Financial creates and updates the PO record.

## Request for Interpretation

A Request for Interpretation (RFI) is a written request to the A/E seeking an interpretation or clarification of the contract documents. This BP provides the format and procedures for the submission, review and responses to a RFI. The State's Front End documents provide the following time constraints on RFIs: The A/E has 3 days to review and respond. The Contractor has 3 days to accept the response from the A/E. If there is a cost or schedule impact, the Contractor has 7 days to request for change order in the Change Order BP.

Type: Project Level with Workflow

Stage: This BP is used during the Construction and Closeout stages.

Roles:

- The Contractor or the Owner may submit a RFI to the A/E for a clarification or interpretation of the contract documents.
- The CM if applicable, reviews the RFI to ensure it is valid, may return the RFI to the Contractor for update or forward it to the A/E.
- The A/E responds to the RFI. The A/E may forward the RFI to one or more of its Consultants.
- A Consultant may be required to provide input or respond to an RFI at the request of the A/E.

## Request for Qualifications

For all state funded projects, the Owner must submit a request to the respective Segment Manager (a.k.a. Deputy State Architect or DSA) of their intent to have SAO publish a project announcement for the project. The DSA or PM will, in consultation with the Owner, review and if necessary modify the project announcement and score sheet information. The completed announcement will be published on the OAKS CI Web site. This BP provides for the creation, submission, review and modification, and approval of the project announcement. This BP is based on the Statement of Qualifications (F110-330) form.

Type: Project Level, Simple, with Workflow

Stage: This BP is used during the Construction and Closeout stages.

Roles:

- The Project Manager:
  - Creates the initial RFQ
  - Collaborates with the Owner to develop the completed RFQ submitted to SAO
- The Owner:
  - Reviews the RFQ
  - Collaborates with the PM to develop the completed RFQ submitted to SAO
- The Segment Manager (DSA):
  - Reviews the RFQ for state-funded projects for the agencies/institutions in its portfolio
- The Ohio Register Editor:
  - Manages the RFQ process
  - Determines if RFQs require review and routes them accordingly
  - Generates RFQ using a custom print and edits the document

- Attaches the RFQ to the record
- Publishes RFQ on the Web site.

## SAO Billings

The purpose of this BP is to provide a list of transactions and their related fees and billings for SAO-administered and locally-administered projects. This BP is only updated from the SAO Billings process and is not editable by users. Setting the project status to inactive will exclude this project from any SAO Billings.

Type: Project Level, Line Item Type, Single Record, Non-Workflow

Stage: This BP may be used during any stage of the project.

Roles: This record is either created by the SAO Fiscal Officer or auto created via Web Service and is updated by the system via integration module INF28. The SAO Fiscal Officer can set the record to inactive or active.

## SAO Fee Structure

The purpose of this BP is to define a fee structure for use on projects. There are multiple fee structures, each of which is created and maintained through this BP. Each fee structure will be given a title. The title will be used to assign that fee structure to a project on the Project Information record.

Type: Company Level, Simple Type

Stage: This BP is used prior to beginning any project in which the fee structure will be used.

Roles: The SAO Fiscal Officer creates and edits the fee structure.

## SAO Fees

The purpose of this BP is to initiate the SAO billing process and to provide information for the output file generated by the process. The INF28 Integration Process runs on a nightly basis and if the “Run Billing?” field is set to “Yes” then it will initiate the SAO billing process. Once the process completes it will set the value of the “Run Bill?” field back to “No”. This process allows an administrator to determine when this process should be run.

Type: Company Level, Simple Type, Non-Workflow

Stage: This BP is used primarily beginning in the Design Stage and may extend beyond the Closeout Stage as SAO bills the agency or institution for its fees.

Roles: This record is created and updated by the SAO Fiscal Officer. It is also updated by the system via integration module INF28.

## Schedule Approvals

The Construction Schedule is the single most important management tool on a construction project. A properly coordinated, updated, and managed construction schedule can mean the difference between success and failure of the project. The schedule can be as simple as a bar chart and as complex as a fully detailed resource loaded Critical Path Method (CPM) schedule. This BP provides a tool to record and track the project team's approval of the baseline and updated schedules utilized throughout the duration of construction. The approved baseline schedule and subsequent monthly updates are required for approval and payment of Contractor pay requests.

Type: Project Level, Simple Type, Multi-Record, with Workflow

Stage: This BP is used during the Construction and Closeout stages.

Roles:

- Schedule Manager:
  - Creates the record
  - Works with the Contractors to create the baseline progress schedule
  - Works with the Contractors to update the schedule and prepare recovery plans if needed.
- Contractor:
  - Reviews and approves the baseline progress schedule and periodic schedule updates
  - Returns the record for clarification if the proposed schedule contains significant issues
- Lead Contractor / Construction Manager:
  - Reviews and approves the baseline schedule and periodic updates
  - Returns the record for clarification if the proposed schedule contains significant issues
- A/E / Project Manager:
  - Reviews and accepts the baseline schedule and periodic updates
  - Returns the record for clarification if the proposed schedule contains significant issues

## Subcontractor Supplier Declaration

This BP provides for the submittal, review, and approval of the Contractor's proposed subcontractors and material suppliers. It replaces the Subcontractor and Material Supplier Declaration (F310-01) form on projects tracked in OAKS CI. Once a subcontractor or supplier is approved, this BP tracks important EDGE and vendor information. This BP is also used to submit subconsultants of Professional Services Providers that contribute to meeting the provider's EDGE participation goal. Once submitted, the BP tracks important EDGE information.

Type: Project Level, Multi-record, Simple Type, with Workflow

Stage: This BP is used during the Construction Stage, prior to making payments to provide a manageable breakdown of the Contract. Before a vendor can be included on the Contract SOV, the vendor must be approved through this BP.

Roles:

- Contractor:
  - Creates the declaration and submits it for review
  - Provides additional information regarding EDGE participation and subcontractor payrolls
- Professional Services Provider:
  - Creates the declaration for subconsultants that contribute to EDGE participation and submits it for review
  - Provides additional information regarding EDGE participation
- CM (if applicable) reviews the Contractor's initial declaration for compliance with contract documents and requests updates from the Contractor
- A/E reviews the initial declaration for compliance with contract documents
- PM reviews the declaration and accepts or rejects use of the subcontractor/supplier or subconsultant
- Project Coordinator / Contracts Administrator reviews and validates the declaration for DFSP enrollment (if applicable) and EDGE status

## Submittals

Submittals are used by Contractors for the submission, review, and approval of submittals as stipulated in the contract documents. Submittals include product data, cost estimates, schematics, diagrams, schedules, meeting minutes, certifications and test reports, record documents, cut sheets, shop drawings, and material samples to be incorporated into the project. This BP can be used to include additional information or comments about each submitted item. The purpose of this BP is to provide a means for managing and tracking the various forms of submittals required for a successful construction project.

Type: Project Level, Document Type, Multi-record, with Workflow

Stage: This BP is used during the Construction and Closeout stages.

Roles:

- Contractor:
  - Submits documents, samples, etc to A/E for conformance with Contract requirements
  - Submits to the Construction Manager (on CM projects) for schedule coordination purposes
- Construction Manager (on CM projects):
  - Review and forward the Contractor's submittals to the Associate for approval
  - Provides management of the Contractors' submissions related to the project schedule
  - Advises Contractors of a Hold Notice Notification
- A/E:
  - Reviews submittals for conformance with Contract Documents
  - Advises Contractors of submittals held for coordination of colors, patterns, etc.
  - Returns incomplete or unacceptable submittals
  - Coordinates review of submittals with consultants
  - Advises Lead Contractor or CM of submittal review status for scheduling purposes

## Transmittals

The purpose of this BP is to track the delivery or exchange of project related documents and/or materials. The BP can create a paper transmittal slip using the custom print format to accompany physical materials when necessary.

Type: Project Level, Simple

Stage: This BP may be used during any stage of the project.

Roles: All Project Users will use Transmittals to exchange project information to appropriate team members..

## Vendors

This BP maintains vendor contact and State accounting information on prime contractors, professional services providers, and other vendors who hold a contract with a state agency or institution sponsoring a project. Subcontractors, material suppliers to the prime contractors, and unsuccessful bidders are not entered in this BP. The BP is primarily used to populate the Organization Vendor BP where local accounting information and contact information can be added.

Type: Company Level, Non-workflow

Stage: This BP may be used during any stage of the project.

Roles: All Project Users will use Transmittals to exchange project information to appropriate team members.

## Vouchers

The purpose of this BP is to record voucher transactions made in both OAKS FIN and any local accounting systems related to the project. Voucher records are accrued on the OAKS CI Fund Sheet to maintain a correct balance of funds released to the project. This BP supports integration with OAKS FIN via the INF02 and INF03 integration modules. Through this interface, vouchers records created in OAKS CI can be transferred to OAKS FIN. OAKS FIN returns status information to OAKS CI which is posted to the correct record.

Type: Project Level, Generic, Cost Type, with Fund Breakdown Structure (FBS) Line Items

Stage: This BP may be used during any stage of the project.

Roles:

- With Integration:
  - Owner Financial creates the Voucher record and sets the status to initiate integration.
  - INF02 transfers the record to OAKS FIN.
  - INF03 returns status information to OAKS CI and updates the Voucher record.
- Without Integration:
  - The Creator creates and updates the Voucher record (Project Coordinator, Contract Administrator, or Owner Financial).

## Warrantees

A warranty in the construction industry is either an implied or stated pledge or promise from a labor or services provider or material supplier that their service or product will perform as intended for a stated period of time with the expectation that deficient work or a failed product will be corrected or replaced within the identified period of time. The purpose of this BP is to record specific warranty information from service providers and material suppliers for each construction project.

Type: Project Level, Multi-record, Simple Type, Non-Workflow

Stage: This BP is used during the Construction and Closeout stages.

Roles:

- The A/E, Project Coordinator, or Project Manager create and edit the Warranties record.
- Other project members, to include the Owner Representatives use the Warranties record to review and track warranty information.

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