# CITY OF COLUMBUS

## DEPARTMENT OF ENERGY

## ENERGY EFFICIENCY CONSERVATION

## BLOCK GRANT

## (EECBG)

# Columbus City Hall
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## Procurement Requirements

SECTION 00 11 00 – NOTICE TO BIDDERS

1.01 SUMMARY

A. This Section includes the Notice to Bidders. The advertised Notice to Bidders follows this page.

## NOTICE TO BIDDERS

The City of Columbus, Indiana, by and through its Board of Public Works and Safety, hereinafter referred to as the Owner, will receive bids for the Energy Efficient HVAC Replacement at the Columbus City Hall. This project is funded in whole or in part by the American Reinvestment and Recovery Act 2009 (ARRA).

**BY:** The City of Columbus
123 Washington Street
Columbus, Indiana 47201

**FOR:** Columbus City Hall
123 Washington Street
Columbus, Indiana 47201

**AT:** The Office of the Clerk Treasurer
Columbus City Hall
123 Washington Street
Columbus, Indiana 47201

**UNTIL:** 10:00 a.m., local time, on Tuesday, June 22, 2010. Bids received after that time will be returned unopened. Bids received by mail or other carrier must be addressed to Office of The Clerk Treasurer, Columbus City Hall, 123 Washington Street, Columbus, Indiana 47201, Attn: BID FOR COLUMBUS CITY HALL - ENERGY EFFICIENT HVAC and received on or before the date and time designated to be valid.

**BID OPENING:** Bids will be opened publicly and read aloud by the owner during a meeting of the Board of Public Works and Safety on Tuesday, June 22, 2010 at 10:00 a.m. local time or as soon as the orderly business of the Board will allow.

**CONTRACT TYPE:**

The contract will be a Stipulated Sum Contract under one Prime Contractor. The project consists of the replacement of HVAC controls from inefficient pneumatic to electronic direct digital controls and air handlers with high efficiency variable frequency drives for the Columbus City Hall located at 123 Washington, Columbus, IN 47201.

Bidders are required to issue a finalized material list (included in the ARRA Provisions Section) within two days after submitting their bid, which is to include all of the names of the manufacturers of steel, products, and equipment to be used in the project.

**PREBID:**

1. There shall be a MANDATORY Pre-Bid Conference, on Tuesday June 15, 2010, at 11:00 a.m., which will be held at the project site, 123 Washington, Conference Room 3, Columbus, IN 47201, to review the project and inform bidders of the applicable federal regulations including the ARRA requirements for U.S. made steel, products and materials. All prime contractors MUST attend the Pre-Bid Meeting or their bid will be rejected as non-responsive. All subcontractors, small, minority or women owned enterprises and other interested parties are invited to attend.

2. There shall be a scheduled walk-through of the existing facility on Tuesday June 15, 2010, immediately following the Pre-Bid Conference.

3. Contractors may view the job site after the scheduled walk-through by contacting **Mike Pope at (812) 376-2572** and making arrangements for entry into the facility and site.

**SPECIAL CONDITIONS:**

For special accommodations needed by physically challenged individuals planning to attend the bid opening, please call 376-2570 or TDD 375-2720 at least forty-eight (48) hours prior to the meeting.

**BID DOCUMENTS:**

The Office of the City Clerk, City Hall, 123 Washington Street, IN 47201, 812-376-2510
Construction League, 3965 N. Meridian Street, 1st Flr., Indianapolis, IN 46250
Construction Market Data, 5804 W 74th St, Indianapolis, IN 46278
F.W. Dodge Reports, 6666 E 75th St, Suite 199, Indianapolis, IN 46250

Copies of the Bidding Documents can be found on the city's site at www.columbus.in.gov.
Hard copies of the Bidding Documents can be shipped via UPS for a non-refundable cost of $15.00, payable to City of Columbus.

**BID SECURITY AND PERFORMANCE:**

Each proposal shall be accompanied by a certified check or acceptable bidder's bond made payable to the Owner, in a sum of not less than ten percent (10%) of the total amount of the highest aggregate proposal, which check or bond will be held by the Owner as evidence that the bidder will, if awarded the contract, enter into the same with the Owner upon notification from him to do so within ten (10) days of said notification.

Approved performance and payment bonds guaranteeing faithful and proper performance of the work and materials, to be executed by an acceptable surety company, will be required of the Contractor at the time he executes his contract. The bond will be in the amount of 100% of the Contract Price and must be in full force and effect throughout the term of the Construction Contract plus a period of twelve (12) months from the date of substantial completion.

**PROJECT TIME:**

In the space provided on the Bid Summary Form, each Bidder shall state when he can start the project and the time required to complete construction..

**WAGE RATES:**

Wage rates on the project shall not be less than the Federal wage scale published by the U.S. Department of Labor. A copy is in the Bid Packet.

**BID PROCEDURE:**

1. The work to be performed and the proposal to be submitted shall include sufficient and proper sums for all general construction, mechanical installation, labor, materials, permits, licenses, insurance, and so forth incidental to and required for the construction of the facilities.

2. Each proposal shall include two (2) copies of all documents as must be enclosed in a sealed envelope bearing the title of the Project and the name and address of Bidder. All proposals must be submitted on the proposal forms as identified in the Contract Documents and Bid Packet.

3. The Owner reserves the right to reject any proposal, or all proposals, or to accept any proposal or proposals, or to make such combination of proposals as may seem desirable, and to waive any and all informalities in bidding. Any proposal may be withdrawn prior to the above scheduled time for the opening of proposals or authorized postponement thereof. Any proposal received after the time and date specified shall not be considered. No proposal may be withdrawn after the scheduled closing time for receipt of bids for at least ninety (90) days.

4. A conditional or qualified Bid will not be accepted. Award will be made to the low, responsive, responsible bidder. The low, responsive, responsible bidder must be not be listed in the Federal Government's "Excluded Parties List System".

5. All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the project throughout.

6. Proposals shall be properly and completely executed on proposal forms included in the Bid Packet. Proposals shall include all information requested by Indiana Form 96 (Revised 2005) included with the Bid Packet. Under Section III of Form 96, the Bidder shall submit a financial statement. The Owner may make such investigations as deemed necessary to determine the ability of the Bidder to perform the work and the Bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the Agreement and to complete the work contemplated therein.

7. Each Bidder is responsible for inspecting the Project site(s) and for reading and being thoroughly familiar with the Contract Documents and Bid Packet. The failure or omission of any Bidder to do any of the foregoing shall in no way relieve any Bidder from any obligation with respect to its Bid.

8. Bidders on this work shall be required to comply with the provisions of the President's Executive Order No. 11246, as amended. The Bidders shall also comply with the requirements of 41 CFR Part 60 - 4 entitled Construction Contractors - Affirmative Action Requirements.

9. The Bidders attention is also called to the "Minority/Women Business Participation" requirements contained in the Project Bid Packet. The city will solicit bids from MBE/WBE firms to encourage participation on its projects but encourages contractors to use these firms as well.

10. In addition, the Contractor must meet guidelines and practices established by the Department of Housing and Urban Development and appropriate Federal regulations including: 1) Executive Order 11246, 2) Section 3 of the Housing and Community Development Act of 1968, as amended, 3) Certification of Non-Segregated Facilities, 4) OMB Circular A-102, 5) Title VI of the Civil Rights Act of 1964, 6) Section 504, Rehabilitation Act of 1973, 7) Age Discrimination Act of 1975, 8) Executive Order 12138, 9) Conflict of Interest Clause, 10) Retention and Custodial Requirements for Records Clause, 11) Contractors and Subcontractors Certifications, 12) Requirements for Implementing Sections 1512 and 1606 of the ARRA for Financial Assistance Awards, and others that may be appropriate or necessary.

11. In addition, the Contract Division procurement is subject to the Federal Regulations contained in the OMB Circular A-102, Sections B and O and the State of Indiana requirements contained in IC-36-1-9 and IC-36-1-12.

12. The Contractor must also meet guidelines and practices subject to the terms and conditions of the award, the requirements of federal law and the provisions of the American Recovery and Reinvestment Act of 2009 including:1) Reporting and Registration Requirements under Section 1512 of the ARRA (2009), 2) Use of American Iron, Steel, and Manufactured Goods under Section 1605 of ARRA, 3) Wage Rates Requirements under Section 1606 of the Recovery Act, 4) Single Audit Requirements and Additional Recovery Act Award Terms as disclosed in the ARRA Award Terms

13. Any contract(s) awarded under this Advertisement for Bids are expected to be funded in part by a grant from the American Recovery and Reinvestment Act, as administered by the City of Columbus. Neither the United States nor any of its departments, agencies or employees is or will be a party to this Notice to Bidders or any resulting contract.

**Board of Public Works and Safety**

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**Fred L. Armstrong, Mayor**

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**Steve Gochenour, Member**

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**Judy Johns Jackson, Member**

**Publish:** The Republic Friday May 22, 2010 and June 4, 2010

# INFORMATION FOR BIDDERS

## 1. PROPOSAL

The Proposal shall consist of the completed Bid Form bound with the specifications as furnished by the City, a bid bond or certified check, a power of attorney for the agent signing the bid bond, a non-collusion affidavit, a Qualification Questionnaire Form 96, and the attached non-collusion affidavit. Three copies of the proposal must be contained in a sealed envelope which shall be properly marked on the outside to show the name of the bidder, name of the work being bid upon, and the time when said bids are scheduled to be opened.

## 2. NON-COLLUSION AFFIDAVIT

The affidavit on non-collusion must be made by the person, member of the firm, or authorized officer of the corporation making the proposal. If made by a member of a firm or officer of a corporation, the affidavit must be made on behalf of said firm or corporation.

## 3. SIGNATURES

Each proposal must be signed in ink by the person, member of firm, president, or vice president, and the secretary of the corporation, making the proposal. The title, position, or character of the person signing said proposal must be shown under said person's name.

## 4. FILING

All proposals on file at the time scheduled for opening will be publicly opened and read. They shall be available thereafter for inspection by any interested party.

## 5. WITHDRAWAL OF PROPOSAL

No proposal may be withdrawn, altered, or qualified after the scheduled time for opening. All proposals shall remain in effect for thirty (30) days unless set out otherwise in the advertised Notice to Bidders.

## 6. RIGHT TO REJECT BIDS

The City expressly reserves the right to reject any and all bids and to judge the character and sufficiency of any samples of materials submitted or materials bid upon.

## 7. AWARD

The City will, without unnecessary delay and at the earliest possible time, make the award to the lowest responsive and responsible bidder. The award will be based on the base bid.

## 8. FORMS

All forms required are bound with the specifications and are to be completed by each

bidder and returned with the specifications. **Contents of bid package must be clearly marked on outside of sealed envelope and contain 3 copies of your bid or proposal**. A duplicate set of the bid form and/or a disk of the bid form in electronic format may be secured from the engineer's office for the bidder's use.

## 9. Prices

Prices must always be stated in figures and shall be stated in words also where requested. All prices must be so distinctly expressed that there can be no doubt as to the meaning thereof. Illegible figures shall be just cause for rejection of any proposal.

## 10. Bid Bond - Certified Check

Each bidder shall include as part of the proposal a certified check, a cashiers check, or a satisfactory bid bond in an amount of not less than 10 percent (10%) of the bid amount. In no case shall any check or bond be less than the sum of one hundred dollars ($100). Each check shall be certified by a reputable bank doing business in the State of Indiana. Certified checks will be returned to bidders whose proposals are rejected. The check or bond submitted by the successful bidder shall be retained by the City until said bidder has entered into contract and posted satisfactory performance bond. If the successful bidder does refuse or neglect to enter into a contract with the City within seven (7) days from the time of notification of the acceptance of the bid, said check or bond shall be forfeited to the City and liquidated damages as ascertained for failure to do so.

## 11. Unit Prices

Bidders must divide their bid amount into unit prices as called for on bid form included in the Proposal.

## 12. Estimated Quantities

The estimated quantities shown on the Bid Form and the Engineer's estimates of the quantities required to complete the work shown on the plans, or required by the specifications, or both, are intended to be true and correct but are not guaranteed. If there is a difference between the quantities shown on the Bid Form and the quantities actually required to complete the work as shown on the plans or required by the specifications, or both, the plans and specifications shall govern. If the plans are changed by the direction of the City Engineer, the contract will be altered by change order to cover the necessary additions or deductions completed at the unit price submitted by the bidder. Insertion of new items in the bid form by the bidder may result in the Proposal being declared a counter proposal and may result in it being rejected.

## 13. Performance Bond/Insurance

At the time of signing the contract, the successful bidder will be required to furnish 100% Performance and Payment Bond and a certificate of insurance as provided by the General

Specifications.

## 14. Qualifications

Persons, firms, or corporations submitting proposals shall be prepared to demonstrate to the satisfaction of the City Engineer that they have the proper facilities, expert workers, necessary capital, and experience to execute the contract in a proper manner.

## 15. Choice of Materials and Equipment

In cases where the specifications permit the choice of one material from a group of two or more satisfactory materials, the City Engineer reserves the right to designate the material that shall be used, unless the Bidder makes a designation of the material being bid upon, when he submits his proposal. The same condition applies to equipment.

## 16. Examination of Plans, Specifications, and Sites

Plans and Specifications are on file in the office of the City Clerk-Treasurer and Bidders are expected to examine them before submitting their proposals. Bidders must satisfy themselves by personal examination of the location of the proposed work, and by such other means as they may choose, as to the accuracy of the estimates of the work to be done, and shall not at any time after the opening of the bids dispute or complain of the statement or estimate of the Engineer, nor assert that there was any misunderstanding as to the nature or amount of the work to be done. The estimate is believed to be correct, but the City will not be responsible for any errors in the estimate or for any omissions in the plans.

## 17. Payment

The cost of improvements herein provided for may be paid for by special assessment, by tax funds, or by donated monies or any combination thereof as set out elsewhere in these proceedings.

SECTION 00 21 00 – INSTRUCTION TO BIDDERS

1.01 SUMMARY

A. This Section includes the Instructions to Bidders, AIA Document A701. The Instructions to Bidders follows this page.

1.02 RELATED SECTIONS

A. Related Sections include the following:

1. Division 00 Section "Supplementary Instructions to Bidders."

# AIA® Document A701™ – 1997

## *Instructions to Bidders*

for the following PROJECT:
*(Name and location or address)*

Replacement of Air Handlers w/New VFDs & Direct-Digital Controls

THE OWNER:
*(Name and address)*

CITY HALL Facilities Director (MIKE POPE)

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

THE ARCHITECT:
*(Name and address)*

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## ARTICLE 1 DEFINITIONS

§ 1.1 Bidding Documents include the Bidding Requirements and the proposed Contract Documents. The Bidding Requirements consist of the Advertisement or Invitation to Bid, Instructions to Bidders, Supplementary Instructions to Bidders, the bid form, and other sample bidding and contract forms. The proposed Contract Documents consist of the form of Agreement between the Owner and Contractor, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications and all Addenda issued prior to execution of the Contract.

§ 1.2 Definitions set forth in the General Conditions of the Contract for Construction, AIA Document A201, or in other Contract Documents are applicable to the Bidding Documents.

§ 1.3 Addenda are written or graphic instruments issued by the Architect prior to the execution of the Contract which modify or interpret the Bidding Documents by additions, deletions, clarifications or corrections.

§ 1.4 A Bid is a complete and properly executed proposal to do the Work for the sums stipulated therein, submitted in accordance with the Bidding Documents.

§ 1.5 The Base Bid is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bidding Documents as the base, to which Work may be added or from which Work may be deleted for sums stated in Alternate Bids.

§ 1.6 An Alternate Bid (or Alternate) is an amount stated in the Bid to be added to or deducted from the amount of the Base Bid if the corresponding change in the Work, as described in the Bidding Documents, is accepted.

§ 1.7 A Unit Price is an amount stated in the Bid as a price per unit of measurement for materials, equipment or services or a portion of the Work as described in the Bidding Documents.

§ 1.8 A Bidder is a person or entity who submits a Bid and who meets the requirements set forth in the Bidding Documents.

§ 1.9 A Sub-bidder is a person or entity who submits a bid to a Bidder for materials, equipment or labor for a portion of the Work.

## ARTICLE 2 BIDDER'S REPRESENTATIONS

§ 2.1 The Bidder by making a Bid represents that:

§ 2.1.1 The Bidder has read and understands the Bidding Documents or Contract Documents, to the extent that such documentation relates to the Work for which the Bid is submitted, and for other portions of the Project, if any, being bid concurrently or presently under construction.

§ 2.1.2 The Bid is made in compliance with the Bidding Documents.

§ 2.1.3 The Bidder has visited the site, become familiar with local conditions under which the Work is to be performed and has correlated the Bidder's personal observations with the requirements of the proposed Contract Documents.

§ 2.1.4 The Bid is based upon the materials, equipment and systems required by the Bidding Documents without exception.

## ARTICLE 3 BIDDING DOCUMENTS

### § 3.1 COPIES

§ 3.1.1 Bidders may obtain complete sets of the Bidding Documents from the issuing office designated in the Advertisement or Invitation to Bid in the number and for the deposit sum, if any, stated therein. The deposit will be refunded to Bidders who submit a bona fide Bid and return the Bidding Documents in good condition within ten days after receipt of Bids. The cost of replacement of missing or damaged documents will be deducted from the deposit. A Bidder receiving a Contract award may retain the Bidding Documents and the Bidder's deposit will be refunded.

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§ 3.1.2 Bidding Documents will not be issued directly to Sub-bidders unless specifically offered in the Advertisement or Invitation to Bid, or in supplementary instructions to bidders.

§ 3.1.3 Bidders shall use complete sets of Bidding Documents in preparing Bids; neither the Owner nor Architect assumes responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

§ 3.1.4 The Owner and Architect may make copies of the Bidding Documents available on the above terms for the purpose of obtaining Bids on the Work. No license or grant of use is conferred by issuance of copies of the Bidding Documents.

**§ 3.2 INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS**

§ 3.2.1 The Bidder shall carefully study and compare the Bidding Documents with each other, and with other work being bid concurrently or presently under construction to the extent that it relates to the Work for which the Bid is submitted, shall examine the site and local conditions, and shall at once report to the Architect errors, inconsistencies or ambiguities discovered.

§ 3.2.2 Bidders and Sub-bidders requiring clarification or interpretation of the Bidding Documents shall make a written request which shall reach the Architect at least seven days prior to the date for receipt of Bids.

§ 3.2.3 Interpretations, corrections and changes of the Bidding Documents will be made by Addendum. Interpretations, corrections and changes of the Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon them.

**§ 3.3 SUBSTITUTIONS**

§ 3.3.1 The materials, products and equipment described in the Bidding Documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution.

§ 3.3.2 No substitution will be considered prior to receipt of Bids unless written request for approval has been received by the Architect at least ten days prior to the date for receipt of Bids. Such requests shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitution including drawings, performance and test data, and other information necessary for an evaluation. A statement setting forth changes in other materials, equipment or other portions of the Work, including changes in the work of other contracts that incorporation of the proposed substitution would require, shall be included. The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

§ 3.3.3 If the Architect approves a proposed substitution prior to receipt of Bids, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.

§ 3.3.4 No substitutions will be considered after the Contract award unless specifically provided for in the Contract Documents.

**§ 3.4 ADDENDA**

§ 3.4.1 Addenda will be transmitted to all who are known by the issuing office to have received a complete set of Bidding Documents.

§ 3.4.2 Copies of Addenda will be made available for inspection wherever Bidding Documents are on file for that purpose.

§ 3.4.3 Addenda will be issued no later than four days prior to the date for receipt of Bids except an Addendum withdrawing the request for Bids or one which includes postponement of the date for receipt of Bids.

§ 3.4.4 Each Bidder shall ascertain prior to submitting a Bid that the Bidder has received all Addenda issued, and the Bidder shall acknowledge their receipt in the Bid.

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## ARTICLE 4 BIDDING PROCEDURES

### § 4.1 PREPARATION OF BIDS

**§ 4.1.1** Bids shall be submitted on the forms included with the Bidding Documents.

**§ 4.1.2** All blanks on the bid form shall be legibly executed in a non-erasable medium.

**§ 4.1.3** Sums shall be expressed in both words and figures. In case of discrepancy, the amount written in words shall govern.

**§ 4.1.4** Interlineations, alterations and erasures must be initialed by the signer of the Bid.

**§ 4.1.5** All requested Alternates shall be bid. If no change in the Base Bid is required, enter "No Change."

**§ 4.1.6** Where two or more Bids for designated portions of the Work have been requested, the Bidder may, without forfeiture of the bid security, state the Bidder's refusal to accept award of less than the combination of Bids stipulated by the Bidder. The Bidder shall make no additional stipulations on the bid form nor qualify the Bid in any other manner.

**§ 4.1.7** Each copy of the Bid shall state the legal name of the Bidder and the nature of legal form of the Bidder. The Bidder shall provide evidence of legal authority to perform within the jurisdiction of the Work. Each copy shall be signed by the person or persons legally authorized to bind the Bidder to a contract. A Bid by a corporation shall further give the state of incorporation and have the corporate seal affixed. A Bid submitted by an agent shall have a current power of attorney attached certifying the agent's authority to bind the Bidder.

### § 4.2 BID SECURITY

**§ 4.2.1** Each Bid shall be accompanied by a bid security in the form and amount required if so stipulated in the Instructions to Bidders. The Bidder pledges to enter into a Contract with the Owner on the terms stated in the Bid and will, if required, furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds if required, the amount of the bid security shall be forfeited to the Owner as liquidated damages, not as a penalty. The amount of the bid security shall not be forfeited to the Owner in the event the Owner fails to comply with Section 6.2.

**§ 4.2.2** If a surety bond is required, it shall be written on AIA Document A310, Bid Bond, unless otherwise provided in the Bidding Documents, and the attorney-in-fact who executes the bond on behalf of the surety shall affix to the bond a certified and current copy of the power of attorney.

**§ 4.2.3** The Owner will have the right to retain the bid security of Bidders to whom an award is being considered until either (a) the Contract has been executed and bonds, if required, have been furnished, or (b) the specified time has elapsed so that Bids may be withdrawn or (c) all Bids have been rejected.

### § 4.3 SUBMISSION OF BIDS

**§ 4.3.1** All copies of the Bid, the bid security, if any, and any other documents required to be submitted with the Bid shall be enclosed in a sealed opaque envelope. The envelope shall be addressed to the party receiving the Bids and shall be identified with the Project name, the Bidder's name and address and, if applicable, the designated portion of the Work for which the Bid is submitted. If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "SEALED BID ENCLOSED" on the face thereof.

**§ 4.3.2** Bids shall be deposited at the designated location prior to the time and date for receipt of Bids. Bids received after the time and date for receipt of Bids will be returned unopened.

**§ 4.3.3** The Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.

**§ 4.3.4** Oral, telephonic, telegraphic, facsimile or other electronically transmitted bids will not be considered.

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### § 4.4 MODIFICATION OR WITHDRAWAL OF BID

§ 4.4.1 A Bid may not be modified, withdrawn or canceled by the Bidder during the stipulated time period following the time and date designated for the receipt of Bids, and each Bidder so agrees in submitting a Bid.

§ 4.4.2 Prior to the time and date designated for receipt of Bids, a Bid submitted may be modified or withdrawn by notice to the party receiving Bids at the place designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder. Written confirmation over the signature of the Bidder shall be received, and date- and time-stamped by the receiving party on or before the date and time set for receipt of Bids. A change shall be so worded as not to reveal the amount of the original Bid.

§ 4.4.3 Withdrawn Bids may be resubmitted up to the date and time designated for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders.

§ 4.4.4 Bid security, if required, shall be in an amount sufficient for the Bid as resubmitted.

## ARTICLE 5 CONSIDERATION OF BIDS

### § 5.1 OPENING OF BIDS

At the discretion of the Owner, if stipulated in the Advertisement or Invitation to Bid, the properly identified Bids received on time will be publicly opened and will be read aloud. An abstract of the Bids may be made available to Bidders.

### § 5.2 REJECTION OF BIDS

The Owner shall have the right to reject any or all Bids. A Bid not accompanied by a required bid security or by other data required by the Bidding Documents, or a Bid which is in any way incomplete or irregular is subject to rejection.

### § 5.3 ACCEPTANCE OF BID (AWARD)

§ 5.3.1 It is the intent of the Owner to award a Contract to the lowest qualified Bidder provided the Bid has been submitted in accordance with the requirements of the Bidding Documents and does not exceed the funds available. The Owner shall have the right to waive informalities and irregularities in a Bid received and to accept the Bid which, in the Owner's judgment, is in the Owner's own best interests.

§ 5.3.2 The Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bidding Documents, and to determine the low Bidder on the basis of the sum of the Base Bid and Alternates accepted.

## ARTICLE 6 POST-BID INFORMATION

### § 6.1 CONTRACTOR'S QUALIFICATION STATEMENT

Bidders to whom award of a Contract is under consideration shall submit to the Architect, upon request, a properly executed AIA Document A305, Contractor's Qualification Statement, unless such a Statement has been previously required and submitted as a prerequisite to the issuance of Bidding Documents.

### § 6.2 OWNER'S FINANCIAL CAPABILITY

The Owner shall, at the request of the Bidder to whom award of a Contract is under consideration and no later than seven days prior to the expiration of the time for withdrawal of Bids, furnish to the Bidder reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. Unless such reasonable evidence is furnished, the Bidder will not be required to execute the Agreement between the Owner and Contractor.

### § 6.3 SUBMITTALS

§ 6.3.1 The Bidder shall, as soon as practicable or as stipulated in the Bidding Documents, after notification of selection for the award of a Contract, furnish to the Owner through the Architect in writing:

.1 a designation of the Work to be performed with the Bidder's own forces;

.2 names of the manufacturers, products, and the suppliers of principal items or systems of materials and equipment proposed for the Work; and

.3 names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for the principal portions of the Work.

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§ 6.3.2 The Bidder will be required to establish to the satisfaction of the Architect and Owner the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in the Bidding Documents.

§ 6.3.3 Prior to the execution of the Contract, the Architect will notify the Bidder in writing if either the Owner or Architect, after due investigation, has reasonable objection to a person or entity proposed by the Bidder. If the Owner or Architect has reasonable objection to a proposed person or entity, the Bidder may, at the Bidder's option, (1) withdraw the Bid or (2) submit an acceptable substitute person or entity with an adjustment in the Base Bid or Alternate Bid to cover the difference in cost occasioned by such substitution. The Owner may accept the adjusted bid price or disqualify the Bidder. In the event of either withdrawal or disqualification, bid security will not be forfeited.

§ 6.3.4 Persons and entities proposed by the Bidder and to whom the Owner and Architect have made no reasonable objection must be used on the Work for which they were proposed and shall not be changed except with the written consent of the Owner and Architect.

## ARTICLE 7 PERFORMANCE BOND AND PAYMENT BOND

### § 7.1 BOND REQUIREMENTS

§ 7.1.1 If stipulated in the Bidding Documents, the Bidder shall furnish bonds covering the faithful performance of the Contract and payment of all obligations arising thereunder. Bonds may be secured through the Bidder's usual sources.

§ 7.1.2 If the furnishing of such bonds is stipulated in the Bidding Documents, the cost shall be included in the Bid. If the furnishing of such bonds is required after receipt of bids and before execution of the Contract, the cost of such bonds shall be added to the Bid in determining the Contract Sum.

§ 7.1.3 If the Owner requires that bonds be secured from other than the Bidder's usual sources, changes in cost will be adjusted as provided in the Contract Documents.

### § 7.2 TIME OF DELIVERY AND FORM OF BONDS

§ 7.2.1 The Bidder shall deliver the required bonds to the Owner not later than three days following the date of execution of the Contract. If the Work is to be commenced prior thereto in response to a letter of intent, the Bidder shall, prior to commencement of the Work, submit evidence satisfactory to the Owner that such bonds will be furnished and delivered in accordance with this Section 7.2.1.

§ 7.2.2 Unless otherwise provided, the bonds shall be written on AIA Document A312, Performance Bond and Payment Bond. Both bonds shall be written in the amount of the Contract Sum.

§ 7.2.3 The bonds shall be dated on or after the date of the Contract.

§ 7.2.4 The Bidder shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

## ARTICLE 8 FORM OF AGREEMENT BETWEEN OWNER AND CONTRACTOR

Unless otherwise required in the Bidding Documents, the Agreement for the Work will be written on AIA Document A101, Standard Form of Agreement Between Owner and Contractor Where the Basis of Payment Is a Stipulated Sum.

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SECTION 00 22 00 – SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

1.01 SUMMARY

A. The following supplements modify, change, delete from, and add to the instructions to Bidders, AIA Document A701, 1997 Edition. Where any Article of the Instructions to bidders is modified or any Paragraph, Subparagraph, or Clause shall remain in effect.

1.02 ARTICLE 3 – BIDDING DOCUMENTS

3.3 Substitutions: Revise the first sentence of 3.3.2 to read as follows:

No substitution will be considered prior to receipt of Bids unless written request for approval has been received by Facilities Director Mike Pope in time to allow issuance of an addendum. Bidders must not anticipate such consideration unless the written request has been received by Mike Pope, Facilities Director at least ten days prior to the date for receipt of Bids.

3.4 Addenda: Add the following to 3.4.3:

.1 Facilities Director Mike Pope may issue an addendum no later than four days prior to the date for receipt of bids to accommodate unusual circumstances as determined solely be the Architect, such as an addendum withdrawing the request for bids or one that postpones the date for receipt of bids. In such circumstance, Facilities Director Mike Pope will endeavor to notify Bidders of Record via telephone and facsimile in addition to mailing the addendum.

1.03 ARTICLE 4 – BIDDING PROCEDURES

4.1 Preparation of Bids:

Delete Subparagraph 4.1.1 in its entirety and substitute the following:

4.1.1 Bid shall be submitted on State Form 96 and on the Supplementary Bid Form included in the project Manual.

.1 Submit two (2) signed original copies of each bid on forms indicated with one (1) copy of each bid on forms indicated
.2 Include one (1) copy of Bid Security
.2 Include one (1) copy of Financial Statement
.3 Include one (1) copy of Affirmative Action Signature Form.

Delete Subparagraph 4.1.6 in its entirety.

4.2 Bid Security

Add the following to Subparagraph 4.2.1:

.1 Each bid shall be accompanied by a bid security in the amount of ten percent (10%) or the bid amount.

4.3 Submission of Bids:

Add the following to Subparagraph 4.3.1:

.1 Envelopes for sealed bids shall have the following information plainly indicated on them:

SEALED BIDS FOR THE CITY HALL AIR HANDLERS AND DIRECT-DIGITAL CONTROLS REPLACEMENT

4.5 State of Indiana Requirements

4.5.1 The Bid Form is Form No. 96, "General Bid for Public Work," prescribed by the State Board of Accounts of Indiana, revised 2005, modified for the requirements of this Project. This form also includes the "Non-Collusion Affidavit."

4.5.2 Submit with the Bid a fully completed Financial Statement on the form included.

4.6 Wage Rates:

4.6.1 Minimum wage rates have been established for this project pursuant to Indiana Prevailing Wage Law.

4.6.2 All bids submitted shall be based on the established minimum wage rates.

4.6.3 Davis-Bacon Act must be followed.

4.7 Tax Exemption:

4.7.1 Section not used.

4.8 Affirmative Action:

4.8.1 Submit a written declaration specifically titled "Affirmative Action Signature Form" on the proposal forms provided, stating that Bidder will not discriminate against any employee or applicant for the employment in the performance of Contract with respect to hire, tenure, terms, conditions, privileges of employment, or any matter indirectly related to employment because of race, religion, color, sex, disability, national origin, or ancestry. Bidder shall comply with this statement as well as these contractual promises. Failure to submit this declaration will constitute a material defect in the bid, a breach of this covenant, and may be considered a material breach of the contract.

1.04 ARTICLE 5 – CONSIDERATION OF BIDS

5.3 Acceptance of Bid (Award): Add 5.3.2 as follows:

5.3.2 Not used

1.05 ARTICLE 6 – POST BID INFORMATION

6.1 Contractor's Qualification Statement: AIA Form A305 is not a requirement. See requirements for Financial Statement elsewhere in this Supplement.

6.3 Submittals: Delete Subparagraph 6.3.1 in its entirety and substitute the following:

6.3.1 Within 48 hours of bid opening the two apparent low bidders shall submit, via fax, completed Schedule of Subcontractors, Manufacturers, and Products enclosed with the Bidding Requirements in the Project Manual.

6.3.1.1 The Owner and Architect/Engineer have the right to choose the Subcontractor, Material, or Equipment for any particular item where the Bidder fails to list same.

6.3.1.2 When products are named and a list of acceptable manufacturers is included in the specifications, Bidders shall select one of the named manufacturers in his Schedule of Subcontractors, Manufacturers, and Products.

6.3.1.3 After the submission of this Schedule of Subcontractors, Manufacturers, and Products by the Architect/Engineer and Owner, the Contractor shall make no changes or alterations without the written approval of the Architect/Engineer and the Owner.

1.06 ARTICLE 7 – PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

7.1 Bond Requirements: Delete Subparagraphs 7.1.1, 7.1.2, and 7.1.3 in their entirety and substitute the following:

7.1.1 Prior to execution of the Contract, the Bidder shall provide a Performance Bond and a Labor and Material Payment Bond as described in the Notice to Bidders, each in an amount equal to one hundred percent (100%) of the Contract Sum drawn in favor of the Owner.

END OF SECTION

SECTION 00 31 00 – American Recovery Reinvestment Act of 2009

1.01 Buy American (Section 1605)

A. Special ARRA Provisions and Their Application to EECBG
B. The Buy American Provisions
C. Buy American Compliance Signature Sheet (must be returned with bid)

1.02 Davis Bacon Act (Section 1606)

A. Includes rules and regulations to follow Davis Bacon Act (Federal Construction Wage Scale included in another section)

1.03 American Recovery Reinvestment Act of 2009

A. Provides Summary of requirements including providing DUNS number and registration in Central Contractor Requirements database.

# SPECIAL ARRA PROVISIONS AND THEIR APPLICATION TO EECBG

Energy Efficiency and Conservation Block Grant Program Notice 10-011

**Buy American (Section 1605)**

Important information about section 1605 of Title XVI of the Recovery Act (the Buy American provision) is available on a dedicated section of the website of DOE's Office of Energy Efficiency and Renewable Energy (EERE): http://www1.eere.energy.gov/recovery/buy_american_provision.html. This section will be updated regularly with new documents pertaining to the Buy American provision (e.g., Frequently Asked Questions (FAQs), formal guidance, and waivers).

The Recovery Act Buy American provision provides that, subject to three listed exceptions, none of the funds appropriated or otherwise made available by the Act may be used for a project for the construction, alteration, maintenance, or repair of a public building or public work unless all the iron, steel, and manufactured goods used are produced in the United States. There is no requirement with regard to the origin of components or subcomponents in manufactured goods used in a project, as long as the final manufacturing occurs in the United States (see 2 CFR 176.70(a)(2)(ii)).

Grantees are accountable for ensuring that the Buy American requirements are met, and thus should include the requirements in all Requests for Proposals (RFPs) and contracts. Grantees are encouraged to ask contractors to verify their compliance with the Recovery Act Buy American provision, and contractors can solicit evidence of compliance from domestic manufacturers in cases of uncertainty. Additional guidance on documenting compliance with the Buy American provision is forthcoming, and will be available on the EERE Buy American website.

Recipients should retain documentation that supports their compliance with the Buy American provisions. During post-award monitoring activities, which may include desk reviews, on-site reviews, audits, and other activities, recipients may be asked to produce records sufficient to verify compliance with the Recovery Act Buy American provisions.

Such documentation could include: (1) language in contractual documents that obligates sub-recipients and/or contractors to comply with the Buy American provisions; (2) receipts for items produced domestically indicating such; (3) a documented certification from the contractor, vendor, distributor, supplier, or manufacturer verifying that the product was manufactured domestically; (4) detailed and verifiable information supporting the claim that the manufactured good has undergone substantial transformation in the United States; and/or (5) other reasonable documentation per the discretion of the state, local, or tribal government financial assistance recipient demonstrating compliance with the Buy American provisions. (May 24, 2010 Guidance for Recipients…)

*The waiver for exemption expired on March 31, 2010. This information is being provided as informational for those that knew the waiver for HVAC existed.*

Grantees may request a waiver of the Buy American provision for a specific product or project if they feel that one of the three listed exemptions applies.

The three exceptions are:

1. That applying the Buy American Recovery Act provision would be inconsistent with the public interest ("Public Interest");
2. That the iron, steel and relevant manufactured goods are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality ("Nonavailability");
3. That the inclusion of iron, steel, and manufactured goods produced in the United States will increase the cost of the overall project by more than 25 percent ("Unreasonable Cost").

Requests for waivers should be submitted to the DOE award official, who is the Project Officer assigned to the award in the Award Assistance Agreement. The Project Officer or Contracting Officer will work with the Buy American coordinator at DOE Headquarters to determine whether to recommend approval of a waiver request to the Assistant Secretary of Energy for Energy Efficiency and Renewable Energy.

EERE recognizes that some grantees have encountered difficulties in procuring certain compliant manufactured goods. Therefore, EERE is conducting a thorough, transparent, and expedited process to issue additional guidance to grantees and to identify manufactured goods that may qualify for a determination of inapplicability (a "waiver") of the Buy American provision, based on the nonavailability criterion outlined in 2 CFR 176.80.

EERE is collaborating with a diversity of domestic manufacturing stakeholders in implementing our plan to scour the domestic manufacturing landscape in search of producers before making any nonavailability determinations. EERE has developed a process to catalogue and disseminate the technical specifications for the manufactured goods being submitted for nonavailability waiver considerations, in order to quickly and systematically ascertain whether or not there is domestic manufacturing capacity for these items.

Waiver request instructions are outlined in Section 1605 of the Recovery Act and 2 CFR 176.140(c) and 176.160(c), and summarized beginning on page three of the document entitled "Guidance on the Buy American Provisions as Applied to EERE Projects funded by ARRA," available at http://www1.eere.energy.gov/recovery/pdfs/eere_program_guidance_buy_american.pdf.. Please submit waiver requests through the Project Officer to the EERE Buy American coordinator.

Please be advised that fillable templates for waiver requests are currently being developed and will be available soon on the EERE Buy American webpage.

All waivers of the Recovery Act Buy American provision will be published in the *Federal Register* within two weeks of issuance and posted on the EERE Buy American webpage. EERE has thus far issued two waivers, which can be accessed at http://www1.eere.energy.gov/recovery/buy_american_provision.html.

As the rules and regulations are continually be updated, there may be additional information or procedures requested after bid submission.

# The Buy American Provision

Title XVI, Section 1605 of the American Recovery and Reinvestment Act

The use of **Recovery Act** funds to **construct, alter, repair, or maintain** a **public building or public work** must be undertaken with **American-made iron, steel, and manufactured goods**.

1. **Recovery Act.**
   The BA provision only applies to Recovery Act funds. If the funds were not appropriated by the Recovery Act, then the BA provision DOES NOT APPLY.

2. **Construction, alteration, repair, or maintenance.**
   The BA provision applies to construction, alteration, repair, or maintenance. If the use of the Recovery Act funds is acquisition only, or any other activity not covered by the four covered uses, then the BA provision DOES NOT APPLY.

3. **Public building or public work.**
   The BA provision applies only to public buildings and public works. If the use of the Recovery Act funds to construct, alter, repair, or maintain a facility or piece of infrastructure that is not publicly owned, then the BA provision DOES NOT APPLY.

   The effect of this portion of the BA provision is to exclude the HPRP program, because that program does not concern the construction, alteration, repair, or maintenance of public buildings or public works.

   In the context of the BA provision, public buildings and public works are owned by governmental entities. Facilities owned by private non-profit entities, regardless of their classification for CDBG purposes, are not covered by the BA provision. Facilities where a governmental entity, such as a public housing agency, maintains a marginal ownership interest, such as .01%, and exercises no management authority are not covered by the BA provision. Facilities where a governmental entity maintains a more than marginal ownership interest and exercises managerial authority or acts as developer are subject to the BA provision. Note that a lease term of 15 years or more constitutes effective ownership for the purposes of the BA provision.

4. **American-made iron, steel, and manufactured goods.**
   The BA provision covers all manufactured goods, in addition to iron and steel, used in the construction, alteration, repair, or maintenance of a public building or work. The provision does not extend to the components of the manufactured goods. The manufacturing must occur in the U.S., regardless of whether the manufacturer is domestic- or foreign-owned.

   Certain items have already been determined to be domestically non-available. These items, such as goat hair canvas, may be used under the terms of 2 CFR 176.80 without violating the BA

provision. The grantee must first seek domestically produced sources before acquisition. A complete list of approved non-available items is at 48 CFR 25.104(a).

HUD grantees that are listed in Subpart B of the OMB guidance at 2 CFR 176 that are party to an international agreement listed at 2 CFR 176.90 may purchase goods under that international agreement from a designated party of that agreement and treat the goods as though they are American-made, as long as the contract for the entire project for which the goods will be used is equal to or greater than $7,443,000.

## National Exceptions

To document national exceptions grantees should maintain documentation to demonstrate compliance.

1. **Exception was granted by another federal agency.**
   HUD will apply the exception to the remaining work on the project.

2. **Exception was granted by another HUD program office.**
   The grantee must submit a written justification for applying the exception. CPD must concur.

3. **Publicly-owned housing contains 7 or fewer units.**

4. **Grant size is less than $100,000.**
   Includes grants from the federal government to direct grantees and from states to state grant recipients.

5. **Contract size is less than $100,000.**
   Entire contract must be less than the simplified acquisition threshold at 24 CFR 85.36.

6. **Project is substantially under contract before the grant agreement is signed.**
   Requires documentation consistent with Addendum 3, Part I of CPD Notice CPD-09-05.

7. **Project is substantially under construction before the grant agreement is signed.**
   Requires documentation consistent with Addendum 3, Part II of CPD Notice CPD-09-05.

## Grantee Specific Exceptions

Exceptions can be requested at any time and point in the development process for one of three reasons:

1. American-made goods are of insufficient availability, for satisfactory quantity and quality.
2. Use of American-made goods will increase costs by more than 25%.
3. Use of American-made goods is inconsistent with public interest.

Requests are sent to the cognizant CPD field office. Grantees must complete Addendum 2 checklist and provide adequate supporting documentation. Field office and counsel will review for completeness and

forward to Headquarters for Assistant Secretary to approve or deny. Requests that are made after obligations have been entered into must include justification for failing to foresee the issue.

## Compliance with the Provision

When the BA provision applies, the grantee must include appropriate language in all requests for proposals, sub-recipient agreements, bidding documents, and contracts. Addendum 1 contains sample language. OMB interim guidance specifies standard terms at 2 CFR 176 or 74 FR 18449.

## Sanctions for Noncompliance

HUD will follow the terms of 2 CFR 176.30 and reserves the right to take corrective or remedial action including:

1. Requiring the removal and replacement of the unauthorized material;
2. Reducing the award by the cost of the unauthorized material;
3. Suspending or terminating the agreement, barring further awards, and referring the matter for criminal investigation.

***Disclaimer:** The above was prepared by Grant McFann, HUD CPD Representative, as a summary of federal statute, OMB regulations, and HUD policy regarding the Buy American provision in the American Recovery and Reinvestment Act. Readers should not rely solely on its contents to design and implement programs. Reliance on this summary will not excuse failure to comply with the Recovery Act or its implementing regulations.

# Buy America

The contractor agrees to comply with 49 U.S.C. 5323(j) and 49 C.F.R. Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in ARRA funded projects are produced in the United States, unless a waiver has been granted or the product is subject to a general waiver.

A bidder or offeror must submit to the recipient the appropriate Buy America certification (below) with all bids or offers on ARRA funded contracts, except those subject to a general waiver. Bids or offers that are not accompanied by a completed Buy America certification must be rejected as non responsive. This requirement does not apply to lower tier subcontractors.

**Certification requirement for procurement of steel, iron, or manufactured products.**

*Certificate of Compliance with 49 U.S.C. 53239(j)(l)*

The bidder or offeror hereby certifies that it will meet the requirements of 49 U.S.C. 5323(j)(l) and the applicable regulations in 49 C.F.R. Part 661.5.

Date_____

Signature_____

Company Name_____

Title_____

*Certificate of Compliance with 49 U.S.C. 53239(j)(l)*

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(l) and 49 C.F.R. Part 661.5., but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Date_____

Signature_____

Company Name_____

Title_____

# SPECIAL ARRA PROVISIONS AND THEIR APPLICATION TO EECBG

Energy Efficiency and Conservation Block Grant Program Notice 10-011

**Davis-Bacon Act (DBA) (Section 1606)**

"Guidance on Implementation of the Davis-Bacon Act Prevailing Wage Requirements for Energy Efficiency Conservation Block Grant Recipients Under the American Recovery and Reinvestment Act of 2009" was issued on December 17, 2009, and amended on April 12, 2010. EECBG Program Notice 10-004A is available at http://eere.energy.gov/wip/pdfs/eecbg_program_guidance_dba_121709_10-004_revised_april_2010.pdf.

The Davis-Bacon Act (DBA) is applicable to contracts of the United States in excess of $2,000 for the construction, alteration, and/or repair (including painting and decorating) of public buildings or public works, but not routine maintenance.

The DBA requires all contractors and subcontractors to pay laborers and mechanics employed on a covered contract wages and fringe benefits determined by the Secretary of Labor to be prevailing for corresponding classes of employees engaged on similar projects in the locality. In numerous additional laws, Congress has specifically required adherence to DBA prevailing wage requirements where they might not otherwise be applicable — such as it did under the Recovery Act.

The DBA applies to all contractors and subcontractors that employ laborers and/or mechanics performing work under an EECBG Grant Award. Section 1606 of the Recovery Act specifically requires that all laborers and mechanics employed by contractors and subcontractors on any project "funded directly by or assisted in whole or in part by" Recovery Act funds be paid prevailing wages as determined by the Secretary of Labor. Thus, contractors and subcontractors must ensure that any laborers and mechanics employed on projects funded or assisted in whole or in part by Recovery Act funds are paid prevailing wages as determined by the Secretary of Labor for construction, alteration, and/or repair (including painting and decorating).

All recipients (who directly receive a grant), grantees, and subgrantees, with the exception of State and local governments that use their own employees to perform this work, must also pay their own employees performing the work of laborers and mechanics the DBA prevailing wage rate. If the entity receiving Recovery Act assistance for such projects contracts out the work, it must ensure that the DBA requirements flow down to the entities that employ the laborers and mechanics to do the work. DBA requirements do not apply to U.S. Territories. Tribal governments are exempt from DBA requirements only when the Tribal government performs work using its employees. Grantees/subgrantees and contractors/subcontractors must attach the applicable wage determinations to the solicitation, assistance agreement, and resulting contract or grant. A grantee or subgrantee and contractors/subcontractors contracting out work on a covered project must also attach the applicable wage determination(s) to the solicitation and resulting contract or grant.3

If an ongoing construction project that was awarded prior to the Recovery Act or that was not assisted or funded in whole or part by Recovery Act funds later receives Recovery Act funding, the Contracting Officer will insert the appropriate wage determination(s) in relevant contracts and federal assistance agreements effective as of the date the Recovery Act funding is approved for use on the project.

If county grantees in any State do not have published Department of Labor (DOL) wage rates, then the county must submit a request for conformance to the DOL. The conformance process often takes up to six weeks to be completed, so entities should plan its project activities accordingly.

Wage rates are minimum requirements; employers may pay higher wages and benefits.

Contractors/subcontractors and grantees/subgrantees of a Recovery Act-funded EECBG program grant must maintain payrolls and basic records during the course of the work and for a period of at least 3 years following the completion of a project. Even though DOL regulations state the records are to be kept for 3 years from the end of the contract/subgrant, EECBG grant award terms tell the recipient to follow 10 CFR 600.242 (by reference), which requires the recipient to maintain all supporting documentation for 3 years after the submission of the final cost report, which is usually 90 days after the end of the grant project period. If a contract/subgrant falls within the overall grant agreement project period, the recipient would need to maintain the payroll records for the potentially longer period of the Grant award and not just 3 years after the contract/subgrant ended.

Contractors/subcontractors and grantees/subgrantees of a Recovery Act-funded EECBG program grant must also ensure that all laborers and mechanics on such a project are paid on a weekly basis and must submit weekly certified payroll records to the contracting and administering agency, beginning with the first week of the project. In addition, they must post DOL's DBA wage determination and poster at the jobsite. For EECBG project records, the recipient maintains the records on behalf of DOE.

Payroll records are subject to audit by the DOL and the DOE. Failure to prove compliance may subject the contractor to debarment from all government contracts for up to three years.

DOE retains the authority to investigate, monitor, and enforce DBA requirements. DOE must report semi-annually to DOL regarding dollar value of awards/contracts, number of investigations, number of complaints, results of the investigations, and any back pay owed to laborers and mechanics.

DOL General Wage Determinations can be found at www.dol.gov.

For Project Wage Determinations, DOE will utilize DOL Form SF-308.

A copy of the DBA Poster is available at http://www.dol.gov/whd/regs/compliance/posters/fedprojc.pdf.

Responses to Frequently Asked Questions related to DBA requirements are in the WIP FAQ database and may be search for at http://www1.eere.energy.gov/eere_faq/default.aspx?pid=10&spid=1.

# American Recovery Reinvestment Act of 2009
(Summary)

Funding for this Community Development Block Grant project is under the American Recovery and Reinvestment Act of 2009. All contractors desiring to participate in the must obtain a Data Universal Numbering System (DUNS) number. A DUNS number may be requested via the web at:
Http://www.grants.gov/applicants/request_duns_number.jsp.

Contractors must register with the Central Contractor Registration (CCR) database. CCR is the primary registrant database for the US Federal Government. CCR collects, validates, stores, and disseminates data in support of agency acquisition missions. Registration information on the CCR website can be found at
http://www.ccr.gov/startregistration.aspx. *This will be verified with the successful bidder.*

The successful contractor will be required to provide a project sign consistent with criteria established by the Secretary of Housing and Community Development.

The successful contractor must not be debarred or suspended from working on federally assisted projects. https://www.epls.gov . *The city will verify this information.*

The successful contractor shall comply with government wide guidance and standard award terms established by the Office of Management and Budget (OMB) concerning the implementation of the Recovery Act, including Requirements for Implementing Sections 1512, 1605, and 1606 of the American Recovery and Reinvestment Act of 2009 for Financial Assistance Awards, 74 Fed Reg. 18449 (April 23, 2009) (to be codified at 2 CFR Part 176) (as now in effect and as may be amended from time to time). The project shall comply with Section 100 of the CDBG Statute concerning the Davis-Bacon Act. The Grantee (contractor) shall comply with reporting requirements established by HUD and OMB (including all revisions to such reporting requirements).

Section 1605 – Buy America – The Recovery Act imposes a Buy American requirement on the funding provided thereunder. Specifically, section 1605 (the Buy American requirement) of the Recovery Act states that:

(a) None of the funds appropriated or otherwise made available by this Act may be used for a project for the construction, alteration, maintenance, or repair of a public building or public work unless all of the iron, steel, and manufactured goods used in the project are produced in the United States.

Section 1512 – FederalReporting.gov - The contractor shall provide to the City an estimate of the number of new positions created and filed, positions retained, or previously existing unfilled positions that are filled or retained as a result of this contract. The estimated number shall be expressed as full-time equivalent (FTE), calculated cumulatively as all hours worked divided by the total number of hours in a full-time schedule. The contractor shall update the information regarding jobs creation and retention on a quarterly basis, and shall provide each updated report to the City no later

than 3 business days after the end of the quarter. (First reporting period will be 10/1/09 – 12/31/09.)

Section 1606 – Wage Rate Requirements - Notwithstanding any other provision of law and in a manner consistent with other provisions in this Act, all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to this Act shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code. With respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (64 Stat. 1267; 5 U.S.C. App.) and section 3145 of title 40, United States Code. (Davis Bacon wage rates are supplied in the bid document.)

Section 3 Requirements – Section 3 is one of HUD's tools for ensuring that the expenditure of federal funds in economically distressed communities has a multiplier effect by targeting local low- and very low-income persons and qualified businesses for jobs, training and contracting opportunities. Each recipient of Section 3 covered financial assistance (and their contractors and subcontractors) are required to comply with the requirements of Section 3 for ***new*** employment, training, or contracting opportunities that are created during the expenditure of covered funding. This responsibility includes:

1. Implementing procedures to notify Section 3 residents and business concerns about training and employment opportunities generated by Section 3 covered assistance;
2. Implementing procedures to notify Section 3 business concerns about the availability of contracting opportunities generated by Section 3 covered assistance.
3. Notifying potential contractors completing work on Section 3 covered projects of their responsibilities;
4. Incorporating the Section 3 Clause into all covered solicitations and contracts (see 24 CFR Part 135.38);
5. Facilitating the training and employment of Section 3 residents and the awarding of contracts to Section 3 business concerns;
6. Assisting and actively cooperating with the Department in obtaining the compliance of contractors and subcontractors;
7. Refraining from entering into contracts with contractors that are in violation with the Section 3 regulations;
8. Documenting actions taken to comply with Section 3; and
9. Submitting Section 3 Annual Summary Reports in accordance with 24 CFR Part 135.90.

SECTION 00 32 00 – FEDERAL CONTRACT PROVISIONS

1.01 Federal contract provisions which provides the federal requirements associated with federal funds.

# FEDERAL

# CONSTRUCTION

# CONTRACT

# PROVISIONS

Required Contract Provisions
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*Note: This document is to be used as a guide for contractors and subcontractors working on Community Development Block Grant projects in the State of Indiana. It is not verified to be all inclusive and the contractor is fully responsible for complying with all federal regulations applicable to the CDBG program.*

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## Required Contract Provisions
## Federally Assisted Construction Contracts

### SECTION 1 General Information

BONDING REQUIREMENTS:
IC 36-1-12-4.5, IC 36-1-12-13.1, IC 36 1-12-14 e

The minimum requirements for contracts exceeding $100,000 for construction shall be as follows:

1. A Bid Bond or a certified check shall be filed with each bid equivalent to 5% of the bid price as assurance that the bidder will, upon acceptance of their bid, execute such contractual documents as may be required within the time specified.

2. A Performance Bond for 100% of the contract price to assure fulfillment of the contractor's obligations under the contract.

3. A Payment Bond for 100% of the contract price to assure payment of all persons supplying labor and material in the execution of the work provided for in the contract.

NOTE: The Bid Bond must be submitted with the bid and the Performance Bond and Payment Bond must be provided to the project owner *before* construction begins on the project.

RETAINAGE: IC 36-1-12-14

Public work contracts in excess of $100,000 require the retainage of 5% of the dollar value of all work satisfactorily completed by the contractor(s). The escrow agent shall be selected by mutual agreement between the board of the awarding agency and the contractor(s). The contractor shall be paid in full within sixty one (61) days after the date of substantial completion. If upon substantial completion of the public work there remain uncompleted minor items, an amount equal to two hundred percent (200%) of the value of each item as determined by the architect/engineer shall be withheld until the item is completed.

CHANGE ORDERS: IC 36-1-12-18

A change order may not be issued before commencement of the actual construction except in the case of an emergency. In such a case, the board of awarding agency must make a declaration and the board's minutes must show the nature of the emergency. The total of all change orders issued that increase the scope of the project may not exceed twenty percent (20%) of the amount of the original contract. A change order issued as a result of circumstances that could not have been reasonably foreseen does not increase the scope of the project. All change orders must be prepared by the project engineer or architect and approved and signed by the board of the awarding agency and the contractor. All change orders must be directly related to the original public work project.

CONFLICT OF INTEREST: 24 CFR 570.611

In the procurement of supplies, equipment, construction and/or services by recipients and subrecipients, any conflict of interest is prohibited. No persons who exercise or have exercised any functions or responsibilities with respect to CDBG activities assisted under this part or who are in a position to participate in a decision making process or gain inside information with regard to such activities, may obtain a financial interest or benefit from a CDBG-assisted activity, or have a financial interest in any contract, subcontract, or agreement with respect to a CDBG-assisted activity, or with respect to the proceeds of the CDBG-assisted activity, either for themselves or those with whom they have business or immediate family ties, during their tenure or for one year thereafter.

MINORITY BUSINESS PARTICIPATION:

On each CDBG funded project, the grantee is required to maintain documentation supporting their best efforts to achieve the state goal of 10% MBE/WBE participation. Only those businesses duly registered on IDOA's Minority and Women's Business Enterprises List may be counted toward the 10% goal. That list is available at www.in.gov/idoa/2352.htm.

CODE OF CONDUCT: 24 CFR 84.42

The recipient of CDBG grant funds shall maintain written standards of conduct governing the performance of employees engaged in the award and administration of contracts stating that no employee, officer, or agent shall participate in the selection, award, or administration of a contract supported by Federal funds if a real or apparent conflict of interest would be involved.

RECORD RETENTION: 24 CFR 85.42

Financial records, supporting documents, statistical records and all other records pertinent to a grant shall be retained for a period of five years. If any litigation, claim, negotiation, audit or other action is started before the expiration of the five-year period, the records shall be retained until all litigations, claims or audit findings involving the records have been resolved. The retention period starts from the date of the submission of the final expenditure report or, from the date of the submission of the annual financial status report covering the last expenditure of grant funds for that year.

CONTRACT PROVISIONS:

In addition to provisions defining a sound and completed procurement contract, any recipient of federal funds shall include the following:

## Required Contract Provisions
## Federally Assisted Construction Contracts

Contracts other than small purchases shall contain provisions or conditions which will allow for administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as may be appropriate.

All contracts in excess of $25,000 shall contain suitable provisions for termination by the grantee including the manner by which it will be effected and the basis for settlement. In addition, such contract shall describe conditions under which the contract may be terminated for default as well as conditions where the contract may be terminated because of circumstances beyond the control of the contractor.

Contracts, subcontracts, and subgrants of amounts in excess of $100,000 shall contain a provision which requires compliance with all applicable standards, orders, or requirements issued under Section 306 of the Clean Air Act (42 USC 1857 (h)), Section 508 of the Clear Water Act (33 USC 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR, Part 15), which prohibit the use under non-exempt federal contracts, grants or loans of facilities included on the EPA List of Violating Facilities. The provision shall require reporting of violations to the grantor agency and to the US EPA Administrator for Enforcement (EN-329).

These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract.

Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract that may in turn be made. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

A breach of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12.

CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING:

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 – 49 CFR 20)

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief that:

No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed with this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000, and that all such recipients shall certify and disclose accordingly.

Any and all contractors, subcontractors, independent contractors, suppliers, facilitators or any person participating in any program or activity receiving federal financial assistance shall:

a. Prohibit discrimination based on race, color or national origin under Title VI of the Civil Rights Act of 1964;
b. Prohibit discrimination on the basis of sex under Title VII of the Civil Rights Act of 1964 and amended by the Equal Employment Opportunity Act of 1972;
c. Prohibit discrimination on the basis of age under the Age Discrimination Act of 1975;
d. Prohibit discrimination on the basis of disability under Section 504 of the Rehabilitation Act of 1973;
e. Take affirmative action to employ and advance qualified disabled people under Section 503 of the Rehabilitation Act of 1973;

f. Promote and insure equal opportunity for all persons, without regard to race, color, religion, sex, or national origin under Executive Order 11246 as Amended;
g. Display posters which summarize the Federal laws prohibiting job discrimination based on race, color, sex, national origin, religion, age, equal pay and disability;
h. Prohibit discrimination based on disability under the Americans with Disabilities Act of 1990;
i. Assure that all buildings assigned for public use be designed, constructed and altered so as to be accessible to and usable by persons with physical disabilities under the Architectural Barriers Act of 1968; and
j. Avoid maintaining or providing any segregated facilities.

Any and all contractors, subcontractors, independent contractors, suppliers, facilitators or any person participating in any program or activity receiving federal financial assistance shall:

Comply with the provisions for the elimination of Lead-Based paint hazards under 24 CFR Part 35;

Take all necessary precautions to guard against damages to property and injury to persons.

ACCESS TO RECORDS: 24 CFR 85.42-e

The awarding agency and the Comptroller General of the United States, or any of their authorized representatives, shall have the right of access to any pertinent books, documents, papers or other records which are pertinent to the grant in order to make audits, examinations, excerpts and transcripts. The right of access in this section must not be limited to the required retention period but shall last as long as the records are retained.

## SECTION 2 Equal Employment Opportunity Regulations

NONDISCRIMINATION:

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more)

Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contractor Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.D. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO.

The contractor will work with the awarding agency and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

The contractor will accept as his operating policy the following statement:
"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."

EEO OFFICER:

The contractor will designate and make known to the awarding agency an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

DISSEMINATION OF POLICY:

All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO officer.

All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority employees.

## Required Contract Provisions
## Federally Assisted Construction Contracts

Notices and posters identifying the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

RECRUITMENT OF EMPLOYEES:

When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

In the event the contractor has a valid bargaining agreement providing for exclusive hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementations of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

SELECTION OF SUBCONTRACTORS, PROCUREMENT OF MATERIALS AND LEASING OF EQUIPMENT:

The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

Disadvantaged business enterprises (DBE) as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees.

The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

EEO RECORDS AND REPORTS:

The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives. The records kept by the contractor shall document the following:

The number of minority and non-minority group members and women employed in each work classification on the project;

The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

NONSEGREGATED FACILITIES:

Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.

By the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, all parties certify that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location under its control, where segregated facilities are maintained. The contractor agrees that a breach of this certification is a violation of the EEO provisions of this contract. The contractor further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

As used in this certification, the term "segregated facilities" refers to facilities provided for employees which are segregated by explicit directive, or on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override, (e.g. disabled parking).

The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of $10,000 or more and that it will retain such certifications in its files.

FALSIFICATION OF DOCUMENTS:

The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

The contractor or subcontractor shall make the records required available for inspection, copying, or transcription by authorized representatives of the awarding agency or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the awarding agency, HUD or DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds of debarment action pursuant to 29 CRF 5.12.

SECTION 3

The purpose of Section 3 requires that recipients of HUD funds and their contractors and subcontractors provide jobs and other economic opportunities to low-income persons. The CDBG project service area for Section 3 compliance will be the nonmetropolitan county.

Contractors and subcontractors participating in federally-assisted projects are required to track and report their activity relative to the hiring and training of low and moderate income persons and the use of local businesses owned by low-income persons. This information must be reported by all contractors and subcontractors prior to project completion utilizing the "Section 3: Economic Opportunities for Low and Very Low Income Persons" form.

All Section 3 covered contracts shall include the following Section 3 clause:

"The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 170lu (Section 3). The parties to this contract agree to comply with this Section and certify that they are under no contractual or other impediment that would prevent them from complying with these regulations. The contractor agrees to notify each labor organization or representative workers with which the contractor has a collective bargaining agreement of the contractor's commitments under this Section 3 clause and include this clause in every subcontract subject to compliance with the Section 3 regulations. The contractor will certify that any vacant employment positions, including training positions, that are filled after the contractor is selected but before the contract is executed with persons other than those to whom the regulations of 24 CFR Part 135 require employment opportunities to be directed, were not filled to circumvent the contractors obligations under this section of the Code of Federal Regulations. Noncompliance with HUD's regulations in this Part may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts."

OFFICE OF FEDERAL CONTRACT COMPLIANCE (OFCCP)

For federally assisted construction contracts, the OFCCP administers and enforces Executive Order 11246, as amended. This Order prohibits discrimination and requires affirmative action to ensure equal employment opportunity without regard to race, color, sex, religion and/or national origin; and the implementing regulations at 41 CFR Parts 60-1 through 60-50. Generally, all contractors and subcontractors holding non-exempt federally assisted construction contracts and subcontracts exceeding $10,000 must comply with Executive Order 11246.

A "Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity" (Executive Order 11246) is to be included in the bid solicitations for all federally assisted construction contracts and subcontracts in excess of $10,000. The Notice, which is published at 41 CFR 60-4.2, informs the contractor/bidder of the affirmative action requirements imposed under Executive Order 11246, including the specified goals for minority and female participation.

Covered federally assisted construction contracts and subcontracts must incorporate the equal opportunity clause found at 41 CFR 60-1.4(b).

The equal opportunity clause may be expressly included in each contract or subcontract or incorporated by reference. Importantly, the equal opportunity clauses are deemed to be a part of every covered construction contract and subcontract even if they are not physically incorporated in the contract documents.

In addition to the equal opportunity clauses, federally assisted construction contracts and subcontracts in excess of $10,000 must include the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" which are found at 41 CFR 60-4.3. The specifications describe the affirmative action obligations and set forth the specific affirmative action steps the construction contractor must implement in order to make a good faith effort to achieve the goals for minority and female participation that were listed in the bid solicitation.

Additional information regarding OFCCP Compliance may be found at www.dol.gov/esa/OFCCP or, at 1-800-397-6251. The Indiana office is located at 46 East Ohio Street, Suite 419, Indianapolis, IN 46204 and phone number is 317-226-5860.

## SECTION 3 Federal Labor Standards Regulations

Any and all contractors, subcontractors, independent contractors, suppliers, facilitators or any person participating in any program or activity receiving federal financial assistance shall:

Comply with federal labor standards regulations as follows:

1. Davis-Bacon Act
2. Contract Work Hours and Safety Standards Act
3. Copeland Act (Anti-Kickback Act)
4. Fair Labor Standards Act

## Required Contract Provisions
## Federally Assisted Construction Contracts

The U. S. Department of Labor has published rules and regulations corresponding to the above regulations at Title 29 CFR Parts 1, 3, 5, 6 and 7.

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION PRIMARY COVERED TRANSACTIONS:

(Applicable to all Federal-aid contracts 49 CFR 29)

By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

The terms "covered transaction", "debarred", "suspended", "ineligible", "lower tier covered transaction", "participant", "person", "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

If a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statement, or receiving stolen property.

Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in this certification; and

Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION APPLICABLE TO ALL SUBCONTRACTS, PURCHASE ORDERS AND OTHER LOWER TIER TRANSASTIONS OF $25,000 OR MORE

By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

## Required Contract Provisions
## Federally Assisted Construction Contracts

The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contract the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

If a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PAYMENT OF PREVAILING WAGES:

Applicable to all Federal-aid (CDBG) construction contracts exceeding $2,000 and to all related subcontracts:

All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c) the full amounts of wages and bona fide fringe benefits or cash equivalents thereof due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor, hereinafter called "the wage determination", which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1 (b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid. Regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill.

Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

## Required Contract Provisions
## Federally Assisted Construction Contracts

All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3 and 5 are herein incorporated by reference in this contract.

PERSONNEL ACTIONS:

Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

CONFORMANCE RATES:

The awarding agency shall require that any class of laborers or mechanics employed under the contract which is not listed in the wage determination shall be classified in conformance with the wage decision.

An additional classification, wage rate and fringe benefits may be approved only when the following criteria have been met:

(1) The work to be performed by the additional classification is not performed by any other classification in the wage determination;
(2) The additional classification is utilized in the area by the construction industry;
(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

If the contractor or subcontractor, laborers and mechanics, awarding agency and the contracting officer agree on the classification and conformance wage rate including the amount designated for fringe benefits where appropriate, the conformance rates shall be paid to all workers performing work in that classification from the first day on which work is performed in the classification.

In the event the contractor or subcontractors, laborers and mechanics, awarding agency and the contracting officer do not agree on the proposed classification and wage rate including the amount designated for fringe benefits where appropriate, the contracting officer (OCRA Labor Standards Compliance Officer) shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting agency or will notify within the 30-day period that additional time is necessary. Any work performed during the waiting period will be paid at the base wage and fringe benefit amount conditionally assigned by the contracting officer until a conformance rate is assigned by the Wage and Hour Administrator.

PAYMENT OF FRINGE BENEFITS:

Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof. If the contractor or subcontractor does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met.

APPRENTICE PARTICIPATION:

Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program duly registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau.

The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed.

In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the rations and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

OVERTIME REQUIREMENTS:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of labors, mechanics, watchmen, or guards (including apprentices) shall require or permit any laborer, mechanic, watchman, guard or apprentice in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, guard or apprentice receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

WITHHOLDING PAYMENT FOR UNPAID WAGES:

The awarding agency shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

VIOLATIONS AND LIABILITY FOR UNPAID WAGES AND LIQUIDATED DAMAGES:

In the event of any violation of the requirements set forth in this document, the contractor and any subcontractor responsible for the violation shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States for liquidated damages.

STATEMENTS AND PAYROLLS:

Applicable to all Federally-assisted construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.

The Contractor shall comply with the Copeland Regulations of the Secretary of Labor.

Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, watchmen, helpers and guards working at the site of the work.

The payroll records shall contain the name and the last four digits of the social security number of each employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. Whenever the Secretary of Labor has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices under approved programs shall maintain written evidence of the registration of apprentices and ratios and wage rates prescribed in the applicable programs.

Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the awarding agency or an agent thereof, a certified payroll report of wages paid each of its employees. The payroll submitted shall set out accurately and completely all of the information required to be

maintained. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

That the payroll for the payroll period contains the information required to be maintained and that such information is correct and complete;

That such laborer or mechanic employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

That each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance".

## SECTION 4 Health and Safety

SAFETY AND ACCIDENT PREVENTION:

In the performance of this contract the contractor shall comply with all applicable Federal, State and local laws governing safety, health and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the awarding agency may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3333).

Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

## Required Contract Provisions
## Federally Assisted Construction Contracts

IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT:

(Applicable to all Federally assisted construction contracts and to all related subcontracts of $100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U. S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

That the firm shall promptly notify the awarding agency of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

That the firm agrees to include or cause to be included the requirements of this Section in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

# SAFETY AND HEALTH PROTECTION ON THE JOB

OSHA

**INTRODUCTION:**
The intent of the Indiana Occupational Safety and Health Act of 1974, Indiana Code 22-8-1.1, is to assure, so far as possible, safe and healthful working conditions for the workers in the State.

The Indiana Department of Labor has primary responsibility for administering and enforcing the Act and the safety and health standards promulgated under its provisions.

Requirements of the Act include the following:

**EMPLOYERS:**
Each employer shall establish and maintain conditions of work which are reasonably safe and healthful for employees and free from recognized hazards that are causing or likely to cause death or serious physical harm to employees. The Act further requires that employers comply with the Occupational Safety and Health Standards, Rules and Regulations.

**EMPLOYEES:**
All employees shall comply with occupational safety and health standards and all rules, regulations, and orders issued under the Act which are applicable to their own actions and conduct.

**INSPECTION:**
The Act requires that an opportunity be provided for employees and their representatives to bring possible safety and health violations to the attention of the Department of Labor inspector in order to aid the inspection. This requirement may be fulfilled by allowing a representative of the employees and a representative of the employer to accompany the inspector during inspection. Where there is no employee representative, the inspector shall consult with a reasonable number of employees.

**COMPLAINT:**
Employees have the right to file a complaint with the Department of Labor. There shall be an inspection where reasonable grounds exist for the Department of Labor to believe there may be a hazard. Unless permission is given by the employees complaining to release their names, they will be withheld from the employer. Telephone Number (317) 232-2693.

The Act provides that no employer shall discharge, suspend or otherwise discriminate in terms of conditions of employment against any employees for their failure or refusal to engage in unsafe practices or for filing a complaint, testifying or otherwise acting to exercise their rights under the Act.

Employees who believe they have been discriminated against may file a complaint with the Department of Labor within 30 days of the alleged discrimination. Please note that extensions of the 30-day filing requirement may be granted under certain special circumstances, such as where the employer has concealed, or misled the employee regarding the grounds for discharge. However, a grievance-arbitration proceeding which is pending would not be considered justification for an extension of the 30-day filing period. The Commissioner of Labor shall investigate said complaint and upon finding discrimination in violation of the Act, shall order the employer to provide necessary relief to the employees. This relief may include rehiring, reinstatement to the job with back pay, and restoration of seniority.

All employees are also afforded protection from discrimination under Federal Occupational Safety and Health Act and may file a complaint with the U.S. Secretary of Labor within 30 days of the alleged discrimination.

**VIOLATION NOTICE:**
When an alleged violation of any provision of the Act has occurred, the Department of Labor shall promptly issue a written order to the employer, who shall be required to post it prominently at or near the place where the alleged violation occurred until it is made safe and required safeguards are provided or 3 days, whichever is longer.

**PROPOSED PENALTIES:**
The Act provides for CIVIL penalties of not more than $7,000 for each serious violation and for CIVIL penalties of up to $7,000 for each non-serious violation. Any employer who fails to correct a violation within the prescribed abatement period may be assessed a CIVIL penalty of not more than $7,000 for each day beyond the abatement date during which such violation continues. Also, any employer who knowingly or repeatedly violates the Act may be assessed CIVIL penalties of not more than $70,000 for each violation. A minimum penalty of $5,000 may be imposed for each knowing violation. A violation of posting requirements can bring a penalty of up to $7,000.

**VOLUNTARY ACTIVITY:**
The Act encourages efforts by labor and management, before the Department of Labor inspections, to reduce injuries and illnesses arising out of employment.

The Act encourages employers and employees to reduce workplace hazards voluntarily and to develop and improve safety and health programs in all workplaces and industries.

Such cooperative action would initially focus on the identification and elimination of hazards that could cause death, injury, or illness to employees and supervisors.

The Act provides a consultation service to assist in voluntary compliance and give recommendations for the abatement of cited violations. This service is available upon a written request from the employer to the Bureau of Safety Education and Training (BuSET). Telephone Number (317) 232-2688.

**COVERAGE:**
The Act does not cover those hired for domestic service in or about a private home and those covered by a federal agency. Those exempted from the Act's coverage include employees in maritime services, who are covered by U.S. Department of Labor, and employees in atomic energy activities who are covered by the Atomic Energy Commission.

**NOTE:**
Under a plan approved March 6, 1974, by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), the State of Indiana is providing job safety and health protection for workers throughout the State. OSHA will monitor the operation of this plan to assure that continued approval is merited. Any person may make a complaint regarding the State administration of this plan directly to the OSHA Regional Office. Regional Administrator, Region V, U.S. Department of Labor, Occupational Safety and Health Administration, 230 South Dearborn Street, Chicago, Illinois 60604, Telephone Number (312) 353-2220.

**MORE INFORMATION:**

INDIANA DEPARTMENT OF LABOR
402 West Washington Street, Room W195
Indianapolis, Indiana 46204
Telephone: (317) 232-2655
TT/ Voice: 1-800-743-3333
Fax: (317) 233-3790
Internet: http://www.state.in.us/dol

Lori Torres

Lori Torres
Commissioner of Labor

EMPLOYERS: This poster must be displayed prominently in the workplace.

# NOTICE TO ALL EMPLOYEES

## Working on Federal or Federally Financed Construction Projects

**MINIMUM WAGES**

You must be paid not less than the wage rate in the schedule posted with this Notice for the kind of work you perform.

**OVERTIME**

You must be paid not less than one and one-half times your basic rate of pay for all hours worked over 40 a week. There are some exceptions.

**APPRENTICES**

Apprentice rates apply only to apprentices properly registered under approved Federal or State apprenticeship programs.

**PROPER PAY**

If you do not receive proper pay, contact the Contracting Officer listed below:

or you may contact the nearest office of the Wage and Hour Division, U.S. Department of Labor. The Wage and Hour Division has offices in several hundred communities throughout the country. They are listed in the U.S. Government section of most telephone directories under:
**U.S. Department of Labor**
**Employment Standards Administration**

WH Publication 1321
Revised January 1986
☆U.S. GOVERNMENT PRINTING OFFICE: 1988-209-866

U.S. Department of Labor
Employment Standards
Administration
Wage and Hour Division

# Equal Employment Opportunity is THE LAW

**Employers Holding Federal Contracts or Subcontracts**

Applicants to and employees of companies with a Federal government contract or subcontract are protected under the following Federal authorities:

**RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN**

Executive Order 11246, as amended, prohibits job discrimination on the basis of race, color, religion, sex or national origin, and requires affirmative action to ensure equality of opportunity in all aspects of employment.

**INDIVIDUALS WITH DISABILITIES**

Section 503 of the Rehabilitation Act of 1973, as amended, prohibits job discrimination because of disability and requires affirmative action to employ and advance in employment qualified individuals with disabilities who, with reasonable accommodation, can perform the essential functions of a job

**VIETNAM ERA, SPECIAL DISABLED, RECENTLY SEPARATED, AND OTHER PROTECTED VETERANS**

The Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended, 38 U.S.C. 4212, prohibits job discrimination and requires affirmative action to employ and advance in employment qualified Vietnam era veterans, qualified special disabled veterans, recently separated veterans, and other protected veterans. A recently separated veteran is any veteran during the three-year period beginning on the date of such veteran's discharge or release from active duty in the U.S military, ground, naval or air service.

**RETALIATION**

Retaliation is prohibited against a person who files a charge of discrimination, participates in an OFCCP proceeding, or otherwise opposes discrimination under these Federal laws

Any person who believes a contractor has violated its nondiscrimination or affirmative action obligations under the authorities above should contact immediately

The Office of Federal Contract Compliance Programs (OFCCP), Employment Standards Administration, U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, DC 20210, (202) 693-0101 or call an OFCCP regional or district office listed in most telephone directories under U.S Government, Department of Labor For individuals with hearing impairment, OFCCP's TTY number is (202) 693-1337

**Private Employment, State and Local Governments, Educational Institutions, Employment Agencies and Labor Organizations**

Applicants to and employees of most private employers, state and local governments, educational institutions, employment agencies and labor organizations are protected under the following Federal laws:

**RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN**

Title VII of the Civil Rights Act of 1964, as amended, prohibits discrimination in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment, on the basis of race, color, religion, sex (including pregnancy and sexual harassment) or national origin Religious discrimination includes failing to reasonably accommodate an employee's religious practices where the accommodation does not impose undue hardship.

**DISABILITY**

Title I and Title V of the Americans with Disabilities Act of 1990 (ADA), as amended, protect qualified applicants and employees with disabilities from discrimination in hiring, promotion, discharge, pay, job training, fringe benefits, classification, referral, and other aspects of employment on the basis of disability

The law also requires that covered entities provide qualified applicants and employees with disabilities with reasonable accommodations, unless such accommodations would impose an undue hardship on the employer.

**AGE**

The Age Discrimination in Employment Act of 1967, as amended, protects applicants and employees 40 years of age or older from discrimination on the basis of age in hiring, promotion, discharge compensation, terms, conditions or privileges of employment

**SEX (WAGES)**

In addition to sex discrimination prohibited by Title VII of the Civil Rights Act of 1964, as amended, the Equal Pay Act of 1963, as amended, prohibits sex discrimination in payment of wages to women and men performing substantially equal work, in jobs that require equal skill, effort and responsibility under similar working conditions, in the same establishment.

**RETALIATION**

Retaliation is prohibited against a person who files a charge of discrimination, participates in a discrimination proceeding, or otherwise opposes discrimination under these Federal laws

If you believe that you have been discriminated against under any of the above laws, and to ensure that you meet strict procedural timelines to preserve the ability of EEOC to investigate your complaint and to protect your right to file a private lawsuit, you should immediately contact:

The U.S. Equal Employment Opportunity Commission (EEOC), Washington, DC 20507 or an EEOC field office by calling toll free (1-800) 669-4000. For individuals with hearing impairments, EEOC's toll free TTY number is 1-800 669-6820.

**Programs or Activities Receiving Federal Financial Assistance**

**RACE, COLOR, SEX, NATIONAL ORIGIN**

In addition to the protection of Title VII of the Civil Rights Act of 1964, as amended, Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color or national origin in programs or activities receiving Federal financial assistance. Employment discrimination is covered by Title VI if the primary objective of the financial assistance is provision of employment, or where employment discrimination causes or may cause discrimination in providing services under such programs.

Title IX of the Education Amendments of 1972 prohibits employment discrimination on the basis of sex in educational programs or activities which receive Federal assistance.

**INDIVIDUALS WITH DISABILITIES**

Section, 504 of the Rehabilitation Act of 1973, as amended, prohibits employment discrimination on the basis of disability in any program or activity which receives Federal financial assistance in the federal government, public or private agency. Discrimination is prohibited in all aspects of employment against persons with disabilities who, with or without reasonable accommodation, can perform the essential functions of a job.

If you believe you have been discriminated against in a program of any institution which receives Federal assistance, you should contact immediately the Federal agency providing such assistance

Publication OFCCP 1420
Revised August 2008

U. S. Department of Housing and Urban Development

EQUAL HOUSING OPPORTUNITY

## We Do Business in Accordance With the Federal Fair Housing Law

(The Fair Housing Amendments Act of 1988)

# It is illegal to Discriminate Against Any Person Because of Race, Color, Religion, Sex, Handicap, Familial Status, or National Origin

- In the sale or rental of housing or residential lots
- In advertising the sale or rental of housing
- In the financing of housing
- In the provision of real estate brokerage services
- In the appraisal of housing
- Blockbusting is also illegal

**Anyone who feels he or she has been discriminated against may file a complaint of housing discrimination:**

**1-800-669-9777 (Toll Free)**
**1-800-927-9275 (TTY)**

**U.S. Department of Housing and Urban Development**
**Assistant Secretary for Fair Housing and Equal Opportunity**
**Washington, D.C. 20410**

U.S. DEPARTMENT OF LABOR

EMPLOYMENT STANDARDS ADMINISTRATION

Wage and Hour Division
Washington, D.C. 20210

# NOTICE

## EMPLOYEE POLYGRAPH PROTECTION ACT

The Employee Polygraph Protection Act prohibits most private employers from using lie detector tests either for pre-employment screening or during the course of employment.

### PROHIBITIONS

Employers are generally prohibited from requiring or requesting any employee or job applicant to take a lie detector test, and from discharging, disciplining, or discriminating against an employee or prospective employee for refusing to take a test or for exercising other rights under the Act.

### EXEMPTIONS*

Federal, State and local governments are not affected by the law. Also, the law does not apply to tests given by the Federal Government to certain private individuals engaged in national security-related activities.
The Act permits *polygraph* (a kind of lie detector) tests to be administered in the private sector, subject to restrictions, to certain prospective employees of security service firms (armored car, alarm, and guard), and of pharmaceutical manufacturers, distributors and dispensers.

The Act also permits polygraph testing, subject to restrictions, of certain employees of private firms who are reasonably suspected of involvement in a workplace incident (theft, embezzlement, etc.) that resulted in economic loss to the employer.

### EXAMINEE RIGHTS

Where polygraph tests are permitted, they are subject to numerous strict standards concerning the conduct and length of the test. Examinees have a number of specific rights, including the right to a written notice before testing, the right to refuse or discontinue a test, and the right not to have test results disclosed to unauthorized persons.

### ENFORCEMENT

The Secretary of Labor may bring court actions to restrain violations and assess civil penalties up to $10,000 against violators. Employees or job applicants may also bring their own court actions.

### ADDITIONAL INFORMATION

Additional information may be obtained, and complaints of violations may be filed, at local offices of the Wage and Hour Division. To locate your nearest Wage-Hour office, telephone our toll-free information and help line at 1 - 866 - 4USWAGE ( 1 - 866 - 487 - 9243). A customer service representative is available to assist you with referral information from 8am to 5 pm in your time zone; or if you have access to the internet, you may log onto our Home page at www.wagehour.dol.gov.

**THE LAW REQUIRES EMPLOYERS TO DISPLAY THIS POSTER WHERE EMPLOYEES AND JOB APPLICANTS CAN READILY SEE IT.**

**The law does not preempt any provision of any State or local law or any collective bargaining agreement which is more restrictive with respect to lie detector tests.*

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
Wage and Hour Division
Washington, D.C. 20210

WH Publication 1462
June 2003

## SECTION 3 COMPLIANCE REPORT-

Must be completed by every contractor or subcontractor awarded a construction contract of $100,000 or more on a Community Development Block Grant project.

**Grantee:** _____ **Grant #:** _____

**Contractor:** _____

**Contract Amount:** $_____

**Indicate the efforts made to direct the employment and other economic opportunities generated by HUD financial assistance for housing and community development programs, to the greatest extent feasible, toward low and very low income persons, particularly those who are recipients of government assistance for housing. Check all that apply:**

_____ Attempted to recruit low-income residents through local advertising media, signs prominently displayed at the project site, contracts with community organizations and public or private agencies operating within the metropolitan area or nonmetropolitan county in which the Section 3 covered program or project is located or similar methods.

_____ Participated in a HUD program or other program which promotes the training or employment of Section 3 residents.

_____ Participated in a HUD program or other program which promotes the award of contracts to business concerns which meet the definition of Section 3 business concerns.

_____ Coordinated with Youthbuild Programs administered in the metropolitan area in which the Section 3 covered project is located.

_____ Other. Describe: _____

| Job Category | Staff | | New Hires/Trainees | Staff Hours | |
|---|---|---|---|---|---|
| | Total # of Employees | Total # of Section 3 Employees | Total # of new Hires/Trainees that are Section 3 Residents | Total # of Staff Hours for New Hires that are Section 3 Residents | Total Staff Hours for Section 3 Employee |
| **Professional** | _____ | _____ | _____ | _____ | _____ |
| **Technician** | _____ | _____ | _____ | _____ | _____ |
| **Office/Clerical** | _____ | _____ | _____ | _____ | _____ |
| **Construction:** | | | | | |
| **List by trade:** | | | | | |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ |

**Submit to Grantee or Grantee's Representative within 15 days after your contract is complete.**

# Federal Labor Standards Provisions

**U.S. Department of Housing and Urban Development**
Office of Labor Relations

## Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

**A. 1. (i) Minimum Wages.** All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section l(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

**(ii) (a)** Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

**(1)** The work to be performed by the classification requested is not performed by a classification in the wage determination; and

**(2)** The classification is utilized in the area by the construction industry; and

**(3)** The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

**(b)** If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

**(c)** In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

**(d)** The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

**(iii)** Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

**(iv)** If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

**2. Withholding.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part

of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

**3. (i) Payrolls and basic records.** Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section l(b)(2)(B) of the Davis-bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section l(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

**(ii) (a)** The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i). This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

**(b)** Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

**(1)** That the payroll for the payroll period contains the information required to be maintained under 29 CFR 5.5 (a)(3)(i) and that such information is correct and complete;

**(2)** That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

**(3)** That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

**(c)** The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b).

**(d)** The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

**(iii)** The contractor or subcontractor shall make the records required under subparagraph A.3.(i) available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

**4. Apprentices and Trainees.**

**(i) Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the

journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

**(ii) Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

**(iii) Equal employment opportunity.** The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract

**6. Subcontracts.** The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 of this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

**7. Contract termination; debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act Requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

**10. (i) Certification of Eligibility.** By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

**(ii)** No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

**(iii)** The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration..... makes, utters or publishes any statement knowing the same to be false..... shall be fined not more than $5,000 or imprisoned not more than two years, or both."

**11. Complaints, Proceedings, or Testimony by Employees.** No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

**B. Contract Work Hours and Safety Standards Act.** The provisions of this paragraph B are applicable only where the amount of the prime contract exceeds $100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

**(1) Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

**(2) Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in subpara-

graph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in sub paragraph (1) of this paragraph.

**(3) Withholding for unpaid wages and liquidated damages.** HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

**(4) Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

**C. Health and Safety.** The provisions of this paragraph C are applicable only where the amount of the prime contract exceeds $100,000.

**(1)** No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

**(2)** The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, 40 USC 3701 et seq.

**(3)** The Contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The Contractor shall take such action with respect to any subcontract as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

Community Development Block Grant Program

**Contractor's Certification**
**Concerning Labor Standards and Prevailing Wage Requirements**

This is to certify that:

_____
(Company Name and Address)

has executed a contract with _____
(Grantee)

for the construction of _____
(Project)

identified as Project Number _____ and acknowledges that:
(Grant #)

a. The Federal Labor Standards Provisions (HUD-4010) are attached to the contract;
b. Correction of any infractions of the Federal Labor Standards Provisions, including infractions by any subcontractor or lower tier subcontractors is this contractor's responsibility;
c. Neither this contractor, any subcontractor or any affiliates have been declared ineligible to participate in federally funded construction projects;
d. Contractor agrees to obtain and forward to the Grantee or Grantee's Representative within ten (10) days after the execution of any subcontract, a Subcontractor's Certification concerning Federal Labor Standards and Prevailing Wage requirements.

Type of Entity: (Check One)

_____ Single Proprietorship
_____ Corporation
_____ Partnership
_____ Other Organization

List Below the name, title and address of the owner, partner or officers of the entity:

| Name | Title | Address |
|---|---|---|
| | | |
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| | | |

Signature of Owner or Officer of the Company: _____

Date Signed: _____

Telephone Number: _____

This form is no longer required by the U. S. Department of Housing and Urban Development but is required by the Office of Community and Rural Affairs on federally funded construction projects.

Community Development Block Grant Program

**Subcontractor's Certification**
**Concerning Labor Standards and Prevailing Wage Requirements**

This is to certify that:

_____
(Subcontractor's Name and Address)

has executed a subcontract with _____
(Prime Contractor)

In the amount of $ _____ for _____
(Nature of Work)

on Project Number _____ and acknowledges that:
(Grant #)

a. The Federal Labor Standards Provisions (HUD-4010) are attached to the contract;
b. Neither this subcontractor or any second or third tier subcontractors or any affiliates have been declared ineligible to participate in federally funded construction projects;
c. Contractor agrees to provide this completed document to the Prime Contractor within ten (10) days after the execution of any subcontract and to adhere to the Federal Labor Standards Provisions in the execution of this subcontract.

Subcontractor is a:
Type of Entity: (Check One)

_____ Single Proprietorship
_____ Partnership
_____ Corporation
_____ Other Organization

List Below the name, title and address of the owner, partner or officers of the entity:

| Name | Title | Address |
|---|---|---|
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Signature of Owner or Officer of the Subcontractor: _____

Date Signed: _____

Telephone Number: _____

This form is no longer required by the U. S. Department of Housing and Urban Development but is required by the Office of Community and Rural Affairs on federally funded construction projects.

# Wage/Fringe Benefit Certification

(To Be Completed by Contractor/Subcontractors Prior to Contract Award.)

| GRANTEE: | GRANT: | PROJECT: |
|---|---|---|

This is to certify that _____ plans to use the following classifications of workers on the above referenced project:

| From Applicable Wage Decision | | | | Base Wage to be paid by Contractor | Fringe Benefits to be provided by Contractor | | Total Package to be paid by Contractor |
|---|---|---|---|---|---|---|---|
| Classification | Base Wage Due | Fringe Benefits Due | Total Package Due | | Benefit | Hourly Amount | |
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| Certified by: | Title: | Date: |
|---|---|---|
| (Must be Certified by Owner or Chief Financial Officer) | | |

**U.S. Department of Labor**
Employment Standards Administration
Wage and Hour Division

# PAYROLL

**(For Contractor's Optional Use; See Instructions at www.dol.gov/esa/whd/forms/wh347instr.htm)**

*Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.*

U.S. Wage and Hour Division
Rev. Dec. 2008

OMB No.: 1215-0149
Expires: 12/31/2011

NAME OF CONTRACTOR ☐ OR SUBCONTRACTOR ☐ ADDRESS

PAYROLL NO. FOR WEEK ENDING PROJECT AND LOCATION PROJECT OR CONTRACT NO.

| (1) NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER | (2) NO. OF WITHHOLDING EXEMPTIONS | (3) WORK CLASSIFICATION | OT. OR ST. | (4) DAY AND DATE / HOURS WORKED EACH DAY | | | | | | | (5) TOTAL HOURS | (6) RATE OF PAY | (7) GROSS AMOUNT EARNED | (8) DEDUCTIONS FICA | WITH-HOLDING TAX | | | OTHER | TOTAL DEDUCTIONS | (9) NET WAGES PAID FOR WEEK |
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While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

**Public Burden Statement**

We estimate that is will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, ESA, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

(over)

Date _____

I, _____ _____
(Name of Signatory Party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

_____ on the
(Contractor or Subcontractor)

_____; that during the payroll period commencing on the
(Building or Work)

_____ day of _____, _____, and ending the _____ day of _____, _____,

all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

_____ from the full
(Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Start. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. § 3145), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐ – in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐ – Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

| EXCEPTION (CRAFT) | EXPLANATION |
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| REMARKS: | |
|---|---|
| NAME AND TITLE | SIGNATURE |

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.

U.S. DEPARTMENT OF LABOR
WAGE AND HOUR DIVISION

# INSTRUCTION FOR COMPLETING PAYROLL FORM, WH-347

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

This form meets needs resulting from the amendment of the Davis-Bacon Act to include fringe benefits provisions. Under this amended law, the contractor is required to pay not less than fringe benefits as predetermined by the Department of Labor, in addition to payment of not less than the predetermined rates. The contrator's obligation to pay fringe benefits may be met either by payment of the fringes to the various plans, funds, or programs or by making these payments to the employee as cash in lieu of fringes.

This payroll provides for the contractor's showing on the face of the payroll all monies paid to the employees, whether as basic rates or as cash in lieu of fringes and provides for the contractor's representation in the statement of compliance on the rear of the payroll that he is paying to others fringes required by the contract and not paid as cash in lieu of fringes. Detailed instructions concerning the preparation of the payroll follow:

Contractor or Subcontractor: Fill in your firm's name and check appropriate box.

Address: Fill in your firms's address.

Column 1 - Name, address, and Social Security number of Employee: The employee's full name and Social Security Number must be shown on each weekly payroll submitted. The employee's address must also be shown on the payroll covering the first week in which the employee works on the project. The address need not be shown on subsequent payrolls unless the address changes.

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

Column 3 - Work Classifications: List classification descriptive of work actually performed by employees. Consult classifications and minimum wage schedule set forth in contract specifications. If additional classifications are deemed necessary, see Contracting Officer of Agency representative. Employee may be shown as having worked in more than one classification provided accurate breakdown of hours so worked is maintained and shown on submitted payroll by use of separate line entries.

Column 4 - Hours Worked: On all contracts subject to the Contract Work Hours Standards Act enter as overtime hours all hours worked in excess of 8 hours per day and 40 hours in a week.

Column 5 - Total: Self-explanatory.

Column 6 - Rate of Pay: In straight time box, list actual hourly rate paid the employee for straight time worked plus any cash in lieu of fringes paid the employee. When recording the straight time hourly rate, any cash paid in lieu of fringes may be shown separately from the basic rate, thus $3.25/.40. This is of assistance in correctly computing overtime. See "Fringe Benefits" below. In overtime box show overtime hourly rate paid, plus any cash in lieu of fringes paid the employee. See "Fringe Benefits" below. Payment of not less than time and one-half the basic or regular rate paid is required for overtime under the Contract Work Hours Standards Act of 1962. In addition to paying not less than the predetermined rate for the classification in which the employee works, the contractor shall pay to approved plans, funds, or programs or shall pay as cash in lieu of fringes amounts predetermined as fringe benefits in the wage decision made part of the contract. See "FRINGE BENEFITS" below.

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

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

Use of Section 4(c), Exceptions

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

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

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

Column 9 - Net Wages Paid for Week: Self-explantory.

Totals - Space has been left at the botom of columns so that totals may be shown if the contractor so desires.

Statement Required by Regulations, Parts 3 and 5: While this form need not be notarized, the statement on the back of the payroll is subject to the penalities provided by 18 USC 1001, namely, possible imprisonment for 5 years or $10,000.00 fine or both. Accordingly, the party signing this required statement should have knowledge of the facts represented as true.

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

U.S. Department of Labor
Wage and Hour and Public
Contracts Division

# STATEMENT OF COMPLIANCE

Form Approved
Budget Bureau No. 44-R1093

Date_____

I, _____, _____, do hereby state:
(Name of signatory party) (Title)

(1) That I pay or supervise the payment of the persons employed by _____ on the
(Contractor or Subcontractor)
_____; that during the payroll commencing on the
(Building or work)
_____day of _____, _____ and ending the _____ day of _____, _____, all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said Contractor or Subcontractor from the full weekly wages earned by any person and that no deducions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat., 948.63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. 276c), and described below:

_____

_____

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐ In addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except asnoted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐ Each laborer or mechanic listed in the above referenced payroll has been paid as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS

| EXCEPTION (CRAFT) | EXPLANATION |
|---|---|
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| | |

Remarks _____

_____

_____

| Name and Title | Signature |
|---|---|
| | |

The willful falsification of any of the above statements may subject the contractor or subcontractor to civil or criminal prosecution. See Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

Form WH-348

## Carrie Riley

**From:** Bell, Anne [ABell@ocra.IN.gov]
**Sent:** Thursday, October 01, 2009 4:59 PM
**To:** Bell, Anne
**Subject:** Changes in Certified Payroll Procedures
**Attachments:** certified payroll.pdf

Effective January 18, 2009, the U. S. Department of Labor revised the Certified Payroll Reporting Requirements for Form WH-347. Prime contractors and subcontractors who perform work on federally funded construction projects are no longer required to display the home address and complete social security numbers of their employees on the certified payroll reports. Under the revision, the employees' full name and the last 4-digits of his/her social security number should be listed on the payroll form as follows: XXX-XX-1234.

The U. S. Department of Labor – Wage and Hour Division in conjunction with the Office of Management and Budget released a new Federal WH-347 to be used effective January 18, 2009 through December 31, 2011. A copy of the revised form is attached to this message.

If you have any questions, please contact OCRA's Grant Support Division at 800.824.2476.

**U.S. Department of Labor**
Employment Standards Administration
Wage and Hour Division

# PAYROLL

**(For Contractor's Optional Use; See Instructions at www.dol.gov/esa/whd/forms/wh347instr.htm)**

*Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.*

U.S. Wage and Hour Division
Rev. Dec. 2008

OMB No.: 1215-0149
Expires: 12/31/2011

NAME OF CONTRACTOR ☐ OR SUBCONTRACTOR ☐ ADDRESS

PAYROLL NO. FOR WEEK ENDING PROJECT AND LOCATION PROJECT OR CONTRACT NO.

| (1) NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER | (2) NO. OF WITHHOLDING EXEMPTIONS | (3) WORK CLASSIFICATION | OT. OR ST. | (4) DAY AND DATE / HOURS WORKED EACH DAY | | | | | | | (5) TOTAL HOURS | (6) RATE OF PAY | (7) GROSS AMOUNT EARNED | (8) DEDUCTIONS FICA | WITH-HOLDING TAX | | | OTHER | TOTAL DEDUCTIONS | (9) NET WAGES PAID FOR WEEK |
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While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

**Public Burden Statement**

We estimate that is will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, ESA, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

(over)

Date _____

I, _____ _____
(Name of Signatory Party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

_____ on the
(Contractor or Subcontractor)

_____; that during the payroll period commencing on the
(Building or Work)

_____ day of _____, _____, and ending the _____ day of _____, _____,

all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

_____ from the full
(Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Start. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. § 3145), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

☐ – in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

☐ – Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

| EXCEPTION (CRAFT) | EXPLANATION |
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| REMARKS: | |
|---|---|
| NAME AND TITLE | SIGNATURE |

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.

SECTION 00 41 00 – CONTRACTOR'S BID FOR PUBLIC WORK – FORM 96

1.01 SUMMARY

A. This Section includes the Contractor's Bid for Public Work; Form No. 96 (revised 2005).

1.02 RELATED SECTIONS

A. Related Sections include the following:

1. Division 00 Section "Supplementary Bid Form."
2. Division 00 Section "Schedule of Subcontractors, Manufacturers, and Products."

# CONTRACTOR'S BID FOR PUBLIC WORK - FORM 96

## PART I

(To be completed for all bids. Please type or print)

Date: _____

1. Governmental Unit (Owner): _____
2. County: _____
3. Bidder (Firm): _____

   Address: _____

   City/State: _____
4. Telephone Number: _____
5. Agent of Bidder (if applicable): _____

Pursuant to notices given, the undersigned offers to furnish labor and/or material necessary to complete the public works project of _____ (Governmental Unit) in accordance with plans and specifications prepared by _____ _____ and dated _____ for the sum of _____ $ _____.

The undersigned further agrees to furnish a bond or certified check with this bid for an amount specified in the notice of the letting. If alternative bids apply, the undersigned submits a proposal for each in accordance with the notice. Any addendums attached will be specifically referenced at the applicable page.

If additional units of material included in the contract are needed, the cost of units must be the same as that shown in the original contract if accepted by the governmental unit. If the bid is to be awarded on a unit basis, the itemization of the units shall be shown on a separate attachment.

The contractor and his subcontractors, if any, shall not discriminate against or intimidate any employee, or applicant for employment, to be employed in the performance of this contract, with respect to any matter directly or indirectly related to employment because of race, religion, color, sex, national origin or ancestry. Breach of this covenant may be regarded as a material breach of the contract.

CERTIFICATION OF USE OF UNITED STATES STEEL PRODUCTS
(If applicable)

I, the undersigned bidder or agent as a contractor on a public works project, understand my statutory obligation to use steel products made in the United States. (I.C. 5-16-8-2). I hereby certify that I and all subcontractors employed by me for this project will use U.S. steel products on this project if awarded. I understand that violations hereunder may result in forfeiture of contractual payments.

## ACCEPTANCE

The above bid is accepted this _____ day of _____, _____, subject to the following conditions: _____

_____

Contracting Authority Members:

_____ _____

_____ _____

_____ _____

# PART II

(For projects of $100,000 or more - IC 36-1-12-4)

Governmental Unit: _____

Bidder (Firm) _____

Date: _____

These statements to be submitted under oath by each bidder with and as a part of his bid. Attach additional pages for each section as needed.

## SECTION I - EXPERIENCE QUESTIONNAIRE

1. What public works projects has your organization completed for the period of one (1) year prior to the date of the current bid?

| Contract Amount | Class of Work | Completion Date | Name and Address of Owner |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

2. What public works projects are now in process of construction by your organization?

| Contract Amount | Class of Work | Expected Completion Date | Name and Address of Owner |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

3. Have you ever failed to complete any work awarded to you? _____ If so, where and why?

_____

_____

_____

4. List references from private firms for which you have performed work.

_____

_____

_____

_____

_____

## **SECTION II** - PLAN AND EQUIPMENT QUESTIONNAIRE

1. Explain your plan or layout for performing proposed work. (Examples could include a narrative of when you could begin work, complete the project, number of workers, etc. and any other information which you believe would enable the governmental unit to consider your bid.)

2. Please list the names and addresses of all subcontractors (i.e. persons or firms outside your own firm who have performed part of the work) that you have used on public works projects during the past five (5) years along with a brief description of the work done by each subcontractor.

3. If you intend to sublet any portion of the work, state the name and address of each subcontractor, equipment to be used by the subcontractor, and whether you will require a bond. However, if you are unable to currently provide a listing, please understand a listing must be provided prior to contract approval. Until the completion of the proposed project, you are under a continuing obligation to immediately notify the governmental unit in the event that you subsequently determine that you will use a subcontractor on the proposed project.

4. What equipment do you have available to use for the proposed project? Any equipment to be used by subcontractors may also be required to be listed by the governmental unit.

5. Have you entered into contracts or received offers for all materials which substantiate the prices used in preparing your proposal? If not, please explain the rationale used which would corroborate the prices listed.

## **SECTION III** - CONTRACTOR'S FINANCIAL STATEMENT

Attachment of bidder's financial statement is mandatory. Any bid submitted without said financial statement as required by statute shall thereby be rendered invalid. The financial statement provided hereunder to the governing body awarding the contract must be specific enough in detail so that said governing body can make a proper determination of the bidder's capability for completing the project if awarded.

## SECTION IV - CONTRACTOR'S NON - COLLUSION AFFIDAVIT

The undersigned bidder or agent, being duly sworn on oath, says that he has not, nor has any other member, representative, or agent of the firm, company, corporation or partnership represented by him, entered into any combination, collusion or agreement with any person relative to the price to be bid by anyone at such letting nor to prevent any person from bidding nor to include anyone to refrain from bidding, and that this bid is made without reference to any other bid and without any agreement, understanding or combination with any other person in reference to such bidding.

He further says that no person or persons, firms or corporation has, have or will receive directly or indirectly, any rebate, fee, gift, commission or thing of value on account of such sale.

## SECTION V - OATH AND AFFIRMATION

I HEREBY AFFIRM UNDER THE PENALTIES FOR PERJURY THAT THE FACTS AND INFORMATION CONTAINED IN THE FOREGOING BID FOR PUBLIC WORKS ARE TRUE AND CORRECT.

Dated at _____ this _____ day of _____, _____

_____
(Name of Organization)

By _____

_____
(Title of Person Signing)

## ACKNOWLEDGEMENT

STATE OF _____ )
) SS
COUNTY OF _____ )

Before me, a Notary Public, personally appeared the above-named _____

and swore that the statements contained in the foregoing document are true and correct.

Subscribed and sworn to before me this _____ day of _____, _____ .

_____
Notary Public

My Comission Expires: _____

County of Residence: _____

Form No. 9 (Revised 2005)

# BID OF

_____
(Contractor)

_____
(Address)

_____

# FOR
# PUBLIC WORKS PROJECTS
# OF

_____

_____

_____

Filed _____, _____

Action taken _____

_____

SECTION 00 42 00 – SUPPLEMENTARY BID FORM

FOR (PROJECT): CITY OF COLUMBUS – FACILITIES DEPARTMENT
City Hall
123 Washington Street
Columbus, Indiana

TO (OWNER): CITY CLERK TREASURER
City Hall
123 Washington Street
Columbus, Indiana

BY (CONTRACTOR):

Pursuant to notices given, the undersigned proposes to complete the Work of the Project according to Bidding documents prepared by ***ROI*** Consulting/Construction LLC, Columbus, Indiana 47203 for the sum of

BASE BID _____
(Amount in words)

$_____

(Amount in numbers)

ALTERNATE BIDS:

The undersigned also proposes to finish or omit all labor and materials necessary to complete work as required by the "Alternate Bids", as provide for in the specifications as follows:

Alternate No. 1 – No Demolition, removal or disposal of air handler 1:

_____Add/ Deduct $_____

Alternate No. 2 – No Demolition, removal or disposal of air handler 2:

_____Add/ Deduct $_____

Alternate No. 3 – No Demolition, removal or disposal of air handler 3:

_____Add/ Deduct $_____

BIDDER'S SIGNATURE:

IN TESTIMONY WHEREOF, the Bidder (an individual) has hereunto set his hand this
_____day of_____, 2010.

_____
(Individual)

IN TESTIMONY WHEREOF, the Bidder (a firm) has hereunto set his hand this

Firm Name: _____

By _____

By _____

IN TESTIMONY WHEREOF, the Bidder (a Corporation) has caused the proposal to be signed by its

_____day of_____, 2010.

Name of the Corporation: _____

President _____

Secretary _____

OATH AND AFFIRMATION:

I affirm under the penalties of perjury that the foregoing facts and information are true and correct to the best of my knowledge and belief.

Subscribed and sworn to before me by _____

this _____day of _____, 2010.

My Commission expires _____

_____
Notary Public

SECTION 00 43 39 – AFFIRMATIVE ACTION DECLARATION

1.01 SUMMARY

A. This section includes the Owner's written declaration specifically titled "Affirmative Action Signature Form" which follows this page.

1.02 RELATED SECTIONS

A. Related Sections include the following:

1. Division 00 Section "Bid Form."

## AFFIRMATIVE ACTION SIGNATURE FORM

_____ (Name of Contractor, Subcontractor, and Bidder) declares that they will not discriminate against any emplo9yee or applicant for employment in the performance of this contract with the respect to hire, tenure, terms, conditions, or privileges of employment, or any matter indirectly related to employment because of race, religion, color, sex, disability, national origin or ancestry.

_____ (Name of Contractor, Subcontractor, and Bidder) shall comply with this declaration, and understands that breach of this covenant may be considered a material breach of the contract.

## OSHA AND IOSHA REGULATIONS SIGNATURE FORM

It is the policy of the City of Columbus to be in compliance with all federal and state occupational safety and health regulations and/or standards. It is a requirement for any person, company, or corporation doing business either the City of Columbus to be in compliance with the appropriate OSHA and IOSHA regulations and/or standards. Any person, company, or corporation not in compliance shall hold the City of Columbus harmless from any and all injuries, illness, and death arising out of non-compliance with the OSHA and IOSHA regulations and/or standards and such non-compliance shall be considered in material breach of any contractual agreement with the City of Columbus. _____ (Name of Contractor, Subcontractor, and Bidder) shall comply with OSHA and IOSHA regulations and understands that breach of this covenant may be considered a material breach of contract.

## DRUG FREE WORKPLACE SIGNATURE FORM

Any and all contractors performing work for the City of Columbus shall maintain a drug free workplace pursuant to applicable federal and state law regulations. By contracting with the City of Columbus, each contractor hereby certifies and agrees that it will provide a drug free workplace and take all appropriate steps to insure that all applicable federal and state regulations concerning the implementation of such drug free work place have occurred.

Company Name _____

By _____

Title _____ Date _____

Address _____

_____

# ADDRESS FORM FOR CONTRACTOR, AGENT, AND SUPERINTENDENT

Contractor's Name _____

Home Office _____

Address _____

Telephone _____

Contractor's Agent _____

Address of Agent _____

Telephone _____

Contractor's Superintendent _____

Address of Superintendent _____

Telephone _____

Contractor's Foreman _____

Address of Foreman _____

Telephone _____

This form shall be filled out and forwarded to the City Engineer before the work is commenced. See Specification No. 100, Paragraph A 44.

SECTION 00 45 13 – FINANCIAL STATEMENT

1.01 SUMMARY

A. This section includes the State Board of Accounts Form 102, Standard Questionnaires and Financial Statement of Bidders. The Form 102 is inserted loose following this page.

1.02 RELATED SECTIONS

A. Related Sections include the following:

1. Division 00 Section "Bid Form."
2. Division 00 Section "Schedule of Subcontractors, Manufacturers and Products."

# Standard Questionnaires and Financial Statement for Bidders

For use in investigating the qualifications of bidders on public works contracts when the aggregate cost of such contract will be a hundred thousand dollars ($100,000) or more. This form may be used for any other contract when the ordering department requests it.

These statements are to be submitted under oath by each bidder with and as a part of the bid.

NOTE: THIS FORM BECOMES PART OF THE BID FILE, AND PURSUANT TO INDIANA'S PUBLIC RECORDS LAW (IND. CODE SS5-14-3-1-5-14-3-10), WILL BE AVAILABLE FOR PUBLIC INSPECTION AND COPYING DURING CENTRAL PURCHASING'S REGULAR BUSINESS HOURS WHEN THE TOTAL CONTRACT PRICE EXCEEDS $100,000.

Submitted to: City of Indianapolis, Central Purchasing

Company Name: _____

Address: _____

_____

Representative: _____

Telephone Number: _____

Date Submitted: _____

## TO THE BIDDER:

These forms, required by the City of Indianapolis and Marion County, Indiana, have been prescribed by the State Board of Accounts.

They properly filled out and attested, must accompany each bid of a hundred thousand dollars ($100,000), or more. If the ordering department requests it, they may be required for bids of lesser amounts as well.

The forms are designed to cover all public work Contracts/all other applicable situations and the bidder is required to answer such questions as are pertinent to the work being bid/R.F.Q. The purpose of the questionnaire is to enable the awarding body to determine the qualifications of the bidder to carry out successfully the contract if the same is awarded to the bidder.

The bidder will find it to his advantage to answer fully all questions coming within the range of the work being bid. Particular attention should be given to the "Financial Statement" and the details relative to the assets and liabilities set out. This form is made in extensive detail so that the bidder may explain his assets and liabilities in proper sequence and in a uniform manner. NOTE; FAILURE TO FILL OUT THESE FORMS COMPLETELY MAY BE GROUNDS FOR DECLARING THE ENTIRE BID NON-RESPONSIVE.

Submitted by _____ { ☐ A Corporation ☐ A Co-partnership ☐ An Individual

Principal Office at _____

To _____

## EXPERIENCE QUESTIONNAIRE

The signatory of this questionnaire guarantees the truth and accuracy of all statements and of all answers to interrogatories hereinafter made.

1. How many years has your organization been in business as a general contractor under your present business name? _____

2. How many years' experience in _____ construction work has your organization had:

   (a) As a general contractor _____ (b) as a sub-contractor _____

3. What projects has your organization completed?

| CONTRACT AMOUNT | CLASS OF WORK | WHEN COMPLETED | NAME AND ADDRESS OF OWNER |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

3A What projects has your organization now in process of construction?

| CONTRACT AMOUNT | CLASS OF WORK | WHEN TO BE COMPLETED | NAME AND ADDRESS OF OWNER |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

4. Have you ever failed to complete any work awarded to you? _____ If so, where and why?

   _____

   _____

   _____

5. Has any offer or partner of your organization ever been an officer or partner of some other organization that failed to complete a construction contract? _____ If so, state name of individual, other organization and reason therefor.

   _____

   _____

   _____

6. Has any officer or partner of your organization ever failed to complete a construction contract handled in his own name? _____ If so, state name of individual, name of owner and therefor. _____

   _____

   _____

7. In what other lines of business are you financially interested? _____

8. For what corporation or individuals have you performed work, and to whom do you refer? _____

9. For what cities have you performed work and to whom do you refer? _____

10. For what countries have you performed work and to whom do you refer? _____

11. For what State bureaus or departments have you performed work and to whom do you refer? _____

12. Have you ever performed any work for the U.S. Government? _____
If so, when and to whom do you refer? _____

13. What is the construction experience of the principal individual of your organization?

| INDIVIDUAL'S NAME | PRESENT POSITION OR OFFICE | YEARS OF CONSTRUCTION EXPERIENCE | MAGNITUDE AND TYPE OF WORK | IN WHAT CAPACITY |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

## PLAN AND EQUIPMENT QUESTIONNAIRE

**The signatory of this questionnaire guarantees the truth and accuracy of all statements and of all answers to interrogatories hereinafter made.**

1. In what manner have you inspected this proposed work? Explain in detail.

_____

_____

_____

_____

2. Explain your plan or layout for performing the proposed work _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

3. The work, if awarded to you, will have the personal supervision of whom? _____

_____

*4. Do you intend to do the hauling on the proposed work with your own forces? _____

If so, give amount and type of equipment used _____

_____

_____

*5. If you intend to sublet the hauling or perform it through an agent, state amount of sub-contract or agent's contract, and if known, the name and address of sub-contractor or agent, amount and type of his equipment and financial responsibility _____

_____

_____

_____

_____

_____

* Items 4, 5, 6, and 7 may not be applicable in all building contracts; if not, omit.

* 6. Do you intend to do the grading on the proposed work with your own forces? _____

If so, give type of equipment to be used _____

_____

_____

* 7. If you intend to sublet the grading or perform it through an agent, state amount of subcontract or agent's contract, and if known, the name and address of sub-contractor or agent, amount and type of his equipment and financial responsibility. _____

_____

_____

_____

_____

_____

_____

8. Do you intend to sublet any other portions of the work? _____

If so, state amount of sub-contract, and if known, the name and address of the sub-contractor, whether subcontract is a minority and/or women's business enterprise, amount, and type of his equipment and financial responsibility. _____

_____

_____

_____

_____

_____

9. From which sub-contractors or agents do you expect to require a bond? _____

_____

_____

_____

10. What equipment do you own that is available for the proposed work?

| QUANTITY | ITEM | DESCRIPTION, SIZE CAPACITY, ETC. | CONDITION | YEARS OF SERVICE | PRESENT LOCATION |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

11. What equipment do you intend to purchase for use on the proposed work, should the contract be awarded to you?

| QUANTITY | ITEM | DESCRIPTION, SIZE, CAPACITY, ETC. | APPROXIMATE COST |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

12. How and when will you pay for the equipment to be purchased? _____

13. Do you propose to rent any equipment for this work? _____ if so, state type, quantity and reasons for renting.

14. Have you made contracts or received firm offers for all materials within prices used in preparing your proposal? Do not give names of dealers or manufacturers _____

15. List all permits, licenses, or registrations, which you have and are required by law to maintain in order to bid on this work. Please include the type of the permit, license, or registration; the name of the issuing entity; the number of the licenses, permit, or registration; and the expiration date. _____

Dated at _____ this _____ day of _____, 20_____

_____
(Name of Organization)

By _____

_____
(Title of Person Signing)

STATE OF _____

COUNTY OF _____, SS:

_____ Being duly sworn, deposes and says that he is

_____ of the above _____

_____ of the above _____
(Name of Organization)

and that the answers to the questions in the foregoing questionnaires and all statements therein contained are true and correct.

Subscribed and sworn to before me this _____ day of _____, 20_____.

My Commission expires _____

_____
Notary Public

# CONTRACTOR'S FINANCIAL STATEMENT

Submitted by _____

Principal Office at _____

- ☐ A Corporation
- ☐ A Co-partnership
- ☐ An Individual

To _____

Condition at close of business _____ 20____

| | Dollars | Cts. |
|---|---|---|
| **ASSETS** | | |
| 1. Cash: (a) On Hand $_____, (b) In bank $_____, (c) Elsewhere $_____ | | |
| 2. Notes receivable (a) Due within 90 days _____ | | |
| (b) Due after 90 days _____ | | |
| (c) Past Due _____ | | |
| 3. Accounts receivable from completed contracts, exclusive of claims not approved for payment _____ | | |
| 4. Sums earned on uncompleted contracts as shown by engineer's or architect's estimate _____ | | |
| (a) Amount receivable after deducting retainage _____ | | |
| (b) Retainage to date, due upon completion of contracts _____ | | |
| 5. Accounts receivable from sources other than construction contracts _____ | | |
| 6. Deposits for bids or other guarantees: (a) Recoverable within 90 days _____ | | |
| (b) Recoverable after 90 days _____ | | |
| 7. Interest accrued on loans, securities, etc. _____ | | |
| 8. Real Estate: (a) Used for business purposes _____ | | |
| (b) Not used for business purposes _____ | | |
| 9. Stocks and bonds: (a) Listed - - present market value _____ | | |
| (b) Unlisted - - present value _____ | | |
| 10. Materials in stock included in Item 4 (a) For uncompleted contracts (present value) _____ | | |
| (b) Other materials (present value) _____ | | |
| 11. Equipment, book value _____ | | |
| 12. Furniture and fixtures, book value _____ | | |
| 13. Other Assets _____ | | |
| Total assets _____ | | |

## LIABILITIES

| | Dollars | Cts. |
|---|---|---|
| 1. Notes payable (a) To banks regular | | |
| (b) To banks for certified checks | | |
| (c) To others for equipment obligations | | |
| (d) To others exclusive of equipment obligations | | |
| 2. Accounts payable (a) Not past due | | |
| (b) Past due | | |
| 3. Real estate encumbrances | | |
| 4. Other liabilities | | |
| 5. Reserves | | |
| 6. Capital stock paid up: (a) Common | | |
| (b) Common | | |
| (c) Preferred | | |
| (d) Preferred | | |
| 7. Surplus (net worth) | | |
| Total liabilities | | |

## CONTINGENT LIABILITIES

| | | |
|---|---|---|
| 1. Liability on notes receivable, discounted or sold | | |
| 2. Liability on accounts receivable, pledged, assigned or sold | | |
| 3. Liability as bondsman | | |
| 4. Liability as guarantor on contracts or on accounts of others | | |
| 5. Other contingent liabilities | | |
| Total contingent liabilities | | |

## DETAILS RELATIVE TO ASSETS

**1** **Cash**

(a) on hand _____ $ _____
(b) deposited in banks named below _____ _____
(c) elsewhere - - (State where) _____ _____

| NAME OF BANK | LOCATION | DEPOSIT IN NAME OF | AMOUNT |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**2*** **Notes Receivable**

(a) due within 90 days _____ $ _____
(b) due after 90 days _____ _____
(c) past due _____ _____

| RECEIVABLE FROM: NAME AND ADDRESS | FOR WHAT | DATE OF MATURITY | HOW SECURED | AMOUNT |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Have any of the above been discounted or sold? _____ If so, state amount, to whom, and reason _____

_____

**3*** **Accounts receivable** from completed contracts exclusive of claims not approved for payment $ _____

| NAME AND ADDRESS OF OWNER | NATURE OF CONTRACT | AMOUNT OF CONTRACT | AMOUNT RECEIVABLE |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

Have any of the above been assigned, sold, or pledged? _____ If so, state amount, to whom and reason _____

_____

**4*** **Sums earned on uncompleted contracts, as shown by engineer's or architect's estimate:**

(a) Amount receivable after deducting retainage _____ $ _____
(b) Retainage to date due upon completion of contract _____ _____

| DESIGNATION OF CONTRACT AND NAME AND ADDRESS OF OWNER | AMOUNT OF CONTRACT | AMOUNT EARNED | AMOUNT RECEIVED | RETAINAGE | | AMOUNT EXCLUSIVE OF RETAINAGE |
|---|---|---|---|---|---|---|
| | | | | WHEN DUE | AMOUNT | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Have any of the above been sold, assigned, or pledged? _____ If so, state amount, to whom, and reason _____

*List separately each item amounting to 10 percent or more of the total and combine the remainder.

## DETAILS RELATIVE TO ASSETS (continued)

**5*** **Accounts receivable not from construction contracts** _____ $ _____

| RECEIVABLE: NAME AND ADDRESS | FOR WHAT | WHEN DUE | AMOUNT |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

What amount, if any, is past due _____ $ _____

**6** **Deposits with bids or otherwise as guarantees** _____ $ _____

| DEPOSITED WITH: NAME AND ADDRESS | FOR WHAT | WHEN RECOVERABLE | AMOUNT |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**7** **Interest accrued on loans, securities, etc.** _____ $ _____

| ON WHAT ACCRUED | TO BE PAID WHEN | AMOUNT |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

**8*** **Real estate** (a) Used for business purposes _____ $ _____

**Book value** (b) Not used for business purposes _____ $ _____

| DESCRIPTION OF PROPERTY | IMPROVEMENTS | | TOTAL BOOK VALUE |
|---|---|---|---|
| | NATURE OF IMPROVEMENTS | BOOK VALUE | |
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |

| LOCATION | HELD IN WHOSE NAME | ASSESSED VALUE | AMOUNT OF ENCUMBERANCES |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |

* List separately each item amounting to 10 percent or more of the total and combine the remainder.

## DETAILS RELATIVE TO ASSETS (continued)

**9** **Stocks and bonds** (a) Listed - - present market value _____ $ _____

(b) Unlisted - - present value _____ _____

| DESCRIPTION | ISSUING COMPANY | LAST INT. OR DIV PAID DATE | % | PAR VALUE | PRESENT MARKET VALUE | QUAN-TITY | AMOUNT |
|---|---|---|---|---|---|---|---|
| 1. | | | | | | | |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |
| 6. | | | | | | | |
| 7. | | | | | | | |

| WHO HAS POSSESSION | IF ANY ARE PLEDGED OR IN ESCROW, STATE FOR WHOM AND REASON | | AMOUNT PLEDGED OR IN ESCROW |
|---|---|---|---|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |

**10** **Materials in stock and not included in Item 4, Assets:**

(a) For use on uncompleted contracts (present value) _____ $ _____

(b) Other materials (present value) _____ _____

| DESCRIPTION OF MATERIAL | QUANTITY | PRESENT VALUE FOR UNCOM-PLETED CONTRACTS | PRESENT VALUE OTHER MATERIALS |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**11** **Equipment at book value** _____ $ _____

| QUAN-TITY | DESCRIPTION AND CAPACITY OF ITEMS | AGE OF ITEMS | PURCHASE PRICE | DEPRECIATION CHARGED OFF | BOOK VALUE |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Are there any liens against the above? _____ If so, state total amount _____ $ _____

* If two or more items are lumped above, give the sum of their ages.

## DETAILS RELATIVE TO ASSETS (continued)

| | | |
|---|---|---|
| 12 | **Furniture and fixtures at book value** | $ |
| 13 | **Other Assets** | $ |

| DESCRIPTION | AMOUNT |
|---|---|
| | |
| | |
| | |
| TOTAL ASSETS $ | |

## DETAILS RELATIVE TO LIABILITIES

| | | | |
|---|---|---|---|
| 1 | **Notes payable** | (a) To banks, regular | $ |
| | | (b) To banks for certified checks | |
| | | (c) To others for equipment obligations | |
| | | (d) To others exclusive of equipment obligations | |

| TO WHOM: NAME AND ADDRESS | WHAT SECURITY | WHEN DUE | AMOUNT |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | | | |
|---|---|---|---|
| 2 | **Accounts payable** | (a) Not past due | $ |
| | | (b) Past Due | |

| TO WHOM: NAME AND ADDRESS | FOR WHAT | DATE PAYABLE | AMOUNT |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | | |
|---|---|---|
| 3 | **Real estate encumbrances (see Item 8, Assets)** | $ |
| 4 | **Other liabilities** | $ |

| DESCRIPTION | AMOUNT |
|---|---|
| | |
| | |
| | |
| | |

| | | |
|---|---|---|
| 5 | **Reserves** | $ |

| INTEREST | INSURANCE | BLDGS. & FIXT. | PLANT DEPR. | TAXES | BAD DEBTS | | |
|---|---|---|---|---|---|---|---|
| $ | $ | $ | $ | $ | $ | $ | $ |

| | | | |
|---|---|---|---|
| 6 | **Capital stock paid up** | (a) Common | $ |
| | | (b) Preferred | |
| 7 | **Surplus** | | $ |

TOTAL LIABILITIES $

**If a corporation answer this:**

Amount for which incorporated _____ $ _____

Capital paid in cash _____ $ _____

When incorporated _____

In what state _____

Names and titles of all persons having authority to execute and receipt estimate vouchers and to conduct other business for the corporation, including its officers, the signatures of whom are legally binding.

_____

_____

_____

_____

Do you have necessary "certificate of existence" (or certificate of authorization for a foreign corporation) to transact corporate business in this state, under the terms of Public Law 149, Acts of 1986, and acts amendatory thereto? _____

_____

_____

**If a co-partnership answer this:**

Date of organization _____

State whether co-partnership is general, limited or association _____

Give the names, addresses and proportional interests of all parties:

| Name | Address | Share |
|---|---|---|
| | | $ |
| | | $ |
| | | $ |
| | | $ |
| | | $ |
| | | $ |
| | | $ |

The name of the partnership firm under which the above partners are operating is _____

_____

Give names and titles of all having authority to execute and receipt estimate vouchers and to conduct other business for the partnership, the signatures of whom are legally binding.

_____

_____

_____

_____

The undersigned hereby declares that the foregoing is a true statement of the financial condition of the individual, co-partnership, or corporation herein first named, as of the date herein first given; that this statement is for the express purpose of inducing the party to whom it is submitted to award the submitter a contract; and that any depository, vendor or other agency herein named is hereby authorized to supply such party with any information necessary to verify this statement.

NOTE: A co-partnership must give firm name and signatures of all partners. A corporation must give full corporate name, signature of official and affix corporate seal.

_____

_____

_____

_____

## Affidavit for Individual

STATE OF _____ }
COUNTY OF _____ } SS:

_____

_____ being duly sworn, deposes and says that the foregoing financial statement, taken from his books, is a true and accurate statement of his financial condition as of the date thereof and that the answers to the foregoing interrogatories are true.

Subscribed and sworn to before me this _____
(Applicant must sign here)

_____ day of _____ 20_____

_____
Notary Public

## Affidavit for Co-Partnership

STATE OF _____ }
COUNTY OF _____ } SS:

_____

_____ being duly sworn, deposes and says that he is a member of the firm of _____; that he is familiar with the books of the said firm showing its financial condition; that the foregoing financial statement, taken from the books of said firm, is a true and accurate statement of the financial condition of the said firm as of the date thereof and that the answer to the foregoing interrogatories are true.

Subscribed and sworn to before me this _____
(Member of firm must sign here)

_____ day of _____ 20_____

_____
Notary Public

## Affidavit for Corporation

STATE OF _____ }
COUNTY OF _____ } SS:

_____

_____ being duly sworn, deposes and says that he is

_____ of the _____, corporation described in and which executed the foregoing statement; that he is familiar with the books of the said corporation showing its financial condition; that the foregoing financial statement, taken from the books of the said corporation, is a true and accurate statement of the financial condition of said corporation as of the date thereof and that the answers to the foregoing interrogatories are true.

Subscribed and sworn to before me this _____
(Officer must sign here)

_____ day of _____ 20_____

_____
Notary Public

SECTION 00 52 00 – FORM OF AGREEMENT

1.01 SUMMARY

A. This Section includes the Form of Agreement. AIA Form A101, Standard Form of Agreement Between Owner and Contractor 1997 follows this page.

# AIA® Document A101™ – 1997

## *Standard Form of Agreement Between Owner and Contractor*

*where the basis of payment is a STIPULATED SUM*

**AGREEMENT** made as of the day of
in the year of
*(In words, indicate day, month and year)*

**BETWEEN** the Owner:
*(Name, address and other information)*

and the Contractor:
*(Name, address and other information)*

The Project is:
*(Name and location)*

The Architect is:
*(Name, address and other information)*

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

AIA Document A201-1997, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

This document has been approved and endorsed by The Associated General Contractors of America.

The Owner and Contractor agree as follows.

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Init.

## ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement; these form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than Modifications, appears in Article 8.

## ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others.

## ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

**§ 3.1** The date of commencement of the Work shall be the date of this Agreement unless a different date is stated below or provision is made for the date to be fixed in a notice to proceed issued by the Owner.
*(Insert the date of commencement if it differs from the date of this Agreement or, if applicable, state that the date will be fixed in a notice to proceed.)*

If, prior to the commencement of the Work, the Owner requires time to file mortgages, mechanic's liens and other security interests, the Owner's time requirement shall be as follows:

**§ 3.2** The Contract Time shall be measured from the date of commencement.

**§ 3.3** The Contractor shall achieve Substantial Completion of the entire Work not later than days from the date of commencement, or as follows:
*(Insert number of calendar days. Alternatively, a calendar date may be used when coordinated with the date of commencement. Unless stated elsewhere in the Contract Documents, insert any requirements for earlier Substantial Completion of certain portions of the Work.)*

, subject to adjustments of this Contract Time as provided in the Contract Documents.
*(Insert provisions, if any, for liquidated damages relating to failure to complete on time or for bonus payments for early completion of the Work.)*

## ARTICLE 4 CONTRACT SUM

**§ 4.1** The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be Dollars ($ ), subject to additions and deductions as provided in the Contract Documents.

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§ 4.2 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:
*(State the numbers or other identification of accepted alternates. If decisions on other alternates are to be made by the Owner subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires)*

§ 4.3 Unit prices, if any, are as follows:

**ARTICLE 5 PAYMENTS**
**§ 5.1 PROGRESS PAYMENTS**
**§ 5.1.1** Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

**§ 5.1.2** The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

**§ 5.1.3** Provided that an Application for Payment is received by the Architect not later than the day of a month, the Owner shall make payment to the Contractor not later than the day of the month. If an Application for Payment is received by the Architect after the application date fixed above, payment shall be made by the Owner not later than ( ) days after the Architect receives the Application for Payment.

**§ 5.1.4** Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment.

**§ 5.1.5** Applications for Payment shall indicate the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

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§ 5.1.6 Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

.1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of percent ( %). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 7.3.8 of AIA Document A201–1997;

.2 Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), less retainage of percent ( %);

.3 Subtract the aggregate of previous payments made by the Owner; and

.4 Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment as provided in Section 9.5 of AIA Document A201–1997.

§ 5.1.7 The progress payment amount determined in accordance with Section 5.1.6 shall be further modified under the following circumstances:

.1 add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Architect shall determine for incomplete Work, retainage applicable to such work and unsettled claims; and
*(Section 9.8.5 of AIA Document A201–1997 requires release of applicable retainage upon Substantial Completion of Work with consent of surety, if any.)*

.2 add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, any additional amounts payable in accordance with Section 9.10.3 of AIA Document A201–1997.

§ 5.1.8 Reduction or limitation of retainage, if any, shall be as follows:
*(If it is intended, prior to Substantial Completion of the entire Work, to reduce or limit the retainage resulting from the percentages inserted in Sections 5.1.6.1 and 5.1.6.2 above, and this is not explained elsewhere in the Contract Documents, insert here provisions for such reduction or limitation.)*

§ 5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

### § 5.2 FINAL PAYMENT

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when:

.1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Section 12.2.2 of AIA Document A201–1997, and to satisfy other requirements, if any, which extend beyond final payment; and

.2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

## ARTICLE 6 TERMINATION OR SUSPENSION

§ 6.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–1997.

§ 6.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–1997.

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## ARTICLE 7 MISCELLANEOUS PROVISIONS

§ 7.1 Where reference is made in this Agreement to a provision of AIA Document A201–1997 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 7.2 Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.
*(Insert rate of interest agreed upon, if any.)*

*(Usury laws and requirements under the Federal Truth in Lending Act, similar state and local consumer credit laws and other regulations at the Owner's and Contractor's principal places of business, the location of the Project and elsewhere may affect the validity of this provision. Legal advice should be obtained with respect to deletions or modifications, and also regarding requirements such as written disclosures or waivers.)*

§ 7.3 The Owner's representative is:
*(Name, address and other information)*

§ 7.4 The Contractor's representative is:
*(Name, address and other information)*

§ 7.5 Neither the Owner's nor the Contractor's representative shall be changed without ten days written notice to the other party.

§ 7.6 Other provisions:

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## ARTICLE 8 ENUMERATION OF CONTRACT DOCUMENTS

§ 8.1 The Contract Documents, except for Modifications issued after execution of this Agreement, are enumerated as follows:

§ 8.1.1 The Agreement is this executed 1997 edition of the Standard Form of Agreement Between Owner and Contractor, AIA Document A101–1997.

§ 8.1.2 The General Conditions are the 1997 edition of the General Conditions of the Contract for Construction, AIA Document A201–1997.

§ 8.1.3 The Supplementary and other Conditions of the Contract are those contained in the Project Manual dated , and are as follows:

| Document | Title | Pages |
|---|---|---|

§ 8.1.4 The Specifications are those contained in the Project Manual dated as in Section 8.1.3, and are as follows:
*(Either list the Specifications here or refer to an exhibit attached to this Agreement.)*

| Section | Title | Pages |
|---|---|---|

§ 8.1.5 The Drawings are as follows, and are dated unless a different date is shown below:
*(Either list the Drawings here or refer to an exhibit attached to this Agreement.)*

| Number | Title | Date |
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§ 8.1.6 The Addenda, if any, are as follows:

| Number | Date | Pages |
|---|---|---|

Portions of Addenda relating to bidding requirements are not part of the Contract Documents unless the bidding requirements are also enumerated in this Article 8.

§ 8.1.7 Other documents, if any, forming part of the Contract Documents are as follows:
*(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201–1997 provides that bidding requirements such as advertisement or invitation to bid, Instructions to Bidders, sample forms and the Contractor's bid are not part of the Contract Documents unless enumerated in this Agreement. They should be listed here only if intended to be part of the Contract Documents.)*

This Agreement is entered into as of the day and year first written above and is executed in at least three original copies, of which one is to be delivered to the Contractor, one to the Architect for use in the administration of the Contract, and the remainder to the Owner.

| | |
|---|---|
| **OWNER** *(Signature)* | **CONTRACTOR** *(Signature)* |
| *(Printed name and title)* | *(Printed name and title)* |

CAUTION: You should sign an original AIA Contract Document, on which this text appears in RED. An original assures that changes will not be obscured.

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SECTION 00 70 00 – GENERAL CONDITIONS

1.01 SUMMARY

A. This Section includes the General Conditions. AIA Form A201, General Conditions of the Contract for Construction (1997) follows this page.

# AIA® Document A201™ – 1997

## *General Conditions of the Contract for Construction*

for the following PROJECT:
*(Name and location or address)*

THE OWNER:
*(Name and address)*

THE ARCHITECT:
*(Name and address)*

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

This document has been approved and endorsed by The Associated General Contractors of America

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## ARTICLE 1 GENERAL PROVISIONS

### § 1.1 BASIC DEFINITIONS

#### § 1.1.1 THE CONTRACT DOCUMENTS

The Contract Documents consist of the Agreement between Owner and Contractor (hereinafter the Agreement), Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include other documents such as bidding requirements (advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or portions of Addenda relating to bidding requirements).

#### § 1.1.2 THE CONTRACT

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Architect and Contractor, (2) between the Owner and a Subcontractor or Sub-subcontractor, (3) between the Owner and Architect or (4) between any persons or entities other than the Owner and Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

#### § 1.1.3 THE WORK

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

#### § 1.1.4 THE PROJECT

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner or by separate contractors.

#### § 1.1.5 THE DRAWINGS

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules and diagrams.

#### § 1.1.6 THE SPECIFICATIONS

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

#### § 1.1.7 THE PROJECT MANUAL

The Project Manual is a volume assembled for the Work which may include the bidding requirements, sample forms, Conditions of the Contract and Specifications.

### § 1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

**§ 1.2.1** The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

**§ 1.2.2** Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

**§ 1.2.3** Unless otherwise stated in the Contract Documents, words which have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

### § 1.3 CAPITALIZATION

**§ 1.3.1** Terms capitalized in these General Conditions include those which are (1) specifically defined, (2) the titles of numbered articles or (3) the titles of other documents published by the American Institute of Architects.

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## § 1.4 INTERPRETATION

§ 1.4.1 In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

## § 1.5 EXECUTION OF CONTRACT DOCUMENTS

§ 1.5.1 The Contract Documents shall be signed by the Owner and Contractor. If either the Owner or Contractor or both do not sign all the Contract Documents, the Architect shall identify such unsigned Documents upon request.

§ 1.5.2 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents.

## § 1.6 OWNERSHIP AND USE OF DRAWINGS, SPECIFICATIONS AND OTHER INSTRUMENTS OF SERVICE

§ 1.6.1 The Drawings, Specifications and other documents, including those in electronic form, prepared by the Architect and the Architect's consultants are Instruments of Service through which the Work to be executed by the Contractor is described. The Contractor may retain one record set. Neither the Contractor nor any Subcontractor, Sub-subcontractor or material or equipment supplier shall own or claim a copyright in the Drawings, Specifications and other documents prepared by the Architect or the Architect's consultants, and unless otherwise indicated the Architect and the Architect's consultants shall be deemed the authors of them and will retain all common law, statutory and other reserved rights, in addition to the copyrights. All copies of Instruments of Service, except the Contractor's record set, shall be returned or suitably accounted for to the Architect, on request, upon completion of the Work. The Drawings, Specifications and other documents prepared by the Architect and the Architect's consultants, and copies thereof furnished to the Contractor, are for use solely with respect to this Project. They are not to be used by the Contractor or any Subcontractor, Sub-subcontractor or material or equipment supplier on other projects or for additions to this Project outside the scope of the Work without the specific written consent of the Owner, Architect and the Architect's consultants. The Contractor, Subcontractors, Sub-subcontractors and material or equipment suppliers are authorized to use and reproduce applicable portions of the Drawings, Specifications and other documents prepared by the Architect and the Architect's consultants appropriate to and for use in the execution of their Work under the Contract Documents. All copies made under this authorization shall bear the statutory copyright notice, if any, shown on the Drawings, Specifications and other documents prepared by the Architect and the Architect's consultants. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with this Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' copyrights or other reserved rights.

# ARTICLE 2 OWNER

## § 2.1 GENERAL

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

## § 2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

§ 2.2.1 The Owner shall, at the written request of the Contractor, prior to commencement of the Work and thereafter, furnish to the Contractor reasonable evidence that financial arrangements have been made to fulfill the Owner's obligations under the Contract. Furnishing of such evidence shall be a condition precedent to commencement or continuation of the Work. After such evidence has been furnished, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.2 Except for permits and fees, including those required under Section 3.7.1, which are the responsibility of the Contractor under the Contract Documents, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

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§ 2.2.3 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 2.2.4 Information or services required of the Owner by the Contract Documents shall be furnished by the Owner with reasonable promptness. Any other information or services relevant to the Contractor's performance of the Work under the Owner's control shall be furnished by the Owner after receipt from the Contractor of a written request for such information or services.

§ 2.2.5 Unless otherwise provided in the Contract Documents, the Contractor will be furnished, free of charge, such copies of Drawings and Project Manuals as are reasonably necessary for execution of the Work.

### § 2.3 OWNER'S RIGHT TO STOP THE WORK

§ 2.3.1 If the Contractor fails to correct Work which is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or persistently fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

### § 2.4 OWNER'S RIGHT TO CARRY OUT THE WORK

§ 2.4.1 If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven-day period after receipt of written notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may after such seven-day period give the Contractor a second written notice to correct such deficiencies within a three-day period. If the Contractor within such three-day period after receipt of such second notice fails to commence and continue to correct any deficiencies, the Owner may, without prejudice to other remedies the Owner may have, correct such deficiencies. In such case an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect or failure. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

## ARTICLE 3 CONTRACTOR

### § 3.1 GENERAL

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons other than the Contractor.

### § 3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

§ 3.2.1 Since the Contract Documents are complementary, before starting each portion of the Work, the Contractor shall carefully study and compare the various Drawings and other Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 2.2.3, shall take field measurements of any existing conditions related to that portion of the Work and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, any errors, inconsistencies or omissions discovered by the Contractor shall be reported promptly to the Architect as a request for information in such form as the Architect may require.

§ 3.2.2 Any design errors or omissions noted by the Contractor during this review shall be reported promptly to the Architect, but it is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional unless otherwise specifically provided in the Contract Documents. The

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Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, building codes, and rules and regulations, but any nonconformity discovered by or made known to the Contractor shall be reported promptly to the Architect.

**§ 3.2.3** If the Contractor believes that additional cost or time is involved because of clarifications or instructions issued by the Architect in response to the Contractor's notices or requests for information pursuant to Sections 3.2.1 and 3.2.2, the Contractor shall make Claims as provided in Sections 4.3.6 and 4.3.7. If the Contractor fails to perform the obligations of Sections 3.2.1 and 3.2.2, the Contractor shall pay such costs and damages to the Owner as would have been avoided if the Contractor had performed such obligations. The Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents or for differences between field measurements or conditions and the Contract Documents unless the Contractor recognized such error, inconsistency, omission or difference and knowingly failed to report it to the Architect.

### § 3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

**§ 3.3.1** The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall evaluate the jobsite safety thereof and, except as stated below, shall be fully and solely responsible for the jobsite safety of such means, methods, techniques, sequences or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely written notice to the Owner and Architect and shall not proceed with that portion of the Work without further written instructions from the Architect. If the Contractor is then instructed to proceed with the required means, methods, techniques, sequences or procedures without acceptance of changes proposed by the Contractor, the Owner shall be solely responsible for any resulting loss or damage.

**§ 3.3.2** The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for or on behalf of the Contractor or any of its Subcontractors.

**§ 3.3.3** The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

### § 3.4 LABOR AND MATERIALS

**§ 3.4.1** Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

**§ 3.4.2** The Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order.

**§ 3.4.3** The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

### § 3.5 WARRANTY

**§ 3.5.1** The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless otherwise required or permitted by the Contract Documents, that the Work will be free from defects not inherent in the quality required or permitted, and that the Work will conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, modifications not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

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## § 3.6 TAXES

**§ 3.6.1** The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor which are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

## § 3.7 PERMITS, FEES AND NOTICES

**§ 3.7.1** Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit and other permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work which are customarily secured after execution of the Contract and which are legally required when bids are received or negotiations concluded.

**§ 3.7.2** The Contractor shall comply with and give notices required by laws, ordinances, rules, regulations and lawful orders of public authorities applicable to performance of the Work.

**§ 3.7.3** It is not the Contractor's responsibility to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, building codes, and rules and regulations. However, if the Contractor observes that portions of the Contract Documents are at variance therewith, the Contractor shall promptly notify the Architect and Owner in writing, and necessary changes shall be accomplished by appropriate Modification.

**§ 3.7.4** If the Contractor performs Work knowing it to be contrary to laws, statutes, ordinances, building codes, and rules and regulations without such notice to the Architect and Owner, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

## § 3.8 ALLOWANCES

**§ 3.8.1** The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

**§ 3.8.2** Unless otherwise provided in the Contract Documents:

- **.1** allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- **.2** Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances;
- **.3** whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

**§ 3.8.3** Materials and equipment under an allowance shall be selected by the Owner in sufficient time to avoid delay in the Work.

## § 3.9 SUPERINTENDENT

**§ 3.9.1** The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor. Important communications shall be confirmed in writing. Other communications shall be similarly confirmed on written request in each case.

## § 3.10 CONTRACTOR'S CONSTRUCTION SCHEDULES

**§ 3.10.1** The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall not exceed time limits current under the Contract Documents, shall be revised at appropriate intervals as required by the conditions of the Work and Project, shall be related to the entire Project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the Work.

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**§ 3.10.2** The Contractor shall prepare and keep current, for the Architect's approval, a schedule of submittals which is coordinated with the Contractor's construction schedule and allows the Architect reasonable time to review submittals.

**§ 3.10.3** The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

### § 3.11 DOCUMENTS AND SAMPLES AT THE SITE

**§ 3.11.1** The Contractor shall maintain at the site for the Owner one record copy of the Drawings, Specifications, Addenda, Change Orders and other Modifications, in good order and marked currently to record field changes and selections made during construction, and one record copy of approved Shop Drawings, Product Data, Samples and similar required submittals. These shall be available to the Architect and shall be delivered to the Architect for submittal to the Owner upon completion of the Work.

### § 3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

**§ 3.12.1** Shop Drawings are drawings, diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier or distributor to illustrate some portion of the Work.

**§ 3.12.2** Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

**§ 3.12.3** Samples are physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

**§ 3.12.4** Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents. The purpose of their submittal is to demonstrate for those portions of the Work for which submittals are required by the Contract Documents the way by which the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals which are not required by the Contract Documents may be returned by the Architect without action.

**§ 3.12.5** The Contractor shall review for compliance with the Contract Documents, approve and submit to the Architect Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of separate contractors. Submittals which are not marked as reviewed for compliance with the Contract Documents and approved by the Contractor may be returned by the Architect without action.

**§ 3.12.6** By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents that the Contractor has determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

**§ 3.12.7** The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples or similar submittals until the respective submittal has been approved by the Architect.

**§ 3.12.8** The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples or similar submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or similar submittals by the Architect's approval thereof.

**§ 3.12.9** The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such written notice the Architect's approval of a resubmission shall not apply to such revisions.

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§ 3.12.10 The Contractor shall not be required to provide professional services which constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. The Contractor shall not be required to provide professional services in violation of applicable law. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided the Owner and Architect have specified to the Contractor all performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review, approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

### § 3.13 USE OF SITE

§ 3.13.1 The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

### § 3.14 CUTTING AND PATCHING

§ 3.14.1 The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or separate contractors by cutting, patching or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's consent to cutting or otherwise altering the Work.

### § 3.15 CLEANING UP

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove from and about the Project waste materials, rubbish, the Contractor's tools, construction equipment, machinery and surplus materials.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the cost thereof shall be charged to the Contractor.

### § 3.16 ACCESS TO WORK

§ 3.16.1 The Contractor shall provide the Owner and Architect access to the Work in preparation and progress wherever located.

### § 3.17 ROYALTIES, PATENTS AND COPYRIGHTS

§ 3.17.1 The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or Architect. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Architect.

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### § 3.18 INDEMNIFICATION

**§ 3.18.1** To the fullest extent permitted by law and to the extent claims, damages, losses or expenses are not covered by Project Management Protective Liability insurance purchased by the Contractor in accordance with Section 11.3, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section 3.18.

**§ 3.18.2** In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

## ARTICLE 4 ADMINISTRATION OF THE CONTRACT

### § 4.1 ARCHITECT

**§ 4.1.1** The Architect is the person lawfully licensed to practice architecture or an entity lawfully practicing architecture identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The term "Architect" means the Architect or the Architect's authorized representative.

**§ 4.1.2** Duties, responsibilities and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified or extended without written consent of the Owner, Contractor and Architect. Consent shall not be unreasonably withheld.

**§ 4.1.3** If the employment of the Architect is terminated, the Owner shall employ a new Architect against whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the former Architect.

### § 4.2 ARCHITECT'S ADMINISTRATION OF THE CONTRACT

**§ 4.2.1** The Architect will provide administration of the Contract as described in the Contract Documents, and will be an Owner's representative (1) during construction, (2) until final payment is due and (3) with the Owner's concurrence, from time to time during the one-year period for correction of Work described in Section 12.2. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified in writing in accordance with other provisions of the Contract.

**§ 4.2.2** The Architect, as a representative of the Owner, will visit the site at intervals appropriate to the stage of the Contractor's operations (1) to become generally familiar with and to keep the Owner informed about the progress and quality of the portion of the Work completed, (2) to endeavor to guard the Owner against defects and deficiencies in the Work, and (3) to determine in general if the Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will neither have control over or charge of, nor be responsible for, the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents, except as provided in Section 3.3.1.

**§ 4.2.3** The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

**§ 4.2.4 Communications Facilitating Contract Administration.** Except as otherwise provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall endeavor to communicate with each other through the Architect about matters arising out of or relating to the

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Contract. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and material suppliers shall be through the Contractor. Communications by and with separate contractors shall be through the Owner.

**§ 4.2.5** Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

**§ 4.2.6** The Architect will have authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.5.2 and 13.5.3, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees, or other persons or entities performing portions of the Work.

**§ 4.2.7** The Architect will review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken with such reasonable promptness as to cause no delay in the Work or in the activities of the Owner, Contractor or separate contractors, while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5 and 3.12. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of any construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

**§ 4.2.8** The Architect will prepare Change Orders and Construction Change Directives, and may authorize minor changes in the Work as provided in Section 7.4.

**§ 4.2.9** The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion, will receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor, and will issue a final Certificate for Payment upon compliance with the requirements of the Contract Documents.

**§ 4.2.10** If the Owner and Architect agree, the Architect will provide one or more project representatives to assist in carrying out the Architect's responsibilities at the site. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in an exhibit to be incorporated in the Contract Documents.

**§ 4.2.11** The Architect will interpret and decide matters concerning performance under and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If no agreement is made concerning the time within which interpretations required of the Architect shall be furnished in compliance with this Section 4.2, then delay shall not be recognized on account of failure by the Architect to furnish such interpretations until 15 days after written request is made for them.

**§ 4.2.12** Interpretations and decisions of the Architect will be consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and initial decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either and will not be liable for results of interpretations or decisions so rendered in good faith.

**§ 4.2.13** The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

### § 4.3 CLAIMS AND DISPUTES

**§ 4.3.1 Definition.** A Claim is a demand or assertion by one of the parties seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time or other relief with respect to the terms of

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the Contract. The term "Claim" also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. Claims must be initiated by written notice. The responsibility to substantiate Claims shall rest with the party making the Claim.

**§ 4.3.2 Time Limits on Claims.** Claims by either party must be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later. Claims must be initiated by written notice to the Architect and the other party.

**§ 4.3.3 Continuing Contract Performance.** Pending final resolution of a Claim except as otherwise agreed in writing or as provided in Section 9.7.1 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

**§ 4.3.4 Claims for Concealed or Unknown Conditions.** If conditions are encountered at the site which are (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then notice by the observing party shall be given to the other party promptly before conditions are disturbed and in no event later than 21 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend an equitable adjustment in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall so notify the Owner and Contractor in writing, stating the reasons. Claims by either party in opposition to such determination must be made within 21 days after the Architect has given notice of the decision. If the conditions encountered are materially different, the Contract Sum and Contract Time shall be equitably adjusted, but if the Owner and Contractor cannot agree on an adjustment in the Contract Sum or Contract Time, the adjustment shall be referred to the Architect for initial determination, subject to further proceedings pursuant to Section 4.4.

**§ 4.3.5 Claims for Additional Cost.** If the Contractor wishes to make Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the Work. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.6.

**§ 4.3.6** If the Contractor believes additional cost is involved for reasons including but not limited to (1) a written interpretation from the Architect, (2) an order by the Owner to stop the Work where the Contractor was not at fault, (3) a written order for a minor change in the Work issued by the Architect, (4) failure of payment by the Owner, (5) termination of the Contract by the Owner, (6) Owner's suspension or (7) other reasonable grounds, Claim shall be filed in accordance with this Section 4.3.

**§ 4.3.7 Claims for Additional Time**

**§ 4.3.7.1** If the Contractor wishes to make Claim for an increase in the Contract Time, written notice as provided herein shall be given. The Contractor's Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay only one Claim is necessary.

**§ 4.3.7.2** If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the scheduled construction.

**§ 4.3.8 Injury or Damage to Person or Property.** If either party to the Contract suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

**§ 4.3.9** If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed in a proposed Change Order or Construction Change Directive so that application of such unit prices to quantities of Work proposed will cause substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

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**§ 4.3.10 Claims for Consequential Damages.** The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes:

.1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and

.2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 4.3.10 shall be deemed to preclude an award of liquidated direct damages, when applicable, in accordance with the requirements of the Contract Documents.

**§ 4.4 RESOLUTION OF CLAIMS AND DISPUTES**

**§ 4.4.1 Decision of Architect.** Claims, including those alleging an error or omission by the Architect but excluding those arising under Sections 10.3 through 10.5, shall be referred initially to the Architect for decision. An initial decision by the Architect shall be required as a condition precedent to mediation, arbitration or litigation of all Claims between the Contractor and Owner arising prior to the date final payment is due, unless 30 days have passed after the Claim has been referred to the Architect with no decision having been rendered by the Architect. The Architect will not decide disputes between the Contractor and persons or entities other than the Owner.

**§ 4.4.2** The Architect will review Claims and within ten days of the receipt of the Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Architect is unable to resolve the Claim if the Architect lacks sufficient information to evaluate the merits of the Claim or if the Architect concludes that, in the Architect's sole discretion, it would be inappropriate for the Architect to resolve the Claim.

**§ 4.4.3** In evaluating Claims, the Architect may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Architect in rendering a decision. The Architect may request the Owner to authorize retention of such persons at the Owner's expense.

**§ 4.4.4** If the Architect requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of such request, and shall either provide a response on the requested supporting data, advise the Architect when the response or supporting data will be furnished or advise the Architect that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Architect will either reject or approve the Claim in whole or in part.

**§ 4.4.5** The Architect will approve or reject Claims by written decision, which shall state the reasons therefor and which shall notify the parties of any change in the Contract Sum or Contract Time or both. The approval or rejection of a Claim by the Architect shall be final and binding on the parties but subject to mediation and arbitration.

**§ 4.4.6** When a written decision of the Architect states that (1) the decision is final but subject to mediation and arbitration and (2) a demand for arbitration of a Claim covered by such decision must be made within 30 days after the date on which the party making the demand receives the final written decision, then failure to demand arbitration within said 30 days' period shall result in the Architect's decision becoming final and binding upon the Owner and Contractor. If the Architect renders a decision after arbitration proceedings have been initiated, such decision may be entered as evidence, but shall not supersede arbitration proceedings unless the decision is acceptable to all parties concerned.

**§ 4.4.7** Upon receipt of a Claim against the Contractor or at any time thereafter, the Architect or the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Architect or the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

**§ 4.4.8** If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines prior to resolution of the Claim by the Architect, by mediation or by arbitration.

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### § 4.5 MEDIATION

**§ 4.5.1** Any Claim arising out of or related to the Contract, except Claims relating to aesthetic effect and except those waived as provided for in Sections 4.3.10, 9.10.4 and 9.10.5 shall, after initial decision by the Architect or 30 days after submission of the Claim to the Architect, be subject to mediation as a condition precedent to arbitration or the institution of legal or equitable proceedings by either party.

**§ 4.5.2** The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect. Request for mediation shall be filed in writing with the other party to the Contract and with the American Arbitration Association. The request may be made concurrently with the filing of a demand for arbitration but, in such event, mediation shall proceed in advance of arbitration or legal or equitable proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order.

**§ 4.5.3** The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

### § 4.6 ARBITRATION

**§ 4.6.1** Any Claim arising out of or related to the Contract, except Claims relating to aesthetic effect and except those waived as provided for in Sections 4.3.10, 9.10.4 and 9.10.5, shall, after decision by the Architect or 30 days after submission of the Claim to the Architect, be subject to arbitration. Prior to arbitration, the parties shall endeavor to resolve disputes by mediation in accordance with the provisions of Section 4.5.

**§ 4.6.2** Claims not resolved by mediation shall be decided by arbitration which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association currently in effect. The demand for arbitration shall be filed in writing with the other party to the Contract and with the American Arbitration Association, and a copy shall be filed with the Architect.

**§ 4.6.3** A demand for arbitration shall be made within the time limits specified in Sections 4.4.6 and 4.6.1 as applicable, and in other cases within a reasonable time after the Claim has arisen, and in no event shall it be made after the date when institution of legal or equitable proceedings based on such Claim would be barred by the applicable statute of limitations as determined pursuant to Section 13.7.

**§ 4.6.4 Limitation on Consolidation or Joinder.** No arbitration arising out of or relating to the Contract shall include, by consolidation or joinder or in any other manner, the Architect, the Architect's employees or consultants, except by written consent containing specific reference to the Agreement and signed by the Architect, Owner, Contractor and any other person or entity sought to be joined. No arbitration shall include, by consolidation or joinder or in any other manner, parties other than the Owner, Contractor, a separate contractor as described in Article 6 and other persons substantially involved in a common question of fact or law whose presence is required if complete relief is to be accorded in arbitration. No person or entity other than the Owner, Contractor or a separate contractor as described in Article 6 shall be included as an original third party or additional third party to an arbitration whose interest or responsibility is insubstantial. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of a Claim not described therein or with a person or entity not named or described therein. The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

**§ 4.6.5 Claims and Timely Assertion of Claims.** The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

**§ 4.6.6 Judgment on Final Award.** The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

## ARTICLE 5 SUBCONTRACTORS

### § 5.1 DEFINITIONS

**§ 5.1.1** A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in

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number and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.

**§ 5.1.2** A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term "Sub-subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

### § 5.2 AWARD OF SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

**§ 5.2.1** Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the names of persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each principal portion of the Work. The Architect will promptly reply to the Contractor in writing stating whether or not the Owner or the Architect, after due investigation, has reasonable objection to any such proposed person or entity. Failure of the Owner or Architect to reply promptly shall constitute notice of no reasonable objection.

**§ 5.2.2** The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

**§ 5.2.3** If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

**§ 5.2.4** The Contractor shall not change a Subcontractor, person or entity previously selected if the Owner or Architect makes reasonable objection to such substitute.

### § 5.3 SUBCONTRACTUAL RELATIONS

**§ 5.3.1** By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work, which the Contractor, by these Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement which may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

### § 5.4 CONTINGENT ASSIGNMENT OF SUBCONTRACTS

**§ 5.4.1** Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner provided that:

.1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements which the Owner accepts by notifying the Subcontractor and Contractor in writing; and

.2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

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§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

## ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

### § 6.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

§ 6.1.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under Conditions of the Contract identical or substantially similar to these including those portions related to insurance and waiver of subrogation. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such Claim as provided in Section 4.3.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the Owner in reviewing their construction schedules when directed to do so. The Contractor shall make any revisions to the construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, separate contractors and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces, the Owner shall be deemed to be subject to the same obligations and to have the same rights which apply to the Contractor under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6 and Articles 10, 11 and 12.

### § 6.2 MUTUAL RESPONSIBILITY

§ 6.2.1 The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Architect apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor so to report shall constitute an acknowledgment that the Owner's or separate contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discoverable.

§ 6.2.3 The Owner shall be reimbursed by the Contractor for costs incurred by the Owner which are payable to a separate contractor because of delays, improperly timed activities or defective construction of the Contractor. The Owner shall be responsible to the Contractor for costs incurred by the Contractor because of delays, improperly timed activities, damage to the Work or defective construction of a separate contractor.

§ 6.2.4 The Contractor shall promptly remedy damage wrongfully caused by the Contractor to completed or partially completed construction or to property of the Owner or separate contractors as provided in Section 10.2.5.

§ 6.2.5 The Owner and each separate contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

### § 6.3 OWNER'S RIGHT TO CLEAN UP

§ 6.3.1 If a dispute arises among the Contractor, separate contractors and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

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## ARTICLE 7 CHANGES IN THE WORK

### § 7.1 GENERAL

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor and Architect; a Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor; an order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents, and the Contractor shall proceed promptly, unless otherwise provided in the Change Order, Construction Change Directive or order for a minor change in the Work.

### § 7.2 CHANGE ORDERS

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor and Architect, stating their agreement upon all of the following:

.1 change in the Work;
.2 the amount of the adjustment, if any, in the Contract Sum; and
.3 the extent of the adjustment, if any, in the Contract Time.

§ 7.2.2 Methods used in determining adjustments to the Contract Sum may include those listed in Section 7.3.3.

### § 7.3 CONSTRUCTION CHANGE DIRECTIVES

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

.1 mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
.2 unit prices stated in the Contract Documents or subsequently agreed upon;
.3 cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
.4 as provided in Section 7.3.6.

§ 7.3.4 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.5 A Construction Change Directive signed by the Contractor indicates the agreement of the Contractor therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.6 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the method and the adjustment shall be determined by the Architect on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, a reasonable allowance for overhead and profit. In such case, and also under Section 7.3.3.3, the Contractor

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shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.6 shall be limited to the following:

.1 costs of labor, including social security, old age and unemployment insurance, fringe benefits required by agreement or custom, and workers' compensation insurance;

.2 costs of materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;

.3 rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;

.4 costs of premiums for all bonds and insurance, permit fees, and sales, use or similar taxes related to the Work; and

.5 additional costs of supervision and field office personnel directly attributable to the change.

**§ 7.3.7** The amount of credit to be allowed by the Contractor to the Owner for a deletion or change which results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

**§ 7.3.8** Pending final determination of the total cost of a Construction Change Directive to the Owner, amounts not in dispute for such changes in the Work shall be included in Applications for Payment accompanied by a Change Order indicating the parties' agreement with part or all of such costs. For any portion of such cost that remains in dispute, the Architect will make an interim determination for purposes of monthly certification for payment for those costs. That determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a claim in accordance with Article 4.

**§ 7.3.9** When the Owner and Contractor agree with the determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and shall be recorded by preparation and execution of an appropriate Change Order.

### § 7.4 MINOR CHANGES IN THE WORK

**§ 7.4.1** The Architect will have authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order and shall be binding on the Owner and Contractor. The Contractor shall carry out such written orders promptly.

## ARTICLE 8 TIME

### § 8.1 DEFINITIONS

**§ 8.1.1** Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

**§ 8.1.2** The date of commencement of the Work is the date established in the Agreement.

**§ 8.1.3** The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

**§ 8.1.4** The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

### § 8.2 PROGRESS AND COMPLETION

**§ 8.2.1** Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

**§ 8.2.2** The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the effective date of insurance required by Article 11 to be furnished by the Contractor and Owner. The date of commencement of the Work shall not be changed by the effective date of such insurance. Unless the date of commencement is established by the Contract Documents or a notice to proceed given by the Owner, the Contractor shall notify the Owner in writing not less than five days or other agreed period before commencing the Work to permit the timely filing of mortgages, mechanic's liens and other security interests.

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§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

### § 8.3 DELAYS AND EXTENSIONS OF TIME

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by an act or neglect of the Owner or Architect, or of an employee of either, or of a separate contractor employed by the Owner, or by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties or other causes beyond the Contractor's control, or by delay authorized by the Owner pending mediation and arbitration, or by other causes which the Architect determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Section 4.3.

§ 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

## ARTICLE 9 PAYMENTS AND COMPLETION

### § 9.1 CONTRACT SUM

§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

### § 9.2 SCHEDULE OF VALUES

§ 9.2.1 Before the first Application for Payment, the Contractor shall submit to the Architect a schedule of values allocated to various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment.

### § 9.3 APPLICATIONS FOR PAYMENT

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment for operations completed in accordance with the schedule of values. Such application shall be notarized, if required, and supported by such data substantiating the Contractor's right to payment as the Owner or Architect may require, such as copies of requisitions from Subcontractors and material suppliers, and reflecting retainage if provided for in the Contract Documents.

§ 9.3.1.1 As provided in Section 7.3.8, such applications may include requests for payment on account of changes in the Work which have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.

§ 9.3.1.2 Such applications may not include requests for payment for portions of the Work for which the Contractor does not intend to pay to a Subcontractor or material supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage and transportation to the site for such materials and equipment stored off the site.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.

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## § 9.4 CERTIFICATES FOR PAYMENT

**§ 9.4.1** The Architect will, within seven days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part as provided in Section 9.5.1.

**§ 9.4.2** The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data comprising the Application for Payment, that the Work has progressed to the point indicated and that, to the best of the Architect's knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

## § 9.5 DECISIONS TO WITHHOLD CERTIFICATION

**§ 9.5.1** The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of:

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or another contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 persistent failure to carry out the Work in accordance with the Contract Documents.

**§ 9.5.2** When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

## § 9.6 PROGRESS PAYMENTS

**§ 9.6.1** After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.

**§ 9.6.2** The Contractor shall promptly pay each Subcontractor, upon receipt of payment from the Owner, out of the amount paid to the Contractor on account of such Subcontractor's portion of the Work, the amount to which said Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of such Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

**§ 9.6.3** The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

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§ 9.6.4 Neither the Owner nor Architect shall have an obligation to pay or to see to the payment of money to a Subcontractor except as may otherwise be required by law.

§ 9.6.5 Payment to material suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors and suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, shall create any fiduciary liability or tort liability on the part of the Contractor for breach of trust or shall entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

### § 9.7 FAILURE OF PAYMENT

§ 9.7.1 If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents the amount certified by the Architect or awarded by arbitration, then the Contractor may, upon seven additional days' written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shut-down, delay and start-up, plus interest as provided for in the Contract Documents.

### § 9.8 SUBSTANTIAL COMPLETION

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion which shall establish the date of Substantial Completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and shall fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Upon such acceptance and consent of surety, if any, the Owner shall make payment of retainage applying to such Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

### § 9.9 PARTIAL OCCUPANCY OR USE

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented

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to by the insurer as required under Section 11.4.1.5 and authorized by public authorities having jurisdiction over the Work. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

**§ 9.9.2** Immediately prior to such partial occupancy or use, the Owner, Contractor and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

**§ 9.9.3** Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

**§ 9.10 FINAL COMPLETION AND FINAL PAYMENT**

**§ 9.10.1** Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, when the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

**§ 9.10.2** Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner, (3) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment and (5), if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including all costs and reasonable attorneys' fees.

**§ 9.10.3** If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

**§ 9.10.4** The making of final payment shall constitute a waiver of Claims by the Owner except those arising from:

- .1 liens, Claims, security interests or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents; or
- .3 terms of special warranties required by the Contract Documents.

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§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

## ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

### § 10.1 SAFETY PRECAUTIONS AND PROGRAMS

§ 10.1.1 The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract.

### § 10.2 SAFETY OF PERSONS AND PROPERTY

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to:

.1 employees on the Work and other persons who may be affected thereby;

.2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Sub-subcontractors; and

.3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

§ 10.2.2 The Contractor shall give notices and comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

§ 10.2.3 The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent sites and utilities.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3, except damage or loss attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not load or permit any part of the construction or site to be loaded so as to endanger its safety.

### § 10.3 HAZARDOUS MATERIALS

§ 10.3.1 If reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner and Architect in writing.

§ 10.3.2 The Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to verify that it has been rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of such material or substance or who are to perform the task of removal or safe containment of such material or substance. The Contractor and the Architect will promptly reply to the Owner in

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writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. The Contract Time shall be extended appropriately and the Contract Sum shall be increased in the amount of the Contractor's reasonable additional costs of shut-down, delay and start-up, which adjustments shall be accomplished as provided in Article 7.

**§ 10.3.3** To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself) and provided that such damage, loss or expense is not due to the sole negligence of a party seeking indemnity.

**§ 10.4** The Owner shall not be responsible under Section 10.3 for materials and substances brought to the site by the Contractor unless such materials or substances were required by the Contract Documents.

**§ 10.5** If, without negligence on the part of the Contractor, the Contractor is held liable for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall indemnify the Contractor for all cost and expense thereby incurred.

**§ 10.6 EMERGENCIES**

**§ 10.6.1** In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Section 4.3 and Article 7.

## ARTICLE 11 INSURANCE AND BONDS

### § 11.1 CONTRACTOR'S LIABILITY INSURANCE

**§ 11.1.1** The Contractor shall purchase from and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located such insurance as will protect the Contractor from claims set forth below which may arise out of or result from the Contractor's operations under the Contract and for which the Contractor may be legally liable, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

- .1 claims under workers' compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed;
- .2 claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
- .3 claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
- .4 claims for damages insured by usual personal injury liability coverage;
- .5 claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom;
- .6 claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;
- .7 claims for bodily injury or property damage arising out of completed operations; and
- .8 claims involving contractual liability insurance applicable to the Contractor's obligations under Section 3.18.

**§ 11.1.2** The insurance required by Section 11.1.1 shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater. Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from date of commencement of the Work until date of final payment and termination of any coverage required to be maintained after final payment.

**§ 11.1.3** Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. These certificates and the insurance policies required by this Section 11.1 shall contain a provision that coverages afforded under the policies will not be canceled or allowed to expire until at least 30 days' prior written

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notice has been given to the Owner. If any of the foregoing insurance coverages are required to remain in force after final payment and are reasonably available, an additional certificate evidencing continuation of such coverage shall be submitted with the final Application for Payment as required by Section 9.10.2. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the Contractor with reasonable promptness in accordance with the Contractor's information and belief.

**§ 11.2 OWNER'S LIABILITY INSURANCE**

**§ 11.2.1** The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.

**§ 11.3 PROJECT MANAGEMENT PROTECTIVE LIABILITY INSURANCE**

**§ 11.3.1** Optionally, the Owner may require the Contractor to purchase and maintain Project Management Protective Liability insurance from the Contractor's usual sources as primary coverage for the Owner's, Contractor's and Architect's vicarious liability for construction operations under the Contract. Unless otherwise required by the Contract Documents, the Owner shall reimburse the Contractor by increasing the Contract Sum to pay the cost of purchasing and maintaining such optional insurance coverage, and the Contractor shall not be responsible for purchasing any other liability insurance on behalf of the Owner. The minimum limits of liability purchased with such coverage shall be equal to the aggregate of the limits required for Contractor's Liability Insurance under Sections 11.1.1.2 through 11.1.1.5.

**§ 11.3.2** To the extent damages are covered by Project Management Protective Liability insurance, the Owner, Contractor and Architect waive all rights against each other for damages, except such rights as they may have to the proceeds of such insurance. The policy shall provide for such waivers of subrogation by endorsement or otherwise.

**§ 11.3.3** The Owner shall not require the Contractor to include the Owner, Architect or other persons or entities as additional insureds on the Contractor's Liability Insurance coverage under Section 11.1.

**§ 11.4 PROPERTY INSURANCE**

**§ 11.4.1** Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 9.10 or until no person or entity other than the Owner has an insurable interest in the property required by this Section 11.4 to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project.

**§ 11.4.1.1** Property insurance shall be on an "all-risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss.

**§ 11.4.1.2** If the Owner does not intend to purchase such property insurance required by the Contract and with all of the coverages in the amount described above, the Owner shall so inform the Contractor in writing prior to commencement of the Work. The Contractor may then effect insurance which will protect the interests of the Contractor, Subcontractors and Sub-subcontractors in the Work, and by appropriate Change Order the cost thereof shall be charged to the Owner. If the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain insurance as described above, without so notifying the Contractor in writing, then the Owner shall bear all reasonable costs properly attributable thereto.

**§ 11.4.1.3** If the property insurance requires deductibles, the Owner shall pay costs not covered because of such deductibles.

**§ 11.4.1.4** This property insurance shall cover portions of the Work stored off the site, and also portions of the Work in transit.

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§ 11.4.1.5 Partial occupancy or use in accordance with Section 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

§ 11.4.2 **Boiler and Machinery Insurance.** The Owner shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner; this insurance shall include interests of the Owner, Contractor, Subcontractors and Sub-subcontractors in the Work, and the Owner and Contractor shall be named insureds.

§ 11.4.3 **Loss of Use Insurance.** The Owner, at the Owner's option, may purchase and maintain such insurance as will insure the Owner against loss of use of the Owner's property due to fire or other hazards, however caused. The Owner waives all rights of action against the Contractor for loss of use of the Owner's property, including consequential losses due to fire or other hazards however caused.

§ 11.4.4 If the Contractor requests in writing that insurance for risks other than those described herein or other special causes of loss be included in the property insurance policy, the Owner shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate Change Order.

§ 11.4.5 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, the Owner shall waive all rights in accordance with the terms of Section 11.4.7 for damages caused by fire or other causes of loss covered by this separate property insurance. All separate policies shall provide this waiver of subrogation by endorsement or otherwise.

§ 11.4.6 Before an exposure to loss may occur, the Owner shall file with the Contractor a copy of each policy that includes insurance coverages required by this Section 11.4. Each policy shall contain all generally applicable conditions, definitions, exclusions and endorsements related to this Project. Each policy shall contain a provision that the policy will not be canceled or allowed to expire, and that its limits will not be reduced, until at least 30 days' prior written notice has been given to the Contractor.

§ 11.4.7 **Waivers of Subrogation.** The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described in Article 6, if any, and any of their subcontractors, sub-subcontractors, agents and employees, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to this Section 11.4 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 6, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

§ 11.4.8 A loss insured under Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.4.10. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their Sub-subcontractors in similar manner.

§ 11.4.9 If required in writing by a party in interest, the Owner as fiduciary shall, upon occurrence of an insured loss, give bond for proper performance of the Owner's duties. The cost of required bonds shall be charged against proceeds received as fiduciary. The Owner shall deposit in a separate account proceeds so received, which the Owner shall distribute in accordance with such agreement as the parties in interest may reach, or in accordance with an arbitration award in which case the procedure shall be as provided in Section 4.6. If after such loss no other

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special agreement is made and unless the Owner terminates the Contract for convenience, replacement of damaged property shall be performed by the Contractor after notification of a Change in the Work in accordance with Article 7.

**§ 11.4.10** The Owner as fiduciary shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five days after occurrence of loss to the Owner's exercise of this power; if such objection is made, the dispute shall be resolved as provided in Sections 4.5 and 4.6. The Owner as fiduciary shall, in the case of arbitration, make settlement with insurers in accordance with directions of the arbitrators. If distribution of insurance proceeds by arbitration is required, the arbitrators will direct such distribution.

**§ 11.5 PERFORMANCE BOND AND PAYMENT BOND**

**§ 11.5.1** The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

**§ 11.5.2** Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall permit a copy to be made.

**ARTICLE 12 UNCOVERING AND CORRECTION OF WORK**

**§ 12.1 UNCOVERING OF WORK**

**§ 12.1.1** If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if required in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

**§ 12.1.2** If a portion of the Work has been covered which the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be at the Owner's expense. If such Work is not in accordance with the Contract Documents, correction shall be at the Contractor's expense unless the condition was caused by the Owner or a separate contractor in which event the Owner shall be responsible for payment of such costs.

**§ 12.2 CORRECTION OF WORK**

**§ 12.2.1 BEFORE OR AFTER SUBSTANTIAL COMPLETION**

**§ 12.2.1.1** The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

**§ 12.2.2 AFTER SUBSTANTIAL COMPLETION**

**§ 12.2.2.1** In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.4.

**§ 12.2.2.2** The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual performance of the Work.

**§ 12.2.2.3** The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

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§ 12.2.3 The Contractor shall remove from the site portions of the Work which are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction, whether completed or partially completed, of the Owner or separate contractors caused by the Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations which the Contractor might have under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

### § 12.3 ACCEPTANCE OF NONCONFORMING WORK

§ 12.3.1 If the Owner prefers to accept Work which is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

## ARTICLE 13 MISCELLANEOUS PROVISIONS

### § 13.1 GOVERNING LAW

§ 13.1.1 The Contract shall be governed by the law of the place where the Project is located.

### § 13.2 SUCCESSORS AND ASSIGNS

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns and legal representatives to the other party hereto and to partners, successors, assigns and legal representatives of such other party in respect to covenants, agreements and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make such an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to an institutional lender providing construction financing for the Project. In such event, the lender shall assume the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate such assignment.

### § 13.3 WRITTEN NOTICE

§ 13.3.1 Written notice shall be deemed to have been duly served if delivered in person to the individual or a member of the firm or entity or to an officer of the corporation for which it was intended, or if delivered at or sent by registered or certified mail to the last business address known to the party giving notice.

### § 13.4 RIGHTS AND REMEDIES

§ 13.4.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights and remedies otherwise imposed or available by law.

§ 13.4.2 No action or failure to act by the Owner, Architect or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach there under, except as may be specifically agreed in writing.

### § 13.5 TESTS AND INSPECTIONS

§ 13.5.1 Tests, inspections and approvals of portions of the Work required by the Contract Documents or by laws, ordinances, rules, regulations or orders of public authorities having jurisdiction shall be made at an appropriate time. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The

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Owner shall bear costs of tests, inspections or approvals which do not become requirements until after bids are received or negotiations concluded.

**§ 13.5.2** If the Architect, Owner or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included under Section 13.5.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.5.3, shall be at the Owner's expense.

**§ 13.5.3** If such procedures for testing, inspection or approval under Sections 13.5.1 and 13.5.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure including those of repeated procedures and compensation for the Architect's services and expenses shall be at the Contractor's expense.

**§ 13.5.4** Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

**§ 13.5.5** If the Architect is to observe tests, inspections or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

**§ 13.5.6** Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

**§ 13.6 INTEREST**

**§ 13.6.1** Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at such rate as the parties may agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

**§ 13.7 COMMENCEMENT OF STATUTORY LIMITATION PERIOD**

**§ 13.7.1** As between the Owner and Contractor:

.1 Before Substantial Completion. As to acts or failures to act occurring prior to the relevant date of Substantial Completion, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than such date of Substantial Completion;

.2 Between Substantial Completion and Final Certificate for Payment. As to acts or failures to act occurring subsequent to the relevant date of Substantial Completion and prior to issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of issuance of the final Certificate for Payment; and

.3 After Final Certificate for Payment. As to acts or failures to act occurring after the relevant date of issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of any act or failure to act by the Contractor pursuant to any Warranty provided under Section 3.5, the date of any correction of the Work or failure to correct the Work by the Contractor under Section 12.2, or the date of actual commission of any other act or failure to perform any duty or obligation by the Contractor or Owner, whichever occurs last.

## ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

**§ 14.1 TERMINATION BY THE CONTRACTOR**

**§ 14.1.1** The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, for any of the following reasons:

.1 issuance of an order of a court or other public authority having jurisdiction which requires all Work to be stopped;

.2 an act of government, such as a declaration of national emergency which requires all Work to be stopped;

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.3 because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or

.4 the Owner has failed to furnish to the Contractor promptly, upon the Contractor's request, reasonable evidence as required by Section 2.2.1.

**§ 14.1.2** The Contractor may terminate the Contract if, through no act or fault of the Contractor or a Subcontractor, Sub-subcontractor or their agents or employees or any other persons or entities performing portions of the Work under direct or indirect contract with the Contractor, repeated suspensions, delays or interruptions of the entire Work by the Owner as described in Section 14.3 constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

**§ 14.1.3** If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed and for proven loss with respect to materials, equipment, tools, and construction equipment and machinery, including reasonable overhead, profit and damages.

**§ 14.1.4** If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor or a Subcontractor or their agents or employees or any other persons performing portions of the Work under contract with the Contractor because the Owner has persistently failed to fulfill the Owner's obligations under the Contract Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' written notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

**§ 14.2 TERMINATION BY THE OWNER FOR CAUSE**

**§ 14.2.1** The Owner may terminate the Contract if the Contractor:

.1 persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials;

.2 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;

.3 persistently disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction; or

.4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

**§ 14.2.2** When any of the above reasons exist, the Owner, upon certification by the Architect that sufficient cause exists to justify such action, may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

.1 take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;

.2 accept assignment of subcontracts pursuant to Section 5.4; and

.3 finish the Work by whatever reasonable method the Owner may deem expedient. Upon request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

**§ 14.2.3** When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

**§ 14.2.4** If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Architect, upon application, and this obligation for payment shall survive termination of the Contract.

**§ 14.3 SUSPENSION BY THE OWNER FOR CONVENIENCE**

**§ 14.3.1** The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work in whole or in part for such period of time as the Owner may determine.

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§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay or interruption as described in Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent:

.1 that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or

.2 that an equitable adjustment is made or denied under another provision of the Contract.

**§ 14.4 TERMINATION BY THE OWNER FOR CONVENIENCE**

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of written notice from the Owner of such termination for the Owner's convenience, the Contractor shall:

.1 cease operations as directed by the Owner in the notice;

.2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and

.3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.

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ARTICLE 1 – GENERAL PROVISIONS

1.1 Basic Definitions:

1.1.1 The Contract Documents: Amend Subparagraph 1.1.1 by deleting the last sentence, beginning with the words "Unless specifically enumerated..."

1.2 Correlation and Intent of the Contract Documents: Add the following Clause to Subparagraph 1.2.1:

.1 In the case of an inconsistency between Drawings and Specifications or within either Document not clarified by addendum, the better quality or grater quantity of work shall be provided in accordance with Facilities Director Mike Pope's interpretation.

ARTICLE 3 – CONTRACTOR

3.2 Review of Contract Documents and Field Conditions by Contractor: Add the following Clause to Subparagraph 3.2.1:

.1 In general, drawings are diagrammatic and schematic, and cannot indicate every offset fitting and accessory required for compete installation and to avoid all conflict with other trades. Contractor shall review drawings to verify spaces available and meet reasonable and other space requirements in all areas; and where such requirements appear inadequate, notify Facilities Director Mike Pope before proceeding.

3.3 Supervision and Construction Procedures: Add the following Subparagraph:

3.3.4 The Contractor shall comply with the dimensions, figures and notations marked on the Drawings in preference to what the drawings may measure in scale; however, in the absence of figured dimension, the Contractor shall contact the Facilities Director Mike Pope for solution. Contractors shall not scale dimensions form the drawings unless expressly directed to do so by the Facilities Director Mike Pope.

3.4 Labor and Materials: Add the following Clauses to Subparagraph 3.4.2:

.1 After the Contract has been executed, the Owner and Consultant will consider formal requests for the substitution of products in place of those specified only under the conditions set forth in Division 01 Section – Product Requirements.

.2 By making requests for substitutions based on Subparagraph 3.4.2, the Contractor:

.1 Represents that the Contractor has personally investigated the proposed substitute product and determined that it is equal or superior in all respects to that specified.

.2 Represents that the Contractor will provide the same warranty for the substitution that the Contractor would for that specified.

.3 Certifies that the cost data presented is complete and includes all related costs under this Contract, but excludes costs under separate contracts, and excludes the Architect's redesign cost, and waives all claims for additional costs related to the substitution which subsequently become apparent.

.4 Will coordinate the installation of accepted substitute, making such changes as may be required for the work to be complete in all respects.

SECTION 00 73 00 – SUPPLEMENTARY CONDITIONS

1.01 SUMMARY

A. The following supplements modify the "General Conditions of the Contract for Construction," AIA Document A201, Electronic Format, 1997 Edition. Where a portion of the General Conditions is modified or deleted by these Supplementary Conditions, the unaltered portions of the General Conditions shall remain in effect.

1.02 RELATED SECTIONS

A. Related Sections include the following:

1. Common Construction Wage

TABLE OF GENERAL CONDITIONS ARTICLES AMENDED

| | Article | Amendment | |
|---|---|---|---|
| 1. | General Provisions | 1.1 | Basic Definitions |
| | | 1.2 | Correlation and Intent of the Contract Documents |
| 3. | Contractor | 3.2 | Review of Contract Documents and Field Conditions by Contractor |
| | | 3.3 | Supervision and Construction Procedures |
| | | 3.4 | Labor and Materials |
| | | 3.6 | Taxes |
| | | 3.7 | Permits, Fees, and Notices |
| | | 3.9 | Superintendent |
| 5. | Subcontractors | 5.2 | Award of Subcontracts and Other Contracts for Portions of the Work |
| 7. | Changes in the Work | 7.1 | General |
| | | 7.2 | Change Orders |
| | | 7.3 | Construction Change Directives |
| 8. | Time | 8.3 | Delays and Extensions of Time |
| 9. | Payments and Completion | 9.2 | Schedule of Values |
| | | 9.3 | Applications for payment |
| | | 9.6 | Progress Payments |
| | | 9.8 | Substantial Completion |
| | | 9.10 | Final Completion and Final Payment |
| 10. | Protection of Persons and Property | 10.2 | Persons and Property |
| 11. | Insurance and Bonds | 11.1 | Contractor's Liability Insurance |
| | | 11.4 | Property Insurance |
| | | 11.5 | Performance Bond and Payment Bond |
| 13. | Miscellaneous Provisions | 13.5 | Tests and Inspections |
| | | 13.8 | Indiana Prevailing Wage Compliance |
| | | 13.9 | DBE Provisions |

3.6 Taxes: Add the following Subparagraphs to Paragraph 3.6:

3.6.2 For this Project which has a Tax-Exempt status, the Owner, upon request, shall provide the major Contractor(s) for the work a copy of, or signed statement identifying, each certificate of Tax Exemption to which the Owner is entitled. It shall then become the responsibility of the respective Contractor to notify his subcontractors and suppliers of the exemption from taxation of materials acquired for this Project, and to enforce full compliance by all Subcontractors and suppliers. Insofar as transactions between the Owner and Contractor/Suppliers are involved, this exemption status applies to all bidding in any division of the work, for materials/products furnished; for services performed and directly incorporated into construction of the Project.

3.7 Permits, Fees and Notices: Add the following Clause to Subparagraph to 3.7.1:

.1 The Contractor shall pay all fees and obtain and pay for all permits required for completion of his contract. Contractor shall obtain and pay for building permit and improvement location permit and deliver two copies of each permit to the Owner as soon as it is acquired. The permit should contain the declared valuation of the project and note the cost of the permit.

.2 Likewise, two copies of all legal notices, records of licenses acquired for the project, and state or municipal authority certificates of inspection and occupancy, shall be delivered promptly to the Owner.

.3 The fee associated with filing for a Construction Design Release by the Indiana Department of Homeland Security, Plan Review Division, will be paid by the Owner and is not a part of this contract.

3.9 Superintendent: Add the following Clause to Subparagraph to 3.9.1:

.1 Superintendent shall not be charged on the project, without written notice of approval from the Owner and Architect.

ARTICLE 5 – SUBCONTRACTORS

5.2 Award of Subcontracts and other Contracts for portions of the Work: Add the following Clause to Subparagraph to 5.2.1:

.1 Not later than 48 hours after submission of bid, the Contractors shall provide a list showing the names of approved manufacturer proposed to be used for each of the products and the name of the installing Subcontractor on form prepared by Architect and included in Bidding Requirements. Failure to object to a manufacturer shall not constitute a waiver of any of the requirements of the Contract Documents, and all products furnished by the listed manufacturer must conform to such requirements.

ARTICLE 7 – CHANGES IN THE WORK

7.1 General: Add the following subparagraph to Paragraph 7.1:

7.1.4 The combined overhead and profit included in the total cost to the Owner of a change in the Work shall be based on the following schedule:

.1 For the Contractor, the Work performed by the Contractor's own forces, ten percent (10%) of the cost.

.2 For the Contractor, for Work performed by his subcontractor, five percent 5%) of the amount due the subcontractor.

.3 For each subcontractor or sub-subcontractor involved, for Work performed by his own force, ten percent (10%) of the cost.

.4 For each subcontractor, for Work performed by his sub-subcontractors, five percent (5%) of the amount due the sub-subcontractor.

.5 Cost to which overhead and profit is to be applied shall be determined in accordance with Subparagraph 7.3.6.

.6 In order to facilitate checking of quotations for extras or credit, all proposals, except those so minor that their priority can be seen by inspection, shall be accompanied by a complete itemization of cost including labor, materials, and subcontractors performing portions of the Work. Labor and materials shall be itemized in the manner prescribed above. Where major cost items are subcontracts, they shall also be itemized.

7.2 Change Orders: Add the following Subparagraphs to Paragraph 7.2

7.2.3 Contractor's itemized estimate for charges or credits for additions to or deductions from work required by Contract shall always be available for inspection by the Owner.

7.2.4 No percentage will be allowed for overhead or profit on such items as Insurance, Welfare Fund or Taxes.

7.3 Construction Change Directives: Revise Subparagraph 7.3.6 as follows:

7.3.6 In the third line Subparagraph 7.3.6, delete the words "a reasonable allowance for overhead and profit" and substitute "an allowance for overhead and profit in accordance with the schedule set forth in subparagraph 7.1.4 above.

ARTICLE 8 – TIME

8.3 Delays and Extensions of Time: Add the following Clause to Subparagraph 8.3.1:

.1 If the progress of the Work is delayed relative to the Contractor's latest approved Construction Schedule without justification in accordance with subparagraph 8.3.1, the Contractor shall work such overtime necessary to comply with the Project Schedule. Such overtime Work is to be executed without additional compensation.

ARTICLE 9 – PAYMENTS AND COMPLETION

9.2 Schedule of Values: Add the following Clause to Subparagraph 9.2.1:

.1 Schedule of values shall be submitted on AIA Document G702 and G703.

9.3 Applications for Payment: Add the following Clauses to Subparagraph to 9.3.1:

.3 Until the Work is 50 percent complete, the Owner shall pay 90 percent of the amount due the Contractor on account of progress payments. At the time the Work is 50 percent complete and thereafter, Facilities Director Mike Pope will authorize remaining partial payments to be paid in full.

.4 Each Application for Payment shall include the following documents:

.1 AIA Documents G702 and G703;

.2 Partial Waiver of Lien, required from the Contractor on the first Pay Request and each one thereafter until the last or final Pay Request which will then require a Full or Final Waiver of Lien;

.3 Partial Waiver of Lien from the Subcontractors and material suppliers on their previous payment. Final Pay Request will have Full of Final Waiver of Lien from the Subcontractors and material suppliers;

.4 Other such documents as may be required by the Owner.

9.6 Progress Payments: (Not Used)

9.8 Substantial Completion

9.8.5 Upon such acceptance and consent of surety, if any, the Owner shall make payment sufficient to increase the total payments to ninety-five percent (95%) of the Contract Sum, less such amounts as the Facilities Director Mike Pope shall determine for incomplete Work and unsettled claims.

9.10 Final Completion and Final Payment

Add the following Subparagraph to Paragraph 9.10:

9.10.6 Final payment shall be due within 61 days following the date of Substantial Completion. If at that time there are any remaining incomplete minor items, an amount equal to 200% of the value of each item as determined by the Facilities Director Mike Pope shall be withheld until the incomplete item or items are completed. Final payment will include any retainage upon presentation to the Owner by the Contractor of AIA Document G707 and G704 (consent of surety and Substantial Completion.

ARTICLE 10 – PROTECTION OF PERSONS AND PROPERTY

10.2 Persons and Property: Add the following Clause to Subparagraph 10.2.73:

.1 Basis for sizing of existing structure of this Project is unknown. Such sizing is presumed not to be calculated to provide for concentrations of unusual or eccentric stresses imposed by demolition, heavy construction, or erection equipment or stacked concentrations of building materials place thereon.

.2 Any intent by the Contractor to so place heavy equipment or materials during stages of construction shall require him to engage a Registered Engineer and prepare calculations and drawings to submitted to the Facilities Director Mike Pope for approval and clearance before any such loads are imposed.

.3 The relevant cost of the engineering, the preparation, the additional labor, and materials required to protect and secure the original design against any impairment resulting from heavy concentration(s) of construction materials or equipment loads shall be included in the lump sum of construction of the Project.

ARTICLE 11 – INSURANCE AND BONDS

11.1 Contractor's Liability Insurance:

11.1.1.1 Delete the semicolon at the end of Clause 11.1.1.1 and add:

, including private entities performing Work at the site and exempt from the coverage on account of number of employees or occupation, which entities shall maintain voluntary compensation coverage at the same limits specified for

11.1.1.2 Delete the semicolon at the end of Clause 11.1.1.2 and add:

or persons or entities excluded by statute from the requirements of Clause

11.1.1.1 but required by the Contract Documents to provide the insurance required by that clause.

11.1.2 Add the following Clauses to Subparagraph 11.1.2:

.1 The limits for Worker's Compensation and Employer' Liability Insurance shall meet statutory limits mandated by State and Federal Laws. If (1) limits in excess of those required by statute are to be provided or (2) the employer is not statutorily bound to obtain such insurance coverage or (3) additional coverages are required, additional coverages and limits for such insurance shall be as follows:

.2 The limits for Commercial General Liability insurance including coverage for Premises-Operations, Independent Contractors' protective, Products-Completed Operations, Contractual Liability, Personal Injury and Broad Form Property Damage (including coverage for Explosion, Collapse and Underground hazards) shall be as follows:

$1,000,000.00 Each Occurrence
$1,000,000.00 Job Site Aggregate
$1,000,000.00 Personal and Advertising Injury
$1,000,000.00 Products-Completed Operations Aggregate

.1 The policy shall be endorsed to have the Job Site Aggregate apply to the Project only. When a Job Site Aggregate endorsement is not available, provide a 2,000,000 General Aggregate.

.2 The Contractual Liability insurance shall include coverage sufficient to meet the obligations in AIA Document A201-1997 under Paragraph 3.18.

.3 Products and Completed Operations insurance shall be maintained for minimum period of at least two (2) years after either 90 days following Substantial Completion or final payment, whichever is earlier.

.3 Automobile Liability insurance (owned, non-owned and hired vehicles) for bodily injury and property damage shall be as follows:

$1,000,000.00 Each Accident

.4 Umbrella or Excess Liability coverage shall be as follows:
$3,000,000.00 over primary insurance
$10,000.00 retention for self-insured hazards each occurrence

11.1.3 Add the following sentence to the end of Subparagraph 11.1.3:

If this insurance is written on a Commercial General Liability policy form the certificates shall be ACORD form 25-S, completed and supplemented in

accordance with AIA Document G715, Instruction Sheet and Supplemental Attachment for ACORD Certificated of Insurance 25-S.

11.4 Property Insurance: Delete Clause 11.4.1.4 and substitute the following:

11.4.1.4 The Contractor shall at the Contractor's own expense provide insurance coverage for materials stored off the site after written approval of the Owner at the value established in the approval, and also for portions of the Work in transit until such materials are permanently attached to the Work.

11.5 Performance Bond and Payment Bond: Delete Subparagraph 11.5.1 and substitute the following:

11.5.1 The Contractor shall furnish bonds covering faithful performance of the contract and payment of obligations arising there under and remaining in full force and effect for 12 months from date of substantial completion of the work. The cost thereof shall be included in the Contract Sum. The amount of each bond shall be equal to one hundred percent (100%) of the Contract Sum.

11.5.1.1 All bonds must be secured from a bonding company as listed in the current edition of the U.S. Treasury Department, Circular #570, and authorized to transact business in the State of Indiana.

11.5.1.2 The Contractor shall deliver the required bonds to the Owner not later than three days following the date the Agreement is entered into, or if the Work is to be commence prior thereto in response to a letter of intent, the Contractor shall, prior to the commencement of the Work, submit evidence of satisfactory to the Owner that such bonds will be furnished.

11.5.1.3 The Contractor shall require the attorney-in-fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of the power of attorney.

ARTICLE 13 – MISCELLANEOUS PROVISIONS

Add the following to Article 13:

13.8 Davis-Bacon Act:

13.8.1 Davis-Bacon Act must be followed.

13.9 Minority Business Enterprise/Women Business Enterprise Provisions:

13.9.1 Contractor shall comply with provisions for Affirmative Action indicated in Notice to Bidders.

13.10 Project Labor Agreement:

13.10.1 The successful bidding contract is subject to the Contractor negotiating a Project Labor Agreement with the appropriate unions, trades and the Owner.

END OF SECTION

SECTION 00 73 46 – COMMON CONSTRUCTION WAGE SCHEDULE

1.01 SUMMARY

A. This Section includes the Common Construction Wage. The . Wage Determination for the Project follows this page.

Columbus City Hall

General Decision Number: IN100002 05/14/2010 IN2

Superseded General Decision Number: IN20080002

State: Indiana

Construction Type: Building

Counties: Adams, Allen, Bartholomew, Benton, Blackford, Boone, Carroll, Cass, Clinton, DeKalb, Delaware, Fountain, Fulton, Grant, Hamilton, Hancock, Hendricks, Howard, Huntington, Jay, Johnson, Madison, Marion, Miami, Monroe, Montgomery, Morgan, Noble, Shelby, Steuben, Tippecanoe, Tipton, Wabash, Warren, Wells, White and Whitley Counties in Indiana.

CASS, FULTON AND WHITE COUNTIES:

BUILDING CONSTRUCTION(does not include single family homes and apartments up to and including 4 stories)

| Modification Number | Publication Date |
|---|---|
| 0 | 03/12/2010 |
| 1 | 03/19/2010 |
| 2 | 04/02/2010 |
| 3 | 04/09/2010 |
| 4 | 04/16/2010 |
| 5 | 04/23/2010 |
| 6 | 04/30/2010 |
| 7 | 05/07/2010 |
| 8 | 05/14/2010 |

ASBE0018-004 06/01/2009

BARTHOLOMEW, BENTON, BOONE, CARROLL, CLINTON, DELAWARE, FOUNTAIN, HAMILTON, HANCOCK, HENDRICKS, HOWARD, JOHNSON, MADISON, MARION, MONROE, MONTGOMERY, MORGAN, SHELBY, TIPPECANOE, TIPTON, AND WARREN COUNTIES:

| | Rates | Fringes |
|---|---|---|
| ASBESTOS WORKER/HEAT & FROST INSULATOR (includes application of all insulating materials, protective coverings, coatings and finishings to all types of mechanical systems) | $ 31.14 | 12.84 |
| HAZARDOUS MATERIAL HANDLER (includes preparation, wettings, stripping, removal, scrapping, vacuuming, bagging & disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems) | $ 18.75 | 9.70 |

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ASBE0041-002 07/05/2009

ADAMS, ALLEN, BLACKFORD, DE KALB, GRANT, HUNTINGTON, JAY, MIAMI, NOBLE, STEUBEN, WABASH, WELLS AND WHITLEY COUNTIES:

| | Rates | Fringes |
|---|---|---|
| ASBESTOS WORKER/HEAT & FROST INSULATOR (includes application of all insulating materials, protective coverings, coatings and finishings to all types of mechanical systems) | $ 29.04 | 12.36 |
| HAZARDOUS MATERIAL HANDLER (includes preparation, wettings, stripping, removal, scrapping, vaccuming, bagging & disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems) | $ 18.70 | 9.70 |

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ASBE0075-003 06/01/2009

CASS, FULTON AND WHITE COUNTIES:

| | Rates | Fringes |
|---|---|---|
| ASBESTOS WORKER/HEAT & FROST INSULATOR (includes application of all insulating materials, protective coverings, coatings and finishings to all types of mechanical systems) | $ 31.40 | 13.09 |
| HAZARDOUS MATERIAL HANDLER (includes preparation, wetting, stripping, removal, scrapping, vaccuming, bagging & disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems) | $ 19.35 | 10.35 |

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BOIL0374-002 07/01/2007

| | Rates | Fringes |
|---|---|---|
| BOILERMAKER | $ 32.00 | 17.72 |

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BRIN0003-001 06/01/2009

INDIANAPOLIS
BOONE, HANCOCK, HENDRICKS, JOHNSON, MARION, MONTGOMERY, MORGAN,

and SHELBY COUNTIES

| | Rates | Fringes |
|---|---|---|
| Bricklayer, Stone Mason, Pointer, Caulking | $ 29.85 | 10.13 |
| TERRAZZO FINISHER | $ 18.92 | 5.70 |
| TERRAZZO WORKER/SETTER | $ 29.50 | 9.33 |
| Tile & Marble Finisher | $ 19.80 | 5.72 |
| Tile, Marble Setter | $ 28.90 | 9.23 |

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BRIN0004-004 06/01/2009

FORT WAYNE
ADAMS, ALLEN, DEKALB, HUNTINGTON, NOBLE, STEUBEN, WELLS AND WHITLEY COUNTIES:

| | Rates | Fringes |
|---|---|---|
| BRICKLAYER (STONE MASON, MARBLE MASONS, POINTER, CLEANER, AND CAULKER) | $ 27.72 | 11.05 |
| Terrazzo Grinder Finisher | $ 22.26 | 8.45 |
| Terrazzo Worker Mechanic | $ 26.77 | 10.10 |
| Tile Setter & Marble Mason Mechanic | $ 24.11 | 10.10 |
| Tile, Marble & Terrazzo Finisher | $ 19.09 | 8.45 |

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BRIN0004-021 06/01/2009

BLOOMINGTON
BARTHOLOMEW AND MONROE COUNTIES

| | Rates | Fringes |
|---|---|---|
| Bricklayer, Stonemason | $ 27.45 | 9.51 |
| TERRAZZO FINISHER | $ 18.00 | 4.10 |
| TERRAZZO WORKER/SETTER | $ 27.80 | 7.07 |
| Tile & Marble Finisher | $ 18.82 | 4.10 |
| Tile & Marble Setter; Mosaic Worker | $ 27.27 | 6.97 |

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BRIN0011-001 06/01/2009

LAFAYETTE
BENTON, CARROLL, CLINTON, FOUNTAIN, TIPPECANOE, WARREN, and WHITE COUNTIES

| | Rates | Fringes |
|---|---|---|
| Bricklayer, Stonemason, Pointer, Caulker & Cleaner | $ 27.00 | 12.79 |
| TERRAZZO FINISHER | $ 18.92 | 5.70 |

| | | |
|---|---|---|
| TERRAZZO WORKER/SETTER | $ 29.50 | 9.33 |
| Tile & Marble Finisher | $ 19.80 | 5.72 |
| Tile & Marble Setter; Mosaic Worker | $ 28.90 | 9.23 |

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BRIN0018-001 06/01/2009

SOUTH BEND CHAPTER
CASS, FULTON, GRANT, HOWARD, MIAMI AND WABASH COUNTIES:

| | Rates | Fringes |
|---|---|---|
| Bricklayer, Stonemason, Pointer, Caulker & Cleaner | $ 27.00 | 11.19 |
| Terrazzo Worker Finisher | $ 26.05 | 9.59 |
| TERRAZZO WORKER/SETTER | $ 28.08 | 10.63 |
| Tile & Marble Finisher | $ 25.05 | 9.59 |
| Tile, Marble Setter | $ 27.08 | 10.63 |

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BRIN0019-001 06/01/2009

MUNCIE CHAPTER
BLACKFORD, DELAWARE, HAMILTON, JAY, MADISON AND TIPTON COUNTIES:

| | Rates | Fringes |
|---|---|---|
| Bricklayer, Stonemason, Pointer, Caulker & Cleaner | $ 28.05 | 12.14 |
| TERRAZZO FINISHER | $ 18.48 | 4.40 |
| TERRAZZO WORKER/SETTER | $ 28.53 | 7.54 |
| Tile & Marble Finisher | $ 19.33 | 4.40 |
| Tile & Marble Setter; Mosaic Worker | $ 27.98 | 7.44 |

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CARP0107-001 06/01/2009

ADAMS, CASS, FULTON, GRANT, HOWARD, HUNTINGTON, MIAMI, TIPTON, WABASH, AND WELLS COUNTIES:

| | Rates | Fringes |
|---|---|---|
| CARPENTER | $ 24.15 | 11.49 |
| MILLWRIGHT | $ 23.45 | 14.68 |
| Piledriver | $ 20.83 | 6.21 |

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CARP0110-002 06/01/2008

ALLEN, DEKALB, NOBLE, STEUBEN AND WHITLEY COUNTIES:

| | Rates | Fringes |
|---|---|---|
| CARPENTER | $ 23.46 | 11.16 |
| MILLWRIGHT | $ 23.40 | 14.28 |
| Piledriver | $ 20.77 | 6.21 |

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CARP0111-001 06/01/2009

BARTHOLOMEW, JOHNSON (Townships of Union, Hensley, Franklin, Nineva, Needham and Blue River), SHELBY COUNTIES

| | Rates | Fringes |
|---|---|---|
| Carpenters: | | |
| Carpenters, Drywall Insallers, Piledrivers..... | $ 25.10 | 11.82 |
| Millwrights..... | $ 25.91 | 14.00 |
| Soft Floor Layers..... | $ 25.12 | 9.88 |

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CARP0215-001 06/01/2009

BENTON, CARROLL, CLINTON, TIPPECANOE, WARREN AND WHITE COUNTIES:

| | Rates | Fringes |
|---|---|---|
| CARPENTER..... | $ 25.32 | 13.59 |
| MILLWRIGHT..... | $ 25.34 | 14.15 |

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CARP0912-001 06/01/2009

| | Rates | Fringes |
|---|---|---|
| Carpenters: | | |
| BLACKFORD, DELAWARE, JAY AND MADISON COUNTIES | | |
| Carpenters, Drywall, Installers, Piledrivers.... | $ 26.29 | 11.82 |
| Millwrights..... | $ 25.91 | 14.00 |
| Soft Floor Layers..... | $ 25.12 | 9.88 |
| BOONE, FOUNTAIN, HENDRICKS, MONROE, MONTGOMERY AND MORGAN COUNTIES | | |
| Carpenters, Drywall..... | $ 26.58 | 11.82 |
| Millwrights..... | $ 25.91 | 14.00 |
| Soft Floor Layers..... | $ 25.12 | 9.88 |

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CARP0912-002 06/01/2009

HAMILTON, HANCOCK, JOHNSON (Townships of White River, Pleasant and Clark), MARION

| | Rates | Fringes |
|---|---|---|
| Carpenters: | | |
| Carpenters, Drywall Installers, Piledrivers..... | $ 28.09 | 11.82 |
| Millwrights..... | $ 25.91 | 14.00 |

Soft Floor Layers.....$ 25.12 9.88

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ELEC0305-003 10/01/2009

ADAMS, ALLEN, DE KALB, HUNTINGTON, NOBLE, STEUBEN, WELLS, and WHITLEY COUNTIES

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN..... | $ 28.98 | 10.67 |

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ELEC0481-005 01/01/2009

BARTHOLOMEW, BOONE, HAMILTON, HANCOCK, HENDRICKS, JOHNSON, MADISON, MARION, MONTGOMERY, MORGAN AND SHELBY COUNTIES

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN..... | $ 31.45 | 14.74 |

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ELEC0538-006 06/01/2005

FOUNTAIN AND WARREN COUNTIES:

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN..... | $ 28.21 | 11.21 |

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ELEC0668-002 12/01/2009

BENTON, CARROLL, CASS, FULTON, TIPPECANOE AND WHITE COUNTIES:

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN..... | $ 31.16 | 13.12 |

FOOTNOTE:
a. PAID HOLIDAYS: New Years Day, Memorial Day, July 4th, Labor Day, Veterans Day Thanksgiving Day and Christmas Day

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ELEC0725-006 09/01/1999

MONROE COUNTY

| | Rates | Fringes |
|---|---|---|
| Communication Technician..... | $ 18.70 | 3.80+3% |

Includes the installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice sound and vision production and reproduction apparatus, equipment and appliances used for domestic, commercial, education, entertainment and private telephone systems.

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* ELEC0725-011 12/01/2009

MONROE COUNTY:

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN..... | $ 33.04 | 22%+5.54 |

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ELEC0855-003 01/01/2010

BLACKFORD, DELAWARE, AND JAY COUNTIES

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN..... | $ 31.30 | 5.70+17% |

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ELEC0873-002 06/01/2009

CLINTON, GRANT, HOWARD, MIAMI, TIPTON AND WABASH COUNTIES:

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN..... | $ 30.60 | 10.77 |

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ELEV0034-003 01/01/2010

BARTHOLOMEW, BENTON, BLACKFORD, BOONE, CARROLL, CLINTON, DELAWARE, FOUNTAIN, GRANT, HAMILTON, HANCOCK, HENDRICKS, HOWARD, JAY, JOHNSON, MADISON, MARION, MIAMI, MONROE, MONTGOMERY, MORGAN, SHELBY, TIPPECANOE, TIPTON, WABASH, and WARREN COUNTIES

| | Rates | Fringes |
|---|---|---|
| Elevator Constructor Mechanic..... | $ 39.275 | 20.035+a+b |

PAID HOLIDAYS:

a. New Year's Day, Memorial Day, Independence Day, Labor Day, Vetern's Day, Thanksgiving Day, the Friday after Thanksgiving, and Christmas Day.

b. Employer contributes 8% of regular hourly rate to vacation pay credit for employee who has worked in business more than 5 years; 6% for less than 5 years' service.

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ELEV0044-002 01/01/2010

ADAMS, ALLEN, DEKALB, HUNTINGTON, NOBLE, STEUBEN, WELLS, and WHITLEY COUNTIES

| | Rates | Fringes |
|---|---|---|
| ELEVATOR MECHANIC..... | $ 40.66 | 20.035+a+b |

PAID HOLIDAYS:

a. New Year's Day, Memorial Day, Independence Day, Labor Day, Vetern's Day, Thanksgiving Day, the Friday after Thanksgiving, and Christmas Day.

b. Employer contributes 8% of regular hourly rate to vacation pay credit for employee who has worked in business more than 5 years; 6% for less than 5 years' service.

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ELEV0057-002 01/01/2005

CASS, FULTON AND WHITE COUNTIES:

| | Rates | Fringes |
|---|---|---|
| ELEVATOR MECHANIC | $ 31.77 | 12.015 |

FOOTNOTES:

a. Employer contributes 8% basic hourly rate for 5 years or more of service or 6% basic hourly rate for 6 months to 5 years of service as vacation pay credit.

b. Eight Paid Holidays: New Year's Day; Memorial Day; Independence Day; Labor Day; Veteran's Day, Thanksgiving Day; the Friday after Thanksgiving Day and Christmas Day.

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ENGI0103-001 06/01/2009

BENTON, CARROLL, CASS, CLINTON, GRANT, HOWARD, MIAMI, TIPPECANOE, TIPTON, WABASH, and WHITE COUNTIES

| | Rates | Fringes |
|---|---|---|
| Power equipment operators: | | |
| GROUP 1 | $ 30.01 | 11.34 |
| GROUP 2 | $ 27.01 | 11.34 |
| GROUP 3 | $ 25.44 | 11.34 |
| GROUP 4 | $ 21.79 | 11.34 |

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: A-Frame Winch Truck, Air Compressors over 600 cu.ft., Air Tugger, Autograde (CMI), Auto Patrol, Backhoe, Ballast Regulator (RR), Batcher Plant (electricial control concrete), Bending Machine (pipe), Bituminous Plant (engineer), Bituminous Plant, Bituminous Mixer Travel Plant, Bituminous Paver, Bituminous Roller, Buck Hoist, Bull Dozer, Cable Way, Chicago Boom, Clamshell, Concrete Mixer (21 cu. ft. or over), Concrete Paver, Concrete Pump(crete), Crane, Craneman, Crusher Plant, Derrick, Derrick Boat, Dinkey, Dope Pots (pipeline), Dragline, Dredge Operator, Dredge Engineer, Drill Operator,, Elevating Grader, Elevator, Ford Hoe (or similar type

equipment), Forklift, Formless Paver, Gantry Crane, Gradall, Grademan, Grout Pump, Helicopter Crew, Heterington Paver, High-Lift, Hoist, Hopto, Hough Loader (or similar type), Hydro Crane, Hydro Hammer, Locomotive Crane, Locomotive, Mechanic, Mobile Mixer, Motor Crane, Mucking Machine, Multiple Tamping Machine (rr), Overhead Crane, Pile Driver, Pulls, Push Dozer, Push Boats, Roller (sheep foot), Ross Carrier, Scoop, Shovel, Side Boom, Swing Crane, Tail Boom, Tar Machine (pipeline), Throttle Valve, Tower Crane, Trench Machine, Welder (heavy duty), Truck Mounted Concrete Pump, Truck-Mounted Drill, Well Point, Whirleys

GROUP 2: Air Compressor (up to 600 cu. ft.), Brakeman, Bull Float, Concrete Mixer (over 10s and under 21s), Concrete Spreader or Puddler, Deck Engine, Drill Helper, Electic Vibrator Kompactor (earth or rock), Finishing Machine, Gireman, Greaser (on grease facilities servicing heavy equipment), Material Pump, Motor Boats, Motor Crane Oiler, Portable Loader, Post Hole Digger, Power Broom, Rock Roller, Roller-Wobble Whell (earth or rock), Spike Machine (RR) Seamen Tiller, Spreader Rock, Sub Grader, Tamping Machine, Truck Mounted Drill Oiler, Welding Machine, Widener (apsco or similar type)

GROUP 3: Air Compressor 210 cu ft & over, Bituminous Distributor, Chair Cart, Concrete Curing Machine, Concrete Saw, Dope Pot Power Agitated, Flex Plane, Form Grader, Hydrohammer, Jacks Hydraulic Power Driven, Paving Joint Machine, Post Hole Digger, Roller Earth, Throttle Valve, Track Jack Power Driven, Tractor Farm Type, Truck Crane Driver

GROUP 4: Air Compressor (under 200 cu. fr. per min), Bituminous Distributor, Cement Gun, Concrete Saw, Conveyor, Deck Hand Oiler, Earth Roller, Form Grader, Generator, Guardrail Driver, Heater, Oiler, Paving Joint Machine, Power Traffic Signals, Steam Jenny, Vibrator, Water Pump, "JLG" Lifts and "Scissor" Lift or similar machine

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ENGI0103-002 06/01/2009

BLACKFORD, DELAWARE, HAMILTON, HANCOCK, JAY, JOHNSON, MADISON, MARION, and SHELBY COUNTIES

| | Rates | Fringes |
|---|---|---|
| Power equipment operators: | | |
| GROUP 1 | $ 31.35 | 10.28 |
| GROUP 2 | $ 30.40 | 10.28 |
| GROUP 3 | $ 26.35 | 10.28 |
| GROUP 4 | $ 22.65 | 10.28 |

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Air Compressor (pressurizing shafts, tunnels & drivers); Air Tugger; Auto Patrol; Back Filler; Back Hoe;

Boom Cat; Boring Machine; Bull Dozer; Caisson Drilling Machine; Cherry Picker; Compactor (with dozer blade); Concrete Mixer (dual drum); Concrete plant; Concrete Pump; Crane with all attachments; Crane- Electric overhead; Derrick; Ditching Machine (18' and over); Dredge; Elevators (when hoisting material or tools); Fork Lift (machinery); Formless Paver; Generator (power for welders of compressor); Gradall; Helicopter; Helicopter Winch Operator; High Lift-Front End Loader; Hoist-Material and/or Personnel over 3 Floors; Locomotive; Mechanic on job site; Mucking Machine; Panel Board Concrete Plant; Pile Driver; Push Cat; Scoop & Tractor; Scraper-Rubber Tired; Spreader-Tractor Mounted; Straddle Carrier-Ross Type; Sub Base Finish Machine (C.M.I. or smiliar); Tower Crane; Tractor with Backhoe (over 1/2 yard); Welder (craft)

GROUP 2: A Frame Truck; Batcher Plant (automatic dry batch); Bending Machine-Power Driven; Bituminous Mixer; Bituminous Paver; Bituminous Plant Engineer; Boatman; Bull Float; Compactor or Tamper-Self Propelled; Concrete Mixer (21 cu. ft. or over); Concrete Spreader-Power Driven; Dinkey Engine; Ditching Machine; Ditching Machine (less than 18"); Drilling Machine; Finish Machine & Bull Float; Finishing Machine; Fireman-Pile Driving and Boilers; Fork Lift-Masonry & Material; Gunite Machine; Head Greaser; Hoist-Material and/or personnel 3 floors and under; Mechanic in shop; Mesh Depresser-Mesh Placer; P.C.C. Concrete Belt Placer; Ruller-Asphalt, stone & sub base; Sheepsfoot Roller- Self Propelled; Shop Mule; Spreader or Base Paver-Self Propelled; Sub Grader; Throttle valve with air compressor or boiler; Tractor with Backhoe (1/2 yard & under); Tractor-high lift-farm type; Tractor-Industrial Type; Tractor with Winch; Well Points; Winch Trick

GROUP 3: Air Compressor (210 cu. ft. & over); bituminous Distributor; Chair Cart; Concrete Curing Machine; Concrete Saw; Dope Pot Power Agitated; Flex Plane; Form Grader; Hydrohammer; Jacks-Hydraulic-Power Driven; Minor Equipment opr. 3,4, or 5; Paving Joint Machine; Post Hole Digger; Roller-Earth; Throttle Valve; Track Jack-Power Driven; Tractor-Farm Type; Truck Crane Driver

GROUP 4: Air Compressor (less than 210 cu. ft.); Concrete Mixer (under 21cu. ft.); Conveyor; Generator; Mechanical Heater; Oiler; Operator-2 pieces of miner equipment; Power Broom; Pump; Welding Machine

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ENGI0103-007 04/01/2009

ADAMS, ALLEN, DEKALB, HUNTINGTON, STEUBEN, WELLS, and WHITLEY COUNTIES

| | Rates | Fringes |
|---|---|---|
| Power equipment operators: | | |
| GROUP 1 | $ 29.53 | 11.02 |

| | | |
|---|---|---|
| GROUP 2 | $ 28.58 | 11.02 |
| GROUP 3 | $ 25.58 | 11.02 |
| GROUP 4 | $ 22.08 | 11.02 |

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Air Tugger; Auto Patrol, Back Filler; Back Hoe; Boom Cat; Boring Machine; Bull Dozer; Caisson Drilling Machine; Cherry Picker; Compactor (with dozer blade); Concrete Mixer (dual drum); Concrete Plant; Concrete Pump; Crane with all attachments; Crane Electric overhead; Derrick; Ditching Machine (18" and over); Dredge; Fork Lift (machinery); Formless Paver; Gradall; Helicopter; Helicopter Winch Operator; High Lift Front End Loader; Hoist Material and/or personnel over 3 floors; Locomotive; Mechanic on Job Site; Mucking Machine; Panel Board Concrete Plant; Pile Driver; Push Cat; Scoop & Tractor; Scraper Tubber Tired; Skid Steer Machine (grading and back hoe); Spreader Tractor Mounted; Straddle Carrier Ross Type; Sub Base Finish Machine (C.M.I.or similar); Tower Crane; Tractor with backhoe (over 1/2 yard); Welder for Craft Work.

GROUP 2: A-Frame Truck; Batcher Plant (automatic dry batch); Bending Machine Power Driven; Bituminous Mixer; Bituminous Paver; Bituminous Plant Engineer; Boatman; Bull Float; Compactor or Tamper Riding Only; Concrete Mixer (21 cu. ft. or over); Concrete Spreader Power Driven; Dinkey Engine; Ditching Machine (less than 18" riding only); Drilling Machine; Elevators (when hoisting material or tools); Finish Machine and bull Float (excluding trowelling machine); Fireman Pile Driving and Boilers; Gunite Machine; Head Greaser; Hoist Material and/or personnel 3 floors and under; Mesh Depressor Mesh Placer; P.C.C. Concrete Belt Placer; Roller Asphalt, Stone & Sub Base; Sheepsfoot Roller Self Propelled; Shop Mule; Spreader or Base Paver Self Propelled; Sub Grader; Throttle Valve with Air Compressor or Boiler; Tractor with Backhoe (1/2 yard & under); Tractor High Lift Farm Type; Tractor Industrial Type; Tractor with Winch; Winch Truck.

GROUP 3: Bituminous Distributor; Chair Cart; Concrete Cuting Machine; Dewatering Sytems; Dope Pot Power Agitated; Flex Plane; Fork Lift (masonry and material); Form Grader; Hydrohammer; Jacks Hydraulic Power Driven; Paving Joint Machine; Post Hole Digger (machine Mounted); Roller Earth; Skid Steer Machine (fork lift and trasporting); Throttle Valve; Track Jack Power Driven; Tractor Farm Type.

GROUP 4: Air Compressor (pressurizing shafts, tunnels and divers); Air Compressor (over 210 cu. ft.); Concrete Saw; Conveyor; Generators; Oiler; Operating minor equipment; Power Broom; Truck Crane Driver; Welding Machines over 300 amps (2 or more).

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ENGI0150-017 06/01/2009

FULTON and NOBLE COUNTIES

| | Rates | Fringes |
|---|---|---|
| Power equipment operators: | | |
| GROUP 1 | $ 26.60 | 18.00+a |
| GROUP 2 | $ 25.25 | 18.00+a |
| GROUP 3 | $ 24.45 | 18.00+a |
| GROUP 4 | $ 23.65 | 18.00+a |
| GROUP 5 | $ 21.05 | 18.00+a |

FOOTNOTE: a. PAID HOLIDAYS: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgivng Day, Day After Thanksgiving, and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS:

GROUP 1: Mechanic, Asphalt Plant, Asphalt Spreader, Auto Grader; Batch Plant, Benoto (requires 2 Engineers), Boiler and Throttle Valve, Boring Machine (road), Bulldozers (with engines of 140 net horse power or more) Caisson Rigs, Central Redi-mix Plant, Concrete Conveyor Systems, Concrete Power (over 27E cu. ft.), Concrete Paver (27E cu. ft. and under), Concrete Pumps/Grout cncrete placer (Truck Mounted), Concrete Tower, Cranes and backhoes (all), Cranes, Hammerhead Tower, Creter Crane, Derricks (all), Forklift (capble of hoisting and mechanically moving forks horizontally), Grader, Elevating, Highlift Shovels or Front End Loaders (over 3 yd bucket), Hoists (2 or more drums), Locomotives (all), Laser screed, Motor Patrol, Pile Drivers and Skid Rig, Pre-Stress Machines, Pump Cretes & Similar Types, Rock Drill (Self-Propelled), Rock Drill (self propelled Truck Mounted), Scoops (tractor drawn), Slip-Form Paver, Tournapull, Tractor with Boom & Side Boom, Trenching Machine (12 or more inches in width), Combination Backhoe Front End Loader Machine with backhoe 1/2 yd bucket or attachments.

GROUP 2: Air Compressor (600 cu. ft. and over), Bob Cat (over 3/4 cu. yd.), Boilers, Broom (all powered propelled), Bull Dozers with engines of less than 140 net horsepower, combination backhoe front end loader 1/2 yf bskhhoe or under, Compressor and Throttle Valve, Concrete Breaker (truck mounted), Concrete Mixer (of moore than 21 cu. ft. capacity), Forklift (with fixed or tilt mast), Greaser Engineer, Highlift shovel or front endloader 3 yd bucket and under, Hoists (1 drum), Hydrulic Boom Truck, Post Hole Digger (vehicle mounted), Pump Cretes (squeze crete type pumps, Gypsum, bulker , Rollers(all), Steam Generators, Stone Crushers, Stradddle Buggies, Tractors, Winch Trucks (with "a" frame.

GROUP 3: Buck Hoist, Combination (small equipment operator), .Conveyor (portable), Grouting Machine, Hoist Elevators (material and personnel), Hydraulic Power Units, Grouting and Pile Driving, Stud Welder, Trenching Machines less than 12 inches in width, Welding Machines (8 through 15).

GROUP 4: Bobcat (up to and including 3/4 cu. yd.). Compressor (over 210 cu. ft. and less than 600 cu. ft.), Generator (over 50 kw.), Heaters, Mechanical, Hoists (all elevator, permanent installation), Hoist (automatic), Hoist (tugger single drum), Oilers, Pumps, Well Points and electric submersible, Small Rubber Tired End Loaders (1/4 cu. yd. and under), Tractors (farm type) Welding Machines (2 through 8).

GROUP 5: Bobcats and forklifts (commercial or residential).

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ENGI0181-004 04/01/2010

BARTHOLOMEW COUNTY

| | Rates | Fringes |
|---|---|---|
| Power equipment operators: | | |
| GROUP A | $ 27.18 | 13.00 |
| GROUP B | $ 19.30 | 13.00 |

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP A: A-frame winch truck, articulating dump, autograde (CMI), auto patrol, ballast regulator (RR), batcher plant (electrical control concrete), bending machine (pipe), bituminous plant (engineer), bituminous plant, bituminous mixer travel plant, bituminous paver, bituminous roller, boring machine, buck hoist, bull dozer, cable way, Chicago boom, chimney hoist, clamshell, concrete mixer (21 cu.ft. or over), concrete paver, concrete pump (crete), construction elevator (Allmac or similar) creane, creaneman, crawler backhoe, bcreawler high-lift, crusher plant, derrick, derrick boat, dinkey, directional/boring machine, dope pots (pipeline), double drum tugger (electric or air), dragline, dredge operator, dredge engineer, drill operator, elevating grader, extendable boom forklift, formless paver, gantry crane, gator (or similar type tiller), gradeall, grader, grademan, greaser (on grease facility servicing heavy equipment), G.P.S. System (on equipment within the classificaitons), grout pump, head greaser, helicopter crew, Hetherington paver, hoist (motorized, gas or disel), hydraulic crane, ghdro blaster, Industrial type forklift (over 9,000 lbs.), laser concrete screed, laser or remote controlled equipment (within the classifications), locomotive crane, locomotive, mechanic, mobile mixer, botor creane, mucking machine, multiple tamping machine (RR) overhead crane, pile driver, pulls, push dozer, push boats, roller (sheep foot), rough terrain crain, R.T. backhoe, R.T. endloader, Ross carrier, scoop, shovel, side boom, skidsteer loader (bobcat or similar type), swing crane, tail boom, tar machine (pipeline), tower crane, trench machine, welder (heavy duty), truck mounted concrete pump, truck-mounted drill, vacuum truck, well point, whirleys

GROUP B: Air compressor (1 or more, 600 cfm and over), air

compressor with throttle valve, bituminous distributor, brakeman, bullfloat, cement gun, concret mixer, concrete say, soncrete spreader or puddlers, conveyor, deck hand oiler, deck engine, drill helper, earth roller electric vibrator compactor (earth or rock), elevator (in-plant, automatic), finishing machine fireman, form grader, generator, guard-rail driver, heater, oiler, Industrial type forklift (9,000 lbs and under), aterail pump, motor boats, paving joint machine, post hole digger, power broom, power traffic signals, rock roller, rock spreader, Roller (earth or rock), spike machine (RR), steam jenny, sub grader, taping machine, gruck crane oiler, truck mounted drill oiler Tugger (one-drum, air or electric)vibrator, vibro-piling hammer- hydraulic hammer or auger, water pump, widener (apsco or similar type) welding machine, JLG lifts and scissor lifts or similar machine.

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ENGI0841-008 04/01/2010

BOONE, FOUNTAIN, HENDRICKS, MONROE, MONGOMERY, MORGAN, and WARREN COUNTIES

| | Rates | Fringes |
|---|---|---|
| Power equipment operators: | | |
| GROUP 1 | $ 29.00 | 13.95 |
| GROUP 2 | $ 21.85 | 13.95 |

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Power Cranes, Draglines, Derricks, Shovels, Gradalls, Mechanics, Tractor Highlift, Tournadozer. Concret Mixers with Skip Tournamixer, Two-Drum Machine, One-Drum Hoist with Tower or Boom, Cableways, Tower Machines, Motor Patrol, Boo Tractor, Boom or Winch Truck, Winch or Hydraulic Boom Truck, Truck Crane, Tournapull, Tractor Operating Scoops, Bulldozer, Push Tractor, Asphalt Planer, Finishing Machine on Asphalt, Large Rollers on Earth, Rollers on Asphalt Mix, Ross Carrier or Similar Machine, Gravel Processing Machine, Asphalt Plant Engineer, Paver Operator, Farm Tractor with Half Yard Bucket and/or Backhoe Attachments, Dredge Engineer, or Dredge Operator, Central Mix Plant Engineer, CMI or Similar Type Machine, Truck or Skid Mounted Concrete Pump, Tower Crane, Engine or Rock Crusher Plant, Concrete Plant Engineer, Ditching Machine with Dual Attachment, Tractor Mounted Loaders, Cherry Picker, Hydro Crane, Standard or Dinkey Locomotives, Scoopmobiles, Euclid Loader, Soil Cement Machine, Back Filler, Elevating Machine, Power Blade, Drilling Machines including Well Testing, Caissons, Shaft or any similartype Drilling Machines, Motor Driven Paint Machine, Pipe Cleaning Machine, Pipe Wrapping Machine, Pipe Bending Machine, Apsco Paver, Boring Machine, (Equipment Greased), Barber-Greene Loaders, Formless Paver, (Well Point System), Concrete Spreader, Hydra Ax, Span Saw and Similar Types, Marine Scoops, Brush Mulcher, Brush Burner, Mesh Placer,

Tree Mover, Helicopter Crew (3), Piledriver-Skid or Crawler, Stump Remover, Root Rake, Tug Boat Operator, Refrigerating Machine, Freezing Operator, Chair Cart-Self Propelled, Hydra Seeder, Straw Blower Power Sub Grader, Bull Float, Finishing Machine, Self-Propelled Pavement Breaker (Backhoe Attached), Lull (or Similar Type Machine), Two Air Compressors, Compressors Hooked in Manifold, Overhead Crane, Chip Spreader, Mud Cat, Sull-Air Fork Lifts (Except when used for Landscaping Work), Soil Stablilizer (Seaman Tiller, Bo Mag, Rago Gator and Similar types or Equipment), Tube Float, Spray Machine, Curing Machine, Concrete or Asphalt Milling Machine, Snooper Truck Operator.

GROUP 2: Concrete Mixers without Skips, Rock Crusher, Ditching Machine Under 6', Curbing Machine, One Drum Machines without Tower or Boom, Air Tugger, Self-Propelled Concrete Saw, Machin- Mounted Post Hole Digger, Two to Four Generators, Water Pumps, or Welding Machines, with 400 ft., Air Compressor 600 cu. ft. and Under, Rollers on Aggregate and Seal Coat Surfaces, Fork Lifts (When used for Landscaping Work), Concrete and Blacktop Curb Machine, Farm Tractor with less than Half Yard Bucket, One Water Pump, Iolers, Air Valves or Steam Valves, One Welding Machine, Truck Jack, Mud Jack, Gunnite Machine, House Elevators when used for Hoisting Material, Engine Tenders, Wagon Drill, Flex Plane, Conveyor, Siphons nad Pulsometer, Switchman, Fireman on Paint Pots, Fireman on Asphalt Plants, Distributor Operators on Trucks, Tampers, Self-Propelled Power Broom, Striping Machine (motor driven), Form Tamper, Bulk Cement Plan Equipment Greaser, Deck Hands, Truck Crane Oiler Driver, Cement Blimps, Form Grader, Temporary Heat, Throttle Valve, Farm Tractor, Super Sucker (and similar type of equipment). FOOTNOTE: Employees operating booms from 149 ft. to 199 ft. including jib, shall receive an additional seventy five cents (.75)per hour above the rate. Employees operating booms over 199 ft. including jib, shall receive an additional one dollar and twenty-five cents ($1.25) per hour above the regular rate.

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IRON0022-004 06/01/2009

BARTHOLOMEW; BENTON, BOONE; CARROLL; CASS; CLINTON; DELAWARE (S 2/3); FOUNTAIN; FULTON (SW 1/4 OF COUNTY); GRANT (SW PORTION); HAMILTON; HANCOCK; HENDRICKS; HOWARD; JOHNSON; MADISON; MARION; MIAMI; MONROE; MONTGOMERY; MORGAN; SHELBY; TIPPECANOE; TIPTON; WARREN AND WHITE COUNTIES

| | Rates | Fringes |
|---|---|---|
| IRONWORKER..... | $ 26.20 | 16.80 |

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IRON0147-004 06/01/2009

ADAMS, ALLEN, BLACKFORD, DEKALB, DELAWARE (NORTHEAST THIRD OF COUNTY), FULTON (EASTERN PART), GRANT (EXCLUDING SOUTHWEST PORTION), HUNTINGTON, JAY, MIAMI (NORTHEAST HALF), NOBLE

(EXCLUDING NORTHEAST TIP), STEUBEN, WABASH, WELLS, and WHITLEY COUNTIES

| | Rates | Fringes |
|---|---|---|
| IRONWORKER | $ 24.07 | 16.82 |

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IRON0292-006 06/01/2009

FULTON (Remainder of County) and NOBLE (Northeastern Tip) COUNTIES

| | Rates | Fringes |
|---|---|---|
| IRONWORKER | $ 24.35 | 16.76 |

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LABO0120-001 06/01/2009

MARION and SHELBY COUNTIES

| | Rates | Fringes |
|---|---|---|
| Laborers: | | |
| GROUP 1 | $ 21.53 | 10.25 |
| GROUP 2 | $ 22.28 | 10.25 |
| GROUP 3 | $ 22.53 | 10.25 |

LABORER CLASSIFICATIONS

GROUP 1: Building and Construction Laborers; Scaffold Builders (other than for Masons and Plasterers); Mechanic Tenders; Window Washers and cleaners; Railroad Workers; Masonry Wall Washers; Portable Water pumps with discharge up to (3) inches; Flag & Signal Person; Waterproofing; Handling of Creosot Lumber or like treated material (excluding railroad material); Asphalt Rakers and Lutemen; Kettlemen; Air Tool Operators; Pneumatic Tool Operators; Air and Electric Vibrators and Chipping Hammer Operators; Earth Compactors Jackmen and Sheetmen working Ditches deeper than (6) ft.in depth; Laborers working in ditches (6) ft.in depth or deeper; Assembly of Unicrete Pump; Chain Saw and Demolition Saw; Tile Layers (sewer or field) and Sewer Pipe Layer (metallic or non-metallic); Motor driven Wheelbarrows and Concrete Buggies; Hyster Operators; Pump Crete Assemblers; Concrete Conveyor Assemblers; Core Drill Operators; Cement, Lime or Silica Clay Handlers (bulk or bag); Handling of Toxic Materials damaging to clothing; Pneumatic Spikers; Deck Engine and Winch Operators; Water Main and Cable Ducking (metallic and non-metallic); Screed Man or Screw Operator on Asphalt Paver; Asbestos Removal and Hazardous Waste Removal.

GROUP 2: Plaster Tenders; Mason Tenders; Mortar Mixers; Welders (Acetylene or electric); Cutting Torch or Burner; Cement Nozzle Laborers; Cement Gun Operator; Scaffold

Builders when working for Plasterers and Masons; Water Blast Machine.

GROUP 3: Dynamite men, Drillers-air track or wagon drilling for explosives.

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LABO0204-001 06/01/2009

FOUNTAIN, HENDRICKS, and WARREN COUNTIES

| | Rates | Fringes |
|---|---|---|
| Laborers: | | |
| Caisson and Tunnel Work in Compressed and Free Air | | |
| GROUP 1 | $ 20.32 | 10.25 |
| GROUP 2 | $ 20.52 | 10.25 |
| GROUP 3 | $ 20.62 | 10.25 |
| GROUP 4 | $ 21.32 | 10.25 |
| LABORERS | | |
| GROUP 1 | $ 20.32 | 10.25 |
| GROUP 2 | $ 21.07 | 10.25 |
| GROUP 3 | $ 21.32 | 10.25 |

LABORER CLASSIFICATIONS

GROUP 1: Building and Construction Laborers; Scaffold Builders (other than for Masons and Plasterers); Mechanic Tenders; Window Washers and cleaners; Railroad Workers; Masonry Wall Washers; Portable Water pumps with discharge up to (3) inches; Flag & Signal Person; Waterproofing; Handling of Creosot Lumber or like treated material (excluding railroad material); Asphalt Rakers and Lutemen; Kettlemen; Air Tool Operators; Pneumatic Tool Operators; Air and Electric Vibrators and Chipping Hammer Operators; Earth Compactors Jackmen and Sheetmen working Ditches deeper than (6) ft.in depth; Laborers working in ditches (6) ft.in depth or deeper; Assembly of Unicrete Pump; Chain Saw and Demolition Saw; Tile Layers (sewer or field) and Sewer Pipe Layer (metallic or non-metallic); Motor driven Wheelbarrows and Concrete Buggies; Hyster Operators; Pump Crete Assemblers; Concrete Conveyor Assemblers; Core Drill Operators; Cement, Lime or Silica Clay Handlers (bulk or bag); Handling of Toxic Materials damaging to clothing; Pneumatic Spikers; Deck Engine and Winch Operators; Water Main and Cable Ducking (metallic and non- metallic); Screed Man or Screw Operator on Asphalt Paver, Asbestos Removal, Hazardous Waste Removal.

GROUP 2: Plaster Tenders; Mason Tenders; Mortar Mixers; Welders (Acetylene or electric); Cutting Torch or Burner; Cement Nozzle Laborers; Cement Gun Operator; Scaffold Builders when working for Plasterers and Masons; Water Blast Machine.

GROUP 3: Dynamite men, Drillers-air track or wagon drilling for explosives.

LABORER CLASSIFICATIONS For CAISSON AND TUNNEL WORK In COMPRESSED and FREE AIR

GROUP 1: Cage Tenders, Dump Men, Flagman, Signalman, Top Laborers, Rod Men.

GROUP 2: Concrete Repairmen, Lock Tenders (pressure side), Motor men, Muckers, Grout Machine, Track Layers, Air Hoist, Key Board, Agitator Car, Car Pushers, Concrete Laborers, Grout Laborers, Lock Tenders (free air side), Steel Setters, Tuggers, Switchmen.

GROUP 3: Mucking Machine, Laser Beam, Liner Plate & Ring Setter, Shield Drivers, Power Knife, Welders Burners, Pipe Jacking Machine, Skinners, Maintenance Technician, Miner, Bricklayer Tenders, Concrete Blowers, DRillers, Erectors, Form Men, Jackhammermen, Mining Machine.

GROUP 4: Dynamite Men, Drillers air track or wagon drilling for explosives.

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LABO0213-001 01/01/2010

ADAMS, ALLEN, DEKALB, HUNTINGTON, NOBLE, STEUBEN, WABASH, WELLS AND WHITLEY COUNTIES

| | Rates | Fringes |
|---|---|---|
| Laborers: | | |
| GROUP 1 | $ 18.75 | 10.05 |
| GROUP 2 | $ 19.25 | 10.05 |
| GROUP 3 | $ 19.75 | 10.05 |

LABORERS CLASSIFICATION

GROUP 1: Building and Construction Laborers; Scaffold Builders (other than for Masons and Plasterers); Mechanic Tenders; Window Washers and cleaners; Railroad Workers; Masonry Wall Washers; Portable Water pumps with discharge up to (3) inches; Flag & Signal Person; Waterproofing; Handling of Creosot Lumber or like treated material (excluding railroad material); Asphalt Rakers and Lutemen; Kettlemen; Air Tool Operators; Pneumatic Tool Operators; Air and Electric Vibrators and Chipping Hammer Operators; Earth Compactors Jackmen and Sheetmen working Ditches deeper than (6) ft.in depth; Laborers working in ditches (6) ft.in depth or deeper; Assembly of Unicrete Pump; Tile Layers (sewer or field) and Sewer Pipe Layer (metallic or non-metallic); Motor driven Wheelbarrows and Concrete Buggies; Hyster Operators; Pump Crete Assemblers; Core Drill Operators; Cement, Lime or Silica Clay Handlers (bulk or bag); Handling of Toxic Materials damaging to clothing; Pneumatic Spikers; Deck Engine and Winch Operators; Water Main and Cable Ducking; Screed Man or Screw Operator on Asphalt Paver; Chain and Demolition Saw Operators;

Concrete Conveyor Assemblers

GROUP 2: Plaster Tenders; Mortar Mixers; Welders (Acetylene or electric); Cutting Torch or Burner; Cement Nozzle Laborers; Cement Gun Operator; Scaffold Builders when working for Plasterers; Water Blast Machine

GROUP 3: Dynamite men-drillers-air track or wagon drilling for explosives

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LABO0274-001 06/01/2009

BENTON, BOONE, CARROLL, CASS, CLINTON, FULTON, HOWARD, MIAMI, MONTGOMERY, TIPPECANOE, TIPTON, and WHITE COUNTIES

| | Rates | Fringes |
|---|---|---|
| Laborers: | | |
| GROUP 1 | $ 20.43 | 10.25 |
| GROUP 2 | $ 21.18 | 10.25 |
| GROUP 3 | $ 21.43 | 10.25 |

LABORER CLASSIFICATIONS

GROUP 1: Building and construction laborers; Scaffold builders (other than for masons or plasterers); Railroad Workers; Masonry Wall Washers (interior & exterior); All Portable Water Pumps with Discharge of Up to Three (3) Inches; Handling of Creosote Lumber or Like Treated Material (excluding railroad material); Asphalt Rakers and Lutemen; Earth Compactors; Jackmen and Sheetmen Working Ditches Deeper than Six (6) Feet in Depth; Laborers Working Ditches Six (6) Feet in Depth or Deeper; Assembly of Unicrete Pump; Tile Layers (sewer or field) and Sewer Pipe Layers (metallic or non-metallic); Motor Driven Wheelbarrows and Concrete Buggies; Hyster Operators; Pump Crete Assemblers; Core Drill Operators; Cement, Lime or Silica Clay Handler (bulk or bag); Handling of Toxic Material Damaging to Clothing; Pneumatic Spikers; Deck Engine and Winch Operators; Water Main and Cable Ducking (metallic and non-metallic); Screed Man or Screw Operator on Asphalt Paver; Chain Saw and Demolition Saw Operators; Concrete Saw; Concrete Conveyor Assemblers; Applying of Curing Compound; Sinking of Wellpoints; Dewatering Header Systems

GROUP 2: Plaster Tenders; Mason Tenders; Mortar Mixers; Welders (acetylene or electric); Cutting Torch or Burner; Cement Nozzle Laborers; Cement Gun Operators; Scaffold Builders for Plasterers; Scaffold Builders for Masons; Water Blast Machine Operators, Air and Electric Vibrators and Chipping Hammer Operators; Asbestos Removal; Hazardous Waste Removal; All Boiler Setters Laborers, including Expediters, Bottom Men, Bell Men, and Mason Tenders

GROUP 3: Dynamite man, Drillers-air track or wagon for

explosives.

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LABO0741-003 06/01/2009

BARTHOLOMEW, JOHNSON, MONROE, and MORGAN COUNTIES

| | Rates | Fringes |
|---|---|---|
| Laborers: | | |
| GROUP 1 | $ 20.33 | 10.25 |
| GROUP 2 | $ 21.08 | 10.25 |
| GROUP 3 | $ 21.33 | 10.25 |

LABORERS CLASSIFICATIONS

GROUP 1: Building and Construction Laborers; Scaffold Builders (other than for masons or plastersrs); Railroad Workers; Masonry Wall Washers (interior & exterior); Portable Water Pumps with Discharge up to three (3)inches; Handling of Creosote Lumber or Like Treated Material (excluding railroad material); Asphalt Rakers and Lutemen; Earth Compactors; Jackmen and Sheetmen Working Ditches Deeper than Six (6) Feet in Depth; Laborers Working Ditches Six (6) Feet in Depth or Deeper; Assembly of Unicrete Pump; Tile Layers (sewer or field) and Sewer Pipe Layers (metallic or non-metallic); Motor Driven Wheelbarrows and Concrete Buggies; Hyster Operators; Pump Crete Assemblers; Core Drill Operators; Cement, Lime or Silica Clay Handler (bulk or bag); Handling of Toxic Material Damaging to Clothing; Pneumatic Spikers; Deck Engine and Winch Operators; Water Main and Cable Ducking (metallic and non-metallic); Screed Man or Screw Operator on Asphalt Paver; Chain Saw and Demolition Saw Operators; Concrete Saw; Concrete Conveyor Assemblers; Applying of Curing Compound; Sinking of Wellpoints; Dewatering Header Systems

GROUP 2: Plaster Tenders; Mason Tenders; Mortar Mixers; Welders (acetylene or electric); Cutting Torch or Burner; Cement Nozzle Laborers; Cement Gun Operators; Scaffold Builders for Plasterers; Scaffold Builders for Masons; Water Blast Machine Operators; Air Tool Operators and all Pneumatic Tool Operators, Air and Electric Vibrators and Chipping Hammer Operators; Asbestos Removal; Hazardous Waste Removal; Biler Setters Laborers, including expediters, bottom men, bell men, and Mason Tenders

GROUP 3: Dynamite men; Drillers-air track or wagon drilling for explosives

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LABO1112-001 06/01/2009

BLACKFORD, DELAWARE, GRANT, HANCOCK, HAMILTON, JAY, and MADISON COUNTIES

| | Rates | Fringes |
|---|---|---|

Laborers:

| | | |
|---|---|---|
| GROUP 1 | $ 20.01 | 10.25 |
| GROUP 2 | $ 20.76 | 10.25 |
| GROUP 3 | $ 21.01 | 10.25 |

LABORER CLASSIFICATIONS

GROUP 1: Building and construction laborers, scaffold builders (other than for masons of plasterers), mechanic tenders, window washers and cleaners, railroad workers, masonry wall washers, portable water pumps with discharge up to 3 inches, signal & flag person, Waterproofing, hauling of creosote lumber or like treated material (excluding railroad material), asphlat rakers and lutemen, kettlemen, air tool operator, pneumatic tool operator, air & electric vibrators and chipping hammer operator, earth compactors, jackman & sheetmen in ditches more than 6 feet deep, laborers in ditches 6' deep or deeper, assembly of unicrete pump, tile layers (sewer or field), sewer pipe layers, motor- driven wheelbarrows and concrete buggies, hyster operator, pumpcrete assemblers, core drill operator, cement, lime or silica clay handlers, handling of toxic materials damaging to clothing, pneumatic spikers, deck engine & winch operator, water main & cable ducking, screed man or screw operator on asphalt paver, chain saw & demolition saw operator, concrete conveyor assembler

GROUP 2: Plaster tenders; mortar mixers; welders (acetylene or electric); cutting torch or burner; cement nozzle laborers; cement gun operators; scaffold builders for plasterers; scaffold builders for masons; water blast machine operator; Air tool Operators and all Pnuematic Tool Operators, Air and Electric Vibrators and Chipping Hammer Operators; Asbestos removal; Hazardous waste removal; All Boiler Setters Laborers, including expediters, bottom men, bell men, and Mason Tenders

GROUP 3: Dynamite men-drillers-air track or wagon drilling for explosives

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PAIN0047-003 06/01/2008

BARTHOLOMEW, BOONE, HAMILTON, HANCOCK, HENDRICKS, JOHNSON, MARION, MONROE, MORGAN AND SHELBY COUNTIES:

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| Brush and Roller | $ 24.95 | 9.73 |
| Spray and Sandblasting | $ 25.95 | 9.73 |

---

PAIN0080-001 06/01/2008

BENTON, CARROLL, CASS, CLINTON, FOUNTAIN, MONTGOMERY TIPPECANOE AND WARREN COUNTIES

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| Brush and Roller | $ 23.00 | 10.53 |
| Spray and Sandblasting | $ 24.00 | 10.53 |

---

PAIN0091-005 06/01/2009

FULTON COUNTY

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| Brush & Roller, Drywall Taping & Finishing, Vinyl/Paper Hanging | $ 24.28 | 10.65 |
| Spray | $ 24.78 | 10.65 |

---

PAIN0460-002 06/01/2009

WHITE COUNTY

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| Brush & Roller | $ 31.64 | 16.68 |
| Drywall Finisher | $ 32.44 | 16.68 |

---

PAIN0469-001 07/01/2009

ADAMS, ALLEN, DEKALB, GRANT, HUNTINGTON, NOBLE, STEUBEN, WABASH, WELLLS, and WHITLEY COUNTIES

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| 101' & over' | $ 22.97 | 9.43 |
| 31' - 60' | $ 22.37 | 9.43 |
| 61' - 100' | $ 22.77 | 9.43 |
| Brush, Roller, Paperhanger, & Drywall Finishing | $ 21.52 | 9.43 |
| Lead Abatement | $ 26.52 | 9.43 |
| Spray & Sandblast Pot Tenders and Ground Personnel | $ 22.42 | 9.43 |
| Spray, Sandblast, Power Tools, Waterblast, & Steam Cleaning | $ 22.52 | 9.43 |

---

PAIN0669-001 04/01/2009

BLACKFORD, DELAWARE, FAYETTE, FRANKLIN, HENRY, HOWARD, JAY, MADISON, MIAMI, RANDOLPH, RUSH, TIPTON, UNION and WAYNE COUNTIES

| | Rates | Fringes |
|---|---|---|
| Painters: | | |
| Brush; Roller; Paperhanging; Drywall & Finishers | $ 20.50 | 8.64 |
| Drywall w/own tools | $ 20.75 | 8.64 |
| Spray/Waterblasting; Sandblasting | $ 21.50 | 8.64 |

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PAIN1165-010 07/01/2009

FULTON COUNTY

| | Rates | Fringes |
|---|---|---|
| GLAZIER | $ 23.06 | 12.18 |

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PAIN1165-013 07/01/2009

ADAMS, ALLEN, BLACKFORD, DEKALB, GRANT, HUNTINGTON, JAY, NOBLE, STEUBEN, WABASH, WELLS, WHITLEY

| | Rates | Fringes |
|---|---|---|
| GLAZIER | $ 21.88 | 9.52 |

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PAIN1165-016 07/01/2009

BARTHOLOMEW, BENTON, BOONE, CARROLL, CASS, CLINTON, DELAWARE, FOUNTAIN, HAMILTON, HANCOCK, HENDRICKS, HOWARD, JOHNSON, MADISON, MARION, MIAMI, MONROE, MONTGOMERY, MORGAN, SHELBY, TIPPECANOE, TIPTON, WARREN, and WHITE COUNTIES

| | Rates | Fringes |
|---|---|---|
| GLAZIER | $ 26.16 | 11.07 |

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PLAS0101-002 06/01/2007

FULTON COUNTY

| | Rates | Fringes |
|---|---|---|
| CEMENT MASON/CONCRETE FINISHER | $ 23.19 | 9.75 |
| PLASTERER | $ 24.06 | 11.25 |

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PLAS0101-003 06/01/2007

ADAMS, ALLEN, DEKALB, HUNTINGTON, NOBLE, STEUBEN, WELLS AND WHITLEY COUNTIES

| | Rates | Fringes |
|---|---|---|

CEMENT MASON/CONCRETE FINISHER...$ 22.50 8.79
PLASTERER.....$ 24.18 9.31

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PLAS0692-006 06/01/2006

BARTHOLOMEW, BOONE, HAMILTON (southern half north to Indiana Rt. 32, including the city of Noblesville), HANCOCK(southern and western part), HENDRICKS, JOHNSON, MARION, MONROE, MORGAN AND SHELBY COUNTIES

| | Rates | Fringes |
|---|---|---|
| PLASTERER | | |
| AREA #46 | $ 24.00 | 10.08 |

---

PLAS0692-007 06/01/2007

MONROE COUNTY

| | Rates | Fringes |
|---|---|---|
| CEMENT MASON/CONCRETE FINISHER | | |
| AREA #75 | $ 22.75 | 8.40 |

---

PLAS0692-009 04/01/2009

BLACKFORD, DELAWARE, GRANT, HAMILTON, Parts of HANCOCK, JAY, MADISON, WABASH COUNTIES:

| | Rates | Fringes |
|---|---|---|
| CEMENT MASON/CONCRETE FINISHER | | |
| AREA #83 | $ 23.85 | 9.94 |
| PLASTERER | | |
| AREA #83 | $ 23.64 | 9.92 |

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PLAS0692-015 06/01/2009

BENTON, CARROLL, CASS, CLINTON, FOUNTAIN, HOWARD, MIAMI, MONTGOMERY, TIPPECANOE, WARREN, WHITE AND VERMILLION COUNTY (Nortrhern portion)

| | Rates | Fringes |
|---|---|---|
| CEMENT MASON/CONCRETE FINISHER | $ 25.00 | 11.10 |
| PLASTERER | $ 25.31 | 11.50 |

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PLAS0692-023 06/01/2007

BOONE COUNTY; HAMILTON COUNTY (SOUTH HALF OF COUNTY NORTH TO NEW ROUTE INDIANA #32 INCLUDING NOBLESVILLE); HANCOCK COUNTY (SOUTHERN AND WESTERN PART OF HANCOCK COUNTY, NORTH TO BUT NOT INCLUDING FORTVILLE); HENDRICKS, JOHNSON AND MARION COUNTIES;

MORGAN COUNTY (NORTHERN HALF)

| | Rates | Fringes |
|---|---|---|
| CEMENT MASON/CONCRETE FINISHER AREA #532 | $ 23.15 | 10.65 |

---

PLAS0821-001 05/01/2007

BARTHOLEMEW AND SHELBY COUNTIES

| | Rates | Fringes |
|---|---|---|
| CEMENT MASON/CONCRETE FINISHER | $ 21.90 | 8.25 |

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PLUM0136-006 04/01/2010

MONROE COUNTY

| | Rates | Fringes |
|---|---|---|
| Plumbers and Pipefitters | $ 31.77 | 14.06 |

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PLUM0157-002 01/01/2010

BENTON, CARROLL, CLINTON, FOUNTAIN, MONTGOMERY, TIPPECANOE, WARREN AND WHITE COUNTIES:

| | Rates | Fringes |
|---|---|---|
| Plumbers and Pipefitters | $ 33.31 | 12.10 |

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PLUM0166-001 01/01/2010

ADAMS, ALLEN, BLACKFORD, DE KALB, GRANT, HUNTINGTON, NOBLE, STEUBEN, WABASH, WELLS, and WHITLEY COUNTIES

| | Rates | Fringes |
|---|---|---|
| Plumber and Steamfitter | $ 30.12 | 13.28 |

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PLUM0172-002 06/01/2009

CASS, FULTON COUNTIES

| | Rates | Fringes |
|---|---|---|
| Plumber, Pipefitter, Steamfitter | $ 30.45 | 13.90 |

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PLUM0440-002 06/01/2009

BARTHOLOMEW, BOONE, HAMILTON, HANCOCK, HENDRICKS, HOWARD, JOHNSON AND MARION COUNTIES; MIAMI COUNTY (SOUTH OF A STRAIGHT

LINE WHERE ROUTE 218 ENTERS W. BOUNDARY); MORGAN, SHELBY AND TIPTON COUNTIES:

| | Rates | Fringes |
|---|---|---|
| Plumbers and Pipefitters | $ 31.63 | 13.95 |

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PLUM0661-001 07/01/2009

DELAWARE, JAY AND MADISON COUNTIES:

| | Rates | Fringes |
|---|---|---|
| Plumber and Steamfitter | $ 29.27 | 13.28 |

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ROOF0023-003 09/01/2009

ALLEN, DEKALB, NOBLE, STEUBEN, and WHITLEY COUNTIES

| | Rates | Fringes |
|---|---|---|
| Roofers: | | |
| COMPOSITION | $ 18.00 | 7.70 |
| SLATE & TILE | $ 18.50 | 7.70 |

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ROOF0023-007 06/01/2009

FULTON COUNTY

| | Rates | Fringes |
|---|---|---|
| Roofers: | | |
| COMPOSITION | $ 26.46 | 10.55 |
| SLATE & TILE | $ 26.96 | 10.55 |

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ROOF0119-003 09/01/2009

BARTHOLOMEW, BOONE, HAMILTON, HANCOCK, HENDRICKS, JOHNSON, MARION, MONROE, MORGAN, and SHELBY COUNTIES

| | Rates | Fringes |
|---|---|---|
| Roofers: | | |
| COMPOSITION | $ 23.78 | 9.32 |
| SLATE & TILE | $ 24.78 | 9.32 |

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ROOF0119-005 09/01/2009

BENTON, CARROLL, CASS, CLINTON, FOUNTAIN, MONTGOMERY, TIPPECANOE, WARREN, and WHITE COUNTIES

| | Rates | Fringes |
|---|---|---|
| ROOFER, Including Built Up, | | |

Composition and Single Ply
Roofs (Slate, Tile &
Compostion).....$ 23.78 9.32

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ROOF0205-001 05/01/2009

ADAMS, BLACKFORD, DELAWARE, GRANT, HOWARD, HUNTINGTON, JAY, MADISON, MIAMI, TIPTON, WABASH, and WELLS COUNTIES

| | Rates | Fringes |
|---|---|---|
| ROOFER, Including Built Up, Composition and Single Ply Roofs..... | $ 20.39 | 7.81 |

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SFIN0669-002 04/01/2008

| | Rates | Fringes |
|---|---|---|
| SPRINKLER FITTER..... | $ 33.19 | 13.30 |

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SHEE0020-003 07/01/2008

ADAMS, ALLEN, BLACKFORD, CASS, DEKALB, GRANT, HOWARD, HUNTINGTON, JAY, MIAMI, NOBLE, STEUBEN, WABASH, WELLS, and WHITLEY COUNTIES

| | Rates | Fringes |
|---|---|---|
| Sheet metal worker (HVAC Duct Work)..... | $ 28.23 | 15.26 |

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SHEE0020-004 06/01/2009

BARTHOLOMEW, BOONE, DELAWARE, HAMILTON, HANCOCK, HENDRICKS, JOHNSON, MADISON, MARION, MONROE, MORGAN, SHELBY AND TIPTON COUNTIES

| | Rates | Fringes |
|---|---|---|
| Sheet metal worker (Including HVAC Duct Work)..... | $ 30.43 | 16.17 |

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SHEE0020-016 07/01/2009

FULTON COUNTY

| | Rates | Fringes |
|---|---|---|
| Sheet metal worker..... | $ 28.39 | 16.48 |

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SHEE0020-020 07/01/2009

BENTON, CLINTON, CARROLL, FOUNTAIN, MONTGOMERY, TIPPECANOE,

WARREN AND WHITE COUNTIES

| | Rates | Fringes |
|---|---|---|
| Sheet metal worker (Including HVAC Duct Work) | $ 30.07 | 17.00 |

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TEAM0135-001 06/01/2009

ADAMS, ALLEN, BARTHOLOMEW, BENTON, BLACKFORD, BOONE, CARROLL, CASS, CLINTON, DE KALB, DELAWARE, FOUNTAIN, GRANT, HAMILTON, HANCOCK, HENDRICKS, HOWARD, HUNTINGTON, JAY, JOHNSON, MADISON, MARION, MIAMI, MONROE, MONTGOMERY, MORGAN, NOBLE, SHELBY, STEUBEN, TIPPECANOE, TIPTON, WABASH, WARREN, WELLS, WHITE, and WHITLEY COUNTIES

| | Rates | Fringes |
|---|---|---|
| Truck drivers: | | |
| GROUP 1 | $ 22.49 | 364.00/WK |
| GROUP 2 | $ 22.59 | 364.00/WK |
| GROUP 3 | $ 22.79 | 364.00/WK |
| GROUP 4 | $ 22.34 | 364.00/WK |
| GROUP 5 | $ 22.79 | 364.00/WK |

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Single Axle Trucks, seven (7) cu. yds. or less than ten and one-half (10 1/2) tons, dupsters, scoop-mobiles five (5) cu.yds. and under or less than seven and one-half (7 1/2) tons, mixer trucks three (3) cu.yds. and under, air compressors and welding machines, including those pulled by separate units, batch trucks-wet or dry- 2"34-E" batches or less, truck driver helpers, warehousemen, mechanic's helpers, greasers and tiremen, all pick-up trucks and other vehicles. Drivers on dumpsters or similar dumpsters, mounted on four (4) wheel truck rated two (2) cu.yds. or less, and small pallet type fork-lift operator and drivers on pallet jacks or similar type equipment.

GROUP 2: Drivers on tandem axle eighteen (18) cu.yds. or twenty- four (24) tons gross, six (6) wheel trucks, Koehring or similar dumpsters, tract trucks, Euclids, hug bottom dumps, tournapulls, trounatrailers, tournarockers, or similar equipment when used for transportation purposes under nine (9) cu.yds. or less than thirteen and one-half (13 1/2) tons, tandems and semi-trailer service trucks, mixer trucks over three (3) cu.yds. and including six and one-half (6 1/2) cu.yds., fork lift, four (4) wheel A-frame trucks when used for transportation purposes, four (4) wheel winch trucks, pavement breakers, batch trucks-wet or dry- over 2 up to and including 4-"34-E" batches two (2) men oil distributors, fork-lift under four (4) ton and vacuum trucks.

GROUP 3: Koehring or similar dumpsters, tract trucks, semi-trailer water trucks, Euclids, hug bottom dumps, tournapulls, tournatrailers, tournarockers, tractor trailers, tandems, Q- frame winch trucks, hydrolift turcks or similar equipment when used for transportation purposes, mixer trucks over six and one- half (6 1/2) cu.yds, batch trucks wet or dry over 4 - "34-E" batches single equipment operated by employees withing this Bargaining unit. Six (6) wheel pole trailers and one (1) man oil distributors, fork-lift over four (4) ton and mobile mixers.

GROUP 4: Drivers on heavy equipment over sixteen (16) cu.yds. or twenty-four (24) ton, such as Koehring or similar dumpsters, tract trucks, Euclids, hug bottom dumps, tournapulls, tournarockers or similar equipment when used for transportation purposes, pole trailers over six (6) wheels, water pulls, low-boy trailers tandem axles, quad axle or more no-weight limitation, diseal and/or heavy equipment mechanics when working on equipment operated by employees with this Bargaining unit.

GROUP 5: Mechanic furnishing his own tools.

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TEAM0364-002 06/01/2008

FULTON COUNTY

| | Rates | Fringes |
|---|---|---|
| Truck drivers: | | |
| GROUP 1 | $ 22.16 | A+B |
| GROUP 2 | $ 22.37 | A+B |
| GROUP 3 | $ 22.45 | A+B |
| GROUP 4 | $ 23.03 | A+B |

FOOTNOTES:

A. HEALTH & WELFARE: $196.00 per week for each employee.
PENSION: $40.00 per week for each employee.

B. HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Pick-up Trucks
GROUP 2: Single Axle Trucks
GROUP 3: Tandem, Tri-axle and Fuel Trucks
GROUP 4: Semi-trailer Trucks

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after

award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

SECTION 01 10 00 – SUMMARY

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

A. Project identification: Project title is CITY HALL AIR HANDLERS AND DIRECT-DIGITAL CONTROLS REPLACEMENT

1. Project Location: 123 Washington Street, Columbus, Indiana
2. Owner: City of Columbus, Indiana, acting by and through its Facilities Department

B. Facilities Director Mike Pope Identification:

C. The Work consists of

1.03 CONTRACTS

A. Project will be constructed under a single general construction contract.

1.04 USE OF PREMISES

A. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of site beyond areas in which the Work is indicated.

1. Limits: Confine constructions operations to areas permitted under the Contract.
2. Driveways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

a. Schedule deliveries to minimize use of driveways and entrances.
b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

1.05 OWNER-FURNISHED PRODUCTS

A. Owner will furnish the following Owner-furnished products.

1. Signage.

B. The work includes providing support systems to receive Owner's equipment and service connections.
1. Owner will arrange for and deliver Shop Drawings, Product Data, and Samples to Contractor.
2. Owner will arrange and pay for delivery of Owner-furnished items according to Contractor's Construction Schedule.
3. After delivery, Owner will inspect delivered items for damage. Contractor shall be present for and assist in Owner's inspection.

4. If Owner-furnished items are damaged, effective, or missing, Owner will arrange for replacement.
5. Owner will arrange for manufacturer's field services and for delivery of manufacturer's warranties to Contractor.
6. Owner will furnish Contractor the earliest possible delivery date for Owner-furnished products. Using Owner-furnished earliest possible delivery dates, Contractor shall designate delivery dates of Owner-furnished items in Contractor's Construction Schedule.
7. Contractor shall review Shop Drawings, Product Data, and Samples and return them to Architect noting discrepancies or anticipated problems in use of product.
8. Contractor is responsible for receiving, unloading, and handling Owner-furnished items at Project Site.
9. Contractor is responsible for protecting Owner-furnished items from damage during storage and handling, including damage from exposure to the elements.
10. If Owner-furnished items are damaged as a result of Contractor's operations, Contractor shall repair or replace them.

1.06 MISCELLANEOUS PROVISIONS

A. Time of Completion: Work shall be substantially complete and ready for occupancy within **<Insert number of days>** of **[the Notice to Proceed] [commencement of construction]** or by the earlier date established by the Contractor's Project Construction Schedule.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 01 14 00 – WORK RESTRICTIONS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

B. Related Sections include the following:

1. Division 01 Section "Summary" for use of premises.
2. Division 01 Section "Temporary Facilities" for temporary parking and dust control.

1.02 PROHIBITED WORK DAYS

A. Contractor may not perform work on the following days:

1. New Years Day
2. Memorial Day
3. Independence Day
4. Labor Day
5. Thanksgiving Day
6. Christmas Day

1.03 DIRT AND DUST CONTROL

A. General: Provide control programs for noise, dust, dirt, debris, moisture and fumes. The Contractor shall address the Owner's intent to keep the surrounding area of the city free of such disturbances and harmful effects.

1.04 NOISE CONTROL

A. Noise Control, General: Coordinate noisy operations with the Owner, who shall retain the final right of approval for such work.

1. Except for approved overtime (shift) work, restrict construction operations to the following time period

a. 7:00 a.m. to 5:00 p.m.

2. Further restrictions will be placed on noise and other disruptive construction activities according to special dates that will be communicated far enough in advance for the Contractor's assimilation into the Project Construction Schedule.

1.05 STREET REPAIR

A. Coordination: (Not Used)

## 1.06 WORKER CONDUCT

A. General: It is expected that the Contractor, Subcontractors, Suppliers, and their employees will conduct themselves in a professional manner at all times.

B. Contractor, Subcontractor, Supplier, and their employees shall adhere to an appropriate dress and behavioral code consistent with the presence of members of the public.

1. There shall be no T-shirts with liquor or drug messages or foul language.
2. Radios shall be limited according to reasonable workplace practices.
3. Use of tobacco will not be allowed on site or only in designated areas as coordinated with the Owner.
4. There shall be no consumption of alcohol or illegal substances.
5. There shall be no weapons allowed on site.
6. Conduct that may reasonably be interpreted as threatening or intimidating shall not be allowed.

## 1.07 SUBMITTALS

A. Noise Control Plan: Indicate methods to be taken by the Contractor for noise control.

B. Provide a weekly schedule of activities requiring hoe-rams and other noise-producing equipment.

## PART 2 – PRODUCTS (Not Used)

## PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 01 23 00 – ALTERNATES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.02 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of the construction to be completed or in the products, materials, equipment, system, or installation methods described in the Contract Documents.

1. The cost or credit for each alternate is the net addition to or deduction from Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.03 PROCEDURES

A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory to completely integrate work of the alternate into Project.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

C. Execute accepted alternates under the same conditions as other work of the Contract.

D. Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 SCHEDULE OF ALTERNATES

A. Alternate No. 1 – No Demolition, removal, and disposal of air handler 1:
B. Alternate No. 2 - No Demolition, removal, and disposal of air handler 2:
C. Alternate No. 3 - No Demolition, removal, and disposal of air handler 3:

1. Provide separate Alternate Bids for the following areas:

END OF SECTION

SECTION 01 22 00 – UNIT PRICES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1. Owner reserves the right to reject unit prices that appear, in the sole judgment of the Owner assisted by the Consultant, to be unreasonable for the amount of work represented.

1.02 DEFINITIONS

A. Unit price is an amount proposed by bidders, stated on the Bid Form as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.03 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

B. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

C. List of Unit Prices: A list of unit prices is included at the end of this Section. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 LIST OF UNIT PRICES

A. Unit Price No. 1 – Earth Removal from Site

1. (Not Used)

END OF SECTION

SECTION 01 26 00 – CONTRACT MODIFICATION PROCEDURES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.02 SUMMARY

A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications.

B. Related Sections include the following:

1. Division 01 Section "Unit Prices" for administrative requirements for using unit prices.

1.03 MINOR CHANGES IN THE WORK

A. Architect will issue supplemental instructions authorizing Minor Changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on its administrative form.

1.04 PROPOSAL REQUESTS

A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.

1. Proposed Requests issued by Architect are for information only. Do not consider them instructions either to stop work in progress or to execute the proposed change.

2. Within time specified in Proposal Request, or, if not indicated, within 14 days after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.

a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
c. Include costs of labor and supervision directly attributable to the change.
d. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

B. Contractor-Initiated Proposals: If latent of unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to Architect.

1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Division 01 Section "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.

C. Proposal Request Form: Architect will use its administrative form for Proposal Requests.

1.05 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Proposal Request, Architect will issue a Change order for signatures of Owner and Contractor on its administrative form based by reference on AIA Document G701.

1.06 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: Architect may issue a Construction Change Directive on its administrative form based by reference on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Order.

B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

4. Submittals Schedule.
5. List of Contractor's staff and principal assignments.
6. Copies of building permits and other authorizations for performance of Work.
7. Certificates of insurance and insurance policies.
8. Performance and payment bonds.
9. Data needed to acquire Owner's insurance.

H. Application for Payment (monthly): Administrative actions and submittals that must be provided with each application for payment include the following:

1. Partial waiver of Lien for the construction period covered by the previous application for payment.

   a. Submit partial waivers on each item for the amount requested, prior to reduction for retainage, on each item.
   b. Submit Waivers of Lien executed by a person authorized to sign legal documents on behalf of the entity submitting the waiver.

2. Contractor's Construction Schedule (updated version).

I. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.

1. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

J. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:

1. Evident of completion of Project closeout requirements.
2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
3. Final statement, accounting for final changes to the Contract Sum.
4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
6. AIA Document G707, "Consent of Surety to Final Payment."
7. Evidence that claims have been settled.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 01 29 00 – PAYMENT PROCEDURES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.02 SCHEDULE OF VALUES

A. Coordination: Coordinated preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.

B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of values. Provide at least one line item for each Specification Section.
   1. Breakdown shall include separate line items for material and labor.
   2. Round amounts to nearest whole dollar.
   3. Provide a separate line item in the Schedule of Values for each Allowance.

1.03 APPLICATIONS FOR PAYMENT

A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.

B. Payment Application Times: The period of construction Work covered by each Application for Payment is one month. The dates for preliminary review and submission of Applications for Payment will be established at the Pre-Construction Conference.

C. Payment Application Forms: Use AIA Document G702 (only) and AIA Document G703 Continuation Sheets or similar acceptable continuation sheet software as form for Applications for Payment.

   1. Include amounts of Change Orders issued before last day of construction period covered by application.

D. Purchase Orders or Other Owner-Required Payment Application Forms: Use other forms provided by Owner for Applications for Payment.

E. Transmittal: Submit 3 signed and notarized original copies of each Application for Payment to Architect. One copy shall include waivers of lien and similar attachments.

F. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from every entity who is lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.

G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:

   1. Schedule of Subcontractors, Manufacturers, and Product.
   2. Schedule of Values.
   3. Contractor's Construction Schedule.

SECTION 01 31 00 – PROJECT MANAGEMENT AND COORDINATION

PART 1 – GENERAL

1.10 RELATED DOCUMENT

A. Drawings and general provision of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section includes administrative provisions for coordinating construction operations on Project.

1.03 A. Coordination: Coordinate construction operations included in various Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinated construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.

B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of Contractor's Construction Schedule.
2. Preparation of the Schedule of Values.
3. Installation and removal of temporary facilities and controls.
4. Delivery and processing of submittals.
5. Progress meetings.
6. Pre-installation conferences.
7. Project closeout activities.

C. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.

1.04 SUBMITTALS

A. Construction Schedule: Submit a comprehensive, horizontal bar chart of CPM construction schedule within 14 days of the preconstruction meeting.

1. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.

B. Coordination Drawings: Prepare Coordination Drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components.

1. Indicate relationship of components shown on separate Shop Drawings.
2. Indicate required installation sequences.

1.05 PROJECT MEETINGS

A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.

1. Attendees: Inform participants and other whose presence is required of date and time of each meeting. Notify Owner and Architect of dates and times.
2. Minutes: Record and distribute the meeting minutes to everyone concerned within five days of the meeting.

B. Preconstruction Conference: Schedule a preconstruction conference before starting construction, at a time convenient to Owner and Architect, at Project site or another convenient location.

1. Agenda: Discuss items of significance that could affect progress, including the following:

    a. Tentative construction schedule.
    b. Phasing/Critical work sequencing.
    c. Designation of responsible personnel.
    d. Procedures for processing field decisions and Change Orders.
    e. Procedures for processing Applications for Payment.
    f. Submittal procedures.
    g. Preparation of Record Documents.
    h. Use of the premises.
    i. Responsibility for temporary facilities and controls.
    J. Parking availability.
    k. Office, work, and storage areas.
    l. Equipment deliveries and priorities.
    m. Security.
    n. Progress cleaning.
    o. Working hours.

C. Pre-installation Conferences: Conduct a pre-installation conference at Project site before each construction activity that requires coordination with other construction.

1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation of its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting.
2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:

    a. Deliveries.
    b. Submittals and mockups
    c. Possible conflicts, substrate acceptability and compatibility problems.
    d. Time and weather limitations.
    e. Manufacturer's written recommendations.
    f. Warranty requirements.
    g. Space and access limitation.
    h. Regulations of authorities having jurisdiction.
    i. Testing and inspecting requirements and required performance results.

3. Record significant conference discussions, agreements, and disagreements.
4. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

D. Progress Meetings: Conduct progress meetings at weekly intervals. Coordinate dates of meetings with preparation of payment requests.

1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

    a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

3. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present.

    a. Schedule Updating: Contractor shall revise its Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule at the next meeting.

E. Contractor Coordination Meetings: Conduct Project coordination meetings at weekly intervals and as needed for the resolution of unanticipated issue. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and pre-installation conferences.

1. Reporting: Record meeting results and distribute copies to everyone in attendance. Owner and Architect, and others affected by decisions or actions resulting from each meeting.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 01 33 00 – SUBMITTAL PROCEDURES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provision of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.02 SUBMITTAL PROCEDURES

A. Coordination: Coordinate preparation and processing of submittals with performance or construction activities.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
2. Coordinated transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

B. Submittals Schedule: Submit two copies of Submittals Schedule. Arrange the following information in a tabular format:

1. Scheduled date for first submittal.
2. Specification Section number and title
3. Description of the Work covered.
4. Scheduled date for Architect's approval or review.

C. Processing Time: Allow enough time for submittal review, including time for re-submittals, as follows. Time for review shall commence on Facilities Director Mike Pope's receipt of submittal.

1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Architect will advise Contractor when a submittal being processed must be delayed for coordination.

2. Concurrent Review: Where concurrent review of submittals by Architect's consultants, Owner, or other parties is required, allow 21 days for initial review of each submittal.

3. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.

D. Identification: Place a permanent label or title block on each submittal for identification.

1. Indicate name of firm or entity that prepared each submittal on label or title block.
2. Provide space beside title block to record Contractor's review and approval stamp and action taken by Facilities Director Mike Pope.

3. Include the following information on label for processing and recording action taken:
   a. Project name and date.
   b. Name and address of Owner, Contractor, subcontractor, and supplier.
   c. Name of manufacturer.
   d. Number and title of appropriate Specification Section.
   e. Drawing number and detail reference, as appropriate.
   f. Other necessary identification, such as Owner's Project No.

E. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents or submittals.

F. Submittal Cover Sheet: Transmit each submittal from the Contractor to the Facilities Director Mike Pope by use of the Submittal Cover Sheet attached at the end of this section. Submittals transmitted with the attached form, or received from sources other than the Contractor, will be returned to the sender "without action."

1. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements of the Contract Documents, including minor variations and limitations.
2. Include Contractor's certification stating that information submitted complies with requirements of the Contract Documents.

G. Distribution: Furnish copies of final submittals to manufacturers, subcontractor, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

H. Use for Construction: Use only final submittals with mark indicting action taken by Architect in connection with construction.

PART 2 – PRODUCTS

2.01 ACTION SUBMITTALS

A. General: Electronic submission of Product Data and Shop Drawings is acceptable.

B. RFI's: Prepare Requests For Information (RFI's) and similar submittals requiring Facilities Director Mike Pope's action.

1. Number of Copies: Submit one copy of each submittal, unless otherwise indicated. Facilities Director Mike Pope will return one copy with reply. Retain one returned copy as a Project Record Document.
2. The Facilities Director Mike Pope's response to RFI's will be in writing. Interpretations and decisions made in any other manner will not be binding, and Contractor shall not rely on them.

C. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. Mark each copy of each submittal to show which products and options are applicable.

2. Number of Copies: Submit number of copies of Product Data needed for Contractor through manufacturer, plus one copy of Consultant, one copy for Owner, and one copy for Project Close-Out submittals, unless otherwise indicated. Architect will return all but Architect and Owner copies. Retain one returned copy as a Project Record Document.

D. Coordination Drawings: Comply with requirements in Division 01 Section "Project Management and Coordination."

1. Number of Copies: Follow same procedure as for Product Data.

E. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

1. Number of Copies: Submit two black-line prints of each submittal. Facilities Director Mike Pope will return one for further reproduction by Contractor.

F. Samples: Submit Samples for selection and for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between final submittal and actual component as delivered and installed.

1. Number of Samples: Submit three sets of Samples. Facilities Director Mike Pope will retain two Sample sets for Architect and Owner; one will be returned. Mark up and retain returned Sample set as a Project Record Sample.

G. Closeout Submittals: Refer to Division 01 Section "Closeout Procedures."

PART 3 – EXECUTION

3.01 CONTRACTOR'S REVIEW

A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Facilities Director Mike Pope.

3.01 FACILITIES DIRECTOR MIKE POPE'S ACTION

A. Action Submittals: Facilities Director Mike Pope will review each submittal, make marks to indicate corrections or modifications required, and return it. Facilities Director Mike Pope will stamp each submittal with an action stamp and will mark stamp appropriately to indicated action taken, selected from Approved, Approved as Noted, Revise and Resubmit or Rejected.

B. Informational Submittals: Facilities Director Mike Pope will review each submittal and will not return it, or will reject and return it if it does not comply with requirements.

C. Submittals not required by the Contract Documents will not be reviewed and may be discarded.

END OF SECTION

SECTION 01 40 00 – QUALITY REQUIREMENTS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provision of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. Testing in inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.

1.03 SUBMITTALS

A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

B. Reports: Prepare and submit certified written reports that include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and test or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test an inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results
10. Ambient conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and re-inspecting.

C. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, and similar documents established for compliance with standards and regulations bearing on performance of the Work.

1.04 QUALITY ASSURANCE

A. Testing Agency Qualifications: An agency with the experience and capability to conduct testing and inspecting indicated as documented by ASTM E 548, and that specializes in types of tests and inspections to be performed.

B. Preconstruction Testing: Testing agency shall perform preconstruction testing for compliance with specified requirements for performance and test methods.

1. Contractor responsibilities include the following:

a. Provide test specimens and assemblies representative of proposed materials and construction. Provide sizes and configurations of assemblies to adequately demonstrate capability of product to comply with performance requirements.
b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
c. Fabricate and install test assemblies using installers who will perform the same tasks for Project.
d. When testing is complete, remove assemblies; do not reuse materials on Project.

2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from contract Documents.

1.05 QUALITY CONTROL

A. Owner Responsibilities: Owner will pay for the following quality-control testing services:

1. (Not Used)

B. Contractor Responsibilities:

1. Provide all other provided quality-control testing services specified and required by authorities having jurisdiction.
2. Engage a qualified testing agency to perform these quality-control services.
3. Notify testing agencies an appropriate amount of time in advance of when Work that requires testing or inspecting will be performed.
4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

C. Retesting/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and re-inspecting, for construction that revised or replaced Work that failed to comply with requirements established by the Contract Documents.

D. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
2. Interpret test and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
3. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor to Owner with a second copy directly to Architect.
4. Do not release, revoke, alter, or increase requirements of the Contract Documents or approve or accept any portion of the Work.

5. Do not perform any duties of Contractor

E. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspecting.

F. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.01 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting sample taking, and similar services, repair damaged construction and restore substrates and finishes.

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION

SECTION 01 50 00 – TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section includes requirements for temporary facilities and controls, including temporary utilities, support facilities, and security and protection facilities.

1.03 USE CHARGES

A. General: Cost or use charges for temporary facilities and controls, including temporary utilities, support facilities, and security and protection facilities.

B. Sewer Service: (Not Used)
C. Water Service: (Not Used)
D. Electric Power Service: (Not Used)

1.04 QUALITY ASSURANCE

A. Standards: Comply with ANSI A10.6, NECA's "Temporary Electrical Facilities," and NFPA 241.

1. Trade Jurisdictions: Assigned responsibilities for installation and operation of temporary utilities are not intended to interfere with trade regulations and union jurisdictions.
2. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

1.05 PROJECT CONDITIONS

A. Temporary Utilities: The majority of the construction that is likely to contaminate the mechanical system is completed, change over from use of temporary service to use of permanent service.

1. Temporary Use of Permanent Facilities: Installer of each permanent service shall assume responsibility for operation, maintenance, and protection of each permanent service during its use as construction facility before Owner's acceptance, regardless of previously assigned responsibilities.
2. Provide maintenance and cleaning of spaces and systems until date of Substantial Completion, at which time warranties for temporarily use equipment will commence.

B. Conditions of Use: The Following conditions apply to use of temporary services and facilities by all parties engaged the Work.

1. Keep temporary services and facilities clean and neat.
2. Relocated temporary services and facilities as required by progress of the Work.

PART 2 – PRODUCTS

2.01 MATERIALS

A. General: Provide new materials. Undamaged, previously used materials in serviceable condition may be use if approved by Architect. Provide materials suitable for use intended.

B. Project Sign: (Not Used)

C. Chain-Link Fencing: (Not Used)

D. Reinforced-Polyethylene Vapor Retarders: (Not Used)

E. Plywood: (Not Used)

F. Tarpaulins: Fire-resistive labeled with flame-spread rating of 15 or less.

G. Water: Portable.

H. Concrete Washout Containers: (Not Used)

2.02 EQUIPMENT

A. General: Provide equipment suitable for use intended.

B. Field Offices: (Not Used)

C. Fire Extinguisher: Hand carried, portable, UL rated. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.

D. Electrical Outlets: Properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-V plugs into high-voltage outlets; equipped with ground fault circuit interrupters, reset button, and pilot light.

H. Tie-Off Line: Provide harness and tie-off line in accordance with Contractor's sole responsibility for conformance with OSHA requirements for construction.

PART 3 – EXECUTION

3.01 INSTALLATION, GENERAL

A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocated and modify facilities as required.

3.02 TEMPORARY UTILITY INSTALLATION

A. General: (Not Used)

1. Provide metal conduit, tubing or metallic cable for wiring exposed to possible damage. Provide rigid steel conduits for wiring exposed on grades, floors, decks, or other traffic areas.
2. Provide metal conduit enclosures or boxes for wiring devices.

3.03 SUPPORT FACILITIES INSTALLATION

A. General: (Not Used)

3.04 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Environment Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects. Avoid using tools and equipment that produce harmful noise. Restrict use of noisemaking tools and equipment to hours that will minimize complaints from persons or firms near Project site.

B. Security Enclosure and Lockup: Install substantial temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.

E. Barricades, Warning Signs, and Lights: Comply with standards and code requirements for erecting structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and public of possible hazard. Where and needed, provide lighting, including flashing red or amber lights.

F. Temporary Partitions: Erect and maintain dustproof partitions and temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise.

G. Temporary Fire Protection: Until fire-protection needs are supplies by permanent facilities, install and maintain temporary fire-protection facilities of types needed to protect. Against reasonably predictable and controllable fire losses. Comply with NFPA 241.

3.05 OPERATION, TERMINATION, AND REMOVAL

A. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage caused by freezing temperatures and similar elements.

B. Temporary Facility Changeover: Except for using permanent fire protection as soon as available, do not change over from using temporary security and protections facilities to permanent facilities until Substantial Completion without written consent of Owner.

C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than substantial completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility.

END OF SECTION

SECTION 01 60 00 – PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 02 Specification Sections, apply to this Section.

1.02 SUBMITTALS

A. Submit Schedule of Subcontractors, Manufacturers, and Products showing specified products. Include manufacturer's name and proprietary product names for each product.

B. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Documentation: Show compliance with requirements for substitutions and the following, as applicable:

a. Statement indicating why specified material or product cannot be provided.

b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodated proposed substitution.

c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, width, size, durability, visual effect, and specific features and requirements indicated.

d. Product Date, including drawings and descriptions of products and fabrication and installation procedures.

e. Samples, where applicable or requested.

f. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.

g. Material test reports from qualified testing agency indicating and interpreting test results for compliance with requirements indicated.

h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.

i. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. IF specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.

j. Cost information, including a proposal of change, if any, in the Contract Sum.

k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.

l. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on the Project; product selected shall be compatible with products previously selected, even if previously selected products were also options.

1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
2. If a dispute arises between contractors over concurrently selectable but incompatible products, Architect will determine which products shall be used.

1.04 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, un-packaging, protecting, and installing.
4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
5. Store products to allow for inspection and measurement of quantity or counting of units.
6. Store materials in a manner that will not endanger Project structure.
7. Store products that are subject to damage by the elements, under cover in a weather tight enclosure above ground, with ventilation adequate to prevent condensation.
8. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
9. Protect stored products from damage.

B. Storage: Provide a secure location an enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.05 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on project warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

1. Submit a draft for approval before final execution.

2. Refer to Technical Sections for specific content requirements and particular requirements for submitting special warranties.
3. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.

C. Submittal Time: Comply with requirements in Division 01 Section "Closeout Procedures."

2.01 PRODUCT OPTIONS

A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged, and unless otherwise indicated, that are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide stand products of types that have been produced and used successfully in similar situations on other projects.

2.01 PRODUCT SUBSTITUTIONS

A. Conditions: Architect will not consider requests for substitution except under the following circumstances and in the Architect's sole judgment.

1. The Architect/Engineer will consider a request for substitution where the specified product or method cannot be provided within the Contract Time. However, the request will not be considered if the product or method cannot be provided as a result of the Contractor's failure to pursue the work promptly or to coordinate the various activities properly.
2. The Architect/Engineer will consider a request for substitution where the specified product or method cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
3. The Architect/Engineer will consider a request for substitution when the specified product or method cannot be provide in a manner which is compatible with other materials of the work, and where the Contractor certifies that the substitution will overcome the incompatibility.
4. The Architect/Engineer will consider a request for substitution when the specified product or method cannot be properly coordinated with other materials in the work, and where the Contractor certifies that the proposed substitution can be properly coordinated.

PART 3 – EXECUTION (Not Used)

END OF SECTION

SECTION 01 73 00 – EXECUTION REQUIREMENTS

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to the Section.

PART 2 – PRODUCTS (Not Used)
PART 3 – EXECUTION

3.01 EXAMINATION

A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of mechanical and electrical systems and other construction affecting the Work.
   1. Before construction, verify the location and invert elevation at points of connection of utility services.

B. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affection performance. Record observations.

   1. Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:

      a. Description of Work.
      b. List of detrimental conditions, including substrates.
      c. List of unacceptable installation tolerances.
      d. Recommended corrections.

   2. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
   3. Examine rough-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
   4. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
   5. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.02 PREPARATION

A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.

B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:

1. Notify Owner's representative in writing not less than three days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without Owner's written permission.

C. Field Measurements: Take field measurements as required to fit the Work properly. Re-check measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

D. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

E. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

3.03 CONSTRUCTION LAYOUT

A. Verification: (Not Used)

3.04 FIELD ENGINEERING

A. Identification: (Not Used)

3.05 INSTALLATION

A. General: Located the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb and horizontal work level.
2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
3. Conceal pipes, ducts, and wiring in finished area, unless otherwise indicated.

B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.

E. Tools and Equipment: Do not use tools or equipment that produces harmful noise levels.

F. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.

1. Mounting Heights: Mounting heights shall comply with ANSI A 117.1 including State and Local Codes and Federal American with Disabilities Act (ADA) requirements.

    a. Where mounting height are not indicated, mount components at heights directed by the Architect.

2. Allow for building movement, including thermal expansion and contraction.

G. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

H. Manufacturer's Instructions: Where installations include manufactured products, comply with the manufacturer's applicable instructions and recommendations for installation to the extent that these instructions and recommendations are more explicit or more stringent than requirements indicated in the contract documents.

3.06 PROGRESS CLEANING

A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.

B. Limiting Exposures: Supervise construction operations to assure that no part of the construction completed or in progress is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.07 STARTING AND ADJUSTING

A. Start equipment and operating components to confirm proper operation. Remove malfunction units, replace with new units, and retest.

B. Adjust operating components for proper operation without binding. Adjust equipment for proper operations.

C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

3.08 PROTECTION OF INSTALLED CONSTRUCTION

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.09 CORRECTION OF THE WORK

A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 01 Section "Cutting and Patching."

B. Restore permanent facilities used during construction to their specified condition.

C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence or repair.

D. Repair components that do not operated properly. Remove and replace operating components that cannot be repaired.

E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION

SECTION 01 73 29 – CUTTING AND PATCHING

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

A. This Section includes procedural requirements for cutting and patching.

1. Technical Sections include specific requirements and limitations applicable to cutting and patching individual parts of the Work.
2. Requirements in the Section include mechanical and electrical installations. Refer to those Sections for other requirements and limitation applicable to cutting and patching mechanical and electrical installations.

1.03 DEFINITIONS

A. Cutting: Removal of existing construction necessary to permit installation or performance of other Work.

B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.04 SUBMITTALS

A. Utility Service Shutdown Request: Provide at least 7s hours' written notice to Owner if shutdown of service is required during cutting and patching.

B. Cutting and Patching Proposal: Submit a proposal describing procedures before the time cutting and patching will be performed, requesting approval to proceed. Include the following Information.

1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
2. Changes to Existing Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
3. Products: List products to be used and firms or entities that will perform the Work.
4. Dates: Indicate when cutting and patching will be performed.
5. Utilities: List utilities that cutting and patching procedures will disturb or affect. List utilities that will be relocated and those that will be temporarily out of service. Indicate how long service will be disturbed.
6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration or reinforcement with original structure.
7. Architect's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right to later require removal and replacement of unsatisfactory work.

1.05 QUALITY ASSURANCE

A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.

B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that result in increased maintenance or decreased operational life or safety.

C. Miscellaneous Elements: Do not cut and patch miscellaneous elements, including vapor barriers, membranes, flashings, wiring, piping, or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results increased maintenance or decreased operational life or safety.

D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

1. If possible, retain original Installer or fabricator to cut and patch exposed Work.

E. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

1.06 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to avoid existing warranties.

PART 2 – PRODUCTS

1.02 MATERIALS

A. General: Comply with requirements specified in other Sections of these Specifications.

B. Existing Materials: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.

1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

## 3.02 PREPARATION

A. Temporary Support: Provide temporary support of Work to be cut.

B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

C. Existing Services: Where existing services are required to be removed, relocated, or abandoned, bypass such services before cutting to avoid interruption of services to occupied areas.

## 3.03 PERFORMANCE

A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay. Cut existing construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Cutting: Cut existing construction using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Existing Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
3. Excavating and Backfilling: Comply with requirements in Section "Earthwork" where required by cutting and patching operations.
4. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, Valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.

C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections of these Specifications.

1. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
2. Floors and Walls: Where walls or partitions that are removed extend on finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove existing floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.

    a. Where patching occurs in a painted surface, apply primer and intermediate paid coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.

3. Ceilings: Patch, repair, or re-hang existing ceilings as necessary to provide an even-plane surface of uniform appearance.
4. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weather tight condition.

END OF SECTION

SECTION 01 74 19 – CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

To Be Determined

Heapy Engineering
Mechanical Electrical Commissioning Technology
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# SPECIFICATIONS

## Columbus City Hall HVAC Controls Upgrade

**Project 2010-63008**

PREPARED BY:
HEAPY ENGINEERING
3850 Priority Way South, Suite 204
Indianapolis, IN 46240

May 10, 2009

This Specification has been prepared by a Professional Engineer registered in the State of Indiana and meets the Indiana Code for bidding Public Works Projects.

JOHN P. O'BRIEN
REGISTERED
No. PE10608960
STATE OF
INDIANA
PROFESSIONAL ENGINEER

**SPECIFICATIONS**
**FOR**

**COLUMBUS CITY HALL HVAC CONTROLS UPGRADE**

HEAPY ENGINEERING
MECHANICAL ELECTRICAL COMMISSIONING TECHNOLOGY
3850 PRIORITY WAY SOUTH SUITE 204
INDIANAPOLIS, IN 46240

PROJECT NO. 2010-63008

DATE: May 10, 2010

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## 23 05 93 TESTING, ADJUSTING AND BALANCING FOR HVAC

### PART 1 - GENERAL

1.1 Air and water balancing of the new systems and existing systems affected by the new work shall be performed as a part of the this Contract. Balancing work shall be performed by qualified personnel of a member firm of the Associated Air Balance Council (AABC) or a member firm of the National Environmental Balancing Bureau (NEBB), who has no affiliation with the HVAC Contractor or any of its Subcontractors / the Sheet Metal Contractor, subject to the approval of the Owner upon review of submitted qualifications. Include a certification sheet signed and sealed by the certified testing and balancing authority. Include a list of instruments to be used for procedures, along with proof of calibration.

1.2 Methods, procedures, equipment, certifications, report forms and reporting information shall be in accordance with the standards of AABC / or / NEBB / and latest addition of the SMACNA TAB Procedural Guide and industry practice.

1.3 During the bid period, the Balancing Contractor shall call the Owners or HVAC Contractor's attention to any requirements for additional balancing dampers, test ports, gage cocks, thermometer wells, flow control devices, valves, balancing valves and fittings and manual volume dampers which are deemed necessary in addition to those shown on the drawings so that proper balancing can be performed. Prior to installation of the systems, the Balancing Contractor shall verify that the proper number and location of balancing devices are adequate for completion of the balancing work.

1.4 Prepare a TAB plan that includes strategies and step-by-step procedures. This plan should include a list of items that must be completed before TAB can proceed. Prepare a schedule to ensure adequate time for the TAB process and submit this schedule to the responsible party to be part of the Project Construction Schedule.

1.5 When project is in phases and partial occupancy is planned, determine process to allow TAB work to be completed before occupancy.

1.6 Verify that all equipment start-up services have been completed before the beginning of any TAB work. After initial start-up has been completed the TAB contractor shall be informed that the systems are operating properly, that all safety interlocks and protective devices are functioning, and the systems are ready to be balanced.

### PART 2 - PRODUCTS – NOT APPLICABLE

### PART 3 - EXECUTION

3.1 Air Balance

A. Record nameplate data from fan, motor, and air handling cabinet.

B. Test and record actual operating fan rpm.

C. Measure and record actual running amperage.

D. Each air supply, return, and exhaust system, when installation is completed, including the installation of clean filters, shall be set in operation for balancing. Determine the best location in main and branch ducts for accurate duct airflow measurements. Each air outlet and inlet device, item of equipment (fans, air control units, etc.), and system shall be balanced to the quantities listed on the drawings within plus or minus 10%. Intended

pressure relationships in areas required by recognized standards and practice shall be attained.

E. Adjust drive pulleys to attain fan speed required for the installed condition. Pulleys and belts of fixed drives and of adjustable drives not having sufficient adjustment range shall be changed out by the Balancing Contractor to obtain fan speed required for the installed condition. Labor /or materials required to make the recommended changes shall be included in the Balancing Contractor Contract.

F. Measure velocity reading across coils, filters, and dampers on the intake side of the fan. Include data in the report.

G. The Balancing Contractor shall coordinate with the Temperature Control Contractor in setting supply and return fan variable frequency drives, outside air, return air and vent air dampers. Supply air systems shall have ampere reading measured in the full heating, full cooling and economizer modes to determine the maximum brake horsepower.

H. Total air quantities of the supply fan, and the return fan, exhaust fan shall be determined by pitot tube traverse. Where impossible to take good pitot tube traverses of duct system, use total sum of terminal device air volume readings. Final settings of fan speeds shall be determined with automatic volume control devices at the fans fully open / variable speed drives at full speed. Refer to item F. above for drive changeout requirements and the items below.

I. For variable-air-volume systems, develop and implement a plan to simulate diversity.

J. Check airflow patterns from the outside-air louvers and dampers and the return and exhaust-air dampers, through the supply-fan discharge and mixing damper. Report any issues with stratification, poor mixing or short circuiting from one air stream to the other.

K. Check for airflow blockages.

L. Check for proper sealing of air-handling unit components. Report all issues on TAB report.

M. Check for proper sealing of air duct systems. Minor issues shall be reported on the TAB report. If a major issue is found, stop TAB work and report issue to Owner.

N. In balancing of variable air volume systems, the total air quantity of the devices generally exceeds the fan air quantity due to the nature of the VAV system. The fan speed shall be set to deliver the required maximum fan CFM (<u>not</u> the total peak sum CFM of all of the devices) with duct static pressure sufficient (and yet not excessive) for proper operation. Terminal air control units shall be repositioned for fan balancing to deliver the maximum fan CFM. When dual minimum control sequence is specified the Air Balance Contractor shall be responsible for setup of the heating and cooling minimum.

O. Balancing of terminal air control units and air devices shall be done to provide adequate but not excessive pressure in the branch ducts to air control units and air devices. Dampers incorporated in air devices shall be used only as secondary balancing means when other branch dampers are provided. Check, test and calibrate as required all terminal air control unit cfm settings (maximum, minimum). Also, record static pressure drop across the air control unit and reheat coil.

P. The report shall include, but not be limited to, both actual and design fan cfm, rpm, brake HP, entering and leaving static pressures, motor data, voltage and amperage and drive information. System air flows by device, terminal, branch and system shall be reported.

Q. Mark equipment and balancing device setting with paint or other suitable, permanent identification material, including damper-control positions, valve position indicators, fan-speed-controls levers, and similar controls and devices, to show final setting.

R. Pressurization measurements should not start till TAB has observed the space to verify the integrity of the space boundaries. Test should measure, adjust and record the pressurization of each room, each zone and each building. If building are being monitored and controlled automatically, observe and adjust the controls to achieve the desired set point.

3.2 Water Balance

A. Each water circulating system, when installation is completed, shall be set in operation for balancing. Water flow thru each pump, chiller, coil, heat exchange device, balancing valve and water flow meter shall be determined by pressure differential gauging or direct reading. Prepare test reports with pertinent design data and number in sequence starting at pump to end of system. Check the sum of branch-circuit flows against approved pump flow rate. Flows shall be balanced to quantities listed on the drawings within plus or minus 5%.

B. Check flow-control valves and set to indicated flow.

C. Verify air has been vented from system. Check air vents for a forceful liquid flow exiting from vents when manually operated.

D. Verify pump data - pump-motor brake horsepower and impeller size on nameplate data on the pump to design submittals.

E. Pump tests shall show full flow and dead head conditions. Do not throttle valves on the pump discharge. Pump flow control valves shall not be closed more than fifty percent. Pump flow control valves, which require more than fifty percent closure shall be reported to the contractor and Owner for evaluation of valve sizing and selection. Automatic valves shall be fully open during testing of the unit associated with the control valve.

F. Measure pump flow rate and make final measurements of pump amperage, voltage, rpm, pump heads and systems' pressures and temperatures including outdoor air temperature.

G. Measure the differential-pressure control valve settings existing at the conclusions of balancing.

H. Water Coils: Record water flow rate and water pressure drop.

I. Measure indoor wet and dry-bulb temperatures periodically for 2 successive eighth-hour days, in each separately controlled zone to prove correctness of final temperature settings.

J. The report shall include, but not be limited to, both actual and design water quantities, pressures in and out of each device, pump motor data, operating voltage and amperage and pump curves.

K. Mark equipment and balancing device setting with paint or other suitable, permanent identification material, including valve-control positions, valve position indicators and similar controls and devices, to show final setting.

3.3 Measurement of Vibration: Measure and record vibration on chillers, cooling towers, supply and return fans.

3.4 Submit procedures for testing IAQ quality measurements when required. Follow SMACNA IAQ Testing Procedures latest edition.

3.5 After completion of the balancing work, a full report shall be prepared in pencil and two copies (only) submitted to the Owner for preliminary review. After review, additional balancing, adjustments, drive replacements, readings and recordings deemed necessary shall be done and the report revised. Six typed copies of the final report shall be submitted to the Owner for review and approval. An approved copy of the report shall be included in each set of operating and maintenance manuals.

3.6 Final Report contents: In addition to certified field report data, include the following:

A. Table of Contents with total number of pages defined for each section of the report.

B. Summary of Contents - include the following:

1) Indicated versus final performance.

2) Notable characteristics of systems.

3) Description of system operation sequence if it varies from the Contract documents.

C. Nomenclature sheets for each item of equipment.

D. Notes to explain why certain final data in the body of reports varies from indicated values.

E. Pump Curves.

F. Fan Curves.

G. Manufacturers' test data.

H. System component diagrams including schematic layouts of air and hydronic equipment. Present each in single-line format with data points indicated.

I. When performed, include Vibration Measurement, IAQ Measurement Reports.

3.7 Inspection after testing and balancing are complete, operate each system and randomly check measurements to verify that the system is operating according to the final test and balance reading documented in the final report. Summit random sampling percentages and results.

3.8 Seasonal Testing: If initial TAB procedures were not performed during near peak summer and winter conditions, perform additional testing, inspecting and adjusting during near peak summer or winter conditions.

3.9 10 Month Warranty Walk: TAB to perform additional testing and balancing to verify that balanced conditions are being maintained throughout and to report unusual conditions with recommendation of adjustments. TAB Contractor shall allow two (2) days for this work.

END OF SECTION

## 23 09 23 DIRECT DIGITAL CONTROL SYSTEM FOR HVAC

### PART 1 - GENERAL

1.1 A complete system of automatic temperature controls shall be installed under this contract, as required to accomplish the sequence of control for various items of equipment and systems as described hereinafter. The system shall be a direct digital control system utilizing electric actuation. All actuators to be replaced under this contract.

1.2 This contractor shall refer to Section 23 09 93 Sequence of Operation, Section 23 05 93 Test, Adjusting and Balancing For HVAC, as well as system drawings to coordinate and plan for required equipment, controls, and sensors. This contractor is responsible to supply and install a complete and operational system to function within the intent of this project.

1.3 Qualification of Bidder

A. All bidders must be temperature control contractors in the business of installing direct digital temperature controls for over five (5) years. The system bid shall be and open architecture type.

B. All bidders must have installed and completed at least ten (10) direct digital temperature control jobs of similar design using the same model equipment as specified.

1) All bidders must be a licensed factory representative and installer of the manufacturers specified for the local area. Further, shall have a local engineering and service office within 70 miles of the job site.

2) All bidders must have demonstrated capabilities of performing diagnostics and repairs on electronic systems including both hardware and software.

3) The following systems have been pre-qualified:

a) Carrier One

b) Johnson Controls Metasys - NAE

c) Honeywell Excel 5000 Open-Symmetre

d) Staefa Control Systems - Talon

e) Siemens System 600 Apogee

C. Any contractor, not prequalified above, shall submit credentials for the Owner's review seven or more days prior to the bid date. Applications submitted after seven days prior to the bid date will not be considered. Credentials must attest that the contractor meets all requirements above. The Owner's judgment in reviewing any contractor will be final.

1.4 In lieu of manufacturer installed system, the control system may be installed by personnel under the direct control of the Contractor provided such personnel have undergone special training from the supplier or manufacturer.

The equipment manufacturer, or his supplier source, shall be regularly engaged in electric-electronic control work. The equipment supplier shall provide complete technical application services, including complete engineered shop drawings, wiring diagrams, and installation instructions. Further, the equipment supplier shall inspect the equipment installation and assist in demonstrating the system's performance. After bidding and before contract award,

there shall be submitted the names of the persons qualified and experienced in the application, wiring, adjusting and service of electronic control systems, whose services are intended to be used throughout the execution of the contract.

No contractor-designed "in house" control systems shall be permitted.

1.5 The basic control system includes all sensors, controllers, instruments, valves, actuators, devices, installation and service for a complete and functional control system. All control devices (valves, dampers, actuators, etc.) are included under the ATC contract unless specifically specified elsewhere in the HVAC Specification. Control system shall be designed to allow easy field adjustment of all set points and parameters.

1.6 Cooperate with the Test and Balance Contractor in identifying active or inactive pneumatic tubing, control wiring, equipment, etc., and where requested assist in the actual removal. Remove all pneumatic tubing control wiring and control devices not required to accommodate the new control system.

1.7 Technical Proposal

A. A Technical Proposal shall be furnished to the Owner after bidding and before award of a contract. when so requested by the Owner. The Technical Proposal shall contain the following:

1) Description of how the system meets and achieves the specified criteria in terms of configuration, operation and control.

2) DDC System single line riser diagram, showing all major components (digital controllers, bus network, etc.).

3) Procedure and amount of time required to start up the system.

4) Bidder shall explain:

a) How Owner programs (language, etc.) the system.

b) Any proprietary software for which documentation is not available.

c) Manufacturer of major components.

d) Requirements of the off-site data terminal to access to DDC System over telephone communications.

B. For all application programs supplied, bidder shall explain in the Technical Proposal, program constraints and limitations, and listing of all systems the program is applied to, including digital controller interface and control of:

1) Typical air handling unit.

2) Pumps

3) Three Way Valves

4) Boiler control

5) Chiller control.

6) Control dampers

C. An interview may be conducted and each bidder will be requested to make a presentation concerning the system proposed.

## PART 2 - PRODUCTS

2.1 The equipment specified shall be provided as defined herein, shown on the drawings and as required to accomplish the sequence of control.

2.2 Direct Digital Control System

A. Overview:

Local system control shall be performed by a field programmable Direct Digital Controller microprocessor based, which incorporates Direct Digital Control, and all necessary energy management functions. Field programming shall be via a user-programmable software package which allows the user (programmer) to write unique programs thru the local operators terminal. Digital Control Systems which require off-site software development or which are not programmable (burned-in sequences) are not acceptable.

The Direct Digital Controller shall perform its assigned control and energy management functions as a stand-alone unit, however it shall be incorporated into a building automation trunkline for communication with the local operators' terminal or management by a Building Automation System. The digital controller shall perform its full control and energy management functions, regardless of the condition of communications link with the operators' terminal or the Building Automation System. In addition, when more than one digital controller is required to meet these specifications, the digital control system shall be capable of sharing information between digital controllers to develop complex strategies and common point sensing. Permanently connect all controllers and system equipment displays, computers, modems, etc., together via a communications data highway (bus) for a complete and operable system.

B. Control:

Control algorithms shall be available and resident in the digital controller to permit Proportional, Integral and Derivative control modes in any combination to meet the needs of the particular application. Other control modes such as incremental, floating or two position shall be available to adapt to job needs. HVAC modulating control shall be Proportional plus Integral unless specifically designated otherwise by these specifications. Modulating control action shall have a control loop response time not to exceed 5 seconds end-to-end. (Example: From the change of state of the sensed variable; calculation of the appropriate proportional positions: to the execution of the required position.)

C. Energy Management:

The DDC system shall have software capable of performing all the energy management functions necessary to reduce energy consumption. These programs include, but are not limited to: supply air reset using space load demand, enthalpy economizer control, supply water reset, optimal start using an adaptive algorithm to prevent the need for manual adjustment of parameters.

Owner tailored programs. A library of routines shall be resident in the digital control system, capable of generating additional programs thru the local program terminal as may be required for specified owner requirements. These include, in part: demand

control, intermediate season (dead zone) control, variable air volume fan matching and supply fan control, trending of variables, historical data storage (60 values for 30 changes of value minimum), totalizing, holiday programming.

D. Local Display and Adjustment Panel:

The digital control system shall be provided with a digital display, permanent at each stand-alone digital controller or group of controllers, programmed to display all input values (temperature, etc.), analog variables, calculated setpoints, binary conditions, off normal scans and other analog or binary information required for analysis and adjustment of the system being controlled on a local basis. Panel shall be permanently powered from the system power supply network (battery powered units are not acceptable).

Adjustments of control variable shall be conveniently available at the controller through the keyboard and display. These adjustments shall include, in part, setpoints, proportional gain, integral rate, the velocity and acceleration constants associated with incremental control and on/off values of two-position control. These display and adjustment values and capabilities shall be available from the local operators terminal or thru remote communications.

E. Field Programmable:

The Digital Controller shall contain all necessary mathematic, logic and utility functions in ROM available in any combination for user (programmer) programming the unit thru the local operators' terminal. These routines include, but are not limited to: 1) Math Routines - Basic Arithmetic, Binary Logic, Relational Logic, Fixed formulas for Psychrometric Calculations; 2) Utility Routines for - Process Entry and Exit, Keyboard Functions, Variable Adjustments and Output, Alarm Indication, Restart; 3) Control Routines for - Signal Compensation, Loop Control, Energy Conservation, Times Programming.

1) Final field programs shall be stored in battery backed-up RAM or EEPROM. Final application field programs shall not utilize more than 75% of the controllers available RAM memory.

F. Expandability:

Digital control system shall be expandable by adding additional field interface input-output units or by adding additional stand-alone controllers to the system bus. Digital controllers may be expanded unless the following conditions cannot be maintained: The processor in the controller is able to manage remote field interface units, and process and execute all commands in 5 seconds. The maximum number of points per stand alone digital controller shall not exceed 128 inputs and 64 outputs. Each digital controller or controller location shall have minimum of 5% spare point installed of all point types - (Analog, IN, OUT; Digital IN, OUT), but not less than one point of each type.

G. Power Supplies, Controller Diagnostics, and Battery Back-Up:

Provide all required power supplies for a complete and functional system.

Each Digital Controller shall contain in its program a self-test procedure of non-destructive memory, to perform checks of its Processing Unit.

Protect all digital control system power supplies. Protectors shall be sized with the largest joule rating and lowest clamping level available for a specified equipment voltage rating. Protection shall be provided with equipment (internal to the digital controller) and

at the power entry to the local control and instrument panel to ensure protection against voltage noise transients and over-voltage transients, such as in the case of lightning strikes. Protectors shall meet the requirements of the manufacturer of the digital control system and other panel mounted devices. Noise transient suppressors for individual circuit protection shall be equal to General Electric Metal Oxide Varistors. Lightning surge protection to follow manufacturer's recommendations for equipment and installation.

Digital Controllers shall be supplied with a minimum of 24 hours of battery backup for the RAM with an automatic battery charger.

H. Associated Hardware:

Each controlled device or function shall be a separate output of the digital controller (i.e., Economizer, Heating Valve, Cooling Valve are three (3) separate output points). When a points' list is provided the greater number of points and their configuration shall govern. Multiplexers or programmable logic controllers utilized with digital controller input and output points to expend the digital controller I/O capabilities will not be allowed.

I. Local (Zone) Control Units - shall be a limited function stand-alone digital controller for use in providing direct digital control of zone devices. The controller shall be designed for applications such as VAV boxes and reheat coils. The controller shall perform its control functions in a stand-alone manner however setpoint and input/output information shall be readable by the central processor of the full function user programmable digital controller for use in the DDC system network for energy management and monitoring functions. Use of these controllers is limited to terminal units only. Use for central equipment control or AHU control is not acceptable.

1) VAV Terminal Control - shall provide pressure independent volume control. When configured for reheat or fan powered heating with hot water, the valve actuator shall have full modulating control. Equipment furnished in the ATC work shall include the DDC controller, damper actuator, space sensor with adjustment, duct discharge air sensor, unoccupied override pushbutton, relays and valve with actuator. Actuators requiring periodic zeroing (reset) to establish the position of the control device shall be zeroed on a random basis to avoid adverse effects on the fan system. Provide a programmer terminal (1) for local set-up of the terminal. Setting shall include, but not be limited to, heating/cooling occupied/unoccupied setpoint adjustment, setting minimum and maximum CFM for each mode (heating/cooling). Local controller shall be capable of transmitting all I/O data, and its calculated heating and cooling energy rate (BTUH) to the central DDC system.

2) Fan Coil Controller - shall provide control of 2 pipe fan coil or unit ventilator units, control outputs for valves and dampers shall be fully modulating. Equipment shall include the DDC controller, valve and damper actuators, space sensor with adjustment and discharge air sensor, and auxiliary (space) digital output for user defined control. Control software shall include continuous or cycling fan control, separate heating setpoint for both occupied and unoccupied modes, warm-up control, ASHRAE cycle II ventilation control. Occupancy time schedule shall be controlled by the digital control system. Local controller shall be capable of transmitting all I/O data to the central DDC system.

J. Operator Interface:

1) City to provide Operator Interface, contractor to supply hardware requirements to Owner.

K. Dynamic Color Graphics:

1) The DDC system shall include a software program operating inside "Windows" allowing an operator to create, modify or delete dynamic color graphics on-line. The ATC Contractor shall assemble all graphics for systems (AHU's, chillers, etc.) being connected to the DDC system under this contract.

a) Generation of Graphics: Thru the use of a high level English language, an operator shall be able to create, modify or delete dynamic color graphics while the DDC system is on-line and fully operational. A complete set of standard symbols and building systems shall be stored in the computer system memory to aid in creating graphic displays. As a minimum, this set shall include the following ASHRAE standard symbols: Dampers, damper operators, temperature sensors, humidity sensors, filter, heating coil, chiller, cooling coil, two-way valve, three-way valve, pump, humidifier, fan, cooling tower.

b) Each system, symbol or graphic character shall be able to display in any one of eight colors (minimum). Each system symbol or graphic character shall be able to display in variable size. A mechanism shall be provided for copying graphics of similar requirements. Example: VAV air handling system (2-thus). After the first graphic is created, a one-line input shall make an identical copy.

2) Dynamic Data Display: Dynamic data shall be located for display at any location on the video screen. Each graphic shall be able to accommodate any combination of dynamic real time (analog or binary) information, graphic symbols and text displayed on the entire screen. The number of dynamic points being displayed and updated shall be limited only by the area of the video screen. A graphic shall be constructed to include any dynamic points regardless of the physical location of these points. Dynamic data shall update automatically without manual initiation at user-defined intervals. Points status shall be changeable thru the graphic display (i.e. change FAN OFF to FAN ON).

3) Manual or Automatic Operation: Each graphic shall be manually or automatically displayed. In the manual mode an operator shall display a graphic by inputting the appropriate graphic name. In the automatic mode, a graphic shall display as a result of: An alarm occurrence, a change of state, or a specific time, day, or data. ATC Contractor shall set up automatic graphic's based on alarm occurrence for all systems provided under this contract.

4) Dynamic Graphics Capacity: The DDC system capacity shall only be limited by the hard disk storage capacity.

5) Time of Day Scheduling: Software shall provide "spreadsheet" type data entry for time of day scheduling. Schedule software shall include calendar year (12 month) advance programming. Time of day clock shall include daylight savings time compensation.

L. Remote Communications:

1) Peripheral Equipment

a) Provide a 56.0K AUTO-BAUD auto-dial/auto-answer modem, using a standard EIA Interface. The modem shall be connected to the Digital Control System network such that a remote operators' terminal can communicate with the system. The digital control system shall include

software for communications control, including software to call a remote operator station (PC based) or a remote dumb terminal for reporting of alarms and/or messages based on user defined events.

2) When the DDC system is accessed via telephone lines from a standard "non-intelligent" data terminal such as a PC operating in "Terminal Mode" which supports ASCII communications in a "Teletype" mode, running Procomm or similar software, the remote operator shall be able to perform the following functions:

   a) Review and print I/O status and values.

   b) Review and print trend logs.

   c) Change, add/delete or modify schedules.

   d) Manually command an output.

   e) Modify variable and setpoints.

   f) Receive Digital Control System initiated alarm messages for printout or logging to disk.

   g) On line program modifications.

3) When the DDC system is accessed running Internet Explorer / Web Base vendor supplied software package, the remote operator capability shall include all items listed above and shall include in addition:

   a) Full programming capability.

   b) Rebooting the system from a remote location by initiating a reboot from data storage media in the remote "PC" or by initiating a reboot of the local data storage unit.

   c) Upload the digital controllers current program to the data storage media in the remote "PC".

   d) Provide all "PC" software required to accomplish the remote communications features specified, including all software required at the remote "PC". Software shall be provided on a floppy disk with a media density compatible with the portable "PC".

4) System shall be capable of dialing out to a digital pager. Set-up dial out alarms per paragraph "Monitoring and Alarms" in Section 23 09 93.

5) The unit supplier shall store the field program in a condensed form and have the capability of rapidly installing the program in the controller. This method of program installation is in addition to total field programmability through the local system operators' terminal. Programs installed through the operators' terminal shall be capable of being stored in this Remote Method.

M. License Agreement for Software:

The Control Contractor agrees to provide to the Owner and Owner agrees to accept the software products provided under these specifications. A software licensing agreement

shall be executed between Control Contractor and Owners authorized signatory before the software is distributed. This licensing agreement shall grant to the Owner a non-exclusive license to use the software product solely for Owners' own use on the designated installation.

2.3 Digital controllers and local control interface panels shall be provided for the equipment being controlled. Panel shall be mounted in mechanical, electrical rooms or electrical closets. Mount panels on wall, columns or independent supports near each respective unit. Do not mount on the unit proper unless the unit has internal jam isolation and the control panel and unit have been designed for direct mounting. Panels shall be unitized design for transducers, relays, gauges, etc.

2.4 Automatic control valves shall be constructed for 125 lb. wsp, with stainless steel stem, brass trim, teflon or other suitable packing and replaceable or renewable seats. Valve bodies 2" and smaller shall be all bronze with screwed, sweat or flared ends and larger valves cast iron body with flanged ends. All valves shall close off against a pressure of 25% greater than job designed working differential pressure (pump foothead). Throttling valves for individual room coils shall have a close-off rating of not less than 30 psid. Water regulating valves shall be equal percentage throttling type or three-way type as indicated, sized for 10 ft. maximum drop (unless otherwise noted).

Ball valve specifically designed for modulating service may be provided for applications 0.50 thru 2" service. Valves shall be specifically designed for water or water glycol mixture with 0% leakage rating for port connected to coil. Valve body rating shall be ANSI Class 125 working pressure, 0°F - 250°F operating range. Valve shall have a stainless steel ball and stem, tested per MSS SP-72 and rated for 200,000 cycles, ISO 9001 compliant. Valve assembly shall be equipped with a mounting bracket for a direct-coupled actuator. Valve shall be equal to a Honeywell VB30, or Belimo.

2.5 Smoke dampers and operator's are <u>not</u> included in the Temperature Control work. Refer to Section 23 33 00 Air Duct Accessories.

2.6 Dampers:

Dampers required for the systems and not currently installed shall be furnished under this automatic control subcontract, except where specifically required to be furnished with the air-handling units. Dampers shall be turned over to the Sheet Metal Subcontractor, together with complete instructions for installation. Where throttling operation is required of the dampers, they shall be opposed blade type. Parallel blade dampers are acceptable only on mixing applications. Refer to Air Handling Equipment Specification and/or the drawings for damper arrangements.

Dampers shall be aluminum constructed with not larger than 6" blades and not less than 16 gauge construction, mounted on a 4" channel frame. Bearings shall be maintenance free and mode of a resin-polycarbonate combination. Linkage shall be exposed, utilizing a hexizontal blade shaft for slip-free operation. Linkage attached on blade faces are not acceptable. Seals shall be silicone type on all dampers exposed to outdoor air condition (outside air, relief air and dampers directly behind louvers). Seals on all other dampers shall be TPE/EPDM. Damper leakage rate shall be certified by AMCA, and the damper submittals shall be so labeled. Provide a damper operator for each panel. No jack-shafting is permitted. / Damper sections that require more than one actuator shall have an actuator on each section or if jackshafted the actuators shall be mounted on each side of the damper section. Damper provided for direct coupled actuators shall have extended shafts. Dampers powered by direct coupled actuators or connected thru use of jackshafts and linkages shall be installed in strict accordance with manufacturers recommendations. The Sheet Metal Subcontractor will install access doors to inspect and service the dampers. Arrange outside air and return air mixing dampers with parallel blades where this may be of advantage in mixing the air streams.

Outside air and relief air dampers shall be insulated and thermally broken with an air leakage rating not to exceed 4.5 cfm/sq. ft. at 4" differential static pressure. Damper shall be a Tamco Series 9000 SC or approved equal.

Return air and other control dampers shall be aluminum air foil and frame construction. Leakage rate shall not exceed 10.5 cfm/sq. ft. at 4" differential static pressure. Dampers shall be a Tamco Series 1000 or approved equal.

2.7 Electronic Actuators for Valves and Dampers - actuator shall include electronics to receive the digital controllers analog position signal and maintain the position through the use of positive position feedback. Torque of the actuator shall be the working pressures of the system for valves, the total static differential of an air system, plus 25% safety factor. Actuator shall have a spring return to the fail safe position. Spring return may be omitted on hot water reheat coil applications. Actuator shall meet all requirements of ISO standard 9001 for construction and shall be UL listed. Actuators shall be manufactured by Belimo Air Controls or approved equal.

2.8 Pressure Transmitters:

Pressure transmitters for water and air shall be provided with adjustable spans to meet the requirements of the specific application-velocity pressure; differential or static pressure. Pressures shall be sensed and converted to DC signals (0-5v or 4-20ma) compatible with the direct digital controllers.

2.9 Space Sensor Thermostat - Thermostat shall consist of a precision Thermistor which is directly read by the digital controller, a setpoint adjustment rotary switch or slide for rising or lowering the controller setpoint, zone bus connector, thermometer / digital temperature display, network communication bus connector and a unoccupied override switch. Thermostat cover shall be rectangular high impact ABS plastic (or equal) in a neutral cover.

2.10 Electric Thermostats - wall mounted type, low or line voltage as required, rectangular pattern, range 55 to 90 degrees, with thermometer. Provide subbase with manual or automatic switching as required to perform the specified functions. Thermostats shall be single or multi-stage or modulating output as required to perform the functions specified.

2.11 Low temperature limit thermostats (freezestats) shall have approximately 18 feet long sensing element which when sensing a low temperature in any localized portion of the length will de-energize the fan circuit. These shall cover the face of the coil at 12" centers. When one freezestat cannot meet this requirement provide multiple freezestats.

Freezestats shall be duplex type with one (1) set of normally closed contacts wired directly to fan circuit and one (1) set of normally open contacts to provide an alarm to the DDC system.

2.12 Temperature Elements:

Temperature elements shall be RTD's or thermistors which varies its resistance with temperature changes. Temperature elements shall be duct insertion, averaging, well insertion, or room type as required by the application. Mixed air and discharge air sensors shall be averaging type. Averaging sensors shall be true averaging type, constructed for that purpose. All elements shall be compatible with direct digital controllers. Supplier/Contractor packaging of raw sensors shall not be permitted.

2.13 Humidity Sensors:

Humidity sensor shall be solid state electronic type with replaceable elements compatible with the DDC System and constructed for the specific application. Accuracy shall be plus/minus 5% over

0-100% relative humidity range and plus/minus 3% over a 30-80% relative humidity range. Enclosure shall be suitable for its application (outside air, return air, room etc.).

2.14 Outdoor Temperature and Humidity Transmitters:

Outdoor temperature and humidity sensor/transmitters shall be within a ventilated enclosure that protects the sensors from thermal building mass biasing, solar radiation and precipitation without affecting performance, similar to JCI Hx – 67 x 3 Series. Humidity sensors shall utilize thin-film polymer technology and have a minimum accuracy of ± 3% RH from 10% to 90% RH. The temperature sensor shall be platinum type and have a minimum accuracy of ± 0.5°F from -40°F to 140°F and a measuring range from -20°F to 120°F.

2.15 Current Relays:

Current relays shall be fully adjustable from 1.5 amps to 150 amps and shall have L.E.D. indicators. Form "A" (normally open) relays shall not be polarity sensitive. Current relays shall accommodate variable frequency drive outputs down to 6 HZ without contact chatter. Motor loads of less than 1.5 amps shall be multi-wound around current relay to increase "sensed" amperage to minimum setpoint for activation.

2.16 Pressure gauges shall be provided on control panel mains and pneumatic branch line for all instruments (transducers, etc.) with the exception of room thermostats. Gauges shall be labeled, or number tagged and an index provided inside the panel.

2.17 Carbon Dioxide Sensors - Sensors shall be infrared type $CO_2$ measuring device with a 4-20 ma linear output from 0 - 2000 ppm. Sensor shall be designed and provided with all necessary accessories for duct or space mounting. Sensors shall be manufactured by MSA or approved equal.

**PART 3 - EXECUTION**

3.1 Furnish a complete set of drawings showing the kind of control equipment for each of the various systems and their functions, along with indication on the drawing of all original setpoints and calibration values and set up parameters, and sequence of operation and also that of the automation system. These drawings shall be submitted for approval to the Owner, together with a complete brochure describing the equipment and their functions and operation. Include all application software documentation (actual programs or their job-specific flow charts) with DDC System and schedule a review meeting with the Owner at least two weeks before installation and start-up. Submittals may be in three stages: 1) Valves and Dampers; 2) Owner Shop Drawings; 3) Software.

3.2 Outdoor temperature and humidity sensors shall be mounted on the north face of the building unless otherwise approved by the Owner. Exact location shall be approved by the Architect.

3.3 The control equipment supplier shall submit a detailed outline of the owner training material for review and comment by the Owner during the shop drawing phase. The control system training program shall be customized to reflect the systems installed under this contract and shall cover, as a minimum: software navigation (via custom graphics and Windows based icons), system architecture, pass wording and system security features, input/output control functions, alarm functions/acknowledgment, trending/long term reporting, and control component operation.

3.4 Upon completion of the project, furnish a complete set of these drawings and diagrams, framed under clear plastic, and hang on the wall of the Mechanical Equipment Room where directed. Also furnish and turn over to the Owner and Architect three (3) complete sets of brochures

describing the various items of equipment, their functions and directions for operation and maintenance.

3.5 Upon completion of the control system, the Control Contractor shall adjust all components of the system. ATC Contractor shall make all adjustments in the control system required and as directed by the air balance contractor to achieve the desired air balance quantities. All instruments shall be carefully calibrated and each control function shall be demonstrated to function properly, to the satisfaction of the Owner. Provide a complete instruction manual covering the function and operation of all components. At the time of demonstration, each function shall be simulated to insure that controls respond properly to all signals, and the Owner shall be instructed in the proper operation of the system.

3.6 In addition to the adjustments and fine tuning, the Contractor shall include as a part of this contract the equivalent of five (5) man-days of service technician time for work as may be specified by the Engineer.

3.7 During the first year of operation, after acceptance by the Owner, the Control Contractor shall provide complete service to adjust or assist the Owner in adjusting the equipment to obtain optimum performance from the control equipment and from the heating and air conditioning systems in general. This shall be done without additional expense to the Owner. This work shall include revisions to DDC software programs and controller, and all PC front end software upgrades. All software shall be provided to the Owner in disk form, including back-ups of final field programs.

3.8 The control equipment manufacturer shall provide instruction and training of the Owner's personnel regarding the hardware and software of the system. Software training shall include programs, methods of programming, control loops, scheduling and reports. Training covering hardware shall include operating information, functional use, wiring diagrams and schematic diagrams necessary to troubleshoot the operating system. Training shall include "hands on" instruction to completely familiarize Owner's personnel with the equipment. Training of Owner's personnel shall be equal in scope and detail to that provided by the manufacturer to its own service technicians.

END OF SECTION

## 23 09 47 CONTROL WIRING FOR HVAC

## PART 1 - GENERAL

1.1 All electrical wiring, both line voltage and low voltage, which is required to perform the automatic control functions described shall be included in this contract.

1.2 The Electrical Contractor will provide a power source to motors through his starters only. Where power sources are required beyond these starters, or beyond sources explicitly shown on the electrical drawings, these shall be provided by the Controls Contractor. Where auxiliary contacts are required on starters to perform the required functions these, too, shall be provided by the Controls Contractor where not provided under Electrical Contract auxiliary external relays may be provided in lieu of auxiliary contacts.

1.3 Wiring, both line and low voltage, shall comply with NEC and shall be subject to approval of the local code enforcing authorities.

## PART 2 - PRODUCTS

2.1 Wire, conduit and installation methods shall conform to applicable provisions of Division 26 - Electrical except that wiring smaller than No. 12 and conduit smaller than 0.75" are permitted as appropriate for the application.

2.2 Communication wire shall meet the following requirements as a minimum. Control system manufacturers recommendations which exceed these requirements shall govern.

A. Category 5 plenum rated, 4 twisted pair, non-shielded (UTP) station cable (capable of transmission speeds up to 100 Mb/s) shall be used for control system networking. Cable shall be insulated with FEP material and sequentially marked at 2 foot intervals. Color as selected by Owner.

| | |
|---|---|
| Gauge | 24 AWG |
| Nominal O.D. | .17 in. |
| Min. Bend Radius | .5 in. |
| Standards/Certification | UL 444, UL 13<br>EIA/TIA 568, Cat. 5<br>PN-2841 |
| DC Resistance | 9.38 ohm/100 m |
| Maximum mutual capacitance of a pair @ 1 Khz | 5.6 nF/100 m |
| Unbalanced Capacitance per pair to ground @ 1 Khz | 330 pF/100 m |
| Impedance | 100 ohm ± 15% |
| Structured Return Loss 10/100 Mhz | 23/16 dB/100 m |
| Attenuation (max at 100 m) | 4.1 dB @ 4 Mhz<br>8.2 dB @ 16 Mhz |

| | |
|---|---|
| | 22.0 dB @ 100 Mhz |
| NEXT (min. at 100 m) | 53.0 dB @ 4 Mhz |
| | 44.0 dB @ 16 Mhz |
| | 32.0 dB @ 100 Mhz |
| Propagation Delay (min. @ 10 Mhz) | 5.7 ns/m |

## PART 3 - EXECUTION

3.1 All line voltage wiring and low voltage wiring (except as stated below) shall be run in conduit. Low voltage wiring concealed above accessible ceilings may be run without conduit. Open wiring dropping into walls shall be run in conduit. Thermostats shall be installed on a single gang box and conduit shall be installed to extend into the plenum. Open wiring shall be bundled and supported at 3 ft. maximum intervals with a system of J-hooks or equivalent supporting means. Open wiring in air plenums shall be rated for such use and so labeled.

~~3.3~~3.2 Circuits serving control panels and transformers for low voltage service shall be independent and used for no other purpose. These shall originate from the nearest appropriate emergency electrical panel. Circuits for VAV DDC controllers and other unitary type controls need not be on emergency power. Circuit wiring from the electrical panel shall be included in this contract. These circuits shall be clearly identified at the panels.

END OF SECTION

## 23 09 93 SEQUENCE OF OPERATIONS FOR HVAC CONTROLS

### PART 1 - GENERAL

1.1 All equipment (valves, dampers, actuators, controllers, etc.) required to perform the functions specified shall be provided under this ATC contract unless noted herein or elsewhere in these contract documents. Electric motor driven equipment (pumps, chillers, compressors, cooling towers, etc.) shall be provided with minimum on (run) and minimum off timers to prevent short cycling of the equipment (coordinate with equipment manufacturer's). All DDC system control points shall have a default value in case of sensor failure or logic error. All controlled devices shall fail safe on loss of control. All setpoints and parameters shall be fully adjustable from the end user / owner interface.

### PART 2 - PRODUCTS

2.1 Refer to Section 23 09 23 for applicable products.

### PART 3 - EXECUTION

3.1 Boiler On-Off

Each boiler shall be provided with a flow switch installed in the inlet water pipe under this contract. Flow switch shall be directly wired to the boiler control panel. The flow switch will allow the boiler to perform an orderly shutdown when the hot water pumps are stopped. When flow is proven the boiler shall operate under reset control currently installed with the boiler.

3.2 Boiler Water Reset

Provide each boiler with an outside temperature-reset control to vary the boiler water temperature 1.50-degree F. rise for each 1-degree F. drop in outdoor temperature to a maximum boiler temperature of 180 degrees F. Minimum boiler reset temperature shall be 140 degrees F. The control shall be provided complete with adjustable setpoint, boiler water and outside air sensors. Outside air sensors shall be located on the north side of the building. Provide sun shield and insulated base for mounting. When the boiler is enabled it shall start at low fire. After a minimum run time at low fire it the leaving water temperature is below setpoint the burner shall modulate toward high fire. When the firing rate has returned to low fire and the leaving temperature is more than 5°F above setpoint turn the boiler off.

3.3 Multiple Boiler On/Off Sequencing

Provide temperature sensors in the common hot supply and return water piping. Provide a supply water sequencing control to sequence for the on-off enabling of the 2 boilers based on the following supply reset schedule:

| OAT | Water Temp. |
|---|---|
| 0 and below | 190 |
| 60 and above | 160 |

Provide minimum on (run) and minimum off timer to prevent short cycling of boilers. Stop all boilers when hot water pumps stop.

3.4 Hot Water Circulating Pumps

Hot water system is a primary secondary system. The primary system is a duplex and the secondary is a single pump each for the High Temperature water loop and low temperature water

loop. The low temperature water loop runs to the AHUs and the high temperature water loop is for the perimeter fin tube system. One primary pump shall run continuously. Start second pump on flow failure of the first pump. Provide lead/lag program to alternate pumps. The high Temperature water pump shall not run when outdoor temperature is above 65 degrees. Below 65 degrees F (adjustable). both the high temperature and low temperature pumps shall run continuously.

3.5 Secondary Loop Temperature Control

Both the High Temperature and Low Temperature Water three-way control valve shall function the same. A temperature sensor shall be installed in the prospective water loop to measure the supply water temperature. As the water temperature moves out of range of the set point the three way valve shall either close or open as required to maintain required temperature.

Reset schedule for High Temperature Water

| OAT | Water Temp. |
|---|---|
| 0 and below | 185 |
| 60 and above | 140 |

Low Temperature Water set point: $110^0$ F

Set points and reset point shall be adjustable.

3.6 Chiller Start and Flow

The water chiller shall be started automatically. The chilled water pump shall start first. A relay in the chiller control panel shall simultaneously start the condenser water pump. An interlock with the condenser water pump start shall enable the cooling tower control. A flow switch in the chilled water and in the condenser water shall prove flow before the compressor operates. Furnish all necessary flow switches, auxiliary contacts, external relays and all wiring required to accomplish the described start-up, operating and safety sequence described. All chiller control device installation and set-up shall be provided under this ATC contract.

3.7 Cooling Tower Fan Operation

Fans shall be controlled through respective condenser water pump interlock subject to a low limit sensing element in the tower basin. Control shall be arranged to cycle the fan "on" upon a rise in temperature to maintain 80 degrees F., plus or minus approximately 3 degrees F. Tower fans shall cycle "off" below 77 degrees F. basin temperature. Provide a time delay to cause motor and fan to assume zero speed before shifting between high and low speeds. Provide chiller optimization software and dewpoint sensing to optimize condenser water entering temperature.

3.8 Fan-Coil Units

Installation of the thermostat and control wiring are included in this ATC contract. Additionally, provide a relay for each unit to lock-out the fan motor when the area zone night setback system requires no heating or cooling. Obtain control diagram from the unit manufacturer and incorporate it into the ATC shop drawings.

3.9 Unit Heaters

Furnish a line voltage thermostat with thermometer and 2 position to cycle unit heater fans upon a demand for heating. Furnish a strap-on thermostat on the return near the unit line to prevent fan operation when the line is cold. Furnish all wiring between thermostats and fan motor.

3.10 Variable Volume Boxes with Reheat

Each box shall have be provided with an electric modulating damper operator and a two-way modulating valve on the reheat coil furnished under this ATC contract. Coordinate with temperature ranges and valve position to prevent overlap of operating range of valve and damper actuators. Cooling shall be controlled by modulating the volume damper, heating shall be controlled by opening the reheat valve after the air volume has been throttled to a minimum.

3.11 General Exhaust Fans

Each exhaust fan (and its respective automatic damper) where indicated on the Electric Drawing Starter Schedule shall be a separate start/stop point of the digital control system.

3.12 Generator Damper Control

When the generator starts (either by emergency or test) a contact in the generator will close and, thru a relay, hold the intake dampers open during generator operation.

Provide an electrically actuated damper operator with spring return on each damper panel. No jack shafting shall be permitted. Actuator shall be arranged to open the damper when power is de-energized (actuator spring opens the damper). With normal power on, all intake dampers shall be powered closed. When power fails all dampers open.

3.13 Monitoring and Alarms

The following points shall be monitored and alarmed at the monitoring console and as otherwise specified hereinafter:

A. Point Descriptions:

1) Current Sensing Relays - Provide for all air handling unit supply and return fans; all chilled, hot, domestic hot recirculating and condenser water pumps; all general exhaust fans.

2) High/Low Temperature Alarms on all DDC temperature sensors with off-normal messages.

3) Fire Alarm System Inputs - Fire alarm shall be input into the digital control system for information and smoke control mode. Wiring from the digital control system inputs to the Fire Alarm System outputs shall be by this Contractor. Coordinate connection points with the Electrical Contractor.

4) Computer room A/C failure.

5) Boiler flame failure (trouble).

6) Chiller trouble.

B. When interfacing with equipment providing remote analog inputs or receiving analog outputs to the DDC system or when monitoring requires the installation of external relays at the equipment being monitored, coordinate all requirements such as range, signal condition, grounding, wiring and input impedance with the supplier of the equipment being monitored.

C. Dial Out Alarms - DDC system shall initiate a phone call and print an alarm message at a remote printer, digital pager, or PC operating in terminal mode whenever the system

detects a critical alarm. These alarms shall include but not be limited to: AHU freezestat alarm, chiller trouble, boiler or heating failure.

3.14 Air Handling Unit No. S-1

A. Air Handling Unit S-1: Variable volume draw through, preheat and cooling cool, 4" filter, with a return air fan remote from unit. This unit serves the Police offices.

B. Air Handling System Start/Stop – AHU S-1 shall run continuously - The air handling unit (associated supply, return and exhaust fans) During the run mode, the temperature controls shall function as specified. Coordinate exact schedule with Owner.

C. Minimum Outside Air - This paragraph defines the operation of outside air, vent air and return air dampers (economizer dampers) to provide minimum outside air for ventilation. The phrase "Minimum" in the sequences of operation shall invoke this paragraph. Simple outside air damper sections (all damper blades operating in unison) shall open to a fixed position as determined by air balance to provide the specified minimum ventilation. Return air dampers shall remain full open and vent air dampers shall remain completely closed. Compound outside air damper section (separate operable damper blades or sections) shall have the minimum damper open fully, the maximum outside air damper and vent air damper shall be completely closed, and the return air damper shall be fully open.

D. Initial Start - Air handling system shall enter a in advance of the occupied time, the outside air dampers shall remain completely closed and the return dampers shall remain fully open and exhaust fans shall remain off in this mode. During initial start up mode the VAV shut-off boxes shall open. This mode shall continue until the return temperature rises above 68 degrees F., at which time the economizer dampers shall be positioned to minimum and the respective exhaust fans shall start. Economizer damper control shall be delayed two minutes during start-up to prevent cabinet heat from false loading the system.

E. Safeties: If the following safeties are installed and functional with new DDC system they maybe reused if not they are to be replaced and or new furnished under this contract. The following safeties shall be provided to stop the air handling unit fan(s) and position the control devices to their "fail safe" position, i.e., outside and relief dampers closed, return dampers open, heating valves open and humidifier valves closed. Safeties shall be wired into the fan starter circuit such that the safety shall function whether the start selector switch is in the hand on or automatic position.

1) Low Temperature Limit Cutout "Freezestats" – Shall stop the air handling unit fan(s) if a temperature below 38 degrees F. is detected.

2) Smoke Detectors – Upon sensing smoke or products of combustion the supply fan shall be disabled. Refer to the drawings for detector locations. Single detector installations, a set of normally closed contacts will be provided in or near the detector for AHU shutdown. Units with multiple detectors shall have a single fire alarm contact. Coordinate location with the Electrical Contractor. Wire contacts in series with other safety devices.

3) Supply Duct High Static Pressure Cutout - Provide a manually reset type duct static pressure switch, set at the maximum working pressure of the ductwork, to stop the fan system (supply, return) on a rise in duct static above setpoint.

4) Return Duct High Negative Pressure Cutout - Provide a manual reset type duct static pressure switch, set at the maximum negative working pressure of the

ductwork, to stop the fan system (supply, return) on a fall in duct static below setpoint.

F. Return Air: Discharge Air Reset - The Air Handling Unit controls shall provide discharge air temperature control based on the following return air temperature reset schedule: 68 degrees F. return air, 62 Degrees F. discharge air; 78 degrees F. return air, 55 degrees F. discharge air. All control setpoints to be fully adjustable to meet job conditions.

G. Enthalpy Economizer Control - Outside air temperature and humidity, and return air temperature and humidity shall be measured, and the enthalpy of each determined. If the enthalpy of the outside air is less than the enthalpy of the return air the economizer shall be enabled. When the outside air enthalpy is higher than the return air enthalpy and mechanical cooling is available the economizer shall be disabled.

Economizer cycle - The minimum outside air shall be provided, the return air dampers shall open full and relief air dampers shall remain closed. This condition is the normal position and shall be maintained during the occupied mode except during the "economizer" cycle. During the "economizer" cycle, the amount of outside air and relief air shall be increased as required to maintain the unit discharge air temperature setpoint. Provide a mixed air sensor and low limit control set at 50 degrees F. to prevent over-opening of the fresh air dampers. All control setpoints to be full adjustable to meet job conditions.

H. Heating Coil Three Way Valve - On a fall in discharge air temperature below setpoint the heating control valve shall modulate open to maintain setpoint. Cooling coil valve shall be fully closed before the heating valve opens. During morning warm-up the setpoint shall be raised to 95 degrees F. (adjustable).

I. Cooling Coil Three Way Valve - When the economizer is active the control shall first position the outside air dampers to full open to outside air before the chilled water valve is permitted to open. If the economizer is not active, control shall pass to the chilled water valve. As discharge air temperature rises above setpoint, the cooling coil valve shall modulate open to satisfy the setpoint. Heating coil valve shall be full closed before the cooling valve opens.

J. Fan Volume Control - The variable speed drives on the supply and return fan shall be modulated by a static pressure sensor located two-thirds distance from the supply fan and a proportional plus integral control shall provide a common control signal to the system to provide a static pressure of 1.0" w.g. (adjustable) at that point. The volume of return air and the amount of air exhausted from the building shall be determined by supply of out door air, toilet exhaust, and building pressurization CFM.

3.15 Air Handling Unit No. S-2

A. Air Handling Unit S-2: Variable volume draw through, preheat and cooling cool, 4" filter, with a return air fan remote from unit. This unit serves general offices.

B. Air Handling System Start/Stop - Night Setback - The air handling unit (associated supply and return fans) shall be able to be scheduled for occupied/unoccupied 7-day and holiday operation. Provide start-stop interlock between supply and return fans. During the occupied mode, the temperature controls shall function as specified, during unoccupied mode the air handling unit controls shall function as specified except the outside air dampers shall remain closed and cooling will not be available and the general / toilet exhaust fan shall remain off. Hot water valves shall go to the full open position when the system is unoccupied. The controls shall cycle the unit to maintain a reduced space temperature of 60 degrees F.

C. Initial Schedule - Unit shall operate Monday thru Friday 7:00 am to 5:00 pm, Saturday 7:00 am to 12:00 noon. Unit shall be off after scheduled hours, Sunday and all legal holidays. Coordinate exact schedule with Owner.

D. Cooling Setup Control and Cool Down - During the unoccupied time, the space temperature rises above 82 degrees F. the unit shall cycle on to cool the space down to 79 degrees F and then turn off. Outside air shall be used for cooling first unless the economizer is locked out. An optimal start program shall start the unit in advance of occupied time to ensure proper space temperatures at occupancy time. During set up or cool down operation if the economizer is inactive the associated relief and exhaust fans shall remain off and the outside air dampers shall remain closed.

E. Minimum Outside Air - This paragraph defines the operation of outside air, vent air and return air dampers (economizer dampers) to provide minimum outside air for ventilation. The phrase "Minimum" in the sequences of operation shall invoke this paragraph. Simple outside air damper sections (all damper blades operating in unison) shall open to a fixed position as determined by air balance to provide the specified minimum ventilation. Return air dampers shall remain full open and vent air dampers shall remain completely closed.

F. Morning Warm-Up and Initial Start - Air handling system shall enter a morning warm-up mode in advance of the occupied time via an optimal start sequence, the outside air dampers shall remain completely closed and the return dampers shall remain fully open and exhaust fans shall remain off in this mode. During morning warm-up the VAV shut-off boxes shall open. This mode shall continue until the return temperature rises above 68 degrees F., at which time the economizer dampers shall be positioned to minimum and the respective exhaust fans shall start. Economizer damper control shall be delayed two minutes during start-up to prevent cabinet heat from false loading the system.

G. Safeties: If the following safeties are installed and functional with new DDC system they maybe reused if not they are to be replaced and or new furnished under this contract. The following safeties shall be provided to stop the air handling unit fan(s) and position the control devices to their "fail safe" position, i.e., outside and relief dampers closed, return dampers open, heating valves open and humidifier valves closed. Safeties shall be wired into the fan starter circuit such that the safety shall function whether the start selector switch is in the hand on or automatic position.

1) Low Temperature Limit Cutout "Freezestats" – Shall stop the air handling unit fan(s) if a temperature below 38 degrees F. is detected.

2) Smoke Detectors – Upon sensing smoke or products of combustion the supply fan shall be disabled. Refer to the drawings for detector locations. Single detector installations, a set of normally closed contacts will be provided in or near the detector for AHU shutdown. Units with multiple detectors shall have a single fire alarm contact. Coordinate location with the Electrical Contractor. Wire contacts in series with other safety devices.

3) Supply Duct High Static Pressure Cutout - Provide a manually reset type duct static pressure switch, set at the maximum working pressure of the ductwork, to stop the fan system (supply, return) on a rise in duct static above setpoint.

4) Return Duct High Negative Pressure Cutout - Provide a manual reset type duct static pressure switch, set at the maximum negative working pressure of the ductwork, to stop the fan system (supply, return) on a fall in duct static below setpoint.

H. Return Air: Discharge Air Reset - The Air Handling Unit controls shall provide discharge air temperature control based on the following return air temperature reset schedule: 68 degrees F. return air, 62 Degrees F. discharge air; 78 degrees F. return air, 55 degrees F. discharge air. All control setpoints to be fully adjustable to meet job conditions.

I. Enthalpy Economizer Control - Outside air temperature and humidity, and return air temperature and humidity shall be measured, and the enthalpy of each determined. If the enthalpy of the outside air is less than the enthalpy of the return air the economizer shall be enabled. When the outside air enthalpy is higher than the return air enthalpy and mechanical cooling is available the economizer shall be disabled.

Economizer cycle - The minimum outside air shall be provided, the return air dampers shall open full and relief air dampers shall remain closed. This condition is the normal position and shall be maintained during the occupied mode except during the "economizer" cycle. During the "economizer" cycle, the amount of outside air and relief air shall be increased as required to maintain the unit discharge air temperature setpoint. Provide a mixed air sensor and low limit control set at 50 degrees F. to prevent over-opening of the fresh air dampers. All control setpoints to be full adjustable to meet job conditions.

J. Heating Coil Three Way Valve - On a fall in discharge air temperature below setpoint the heating control valve shall modulate open to maintain setpoint. Cooling coil valve shall be fully closed before the heating valve opens. During morning warm-up the setpoint shall be raised to 95 degrees F. (adjustable).

K. Cooling Coil Three Way Valve - When the economizer is active the control shall first position the outside air dampers to full open to outside air before the chilled water valve is permitted to open. If the economizer is not active, control shall pass to the chilled water valve. As discharge air temperature rises above setpoint, the cooling coil valve shall modulate open to satisfy the setpoint. Heating coil valve shall be full closed before the cooling valve opens.

L. Fan Volume Control - The variable speed drives on the supply and return fan shall be modulated by a static pressure sensor located two-thirds distance from the supply fan and a proportional plus integral control shall provide a common control signal to the system to provide a static pressure of 1.0" w.g. (adjustable) at that point. The volume of return air and the amount of air exhausted from the building shall be determined by supply of out door air, toilet exhaust, and building pressurization CFM.

3.16 Air Handling Unit No. S-3

A. Air Handling Unit S-2: Variable volume draw through, cooling cool, 4" filter, with a return air fan remote from unit. This unit serves general offices.

B. Air Handling System Start/Stop - Night Setback - The air handling unit (associated supply and return fans) shall be able to be scheduled for occupied/unoccupied 7-day and holiday operation. Provide start-stop interlock between supply and return fans. During the occupied mode, the temperature controls shall function as specified, during unoccupied mode the air handling unit controls shall function as specified except the outside air dampers shall remain closed and cooling will not be available and the general / toilet exhaust fan shall remain off. The controls shall cycle the unit to maintain a reduced space temperature of 60 degrees F.

C. Initial Schedule - Unit shall operate Monday thru Friday 7:00 am to 5:00 pm, Saturday 7:00 am to 12:00 noon. Unit shall be off after scheduled hours, Sunday and all legal holidays. Coordinate exact schedule with Owner.

D. Cooling Setup Control and Cool Down - During the unoccupied time, the space temperature rises above 82 degrees F. the unit shall cycle on to cool the space down to 79 degrees F and then turn off. Outside air shall be used for cooling first unless the economizer is locked out. An optimal start program shall start the unit in advance of occupied time to ensure proper space temperatures at occupancy time. During set up or cool down operation if the economizer is inactive the associated relief and exhaust fans shall remain off and the outside air dampers shall remain closed.

E. Minimum Outside Air - This paragraph defines the operation of outside air, vent air and return air dampers (economizer dampers) to provide minimum outside air for ventilation. The phrase "Minimum" in the sequences of operation shall invoke this paragraph. Simple outside air damper sections (all damper blades operating in unison) shall open to a fixed position as determined by air balance to provide the specified minimum ventilation. Return air dampers shall remain full open and vent air dampers shall remain completely closed.

F. Morning Warm-Up and Initial Start - Air handling system shall enter a morning warm-up mode in advance of the occupied time via an optimal start sequence, the outside air dampers shall remain completely closed and the return dampers shall remain fully open and exhaust fans shall remain off in this mode. During morning warm-up the VAV shut-off boxes shall open. This mode shall continue until the return temperature rises above 68 degrees F., at which time the economizer dampers shall be positioned to minimum and the respective exhaust fans shall start. Economizer damper control shall be delayed two minutes during start-up to prevent cabinet heat from false loading the system.

G. Safeties: If the following safeties are installed and functional with new DDC system they maybe reused if not they are to be replaced and or new furnished under this contract. The following safeties shall be provided to stop the air handling unit fan(s) and position the control devices to their "fail safe" position, i.e., outside and relief dampers closed, return dampers open, heating valves open and humidifier valves closed. Safeties shall be wired into the fan starter circuit such that the safety shall function whether the start selector switch is in the hand on or automatic position.

1) Low Temperature Limit Cutout "Freezestats" - Shall stop the air handling unit fan(s) if a temperature below 38 degrees F. is detected.

2) Smoke Detectors – Upon sensing smoke or products of combustion the supply fan shall be disabled. Smoke detectors shall be furnished under the Electrical Contract or Electronic Safety and Security Contract unless otherwise specified. Smoke detectors shall be installed on all return units equal or above 2,000 cfm unless return serves a dedicated space. Refer to the drawings for detector locations. Single detector installations, a set of normally closed contacts will be provided in or near the detector for AHU shutdown. Units with multiple detectors shall have a single fire alarm contact. Coordinate location with the Electrical Contractor. Wire contacts in series with other safety devices.

3) Supply Duct High Static Pressure Cutout - Provide a manually reset type duct static pressure switch, set at the maximum working pressure of the ductwork, to stop the fan system (supply, return) on a rise in duct static above setpoint.

4) Return Duct High Negative Pressure Cutout - Provide a manual reset type duct static pressure switch, set at the maximum negative working pressure of the ductwork, to stop the fan system (supply, return) on a fall in duct static below setpoint.

H. Outside Air: Discharge Air Reset - The Air Handling Unit controls shall provide discharge air temperature control based on the following outside air reset schedule: 0 degrees F.

outside air, 62 degrees F. discharge air; 55 degrees F. outside air, 55 degrees F discharge air. All control setpoints to be fully adjustable to meet job conditions.

I. Return Air: Discharge Air Reset - The Air Handling Unit controls shall provide discharge air temperature control based on the following return air temperature reset schedule: 68 degrees F. return air, 62 Degrees F. discharge air; 78 degrees F. return air, 55 degrees F. discharge air. All control setpoints to be fully adjustable to meet job conditions.

J. Enthalpy Economizer Control - Outside air temperature and humidity, and return air temperature and humidity shall be measured, and the enthalpy of each determined. If the enthalpy of the outside air is less than the enthalpy of the return air the economizer shall be enabled. When the outside air enthalpy is higher than the return air enthalpy and mechanical cooling is available the economizer shall be disabled.

Economizer cycle - The minimum outside air shall be provided, the return air dampers shall open full and relief air dampers shall remain closed. This condition is the normal position and shall be maintained during the occupied mode except during the "economizer" cycle. During the "economizer" cycle, the amount of outside air and relief air shall be increased as required to maintain the unit discharge air temperature setpoint. Provide a mixed air sensor and low limit control set at 50 degrees F. to prevent over-opening of the fresh air dampers. All control setpoints to be full adjustable to meet job conditions.

K. Cooling Coil Three Way Valve - When the economizer is active the control shall first position the outside air dampers to full open to outside air before the chilled water valve is permitted to open. If the economizer is not active, control shall pass to the chilled water valve. As discharge air temperature rises above setpoint, the cooling coil valve shall modulate open to satisfy the setpoint.

L. Fan Volume Control - The variable speed drives on the supply and return fan shall be modulated by a static pressure sensor located two-thirds distance from the supply fan and a proportional plus integral control shall provide a common control signal to the system to provide a static pressure of 1.0" w.g. (adjustable) at that point. The volume of return air and the amount of air exhausted from the building shall be determined by supply of out door air, toilet exhaust, and building pressurization CFM.

3.17 Air Handling Unit No. S-4

A. Air Handling Unit S-2: Variable volume with the supply between the preheat and cooling cools, preheat and cooling cool, 4" filter, with a return air fan remote from unit. This unit serves Meeting and Conference rooms.

B. Air Handling System Start/Stop - Night Setback - The air handling unit (associated supply and return fans) shall be able to be scheduled for occupied/unoccupied 7-day and holiday operation. Provide start-stop interlock between supply and return fans. During the occupied mode, the temperature controls shall function as specified, during unoccupied mode the air handling unit controls shall function as specified except the outside air dampers shall remain closed and cooling will not be available and the general / toilet exhaust fan shall remain off. Hot water valves shall go to the full open position when the system is unoccupied. The controls shall cycle the unit to maintain a reduced space temperature of 60 degrees F.

C. Schedule - Unit operating schedule shall adjustable and coordinated with Owner. Unit shall be off after scheduled hours, Sunday and all legal holidays. Coordinate exact schedule with Owner.

D. Cooling Setup Control and Cool Down - During the unoccupied time, the space temperature rises above 82 degrees F. the unit shall cycle on to cool the space down to 79 degrees F and then turn off. Outside air shall be used for cooling first unless the economizer is locked out. An optimal start program shall start the unit in advance of occupied time to ensure proper space temperatures at occupancy time. During set up or cool down operation if the economizer is inactive the associated relief and exhaust fans shall remain off and the outside air dampers shall remain closed.

E. Minimum Outside Air - This paragraph defines the operation of outside air, vent air and return air dampers (economizer dampers) to provide minimum outside air for ventilation. The phrase "Minimum" in the sequences of operation shall invoke this paragraph. Simple outside air damper sections (all damper blades operating in unison) shall open to a fixed position as determined by air balance to provide the specified minimum ventilation. Return air dampers shall remain full open and vent air dampers shall remain completely closed.

F. Morning Warm-Up and Initial Start - Air handling system shall enter a morning warm-up mode in advance of the occupied time via an optimal start sequence, the outside air dampers shall remain completely closed and the return dampers shall remain fully open and exhaust fans shall remain off in this mode. During morning warm-up the VAV shut-off boxes shall open. This mode shall continue until the return temperature rises above 68 degrees F., at which time the economizer dampers shall be positioned to minimum and the respective exhaust fans shall start. Economizer damper control shall be delayed two minutes during start-up to prevent cabinet heat from false loading the system.

G. Safeties: If the following safeties are installed and functional with new DDC system they maybe reused if not they are to be replaced and or new furnished under this contract. The following safeties shall be provided to stop the air handling unit fan(s) and position the control devices to their "fail safe" position, i.e., outside and relief dampers closed, return dampers open, heating valves open and humidifier valves closed. Safeties shall be wired into the fan starter circuit such that the safety shall function whether the start selector switch is in the hand on or automatic position.

1) Low Temperature Limit Cutout "Freezestats" – Shall stop the air handling unit fan(s) if a temperature below 38 degrees F. is detected.

2) Smoke Detectors – Upon sensing smoke or products of combustion the supply fan shall be disabled. Refer to the drawings for detector locations. Single detector installations, a set of normally closed contacts will be provided in or near the detector for AHU shutdown. Units with multiple detectors shall have a single fire alarm contact. Coordinate location with the Electrical Contractor. Wire contacts in series with other safety devices.

3) Supply Duct High Static Pressure Cutout - Provide a manually reset type duct static pressure switch, set at the maximum working pressure of the ductwork, to stop the fan system (supply, return) on a rise in duct static above setpoint.

4) Return Duct High Negative Pressure Cutout - Provide a manual reset type duct static pressure switch, set at the maximum negative working pressure of the ductwork, to stop the fan system (supply, return) on a fall in duct static below setpoint.

H. Return Air: Discharge Air Reset - The Air Handling Unit controls shall provide discharge air temperature control based on the following return air temperature reset schedule: 68 degrees F. return air, 62 Degrees F. discharge air; 78 degrees F. return air, 55 degrees F. discharge air. All control setpoints to be fully adjustable to meet job conditions.

I. Enthalpy Economizer Control - Outside air temperature and humidity, and return air temperature and humidity shall be measured, and the enthalpy of each determined. If the enthalpy of the outside air is less than the enthalpy of the return air the economizer shall be enabled. When the outside air enthalpy is higher than the return air enthalpy and mechanical cooling is available the economizer shall be disabled.

Economizer cycle - The minimum outside air shall be provided, the return air dampers shall open full and relief air dampers shall remain closed. This condition is the normal position and shall be maintained during the occupied mode except during the "economizer" cycle. During the "economizer" cycle, the amount of outside air and relief air shall be increased as required to maintain the unit discharge air temperature setpoint. Provide a mixed air sensor and low limit control set at 50 degrees F. to prevent over-opening of the fresh air dampers. All control setpoints to be full adjustable to meet job conditions.

J. Heating Coil Three Way Valve - On a fall in discharge air temperature below setpoint the heating control valve shall modulate open to maintain setpoint. Cooling coil valve shall be fully closed before the heating valve opens. During morning warm-up the setpoint shall be raised to 95 degrees F. (adjustable).

K. Cooling Coil Three Way Valve - When the economizer is active the control shall first position the outside air dampers to full open to outside air before the chilled water valve is permitted to open. If the economizer is not active, control shall pass to the chilled water valve. As discharge air temperature rises above setpoint, the cooling coil valve shall modulate open to satisfy the setpoint. Heating coil valve shall be full closed before the cooling valve opens.

L. Fan Volume Control - The variable speed drives on the supply and return fan shall be modulated by a static pressure sensor located two-thirds distance from the supply fan and a proportional plus integral control shall provide a common control signal to the system to provide a static pressure of 1.0" w.g. (adjustable) at that point. The volume of return air and the amount of air exhausted from the building shall be determined by supply of out door air, toilet exhaust, and building pressurization CFM.

END OF SECTION

Alternate bid #1 shall provide a complete turnkey price for air handler S1, S2 and S3.

Alternate bid #2 shall provide a price without demolition, removal and disposal of air handlers S1, S2 and S3.

Provide separate alternate bids for each air hander (ie: S1 Alternate Bid #1 & S1 Alternate Bid #2).

**HVAC Guide Specifications**
**Air Handler Units**

**Part 1 — General**

1.01 QUALITY ASSURANCE

A. Manufacturer Qualifications:
Company specializing in manufacturing the products specified in this section with minimum of five years documented experience.

B. Units shall be manufactured in a facility registered to ISO 9001:2000 manufacturing quality standard.

C. Air-handling unit assembly shall have UL 1995 certification for safety, including use with electric heat.

D. Products requiring electric connection shall be listed and classified by ETL and CSA as suitable for the purpose specified and indicated.

E. Coil performance shall be certified in accordance with AHRI Standard 410.

F. Air-handling unit shall be AHRI 430 listed and meet NFPA 90A requirements.

1.02 DELIVERY, STORAGE AND PROTECTION

A. All indoor units, painted or unpainted, shall be completely shrink-wrapped from the factory for protection during shipment. Tarping of bare units is unacceptable.

B. Inspect for transportation damage and store in clean dry place and protect from weather and construction traffic. Handle carefully to avoid damage to components, enclosures, and finish.

1.03 START-UP REQUIREMENTS

Do not operate units until ductwork is clean, filters are in place, bearings lubricated, condensate properly trapped, piping connections verified and leak tested, belts aligned and tensioned, all shipping braces have been removed, and fan has been test run under observation.

**Part 2 — Products**

2.01 GENERAL DESCRIPTION

A. Units shall ship in the number of sections necessary to meet project requirements shall

B. Unit shall be factory-supplied, central station air handler. The air-handling unit may consist of a fan with the following factory-installed components as indicated on the equipment schedule.

1. Mixing Box Section:
   a. With angle filter tracks.

   .

2. Air Mixer Section.
3. Exhaust Box Section.
4. Integral Face and Bypass Section:
   a. With hot water coil.

   .

5. Internal Face and Bypass Damper Section.
6. External Face and Bypass Damper Section.
7. Plenum Section:
   a. With drain pan.
9. Blow-Thru Discharge Plenum.
10. Filter Section:
    a. 2-in. flat filters.
    b. 4-in. flat filters.
    c. 2-in. angle filters.
    d. 4-in. angle filters.

.

11. Coil Section:
    a. Chilled water coil.
    .
    c. Hot water coil.
13. Fan Section:
    a. Horizontal draw-thru.
    b. Horizontal blow-thru (with integral diffuser).

2.02 CASING

A. Construction:
1. Unit shall be constructed of a complete frame with easily removable panels. Removal of any panel shall not affect the structural integrity of the unit.
2. All units shall be supplied with 14-gage or heavier, G-90 galvanized steel base rails. Bolton legs are NOT acceptable. Perimeter lifting lugs for overhead lifting shall be provided on each section. Slinging units in place of lifting lugs shall not be acceptable.
3. Unit shall be thermally broken to minimize the conduction path from the inside of the casing to the outside.
4. Casing panels (top, sides, and bottom) shall be constructed of galvanized steel, and shall have one of the following exterior finishes as specified:
    a. Pre-painted with a baked enamel finish passing 500-hour salt spray test (ASTM B-117) for pre-painted steel and 125-hour marine level 1 prohesion test (ASTM G-85.A5) for pre-painted steel.
    b. Unpainted G-90 galvanized steel.
5. Casing panels (top, sides, and bottom) shall be constructed of galvanized steel, and shall have one of the following interior finishes as specified:
    a. Pre-coated with a silver zeolite antimicrobial material registered by the US EPA for use in HVAC applications.
    b. Unpainted G-90 galvanized steel.
6. Casing panels (top, sides, and bottom) shall be one piece, double-wall construction with insulation sealed between the inner and outer panels. Panel assemblies shall not carry an R-value of less than 13.
7. Casing deflection shall not exceed a 1:200 ratio when subject to an internal pressure of ± 6-in. wg. Casing leakage rate shall be less than 1% at 6 in. wg of nominal unit airflow or 50 cfm, whichever is greater. Leakage rate shall be tested and documented on a routine basis on random production units. Optionally, factory witness leak testing and/or test reports shall be available.
8. Side panels shall be easily removable for access to unit and shall seal against a full perimeter automotive style gasket to ensure a tight seal.
9. The panel retention system shall comply with UL 1995 which states all moving parts (for example, fan blades, blower wheels, pulleys, and belts) that, if accidentally contacted, could cause bodily injury, shall be guarded against accidental contact by an enclosure requiring tools for removal.
10. Accessibility options shall be as follows:
    a. Hinged double-wall access door on either side with removable access panel(s) on the other side.
    b. Hinged double-wall access doors on both sides.
    c. Removable double-wall access panels on both sides.
    b. Marine lights shall be factory installed with or without GFCI (ground fault circuit interrupter) convenience outlets.
12. Fan supports, structural members, panels, or flooring shall not be welded, unless aluminum, stainless steel, or other corrosion-resistant material is used. Painted welds on unit exterior steel or galvanized steel are not acceptable.
13. All coil sections shall be doublewall construction with insulation sealed between the inner and outer panels. Panel assemblies shall not carry an R-value of less than 13. Single height coil sections shall have removable frame sections to facilitate vertical coil extraction.

14. Blow-thru sections shall have a diffuser plate as an integral part of the fan section.

B. Access Doors:
Access doors shall be one piece, double-wall construction with insulation sealed between the inner and outer panels. Panel assemblies shall not carry an R-value of less than 13.

C. Drain Pans:
Drain pans shall be insulated doublewall galvanized or stainless steel construction. The pan shall be sloped toward the drain connection. Drain pan shall have 1 1/2-in. MPT connection exiting through the hand side or opposite side of the casing as specified. One drain outlet shall be supplied for each cooling coil section. Drain pan shall allow no standing water and comply with ASHRAE Standard 62. Where 2 or more coils are stacked in a coil bank, intermediate drain pans shall be provided and the condensate shall be piped to the bottom drain pan. The bottom coil shall not serve as a drain path for the upper coil.

2.03 FANS

A. General:

1. Forward-curved fans shall have one double-width double-inlet (DWDI) fan wheel and scroll. They shall be constructed of galvanized steel with baked enamel. They shall be designed for continuous operation at the maximum rated fan speed and motor horsepower. Fans shall have an AMCA class rating corresponding to the static pressure at which the fan is designed to operate (Class I or II). Completed fan assembly shall be dynamically balanced in accordance with 1989 ARI Guideline G and ANSI S2.19-1986 at design operating speed using contract drive and motor if ordered.
2. Airfoil fan sections shall have one DWDI airfoil fan wheel and scroll. Airfoil blades shall be double thickness design constructed of heavy gage, high strength steel or aluminum continuously welded to the backplate and the spun inlet flange. Entire fan assembly shall be cleaned, primed and painted with alkyd enamel, except for an aluminum fan wheel when supplied. Fans shall have an AMCA class rating corresponding to the static pressure at which the fan is designed to operate (Class I, II, or III). Completed fan assembly shall be dynamically balanced to minimum grade of G 6.3 per ANSI/AMCA 204-96 at design operating speed using contract drive and motor if ordered.
3. Plenum fan sections shall have one single-width single-inlet (SWSI) airfoil fan wheel. Airfoil blades shall be double thickness design constructed of heavy gage, high strength steel or aluminum continuously welded to the backplate and the spun inlet flange. Entire fan assembly shall be cleaned, primed and painted with alkyd enamel, except for an aluminum fan wheel when supplied. They shall be designed for continuous operation at the maximum rated fan speed and motor horsepower. Fans shall have an AMCA class rating corresponding to the static pressure at which the fan is designed to operate (Class I, II, or III). Completed fan assembly shall be dynamically balanced to minimum grade of G 6.3 per ANSI/AMCA 204-96 at design operating speed using contract drive and motor if ordered.
4. Fan wheels shall be keyed to the shaft and shall be designed for continuous operation at maximum rated fan speed and motor horsepower. Fan wheels and shafts shall be selected with a maximum operating speed 25% below the first critical.
5. Fan motor shall be mounted within the fan section casing on slide rails equipped with adjusting screws. Motor shall be high efficiency, open dripproof or totally enclosed fan cooled NEMA Design B with size and electrical characteristics as shown on the equipment schedule. Premium efficiency motors shall be available. Motor shall be mounted on a horizontal flat surface and shall not be supported by the fan or its structural members. All three-phase motors shall have a ± 10% voltage utilization range and a 1.15 minimum service factor. Motor shall be compliant with EPACT where applicable. Single-phase motors shall be available up to and including 5 hp.

B. Performance Ratings:
Fan performance shall be rated and certified in accordance with AHRI Standard 430.

C. Sound Ratings:

Manufacturer shall submit first through eighth octave sound power for fan discharge and casing radiated sound.

D. Mounting:
Fan scroll, wheel, shaft, bearings, drives, and motor shall be mounted on a common base assembly. The base assembly is isolated from the outer casing with factory-installed isolators and rubber vibration absorbent fan discharge seal. A canvas style duct connection between fan discharge and cabinet is not acceptable. Units shall use 2-in. deflection spring isolators.

E. Fan Accessories:
1. Forward-curved fans:
   a. Variable frequency drives with or without bypass.
   b. Magnetic motor starters.
   c. Motor disconnects.
   d. Belt guards.
   e. Inlet screen.
2. Airfoil Fans:
   a. Variable frequency drives with or without bypass.
   b. Magnetic motor starters.
   c. Motor disconnects.
   d. Belt guards.
   e. Inlet screen.
3. Plenum Fans:
   a. Variable frequency drives with or without bypass.
   b. Magnetic motor starters.
   c. Motor disconnects.
   d. Inlet screen and wheel cage.

F. Flexible Connection:
The base assembly is isolated from the outer casing with factory-installed isolators and rubber vibration absorbent fan discharge seal. A canvas style duct connection between fan discharge and cabinet is not acceptable.

2.04 BEARINGS AND DRIVES

A. Bearings:
Self-aligning, grease lubricated, anti-friction with lubrication fittings extended to drive side of fan section. Optional grease fittings extended to the exterior of the casing are available.
1. Size 03 to 110 forward-curved fans: Cartridge type bearings for Class I fans. Heavy-duty pillow block type, self-aligning, regreasable ball or roller type bearings selected for a minimum average life ($L_{50}$) of 200,000 hours or optionally for an ($L_{50}$) of 500,000 hours.
2. Size 03 to 110 airfoil fans: Heavy-duty pillow block type, self-aligning, regreasable ball or roller type bearings selected for a minimum average life ($L_{50}$) of 200,000 hours or optionally for an ($L_{50}$) of 500,000 hours.
3. Size 06 to 110 plenum fans: Heavy-duty pillow block type, self-aligning, regreasable roller type bearings selected for a minimum average life ($L_{50}$) of 200,000 hours or optionally for an ($L_{50}$) of 500,000 hours.

B. Shafts:
Fan shafts shall be solid steel, turned, ground, polished and coated with a rust inhibitor.

C. V-Belt Drive:
Drive shall be designed for a minimum 1.2 service factor as standard with a 1.5 service factor option and/or a factory-supplied extra set of belts. Drives shall be fixed pitch with optional variable pitch for motors 15 hp and less. All drives shall be factory mounted, with sheaves aligned and belts properly tensioned.

2.05 COILS

A. All water, steam and direct expansion (DX) refrigerant coils shall be provided to meet the scheduled performance. All coil performance shall be certified in accordance with AHRI Standard 410. All water and direct expansion coils shall be tested at 450 psig air

pressure. Direct expansion coils shall be designed and tested in accordance with ASHRAE/ANSI 15 Safety Code for Mechanical Refrigeration (latest edition).

B. General Fabrication:
   1. All water and refrigerant coils shall have minimum 1/2-in. OD copper tubes mechanically expanded into fins to ensure high thermal performance with lower total flow and pumping requirements. Minimum tube wall thickness shall be 0.016 inches. Optional tube wall thickness of 0.025 in. shall be supplied, if specified.
   2. Optionally, water coils shall have minimum 5/8-in. OD copper tubes mechanically expanded into fins to ensure high thermal performance with lower total flow and pumping requirements. Minimum tube wall thickness shall be 0.020 inches. Optional tube wall thickness of 0.035 in. shall be supplied, if specified.
   3. Aluminum plate fin type with belled collars. Optional copper plate fins shall be supplied, if specified.
   4. Aluminum-finned coils shall be supplied with die-formed casing and tube sheets of mill galvanized steel or stainless steel as specified. Copper-finned coils shall be supplied with stainless steel casing and tube sheets.

E. Integral Face and Bypass Coils:
   1. Sizes 03-14 shall have horizontal steam or hot water coils with a tubewall thickness of not less than 0.020 inches. Tubes shall be mechanically expanded into die formed collars formed in aluminum plate type fins.
   2. Sizes 17-110 shall have vertical steam or hot water coils with a tubewall thickness of not less than 0.035 inches. Fins shall be spiral edgewound copper. Tubes shall be free-floating for thermal expansion and contraction without the use of offset bends or floating headers.

2.07 FILTER SECTIONS

A. Flat filter sections shall accept either 2-in. or 4-in. filters. Sections shall include side access slide rails.

B. Angle filter sections shall accept either 2-in. or 4-in. filters of standard sizes, arranged in a horizontal V formation.

C. Draw-thru bag/cartridge filter sections shall be capable of accepting headered standard size 6-in. to 12-in. deep rigid media or bag filters.

D. Draw-thru bag/cartridge filter sections shall be capable of accepting headered standard size 12-in. to 30-in. deep rigid media or bag filters.

E. Blow-thru bag/cartridge filter sections shall contain a face loading filter frame and be capable of accepting standard size 12-in. deep rigid media (headered or box) or bag filters.

G. Magnehelic Gages:
   1. Housing shall be constructed of a die cast aluminum case and bezel with acrylic cover. Exterior finish shall be coated gray to withstand 168 hr salt spray corrosion test.
   2. Accuracy shall be ±2% of full scale throughout range at 70 F (21.1 C).
   3. Pressure limits shall be –20 in. Hg to 15 psig (0.677 bar to 1.034 bar).
   4. Overpressure relief plugs shall open at approximately 25 psig (1.72 kPa).
   5. Temperature limits shall be 20 to 140 F (–6.67 to 60 C).
   6. Diameter of dial face shall be 4 in. (101.6 mm).
   7. Process connections shall be 1/8-in. female NPT duplicate high and low pressure taps — one pair side and one pair back.

2.08 DAMPERS

A. Mixing boxes, filter-mixing boxes, and exhaust boxes shall have parallel or opposed blades and interconnecting outside-air and return-air dampers.
   1. Standard Dampers:
      Damper blades shall be constructed of galvanized steel, with blade seals and stainless steel jamb seals. Blades shall be mechanically fastened to axle rods rotating in self-lubricating synthetic bearings. Maximum leakage rate shall be 4 cfm/ft$^2$ at 1 in. wg (0.25 kPa) differential pressure.

2. Premium Dampers:
   Damper blades shall be constructed of galvanized steel with a double-skin airfoil design, with blade seals and stainless steel jamb seals. Blades shall be mechanically fastened to axle rods rotating in self-lubricating synthetic bearings. Maximum leakage rate shall be 2 cfm/ft2 at 1 in. wg (0.25 kPa) differential pressure.
3. Outside Air Measurement Dampers:
   a. Damper frame shall be nominal 4 in. x 1 in. x minimum 0.081 in. (102 mm x 25 mm x minimum 2 mm) and constructed of 6063-T5 extruded aluminum.
   b. Airflow measuring blades shall be airfoil-shaped, heavy gage anodized 6063-T5 extruded aluminum and fixed in 10 in. x minimum 16 gage (254 mm x minimum 1.5 mm) galvanized steel frame.
   c. Jamb seals shall be flexible metal compression type along control damper sides.
   d. Blade seals shall be neoprene along control damper blade edges.
   e. Bearings shall be molded synthetic.
   f. Linkage shall be galvanized steel, concealed in frame.
   g. Axles shall be minimum 1/2-in. (13 mm) diameter plated steel, hex-shaped, mechanically attached to blade.
   h. Operating temperature shall be –22 to 140 F (–30 to 60 C).
   i. Air straightener section shall be aluminum alloy honeycomb contained in 5 in. (127 mm) long, 16 gage (1.5 mm) galvanized steel sleeve attached to monitoring blade frame.
   j. Airflow range shall be 400 to 5,000 ft per minute (122 to 1524 m/min) face velocity.
   k. Maximum leakage rate shall be 2 cfm/ft2 at 1 in. wg (0.25 kPa) differential pressure.

B. Integral Face and Bypass Dampers:
   1. Integral face and bypass (IFB) coils shall be capable of maintaining a constant air volume, within 5%, shall be capable of maintaining a constant leaving air temperature as entering air conditions vary, and shall be capable of producing mixed leaving air temperatures within 3 ft downstream with a maximum variance in air temperature of 5° F, regardless of damper position.
   2. When no heating is required, dampers shall divert air to bypass around heating surface with minimal temperature override.
   3. Coil casing, dampers and baffles shall be fabricated from galvanized steel with an option for stainless steel. Coils shall be tested at 300 psig.
   4. Integral face and bypass coils shall be provided with a connection point for field-mounted actuator(s), electrical or pneumatic, or can be provided from the factory at an additional cost.
   5. Actuator connection point shall be mechanically attached to dampers via linkage mechanisms. Dampers shall be interconnected for operation simultaneously across each face of coil.

C. Face and Bypass Dampers:
   1. Internal Face and Bypass Dampers:
      Internal face and bypass dampers shall be factory mounted in galvanized steel frame. Damper blades shall be constructed of galvanized steel, with high temperature blade and edge seals. Blades shall be mechanically fastened to axle rods rotating in self-lubricating synthetic bearings. To eliminate blade warping, face dampers shall be sectionalized to limit blade length to 60 in. maximum. Face damper blades shall be opposed and arranged to match coil face with top bypass, and internal linkage.
   2. External Face and Bypass Dampers:
      Face damper shall be factory mounted in galvanized steel frame. Damper blades shall be constructed of galvanized steel, with high temperature blade and edge seals. Blades shall be mechanically fastened to axle rods rotating in self-lubricating synthetic bearings. Bypass damper shall be constructed of galvanized steel, with blade seals and stainless steel jamb seals. Blades shall be mechanically fastened to

axle rod rotating in self-lubricating synthetic bearings. Face damper blades shall be opposed with top bypass, and internally mounted linkage.

D. Multi-Zone Dampers:
Multi-zone dampers shall be factory mounted in galvanized steel frame. Damper blades shall be constructed of galvanized steel with a double-skin airfoil design, with blade seals and stainless steel jamb seals. Blades shall be mechanically fastened to axle rods rotating in self-lubricating synthetic bearings. Maximum leakage rate shall be 11 cfm/ft$^2$ at 1 in. wg (0.25 kPa) differential pressure. Maximum pressure drop due to dampers shall be no more than 0.40 in. wg. Number of zones shall vary by size of section.

C. Starters:

D. Bypass for Variable Frequency Drives:
1. 200-230 v/3 Ph/60 Hz (1 to 7.5 Hp), 460-575 v/3 Ph/60 Hz (1 to 20 Hp), 380 v/3 Ph/ 50 Hz (1 to 15 Hp):
   a. 4-position panel-mounted disconnect style switch with lockable handle (locks not provided), meets OSHA 1910.
   b. Switch position indication (LINE/OFF/ DRIVE/TEST).
   c. Adjustable motor overload with trip indication (LINE position).
   d. Manual overload reset button.
   e. Horsepower rated for motor applications.
   f. Direct control (no contactors, relays, or holding coils).
   g. Complete isolation of inverter in LINE position.
   h. NEMA 12 type metal enclosures.
   i. Terminal strip provided for field power supply wiring.
   j. Lug connection for field ground wire.
   k. Gold flashed, auxiliary switch contact set (for switch position monitoring).
   l. Factory mounted, wired to VFD and motor, and run tested (motor and VFD must be factory supplied and installed).
   m. UL; UL, Canada; CE listed.
2. 200-230 v/3 Ph/60 Hz (10 to 75 Hp), 460-575 v/3 Ph/60 Hz (25 to 150 Hp), 380 v/3 Ph/50 Hz (20 to 75 Hp):
   a. 4-position panel-mounted disconnect style switch with lockable handle (locks not provided), meets OSHA 1910.
   b. Switch position indication (LINE/OFF/ DRIVE/TEST).
   c. Adjustable motor overload with trip indication (in LINE position).
   d. Manual overload reset button.
   e. Horsepower rated for motor applications.
   f. 115-v control transformer with fused secondary (fused primary on units over 50 amps).
   g. Contactor for Line Start/Stop.
   h. Door-mounted Line Start and Line Stop pushbuttons.
   i. Complete isolation of inverter in LINE position.
   j. NEMA 12 type metal enclosures.
   k. Terminal strip provided for field power supply wiring.
   l. Lug connection for field ground wire.
   m. Gold flashed, auxiliary switch contact set (for switch position monitoring).
   n. Factory mounted, wired to VFD and motor, and run tested (motor and VFD must be factory supplied and installed).
   o. UL; UL, Canada; CE listed.

E. Variable Frequency Drives:
1. Factory-mounted variable frequency drives (VFDs) shall be wired to factory-supplied motors.
2. Factory-supplied VFDs are programmed and started up from the factory and qualify the VFD, through ABB, for a 24-month warranty from date of commissioning or 30 months from date of sale, whichever occurs first.

3. The VFD parameters are programmed into the controller and removable keypad. In the event that the VFD fails and needs replacement, the program can then be uploaded to the replacement VFD via the original keypad.
4. The VFD package as specified herein shall be enclosed in a UL Listed Type 1 enclosure, completely assembled and tested by the manufacturer in a facility registered to ISO 9001:2000. The VFD tolerated voltage window shall allow the VFD to operate from a line of +30% nominal, and –35% nominal voltage as a minimum.
   a. Environmental operating conditions: 0° to 40 C continuous. Variable frequency drives that can operate at 40 C intermittently (during a 24-hour period) are not acceptable and must be oversized. Altitude 0 to 3300 feet above sea level, less than 95% humidity, non-condensing.
   b. Enclosure shall be rated UL type 1 and shall be UL listed as a plenum rated VFD. Variable frequency drives without these ratings are not acceptable.
5. All VFDs shall have the following standard features:
   a. All VFDs shall have the same customer interface, including digital display, and keypad, regardless of horsepower rating. The keypad shall be removable, capable of remote mounting and allow for uploading and downloading of parameter settings as an aid for start-up of multiple VFDs.
   b. The keypad shall include Hand-Off-Auto selections and manual speed control. The drive shall incorporate "bumpless transfer" of speed reference when switching between "Hand" and "Auto" modes. There shall be fault reset and "Help" buttons on the keypad. The Help button shall include "on-line" assistance for programming and troubleshooting.
   c. There shall be a built-in timeclock in the VFD keypad. The clock shall have a battery back up with 10 years minimum life span. The clock shall be used to date and time stamp faults and record operating parameters at the time of fault. If the battery fails, the VFD shall automatically revert to hours of operation since initial power up. The clock shall also be programmable to control start/stop functions, constant speeds, PID parameter sets and output relays. The VFD shall have a digital input that allows an override to the time clock (when in the off mode) for a programmable time frame. There shall be four (4) separate, independent timer functions that have both weekday and weekend settings.
   d. The VFDs shall utilize pre-programmed application macros specifically designed to facilitate start-up. The application macros shall provide one command to reprogram all parameters and customer interfaces for a particular application to reduce programming time. The VFD shall have two user macros to allow the end-user to create and save custom settings.
   e. The VFD shall have cooling fans that are designed for easy replacement. The fans shall be designed for replacement without requiring removing the VFD from the wall or removal of circuit boards. The VFD cooling fans shall operate only when required. To extend the fan and bearing operating life, operating temperature will be monitored and used to cycle the fans on and off as required.
   f. The VFD shall be capable of starting into a coasting load (forward or reverse) up to full speed and accelerate or decelerate to set point without safety tripping or component damage (flying start).
   g. The VFD shall have the ability to automatically restart after an overcurrent, over-voltage, under-voltage, or loss of input signal protective trip. The number of restart attempts, trial time, and time between attempts shall be programmable.
   h. The overload rating of the drive shall be 110% of its normal duty current rating for 1 minute every 10 minutes, 130% overload for 2 seconds. The minimum FLA rating shall meet or exceed the values in the NEC/ UL table 430-150 for 4-pole motors.
   i. The VFD shall have an integral 5% impedance line reactors to reduce the harmonics to the power line and to add protection from AC line transients. The 5% impedance may be from dual (positive and negative DC bus) reactors, or 5%

AC line reactors. Variable frequency drives with only one DC reactor shall add AC line reactors.

j. The VFD shall include a coordinated AC transient protection system consisting of four 120-joule rated MOVs (phase to phase and phase to ground), a capacitor clamp, and 5% impedance reactors.

k. The VFD shall be capable of sensing a loss of load (broken belt or broken coupling) and signal the loss of load condition. The drive shall be programmable to signal this condition via a keypad warning, relay output and/ or over the serial communications bus. Relay outputs shall include programmable time delays that will allow for drive acceleration from zero speed without signaling a false underload condition.

l. If the input reference (4 to 20 mA or 2 to 10 v) is lost, the VFD shall give the user the option of either (1) stopping and displaying a fault, (2) running at a programmable preset speed, (3) holding the VFD speed based on the last good reference received, or (4) causing a warning to be issued, as selected by the user. The drive shall be programmable to signal this condition via a keypad warning, relay output and/or over the serial communication bus.

m. The VFD shall have programmable "Sleep" and "Wake up" functions to allow the drive to be started and stopped from the level of a process feedback signal.

6. All VFDs to have the following adjustments:

a. Three (3) programmable critical frequency lockout ranges to prevent the VFD from operating the load continuously at an unstable speed.

b. Two (2) PID set point controllers shall be standard in the drive, allowing pressure or flow signals to be connected to the VFD, using the microprocessor in the VFD for the closed loop control. The VFD shall have 250 mA of 24 vdc auxiliary power and be capable of loop powering a transmitter supplied by others. The PID set point shall be adjustable from the VFD keypad, analog inputs, or over the communications bus. There shall be two parameter sets for the first PID that allow the sets to be switched via a digital input, serial communications or from the keypad for night setback, summer/winter set points, etc. There shall be an independent, second PID loop that can utilize the second analog input and modulate one of the analog outputs to maintain set point of an independent process (i.e,. valves, dampers, etc.). All set points, process variables, etc. shall be accessible from the serial communication network. The set points shall be set in Engineering units and not require a percentage of the transducer input.

c. Two (2) programmable analog inputs shall accept current or voltage signals.

d. Two (2) programmable analog outputs (0 to 20 mA or 4 to 20 mA). The outputs may be programmed to output proportional to Frequency, Motor Speed, Output Voltage, Output Current, Motor Torque, Motor Power (kW), DC Bus voltage, Active Reference, and other data.

e. Six (6) programmable digital inputs for maximum flexibility in interfacing with external devices, typically programmed as follows: There shall be a run permissive circuit for damper or valve control. Regardless of the source of a run command (keypad, input contact closure, timeclock control, or serial communications) the VFD shall provide a dry contact closure that will signal the damper to open (VFD motor does not operate). When the damper is fully open, a normally open dry contact (end-switch) shall close. The closed end-switch is wired to a VFD digital input and allows VFD motor operation. Two separate safety interlock inputs shall be provided. When either safety is opened, the motor shall be commanded to coast to stop, and the damper shall be commanded to close. The keypad shall display "start enable 1 (or 2) missing." The safety status shall also be transmitted over the serial communications bus. All digital inputs shall be programmable to initiate upon an application or removal of 24 vdc.

f. Three (3) programmable digital Form-C relay outputs. The relays shall include programmable on and off delay times and adjustable hysteresis. Default settings shall be for run, not faulted (fail safe), and run permissive. The relays shall be

rated for maximum switching current 8 amps at 24 vdc and 0.4 A at 250 vac; Maximum voltage 300 vdc and 250 vac; continuous current rating 2 amps RMS. Outputs shall be true Form C type contacts; open collector outputs are not acceptable.

g. Seven (7) programmable preset speeds.
h. Two independently adjustable accelerate and decelerate ramps with 1 to 1800 seconds adjustable time ramps.
i. The VFD shall include a motor flux optimization circuit that will automatically reduce applied motor voltage to the motor to optimize energy consumption and audible motor noise.
j. The VFD shall include a carrier frequency control circuit that reduces the carrier frequency based on actual VFD temperature that allows the highest carrier frequency without derating the VFD or operating at high carrier frequency only at low speeds.
k. The VFD shall include password protection against parameter changes.

7. The keypad shall include a backlit LCD display. The display shall be in complete English words for programming and fault diagnostics (alphanumeric codes are not acceptable). The keypad shall utilize the following assistants:
   a. Start-up assistants.
   b. Parameter assistants.
   c. Maintenance assistant.
   d. Troubleshooting assistant.
8. All applicable operating values shall be capable of being displayed in engineering (user) units. A minimum of three operating values from the list below shall be capable of being displayed at all times. The display shall be in complete English words (alphanumeric codes are not acceptable):
   a. Output Frequency
   b. Motor Speed (rpm, percentage, or Engineering units)
   c. Motor Current
   d. Calculated Motor Torque
   e. Calculated Motor Power (kW)
   f. DC Bus Voltage
   g. Output Voltage
9. The VFD shall include a fireman's override input. Upon receipt of a contact closure from the fireman's control station, the VFD shall operate at an adjustable preset speed. The mode shall override all other inputs (analog/ digital, serial communication, and all keypad commands) and force the motor to run at the adjustable, preset speed. "Override Mode" shall be displayed on the keypad. Upon removal of the override signal, the VFD shall resume normal operation.
10. Serial Communications:
    a. The VFD shall have an RS-485 port as standard. The standard protocols shall be Modbus, Johnson Controls N2 bus, and Siemens Building Technologies FLN. Optional protocols for LonWorks, BACnet, Profibus, Ethernet, and DeviceNet shall be available. Each individual drive shall have the protocol in the base VFD. The use of third party gateways and multiplexers is not acceptable. All protocols shall be "certified" by the governing authority. Use of noncertified protocols is not allowed.
    b. Serial communication capabilities shall include, but not be limited to: run-stop control, speed set adjustment, proportional/integral/derivative (PID) control adjustments, current limit, accelerate/decelerate time adjustments, and lock and unlock the keypad. The drive shall have the capability of allowing the DDC to monitor feedback such as process variable feedback, output speed/ frequency, current (in amps), percent torque, operating hours (resettable), and drive temperature. The DDC shall also be capable of monitoring the VFD relay output status, digital input status, and all analog input and analog output values. All diagnostic warning and fault information shall be transmitted over the serial

communications bus. Remote VFD fault reset shall be possible. The following additional status indications and settings shall be transmitted over the serial communications bus — keypad "Hand" or "Auto" selected, bypass selected, the ability to change the PID set point, and the ability to force the unit to bypass (if bypass is specified). The DDC system shall also be able to monitor if the motor is running in the VFD mode or bypass mode (if bypass is specified) over serial communications. A minimum of 15 field parameters shall be capable of being monitored.

c. The VFD shall allow the DDC to control the drive's digital and analog outputs via the serial interface. This control shall be independent of any VFD function. For example, the analog outputs may be used for modulating chilled water valves or cooling tower bypass valves. The drive's digital (relay) outputs may be used to actuate a damper, open a valve or control any other device that requires a maintained contact for operation. In addition, all of the drive's digital and analog inputs shall be capable of being monitored by the DDC system.

d. The VFD shall include an independent PID loop for customer use. The independent PID loop may be used for cooling tower bypass value control, chilled water value control, etc. Both the VFD control PID loop and the independent PID loop shall continue functioning even if the serial communications connection is lost. The VFD shall keep the last good set point command and last good digital output (DO) and analog output (AO) commands in memory in the event the serial communications connection is lost.

11. EMI/RFI Filters:
All VFDs shall include EMI/RFI filters. The onboard filters shall allow the VFD assembly to be CE Marked and the VFD shall meet product standard EN 61800-3 for the First Environment restricted level.

12. All VFDs through 50 hp shall be protected from input and output power miswiring. The VFD shall sense this condition and display an alarm on the keypad.

13. Operational Functions:
    a. The drive shall contain two separate acceleration/ deceleration times with auto tuning for optimum setting (0.1 to 6000 seconds) with choice of linear, S, or C curves that shall be factory programmed to match the fan load and prevent nuisance overcurrent fault trips.
    b. The drive shall be equipped with both local/ remote and manual/auto keys on touchpad.
    c. The drive shall be equipped with a quick setup key.
    d. The drive shall contain 15 preset speeds, which can be activated from the keypad, terminal inputs, and host computer.
    e. The drive shall have the capability of storable special custom user setting.
    f. The drive shall restart into a rotating motor operating in either the forward or reverse direction and match that frequency.
    g. The drive shall have adjustable soft stall (10% to 150%) which reduces frequency and voltage of the inverter to sustain a run in an overload situation factory programmed for each motor's characteristics.
    h. The drive shall be capable of performing a time base pattern run using 4 groups of 8 patterns each using the 15 preset speed values for a maximum of 32 different patterns.
    i. The drive shall have adjustable UL listed electronic overload protection (10% to 100%) factory programmed to match each motor's FLA/RLA ratings.
    j. The drive shall have a custom programmable volt/hertz pattern.

14. Protective Features:
    a. The drive shall be rated for 200,000 AIC (ampere interrupting capacity). The use of input fuses to achieve this rating shall not be acceptable.
    b. The drive shall have external fault input.
    c. The drive shall be capable of resetting faults remotely and locally.
    d. The drive shall be programmable to alert the following alarms:

1) Over torque alarm.
2) Inverter overload pre-alarm.
3) Motor overload pre-alarm.
4) Braking resistor overload pre-alarm.
5) Inverter overheat pre-alarm.
6) Undercurrent alarm.
7) Overcurrent pre-alarm.
8) Communication error alarm.
9) Cumulative timer alarm.
10) Executing retry.

e. The drive shall identify and display the following faults:
1) Overcurrent during acceleration trip.
2) Overcurrent during deceleration trip.
3) Overcurrent during normal run trip.
4) Overcurrent on the DC Bus during acceleration trip.
5) Overcurrent on the DC Bus during deceleration trip.
6) Overcurrent on the DC Bus during normal run trip.
7) Load end overcurrent trip detected at start-up (output terminals, motor wiring, etc.).
8) U-phase short circuit trip detected at start-up.
9) V-phase short circuit trip detected at start-up.
10) W-phase short circuit trip detected at start-up.
11) Overvoltage during acceleration trip.
12) Overvoltage during deceleration trip.
13) Overvoltage during normal (constant speed) run trip.
14) Inverter overloaded trip.
15) Motor overloaded trip.
16) Inverter overheat trip.
17) Emergency off trip message.
18) EEPROM failure during write cycle.
19) EEPROM abnormality during initial reading.
20) RAM error.
21) ROM error.
22) CPU error.
23) Communication interruption error.
24) Gate array error.
25) Output current detection circuit error.
26) Option PCB error trip.
27) Low operating current trip.
28) Main circuit under voltage trip.
29) Over torque trip.
30) Software detected earth fault trip.
31) Hardware detected earth fault trip.
32) Inverter type form mismatch error.
33) EEPROM type form mismatch error.

15. Monitor Functions:
a. The drive digital display shall be capable of displaying the following: Frequency, percent current, current amps, percent voltage I/O, voltage in volts I/O, RPM, GPM, I/O watts, torque, and input reference signal, kWh.
b. The drive shall have 320 programmable parameters which can be changed while the drive is operating.
c. The drive's 353 parameters shall be adjustable from the 8-key touchpad or computer link.
d. The drive's 8-key touchpad shall be NEMA 12 rated.
e. The drive's keypad shall be capable of being extended 15 ft from the drive.

f. The drive shall contain a reset of all parameters to factory default settings or user defaults (whichever one is chosen).
g. The drive shall have 2 programmable analog outputs programmable to 17 choices.
h. The drive shall have one programmable relay output programmable to 67 choices.
i. The drive shall have 8 programmable digital inputs programmable to 54 choices.
j. The drive shall have a pulse train output proportional to frequency (48, 96, 360 times frequency).
k. The drive shall have an elapsed time meter.