

PROJECT DELIVERY METHODS for PUBLIC BUILDING CONSTRUCTION

This series of Briefs summarizes processes for the design and construction of public buildings, including:

- 1) current legal methods authorized by Iowa Code, and
- 2) alternate project delivery methods that could be considered by the Legislature.

These methods are specifically discussed in terms of vertical infrastructure (buildings and grounds). “*Project delivery*” as used herein means the process and procedures for the design and construction of buildings and grounds with a particular focus on public improvements.

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The series is published by the Governmental Affairs Committee of the Iowa Chapter, American Institute of Architects (AIA Iowa).

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Introduction: PROJECT DELIVERY METHODS for PUBLIC BUILDING CONSTRUCTION

A series of Briefs on methods of design and construction for public buildings in Iowa
Governmental Affairs Committee, Iowa Chapter, American Institute of Architects (AIA Iowa)

PROJECT DELIVERY as used here means the process and procedures for the design and construction of buildings and grounds. The Briefs will summarize Iowa law and new options available for project delivery. We hope you find these informative and suggest you download and file these for future reference, as we anticipate there will be bills introduced in 2016 that address this subject.

Iowa law specifies the process for most public “vertical infrastructure” improvements in **Chapter 26 Public Construction Bidding**. Construction of public buildings and grounds in Iowa utilizes this “traditional” method of **Design-Bid-Build (D-B-B)** for all “governmental entities”¹.

Governmental entities experienced in construction, such as Board of Regents institutions, have sometimes expressed frustration with the length of time from start to completion inherent in the sequential steps of (first) **Design** – (then) **Bid** – (then) **Build** when compared with faster alternative methods.

Over the past few years, various bills have been proposed, unsuccessfully, to expand the method of selecting constructors² for new construction and renovation of Iowa’s public buildings. These other methods, called **alternate project delivery (APD)** systems, have often met with confusion and misunderstanding because the business and methods of design and construction are complex and diverse.

One particular concern expressed repeatedly by legislators is the perceived lack, or potential lack, of **competitive bidding** in alternative methods.

The goal of this series is to offer simplified overviews of both Iowa law and possible alternative ways of performing design and construction for public projects. The topics, one per Brief, will address **vertical infrastructure** (buildings and grounds), but not **horizontal infrastructure** (roads and bridges).

Topics will include:

- #1 Current Iowa law: **Chapter 26 Public Construction Bidding**
- #2 Current Iowa law: **Section 26.3 Bidding Thresholds**
- #3 Current Iowa law: **Section 262.34 Improvements** et al (Board of Regents)
- #4 Silent in Iowa law: **Construction Manager – Advisor** (this is the method utilized by **DAS**)
- #5 Alternate Project Delivery: **Construction Manager at Risk**
- #6 Alternate Project Delivery: **Design-Build**, an overview of several versions
- #7 Alternate Project Delivery: **Design-Build/QBS & Constructor Fees**
- #8 Alternate Project Delivery: **Design-Build/Bridging**
- #9 Alternate Project Delivery: **Design-Build/Concept Design & Price**
- #10 **Qualifications-Based Selection**: How it works
- #11 **Public Private Partnerships**: not recommended
- #12 **Job Order Contracting**
- #13 AIA Iowa: **Recommendations**

¹ **Governmental entities (subsection 26.2.2)** “means the state, political subdivisions of the state, public school corporations, and all officers, boards, or commissions empowered by law to enter into contracts for the construction of public improvements, excluding the state board of regents and the state department of transportation”.

² This series uses the term “**constructor**” in lieu of “**contractor**” to refer to the parties that enter into agreement with the public body to perform construction. This is to avoid confusion because there are many general references throughout the Iowa Code to “contractor” that refer to a party to a public contract who is not in the construction business.

All alternative method Briefs will discuss the degree of **competitive bidding** possible. They will also discuss the potential to provide the significant benefits of **early collaboration** among the owner, design team, and constructor by adopting the principles of **Integrated Project Delivery (IPD)**; that is, involvement of the constructor during the pre-construction phases of design and documentation to advise on cost, schedule and constructability³ issues.

Suggested goals for consideration of alternative project delivery (APD) methods include:

1. Increase speed of timely project completion
2. Maximize competitive bidding
3. Provide flexibility in addressing, and possibly limit use to, large, complex projects
4. Minimize changes in project scope and conflicts among parties
5. Gain collaboration among owner, design team and constructors during the design and documentation process
6. Procure design and constructor consultants using Qualifications Based Selection procedures
7. Limit APD use to vertical infrastructure projects
8. Limit APD use to public owners with substantial experience in the development of public improvements

Next Brief: #1 Iowa Code Chapter 26 Public Construction Bidding

Author: Bill Dikis chairs the Governmental Affairs Committee for AIA Iowa. He researches and advocates for issues that affect the well-being of both the public and the architectural profession. An example is the Architects' Disaster Assistance legislation passed in 2014, now implemented as the **B-SAFE Team** in collaboration with Iowa Homeland Security and the Department of Public Safety.

He is not an attorney, but has extensive experience in the review, analysis and drafting of legislation, regulations and policy.

He currently serves the State of Iowa as Chair of the Capitol Planning Commission and a member of the Terrace Hill Commission and previously served as Chair of the Iowa Architectural Examining Board.

Prior to retirement from the architectural firm of RDG Bussard Dikis, he served as principal architect for many state projects, including the Iowa State Capitol Restoration (1981-2006), the unbuilt Iowa State Capitol Underground Expansion for Legislative Offices (1988), and strategic reports including the 1999 State of Iowa Vertical Infrastructure Report and the 2000 Space Utilization and Building Study (Capitol Complex and metro Polk County). He authored major portions of the deferred maintenance portion of the 1996 Governor's Committee on Government Spending Reform ("The Fisher Commission").

³ "**Constructability**" means review of design and construction documents by an expert in construction to advice on feasibility, practicality and effectiveness of the proposed construction methods, materials and process.

PROJECT DELIVERY METHODS for PUBLIC BUILDING CONSTRUCTION

Brief #1: IOWA CODE CHAPTER 26 PUBLIC CONSTRUCTION BIDDING

A series of Briefs on the methods of design and construction for public buildings in Iowa
Governmental Affairs Committee, Iowa Chapter, American Institute of Architects (AIA Iowa)

PROJECT DELIVERY as used here means the process and procedures for the design and construction of buildings and grounds. The Briefs will summarize Iowa law and new options available for project delivery. We hope you find these informative and suggest you download and file these for future reference, as we anticipate there will be bills introduced in 2016 that address this subject.

Current Iowa law specifies the design and construction procedures for public buildings in Iowa Code **Chapter 26 Public Construction Bidding**.

§26.3 requires a **governmental entity**¹ (excluding the Regents and IDOT, covered in other chapters) to advertise for sealed bids for a **public improvement**² when the **estimated total cost of construction**, excluding professional fees, exceeds the 2015 **threshold** amount of \$135,000 (a future Brief will discuss bid thresholds more fully).

Subsection 26.3.2 requires that the **estimated total cost of construction** be calculated by a licensed architect, engineer, or landscape architect.

§26.5 provides that the **estimated total cost of construction** cannot be divided into smaller portions if the result is to avoid competitive bidding.

In order to seek sealed bids, reasonably complete detailed drawings and specifications called **construction documents** are necessary to provide a rational, fair and equally competitive basis for bidders to accurately price their services. These documents must be prepared and sealed by a licensed architect (**Chapter 544A**), engineer (**Chapter 542B**), or landscape architect (**Chapter 544B**).

The **Ch. 26** process is commonly called the “traditional” or “**Design-Bid-Build**” method.

Typical sequential steps include:

1. The public owner decides a building is needed and identifies a general scope and sources of funding.
2. The owner selects a design professional team using a **Qualifications Based Selection**³ (QBS) process. The owner contracts with an architect, who then subcontracts with engineers and landscape architects.
3. The design and construction process is typically divided into phases for incremental owner approval:
 - a. **Pre-design/Programming** – design team helps the owner define detailed needs and preferences
 - b. **Schematic Design** – design team explores multiple conceptual design solutions, from which the owner selects a best concept for further refinement
 - c. **Design Development** – design team refines a specific Schematic Design concept to an outline level of detail sufficient to estimate approximate cost
 - d. **Construction Documents** – design team evolves Design Development concept into the construction documents, detailed drawings and specifications forming the basis for bidding, contract for construction, and construction
 - e. **Bidding** - owner conducts mandated advertisements and bid process, assisted by architect, resulting in award of contract to the **lowest responsive, responsible bidder**⁴. The construction documents become the Contract Documents.

¹ **Subsection 26.2.2** defines “**governmental entity**” to include “the state, political subdivisions of the state, public school corporations, and all officers, boards, or commissions empowered by law to enter into contracts for the construction of public improvements, excluding the state board of regents and the state department of transportation”.

² **Subsection 26.2.3** defines “**public improvement**” to mean “a building or construction work constructed under the control of a governmental entity, paid for in whole or in part with...” public funds (but subject to several narrow exclusions).

³ **Qualifications Based Selection** is a competitive procurement process for professional design services originally established by Congress as a part of the **1972 Brooks Act** for federal design procurement.

- f. **Construction** –constructor executes the Contract Documents; design team assists owner and constructor in interpreting the documents and generally assures that completed construction is consistent with the intent of the contract documents.

Most state public building improvements come under the responsibility of the Department of Administrative Services (DAS) (**subsection 8A.302.4**), including contracting for architectural services and constructors. DAS does not provide services for the Regents, IDOT, the National Guard, or the Natural Resource Commission.

§26.4 exempts procurement of architect, engineer and landscape architect design services from competitive bidding because there is not yet sufficient project information developed to establish the needed scope of services until detailed negotiations occur between the owner and the architect. For projects under DAS responsibility, architectural and engineering services must (**paragraph 8A.311.4.b**) “be procured in a reasonable manner... on the basis of competence and qualification for the type of services required and for a fair and reasonable price”. This describes the principles of **Qualifications Based Selection (QBS)**, where a price, fair and reasonable to the owner’s satisfaction, is identified during detailed negotiations with the design firm ranked most highly based on qualifications and experience. The QBS method of procurement is recommended by the American Institute of Architects, the American Council of Engineering Companies, and the American Bar Association (2000 ABA Model Procurement Code) and mandated for public projects by the federal government and 47 states. QBS will be explained further in a future Brief.

Chapter 26 also establishes procedural requirements for:

- Notice to bidders (**§26.7**)
- Bid security (**§26.8**)
- Award of contract (**§26.9**)
- Opening and considering bids (**§26.10**)

SUMMARY of Design-Bid-Build:

1. **Contract:** owner holds one contract with architect and one contract with constructor. Architect and constructor hold subcontracts as required to complete their parts of the work.
2. **Competitive bidding:** 100%.
3. **IPD⁵ collaboration:** not possible because the constructor, by definition of this delivery method, is not known until after design and documentation have been completed.
4. Pros
 - a. 100% competitive bids based on complete design documents
 - b. Architect is contractually obligated to protect the owner’s interests
 - c. Most familiar method for owners; best method for owners inexperienced in construction
 - d. Maximizes owner control over design and construction
 - e. Design is completed and construction cost is fixed prior to start of construction
5. Cons
 - a. Because major phases are sequential, the project takes longer than other methods to complete
 - b. Owner has greater risk to control price; actual cost of construction not known until bidding
 - c. Constructor IPD collaboration not available until after bidding
 - d. Greater potential for disputes among the parties

For more information:

[Public Owners’ Guide to Legal Issues on the Bidding and Award of Construction Contracts in Iowa](#) (2006, 2009)

[Next Brief: #2 Iowa Code §26.3 Competitive Bid Threshold & §26.14 Competitive Quotations Threshold](#)

⁴ A **responsive bid** is an unequivocal offer to do everything required by bidding documents; a **responsible bidder** has the organizational and financial capability to perform and complete the work, demonstrated to the satisfaction of the owner.

⁵ **IPD** = integrated project delivery collaboration principles mean that the constructor for the eventual construction project participates as an advisor in the pre-construction phases of design and documentation.

PROJECT DELIVERY METHODS for PUBLIC BUILDING CONSTRUCTION

**Brief #2: IOWA CODE SECTIONS 26.3 COMPETITIVE BID THRESHOLD
& 26.14 COMPETITIVE QUOTATIONS THRESHOLD**

A series of Briefs on the methods of design and construction for public buildings in Iowa
Governmental Affairs Committee, Iowa Chapter, American Institute of Architects (AIA Iowa)

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§26.3 establishes a **competitive bid threshold** for the **estimated total cost of construction**¹, above which competitive bidding is required, with the initial amount set at \$100,000. It also provides (**§314.1B; IDOT**) that the amount be reviewed every 2 years, or annually if needed, by a vertical infrastructure committee organized by the IDOT. The review is directed to consider changes in the construction price index, building cost index and material cost index. The committee then makes adjustments to the thresholds if appropriate.

The review is required to be completed by August 1. When adjustments are made, an advisory notice is published in the Iowa administrative bulletin by September 1, to be effective the following January 1. In addition, the IDOT publishes a convenient “Bid and Quote Threshold History” at http://www.iowadot.gov/local_systems/publications/bid_limits.htm.

For **2015**, the **competitive bid** threshold has been increased to **\$135,000** for all governmental entities.

§26.14 establishes a less restrictive process available when the **estimated total cost of construction** is less than the **competitive bid threshold** but more than **competitive quote thresholds** that vary according to the type of governmental entity. Initial **competitive quote thresholds** were set at:

- \$67,000 for a county, including a county hospital
- \$51,000 for a city (including a city hospital), a school district, or an aviation authority with a population more than 50,000
- \$36,000 for a city or a school district with a population less than 50,000
- \$36,000 for any other governmental entity

As with the **competitive bid threshold**, the IDOT’s vertical infrastructure committee reviews and adjusts the dollar amount. For **2015**, the **competitive quotation thresholds** are:

- \$100,000 for a county, including a county hospital
- \$75,000 for a city, a school district, or an aviation authority with a population more than 50,000
- \$55,000 for a city or a school district with a population less than 50,000
- \$55,000 for any other governmental entity

The **competitive quotation** process requires the governmental entity to make a good faith effort to obtain quotations from at least two constructors regularly engaged in such work. A description of the work and plans and specifications prepared by an architect, engineer or landscape architect must be provided for the quotation process. If no quotations are obtained after a good faith effort, the governmental entity may negotiate a contract with one constructor.

If the **estimated total cost of construction** is less than the **competitive quotation threshold**, **subsection 26.14.2** provides that the governmental entity may proceed with either competitive quotations or competitive bidding.

¹ **Total project cost** is sometimes confused with the “**estimated total cost of construction**”. A **total project cost** includes not only the **total cost of construction**, but also other necessary costs such as a construction contingency, professional fees, equipment and furnishings, land cost, and any other costs that constitute the total funding needed for the project.

Although not clear in Iowa Code, AIA Iowa believes, given the permissive wording of subsection 26.14.2, that if a project has a cost less than the competitive quotation threshold, the governmental entity may also choose to directly negotiate with one constructor.

SUMMARY of §26.3 and §26.14 Bidding Thresholds (for 2015):

1. Public building construction projects in 2015 with an **estimated total construction cost** (not project cost) more than \$135,000 must be **competitively bid** per **Ch. 26** (**Ch. 26** does not include Regents and IDOT).
2. Public building construction projects in 2015 with an **estimated total construction cost** more than \$55,000 to \$100,000 (varies by type of governmental entity) but less than \$135,000 may utilize a less formal **competitive quotations** process rather than bidding.

Next Brief: #3 Iowa Code Section 262.34 Improvements (Board of Regents)

PROJECT DELIVERY METHODS for PUBLIC BUILDING CONSTRUCTION

Brief #3: Iowa Code SECTION 262.34 IMPROVEMENTS (BOARD OF REGENTS)

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Governmental Affairs Committee, Iowa Chapter, American Institute of Architects

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Current Iowa law prescribes and limits the design and construction procedures for most public buildings in Iowa Code **Chapter 26 Public Construction Bidding**. However, in **§26.2**, the Board of Regents and IDOT are excluded from the definition of “governmental entity” and thus from the applicability of **Ch. 26**.

Instead, **Ch. 262 Board of Regents** establishes the authorities granted to the Board of Regents, including construction of its public buildings. The Iowa Code details procedural provisions for competitive bidding in **Ch. 26** in 16 sections and 4,000+ words. By comparison, those of **Ch. 262** are prescribed in one section, **§262.34** in less than 900 words.

Subsection 262.34.1 requires that the Regents “shall advertise for bids for the contemplated improvement or construction and let the work to the lowest responsible bidder” when the estimated total cost of the improvement exceeds \$100,000. It is not clear if the competitive bid threshold 2015 adjustment from \$100,000 to \$135,000 (discussed in Brief 2.0) applies to the Regents due to the **Ch. 26** exception language.

If the Regents judge that the bids received are not acceptable, they may reject all bids and proceed with the improvement “by a method as the board may determine”. The plans and specifications for the improvement, together with the bids received, are required to be kept on file by the Regents and open for public inspection.

A narrow exception to the above requirement is found in **subsection 262.34.2**. If a delay in undertaking a repair, restoration or reconstruction (but not new construction) would cause serious loss or injury, the Regents may make a finding of the need to institute emergency procedures. However, there is no definition of “emergency procedures” or the subsequent actions permitted.

The remainder of **§262.34** briefly addresses requirements for disclosure of subcontractors, payments and retention, release of retainage, and definition of Substantial Completion.

For many years the Regents have conducted procurement of its construction contractors in the same manner as that described by **Ch. 26**, using the traditional **Design-Bid-Build** competitive bidding procedures. A thorough explanation of the design and construction process used by Iowa State University can be found at http://www.fpm.iastate.edu/planning/capital_planning_process/ by clicking on the “details” at the bottom of each of the four sections (Pre-Planning, Design, Construction and Occupancy). Of interest to this discussion, there is a brief reference to the “infrequent” use of Design-Build (under Design, Construction Delivery Method), along with recognition that the State of Iowa requires contracting with the lowest responsible bidder.

Concurrently, over several recent years, the Regents unsuccessfully advocated, along with others including AIA Iowa, for a change in Iowa law to permit one or more alternative forms of project delivery for their public building projects.

However, in late 2012, the Board of Regents concluded that they are able to also use the alternate project delivery process they call **Design-Build-Bridging**. In addition, they have also begun using the project delivery process called **Construction Manager at Risk**.

We are unable to find authorization in current Iowa law for the Regents to undertake public building construction using either of these two methods. In the spirit of transparency, AIA Iowa requested the Regents

explain their rationale but were refused by their staff attorney on the basis of “client privilege”. We hold the Regents institutions in high esteem, but we believe the use of these two methods is not legal and thus not (yet) intended or authorized by the Legislature.

It is ironic, then, that AIA Iowa strongly supports **Construction Manager at Risk (Open Book, GMP)¹** as an appropriate alternative to existing Ch. 26 Competitive Bidding for Iowa’s governmental entities... provided those entities have extensive experience in the construction of buildings, such as the Regents institutions and/or DAS... but only when properly authorized with thoughtful and appropriate permissions and restrictions set by the Legislature.

Alternate project delivery systems tend to be more complex, and we do not recommend that inexperienced governmental entities be given that option because we fear they could be subject to abuse. Although constructors are required to be registered by Iowa Code Chapter 91C, there are no requirements for licensure, testing for competence, or regulations governing business ethics. Registration merely insures that the constructor has completed an application process which includes proof of compliance with unemployment tax and workers’ compensation requirements.

Both of the alternate project delivery methods being used by the Regents will be discussed in future Briefs.

SUMMARY of §262.34 Regents Improvements

When the Regents use the traditional **Design-Bid-Build** process duplicating that of **Ch. 26 Competitive Bidding**:

1. **Contract:** owner holds one contract with architect and one contract with constructor. Architect and constructor hold subcontracts as required to complete their parts of the work.
2. **Competitive bidding:** 100%.
3. **IPD² collaboration:** not possible, because the constructor is by definition not available during design and documentation.

When the Regents use **the** alternative process of **Construction Manager at Risk (Open Book, GMP)¹**:

1. **Contract:** owner holds one contract with architect and one 2-part contract with CM/R. Architect and CM/R hold subcontracts as required to complete their parts of the work.
2. **Competitive bidding:** 100% provided that **CM/R** is prohibited from self-performance of construction or, at owner’s option, allowed to submit competitive sealed bids for specific packages that are opened by the owner.
3. **IPD² collaboration:** excellent, because **CM/R** participates in the pre-construction phases of design and documentation.

When the Regents use the alternative process of **Design-Build-Bridging**:

1. **Contract:** owner holds one contract with owner’s criteria architect and one contract with design-builder. Criteria architect and design-builder hold subcontracts as required to complete their parts of the work.
2. **Competitive bidding:** varies at discretion of design-builder and could range from 0% to some higher percentage.
3. **IPD² collaboration:** marginal, because the design-builder is not identified until after Programming and preliminary design (Schematic Design and/or Design Development) are mostly completed.

Next Brief: #4 Construction Manager as Advisor

¹ The meaning of **Open Book** and **GMP** will be explained in the future Brief on Construction Manager at Risk.

² **IPD** = integrated project delivery collaboration principles mean that the constructor for the eventual construction project participates in the pre-construction phases of design and documentation.

Brief #4: CONSTRUCTION MANAGER AS ADVISOR

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Governmental Affairs Committee, Iowa Chapter, American Institute of Architects

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Previous Briefs provided an overview of current Iowa law on the requirements of Iowa Code **Ch. 26** for competitive bidding and the exception granted to the Board of Regents in **Ch. 262**.

Construction Manager as Advisor (CM/A) is not a project delivery method, but rather a project management approach that can be deemed “legal” for public construction... legal because 1) it is nowhere mentioned in Iowa law, and 2) does not conflict with existing Iowa law.

A construction manager acting in this advisory manner is a consultant to the owner in parallel with the architect. The **CM/A** has no responsibility for physical construction activities nor is it at risk for the true cost of construction. There continues to be a full **Design-Bid-Build** process where the contract for construction is between the owner and the lowest responsible, responsive bidder.

CM/A is the management process used by the **Department of Administrative Services (DAS)**. Here is an overview of how the **CM/A** process works under **DAS**:

1. **DAS** staff serves as the owner’s representative.
2. An independent architect/engineer design team is selected for the design and documentation.
3. An independent **CM/A** is selected to advise on budgeting, scheduling and constructability¹ during design, documentation and construction.
4. The **CM/A** recommends bid packages which are then competitively bid to one single or multiple prime constructors; each prime constructor is part of a team of equal “general contractors” to build the project.
5. The **CM/A** is prohibited by its contract with DAS from self-performing construction work. Thus 100% of the work is competitively bid.
6. **DAS** relies on the **CM/A** to manage the day to day on-site coordination of the work.

Since the **CM/A** has no true risk for the eventual cost of construction, its advice during design and documentation is theoretical in comparison with a **Construction Manager at Risk (CM/R)** process (discussed in the next Brief). The design team and the **CM/A** continue to advise the owner during the construction process with regard to such things as pay applications and observation of the progress of the construction work.

Because the role of a **CM/A** in many ways duplicates or overlaps with the traditional role of the architect, and because the added cost of a **CM/A** can be substantial, adding such a consultant to a project team is usually only done for large, complex projects and/or projects where particularly timely completion is a concern.

SUMMARY of Construction Manager as Advisor:

1. **Contract:** owner holds one contract with architect, one contract with CM/A, and either one contract or multiple prime contracts with constructor(s). Architect and constructor hold subcontracts as required to complete their parts of the work.
2. **Competitive bidding:** 100%.

¹ “**Constructability**” means review of design and construction documents by an expert in construction to advise on feasibility, practicality and effectiveness of the proposed construction methods, materials and process.

3. **IPD² collaboration:** moderate, because the constructor at risk for the cost of the project is by definition not available during design and documentation. The CM/A offers theoretical insights into budgeting, scheduling and constructability¹, but this falls short of optimal because the CM/A is not responsible for the risk and cost of construction.
4. Pros
 - a. 100% competitive bids based on complete design documents
 - b. Architect and CM/A are each contractually obligated to protect the owner's interests
 - c. CM/A may lessen the owner's project management burden
 - d. CM/A provides construction-experience-based insights for scheduling, cost and constructability during design and documentation phases
 - e. CM/A provides additional oversight to protect the owner's interests during the construction phase. CM/A offers an enhanced potential to fast-track portions of the project to save time and money
5. Cons
 - a. Adds significant cost to owner's professional consultant fees
 - b. CM/A advice is theoretical rather than based on being at financial and performance risk
 - c. CM/A has no or very little professional liability
 - d. Potential for conflicts between architect
 - e. If multiple prime contracts, including fast-track, are used, it increases paperwork, administrative time and potential for construction disputes and claims

Next Brief: #5 Construction Manager at Risk

² **IPD** = integrated project delivery collaboration principles mean that the constructor for the eventual construction project participates in the pre-construction phases of design and documentation.

Brief #5: CONSTRUCTION MANAGER AT RISK

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By the Governmental Affairs Committee, Iowa Chapter, American Institute of Architects

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Construction Management at Risk (CM/R) is not currently legal for public building construction in Iowa based on our analysis of Iowa Code. Nevertheless, Iowa State University, and perhaps other Regents' institutions, has used this method for some (not all) recent building projects.

If the Legislature would decide to add an alternative to competitive bidding, the **Construction Manager at Risk** method is, in our opinion, the best project delivery method for large, complicated public projects. Due to the complexity of this method, it is very important to limit its use to public owners that have substantial experience and understanding of design and construction, such as Regents' institutions.

CM/R is reported to be widely preferred as the best delivery system by public bodies in other states that have a choice between **CM/R** and **Design-Build** as alternative systems.

Our opinion of "best" is based on also requiring the concepts of **Guaranteed Maximum Price¹ (GMP)** and **Open Book²** as extremely important parts of the contractual obligations of the **CM/R**. A **CM/R** law for public construction should include a prohibition against self-performance³ of construction by the **CM/R**; this will assure that the process includes 100% competitive bidding for the construction work, just as the current competitive bidding law provides.

Here is an example of how it could work for public buildings in Iowa if authorized:

1. The owner decides a public building is needed and identifies a general scope and sources of funding
2. The owner selects a design professional team using a **Qualifications Based Selection** process. The owner typically contracts with an architect, who then subcontracts with engineers as needed.
3. Two more or less concurrent actions occur next:
 - a. The architect provides Pre-design and Programming services to assist the owner in identifying the detailed scope of needs and preferences
 - b. The owner assisted by the architect selects a **Construction Manager at Risk** using a **Qualifications Based Selection** process, with the additional consideration of constructor's initial fee information based on the detailed scope developed by the architect, such as CM fee (percentage or fixed amount) and on-site overhead. The QBS selection criterion for fee is not *lowest* fee, but rather a *fair and reasonable* fee for the best qualified CM/R.
4. The owner, design team and **CM/R** collaborate during the preparation of Schematic Design, Design Development, and Bidding and Construction Documents. The **CM/R** adds benefit to these phases by offering expertise in cost estimating, scheduling, constructability reviews and construction phasing.

¹ **GMP** means a Guaranteed Maximum Price based on a cost-plus-fee contract is submitted by the **CM/R** at a stage when construction documents are sufficiently developed to permit sealed bids for some work and a reasonably accurate estimate by the **CM/R** for work not yet bid. It includes a **CM/R** contingency for the uncertainty of the estimate, which is returned to the owner to the extent not used.

² **Open Book** means that all costs, such as the bids and trade contracts for labor and materials required for construction, are completely open for review and prior approval by the owner.

³ **Self-performance** by a **CM/R** means that it would actually perform some of the construction work. If permitted, this dilutes competitive bidding and offers the potential for conflict of interest. It is not desirable for public improvements.

5. The design team, advised by the **CM/R**, organizes the bidding documents into trade-related groups which are bid by the **CM/R**.
6. The owner, assisted by the **CM/R** and the design team, undertakes the mandated advertisements and bidding process, resulting in an award of contract to the lowest responsive, responsible bidders.
7. At an appropriate stage (usually partial) of completion of construction documents, the **CM/R** takes bids on some of the trade groups and prepares an informed estimate of cost for those trades not yet bid. Based on this information, the **CM/R** provides a **Guaranteed Maximum Price (GMP)** that includes a **CM/R** contingency for the uncertainty of the estimated cost portion. All cost information is available to the owner as provided by the **Open Book** provisions of the contract.
8. The cost of the construction is 100% **competitively bid**. To achieve this, the owner prohibits self-performance of the actual construction work by the **CM/R**.
9. Construction takes place. The design team assists the owner and **CM/R** in interpreting the contract documents and generally assuring that the construction is consistent with the contract documents.

SUMMARY of Construction Manager at Risk:

1. **Contract:** owner holds one contract with architect and one 2-part contract with **CM/R**. The first part of the **CM/R** contract is for pre-construction advice and the second part is a **Guaranteed Maximum Price (GMP)** for the total cost of construction. Architect and **CM/R** hold subcontracts as required to complete their parts of the work.
2. **Competitive bidding:** 100%.
3. **IPD⁴ collaboration:** excellent, because **CM/R** can fully participate in the pre-construction phases of design and documentation and is at risk for the accuracy of the information provided.
4. Pros
 - a. Provides experience-based construction-related insights during design and documentation phases; the informed insights are by a **CM/R** that later will have the true risk of performance and cost for the project.
 - b. Provides option to “fast-track” early components of construction prior to full completion of design.
 - c. Early cost commitment from constructor to owner.
 - d. Owner’s burden to manage the project is reduced.
5. Cons
 - a. Added cost for consultants for owner
 - b. **CM/R** advice to owner and design team during construction has potential for conflict of interest because the **CM** is at risk during that phase.
 - c. Potential for confusion and conflicts between roles of design team and **CM/R**

Next Brief: #6 Design-Build (in general)

⁴ IPD = integrated project delivery collaboration principles mean that the constructor for the eventual construction project participates in the pre-construction phases of design and documentation.

PROJECT DELIVERY METHODS for PUBLIC BUILDING CONSTRUCTION

Brief #6: DESIGN-BUILD – IN GENERAL - SEVERAL VARIATIONS EXIST

A series of Briefs on the methods of design and construction for public buildings in Iowa
Governmental Affairs Committee, Iowa Chapter, American Institute of Architects

PROJECT DELIVERY as used here means the process and procedures for the design and construction of buildings and grounds. The Briefs will summarize Iowa law and new options available for project delivery. We hope you find these informative and suggest you download and file these for future reference, as we anticipate there will be bills introduced in 2016 that address this subject.

Design-build is not currently legal for public building construction in Iowa based on our analysis of Iowa Code. Nevertheless, the University of Iowa and Iowa State University have used **Design-Build** and/or **Construction Manager at Risk** for some of their recent building projects.

There are several variations on the design-build approach to project delivery. The most common version seen in recent years in the private sector is **Design-Build/Best Value (D-B/BV)**.

This is not the version being used by the Regents institutions. However, it is useful to summarize how it works in order to compare it with other versions. This approach is not recommended by AIA Iowa due to its unfairness in requiring significant uncompensated professional design and pricing services from multiple competitors.

Typically in **D-B/BV**, after narrowing the field based on qualifications and experience or other criteria, 3 to 5 competing design-builders are invited to prepare preliminary designs and submit price proposals in response to information provided by the owner. Each of the competitors sustains considerable expense to prepare proposals, but only one of them is selected to execute the project and thereafter be compensated. In rare cases, a small stipend is provided to unsuccessful competitors, but inevitably the size of the stipend is much less than the expense at risk.

A hypothetical example using rules of thumb illustrates the economic impact on unsuccessful proposals:

1. Assume a \$10 million dollar construction budget.
2. A Request for Qualifications (RFQ) narrows the potential design-build teams to, say, three firms who are then issued a Request for Proposal (RFP).
3. Each of the three competing design-builder teams, led by a constructor, includes a consultant design team. Assume a normal architectural/engineering (A/E) fee for complete project services would be 7.5% of the construction cost, or \$750,000.
4. A significant portion of the total fee must be incurred by each of the three competing teams in order for the design-build teams to accurately prepare their proposals. Each design-builder needs design and documentation completed more or less through the phases of Schematic Design and Design Development in order to prepare a reasonably accurate estimate of construction cost.
 - a. A rule of thumb is that this requires the expenditure of about 1/3rd of the total A/E fees that would be required for full project services, or \$250,000.
 - b. Assume this partial fee includes a 10% profit goal; thus, out of pocket expenses for labor, overhead and materials is \$250,000 less \$25,000, or \$225,000 for each design team.
5. In addition, the constructor member of the design-build team must interact with the conceptual design process as well as prepare a detailed pricing analysis in order to propose a fixed price for the construction, a requirement of submitting the proposal.
 - a. Assume this would be an out of pocket expense of \$20,000 (not including profit) for the constructor member of each competing team.
6. Thus, the three **D-B/BV** competing teams must each invest around \$245,000 out of pocket and at-risk to prepare their proposal.

7. One of the three competitors would presumably recapture their at-risk expenses by gaining a fair and reasonable contract to execute the project.
8. Two of the three **D-B/BV** teams sustain an uncompensated loss of \$245,000 each.

This example makes clear that **D-B/Best Value** without a fair and reasonable stipend for the unsuccessful competitors is economically unsustainable, as well as of questionable business ethics. Design firms who would participate in such a delivery system more than once or a few times would either have to be spectacularly successful or end up in bankruptcy.

If a fair and reasonable stipend would be offered to the unsuccessful competitors, it would become economically challenging for the owner. In the example above, fair payment to the two unsuccessful competitors at a total of \$490,000, in addition to the normal design fee of \$750,000, not visible but embedded in the design-build contract for the successful competitor, would result in the owner paying the equivalent of \$1,240,000 in design-related fees.

If the Legislature would decide to authorize a **design-build** project delivery alternative to competitive bidding, the American Institute of Architects suggests consideration of these versions of **Design-Build** in descending order of preference:

1. **Design-Build/QBS with Constructor Fees**, where the D-B team is selected based on a combination of qualifications and identification of the constructor's fee, general conditions and overhead, with selection completed prior to design and documentation, thus avoiding uncompensated professional services.
2. **Design-Build/Bridging**, where the owner employs a Criteria design team to develop design criteria and a conceptual design, thus providing Programming and Schematic Design services. Then 3 to 5 design-build teams are invited to offer competing proposals to complete the design and execute the work. This reduces, but does not eliminate, uncompensated professional services for the competing teams. In the hypothetical example above, the competing teams might each need to prepare the equivalent of a Design Development level of completion. A rule of thumb for that phase would be 20% of the total A/E fee, or $20\% \times \$750,000 = \$150,000$ less 10% profit. This would amount to \$135,000 out of pocket cost for each of the two unsuccessful design team members of the design-build team.
3. **Design-Build/Concept Design and Price with Stipend** - this is similar to the **Design-Build/Best Value** approach described earlier, but with the important added element of a fair and reasonable stipend¹ for the unsuccessful teams. As shown in the hypothetical example above, this is unlikely to be an acceptable cost consequence for the owner because the owner would pay the equivalent of a total of \$1,240,000 in design team fees rather than the \$750,000 paid for a Design-Bid-Build approach.

These variations will be described further in Briefs #7, #8, and #9.

SUMMARY of Design-Build (in general):

1. **Contract:** owner holds one contract with design-builder. Design-builder hold subcontracts with architect and others as required to complete their parts of the work. (An architect rarely assumes the design-build lead role in public projects due to the financial requirements for performance bonding and so is usually a subconsultant to the design-builder.)
2. **Competitive bidding:** varies at discretion of design-builder. The design-builder may self-perform as much of the work as it desires. An **Open Book** contract provision with a stipulation that owner shall open subcontracting bids would be necessary in order for the owner to maximize competitive bidding.
3. **IPD collaboration:** depends on which type of D-B is used:
 - a. Excellent for **Design-Build/QBS** and **Design-Build/Constructor Fees** because the design-builder is known at the beginning of the project.

¹ Fair and reasonable stipend for unsuccessful proposals is assumed for this example to cover out of pocket costs for labor, overhead and materials, but not including profit.

- b. Moderate for **Design-Build/Bridging**, because the design-builder is not known until after Programming and Schematic Design are complete.
 - c. Poor for **Design-Build/Concept Design and Price with Stipend**, because the design-builder is not known until after Programming, Schematic Design and some or all of Design Development are complete.
4. Pros
- a. Owner administers only one contract for both design and construction, thus a single point of responsibility
 - b. Fewer constructor initiated change orders are likely
 - c. Potential conflicts between design team and constructors are minimized
 - d. Quicker completion of the project is likely
5. Cons
- a. Architect owes its contractual duty to the design-builder rather than the owner
 - b. Design concepts are reviewed, edited and/or rejected by constructor prior to presentation to owner.
 - c. Less owner design control; owner is generally not able to interact during the important early conceptual design phases because this is being done by three separate design-builders
 - d. Not as likely to result in unusual or iconic design
 - e. Owner responsible for verification that work is being properly performed, punch lists, and final acceptance (because design team is contracted through the contractor instead of the owner).

[Next Brief: #7 Design-Build/QBS with Constructor Fees](#)

Brief #7: DESIGN-BUILD/QBS WITH CONSTRUCTOR FEES

A series of Briefs on the methods of design and construction for public buildings in Iowa
Governmental Affairs Committee, Iowa Chapter, American Institute of Architects

PROJECT DELIVERY as used here means the process and procedures for the design and construction of buildings and grounds. The Briefs will summarize Iowa law and new options available for project delivery. We hope you find these informative and suggest you download and file these for future reference, as we anticipate there will be bills introduced in 2016 that address this subject.

Design-build is not currently legal for public building construction in Iowa based on our analysis of Iowa Code. Nevertheless, the University of Iowa and Iowa State University have used **Design-Build** and/or **Construction Manager at Risk** for some (not all) recent building projects.

If the Legislature would decide to add a **design-build** project delivery system as an alternative to competitive bidding, the American Institute of Architects recommends this **Design-Build/QBS** variation as the next best method after **Construction Manager at Risk/Open Book/GMP**.

In **D-B/QBS with Constructor Fees**, the design-build team is selected using **Qualifications Based Selection** and consideration of the constructor's fee, overhead and general conditions. Selection of a design-build team occurs prior to any design and documentation, thus avoiding the ethical question of uncompensated professional services.

D-B/QBS has many similarities to the CM/R method with the exception that the owner holds a single contract with the design-builder, which includes both design team and constructor, rather than separate and parallel contracts with architect and CM/R.

Here is an example of how **D-B/QBS** could work for public buildings in Iowa if authorized:

1. The owner decides a public building is needed and identifies a general scope and sources of funding
2. The owner issues a **Request for Qualifications** (RFQ) for a Design-Build/QBS team.
3. The owner selects the design-builder using the **Qualifications Based Selection** process in combination with consideration of the constructor's fees that can be reasonably established based on the information then available. The constructor submits their proposed percentage or fixed fees for the design-builder fee, overhead and general conditions. The selection criterion for the constructor fees is not *lowest* fee, but rather a *fair and reasonable* fee in combination with the best demonstration of experience and qualifications.
4. The owner and design-build team collaborate throughout Pre-design, Programming, Schematic Design, Design Development, and Bidding and Construction Documents. The constructor member of the team adds benefit to the early phases by offering expertise in cost estimating, scheduling, constructability reviews and construction and phasing.
5. At an appropriate stage (usually partial) of completion of construction documents, the **D-B/QBS** team constructor member takes bids on select trade subcontractors, estimates costs for the rest of the work, and proposes a **Guaranteed Maximum Price (GMP)** that includes a D-B Contingency¹ for the uncertainty of estimated cost portions. All cost information is available to the owner throughout the project as established by an **Open Book** provision of the contract.
6. The cost of the construction is not 100% **competitively bid**. The degree of competitive bidding varies with the constructor's capabilities for self-performance. The design-builder typically does not hold

¹ It is always good practice for the owner to hold an owner's contingency as a buffer against the maximum funding available. This is available to address unforeseen circumstances, hidden conditions, and owner's opportunities, etc.

formal bids, but rather seeks competitive pricing from select subcontractors, usually those with whom the DB has worked on prior projects.

7. Construction takes place.

SUMMARY of Design-Build/QBS with Constructor Fees:

1. **Contract:** owner holds one contract with design-builder². Design-builder hold subcontracts with architect and others as required to complete their parts of the work.
2. **Competitive bidding:** varies at discretion of design-builder. The design-builder may self-perform as much of the work as it desires.
3. **IPD collaboration:** excellent because the design-build team is selected at the outset of the project prior to any programming or design.
4. Pros
 - a. Owner only administers one contract for both design and construction.
 - b. DB provides experience-based construction-related insights during design and documentation phases.
 - c. Because the constructor and design team are a business team, there is statistically less chance for conflicts between those two entities that affect the owner. That means there are likely to be fewer change orders.
 - d. Inclusion of QBS selection avoids the potential pitfalls of a low bid DB team.
 - e. The project is likely to be completed more quickly due to the ability to early-order materials and to fast-track portion of the work.
5. Cons
 - a. Architect owes its contractual duty to the design-builder rather than the owner. As a result, the architect's ability to communicate with the owner must flow through the design-builder.
 - b. The owner has less control over the design process.
 - c. A design-build project is less likely to be iconic or innovative. The most talented designers are less likely to be interested in a DB project.
 - d. Owners without expert construction staff may struggle to manage the process and could be open to exploitation if the DB is not ethical.

Next Brief: #8 Design-Build/Bridging

² An architect is rarely able to take the lead position in design-build due to the usual requirements for a Labor and Materials Performance Bond. Architectural firms are usually not organized financially or by proven experience to qualify for such a bond.

Brief #8: DESIGN-BUILD/BRIDGING

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Governmental Affairs Committee, Iowa Chapter, American Institute of Architects

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Design-build is not currently legal for public building construction in Iowa based on our analysis of Iowa Code. Nevertheless, the University of Iowa, and perhaps other Regents' institutions, has been using a version of **Design-Build/Bridging** for some recent building projects.

As discussed in Brief #5, AIA Iowa prefers **Construction Manager at Risk** as the best alternative project delivery system. If the Legislature would choose to also add a **design-build** project delivery system as an alternative to competitive bidding, the American Institute of Architects prefers **Design-Build/QBS with Constructor Fees (discussed in Brief #7)** as the best of the DB methods.

Design-Build/Bridging, which has been used for a few recent projects by the U of I and ISU despite no apparent legislative authorization, is a less desirable option in the opinion of AIA Iowa.

In **Design-Build/Bridging**, the owner employs a "bridging" architect and engineer team to develop design criteria (**Programming**) and a conceptual design (**Schematic Design**); some owners may choose to have their architect also perform **Design Development**. For a sense of the degree of development of bridging documents, the amount of early work by the owner's criteria architect amounts to time and effort between 15% (SD) and 35% (DD) of a "normal" architectural fee.

Next, 3 to 5 design-build teams with their own integral design teams, narrowed to that number by review of qualifications, are invited to offer competing proposals to refine the concept, prepare construction documents, and construct the work. Proposals at the selection stage include a specific price proposal based in part on the Programming and preliminary design concept and in part on their own further development of the design concept. This approach reduces (compared to other forms of DB), but does not eliminate, uncompensated professional services for the design-build teams not selected.

The term, "bridging", comes from the hand-off, the bridging documents prepared by the owner's design team, to the design-builder's design team. The architect and engineers on the design-build team become the design professionals of record for the project.

SUMMARY of Design-Build/Bridging:

1. **Contract:** owner holds one contract with the criteria architect and one contract with the design-builder. The design-builder hold subcontracts with its architect¹ and others as required to complete their parts of the work.
2. **Competitive bidding:** varies at discretion of design-builder. The design-builder may self-perform as much of the work as it desires.
3. **IPD collaboration:** Moderate, because the constructor (the design-builder) is not selected until after the Program and Schematic Design, and perhaps Design Development, are completed.

¹ An architect is rarely able to take the lead position in design-build due to the requirements for a Labor and Materials Performance Bond. Architectural firms are usually not organized financially or by hands-on construction experience to qualify for such a bond.

4. Pros

- a. DB provides experience-based construction-related insights during final design and documentation phases.
- b. Because the constructor and design team of record are a business team, there is statistically less chance for conflicts between those two entities that affect the owner. That means there are likely to be fewer change orders.
- c. Inclusion of QBS selection avoids the potential pitfalls of a low bid DB team.
- d. The project is likely to be completed more quickly due to the ability to early-order materials and to fast-track portion of the work.
- e. The owner's criteria architect brings a degree of checks and balances to the construction process if the architect is employed throughout the entire project.

5. Cons

- a. The architect of record owes its contractual duty to the design-builder rather than the owner. As a result, the architect's ability to communicate with the owner must flow through the design-builder. The owner thus loses the advocacy and checks and balances that are implicit when the architect is employed directly by the owner.
- b. Because there are two design teams involved in the project, disagreements could arise about the importance of design issues identified in the initial bridging documents.
- c. Because there are two design teams involved in the project, disputes about liability could occur if a problem arises.
- d. The owner has less control over the design process than other delivery methods.
- e. A design-build project is less likely to be iconic or innovative.
- f. Owners without expert construction staff may struggle to manage the process and could be open to exploitation if the DB is not ethical.
- g. The design team for the design-builder may disagree with some of the bridging documents prepared by the owner's design team.

Next Brief: #9 Design-Build/Concept Design and Price with Stipend

PROJECT DELIVERY METHODS for PUBLIC BUILDING CONSTRUCTION

Brief #9: DESIGN-BUILD/ CONCEPT DESIGN AND PRICE, WITH STIPEND

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Design-build is not currently legal for public building construction in Iowa based on our analysis of Iowa Code. Nevertheless, the University of Iowa and Iowa State University have used **Design-Build** and/or **Construction Manager at Risk** for some of their recent building projects.

AIA Iowa advocates the alternate project delivery system called **Construction Manager at Risk/Open Book/Guaranteed Maximum Price** as explained in Brief #5. If the Legislature would also choose to add a design-build project delivery system as an alternative to competitive bidding, the American Institute of Architects prefers **Design-Build/QBS with Constructor Fees** (discussed in Brief #7).

AIA Iowa views **Design-Build/Concept Design and Price with Stipend** as acceptable, but unlikely due to the substantially higher cost of fees to the owner.

Design-Build/Concept Design and Price with Stipend is similar to the Design-Build/Best Value approach described earlier in the 6.0 Design-Build Brief, but with the important added element of a fair and reasonable stipend paid to the unsuccessful teams for the considerable expense in responding to the Request for Proposals.

This approach is unlikely to be adopted because it transfers the high cost of duplicative design and cost estimating from the competing teams to the owner. In the hypothetical \$10 million project example outlined in Brief #6 Design-Build in General, defining "fair and reasonable" as billable cost less profit, the owner would pay the unsuccessful teams \$490,000 as stipends, in addition to the equivalent of \$750,000 for design and cost estimating embedded within the overall successful D-B proposal.

SUMMARY of Design-Build/Concept Design and Price, with Stipend:

1. **Contract:** owner holds one contract with design-builder. The design-builder hold subcontracts with its architect¹ and others as required to complete their parts of the work. An architect rarely assumes the D-B lead in public projects due to requirements for performance bonding and so is usually a subconsultant to the design-builder.
2. **Competitive bidding:** varies at discretion of design-builder. The design-builder may self-perform as much of the work as it may desire. An Open Book contract provision with a stipulation that owner would open subcontracting bids would be necessary in order for the owner maximize competitive bidding.
3. **IPD collaboration:** Poor, because the 3 to 5 design-builders perform considerable preliminary design independently prior to selection.
4. Pros
 - a. DB provides experience-based construction-related insights during design and documentation phases.

¹ An architect is rarely able to take the lead position in design-build due to the usual requirements for a Labor and Materials Performance Bond. Architectural firms are usually not organized financially or by hands-on construction experience to qualify for such a bond.

- b. Because the constructor and design team of record are a business team, there is statistically less chance for conflicts between those two entities that affect the owner. That means there are likely to be fewer change orders.
 - c. The project is likely to be completed more quickly due to the ability to early-order materials and to fast-track portion of the work.
5. Cons
- a. A potential exists for comparative lack of project quality due to selection of a low bid DB team.
 - b. The architect of record owes its contractual duty to the design-builder rather than the owner. As a result, the architect's ability to communicate with the owner must flow through the design-builder.
 - c. The owner has less control over the design process than other delivery methods.
 - d. A design-build project is less likely to be iconic or innovative.
 - e. Owners without expert construction staff may struggle to manage the process and could be open to exploitation if the DB is not ethical.

Next Brief: #10 Qualifications Based Selection

Brief #10: QUALIFICATIONS BASED SELECTION

A series of Briefs on the methods of design and construction for public buildings in Iowa
By the Governmental Affairs Committee, Iowa Chapter, American Institute of Architects

PROJECT DELIVERY as used here means the process and procedures for the design and construction of buildings and grounds. The Briefs will summarize Iowa law and new options available for project delivery. We hope you find these informative and suggest you download and file these for future reference, as we anticipate there will be bills introduced in 2016 that address this subject.

Qualifications Based Selection (QBS) was mentioned in several of the Briefs as a recommended method of selecting design professionals, consultants and constructors. This Brief will outline the **QBS** process.

Congress adopted the Brooks Act (P.L. 92-582) in 1972, which requires the use of **QBS** procedures for the procurement of architectural and engineering services for federal agencies. The purpose is to acquire professional design services from the most experienced and qualified firms at a fair and reasonable price.

Since that time, **QBS** has also been mandated by 46 states and many localities throughout the country. Independent research (sponsored by the American Council of Engineering Companies and the American Public Works Association, see https://www.acec.ca/assets/pdf/advocacy_pdf/QBS_Study_APWA_Final.pdf) concludes that there is “a strong indication that QBS has a positive correlation with successful projects”.

The principles of QBS are mandated in **Iowa Code subsection 8A.302.4** for the Department of Administrative Services, stating that architectural and engineering services must “be procured in a reasonable manner... on the basis of competence and qualification for the type of services required and for a fair and reasonable price”. This is further clarified in **Iowa Administrative Code 11-105.9** where qualifications factors are suggested and a fair and reasonable fee is clarified, including examples. The Iowa Department of Transportation also utilizes QBS in its selection process (see http://www.iowadot.gov/local_systems/publications/im/3305.pdf).

Many Iowa localities utilize QBS procedures, including Polk County and the City of Des Moines.

In addition to the federal government mandate, **QBS** is recommended by the American Institute of Architects (AIA), the American Council of Engineering Companies (ACEC), the Association of General Contractors (AGC), the Construction Management Association of America (CMAA), the Design Build Institute of America (DBIA), and the American Bar Association (ABA; 2000 ABA Model Procurement Code §5-205).

QBS is not “bidding” as such, but is a **competitive selection process**:

1. Competition initially occurs during the objective review of qualifications and experience by a selection committee, which narrows consideration to (usually) a “**short-list**” of 3 to 5 firms.
2. The next competition occurs during **interviews** with all of the short-listed firms, after which they are ranked in order of best qualified. This is accomplished through a structured point system for the various stated criteria.
3. The third competition occurs during **negotiations** between the owner and the highest qualified firm for a contract with detailed project scope and compensation which the owner may accept as “**fair and reasonable**”. In making this decision, the owner takes into account the estimated value, the scope, the complexity, and the professional nature of the services to be rendered.

Thus, the matter of price is not addressed until the owner enters into negotiations with the most qualified firm, and then only after detailed discussions of project scope. If the owner does not find the price proposed at the conclusion of negotiations as fair and reasonable, the owner terminates the negotiations and opens new negotiations with the next most highly ranked firm.

The following are the main steps in the QBS process:

1. The owner identifies a need and develops a preliminary scope of work required.

2. The owner conducts a public solicitation.
 - a. The project is advertised and a Request for Qualifications (RFQ) is issued to those responding.
 - b. The RFQ contains the preliminary scope and other information required in the responses.
 - c. The structured responses include specific categories with weighted values that emphasize the most important aspects for that particular project.
3. The owner forms a selection committee to evaluate the RFQ responses using point-based criteria and create a “short list” of 3 to 5 qualified firms to be interviewed.
4. The short-listed firms are separately interviewed by the selection committee.
 - a. A typical interview process allots 30 to 45 minutes for a presentation by each firm, followed by 15 to 30 minutes for follow-up questions and discussion.
 - b. Discussion of understanding of the proposed project and conceptual thoughts by the interviewed firms is typical during the interviews. However, no graphic designs are presented because they would be premature prior to the development of detailed scope and owner interaction with the design process.
 - c. The selection committee uses a structured scoring process to arrive at a ranking for each firm.
5. The owner enters into negotiations of scope and price only with the top-ranked firm.
 - a. A dialogue about detailed scope is included which is integrated into the form of agreement.
 - b. The firm submits a proposal in writing for professional compensation.
6. If the owner finds the scope acceptable and the fee fair and reasonable, the firm is awarded a contract for services.
7. If, however, the owner is not satisfied with the results of the negotiation with the top-ranked firm, negotiations are terminated, and the owner enters into negotiations with the next most highly ranked firm.

For more information:

QBS: A Guide for Selecting an Architect or Engineer for Public Owners

<http://c.ymcdn.com/sites/www.aiaiowa.org/resource/resmgr/ClientResources/QualificationsBasedDetails1.pdf?hhSearchTerms=%22qbs%22>

Qualifications Based Selection of Contractors (AGC):

<https://www.agc.org/sites/default/files/Qualifications%20Based%20Selection%20of%20Contractors%20FINAL.PDF>

[Next Brief: #11 Public-Private Partnerships](#)

Brief #11 Public-Private Partnership

A periodic series of Briefs on the methods of design and construction for public buildings in Iowa
By the Governmental Affairs Committee, Iowa Chapter, American Institute of Architects

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AIA Iowa does not believe that the **Public-Private Partnership (PPP or P3)** project delivery system is in the public interest. Nevertheless, it is included in this information series because it is in the national discussion and is in use in some states.

PPP is essentially a design-build delivery system using private funds for the initial funding, with public funds more than paying back the “loan” over time. A **PPP** project typically allows a public entity to contract with a private entity to finance, design, build, operate and maintain a government facility. Its use is rare in the United States, but has been used in Canada, Australia and the United Kingdom.

Due to the factors of private developer profit, insurance costs, and differing rates of interest between public and private financing, among others, **PPP** will always be more expensive for the public owner compared to the conventional publicly owned and financed project.

Additional complications are introduced over the duration of private ownership of the project due to operations and maintenance costs charged by the PPP developer.

It may be tempting to think of **PPP** as a way to accomplish a project more simply and seemingly less expensively. However, neither is the case. A **PPP** project is an extremely complex project delivery system and, in our opinion, one of the most costly compared to other approaches.

A simplified outline of the **PPP** project delivery approach:

1. Select the **PPP** approach through a deliberative, defensible, transparent public process.
2. Publicize and invite **PPP** proposals, providing well-defined scope and evaluation criteria.
 - a. The specific invitation can prescribe any of the several design-build variations as the preferred delivery method.
 - b. Some of the methods, as explained in previous Briefs, will involve major economic risks for the competing proposals unless a fair and reasonable stipend is awarded to unsuccessful proposals. Qualifications-based selection without major economic risk for the **PPP** would be an option.
 - c. The private entity will almost always be a developer-led LLC, probably project-specific, who has a subcontract with a design-builder and a sub-subcontract with an architect.
 - d. It is always important, but especially so with **PPP**, to define the form and terms of a contract including allocation of risk.
3. Similar to the other delivery systems, an objective evaluation process is used to select the proposal with the best solution for the public interest.
4. An interim contract covers the period from selection to final completion, followed by a long-term contract based on acceptance of the project. The period of the fixed term of the contract might vary from 5 to 40 years; the longer the term, the more important are contractual matters relating to quality of operations and maintenance.

Exhibit A lists some of the many different types of PPP. Those that include operations are more apt to apply to public projects such as bridges and toll roads.

SUMMARY of Public-Private Partnership:

1. Contract: owner holds 1 contract with the **PPP** entity, probably a developer LLC. The PPP entity holds subcontracts with a constructor, who holds sub-subcontracts with an architect and others as required to complete their parts of the work.
2. Competitive bidding: varies at discretion of the **PPP**. The PPP's constructor may self-perform as much of the work as may be desired or permitted by the PPP. An Open Book contract provision with a stipulation that owner would open subcontracting bids would be necessary in order for the owner maximize competitive bidding.
3. IPD collaboration: depends on which type of D-B is used.
4. Pros
 - a. The administrative burdens of project management are largely shifted to the **PPP**.
 - b. A **PPP** may be the only way to move forward on a project if total funding is not possible from other sources such as appropriations or bond issues.
 - c. The owner has just one contract for design and construction, thus a single point of responsibility
 - d. Potential conflicts between design team and constructors are minimized.
5. Cons
 - a. The most expensive approach over the life of the **PPP** contract.
 - b. It is quite possible that the PPP process circumvents public approval of a project, such as a bond election or a legislated appropriations process.
 - c. The architect owes its contractual duty to the **PPP** rather than the owner.
 - d. Owner responsible for verification that work is being properly performed, punch lists, and final acceptance (because design team is contracted through the **PPP** instead of the owner).
 - e. Less likely to involve local constructors and designers; early providers of PPP tend to be large national or multi-national companies such as Siemens and Johnson Controls.

[Next Brief: #12 Job Order Contracting](#)

Exhibit A Types of Construction-related Public Private Partnerships

Public-Private Partnerships come in a variety of forms and no two PPP projects are exactly alike.

Source: The National Council for Public-Private Partnerships.

DB: Design-Build

A DB is when the private partner provides both design and construction of a project to the public agency. The public sector partner owns the assets and has the responsibility for the operation and maintenance.

DBM: Design-Build-Maintain

A DBM is similar to a DB except the maintenance of the facility for some period of time becomes the responsibility of the private sector partner. The public sector partner owns and operates the assets.

DBO: Design-Build-Operate

A single contract is awarded for the design, construction, and operation of a capital improvement. Title to the facility remains with the public sector unless the project is a design/build/operate/ transfer or design/build/own/operate project

On a public project, the operations phase is normally handled by the public sector under a separate operations and maintenance agreement. Combining all three passes into a DBO approach maintains the continuity of private sector involvement and can facilitate private-sector financing of public projects supported by user fees generated during the operations phase.

DBOM: Design-Build-Operate-Maintain

The design-build-operate-maintain (DBOM) model is an integrated partnership that combines the design and construction responsibilities of design-build procurements with operations and maintenance. These project components are procured from the private section in a single contract with financing secured by the public sector. The public agency maintains ownership and retains a significant level of oversight of the operations through terms defined in the contract.

DBFOM: Design-Build-Finance-Operate-Maintain

With the Design-Build-Finance-Operate-Maintain (DBFOM) approach, the responsibilities for designing, building, financing, operating and maintaining are bundled together and transferred to private sector partners. There is a great deal of variety in DBFOM arrangements in the United States, and especially the degree to which financial responsibilities are actually transferred to the private sector. One commonality that cuts across all DBFOM projects is that they are either partly or wholly financed by debt leveraging revenue streams dedicated to the project. Future revenues are leveraged to issue bonds or other debt that provide funds for capital and project development costs.

DBFOMT: Design-Build-Finance-Operate-Maintain-Transfer

The Design-Build-Finance-Operate-Maintain-Transfer (DBFOMT) partnership model is the same as a DBFOM except that the private sector owns the asset until the end of the contract when the ownership is transferred to the public sector. While common abroad, DBFOMT is not often used in the United States today.

BOT: Build-Operate-Transfer

The private partner builds a facility to the specifications agreed to by the public agency, operates the facility for a specified time period under a contract or franchise agreement with the agency, and then transfers the facility to the agency at the end of the specified period of time. In most cases, the private partner will also provide some, or all, of the financing for the facility, so the length of the contract or franchise must be sufficient to enable the private partner to realize a reasonable return on its investment through user charges.

At the end of the franchise period, the public partner can assume operating responsibility for the facility, contract the operations to the original franchise holder, or award a new contract or franchise to a new private partner. The BTO model is similar to the BOT model except that the transfer to the public owner takes place at the time that construction is completed, rather than at the end of the franchise period.

Lease/Purchase

A lease/purchase is an installment-purchase contract. Under this model, the private sector finances and builds a new facility, which it then leases to a public agency. The public agency makes scheduled lease payments to the private party. The public agency accrues equity in the facility with each payment. At the end of the lease term, the public agency owns the facility or purchases it at the cost of any remaining unpaid balance in the lease.

Under this arrangement, the facility may be operated by either the public agency or the private developer during the term of the lease. Lease/purchase arrangements have been used by the General Services Administration for building federal office buildings and by a number of states to build prisons and other correctional facilities.

Sale/Leaseback

This is a financial arrangement in which the owner of a facility sells it to another entity, and subsequently leases it back from the new owner. Both public and private entities may enter into sale/leaseback arrangements for a variety of reasons. An innovative application of the sale/leaseback technique is the sale of a public facility to a public or private holding company for the purposes of limiting

governmental liability under certain statutes. Under this arrangement, the government that sold the facility leases it back and continues to operate it.

Turnkey

A public agency contracts with a private investor/vendor to design and build a complete facility in accordance with specified performance standards and criteria agreed to between the agency and the vendor. The private developer commits to build the facility for a fixed price and absorbs the construction risk of meeting that price commitment. Generally, in a turnkey transaction, the private partners use fast-track construction techniques (such as design-build) and are not bound by traditional public sector procurement regulations. This combination often enables the private partner to complete the facility in significantly less time and for less cost than could be accomplished under traditional construction techniques.

In a turnkey transaction, financing and ownership of the facility can rest with either the public or private partner. For example, the public agency might provide the financing, with the attendant costs and risks. Alternatively, the private party might provide the financing capital, generally in exchange for a long-term contract to operate the facility.

Brief #12 Job Order Contracting

A periodic series of Briefs on the methods of design and construction for public buildings in Iowa
By the Governmental Affairs Committee, Iowa Chapter, American Institute of Architects

PROJECT DELIVERY as used here means the process and procedures for the design and construction of buildings and grounds. The Briefs will summarize Iowa law and new options available for project delivery. We hope you find these informative and suggest you download and file these for future reference, as we anticipate there will be bills introduced in 2016 that address this subject.

A process common to other states is called Job Order Contracting (JOC). Its purpose is to get small projects completed quickly and easily through multi-year contracts without a lengthy procurement process. It places an emphasis on partnering and teamwork, where both the owner and the contractors have incentives to work together for project-based success. JOC criteria are performance, reliability, and quality while respecting budget and time constraints.

JOC has been used by the US Department of Defense for more than 25 years.

In all but 6 states, the legislative permission to utilize JOC includes varying constraints, such as maximum construction cost, requirement for competitive bidding after qualifications, number of quotations required, maximum value of orders and a minimum guaranteed amount, etc.

How it works:

1. Owners adopt a unit price book which provides preset costs and standard specifications for specific construction or repair tasks. Any tasks not in the book can be negotiated, priced and added to the book.
2. In response to an RFQ issued by the owner, JOC contractors are selected on the basis of qualifications, experience and performance in combination with best-value or low bid.
 - a. As part of its proposal, contractors submit a “coefficient” (multiplier) to be applied to pre-set unit prices. The coefficient includes the contractor’s overhead and profit as well as any price adjustment for local variation on prices. Variations might include local labor costs, subcontractor pricing, market conditions, and client-specific conditions.
3. JOC contractors receive an indefinite quantity contract with stipulated means of pricing. The contract duration is for a specific time period, usually multi-year. The pricing for a specific job order uses the contractual coefficient applied to the unit price book category and the quantity to determine the cost.
4. A typical process includes:
 - a. A meeting at the site is conducted to review the needed work and schedule.
 - b. If needed, an architect is employed to prepare brief plans and/or specifications.
 - c. A detailed scope of work is prepared.
 - d. The contractor prepares a price proposal using the unit price book, quantities, and the contractor’s coefficient and includes a proposed construction schedule and list of subcontractors.
 - e. The owner reviews the proposal and, if satisfied, issues a work order.
5. The contractor is motivated to build a relationship of trust by providing outstanding service and quality work in order to receive additional work orders and future JOC contracts.

SUMMARY of Job Order Contracting:

1. Contract: owner holds a multi-year contract with the JOC contractor. The owner may also hold a contract with an architect and others as required to complete their parts of the work.
2. Competitive bidding: the JOC contractor’s coefficient is competitively bid. In addition, it is possible to require bidding of subcontractor work.
3. IPD collaboration: excellent.

4. Pros
 - a. Small projects can be delivered quickly with minimal administrative requirements.
 - b. Partial or simplified design may be possible.
 - c. A working relationship of trust is likely to be established.
 - d. Change orders are likely to be eliminated.
 - e. Conflicts are minimized.
5. Cons
 - a. The development of an accurate Unit Price Book covering many situations is challenging.
 - b. Tracking of all materials and labor is required.
 - c. The required scope can include items that do not lend themselves to unit pricing.
 - d. Contractors with multi-year contracts must forecast their future costs at risk, which is likely to result in higher costs to cover the risk (cost adjustments could be a consideration for the contract, but that process has its own challenges).

[Next Brief: #13 AIA Iowa Recommendations](#)

Brief #13: AIA IOWA RECOMMENDATIONS

A series of Briefs on the methods of design and construction for public buildings in Iowa
By the Governmental Affairs Committee, Iowa Chapter, American Institute of Architects

This is the final Brief in this series. Thank you for the opportunity to offer information and our opinions about the types of Project Delivery mandated by Iowa law and other types of Delivery available.

1. Iowa Code Chapter 26 Public Construction Bidding should be improved by clarifying legislative intent for the existing process of competitive bidding.

The following is an example of an amended paragraph 26.3.2:

A governmental entity shall have an engineer licensed under chapter 542B, a landscape architect licensed under chapter 544B, or an architect registered under chapter 544A prepare plans and specifications reasonably complete for the purpose of competitive bidding of the entirety of a public improvement, and calculate the estimated total cost of a proposed public improvement.

2. Ch. 262 should be improved to clarify legislative intent for the existing method of project construction pertaining to the Board of Regents. Alternatively, the exclusion for the Board of Regents found in Iowa Code Section 26.2 should be removed.

Lacking information to the contrary, we believe the current use of Design-Build/Bridging by the Regents is not legal (see Brief #3).

Note: Two suggestions for improvements to Ch. 26 and Ch. 262 are included as Exhibit A and Exhibit B immediately following this Brief.

3. An alternative system for the design and construction of public buildings and grounds should be authorized by the Legislature, limited to use by public owners experienced in design and construction and subject to thresholds and limitations.

AIA Iowa recommends “Construction Manager at Risk/Open Book/Guaranteed Maximum Price” (see Brief #5 for more information).

4. AIA Iowa does not advocate any form of Design-Build.

Our primary reasons are:

- a. Most architectural firms cannot qualify to lead a Design-Build team due to requirements for performance bonding. As a result, the architect owes its contractual duty to the Design-Build leader rather than the public owner. The owner thus loses the architect as its advocate and close advisor along with the checks and balances overview of the construction process. This is a serious conflict with architects’ sense of professional ethics. In addition, it has the potential to negatively affect the health, safety and welfare of building occupants.
- b. In any version of Design-Build in which Programming and Conceptual Design are a required element of the selection of the Design-Builder, the architects on teams not selected are at major economic risk due to the substantial effort required to provide the Design-Builder with sufficient design information to be able to propose a price. This is an unsustainable situation for architectural firms.

5. Nevertheless, we know there is likely to be pressure placed on the Legislature by other interests, if alternative project delivery methods are considered, to also approve some form of Design-Build (see Brief #6).

If a Design-Build system would also be authorized, despite our objections, AIA Iowa prefers the following methods in descending order of preference:

- a. **Design-Build/QBS** (see Brief #7). This method averts the objection to major economic risk for architects serving unsuccessful proposals. The objection to removal from owner contact and duties remains.
 - b. **Design-Build/Bridging** (see Brief #8). This method preserves an architect-owner relationship by means of the Bridging Architect. However, the Architect of Record remains separated from owner contact and duties. This method partially reduces the major economic risk for architects serving unsuccessful proposals due to the initial efforts of the Bridging Architect for programming and conceptual design; however, the economic risk is still considerable.
 - c. **Design-Build/Concept Design and Price with Stipends** (see Brief #9). This method, in theory, averts the objection to major economic risk for architects serving unsuccessful proposals. However, it is so uneconomical for the owner that it is unlikely to be acceptable. The objection to removal from owner contact and duties remains.
6. A mandate for **Qualifications Based Selection** exists in Iowa Code 8A.302.4 and the companion Iowa Administrative Code 11-105.9. This specifically applies to projects under the responsibility of the Iowa Department of Administrative Services (see Brief #10).
 - a. **AIA Iowa encourages QBS be mandated in alternate project delivery legislation, including selection not only of architects, engineers and landscape architects, but also construction managers and constructors.**
 - b. **AIA Iowa encourages QBS language similar to that of Iowa Code 8A.302.4 be mandated within Chapter 26 to augment Section 26.4.**
 7. **AIA Iowa is opposed to the use of Public Private Partnerships for public construction** (see Brief #11).

We do not believe this method is in the public interest.

- a. A report by the Auditor General of Ontario, Canada, based on 74 PPP projects, indicates:
 - i. PPP costs were 29% higher than if the same projects were conventional public projects.
 - ii. PPP projects fell short of the architectural quality expected under a comparable budget and a traditional stipulated sum contract.
 - iii. Owners found the PPP process frustrating and costly.

8. **AIA Iowa supports consideration of Job Order Contracting** (see Brief #12).

Our support is based on restricting its use to maintenance, repair and small renovation projects less than the same limit as the bid threshold established by Iowa Code Section 26.3 (currently \$135,000).

Exhibit A: Draft Amendment #1 to Section 262.34

This approach brings aspects of Ch. 26 into Ch. 262.

262.34 Improvements — advertisement for bids — disclosures — payments.

1. When the estimated total cost of construction, repairs, or improvement of buildings or grounds under charge of the state board of regents exceeds one hundred thousand dollars, or as established in section 314.1B, the board shall advertise for bids for the contemplated improvement or construction and shall let the work to the lowest responsive, responsible bidder. The board shall have an engineer licensed under chapter 542B, a landscape architect licensed under chapter 544B, or an architect registered under chapter 544A prepare complete plans and specifications that fully describe the improvement for the purpose of competitive bidding of the entirety of the improvement and calculate the estimated total cost of the proposed improvement. However, if in the judgment of the board bids received are not acceptable, the board may reject all bids and proceed with the construction, repair, or improvement by a method as the board may determine. All plans and specifications for repairs or construction, together with bids on the plans or specifications, shall be filed by the board and be open for public inspection. All bids submitted under this section shall be accompanied by a deposit of money, a certified check, or a credit union certified share draft in an amount as the board may prescribe.

2. When the estimated total cost of the improvement exceeds one hundred thousand dollars, or as established in section 314.1B, the public improvement project shall not be divided into separate parts, regardless of intent, if the result is to avoid competitive bidding.

3. "Estimated total cost" means the estimated total cost to the board to construct a public improvement, including cost of labor, materials, equipment, and supplies, but excluding the cost of architectural, landscape architectural, or engineering design services and inspection.

3. Architectural, landscape architectural, or engineering design services procured for a public improvement are not subject to competitive bids. Architectural and engineering services shall be procured in a reasonable manner, as the board by rule may determine, on the basis of competence and qualification for the type of services required and for a fair and reasonable price.

4. This section shall not apply if private funds are offered for an improvement and such funds are conditioned upon private construction and no public funds are contributed to such construction.

~~4~~ 5. Notwithstanding subsection 1, when a delay in undertaking a repair, restoration, or reconstruction of a public improvement might cause serious loss or injury at an institution under the control of the state board of regents, the executive director of the board, or the board, shall make a finding of the need to institute emergency procedures under this subsection. The board by separate action shall approve the emergency procedures to be employed.

~~5~~ 6. A bidder awarded a contract shall disclose the names of all subcontractors, who will work on the project being bid, within forty-eight hours after the award of the contract. If a subcontractor named by a bidder awarded a contract is replaced, or if the cost of work to be done by a subcontractor is reduced, the bidder shall disclose the name of the new subcontractor or the amount of the reduced cost.

~~6~~ 7. Payments made by the board for the construction of public improvements shall be made in accordance with the provisions of chapter 573 except that:

a. Payments may be made without retention until ninety-five percent of the contract amount has been paid. The remaining five percent of the contract amount shall be paid as provided in section 573.14, except that:

(1) At any time after all or any part of the work is substantially completed in accordance with paragraph "c", the contractor may request the release of all or part of the retainage owed. Such request shall be accompanied by a waiver of claim rights under the provisions of chapter 573 from any person, firm, or corporation who has, under contract with the principal contractor or with subcontractors, performed labor, or furnished materials, service, or transportation in the construction of that portion of the work for which release of the retainage is requested.

(2) Upon receipt of the request, the board shall release all or part of the unpaid funds. Retainage that is approved as payable shall be paid at the time of the next monthly payment or within thirty days, whichever is sooner. If partial retainage is released pursuant to a contractor's request, no retainage shall be

subsequently held based on that portion of the work. If within thirty days of when payment becomes due the board does not release the retainage due, interest shall accrue on the retainage amount due as provided in section 573.14 until that amount is paid.

(3) If at the time of the request for the retainage there are remaining or incomplete minor items, an amount equal to two hundred percent of the value of each remaining or incomplete item, as determined by the board's authorized contract representative, may be withheld until such item or items are completed.

(4) An itemization of the remaining or incomplete items, or the reason that the request for release of the retainage was denied, shall be provided to the contractor in writing within thirty calendar days of the receipt of the request for release of retainage.

b. For purposes of this section, "*authorized contract representative*" means the architect or engineer who is in charge of the project and chosen by the board to represent its interests, or if there is no architect or engineer, then such other contract representative or officer as designated in the contract documents as the party representing the board's interest regarding administration and oversight of the project.

c. For purposes of this section, "*substantially completed*" means the first date on which any of the following occurs:

(1) Completion of the project or when the work has been substantially completed in general accordance with the terms and provisions of the contract.

(2) The work or the portion designated is sufficiently complete in accordance with the requirements of the contract so the board can occupy or utilize the work for its intended purpose.

(3) The project is certified as having been substantially completed by either of the following:

(a) The architect or engineer authorized to make such certification.

(b) The contracting authority representing the board.

~~7~~ **8.** The contractor shall release retained funds to the subcontractor or subcontractors in the same manner as retained funds are released to the contractor by the board. Each subcontractor shall pass through to each lower tier subcontractors all retained fund payments from the contractor.

Exhibit B: Draft Amendment #2 to Sections 26.2 and 262.34

This approach simply reestablishes competitive bidding requirements for the Regents in Ch. 26 by removing the exception in Section 26.2 while retaining other aspects of Ch. 262.34.

26.2 Definitions.

As used in this chapter, unless the context clearly indicates otherwise:

2. “*Governmental entity*” means the state, political subdivisions of the state, public school corporations, and all officers, boards, or commissions empowered by law to enter into contracts for the construction of public improvements, excluding ~~the state board of regents and~~ the state department of transportation.

262.34 Improvements — advertisement for bids — disclosures — payments.

1. ~~When the estimated cost of~~ **The board shall comply with sections 26.2 through 26.11 and 26.14 for the** construction, repairs, or improvement of buildings or grounds under charge of the state board of regents ~~exceeds one hundred thousand dollars, the board shall advertise for bids for the contemplated improvement or construction and shall let the work to the lowest responsible bidder.~~ However, if in the judgment of the board bids received are not acceptable, the board may reject all bids and proceed with the construction, repair, or improvement by a method as the board may determine. All plans and specifications for repairs or construction, together with bids on the plans or specifications, shall be filed by the board and be open for public inspection. All bids submitted under this section shall be accompanied by a deposit of money, a certified check, or a credit union certified share draft in an amount as the board may prescribe.

2. Notwithstanding subsection 1, when a delay in undertaking a repair, restoration, or reconstruction of a public improvement might cause serious loss or injury at an institution under the control of the state board of regents, the executive director of the board, or the board, shall make a finding of the need to institute emergency procedures under this subsection. The board by separate action shall approve the emergency procedures to be employed.

3. A bidder awarded a contract shall disclose the names of all subcontractors, who will work on the project being bid, within forty-eight hours after the award of the contract. If a subcontractor named by a bidder awarded a contract is replaced, or if the cost of work to be done by a subcontractor is reduced, the bidder shall disclose the name of the new subcontractor or the amount of the reduced cost.

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a. Payments may be made without retention until ninety-five percent of the contract amount has been paid. The remaining five percent of the contract amount shall be paid as provided in section 573.14, except that:

(1) At any time after all or any part of the work is substantially completed in accordance with paragraph “c”, the contractor may request the release of all or part of the retainage owed. Such request shall be accompanied by a waiver of claim rights under the provisions of chapter 573 from any person, firm, or corporation who has, under contract with the principal contractor or with subcontractors, performed labor, or furnished materials, service, or transportation in the construction of that portion of the work for which release of the retainage is requested.

(2) Upon receipt of the request, the board shall release all or part of the unpaid funds. Retainage that is approved as payable shall be paid at the time of the next monthly payment or within thirty days, whichever is sooner. If partial retainage is released pursuant to a contractor’s request, no retainage shall be subsequently held based on that portion of the work. If within thirty days of when payment becomes due the board does not release the retainage due, interest shall accrue on the retainage amount due as provided in section 573.14 until that amount is paid.

(3) If at the time of the request for the retainage there are remaining or incomplete minor items, an amount equal to two hundred percent of the value of each remaining or incomplete item, as determined by the board’s authorized contract representative, may be withheld until such item or items are completed.

(4) An itemization of the remaining or incomplete items, or the reason that the request for release of the retainage was denied, shall be provided to the contractor in writing within thirty calendar days of the receipt of the request for release of retainage.

b. For purposes of this section, “*authorized contract representative*” means the architect or engineer who is in charge of the project and chosen by the board to represent its interests, or if there is no architect or engineer, then such other contract representative or officer as designated in the contract documents as the party representing the board’s interest regarding administration and oversight of the project.

c. For purposes of this section, “*substantially completed*” means the first date on which any of the following occurs:

(1) Completion of the project or when the work has been substantially completed in general accordance with the terms and provisions of the contract.

(2) The work or the portion designated is sufficiently complete in accordance with the requirements of the contract so the board can occupy or utilize the work for its intended purpose.

(3) The project is certified as having been substantially completed by either of the following:

(a) The architect or engineer authorized to make such certification.

(b) The contracting authority representing the board.

5. The contractor shall release retained funds to the subcontractor or subcontractors in the same manner as retained funds are released to the contractor by the board. Each subcontractor shall pass through to each lower tier subcontractors all retained fund payments from the contractor.