

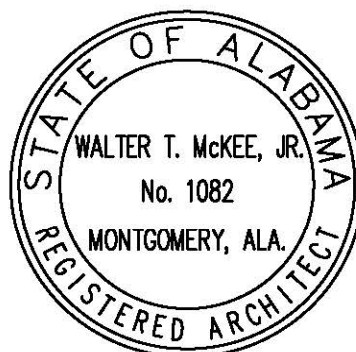


**McKEE & ASSOCIATES**  
ARCHITECTURE & INTERIOR DESIGN

## **PROJECT MANUAL**

**NIX ROAD RENOVATIONS 2018  
FOR  
THE PHIL CAMPBELL  
HOUSING AUTHORITY  
PHIL CAMPBELL, ALABAMA**

**PROJECT NO. 18-212  
DATE: 11.07.2018**



**McKEE and ASSOCIATES**



Addendum  
No. ONE Date: 11.01.2018

Project:

**NIX ROAD RENOVATIONS 2018  
FOR THE PHIL CAMPBELL HOUSING AUTHORITY,  
PHIL CAMPBELL, ALABAMA**

**MCKEE PROJECT NO. 18-212**

The following modifications/ changes and/or substitutions to the plans and specifications are hereby made a part of same and are incorporated in full force as part of the contract documents.

Bidders shall acknowledge receipt of this Addendum in writing on their Proposal Form.

**A1.1 GENERAL MODIFICATIONS:**

- A. Refer to the Advertisement for Bids and Note the Change in Date and Time for the Pre-Bid Meeting and the Pre-qualification packages:

A **mandatory Pre-Bid Meeting** and on-site review will begin at the Housing Authority main office, located at 19 Stalcup Circle, Phil Campbell, AL 35581 on **Friday, November 9, 2018 at 9:30 AM**. All General Contractors interested in bidding are required to attend the meeting and review the job site(s) following the meeting. A completed pre-qualification package is required to be submitted at the Pre-Bid meeting OR Hand delivered to the Office of the Housing Authority. **Pre-qualification packages are due no later than Friday, November 9, 2018 at 3:00 PM**. A copy of the pre-qualification package is being issued as part of this addendum.

- B. See attached Pre-qualification package, for completion by All General Contractors that intend to submit a Bid.

Attached:

1. AIA Document A305 – Contractor's Qualification Statement
2. Confirmation of Insurance Requirements

**A1.2 SPECIFICATION MODIFICATIONS:**

- A. NONE

**A1.3 DRAWING MODIFICATIONS:**

- A. NONE

**B1.1 CLARIFICATIONS:**

- A. NONE

**END OF ADDENDUM ONE**

# **AIA® Document A305™ – 1986**

## **Contractor's Qualification Statement**

The Undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading.

**SUBMITTED TO:** X

**ADDRESS:**

**SUBMITTED BY:**

**NAME:**

**ADDRESS:**

**PRINCIPAL OFFICE:**

- ☐ Corporation
- ☐ Partnership
- ☐ Individual
- ☐ Joint Venture
- ☐ Other

**NAME OF PROJECT** (if applicable): Blank

**TYPE OF WORK** (file separate form for each Classification of Work):

- ☐ General Construction
- ☐ HVAC
- ☐ Electrical
- ☐ Plumbing
- ☐ Other (please specify)

### **§ 1. ORGANIZATION**

**§ 1.1** How many years has your organization been in business as a Contractor?

**§ 1.2** How many years has your organization been in business under its present business name?

**§ 1.2.1** Under what other or former names has your organization operated?

**§ 1.3** If your organization is a corporation, answer the following:

**§ 1.3.1** Date of incorporation:

**§ 1.3.2** State of incorporation:

### **ADDITIONS AND DELETIONS:**

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

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

This form is approved and recommended by the American Institute of Architects (AIA) and The Associated General Contractors of America (AGC) for use in evaluating the qualifications of contractors. No endorsement of the submitting party or verification of the information is made by AIA or AGC.

§ 1.3.3 President's name:  
§ 1.3.4 Vice-president's name(s)

§ 1.3.5 Secretary's name:  
§ 1.3.6 Treasurer's name:

§ 1.4 If your organization is a partnership, answer the following:

§ 1.4.1 Date of organization:  
§ 1.4.2 Type of partnership (if applicable):  
§ 1.4.3 Name(s) of general partner(s)

§ 1.5 If your organization is individually owned, answer the following:

§ 1.5.1 Date of organization:  
§ 1.5.2 Name of owner:

§ 1.6 If the form of your organization is other than those listed above, describe it and name the principals:

## § 2. LICENSING

§ 2.1 List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.

§ 2.2 List jurisdictions in which your organization's partnership or trade name is filed.

## § 3. EXPERIENCE

§ 3.1 List the categories of work that your organization normally performs with its own forces.

§ 3.2 Claims and Suits. (If the answer to any of the questions below is yes, please attach details.)

§ 3.2.1 Has your organization ever failed to complete any work awarded to it?

§ 3.2.2 Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers?

§ 3.2.3 Has your organization filed any law suits or requested arbitration with regard to construction contracts within the last five years?

§ 3.3 Within the last five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? (If the answer is yes, please attach details.)

**§ 3.4** On a separate sheet, list major construction projects your organization has in progress, giving the name of project, owner, architect, contract amount, percent complete and scheduled completion date.

**§ 3.4.1** State total worth of work in progress and under contract:

**§ 3.5** On a separate sheet, list the major projects your organization has completed in the past five years, giving the name of project, owner, architect, contract amount, date of completion and percentage of the cost of the work performed with your own forces.

**§ 3.5.1** State average annual amount of construction work performed during the past five years:

**§ 3.6** On a separate sheet, list the construction experience and present commitments of the key individuals of your organization.

#### **§ 4. REFERENCES**

**§ 4.1** Trade References:

**§ 4.2** Bank References:

**§ 4.3** Surety:

**§ 4.3.1** Name of bonding company:

**§ 4.3.2** Name and address of agent:

#### **§ 5. FINANCING**

**§ 5.1** Financial Statement.

**§ 5.1.1** Attach a financial statement, preferably audited, including your organization's latest balance sheet and income statement showing the following items:

Current Assets (e.g., cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory and prepaid expenses);

Net Fixed Assets;

Other Assets;

Current Liabilities (e.g., accounts payable, notes payable, accrued expenses, provision for income taxes, advances, accrued salaries and accrued payroll taxes);

Other Liabilities (e.g., capital, capital stock, authorized and outstanding shares par values, earned surplus and retained earnings).

§ 5.1.2 Name and address of firm preparing attached financial statement, and date thereof:

§ 5.1.3 Is the attached financial statement for the identical organization named on page one?

§ 5.1.4 If not, explain the relationship and financial responsibility of the organization whose financial statement is provided (e.g., parent-subsiary).

§ 5.2 Will the organization whose financial statement is attached act as guarantor of the contract for construction?

**§ 6. SIGNATURE**

§ 6.1 Dated at this      day of

Name of Organization:

By:

Title:

§ 6.2

M      being duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be misleading.

Subscribed and sworn before me this      day of      20

Notary Public:

My Commission Expires:

CONFIRMATION OF INSURANCE REQUIREMENTS:

Confirmation that insurance and bonding requirements of the Project Specifications can and will be furnished and attach a letter of confirmation from your company's underwriter, broker, and/or agent indicating bonding limits, and that the required liability insurance is either in place or obtainable by the company submitting this prequalification proposal:

See the Below Insurance Requirements.

**Circle one please:      YES / NO**

---

**Signature Officer of Firm**

---

**Please Print Name**

Insurance:

Before commencing work, the General Contractor and each Subcontractor shall furnish the **Housing Authority** and/or Architect with Certificates of Insurance showing the following insurance is in force and will insure all operations under the contract.

The Contractor and each Subcontractor, at its sole expense, shall obtain and maintain in full force the following insurance to protect the Contractor, Subcontractor(s), Owner (The **Housing Authority**), the Architect, and Clerk of the Works at limits and coverage specified below. These limits and coverage specified are the minimum to be maintained and are not intended to represent the correct insurance needed to fully and adequately protect the Contractor And/or Subcontractor(s).

All insurance will be provided by insurers licensed to conduct business in the state of Alabama and shall have a minimum A.M. Best rating of A-VII and must be acceptable to the Owner. Self-insured plans and/or group funds not having an A.M. Best rating are not acceptable.

The General Contractor and each Subcontractor shall maintain insurance in such amount as will protect them and the Architect, **Housing Authority**, and Clerk of the Works from claims under Workers Compensation Act and other employee benefit acts, from claims for damages because of bodily injury, including death, and from claims for damages to property which may arise, both out of and during operations under this contract, whether such operations be by the General Contractor or by any Subcontractor, or anyone directly or indirectly employed by either of them. The General Contractor and/or any Subcontractor hereby agrees to indemnify and hold harmless the Architect, **Housing Authority**, and Clerk of the Works from liability, loss, damage costs,

and expenses of any kind which may arise because of any such claims specified in this said Paragraph.

**No work shall be performed until proof of compliance with the insurance requirements, without limiting any provisions of the above Paragraph has been received by the Owner, along with all certificates, including additional insured for the Architect, Housing Authority, and Clerk of the Works with all the minimum coverages as listed below:**

Worker's Compensation and Employee Liability

Part One: Statutory Benefits as required by the State of Alabama

Part Two: Employer's Liability

E.L. each accident	\$1,000,000.00
E.L. disease-each employee	\$1,000,000.00
E.L. disease-policy limit	\$1,000,000.00

Bodily injury by accident (each accident)	\$1,000,000.00
Bodily injury by disease (aggregate)	\$1,000,000.00

Commercial General Liability

Coverage on an occurrence form with a combined single limit (bodily injury and property damage combined) as follows:

Each occurrence	\$1,000,000.00
Damage to rented premises (ea. occurrence)	\$ 100,000.00
Medical expense (any one person)	\$ 5,000.00
Personal and advertising injury	\$1,000,000.00
Products/completed operation aggregate	\$2,000,000.00
General aggregate	\$2,000,000.00

Coverage to include:

Premises and operations

Personal injury and advertising injury

Independent contractors

Blanket contractual liability

Explosion, collapse, and underground hazards

Broad form property damage

Products/completed operations - This shall remain in effect for twenty four (24) months beyond completion and acceptance by Owner of the project, whichever is later. Railroad protective liability insurance, if work involves construction, demolition, or maintenance operations on or within 50' of a railroad.

Automobile liability

Covering any auto, all owned, non-owned, and hired vehicles with a combined single limit (bodily injury and property damage combined) of \$1,000,000.00 each



accident. The policy shall name the Architect, **Housing Authority**, and Clerk of the Works as additional insured.

#### Excess/Umbrella Liability

Coverage shall be per each occurrence \$1,000,000.00

#### Protection and Indemnity Insurance

If the contract involves work aboard and on, non-owned, or hired vessel, liability coverage in the amount of \$1,000,000.00 per occurrence shall be maintained.

#### Waiver of Subrogation

The Worker's Compensation policy shall contain a Waiver of Subrogation in favor of the Architect, **Housing Authority**, and Clerk of the Works.

The Contractor and Subcontractors shall name the Architect, **Housing Authority**, and Clerk of the Works, their employees and agents as additional insured for claims arising out of the Contractor and/or Subcontractors' work. The ISO Form CG 20, 10, 11, 85, or a comparable form that is no more restrictive shall be required. The Additional Insured Form MUST include the current Operations and Products/Completed Operations of the Contractor. The naming of the additional insured does not obligate the additional insured, in any way, to pay any premiums due.

Aggregate limits shall be on a "per project" basis or an Owner's and Contractor's protective liability policy shall be provided in the name of the Owner, Owner's Representatives, the Contractor, and Subcontractors, with the limits to be the same as above for Commercial General Liability.

#### Certificate of Insurance

Certificate of Insurance evidencing the above minimum requirements must be provided to and accepted by the Owner **PRIOR** to commencement of any work on the contract. Each policy shall be endorsed to provide ten (10) days written notice of cancellation mailed to the address of the Owner as published herein. Wordings which make exceptions for failure to provide are not allowed on the certificate(s).

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### **NIX ROAD RENOVATIONS 2018 FOR THE PHIL CAMPBELL HOUSING AUTHORITY PHIL CAMPBELL, ALABAMA**

**PROJECT NO. 18-212**

#### **BIDDING REQUIREMENTS**

- Advertisement for Bids
- Request For Information (McKee Form)
- Prior Approval/Substitution Request Form (McKee Form)
- Internet/Data Instructions To Access McKee Projects (McKee Form)
- E-Verify Program Memorandum
- Instructions To Bidders For Contracts Public and Indian Housing Programs (HUD-5369 10/2002)
- Supplementary Instructions To Bidders (McKee Form)
- Title 24 CFR Part 135: Housing and Urban Development
- Bid for Lump Sum Contracts (HUD-4238-C 8-68)
- Bid Bond
- Representations, Certifications and Other Statements of Bidders (HUD-5369-A 11/92)
- Non-Collusive Affidavit
- Previous Participation Certificate (HUD-2530 02/2013)
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#### **GENERAL CONDITIONS**

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- Supplemental Conditions of the Contract For Construction (HUD-2554 12/20/2005)
- Supplemental General Conditions - McKee

#### **WAGE DETERMINATIONS**

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- U.S. Department of Labor – Wage Rate Notification

- Wage Rates # AL180082 01/05/2018 AL82

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- Required Documents for Completing Contract
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- Certificate of Use Statement for Payment
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- Change Order Form 4201
- Schedule Of Materials Stored (HUD-51003 3/92)
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MCKEE PROJECT  
NUMBER 18-212

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## ADVERTISEMENT FOR BIDS

2018 RENOVATIONS  
AT NIX ROAD COMMUNITY  
FOR  
THE PHIL CAMPBELL HOUSING AUTHORITY  
PHIL CAMPBELL, ALABAMA

PROJECT NO. 18-212

Sealed bid proposals will be received for the above referenced project by Mrs. Joanne Holifield, Executive Director at the offices of the Phil Campbell Housing Authority, 19 Stalcup Circle, Phil Campbell, AL 35581 until **10:00 AM, Thursday, November 15, 2018**, then opened and read aloud. The project shall primarily consist of the interior renovation of 2 ADA bathrooms and the construction of 2 ADA accessible ramps at the rear of the Duplex building.

A **mandatory Pre-Bid Meeting** and on-site review will begin at the Housing Authority main office, located at 19 Stalcup Circle, Phil Campbell, AL 35581 on **Monday, November 12, 2018 at 10:00 AM**. All General Contractors interested in bidding are required to attend the meeting and review the job site(s) following the meeting. A completed pre-qualification package is required to be submitted to the Architect via email to [evansj@mckeeassoc.com](mailto:evansj@mckeeassoc.com) OR hand delivered at the pre-construction meeting. **Pre-qualification packages are due no later than Monday, November 12, 2018 at 5:00 PM**. A copy of the pre-qualification package can be received upon request by email to [evansj@mckeeassoc.com](mailto:evansj@mckeeassoc.com).

The contract shall be awarded to the lowest responsible bidder in accordance with the rules, regulations and policies of the Phil Campbell Housing Authority, hereinafter called "Housing Authority", and the U.S. Department of Housing and Urban Development and State of Alabama Bid Laws.

Only Contractors who are properly licensed in accordance with criteria established by the State Licensing Board for General Contractors under Provision of Title 34, Chapter 8, Code of Alabama, 1975, as amended, will be considered for bidding the work. All bidders shall show such evidence by clearly displaying current license number on the outside of the sealed envelope in which the proposal is delivered. And a Copy of the Bidders License must be included with their bid. Licensing required by local municipalities shall be obtained prior to the execution of the construction contract

Bids must be submitted on proposal forms furnished by the Architect within the project manual or copies thereof. No bid may be withdrawn after scheduled closing for receipt of bids for a period of thirty (30) days. The Owner reserves the right to reject any or all bids and to waive informalities.

Bidders shall include with their proposal the Non-Collusive Affidavit and Previous Partition Certificate on the correct HUD Forms and signed by the bidder. A certified check or Bid Bond payable to the Housing Authority in an amount not less than five percent (5%) of the amount of the bid, must accompany the bidder's proposal. Performance and statutory labor and material payment bonds will be required at the signing of the Contract and the costs of the bonds shall be included in the Contractors Proposal. Other required bidding documents can be identified by reviewing the project manual and specifications.

Contractors are required to comply with the requirements of Section 3 for new employment, training, contracting opportunities found in Title 24, CFR 135.

Plans, Specifications and Contract Documents are open to public inspection at the office of the Architect and the Owner. Electronic images of the documents may be viewed on-line and printed by General Contractors, Sub-Contractors and Suppliers by obtaining documents through the **www.mckeeassoc.com** web site, by contacting the Architect at **mckeeplans@gmail.com** for log-in information and password. Please provide company name, address, phone #, fax #, email address and GC License #. This is the only web site endorsed by the Architect. The Architect is unable to monitor, confirm and maintain websites that are beyond his control. Addendums shall be posted on the above web site. The Architect retains ownership and copyrights of the documents.

Contractors requesting printed Documents may obtain up to two (2) sets by submitting to the Architects a deposit of \$50.00 per set. The Plan Deposit is refundable less shipping charges, provided the Plans and Specifications are returned to the Architect, in good condition, within 10 calendar days after date of bid opening.

All Request for Information (RFI's) and Product Substitution Requests regarding the bid documents shall be sent and addressed thru the following e-mail account: **evansj@mckeeassoc.com**. **The Architect cannot guarantee completion of inquiries via telephone. No Faxes accepted.** All email correspondence must be accompanied with the corresponding completed RFI or Substitution Form, found with-in the Project Manual. For a guaranteed response, all Inquires must be made no later than 24 hours after the Pre-Bid meeting.

**Completion Time:** The construction time limit shall be **120 calendar days**. The liquidated damages for any work remaining uncompleted after a **120 calendar days** construction period, except for those situations provided for in the Contract Documents, shall be three hundred dollars (**\$300.00**) per day OR actual damages calculated by the Housing Authority, whichever is less, for the entire period that the work remains uncompleted. The General Contractor will also be responsible for additional oversight cost of the Architect, due to incompleteness of all work within the construction time limit.

Mrs. Joanne Holifield,  
Executive Director

Phil Campbell Housing Authority,  
19 Stalcup Circle,  
Phil Campbell, AL 35581

Architect:

McKee and Associates  
Architecture and Interior Design  
631 South Hull Street  
Montgomery, Alabama 36104  
Tel: (334) 834-9933

# REQUEST FOR INFORMATION FORM

EMAIL THIS FORM TO THE FOLLOWING

Project Manager: [evansj@mckeeassoc.com](mailto:evansj@mckeeassoc.com)

The Architect reserves the right not to answer any requests for information received after 2:00 PM, 2 days prior to the bid date.

**Bid Phase**

**Construction Phase**

Architect RFI # \_\_\_\_\_ Date: \_\_\_\_\_

Job Number: \_\_\_\_\_ BC Job Number: \_\_\_\_\_

Job Name: \_\_\_\_\_

Questions By: \_\_\_\_\_

Company: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

## Procedures for “Questions and/or Clarifications”

Should any bidder observe any ambiguity, discrepancy, omission, or error in the drawings and specifications, or in any other bid document, or be in doubt as to the intention and meaning of these documents, the bidder should immediately report such to the Architect and request clarification.

**Clarification will be made only by written Addenda sent to all prospective bidders or can be accessed by going to the McKee web site - [mckeeassoc.com](http://mckeeassoc.com) and clicking on the tab “Files” to retrieve the Addendums.** Neither the Architect nor the Owner will be responsible in any manner for verbal answers or instructions regarding intent or meaning of the Bid Documents.

**In the case of inconsistency between drawings and specifications or within either document, a bidder will be deemed to have included in its bid the better quality or greater quantity of the work involved unless the bidder asked for and obtained the Architect’s written clarification of the requirements before submission of a bid.**



[illegible][illegible]

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# PRIOR APPROVAL / SUBSTITUTION REQUEST FORM

EMAIL THIS FORM TO THE FOLLOWING

Project Manager: [evansj@mckeeassoc.com](mailto:evansj@mckeeassoc.com)

**ALL products, materials, systems, pieces of equipment, & services requesting prior approval shall be submitted to the architect for approval no later than 2:00 PM, 5 days prior to the bid date.**

DATE: \_\_\_\_\_

COMPANY SUBMITTING REQUEST: \_\_\_\_\_

\_\_\_\_\_  
(Name and Address)  
CONTACT NAME: \_\_\_\_\_ PHONE: \_\_\_\_\_

FAX: \_\_\_\_\_ EMAIL: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

SPECIFIED PRODUCT: \_\_\_\_\_  
(Section) (Page) (Description)

## Procedures for “Substitutions” and “Pre-bid Approval”.

- a) The identification of any product, material, system, item of equipment, or service in the Bid Documents by reference to a trade name, manufacturer’s name, model number, etc. (hereinafter referred to as “source”), is intended to establish a required standard of performance, design, and quality and is not intended to limit competition unless the provisions of paragraph “d” below apply.
- b) When the Bid Documents identify only one or two sources, or three or more sources followed by “or approved equal” or similar wording, the bidder’s proposal may be based on a source not identified but considered by the bidder to be equal to the standard of performance, design and quality as specified; however, such substitutions must ultimately be approved by the Architect. If the bidder elects to bid on a substitution without “Pre-bid Approval” as described below, then it will be understood that proof of compliance with specified requirements is the exclusive responsibility of the bidder.
- c) When the Bid Documents identify three or more sources and the list of sources is not followed by “or approved equal” or similar wording, the bidder’s proposal shall be based upon one of the identified sources, unless the bidder obtains “Pre-bid Approval” of another source as described below. Under these conditions it will be expressly understood that no product, material, system, item of equipment, or service that is not identified in the Bid Documents or granted “Pre-Bid Approval” will be incorporated into the Work unless such substitution is authorized and agreed upon through a Contract Change Order.
- d) If the Bid Documents identify only one source and expressly provide that it is an approved sole source for the product, material, system, item of equipment, or service, the bidder’s proposal must be based upon the identified sole source.
- e) **Procedures for “Pre-bid Approval”.** If it is desired that a product, material, system, piece of equipment, or service from a source different from those sources identified in the Bid Documents be

approved as an acceptable source, application for the approval of such source must reach the hands of the Architect at least ten days prior to the date set for the opening of bids. At the Architect's discretion, this ten day provision may be waived. **The application for approval of a proposed source must be accompanied by technical data which the applicant desires to submit in support of the application.**

The Architect will give consideration to reports from reputable independent testing laboratories, verified experience records showing the reputation of the proposed source with previous users, evidence of reputation of the source for prompt delivery, evidence of reputation of the source for efficiency in servicing its products, or any other pertinent written information. **The application to the Architect for approval of a proposed source must be accompanied by a schedule setting forth in which respects the materials or equipment submitted for consideration differ from the materials or equipment designated in the Bid Documents. The burden of proof of the merit of the proposed substitution is upon the proposer. To be approved, a proposed source must also meet or exceed all express requirements of the Bid Documents.** Approval, if granted, shall not be effective until published by the Architect in an addendum to the Bid Documents.

The undersigned requests consideration of the following product substitution:

**PROPOSED SUBSTITUTION:** \_\_\_\_\_  
(Provide Product Name / Model / Manufacture)

1. \_\_\_\_\_ Yes / No the materials or equipment submitted for consideration differ from the materials or equipment designated in the Bid Documents. If Yes, submit marked-up data reflecting the differences as described above.
2. Attached Data Includes: \_\_\_\_\_ Product Description \_\_\_\_\_ Performance and Test Data  
\_\_\_\_\_ Drawings \_\_\_\_\_ Specifications  
\_\_\_\_\_ Photographs
3. \_\_\_\_\_ Yes / No changes will be required to the Contract Documents for the proper installation of the proposed product substitution. If Yes, attach data that indicates description of changes.

The undersigned states that the following paragraphs, unless modified by attachments, are correct:

1. \_\_\_\_\_ The proposed substitution does not affect dimensions shown on the drawings.
2. \_\_\_\_\_ No changes to the building design, engineering design, or detailing are required by the substitution.
3. \_\_\_\_\_ The proposed substitution will have no adverse affect on other trades, the construction schedule, or specified warranty requirements.
4. \_\_\_\_\_ No maintenance is required by the proposed substitution other than that required for originally specified product.
5. \_\_\_\_\_ Other information.

**The undersigned further states that they have read the corresponding specification sections in the project manual and confirms that the function, appearance and quality of the proposed substitution are equivalent or superior to the originally specified product: \_\_\_\_\_ initial.**

**SIGNATURE:** \_\_\_\_\_ **PRINTED NAME:** \_\_\_\_\_

## **INTERNET / DATA INSTRUCTIONS TO ACCESS McKEE PROJECTS**

McKEE AND ASSOCIATES HAS **ALL OF THEIR PROJECTS** WHICH ARE OUT TO BID LISTED ON THE INTERNET AT THE FOLOWING ADDRESS:

[www.projectinformation.net](http://www.projectinformation.net)

PLEASE USE THIS SITE TO RECEIVE BID LISTS, PHONE & FAX NUMBERS OF ALL PLAN HOLDERS.

**HOME PAGE:** ON LEFT HAND SIDE OF PAGE IT WILL SAY:

**WELCOME 1<sup>ST</sup> TIME USERS  
CLICK HERE**

**CLICK THERE AND FOLLOW THE INSTRUCTIONS BELOW:**

- 1. LOG ON – SPECIFY USER ID & PASSWORD (USE LOWER CASE NO SPACES)**
- 2. GIVE COMPANY NAME, ADDRESS, PHONE NUMBER & EMAIL ADDRESS**
- 3. REGISTER AS AN INFORMATION COMPANY**

**DO NOT ANSWER THE QUESTIONS REGARDING PROJECT ORIGINATOR.**

- 4. SUBMIT**

THIS LIST WILL GIVE YOU A SCOPE OF WORK, ALL PLAN HOLDERS, PHONE AND FAX NUMBERS.

THANKS!

KATHY SHEFFIELD

Company ID Number: \_\_\_\_\_

## **THE E-VERIFY PROGRAM FOR EMPLOYMENT VERIFICATION MEMORANDUM OF UNDERSTANDING**

### **ARTICLE I**

#### **PURPOSE AND AUTHORITY**

This Memorandum of Understanding (MOU) sets forth the points of agreement between the Department of Homeland Security (DHS) and \_\_\_\_\_ (Employer) regarding the Employer's participation in the Employment Eligibility Verification Program (E-Verify). This MOU explains certain features of the E-Verify program and enumerates specific responsibilities of DHS, the Social Security Administration (SSA), and the Employer. E-Verify is a program that electronically confirms an employee's eligibility to work in the United States after completion of the Employment Eligibility Verification Form (Form I-9). For covered government contractors, E-Verify is used to verify the employment eligibility of all newly hired employees and all existing employees assigned to Federal contracts or to verify the entire workforce if the contractor so chooses.

Authority for the E-Verify program is found in Title IV, Subtitle A, of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), Pub. L. 104-208, 110 Stat. 3009, as amended (8 U.S.C. § 1324a note). Authority for use of the E-Verify program by Federal contractors and subcontractors covered by the terms of Subpart 22.18, "Employment Eligibility Verification", of the Federal Acquisition Regulation (FAR) (hereinafter referred to in this MOU as a "Federal contractor with the FAR E-Verify clause") to verify the employment eligibility of certain employees working on Federal contracts is also found in Subpart 22.18 and in Executive Order 12989, as amended.

### **ARTICLE II**

#### **FUNCTIONS TO BE PERFORMED**

##### **A. RESPONSIBILITIES OF SSA**

1. SSA agrees to provide the Employer with available information that allows the Employer to confirm the accuracy of Social Security Numbers provided by all employees verified under this MOU and the employment authorization of U.S. citizens.
2. SSA agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer's participation in the E-Verify program. SSA agrees to provide the Employer with names, titles, addresses, and telephone numbers of SSA representatives to be contacted during the E-Verify process.
3. SSA agrees to safeguard the information provided by the Employer through the E-Verify program procedures, and to limit access to such information, as is appropriate by law, to individuals responsible for the verification of Social Security Numbers and for evaluation of the E-Verify program or such other persons or entities who may be authorized by SSA as governed by the Privacy Act (5 U.S.C. § 552a), the Social Security Act (42 U.S.C. 1306(a)), and SSA regulations (20 CFR Part 401).

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4. SSA agrees to provide a means of automated verification that is designed (in conjunction with DHS's automated system if necessary) to provide confirmation or tentative nonconfirmation of U.S. citizens' employment eligibility within 3 Federal Government work days of the initial inquiry.

5. SSA agrees to provide a means of secondary verification (including updating SSA records as may be necessary) for employees who contest SSA tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of U.S. citizens' employment eligibility and accuracy of SSA records for both citizens and non-citizens within 10 Federal Government work days of the date of referral to SSA, unless SSA determines that more than 10 days may be necessary. In such cases, SSA will provide additional verification instructions.

## **B. RESPONSIBILITIES OF DHS**

1. After SSA verifies the accuracy of SSA records for employees through E-Verify, DHS agrees to provide the Employer access to selected data from DHS's database to enable the Employer to conduct, to the extent authorized by this MOU:

- Automated verification checks on employees by electronic means, and
- Photo verification checks (when available) on employees.

2. DHS agrees to provide to the Employer appropriate assistance with operational problems that may arise during the Employer's participation in the E-Verify program. DHS agrees to provide the Employer names, titles, addresses, and telephone numbers of DHS representatives to be contacted during the E-Verify process.

3. DHS agrees to make available to the Employer at the E-Verify Web site and on the E-Verify Web browser, instructional materials on E-Verify policies, procedures and requirements for both SSA and DHS, including restrictions on the use of E-Verify. DHS agrees to provide training materials on E-Verify.

4. DHS agrees to provide to the Employer a notice, which indicates the Employer's participation in the E-Verify program. DHS also agrees to provide to the Employer anti-discrimination notices issued by the Office of Special Counsel for Immigration-Related Unfair Employment Practices (OSC), Civil Rights Division, U.S. Department of Justice.

5. DHS agrees to issue the Employer a user identification number and password that permits the Employer to verify information provided by employees with DHS's database.

6. DHS agrees to safeguard the information provided to DHS by the Employer, and to limit access to such information to individuals responsible for the verification of employees' employment eligibility and for evaluation of the E-Verify program, or to such other persons or entities as may be authorized by applicable law. Information will be used only to verify the accuracy of Social Security Numbers and employment eligibility, to enforce the Immigration and Nationality Act (INA) and Federal criminal laws, and to administer Federal contracting requirements.

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7. DHS agrees to provide a means of automated verification that is designed (in conjunction with SSA verification procedures) to provide confirmation or tentative nonconfirmation of employees' employment eligibility within 3 Federal Government work days of the initial inquiry.

8. DHS agrees to provide a means of secondary verification (including updating DHS records as may be necessary) for employees who contest DHS tentative nonconfirmations and photo non-match tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of the employees' employment eligibility within 10 Federal Government work days of the date of referral to DHS, unless DHS determines that more than 10 days may be necessary. In such cases, DHS will provide additional verification instructions.

### **C. RESPONSIBILITIES OF THE EMPLOYER**

1. The Employer agrees to display the notices supplied by DHS in a prominent place that is clearly visible to prospective employees and all employees who are to be verified through the system.

2. The Employer agrees to provide to the SSA and DHS the names, titles, addresses, and telephone numbers of the Employer representatives to be contacted regarding E-Verify.

3. The Employer agrees to become familiar with and comply with the most recent version of the E-Verify User Manual.

4. The Employer agrees that any Employer Representative who will perform employment verification queries will complete the E-Verify Tutorial before that individual initiates any queries.

A. The Employer agrees that all Employer representatives will take the refresher tutorials initiated by the E-Verify program as a condition of continued use of E-Verify.

B. Failure to complete a refresher tutorial will prevent the Employer from continued use of the program.

5. The Employer agrees to comply with current Form I-9 procedures, with two exceptions:

- If an employee presents a "List B" identity document, the Employer agrees to only accept "List B" documents that contain a photo. (List B documents identified in 8 C.F.R. § 274a.2(b)(1)(B)) can be presented during the Form I-9 process to establish identity.) If an employee objects to the photo requirement for religious reasons, the Employer should contact E-Verify at 888-464-4218.

- If an employee presents a DHS Form I-551 (Permanent Resident Card) or Form I-766 (Employment Authorization Document) to complete the Form I-9, the Employer agrees to make a photocopy of the document and to retain the photocopy with the employee's Form I-9. The photocopy must be of sufficient quality to allow for verification of the photo and written information. The employer will use the photocopy to verify the photo and to assist DHS with its review of

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photo non-matches that are contested by employees. Note that employees retain the right to present any List A, or List B and List C, documentation to complete the Form I-9. DHS may in the future designate other documents that activate the photo screening tool.

6. The Employer understands that participation in E-Verify does not exempt the Employer from the responsibility to complete, retain, and make available for inspection Forms I-9 that relate to its employees, or from other requirements of applicable regulations or laws, including the obligation to comply with the antidiscrimination requirements of section 274B of the INA with respect to Form I-9 procedures, except for the following modified requirements applicable by reason of the Employer's participation in E-Verify: (1) identity documents must have photos, as described in paragraph 5 above; (2) a rebuttable presumption is established that the Employer has not violated section 274A(a)(1)(A) of the Immigration and Nationality Act (INA) with respect to the hiring of any individual if it obtains confirmation of the identity and employment eligibility of the individual in good faith compliance with the terms and conditions of E-Verify; (3) the Employer must notify DHS if it continues to employ any employee after receiving a final nonconfirmation, and is subject to a civil money penalty between \$550 and \$1,100 for each failure to notify DHS of continued employment following a final nonconfirmation; (4) the Employer is subject to a rebuttable presumption that it has knowingly employed an unauthorized alien in violation of section 274A(a)(1)(A) if the Employer continues to employ an employee after receiving a final nonconfirmation; and (5) no person or entity participating in E-Verify is civilly or criminally liable under any law for any action taken in good faith based on information provided through the confirmation system. DHS reserves the right to conduct Form I-9 and E-Verify system compliance inspections during the course of E-Verify, as well as to conduct any other enforcement activity authorized by law.

7. The Employer agrees to initiate E-Verify verification procedures for new employees within 3 Employer business days after each employee has been hired (but after the Form I-9 has been completed), and to complete as many (but only as many) steps of the E-Verify process as are necessary according to the E-Verify User Manual, or in the case of Federal contractors with the FAR E-Verify clause, the E-Verify User Manual for Federal Contractors. The Employer is prohibited from initiating verification procedures before the employee has been hired and the Form I-9 completed. If the automated system to be queried is temporarily unavailable, the 3-day time period is extended until it is again operational in order to accommodate the Employer's attempting, in good faith, to make inquiries during the period of unavailability. Employers may initiate verification by notating the Form I-9 in circumstances where the employee has applied for a Social Security Number (SSN) from the SSA and is waiting to receive the SSN, provided that the Employer performs an E-Verify employment verification query using the employee's SSN as soon as the SSN becomes available.

8. The Employer agrees not to use E-Verify procedures for pre-employment screening of job applicants, in support of any unlawful employment practice, or for any other use not authorized by this MOU. Employers must use E-Verify for all new employees, unless an Employer is a Federal contractor that qualifies for the exceptions described in Article II.D.1.c. Except as provided in Article II.D, the Employer will not verify selectively and will not verify employees hired before the effective date of this MOU. The Employer understands that if the Employer uses the E-Verify system for any purpose other than as



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authorized by this MOU, the Employer may be subject to appropriate legal action and termination of its access to SSA and DHS information pursuant to this MOU.

9. The Employer agrees to follow appropriate procedures (see Article III. below) regarding tentative nonconfirmations, including notifying employees in private of the finding and providing them written notice of the findings, providing written referral instructions to employees, allowing employees to contest the finding, and not taking adverse action against employees if they choose to contest the finding. Further, when employees contest a tentative nonconfirmation based upon a photo non-match, the Employer is required to take affirmative steps (see Article III.B. below) to contact DHS with information necessary to resolve the challenge.

10. The Employer agrees not to take any adverse action against an employee based upon the employee's perceived employment eligibility status while SSA or DHS is processing the verification request unless the Employer obtains knowledge (as defined in 8 C.F.R. § 274a.1(l)) that the employee is not work authorized. The Employer understands that an initial inability of the SSA or DHS automated verification system to verify work authorization, a tentative nonconfirmation, a case in continuance (indicating the need for additional time for the government to resolve a case), or the finding of a photo non-match, does not establish, and should not be interpreted as evidence, that the employee is not work authorized. In any of the cases listed above, the employee must be provided a full and fair opportunity to contest the finding, and if he or she does so, the employee may not be terminated or suffer any adverse employment consequences based upon the employee's perceived employment eligibility status (including denying, reducing, or extending work hours, delaying or preventing training, requiring an employee to work in poorer conditions, refusing to assign the employee to a Federal contract or other assignment, or otherwise subjecting an employee to any assumption that he or she is unauthorized to work) until and unless secondary verification by SSA or DHS has been completed and a final nonconfirmation has been issued. If the employee does not choose to contest a tentative nonconfirmation or a photo non-match or if a secondary verification is completed and a final nonconfirmation is issued, then the Employer can find the employee is not work authorized and terminate the employee's employment. Employers or employees with questions about a final nonconfirmation may call E-Verify at 1-888-464-4218 or OSC at 1-800-255-8155 or 1-800-237-2515 (TDD).

11. The Employer agrees to comply with Title VII of the Civil Rights Act of 1964 and section 274B of the INA, as applicable, by not discriminating unlawfully against any individual in hiring, firing, or recruitment or referral practices because of his or her national origin or, in the case of a protected individual as defined in section 274B(a)(3) of the INA, because of his or her citizenship status. The Employer understands that such illegal practices can include selective verification or use of E-Verify except as provided in part D below, or discharging or refusing to hire employees because they appear or sound "foreign" or have received tentative nonconfirmations. The Employer further understands that any violation of the unfair immigration-related employment practices provisions in section 274B of the INA could subject the Employer to civil penalties, back pay awards, and other sanctions, and violations of Title VII could subject the Employer to back pay awards, compensatory and punitive damages. Violations of either section 274B of the INA or Title VII may also lead to the termination of its participation in E-Verify. If the Employer has any questions relating to the anti-discrimination provision, it should contact OSC at 1-800-255-8155 or 1-800-237-2515 (TDD).

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12. The Employer agrees to record the case verification number on the employee's Form I-9 or to print the screen containing the case verification number and attach it to the employee's Form I-9.

13. The Employer agrees that it will use the information it receives from SSA or DHS pursuant to E-Verify and this MOU only to confirm the employment eligibility of employees as authorized by this MOU. The Employer agrees that it will safeguard this information, and means of access to it (such as PINS and passwords) to ensure that it is not used for any other purpose and as necessary to protect its confidentiality, including ensuring that it is not disseminated to any person other than employees of the Employer who are authorized to perform the Employer's responsibilities under this MOU, except for such dissemination as may be authorized in advance by SSA or DHS for legitimate purposes.

14. The Employer acknowledges that the information which it receives from SSA is governed by the Privacy Act (5 U.S.C. § 552a(i)(1) and (3)) and the Social Security Act (42 U.S.C. 1306(a)), and that any person who obtains this information under false pretenses or uses it for any purpose other than as provided for in this MOU may be subject to criminal penalties.

15. The Employer agrees to cooperate with DHS and SSA in their compliance monitoring and evaluation of E-Verify, including by permitting DHS and SSA, upon reasonable notice, to review Forms I-9 and other employment records and to interview it and its employees regarding the Employer's use of E-Verify, and to respond in a timely and accurate manner to DHS requests for information relating to their participation in E-Verify.

#### **D. RESPONSIBILITIES OF FEDERAL CONTRACTORS WITH THE FAR E-VERIFY CLAUSE**

1. The Employer understands that if it is a subject to the employment verification terms in Subpart 22.18 of the FAR, it must verify the employment eligibility of any existing employee assigned to the contract and all new hires, as discussed in the Supplemental Guide for Federal Contractors. Once an employee has been verified through E-Verify by the Employer, the Employer may not reverify the employee through E-Verify.

a. Federal contractors with the FAR E-Verify clause agree to become familiar with and comply with the most recent versions of the E-Verify User Manual for Federal Contractors and the E-Verify Supplemental Guide for Federal Contractors.

b. Federal contractors with the FAR E-Verify clause agree to complete a tutorial for Federal contractors with the FAR E-Verify clause.

c. Federal contractors with the FAR E-Verify clause not enrolled at the time of contract award: An Employer that is not enrolled in E-Verify at the time of a contract award must enroll as a Federal contractor with the FAR E-Verify clause in E-Verify within 30 calendar days of contract award and, within 90 days of enrollment, begin to use E-Verify to initiate verification of employment eligibility of new hires of the Employer who are working in the United States, whether or not assigned to the contract. Once the Employer begins verifying new hires, such verification of new hires must be initiated

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within 3 business days after the date of hire. Once enrolled in E-Verify as a Federal contractor with the FAR E-Verify clause, the Employer must initiate verification of employees assigned to the contract within 90 calendar days from the time of enrollment in the system and after the date and selecting which employees will be verified in E-Verify or within 30 days of an employee's assignment to the contract, whichever date is later.

d. Employers that are already enrolled in E-Verify at the time of a contract award but are not enrolled in the system as a Federal contractor with the FAR E-Verify clause: Employers enrolled in E-Verify for 90 days or more at the time of a contract award must use E-Verify to initiate verification of employment eligibility for new hires of the Employer who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire. Employers enrolled in E-Verify as other than a Federal contractor with the FAR E-Verify clause, must update E-Verify to indicate that they are a Federal contractor with the FAR E-Verify clause within 30 days after assignment to the contract. If the Employer is enrolled in E-Verify for 90 calendar days or less at the time of contract award, the Employer must, within 90 days of enrollment, begin to use E-Verify to initiate verification of new hires of the contractor who are working in the United States, whether or not assigned to the contract. Such verification of new hires must be initiated within 3 business days after the date of hire. An Employer enrolled as a Federal contractor with the FAR E-Verify clause in E-Verify must initiate verification of each employee assigned to the contract within 90 calendar days after date of contract award or within 30 days after assignment to the contract, whichever is later.

e. Institutions of higher education, State, local and tribal governments and sureties: Federal contractors with the FAR E-Verify clause that are institutions of higher education (as defined at 20 U.S.C. 1001(a)), State or local governments, governments of Federally recognized Indian tribes, or sureties performing under a takeover agreement entered into with a Federal agency pursuant to a performance bond may choose to only verify new and existing employees assigned to the Federal contract. Such Federal contractors with the FAR E-Verify clause may, however, elect to verify all new hires, and/or all existing employees hired after November 6, 1986. The provisions of Article II.D, paragraphs 1.a and 1.b of this MOU providing timeframes for initiating employment verification of employees assigned to a contract apply to such institutions of higher education, State, local and tribal governments, and sureties.

f. Verification of all employees: Upon enrollment, Employers who are Federal contractors with the FAR E-Verify clause may elect to verify employment eligibility of all existing employees working in the United States who were hired after November 6, 1986, instead of verifying only new employees and those existing employees assigned to a covered Federal contract. After enrollment, Employers must elect to do so only in the manner designated by DHS and initiate E-Verify verification of all existing employees within 180 days after the election.

g. Form I-9 procedures for existing employees of Federal contractors with the FAR E-Verify clause: Federal contractors with the FAR E-Verify clause may choose to complete new Forms I-9 for all existing employees other than those that are completely exempt from this process. Federal contractors with the FAR E-Verify clause may also update previously completed Forms I-9 to initiate E-Verify verification of existing employees who are not completely exempt as long as that Form I-9 is complete (including the SSN), complies with Article II.C.5, the employee's work authorization has

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not expired, and the Employer has reviewed the information reflected in the Form I-9 either in person or in communications with the employee to ensure that the employee's stated basis in section 1 of the Form I-9 for work authorization has not changed (including, but not limited to, a lawful permanent resident alien having become a naturalized U.S. citizen). If the Employer is unable to determine that the Form I-9 complies with Article II.C.5, if the employee's basis for work authorization as attested in section 1 has expired or changed, or if the Form I-9 contains no SSN or is otherwise incomplete, the Employer shall complete a new I-9 consistent with Article II.C.5, or update the previous I-9 to provide the necessary information. If section 1 of the Form I-9 is otherwise valid and up-to-date and the form otherwise complies with Article II.C.5, but reflects documentation (such as a U.S. passport or Form I-551) that expired subsequent to completion of the Form I-9, the Employer shall not require the production of additional documentation, or use the photo screening tool described in Article II.C.5, subject to any additional or superseding instructions that may be provided on this subject in the Supplemental Guide for Federal Contractors. Nothing in this section shall be construed to require a second verification using E-Verify of any assigned employee who has previously been verified as a newly hired employee under this MOU, or to authorize verification of any existing employee by any Employer that is not a Federal contractor with the FAR E-Verify clause.

2. The Employer understands that if it is a Federal contractor with the FAR E-Verify clause, its compliance with this MOU is a performance requirement under the terms of the Federal contract or subcontract, and the Employer consents to the release of information relating to compliance with its verification responsibilities under this MOU to contracting officers or other officials authorized to review the Employer's compliance with Federal contracting requirements.

### **ARTICLE III**

#### **REFERRAL OF INDIVIDUALS TO SSA AND DHS**

##### **A. REFERRAL TO SSA**

1. If the Employer receives a tentative nonconfirmation issued by SSA, the Employer must print the notice as directed by the E-Verify system and provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation. The Employer must review the tentative nonconfirmation with the employee in private.

2. The Employer will refer employees to SSA field offices only as directed by the automated system based on a tentative nonconfirmation, and only after the Employer records the case verification number, reviews the input to detect any transaction errors, and determines that the employee contests the tentative nonconfirmation. The Employer will transmit the Social Security Number to SSA for verification again if this review indicates a need to do so. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible after the Employer receives it.

3. If the employee contests an SSA tentative nonconfirmation, the Employer will provide the employee with a system-generated referral letter and instruct the employee to visit an SSA office within 8 Federal Government work days. SSA will electronically transmit the result of the referral to the Employer within 10 Federal Government work days of the

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referral unless it determines that more than 10 days is necessary. The Employer agrees to check the E-Verify system regularly for case updates.

4. The Employer agrees not to ask the employee to obtain a printout from the Social Security Number database (the Numident) or other written verification of the Social Security Number from the SSA.

## **B. REFERRAL TO DHS**

1. If the Employer receives a tentative nonconfirmation issued by DHS, the Employer must print the tentative nonconfirmation notice as directed by the E-Verify system and provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation. The Employer must review the tentative nonconfirmation with the employee in private.

2. If the Employer finds a photo non-match for an employee who provides a document for which the automated system has transmitted a photo, the employer must print the photo non-match tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the finding. The Employer must review the tentative nonconfirmation with the employee in private.

3. The Employer agrees to refer individuals to DHS only when the employee chooses to contest a tentative nonconfirmation received from DHS automated verification process or when the Employer issues a tentative nonconfirmation based upon a photo non-match. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible after the Employer receives it.

4. If the employee contests a tentative nonconfirmation issued by DHS, the Employer will provide the employee with a referral letter and instruct the employee to contact DHS through its toll-free hotline (as found on the referral letter) within 8 Federal Government work days.

5. If the employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will provide the employee with a referral letter to DHS. DHS will electronically transmit the result of the referral to the Employer within 10 Federal Government work days of the referral unless it determines that more than 10 days is necessary. The Employer agrees to check the E-Verify system regularly for case updates.

6. The Employer agrees that if an employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will send a copy of the employee's Form I-551 or Form I-766 to DHS for review by:

- Scanning and uploading the document, or
- Sending a photocopy of the document by an express mail account (paid for at employer expense).

7. If the Employer determines that there is a photo non-match when comparing the photocopied List B document described in Article II.C.5 with the image generated in E-Verify, the Employer must forward the employee's documentation to DHS using one of the means described in the preceding paragraph, and allow DHS to resolve the case.



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## **ARTICLE IV**

### **SERVICE PROVISIONS**

SSA and DHS will not charge the Employer for verification services performed under this MOU. The Employer is responsible for providing equipment needed to make inquiries. To access E-Verify, an Employer will need a personal computer with Internet access.

## **ARTICLE V**

### **PARTIES**

A. This MOU is effective upon the signature of all parties, and shall continue in effect for as long as the SSA and DHS conduct the E-Verify program unless modified in writing by the mutual consent of all parties, or terminated by any party upon 30 days prior written notice to the others. Any and all system enhancements to the E-Verify program by DHS or SSA, including but not limited to the E-Verify checking against additional data sources and instituting new verification procedures, will be covered under this MOU and will not cause the need for a supplemental MOU that outlines these changes. DHS agrees to train employers on all changes made to E-Verify through the use of mandatory refresher tutorials and updates to the E-Verify User Manual, the E-Verify User Manual for Federal Contractors or the E-Verify Supplemental Guide for Federal Contractors. Even without changes to E-Verify, DHS reserves the right to require employers to take mandatory refresher tutorials. An Employer that is a Federal contractor with the FAR E-Verify clause may terminate this MOU when the Federal contract that requires its participation in E-Verify is terminated or completed. In such a circumstance, the Federal contractor with the FAR E-Verify clause must provide written notice to DHS. If an Employer that is a Federal contractor with the FAR E-Verify clause fails to provide such notice, that Employer will remain a participant in the E-Verify program, will remain bound by the terms of this MOU that apply to participants that are not Federal contractors with the FAR E-Verify clause, and will be required to use the E-Verify procedures to verify the employment eligibility of all newly hired employees.

B. Notwithstanding Article V, part A of this MOU, DHS may terminate this MOU if deemed necessary because of the requirements of law or policy, or upon a determination by SSA or DHS that there has been a breach of system integrity or security by the Employer, or a failure on the part of the Employer to comply with established procedures or legal requirements. The Employer understands that if it is a Federal contractor with the FAR E-Verify clause, termination of this MOU by any party for any reason may negatively affect its performance of its contractual responsibilities.

C. Some or all SSA and DHS responsibilities under this MOU may be performed by contractor(s), and SSA and DHS may adjust verification responsibilities between each other as they may determine necessary. By separate agreement with DHS, SSA has agreed to perform its responsibilities as described in this MOU.

D. Nothing in this MOU is intended, or should be construed, to create any right or benefit, substantive or procedural, enforceable at law by any third party against the United States, its agencies, officers, or employees, or against the Employer, its agents, officers, or employees.

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E. Each party shall be solely responsible for defending any claim or action against it arising out of or related to E-Verify or this MOU, whether civil or criminal, and for any liability wherefrom, including (but not limited to) any dispute between the Employer and any other person or entity regarding the applicability of Section 403(d) of IIRIRA to any action taken or allegedly taken by the Employer.

F. The Employer understands that the fact of its participation in E-Verify is not confidential information and may be disclosed as authorized or required by law and DHS or SSA policy, including but not limited to, Congressional oversight, E-Verify publicity and media inquiries, determinations of compliance with Federal contractual requirements, and responses to inquiries under the Freedom of Information Act (FOIA).

G. The foregoing constitutes the full agreement on this subject between DHS and the Employer.

H. The individuals whose signatures appear below represent that they are authorized to enter into this MOU on behalf of the Employer and DHS respectively.

**To be accepted as a participant in E-Verify, you should only sign the Employer's Section of the signature page. If you have any questions, contact E-Verify at 888-464-4218.**

Employer		
Name (Please Type or Print)		Title
Signature		Date
Department of Homeland Security – Verification Division		
Name (Please Type or Print)		Title
Signature		Date

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## Information Required for the E-Verify Program

**Information relating to your Company:**

Company Name:	
Company Facility Address:	
Company Alternate Address:	
County or Parish:	
Employer Identification Number:	
North American Industry Classification Systems Code:	
Administrator:	
Number of Employees:	
Number of Sites Verified for:	

**Are you verifying for more than 1 site? If yes, please provide the number of sites verified for in each State:**

State	Number of sites	Site(s)



Company ID Number: \_\_\_\_\_

**Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:**

<b>Name:</b>	
<b>Telephone Number:</b>	
<b>Fax Number:</b>	
<b>E-mail Address:</b>	

**Information relating to the Program Administrator(s) for your Company on policy questions or operational problems:**

<b>Name:</b>	
<b>Telephone Number:</b>	
<b>Fax Number:</b>	
<b>E-mail Address:</b>	

**U.S. Department of Housing and  
Urban Development**  
Office of Public and Indian Housing

**Instructions to Bidders for Contracts  
Public and Indian Housing Programs**

# Instructions to Bidders for Contracts

## Public and Indian Housing Programs

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### 1. Bid Preparation and Submission

(a) Bidders are expected to examine the specifications, drawings, all instructions, and, if applicable, the construction site (see also the contract clause entitled **Site Investigation and Conditions Affecting the Work** of the *General Conditions of the Contract for Construction*). Failure to do so will be at the bidders' risk.

(b) All bids must be submitted on the forms provided by the Public Housing Agency/Indian Housing Authority (PHA/IHA). Bidders shall furnish all the information required by the solicitation. Bids must be signed and the bidder's name typed or printed on the bid sheet and each continuation sheet which requires the entry of information by the bidder. Erasures or other changes must be initialed by the person signing the bid. Bids signed by an agent shall be accompanied by evidence of that agent's authority. (Bidders should retain a copy of their bid for their records.)

(c) Bidders must submit as part of their bid a completed form HUD-5369-A, "Representations, Certifications, and Other Statements of Bidders."

(d) All bid documents shall be sealed in an envelope which shall be clearly marked with the words "Bid Documents," the Invitation for Bids (IFB) number, any project or other identifying number, the bidder's name, and the date and time for receipt of bids.

(e) If this solicitation requires bidding on all items, failure to do so will disqualify the bid. If bidding on all items is not required, bidders should insert the words "No Bid" in the space provided for any item on which no price is submitted.

(f) Unless expressly authorized elsewhere in this solicitation, alternate bids will not be considered.

(g) Unless expressly authorized elsewhere in this solicitation, bids submitted by telegraph or facsimile (fax) machines will not be considered.

(h) If the proposed contract is for a Mutual Help project (as described in 24 CFR Part 905, Subpart E) that involves Mutual Help contributions of work, material, or equipment, supplemental information regarding the bid advertisement is provided as an attachment to this solicitation.

### 2. Explanations and Interpretations to Prospective Bidders

(a) Any prospective bidder desiring an explanation or interpretation of the solicitation, specifications, drawings, etc., must request it at least 7 days before the scheduled time for bid opening. Requests may be oral or written. Oral requests must be confirmed in writing. The only oral clarifications that will be provided will be those clearly related to solicitation procedures, i.e., not substantive technical information. No other oral explanation or interpretation will be provided. Any information given a prospective bidder concerning this solicitation will be furnished promptly to all other prospective bidders as a written amendment to the solicitation, if that information is necessary in submitting bids, or if the lack of it would be prejudicial to other prospective bidders.

(b) Any information obtained by, or provided to, a bidder other than by formal amendment to the solicitation shall not constitute a change to the solicitation.

### 3. Amendments to Invitations for Bids

(a) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

(b) Bidders shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date on the bid form, or (3) by letter, telegram, or facsimile, if those methods are authorized in the solicitation. The PHA/IHA must receive acknowledgement by the time and at the place specified for receipt of bids. Bids which fail to acknowledge the bidder's receipt of any amendment will result in the rejection of the bid if the amendment(s) contained information which substantively changed the PHA's/IHA's requirements.

(c) Amendments will be on file in the offices of the PHA/IHA and the Architect at least 7 days before bid opening.

### 4. Responsibility of Prospective Contractor

(a) The PHA/IHA will award contracts only to responsible prospective contractors who have the ability to perform successfully under the terms and conditions of the proposed contract. In determining the responsibility of a bidder, the PHA/IHA will consider such matters as the bidder's:

- (1) Integrity;
- (2) Compliance with public policy;
- (3) Record of past performance; and
- (4) Financial and technical resources (including construction and technical equipment).

(b) Before a bid is considered for award, the bidder may be requested by the PHA/IHA to submit a statement or other documentation regarding any of the items in paragraph (a) above. Failure by the bidder to provide such additional information shall render the bidder nonresponsible and ineligible for award.

## 5. Late Submissions, Modifications, and Withdrawal of Bids

(a) Any bid received at the place designated in the solicitation after the exact time specified for receipt will not be considered unless it is received before award is made and it:

(1) Was sent by registered or certified mail not later than the fifth calendar day before the date specified for receipt of offers (e.g., an offer submitted in response to a solicitation requiring receipt of offers by the 20th of the month must have been mailed by the 15th);

(2) Was sent by mail, or if authorized by the solicitation, was sent by telegram or via facsimile, and it is determined by the PHA/IHA that the late receipt was due solely to mishandling by the PHA/IHA after receipt at the PHA/IHA; or

(3) Was sent by U.S. Postal Service Express Mail Next Day Service - Post Office to Addressee, not later than 5:00 p.m. at the place of mailing two working days prior to the date specified for receipt of proposals. The term "working days" excludes weekends and observed holidays.

(b) Any modification or withdrawal of a bid is subject to the same conditions as in paragraph (a) of this provision.

(c) The only acceptable evidence to establish the date of mailing of a late bid, modification, or withdrawal sent either by registered or certified mail is the U.S. or Canadian Postal Service postmark both on the envelope or wrapper and on the original receipt from the U.S. or Canadian Postal Service. Both postmarks must show a legible date or the bid, modification, or withdrawal shall be processed as if mailed late. "Postmark" means a printed, stamped, or otherwise placed impression (exclusive of a postage meter machine impression) that is readily identifiable without further action as having been supplied and affixed by employees of the U.S. or Canadian Postal Service on the date of mailing. Therefore, bidders should request the postal clerk to place a hand cancellation bull's-eye postmark on both the receipt and the envelope or wrapper.

(d) The only acceptable evidence to establish the time of receipt at the PHA/IHA is the time/date stamp of PHA/IHA on the proposal wrapper or other documentary evidence of receipt maintained by the PHA/IHA.

(e) The only acceptable evidence to establish the date of mailing of a late bid, modification, or withdrawal sent by Express Mail Next Day Service-Post Office to Addressee is the date entered by the post office receiving clerk on the "Express Mail Next Day Service-Post Office to Addressee" label and the postmark on both the envelope or wrapper and on the original receipt from the U.S. Postal Service. "Postmark" has the same meaning as defined in paragraph (c) of this provision, excluding postmarks of the Canadian Postal Service. Therefore, bidders should request the postal clerk to place a legible hand cancellation bull's eye postmark on both the receipt and Failure by a bidder to acknowledge receipt of the envelope or wrapper.

(f) Notwithstanding paragraph (a) of this provision, a late modification of an otherwise successful bid that makes its terms more favorable to the PHA/IHA will be considered at any time it is received and may be accepted.

(g) Bids may be withdrawn by written notice, or if authorized by this solicitation, by telegram (including mailgram) or facsimile machine transmission received at any time before the exact time set for opening of bids; provided that written confirmation of telegraphic or facsimile withdrawals over the signature of the bidder is mailed and postmarked prior to the specified bid opening time. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for opening of bids, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid.

## 6. Bid Opening

All bids received by the date and time of receipt specified in the solicitation will be publicly opened and read. The time and place of opening will be as specified in the solicitation. Bidders and other interested persons may be present.

## 7. Service of Protest

(a) Definitions. As used in this provision:

"Interested party" means an actual or prospective bidder whose direct economic interest would be affected by the award of the contract.

"Protest" means a written objection by an interested party to this solicitation or to a proposed or actual award of a contract pursuant to this solicitation.

(b) Protests shall be served on the Contracting Officer by obtaining written and dated acknowledgement from —

[Contracting Officer designate the official or location where a protest may be served on the Contracting Officer]

(c) All protests shall be resolved in accordance with the PHA's/IHA's protest policy and procedures, copies of which are maintained at the PHA/IHA.

## 8. Contract Award

(a) The PHA/IHA will evaluate bids in response to this solicitation without discussions and will award a contract to the responsible bidder whose bid, conforming to the solicitation, will be most advantageous to the PHA/IHA considering only price and any price-related factors specified in the solicitation.

(b) If the apparent low bid received in response to this solicitation exceeds the PHA's/IHA's available funding for the proposed contract work, the PHA/IHA may either accept separately priced items (see 8(e) below) or use the following procedure to determine contract award. The PHA/IHA shall apply in turn to each bid (proceeding in order from the apparent low bid to the high bid) each of the separately priced bid deductible items, if any, in their priority order set forth in this solicitation. If upon the application of the first deductible item to all initial bids, a new low bid is within the PHA's/IHA's available funding, then award shall be made to that bidder. If no bid is within the available funding amount, then the PHA/IHA shall apply the second deductible item. The PHA/IHA shall continue this process until an evaluated low bid, if any, is within the PHA's/IHA's available funding. If upon the application of all deductibles, no bid is within the PHA's/IHA's available funding, or if the solicitation does not request separately priced deductibles, the PHA/IHA shall follow its written policy and procedures in making any award under this solicitation.

(c) In the case of tie low bids, award shall be made in accordance with the PHA's/IHA's written policy and procedures.

(d) The PHA/IHA may reject any and all bids, accept other than the lowest bid (e.g., the apparent low bid is unreasonably low), and waive informalities or minor irregularities in bids received, in accordance with the PHA's/IHA's written policy and procedures.

(e) Unless precluded elsewhere in the solicitation, the PHA/IHA may accept any item or combination of items bid.

(f) The PHA/IHA may reject any bid as nonresponsive if it is materially unbalanced as to the prices for the various items of work to be performed. A bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated for other work.

(g) A written award shall be furnished to the successful bidder within the period for acceptance specified in the bid and shall result in a binding contract without further action by either party.

#### **9. Bid Guarantee (applicable to construction and equipment contracts exceeding \$25,000)**

All bids must be accompanied by a negotiable bid guarantee which shall not be less than five percent (5%) of the amount of the bid. The bid guarantee may be a certified check, bank draft, U.S. Government Bonds at par value, or a bid bond secured by a surety company acceptable to the U.S. Government and authorized to do business in the state where the work is to be performed. In the case where the work under the contract will be performed on an Indian reservation area, the bid guarantee may also be an irrevocable Letter of Credit (see provision 10, Assurance of Completion, below). Certified checks and bank drafts must be made payable to the order of the PHA/IHA. The bid guarantee shall insure the execution of the contract and the furnishing of a method of assurance of completion by the successful bidder as required by the solicitation. Failure to submit a bid guarantee with the bid shall result in the rejection of the bid. Bid guarantees submitted by unsuccessful bidders will be returned as soon as practicable after bid opening.

#### **10. Assurance of Completion**

(a) Unless otherwise provided in State law, the successful bidder shall furnish an assurance of completion prior to the execution of any contract under this solicitation. This assurance may be [Contracting Officer check applicable items] — **REFER TO SUPPLEMENTARY INSTRUCTIONS TO BIDDERS**

[ ] (1) a performance and payment bond in a penal sum of 100 percent of the contract price; or, as may be required or permitted by State law;

[ ] (2) separate performance and payment bonds, each for 50 percent or more of the contract price;

[ ] (3) a 20 percent cash escrow;

[ ] (4) a 25 percent irrevocable letter of credit; or,

[ ] (5) an irrevocable letter of credit for 10 percent of the total contract price with a monitoring and disbursements agreement with the IHA (applicable only to contracts awarded by an IHA under the Indian Housing Program).

(b) Bonds must be obtained from guarantee or surety companies acceptable to the U.S. Government and authorized to do business in the state where the work is to be performed. Individual sureties will not be considered. U.S. Treasury Circular Number 570, published annually in the Federal Register, lists companies approved to act as sureties on bonds securing Government contracts, the maximum underwriting limits on each contract bonded, and the States in which the company is licensed to do business. Use of companies listed in this circular is mandatory. Copies of the circular may be downloaded on the U.S. Department of Treasury website <http://www.fms.treas.gov/c570/index.html>, or ordered for a minimum fee by contacting the Government Printing Office at (202) 512-2168.

(c) Each bond shall clearly state the rate of premium and the total amount of premium charged. The current power of attorney for the person who signs for the surety company must be attached to the bond. The effective date of the power of attorney shall not precede the date of the bond. The effective date of the bond shall be on or after the execution date of the contract.

(d) Failure by the successful bidder to obtain the required assurance of completion within the time specified, or within such extended period as the PHA/IHA may grant based upon reasons determined adequate by the PHA/IHA, shall render the bidder ineligible for award. The PHA/IHA may then either award the contract to the next lowest responsible bidder or solicit new bids. The PHA/IHA may retain the ineligible bidder's bid guarantee.

#### **11. Preconstruction Conference (applicable to construction contracts)**

After award of a contract under this solicitation and prior to the start of work, the successful bidder will be required to attend a preconstruction conference with representatives of the PHA/IHA and its architect/engineer, and other interested parties convened by the PHA/IHA. The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the contract (e.g., Equal Employment Opportunity, Labor Standards). The PHA/IHA will provide the successful bidder with the date, time, and place of the conference.

#### **12. Indian Preference Requirements (applicable only if this solicitation is for a contract to be performed on a project for an Indian Housing Authority)**

(a) HUD has determined that the contract awarded under this solicitation is subject to the requirements of section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e(b)). Section 7(b) requires that any contract or subcontract entered into for the benefit of Indians shall require that, to the greatest extent feasible

(1) Preferences and opportunities for training and employment (other than core crew positions; see paragraph (h) below) in connection with the administration of such contracts or subcontracts be given to qualified "Indians." The Act defines "Indians" to mean persons who are members of an Indian tribe and defines "Indian tribe" to mean any Indian tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians; and,

(2) Preference in the award of contracts or subcontracts in connection with the administration of contracts be given to Indian organizations and to Indian-owned economic enterprises, as defined in section 3 of the Indian Financing Act of 1974 (25 U.S.C. 1452). That Act defines "economic enterprise" to mean any Indian-owned commercial, industrial, or business activity established or organized for the purpose of profit, except that the Indian ownership must constitute not less than 51 percent of the enterprise; "Indian organization" to mean the governing body of any Indian tribe or entity established or recognized by such governing body; "Indian" to mean any person who is a member of any tribe, band, group, pueblo, or community which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs and any "Native" as defined in the Alaska Native Claims Settlement Act; and Indian "tribe" to mean any Indian tribe, band, group, pueblo, or community including Native villages and Native groups (including

corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs.

(b) (1) The successful Contractor under this solicitation shall comply with the requirements of this provision in awarding all subcontracts under the contract and in providing training and employment opportunities.

(2) A finding by the IHA that the contractor, either (i) awarded a subcontract without using the procedure required by the IHA, (ii) falsely represented that subcontracts would be awarded to Indian enterprises or organizations; or, (iii) failed to comply with the contractor's employment and training preference bid statement shall be grounds for termination of the contract or for the assessment of penalties or other remedies.

(c) If specified elsewhere in this solicitation, the IHA may restrict the solicitation to qualified Indian-owned enterprises and Indian organizations. If two or more (or a greater number as specified elsewhere in the solicitation) qualified Indian-owned enterprises or organizations submit responsive bids, award shall be made to the qualified enterprise or organization with the lowest responsive bid. If fewer than the minimum required number of qualified Indian-owned enterprises or organizations submit responsive bids, the IHA shall reject all bids and readvertise the solicitation in accordance with paragraph (d) below.

(d) If the IHA prefers not to restrict the solicitation as described in paragraph (c) above, or if after having restricted a solicitation an insufficient number of qualified Indian enterprises or organizations submit bids, the IHA may advertise for bids from non-Indian as well as Indian-owned enterprises and Indian organizations. Award shall be made to the qualified Indian enterprise or organization with the lowest responsive bid if that bid is -

(1) Within the maximum HUD-approved budget amount established for the specific project or activity for which bids are being solicited; and

(2) No more than the percentage specified in 24 CFR 905.175(c) higher than the total bid price of the lowest responsive bid from any qualified bidder. If no responsive bid by a qualified Indian-owned economic enterprise or organization is within the stated range of the total bid price of the lowest responsive bid from any qualified enterprise, award shall be made to the bidder with the lowest bid.

(e) Bidders seeking to qualify for preference in contracting or subcontracting shall submit proof of Indian ownership with their bids. Proof of Indian ownership shall include but not be limited to:

(1) Certification by a tribe or other evidence that the bidder is an Indian. The IHA shall accept the certification of a tribe that an individual is a member.

(2) Evidence such as stock ownership, structure, management, control, financing and salary or profit sharing arrangements of the enterprise.

(f) (1) All bidders must submit with their bids a statement describing how they will provide Indian preference in the award of subcontracts. The specific requirements of that statement and the factors to be used by the IHA in determining the statement's adequacy are included as an attachment to this solicitation. Any bid that fails to include the required statement shall be rejected as nonresponsive. The IHA may require that comparable statements be provided by subcontractors to the successful Contractor, and may require the Contractor to reject any bid or proposal by a subcontractor that fails to include the statement.

(2) Bidders and prospective subcontractors shall submit a certification (supported by credible evidence) to the IHA in any instance where the bidder or subcontractor believes it is infeasible to provide Indian preference in subcontracting. The acceptance or rejection by the IHA of the certification shall be final. Rejection shall disqualify the bid from further consideration.

(g) All bidders must submit with their bids a statement detailing their employment and training opportunities and their plans to provide preference to Indians in implementing the contract; and the number or percentage of Indians anticipated to be employed and trained. Comparable statements from all proposed subcontractors must be submitted. The criteria to be used by the IHA in determining the statement(s)'s adequacy are included as an attachment to this solicitation. Any bid that fails to include the required statement(s), or that includes a statement that does not meet minimum standards required by the IHA shall be rejected as nonresponsive.

(h) Core crew employees. A core crew employee is an individual who is a bona fide employee of the contractor at the time the bid is submitted; or an individual who was not employed by the bidder at the time the bid was submitted, but who is regularly employed by the bidder in a supervisory or other key skilled position when work is available. Bidders shall submit with their bids a list of all core crew employees.

(i) Preference in contracting, subcontracting, employment, and training shall apply not only on-site, on the reservation, or within the IHA's jurisdiction, but also to contracts with firms that operate outside these areas (e.g., employment in modular or manufactured housing construction facilities).

(j) Bidders should contact the IHA to determine if any additional local preference requirements are applicable to this solicitation.

(k) The IHA [ ] does [ ] does not [Contracting Officer check applicable box] maintain lists of Indian-owned economic enterprises and Indian organizations by specialty (e.g., plumbing, electrical, foundations), which are available to bidders to assist them in meeting their responsibility to provide preference in connection with the administration of contracts and subcontracts.

## **SUPPLEMENTARY INSTRUCTIONS TO BIDDERS**

1. PARAGRAPH 10. Assurance of Completion shall be changed as follows:

**Assurance of Completion shall be separate performance and payment bonds, each Obligating the Surety, if request by the owner to do so, to fully perform and complete the work to be performed under the Contract pursuant to the terms, conditions and covenants thereof, and the work shall be completed by the surety even if the current cost of the work exceeds the original contract amount (Surety requirements are described in full within the Performance & Payment Bond language (included in this project manual). The requirements as stated on the Performance & Payment Bond shall supersede any other instruction.**

2. Bid proposals shall be submitted on forms included in the specifications or copies thereof. Contractors shall bid on all items stated on the Proposal Form including Base Bid, all Alternates and Unit Prices. Failure to bid on all items requested or conditioning bids not requested may result in the rejection of the bid. Alternates shall be used to reduce contract amount to within the budget and may be considered without regard to numerical order. Unit prices will be used to cover work which is required to complete work but not included in the original scope of the work.

3. **Each bid proposal shall include all of the Following:**

- A Copy of General Contractors License in the State of Alabama
- Certified Statement of Non-Debarment per HUD Title 24: Part 84, sub-part 84.13, signed by organization president or CEO. (HUD Form 2992)
- Certified Statement of Company Compliance with a Drug Free Workplace, per HUD Title 24: Part 84, sub-part 84.13, signed by organization president or CEO. (HUD Form 50070)
- Completed Proposal Form (copy provided in Project Manual)
- Bid Bond in format provided in Project Manual
- Completed HUD form 5369-A: Representations, Certificates and other Statements of Bidders (copy provided in Project Manual).
- Non-Collusive Affidavit (copy provided in Project Manual).
- Previous Participation Certification (copy provided in Project Manual).
- Certification of Bidder Regarding Equal Employment Opportunity (copy provided in Project Manual).

**Each of the Above must be executed and signed by the Bidder, where required.**

END OF SECTION

## **Title 24: Housing and Urban Development**

### **PART 84—UNIFORM ADMINISTRATIVE REQUIREMENTS FOR GRANTS AND AGREEMENTS WITH INSTITUTIONS OF HIGHER EDUCATION, HOSPITALS, AND OTHER NON-PROFIT ORGANIZATIONS**

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#### **Appendix A to Part 84—Contract Provisions**

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**Authority:** 42 U.S.C. 3535(d).

**Source:** 59 FR 47011, Sept. 13, 1994, unless otherwise noted.

#### **Subpart A—General**

##### **§ 84.1 Purpose.**

This part establishes uniform administrative requirements for Federal grants and agreements awarded to institutions of higher education, hospitals, and other non-profit organizations. Additional or inconsistent requirements shall not be imposed, except as provided in §§84.4, and 84.14 or unless specifically required by Federal statute or executive order. Non-profit organizations that implement Federal programs for the States are also subject to State requirements.

##### **§ 84.2 Definitions.**

*Accrued expenditures* means the charges incurred by the recipient during a given period requiring the provision of funds for:

- (1) Goods and other tangible property received;
- (2) Services performed by employees, contractors, subrecipients, and other payees; and
- (3) Other amounts becoming owed under programs for which no current services or performance is required.

*Accrued income* means the sum of:

- (1) Earnings during a given period from:
  - (i) Services performed by the recipient; and
  - (ii) Goods and other tangible property delivered to purchasers; and
- (2) Amounts becoming owed to the recipient for which no current services or performance is required by the recipient.

*Acquisition cost of equipment* means the net invoice price of the equipment, including the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the property usable for the purpose for which it was acquired. Other charges, such as the cost of installation, transportation, taxes, duty or protective in-transit insurance, shall be included or excluded from the unit acquisition cost in accordance with the recipient's regular accounting practices.

*Advance* means a payment made by Treasury check or other appropriate payment mechanism to a recipient upon its request either before outlays are made by the recipient or through the use of predetermined payment schedules.

*Award* means financial assistance that provides support or stimulation to accomplish a public purpose. Awards include grants and other agreements in the form of money or property in lieu of money, by HUD to an eligible recipient. The term does not include: technical assistance, which provides services instead of money; other assistance in the form of loans, loan guarantees, capital advances under the Sections 202 and 811 programs, interest subsidies, or insurance; direct payments of any kind to individuals; and, contracts which are required to be entered into and administered under procurement laws and regulations.

*Cash contributions* means the recipient's cash outlay, including the outlay of money contributed to the recipient by third parties.

*Closeout* means the process by which HUD determines that all applicable administrative actions and all required work of the award have been completed by the recipient and HUD.

*Contract* means a procurement contract under an award or sub-award, and a procurement subcontract under a recipient's or sub-recipient's contract.

*Cost sharing or matching* means that portion of project or program costs not borne by HUD.

*Date of completion* means the date on which all work under an award is completed or the date on the award document, or any supplement or amendment thereto, on which HUD sponsorship ends.

*Disallowed costs* means those charges to an award that HUD determines to be unallowable, in accordance with the applicable Federal cost principles or other terms and conditions contained in the award.

*Equipment* means tangible nonexpendable personal property including exempt property charged directly to the award having a useful life of more than one year and an acquisition cost of \$5000 or more per unit. However, consistent with recipient policy, lower limits may be established.

*Excess property* means property under the control of HUD that, as determined by the Secretary, is no longer required for its needs or the discharge of its responsibilities.

*Exempt property* means tangible personal property acquired in whole or in part with Federal funds, where HUD has statutory authority to vest title in the recipient without further obligation to

the Federal Government. An example of exempt property authority is contained in the Federal Grant and Cooperative Agreement Act (31 U.S.C. 6306), for property acquired under an award to conduct basic or applied research by a non-profit institution of higher education or non-profit organization whose principal purpose is conducting scientific research.

*Federal awarding agency* means the Federal agency that provides an award to the recipient.

*Federal funds authorized* means the total amount of Federal funds obligated by HUD for use by the recipient. This amount may include any authorized carryover of unobligated funds from prior funding periods when permitted by HUD regulations or implementing instructions.

*Federal share* of real property, equipment, or supplies means that percentage of the property's acquisition costs and any improvement expenditures paid with Federal funds.

*Funding period* means the period of time when Federal funding is available for obligation by the recipient.

*Intangible property and debt instruments* means, but is not limited to, trademarks, copyrights, patents and patent applications and such property as loans, notes and other debt instruments, lease agreements, stock and other instruments of property ownership, whether considered tangible or intangible.

*Obligations* means the amounts of orders placed, contracts and grants awarded, services received and similar transactions during a given period that require payment by the recipient during the same or a future period.

*Outlays or expenditures* means charges made to the project or program. They may be reported on a cash or accrual basis. For reports prepared on a cash basis, outlays are the sum of cash disbursements for direct charges for goods and services, the amount of indirect expense charged, the value of third party in-kind contributions applied and the amount of cash advances and payments made to subrecipients. For reports prepared on an accrual basis, outlays are the sum of cash disbursements for direct charges for goods and services, the amount of indirect expense incurred, the value of in-kind contributions applied, and the net increase (or decrease) in the amounts owed by the recipient for goods and other property received, for services performed by employees, contractors, subrecipients and other payees and other amounts becoming owed under programs for which no current services or performance are required.

*Personal property* means property of any kind except real property. It may be tangible, having physical existence, or intangible, having no physical existence, such as copyrights, patents, or securities.

*Prior approval* means written approval by an authorized official evidencing prior consent.

*Program income* means gross income earned by the recipient that is directly generated by a supported activity or earned as a result of the award (see exclusions in §§84.24 (e) and (h)). Program income includes, but is not limited to, income from fees for services performed, the use or rental of real or personal property acquired under federally-funded projects, the sale of commodities or items fabricated under an award, license fees and royalties on patents and copyrights, and interest on loans made with award funds. Interest earned on advances of Federal funds is not program income. Except as otherwise provided in HUD regulations or the terms and conditions of the award, program income does not include the receipt of principal on loans, rebates, credits, discounts, etc., or interest earned on any of them.

*Project costs* means all allowable costs, as set forth in the applicable Federal cost principles, incurred by a recipient and the value of the contributions made by third parties in accomplishing the objectives of the award during the project period.

*Project period* means the period established in the award document during which HUD sponsorship begins and ends.

*Property* means, unless otherwise stated, real property, equipment, intangible property and debt instruments.

*Real property* means land, including land improvements, structures and appurtenances thereto, but excludes movable machinery and equipment.

*Recipient* means an organization receiving financial assistance directly from HUD to carry out a project or program. The term includes public and private institutions of higher education, public and private hospitals, and other quasi-public and private non-profit organizations such as, but not limited to, community action agencies, research institutes, educational associations, and health centers. The term includes commercial organizations, international organizations when operating domestically (such as agencies of the United Nations) which are recipients, subrecipients, or contractors or subcontractors of recipients or subrecipients. The term does not include government-owned contractor-operated facilities or research centers providing continued support for mission-oriented, large-scale programs that are government-owned or controlled, or are designated as federally-funded research and development centers. The term does not include mortgagors that receive mortgages insured or held by HUD or mortgagors or project owners that receive capital advances from HUD under the Section 202 and 811 programs.

*Research and development* means all research activities, both basic and applied, and all development activities that are supported at universities, colleges, and other non-profit institutions. "Research" is defined as a systematic study directed toward fuller scientific knowledge or understanding of the subject studied. "Development" is the systematic use of knowledge and understanding gained from research directed toward the production of useful materials, devices, systems, or methods, including design and development of prototypes and processes. The term research also includes activities involving the training of individuals in research techniques where such activities utilize the same facilities as other research and development activities and where such activities are not included in the instruction function.

*Small awards* means a grant or cooperative agreement not exceeding \$100,000 or the small purchase threshold fixed at 41 U.S.C. 403(11), whichever is greater.

*Sub-award* means:

(1) An award of financial assistance in the form of money, or property in lieu of money, made under an award by a recipient to an eligible subrecipient or by a subrecipient to a lower tier subrecipient. The term includes financial assistance when provided by any legal agreement, even if the agreement is called a contract, but does not include procurement of goods and services nor does it include any form of assistance which is excluded from the definition of "award".

(2) For Community Development Block Grants, the term "sub-award" does not include the arrangement whereby the prime recipient transfers funds to another entity and that entity is the project. A distinction is made between such a transfer for the furtherance of the prime recipient's goals and the transfer of funds to a subrecipient who carries out activities and is accountable to the prime recipient. For example, in a CDBG award where a prime recipient has as its program goal the revitalization of a downtown area, the funds transferred to a business in the downtown area to remodel its store would not be considered a sub-award subject to this part 84.

*Subrecipient* means the legal entity to which a sub-award is made and which is accountable to the recipient for the use of the funds provided. The term includes commercial organizations and international organizations operating domestically (such as agencies of the United Nations).

*Supplies* means all personal property excluding equipment, intangible property, and debt instruments as defined in this section, and inventions of a contractor conceived or first actually reduced to practice in the performance of work under a funding agreement ("subject inventions"), as defined in 37 CFR part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts, and Cooperative Agreements."

*Suspension* means an action by HUD that temporarily withdraws HUD sponsorship under an award, pending corrective action by the recipient or pending a decision to terminate the award by HUD. Suspension of an award is a separate action from suspension under HUD regulations implementing E.O. 12549 and E.O. 12689, "Debarment and Suspension," at 24 CFR part 24.

*Termination* means the cancellation of HUD sponsorship, in whole or in part, under an agreement at any time prior to the date of completion.

*Third party in-kind contributions* means the value of non-cash contributions provided by non-Federal third parties. Third party in-kind contributions may be in the form of real property, equipment, supplies and other expendable property, and the value of goods and services directly benefiting and specifically identifiable to the project or program.

*Unliquidated obligations*, for financial reports prepared on a cash basis, means the amount of obligations incurred by the recipient that have not been paid. For reports prepared on an accrued expenditure basis, they represent the amount of obligations incurred by the recipient for which an outlay has not been recorded.

*Unobligated balance* means the portion of the funds authorized by HUD that has not been obligated by the recipient and is determined by deducting the cumulative obligations from the cumulative funds authorized.

*Un-recovered indirect cost* means the difference between the amount awarded and the amount which could have been awarded under the recipient's approved negotiated indirect cost rate.

*Working capital advance* means a procedure whereby funds are advanced to the recipient to cover its estimated disbursement needs for a given initial period.

#### **§ 84.3 Effect on other issuances.**

For awards subject to this part, all administrative requirements of codified program regulations, program manuals, handbooks and other non-regulatory materials which are inconsistent with the requirements of this part shall be superseded, except to the extent they are required by statute, or authorized in accordance with the deviations provision in §84.4.

#### **§ 84.4 Deviations.**

The Office of Management and Budget (OMB) may grant exceptions for classes of grants or recipients subject to the requirements of this rule when exceptions are not prohibited by statute. However, in the interest of maximum uniformity, exceptions from the requirements of this rule shall be permitted only in unusual circumstances. HUD may apply more restrictive requirements to a class of recipients when approved by OMB. HUD may apply less restrictive requirements when awarding small awards and when approved by OMB, except for those requirements which are statutory. Exceptions on a case-by-case basis may also be made by HUD.

#### **§ 84.5 Subawards.**

Unless sections of this part specifically exclude subrecipients from coverage, the provisions of this part shall be applied to subrecipients performing work under awards if such subrecipients are institutions of higher education, hospitals, commercial organizations and international organizations operating domestically, or other non-profit organizations. State, local and Federally recognized Indian tribal government subrecipients are subject to the provisions of regulations implementing the grants management common rule, "Administrative Requirements for Grants and

Cooperative Agreements to State, Local and Federally Recognized Indian Tribal Governments,” (24 CFR part 85).

## **Subpart B—Pre-Award Requirements**

### **§ 84.10 Purpose.**

Sections 84.11 through 84.17 prescribe forms and instructions and other pre-award matters to be used in applying for HUD awards.

### **§ 84.11 Pre-award policies.**

- (a) *Use of Grants and Cooperative Agreements, and Contracts.* In each instance, HUD shall decide on the appropriate award instrument (i.e., grant, cooperative agreement, or contract). The Federal Grant and Cooperative Agreement Act (31 U.S.C. 6301-08) governs the use of grants, cooperative agreements and contracts. A grant or cooperative agreement shall be used only when the principal purpose of a transaction is to accomplish a public purpose of support or stimulation authorized by Federal statute. The statutory criterion for choosing between grants and cooperative agreements is that for the latter, “substantial involvement is expected between the executive agency and the State, local government, or other recipient when carrying out the activity contemplated in the agreement.” Contracts shall be used when the principal purpose is acquisition of property or services for the direct benefit or use of the Federal Government.
- (b) *Public Notice and Priority Setting.* HUD shall notify the public of its intended funding priorities for discretionary grant programs, unless funding priorities are established by Federal statute.

### **§ 84.12 Forms for applying for Federal assistance.**

- (a) HUD shall comply with the applicable report clearance requirements of 5 CFR part 1320, “Controlling Paperwork Burdens on the Public,” with regard to all forms used by HUD in place of or as a supplement to the Standard Form 424 (SF-424) series.
- (b) Applicants shall use the SF-424 series or those forms and instructions prescribed by HUD.
- (c) For Federal programs covered by E.O. 12372, “Intergovernmental Review of Federal Programs,” the applicant shall complete the appropriate sections of the SF-424 (Application for Federal Assistance) indicating whether the application was subject to review by the State Single Point of Contact (SPOC). The name and address of the SPOC for a particular State can be obtained from the *Catalog of Federal Domestic Assistance*. The SPOC shall advise the applicant whether the program for which application is made has been selected by that State for review.

### **§ 84.13 Debarment and suspension; Drug-Free Workplace.**

- (a) HUD and its recipients and subrecipients shall comply with the non-procurement debarment and suspension common rule implementing E.O.s 12549 and 12689, “Debarment and Suspension,” at 24 CFR part 24. This common rule restricts sub-awards and contracts with certain parties that are debarred, suspended or otherwise excluded from or ineligible for participation in Federal assistance programs or activities.
- (b) HUD and its recipients and subrecipients shall comply with the certification requirements of the Drug-Free Workplace Act of 1988 (42 U.S.C. 701), as set forth at 24 CFR part 24, subpart F.

### **§ 84.14 Special award conditions.**

If an applicant or recipient:

- (a) Has a history of poor performance;
- (b) Is not financially stable;
- (c) Has a management system that does not meet the standards prescribed in this part;

(d) Has not conformed to the terms and conditions of a previous award; or  
(e) Is not otherwise responsible, HUD may impose additional requirements as needed, provided that such applicant or recipient is notified in writing as to: the nature of the additional requirements, the reason why the additional requirements are being imposed, the nature of the corrective action needed, the time allowed for completing the corrective actions, and the method for requesting reconsideration of the additional requirements imposed. Any special conditions shall be promptly removed once the conditions that prompted them have been corrected.

#### **§ 84.15 Metric system of measurement.**

The Metric Conversion Act, as amended by the Omnibus Trade and Competitiveness Act (15 U.S.C. 205) declares that the metric system is the preferred measurement system for U.S. trade and commerce. The Act requires each Federal agency to establish a date or dates in consultation with the Secretary of Commerce, when the metric system of measurement will be used in the agency's procurements, grants, and other business-related activities. Metric implementation may take longer where the use of the system is initially impractical or likely to cause significant inefficiencies in the accomplishment of federally-funded activities. HUD shall follow the provisions of E.O. 12770, "Metric Usage in Federal Government Programs."

#### **§ 84.16 Resource Conservation and Recovery Act.**

Under the Resource Conservation and Recovery Act (RCRA) (Pub. L. 94-580, 42 U.S.C. 6962), any State agency or agency of a political subdivision of a State which is using appropriated Federal funds must comply with Section 6002. Section 6002 requires that preference be given in procurement programs to the purchase of specific products containing recycled materials identified in guidelines developed by the Environmental Protection Agency (EPA) (40 CFR parts 247 through 254). Accordingly, State and local institutions of higher education, hospitals, commercial organizations and international organizations when operating domestically, and non-profit organizations that receive direct Federal awards or other Federal funds shall give preference in their procurement programs funded with Federal funds to the purchase of recycled products pursuant to the EPA guidelines.

#### **§ 84.17 Certifications and representations.**

Unless prohibited by statute or codified regulation, HUD is authorized and encouraged to allow recipients to submit certifications and representations required by statute, executive order, or regulation on an annual basis, if the recipients have ongoing and continuing relationships with the agency. Annual certifications and representations shall be signed by responsible officials with the authority to ensure recipients' compliance with the pertinent requirements.

### **Subpart C—Post-Award Requirements**

#### **Financial and Program Management**

#### **§ 84.20 Purpose of financial and program management.**

Sections 84.21 through 84.28 prescribe standards for financial management systems, methods for making payments and rules for: satisfying cost sharing and matching requirements, accounting for program income, budget revision approvals, making audits, determining allowability of cost, and establishing fund availability.

#### **§ 84.21 Standards for financial management systems.**

(a) HUD shall require recipients to relate financial data to performance data and develop unit cost information whenever practical.

(b) Recipients' financial management systems shall provide for the following:

(1) Accurate, current and complete disclosure of the financial results of each federally-sponsored project or program in accordance with the reporting requirements set forth in §84.52. If a recipient maintains its records on other than an accrual basis, the recipient shall not be required to establish an accrual accounting system. These recipients may develop such accrual data for their reports on the basis of an analysis of the documentation on hand.

(2) Records that identify adequately the source and application of funds for federally-sponsored activities. These records shall contain information pertaining to Federal awards, authorizations, obligations, unobligated balances, assets, outlays, income and interest.

(3) Effective control over and accountability for all funds, property and other assets. Recipients shall adequately safeguard all such assets and assure they are used solely for authorized purposes.

(4) Comparison of outlays with budget amounts for each award. Whenever appropriate, financial information should be related to performance and unit cost data.

(5) Written procedures to minimize the time elapsing between the transfer of funds to the recipient from the U.S. Treasury and the issuance or redemption of checks, warrants or payments by other means for program purposes by the recipient. To the extent that the provisions of the Cash Management Improvement Act (CMIA) (Pub. L. 101-453) govern, payment methods of State agencies, instrumentalities, and fiscal agents shall be consistent with CMIA Treasury-State Agreements or the CMIA default procedures codified at 31 CFR part 205, "Withdrawal of Cash from the Treasury for Advances under Federal Grant and Other Programs."

(6) Written procedures for determining the reasonableness, allocability and allowability of costs in accordance with the provisions of the applicable Federal cost principles and the terms and conditions of the award.

(7) Accounting records including cost accounting records that are supported by source documentation.

(c) Where the Federal Government guarantees or insures the repayment of money borrowed by the recipient, HUD, at its discretion, may require adequate bonding and insurance if the bonding and insurance requirements of the recipient are not deemed adequate to protect the interest of the Federal Government.

(d) HUD may require adequate fidelity bond coverage where the recipient lacks sufficient coverage to protect the Federal Government's interest.

(e) Where bonds are required in the situations described above, the bonds shall be obtained from companies holding certificates of authority as acceptable sureties, as prescribed in 31 CFR part 223, "Surety Companies Doing Business with the United States."

## **§ 84.22 Payment.**

(a) Payment methods shall minimize the time elapsing between the transfer of funds from the United States Treasury and the issuance or redemption of checks, warrants, or payment by other means by the recipients. Payment methods of State agencies or instrumentalities shall be consistent with Treasury-State CMIA agreements or default procedures codified at 31 CFR part 205.

(b) Recipients are to be paid in advance, provided they maintain or demonstrate the willingness to maintain:

(1) Written procedures that minimize the time elapsing between the transfer of funds and disbursement by the recipient; and

(2) Financial management systems that meet the standards for fund control and accountability as established in §84.21. Cash advances to a recipient organization shall be limited to the minimum amounts needed and be timed to be in accordance with the actual, immediate cash requirements of the recipient organization in carrying out the purpose of the approved program or project. The timing and amount of cash advances shall be as close as



is administratively feasible to the actual disbursements by the recipient organization for direct program or project costs and the proportionate share of any allowable indirect costs.

(c) Whenever possible, advances shall be consolidated to cover anticipated cash needs for all awards made by HUD to the recipient.

(1) Advance payment mechanisms include, but are not limited to, Treasury check and electronic funds transfer.

(2) Advance payment mechanisms are subject to 31 CFR part 205.

(3) Recipients shall be authorized to submit requests for advances and reimbursements at least monthly when electronic fund transfers are not used.

(d) Requests for Treasury check advance payment shall be submitted on SF-270, "Request for Advance or Reimbursement," or other forms as may be authorized by OMB. This form is not to be used when Treasury check advance payments are made to the recipient automatically through the use of a predetermined payment schedule or if precluded by special HUD instructions for electronic funds transfer.

(e) Reimbursement is the preferred method when the requirements in paragraph (b) of this section cannot be met. HUD may also use this method on any construction agreement, or if the major portion of the construction project is accomplished through private market financing or Federal loans, and the Federal assistance constitutes a minor portion of the project.

(1) When the reimbursement method is used, HUD shall make payment within 30 days after receipt of the billing, unless the billing is improper.

(2) Recipients shall be authorized to submit request for reimbursement at least monthly when electronic funds transfers are not used.

(f) If a recipient cannot meet the criteria for advance payments and HUD has determined that reimbursement is not feasible because the recipient lacks sufficient working capital, HUD may provide cash on a working capital advance basis. Under this procedure, HUD shall advance cash to the recipient to cover its estimated disbursement needs for an initial period generally geared to the awardee's disbursing cycle. Thereafter, HUD shall reimburse the recipient for its actual cash disbursements. The working capital advance method of payment shall not be used for recipients unwilling or unable to provide timely advances to their subrecipient to meet the subrecipient's actual cash disbursements.

(g) To the extent available, recipients shall disburse funds available from repayments to and interest earned on a revolving fund, program income, rebates, refunds, contract settlements, audit recoveries and interest earned on such funds before requesting additional cash payments.

(h) Unless otherwise required by statute, HUD shall not withhold payments for proper charges made by recipients at any time during the project period unless paragraphs (h)(1) or (h)(2) of this section apply.

(1) A recipient has failed to comply with the project objectives, the terms and conditions of the award, or Federal reporting requirements.

(2) The recipient or subrecipient is delinquent in a debt to the United States as defined in OMB Circular A-129, "Managing Federal Credit Programs." Under such conditions, HUD may, upon reasonable notice, inform the recipient that payments shall not be made for obligations incurred after a specified date until the conditions are corrected or the indebtedness to the Federal Government is liquidated.

(i) Standards governing the use of banks and other institutions as depositories of funds advanced under awards are as follows.

(1) Except for situations described in paragraph (i)(2) of this section, HUD shall not require separate depository accounts for funds provided to a recipient or establish any eligibility requirements for depositories for funds provided to a recipient. However, recipients must be able to account for the receipt, obligation and expenditure of funds.

(2) Advances of Federal funds shall be deposited and maintained in insured accounts whenever possible.

(j) Consistent with the national goal of expanding the opportunities for women-owned and minority-owned business enterprises, recipients shall be encouraged to use women- owned and minority-owned banks (a bank which is owned at least 50 percent by women or minority group members).

(k) Recipients shall maintain advances of Federal funds in interest bearing accounts, unless paragraphs (k)(1), (k)(2), or (k)(3) of this section apply.

- (1) The recipient receives less than \$120,000 in Federal awards per year.
  - (2) The best reasonably available interest bearing account would not be expected to earn interest in excess of \$250 per year on Federal cash balances.
  - (3) The depository would require an average or minimum balance so high that it would not be feasible within the expected Federal and non-Federal cash resources.
- (l) For those entities where CMIA and its implementing regulations do not apply, interest earned on Federal advances deposited in interest bearing accounts shall be remitted annually to Department of Health and Human Services, Payment Management System, P.O. Box 6021, Rockville, MD 20852. In keeping with Electronic Funds Transfer rules (31 CFR part 206), interest should be remitted to the HHS Payment Management System through an electronic medium such as the FEDWIRE Deposit system. Recipients which do not have this capability should use a check. Interest amounts up to \$250 per year may be retained by the recipient for administrative expense. State universities and hospitals shall comply with CMIA, as it pertains to interest. If an entity subject to CMIA uses its own funds to pay pre-award costs for discretionary awards without prior written approval from the Federal awarding agency, it waives its right to recover the interest under CMIA.
- (m) Except as noted elsewhere in this rule, only the following forms shall be authorized for the recipients in requesting advances and reimbursements. Federal agencies shall not require more than an original and two copies of these forms.
- (1) *SF-270, Request for Advance or Reimbursement.* HUD has adopted the SF-270 as a standard form for all non-construction programs when electronic funds transfer or predetermined advance methods are not used. HUD has the option of using this form for construction programs in lieu of the SF-271, "Outlay Report and Request for Reimbursement for Construction Programs."
  - (2) *SF-271, Outlay Report and Request for Reimbursement for Construction Programs.* HUD has adopted the SF-271 as the standard form to be used for requesting reimbursement for construction programs. However, HUD may substitute the SF-270 when HUD determines that it provides adequate information to meet Federal needs.

#### **§ 84.23 Cost sharing or matching.**

- (a) All contributions, including cash and third party in-kind, shall be accepted as part of the recipient's cost sharing or matching when such contributions meet all of the following criteria.
- (1) Are verifiable from the recipient's records.
  - (2) Are not included as contributions for any other federally-assisted project or program.
  - (3) Are necessary and reasonable for proper and efficient accomplishment of project or program objectives.
  - (4) Are allowable under the applicable cost principles.
  - (5) Are not paid by the Federal Government under another award, except where authorized by Federal statute to be used for cost sharing or matching.
  - (6) Are provided for in the approved budget when required by HUD.
  - (7) Conform to other provisions of this part, as applicable.
- (b) Unrecovered indirect costs may be included as part of cost sharing or matching only with the prior approval of HUD.
- (c) Values for recipient contributions of services and property shall be established in accordance with the applicable cost principles. If HUD authorizes recipients to donate buildings or land for construction/facilities acquisition projects or long-term use, the value of the donated property for cost sharing or matching shall be the lesser of paragraphs (c)(1) or (c)(2) of this section.
- (1) The certified value of the remaining life of the property recorded in the recipient's accounting records at the time of donation.
  - (2) *The current fair market value.* However, when there is sufficient justification, HUD may approve the use of the current fair market value of the donated property, even if it exceeds the certified value at the time of donation to the project.
- (d) Volunteer services furnished by professional and technical personnel, consultants, and other skilled and unskilled labor may be counted as cost sharing or matching if the service is an integral and necessary part of an approved project or program. Rates for volunteer services shall be

consistent with those paid for similar work in the recipient's organization. In those instances in which the required skills are not found in the recipient organization, rates shall be consistent with those paid for similar work in the labor market in which the recipient competes for the kind of services involved. In either case, paid fringe benefits that are reasonable, allowable, and allocable may be included in the valuation.

(e) When an employer other than the recipient furnishes the services of an employee, these services shall be valued at the employee's regular rate of pay (plus an amount of fringe benefits that are reasonable, allowable, and allocable, but exclusive of overhead costs), provided these services are in the same skill for which the employee is normally paid.

(f) Donated supplies may include such items as expendable equipment, office supplies, laboratory supplies or workshop and classroom supplies. Value assessed to donated supplies included in the cost sharing or matching share shall be reasonable and shall not exceed the fair market value of the property at the time of the donation.

(g) The method used for determining cost sharing or matching for donated equipment, buildings and land for which title passes to the recipient may differ according to the purpose of the award, if paragraphs (g)(1) or (g)(2) of this section apply.

(1) If the purpose of the award is to assist the recipient in the acquisition of equipment, buildings or land, the total value of the donated property may be claimed as cost sharing or matching.

(2) If the purpose of the award is to support activities that require the use of equipment, buildings or land, normally only depreciation or use charges for equipment and buildings may be made. However, the full value of equipment or other capital assets and fair rental charges for land may be allowed, provided that HUD has approved the charges.

(h) The value of donated property shall be determined in accordance with the usual accounting policies of the recipient, with the following qualifications.

(1) The value of donated land and buildings shall not exceed its fair market value at the time of donation to the recipient as established by an independent appraiser (e.g., certified real property appraiser or General Services Administration representative) and certified by a responsible official of the recipient.

(2) The value of donated equipment shall not exceed the fair market value of equipment of the same age and condition at the time of donation.

(3) The value of donated space shall not exceed the fair rental value of comparable space as established by an independent appraisal of comparable space and facilities in a privately-owned building in the same locality.

(4) The value of loaned equipment shall not exceed its fair rental value.

(5) The following requirements pertain to the recipient's supporting records for in-kind contributions from third parties.

(i) Volunteer services shall be documented and, to the extent feasible, supported by the same methods used by the recipient for its own employees.

(ii) The basis for determining the valuation for personal service, material, equipment, buildings and land shall be documented.

#### **§ 84.24 Program income.**

(a) HUD shall apply the standards set forth in this section in requiring recipient organizations to account for program income related to projects financed in whole or in part with Federal funds.

(b) Except as provided in paragraph (h) of this section, program income earned during the project period shall be retained by the recipient and, in accordance with HUD regulations or the terms and conditions of the award, shall be used in one or more of the ways listed in the following.

(1) Added to funds committed to the project by HUD and recipient and used to further eligible project or program objectives.

(2) Used to finance the non-Federal share of the project or program.

(3) Deducted from the total project or program allowable cost in determining the net allowable costs on which the Federal share of costs is based.

(c) When HUD authorizes the disposition of program income as described in paragraphs (b)(1) or (b)(2) of this section, program income in excess of any limits stipulated shall be used in accordance with paragraph (b)(3) of this section.

(d) In the event that HUD does not specify in its regulations or the terms and conditions of the award how program income is to be used, paragraph (b)(3) of this section shall apply automatically to all projects or programs except research. For awards that support research, paragraph (b)(1) of this section shall apply automatically unless HUD indicates in the terms and conditions another alternative on the award or the recipient is subject to special award conditions, as indicated in §84.14.

(e) Unless HUD regulations or the terms and conditions of the award provide otherwise, recipients shall have no obligation to the Federal Government regarding program income earned after the end of the project period.

(f) If authorized by HUD regulations or the terms and conditions of the award, costs incident to the generation of program income may be deducted from gross income to determine program income, provided these costs have not been charged to the award.

(g) Proceeds from the sale of property shall be handled in accordance with the requirements of the Property Standards (See §§84.30 through 84.37).

(h) Unless HUD regulations or the terms and condition of the award provide otherwise, recipients shall have no obligation to the Federal Government with respect to program income earned from license fees and royalties for copyrighted material, patents, patent applications, trademarks, and inventions produced under an award. However, Patent and Trademark Amendments (35 U.S.C. 18) apply to inventions made under an experimental, developmental, or research award.

#### **§ 84.25 Revision of budget and program plans.**

(a) The budget plan is the financial expression of the project or program as approved during the award process. It may include either the Federal and non-Federal share, or only the Federal share, depending upon HUD requirements. It shall be related to performance for program evaluation purposes whenever appropriate.

(b) Recipients are required to report deviations from budget and program plans, and request prior approvals for budget and program plan revisions, in accordance with this section.

(c) For non-construction awards, recipients shall request prior approvals from HUD for one or more of the following program or budget related reasons.

(1) Change in the scope or the objective of the project or program (even if there is no associated budget revision requiring prior written approval).

(2) Change in a key person specified in the application or award document.

(3) The absence for more than three months, or a 25 percent reduction in time devoted to the project, by the approved project director or principal investigator.

(4) The need for additional Federal funding.

(5) The transfer of amounts budgeted for indirect costs to absorb increases in direct costs, or vice versa, if approval is required by HUD.

(6) The inclusion, unless waived by HUD, of costs that require prior approval in accordance with OMB Circular A-21, "Cost Principles for Institutions of Higher Education," OMB Circular A-122, "Cost Principles for Non-Profit Organizations," or 45 CFR part 74 Appendix E, "Principles for Determining Costs Applicable to Research and Development under Grants and Contracts with Hospitals," or 48 CFR part 31, "Contract Cost Principles and Procedures," as applicable.

(7) The transfer of funds allotted for training allowances (direct payment to trainees) to other categories of expense.

(8) Unless described in the application and funded in the approved awards, the subaward, transfer or contracting out of any work under an award. This provision does not apply to the purchase of supplies, material, equipment or general support services.

(d) No other prior approval requirements for specific items may be imposed unless a deviation has been approved by OMB.

(e) Except for requirements listed in paragraphs (c)(1) and (c)(4) of this section, HUD is authorized, at its option, to waive cost-related and administrative prior written approvals required

by Circular A-110 and OMB Circulars A-21 and A-122. Such waivers may include authorizing recipients to do any one or more of the following.

- (1) Incur pre-award costs 90 calendar days prior to award or more than 90 calendar days with the prior approval of HUD. All pre-award costs are incurred at the recipient's risk (i.e., HUD is under no obligation to reimburse such costs if for any reason the recipient does not receive an award or if the award is less than anticipated and inadequate to cover such costs).
- (2) Initiate a one-time extension of the expiration date of the award of up to 12 months unless one or more of the following conditions apply. For one-time extensions, the recipient must notify HUD in writing with the supporting reasons and revised expiration date at least 10 days before the expiration date specified in the award. This one-time extension may not be exercised merely for the purpose of using unobligated balances.
  - (i) The terms and conditions of award prohibit the extension.
  - (ii) The extension requires additional Federal funds.
  - (iii) The extension involves any change in the approved objectives or scope of the project.
- (3) Carry forward unobligated balances to subsequent funding periods.
- (4) For awards that support research, unless HUD provides otherwise in HUD's regulations, the prior approval requirements described in paragraph (e) of this section are automatically waived (i.e., recipients need not obtain such prior approvals) unless one of the conditions included in paragraph (e)(2) of this section applies.
- (f) HUD may, at its option, restrict the transfer of funds among direct cost categories or programs, functions and activities for awards in which the Federal share of the project exceeds \$100,000 and the cumulative amount of such transfers exceeds or is expected to exceed 10 percent of the total budget as last approved by HUD. HUD shall not permit a transfer that would cause any Federal appropriation or part thereof to be used for purposes other than those consistent with the original intent of the appropriation.
- (g) All other changes to nonconstruction budgets, except for the changes described in paragraph (j) of this section, do not require prior approval.
- (h) For construction awards, recipients shall request prior written approval promptly from HUD for budget revisions whenever paragraphs (h)(1), (h)(2) or (h)(3) of this section apply.
  - (1) The revision results from changes in the scope or the objective of the project or program.
  - (2) The need arises for additional Federal funds to complete the project.
  - (3) A revision is desired which involves specific costs for which prior written approval requirements may be imposed consistent with applicable OMB cost principles listed in §84.27.
- (i) No other prior approval requirements for specific items may be imposed unless a deviation has been approved by OMB.
- (j) When HUD makes an award that provides support for both construction and nonconstruction work, HUD may require the recipient to request prior approval from HUD before making any fund or budget transfers between the two types of work supported.
- (k) For both construction and nonconstruction awards, HUD shall require recipients to notify HUD in writing promptly whenever the amount of Federal authorized funds is expected to exceed the needs of the recipient for the project period by more than \$5000 or five percent of the Federal award, whichever is greater. This notification shall not be required if an application for additional funding is submitted for a continuation award.
- (l) When requesting approval for budget revisions, recipients shall use the budget forms that were used in the application unless HUD indicates a letter of request suffices.
- (m) Within 30 calendar days from the date of receipt of the request for budget revisions, HUD shall review the request and notify the recipient whether the budget revisions have been approved. If the revision is still under consideration at the end of 30 calendar days, HUD shall inform the recipient in writing of the date when the recipient may expect the decision.

#### **§ 84.26 Non-Federal audits.**

- (a) Recipients and subrecipients that are institutions of higher education or other non-profit organization (including hospitals) shall be subject to the audit requirements contained in the

Single Audit Act Amendments of 1996 (31 U.S.C. 7501–7507) and revised OMB Circular A–133, “Audits of States, Local Governments, and Non-Profit Organizations.”

(1) Non-profit organizations subject to regulations in the part 200 and part 800 series of this title which receive awards subject to part 84 shall comply with the audit requirements of revised OMB Circular A–133, “Audits of States, Local Governments, and Non-Profit Organizations.” For HUD programs, a non-profit organization is the mortgagor or owner (as these terms are defined in the regulations in the part 200 and part 800 series) and not a related or affiliated organization or entity.

(2) [Reserved]

(b) State and local governments shall be subject to the audit requirements contained in the Single Audit Act Amendments of 1996 (31 U.S.C. 7501–7507) and revised OMB Circular A–133, “Audits of States, Local Governments, and Non-Profit Organizations.”

(c) For-profit hospitals not covered by the audit provisions of revised OMB Circular A–133 shall be subject to the audit requirements of the Federal awarding agencies.

(d) Commercial organizations shall be subject to the audit requirements of HUD or the prime recipient as incorporated into the award document.

[59 FR 47011, Sept. 13, 1994, as amended at 62 FR 61617, Nov. 18, 1997]

#### **§ 84.27 Allowable costs.**

For each kind of recipient, there is a set of Federal principles for determining allowable costs. Allowability of costs shall be determined in accordance with the cost principles applicable to the entity incurring the costs. Thus, allowability of costs incurred by State, local or federally-recognized Indian tribal governments is determined in accordance with the provisions of OMB Circular A–87, “Cost Principles for State and Local Governments.” The allowability of costs incurred by non-profit organizations is determined in accordance with the provisions of OMB Circular A–122, “Cost Principles for Non-Profit Organizations.” The allowability of costs incurred by institutions of higher education is determined in accordance with the provisions of OMB Circular A–21, “Cost Principles for Educational Institutions.” The allowability of costs incurred by hospitals is determined in accordance with the provisions of Appendix E of 45 CFR part 74, “Principles for Determining Costs Applicable to Research and Development Under Grants and Contracts with Hospitals.” The allowability of costs incurred by commercial organizations and those non-profit organizations listed in Attachment C to Circular A–122 is determined in accordance with the provisions of the Federal Acquisition Regulation (FAR) at 48 CFR part 31.

#### **§ 84.28 Period of availability of funds.**

Where a funding period is specified, a recipient may charge to the grant only allowable costs resulting from obligations incurred during the funding period and any pre-award costs authorized by HUD.

### **Property Standards**

#### **§ 84.30 Purpose of property standards.**

Sections 84.31 through 84.37 set forth uniform standards governing management and disposition of property furnished by the Federal Government whose cost was charged to a project supported by a Federal award. HUD shall require recipients to observe these standards under awards and shall not impose additional requirements, unless specifically required by Federal statute. The recipient may use its own property management standards and procedures provided it observes the provisions of §§84.31 through 84.37.

#### **§ 84.31 Insurance coverage.**

Recipients shall, at a minimum, provide the equivalent insurance coverage for real property and equipment acquired with Federal funds as provided to property owned by the recipient. Federally-owned property need not be insured unless required by the terms and conditions of the award.

#### **§ 84.32 Real property.**

HUD prescribes the following requirements for recipients concerning the use and disposition of real property acquired in whole or in part under awards:

- (a) Title to real property shall vest in the recipient subject to the condition that the recipient shall use the real property for the authorized purpose of the project as long as it is needed and shall not encumber the property without approval of HUD.
- (b) The recipient shall obtain written approval by HUD for the use of real property in other federally-sponsored projects when the recipient determines that the property is no longer needed for the purpose of the original project. Use in other projects shall be limited to those under federally-sponsored projects (i.e., awards) or programs that have purposes consistent with those authorized for support by HUD.
- (c) When the real property is no longer needed as provided in paragraphs (a) and (b) of this section, the recipient shall request disposition instructions from HUD or its successor Federal awarding agency. HUD shall observe one or more of the following disposition instructions.
  - (1) The recipient may be permitted to retain title without further obligation to the Federal Government after it compensates the Federal Government for that percentage of the current fair market value of the property attributable to the Federal participation in the project.
  - (2) The recipient may be directed to sell the property under guidelines provided by HUD and pay the Federal Government for that percentage of the current fair market value of the property attributable to the Federal participation in the project (after deducting actual and reasonable selling and fix-up expenses, if any, from the sales proceeds). When the recipient is authorized or required to sell the property, proper sales procedures shall be established that provide for competition to the extent practicable and result in the highest possible return.
  - (3) The recipient may be directed to transfer title to the property to the Federal Government or to an eligible third party provided that, in such cases, the recipient shall be entitled to compensation for its attributable percentage of the current fair market value of the property.

#### **§ 84.33 Federally-owned and exempt property.**

*(a) Federally-owned property.*

- (1) Title to federally-owned property remains vested in the Federal Government. Recipients shall submit annually an inventory listing of federally-owned property in their custody to HUD. Upon completion of the award or when the property is no longer needed, the recipient shall report the property to HUD for further HUD utilization.
- (2) If HUD has no further need for the property, it shall be declared excess and reported to the General Services Administration, unless HUD has statutory authority to dispose of the property by alternative methods (e.g., the authority provided by the Federal Technology Transfer Act (15 U.S.C. 3710 (I)) to donate research equipment to educational and non-profit organizations in accordance with E.O. 12821, "Improving Mathematics and Science Education in Support of the National Education Goals.") Appropriate instructions shall be issued to the recipient by HUD.

*(b) Exempt property.* When statutory authority exists, HUD has the option to vest title to property acquired with Federal funds in the recipient without further obligation to the Federal Government and under conditions HUD considers appropriate. Such property is "exempt property." Should HUD not establish conditions, title to exempt property upon acquisition shall vest in the recipient without further obligation to the Federal Government.

#### **§ 84.34 Equipment.**

(a) Title to equipment acquired by a recipient with Federal funds shall vest in the recipient, subject to conditions of this section.

(b) The recipient shall not use equipment acquired with Federal funds to provide services to non-Federal outside organizations for a fee that is less than private companies charge for equivalent services, unless specifically authorized by Federal statute, for as long as the Federal Government retains an interest in the equipment.

(c) The recipient shall use the equipment in the project or program for which it was acquired as long as needed, whether or not the project or program continues to be supported by Federal funds and shall not encumber the equipment without approval of HUD. When the equipment is no longer needed for the original project or program, the recipient shall use the equipment in connection with its other federally-sponsored activities, in the following order of priority:

(1) Activities sponsored by HUD which funded the original project; then

(2) Activities sponsored by other Federal awarding agencies.

(d) During the time that equipment is used on the project or program for which it was acquired, the recipient shall make it available for use on other projects or programs if such other use will not interfere with the work on the project or program for which the equipment was originally acquired. First preference for such other use shall be given to other projects or programs sponsored by HUD that financed the equipment; second preference shall be given to projects or programs sponsored by other Federal awarding agencies. If the equipment is owned by the Federal Government, use on other activities not sponsored by the Federal Government shall be permissible if authorized by HUD. User charges shall be treated as program income.

(e) When acquiring replacement equipment, the recipient may use the equipment to be replaced as trade-in or sell the equipment and use the proceeds to offset the costs of the replacement equipment subject to the approval of HUD.

(f) The recipient's property management standards for equipment acquired with Federal funds and federally-owned equipment shall include all of the following.

(1) Equipment records shall be maintained accurately and shall include the following information.

(i) A description of the equipment.

(ii) Manufacturer's serial number, model number, Federal stock number, national stock number, or other identification number.

(iii) Source of the equipment, including the award number.

(iv) Whether title vests in the recipient or the Federal Government.

(v) Acquisition date (or date received, if the equipment was furnished by the Federal Government) and cost.

(vi) Information from which one can calculate the percentage of Federal participation in the cost of the equipment (not applicable to equipment furnished by the Federal Government).

(vii) Location and condition of the equipment and the date the information was reported.

(viii) Unit acquisition cost.

(ix) Ultimate disposition data, including date of disposal and sales price or the method used to determine current fair market value where a recipient compensates HUD for its share.

(2) Equipment owned by the Federal Government shall be identified to indicate Federal ownership.

(3) A physical inventory of equipment shall be taken and the results reconciled with the equipment records at least once every two years. Any differences between quantities determined by the physical inspection and those shown in the accounting records shall be investigated to determine the causes of the difference. The recipient shall, in connection with the inventory, verify the existence, current utilization, and continued need for the equipment.

(4) A control system shall be in effect to insure adequate safeguards to prevent loss, damage, or theft of the equipment. Any loss, damage, or theft of equipment shall be investigated and fully documented; if the equipment was owned by the Federal Government, the recipient shall promptly notify HUD.

(5) Adequate maintenance procedures shall be implemented to keep the equipment in good condition.



(6) Where the recipient is authorized or required to sell the equipment, proper sales procedures shall be established which provide for competition to the extent practicable and result in the highest possible return.

(g) When the recipient no longer needs the equipment, the equipment may be used for other activities in accordance with the following standards. For equipment with a current per unit fair market value of \$5000 or more, the recipient may retain the equipment for other uses provided that compensation is made to HUD or its successor. The amount of compensation shall be computed by applying the percentage of Federal participation in the cost of the original project or program to the current fair market value of the equipment. If the recipient has no need for the equipment, the recipient shall request disposition instructions from HUD. HUD shall determine whether the equipment can be used to meet HUD's requirements. If no requirement exists within HUD, the availability of the equipment shall be reported to the General Services Administration by HUD to determine whether a requirement for the equipment exists in other Federal agencies. HUD shall issue instructions to the recipient no later than 120 calendar days after the recipient's request and the following procedures shall govern.

(1) If so instructed or if disposition instructions are not issued within 120 calendar days after the recipient's request, the recipient shall sell the equipment and reimburse HUD an amount computed by applying to the sales proceeds the percentage of Federal participation in the cost of the original project or program. However, the recipient shall be permitted to deduct and retain from the Federal share \$500 or ten percent of the proceeds, whichever is less, for the recipient's selling and handling expenses.

(2) If the recipient is instructed to ship the equipment elsewhere, the recipient shall be reimbursed by the Federal Government by an amount which is computed by applying the percentage of the recipient's participation in the cost of the original project or program to the current fair market value of the equipment, plus any reasonable shipping or interim storage costs incurred.

(3) If the recipient is instructed to otherwise dispose of the equipment, the recipient shall be reimbursed by HUD for such costs incurred in its disposition.

(4) HUD may reserve the right to transfer the title to the Federal Government or to a third party named by the Federal Government when such third party is otherwise eligible under existing statutes. Such transfer shall be subject to the following standards.

(i) The equipment shall be appropriately identified in the award or otherwise made known to the recipient in writing.

(ii) HUD shall issue disposition instructions within 120 calendar days after receipt of a final inventory. The final inventory shall list all equipment acquired with grant funds and federally-owned equipment. If HUD fails to issue disposition instructions within the 120 calendar day period, the recipient shall apply the standards of this section, as appropriate.

(iii) When HUD exercises its right to take title, the equipment shall be subject to the provisions for federally-owned equipment.

#### **§ 84.35 Supplies and other expendable property.**

(a) Title to supplies and other expendable property shall vest in the recipient upon acquisition. If there is a residual inventory of unused supplies exceeding \$5000 in total aggregate value upon termination or completion of the project or program and the supplies are not needed for any other federally-sponsored project or program, the recipient shall retain the supplies for use on non-Federal sponsored activities or sell them, but shall, in either case, compensate the Federal Government for its share. The amount of compensation shall be computed in the same manner as for equipment.

(b) The recipient shall not use supplies acquired with Federal funds to provide services to non-Federal outside organizations for a fee that is less than private companies charge for equivalent services, unless specifically authorized by Federal statute, as long as the Federal Government retains an interest in the supplies.

#### **§ 84.36 Intangible property.**

(a) The recipient may copyright any work that is subject to copyright and was developed, or for which ownership was purchased, under an award. HUD reserves a royalty-free, nonexclusive and irrevocable right to reproduce, publish, or otherwise use the work for Federal purposes, and to authorize others to do so.

(b) Recipients are subject to applicable regulations governing patents and inventions, including government-wide regulations issued by the Department of Commerce at 37 CFR part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements."

(c) HUD has the right to:

- (1) Obtain, reproduce, publish or otherwise use the data first produced under an award; and
- (2) Authorize others to receive, reproduce, publish, or otherwise use such data for HUD purposes.

(d)

(1) In addition, in response to a Freedom of Information Act (FOIA) request for research data relating to published research findings produced under an award that were used by HUD in developing an agency action that has the force and effect of law, HUD shall request, and the recipient shall provide, within a reasonable time, the research data so that they can be made available to the public through the procedures established under the FOIA. If HUD obtains the research data solely in response to a FOIA request, HUD may charge the requester a reasonable fee equaling the full incremental cost of obtaining the research data. This fee should reflect costs incurred by HUD, the recipient, and applicable subrecipients. This fee is in addition to any fees HUD may assess under the FOIA (5 U.S.C. 552(a)(4)(A)).

(2) The following definitions apply for purposes of this paragraph (d):

(i) *Research data* is defined as the recorded factual material commonly accepted in the scientific community as necessary to validate research findings, but not any of the following: preliminary analyses, drafts of scientific papers, plans for future research, peer reviews, or communications with colleagues. This "recorded" material excludes physical objects (e.g., laboratory samples). *Research data* also do not include:

- (A) Trade secrets, commercial information, materials necessary to be held confidential by a researcher until they are published, or similar information which is protected under law; and
- (B) Personnel and medical information and similar information the disclosure of which would constitute a clearly unwarranted invasion of personal privacy, such as information that could be used to identify a particular person in a research study.

(ii) *Published* is defined as either when:

- (A) Research findings are published in a peer-reviewed scientific or technical journal; or
- (B) HUD publicly and officially cites the research findings in support of an agency action that has the force and effect of law.

(iii) *Used by HUD in developing an agency action that has the force and effect of law* is defined as when HUD publicly and officially cites the research findings in support of an agency action that has the force and effect of law.

(e) Title to intangible property and debt instruments acquired under an award or sub-award vests upon acquisition in the recipient. The recipient shall use that property for the originally-authorized purpose, and the recipient shall not encumber the property without approval of HUD. When no longer needed for the originally authorized purpose, disposition of the intangible property shall occur in accordance with the provisions of §84.34(g).

[59 FR 47011, Sept. 13, 1994, as amended at 65 FR 30499, May 11, 2000]

#### **§ 84.37 Property trust relationship.**

Real property, equipment, intangible property and debt instruments that are acquired or improved with Federal funds shall be held in trust by the recipient as trustee for the beneficiaries of the project or program under which the property was acquired or improved. HUD may require recipients to record liens or other appropriate notices of record to indicate that personal or real

property has been acquired or improved with Federal funds and that use and disposition conditions apply to the property.

## **Procurement Standards**

### **§ 84.40 Purpose of procurement standards.**

Sections 84.41 through 84.48 set forth standards for use by recipients in establishing procedures for the procurement of supplies and other expendable property, equipment, real property and other services with Federal funds. These standards are furnished to ensure that such materials and services are obtained in an effective manner and in compliance with the provisions of applicable Federal statutes and executive orders. No additional procurement standards or requirements shall be imposed by HUD upon recipients, unless specifically required by Federal statute or executive order or approved by OMB.

### **§ 84.41 Recipient responsibilities.**

The standards contained in this section do not relieve the recipient of the contractual responsibilities arising under its contract(s). The recipient is the responsible authority, without recourse to HUD, regarding the settlement and satisfaction of all contractual and administrative issues arising out of procurements entered into in support of an award or other agreement. This includes disputes, claims, protests of award, source evaluation or other matters of a contractual nature. Matters concerning violation of statute are to be referred to such Federal, State or local authority as may have proper jurisdiction.

### **§ 84.42 Codes of conduct.**

The recipient shall maintain written standards of conduct governing the performance of its employees engaged in the award and administration of contracts. 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. Such a conflict would arise when the employee, officer, or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties indicated herein, has a financial or other interest in the firm selected for an award. The officers, employees, and agents of the recipient shall neither solicit nor accept gratuities, favors, or anything of monetary value from contractors, or parties to sub-agreements. However, recipients may set standards for situations in which the financial interest is not substantial or the gift is an unsolicited item of nominal value. The standards of conduct shall provide for disciplinary actions to be applied for violations of such standards by officers, employees, or agents of the recipient.

### **§ 84.43 Competition.**

All procurement transactions shall be conducted in a manner to provide, to the maximum extent practical, open and free competition. The recipient shall be alert to organizational conflicts of interest as well as noncompetitive practices among contractors that may restrict or eliminate competition or otherwise restrain trade. In order to ensure objective contractor performance and eliminate unfair competitive advantage, contractors that develop or draft specifications, requirements, statements of work, invitations for bids and/or requests for proposals shall be excluded from competing for such procurements. Awards shall be made to the bidder or offeror whose bid or offer is responsive to the solicitation and is most advantageous to the recipient, price, quality and other factors considered. The other factors shall include the bidder's or offeror's compliance with Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u), hereafter referred to as "Section 3." Section 3 provides that, to the greatest extent feasible, and consistent with existing Federal, State, and local laws, and regulations, economic opportunities generated by certain HUD financial assistance shall be directed to low- and very

low-income persons. Solicitations shall clearly set forth all requirements that the bidder or offeror shall fulfill in order for the bid or offer to be evaluated by the recipient. Any and all bids or offers may be rejected when it is in the recipient's interest to do so.

#### **§ 84.44 Procurement procedures.**

(a) All recipients shall establish written procurement procedures. These procedures shall provide for, at a minimum, that paragraphs (a)(1), (a)(2) and (a)(3) of this section apply.

- (1) Recipients avoid purchasing unnecessary items.
- (2) Where appropriate, an analysis is made of lease and purchase alternatives to determine which would be the most economical and practical procurement for the Federal Government.
- (3) Solicitations for goods and services provide for all of the following.
  - (i) A clear and accurate description of the technical requirements for the material, product or service to be procured. In competitive procurements, such a description shall not contain features which unduly restrict competition.
  - (ii) Requirements which the bidder/offeror must fulfill and all other factors to be used in evaluating bids or proposals.
  - (iii) A description, whenever practicable, of technical requirements in terms of functions to be performed or performance required, including the range of acceptable characteristics or minimum acceptable standards.
  - (iv) The specific features of "brand name or equal" descriptions that bidders are required to meet when such items are included in the solicitation.
  - (v) The acceptance, to the extent practicable and economically feasible, of products and services dimensioned in the metric system of measurement.
  - (vi) Preference, to the extent practicable and economically feasible, for products and services that conserve natural resources and protect the environment and are energy efficient.

(b) Positive efforts shall be made by recipients to utilize small businesses, minority-owned firms, and women's business enterprises, whenever possible. Recipients of Federal awards shall take all of the following steps to further this goal.

- (1) Ensure that small businesses, minority-owned firms, and women's business enterprises are used to the fullest extent practicable.
- (2) Make information on forthcoming opportunities available and arrange time frames for purchases and contracts to encourage and facilitate participation by small businesses, minority-owned firms, and women's business enterprises.
- (3) Consider in the contract process whether firms competing for larger contracts intend to subcontract with small businesses, minority-owned firms, and women's business enterprises.
- (4) Encourage contracting with consortiums of small businesses, minority-owned firms and women's business enterprises when a contract is too large for one of these firms to handle individually.
- (5) Use the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Department of Commerce's Minority Business Development Agency in the solicitation and utilization of small businesses, minority-owned firms and women's business enterprises.

(c) The type of procuring instruments used (e.g., fixed price contracts, cost reimbursable contracts, purchase orders, and incentive contracts) shall be determined by the recipient but shall be appropriate for the particular procurement and for promoting the best interest of the program or project involved. The "cost-plus-a-percentage-of-cost" or "percentage of construction cost" methods of contracting shall not be used.

(d) Contracts shall be made only with responsible contractors who possess the potential ability to perform successfully under the terms and conditions of the proposed procurement. Consideration shall be given to such matters as contractor integrity; compliance with public policy, including, where applicable, Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u); record of past performance; financial and technical resources or accessibility to other necessary resources. In certain circumstances, contracts with certain parties are restricted by implementation of E.O.s 12549 and 12689, "Debarment and Suspension," at 24 CFR part 24.

(e) Recipients shall, on request, make available for the Federal awarding agency, pre-award review and procurement documents, such as requests for proposals or invitations for bids, independent cost estimates, etc., when any of the following conditions apply.

- (1) A recipient's procurement procedures or operation fails to comply with the procurement standards in HUD's implementation of Circular A-110.
- (2) The procurement is expected to exceed \$100,000 or the small purchase threshold fixed at 41 U.S.C. 403 (11), whichever is greater, and is to be awarded without competition or only one bid or offer is received in response to a solicitation.
- (3) The procurement, which is expected to exceed the small purchase threshold, specifies a "brand name" product.
- (4) The proposed award over the small purchase threshold is to be awarded to other than the apparent low bidder under a sealed bid procurement.
- (5) A proposed contract modification changes the scope of a contract or increases the contract amount by more than the amount of the small purchase threshold.

#### **§ 84.45 Cost and price analysis.**

Some form of cost or price analysis shall be made and documented in the procurement files in connection with every procurement action. Price analysis may be accomplished in various ways, including the comparison of price quotations submitted, market prices and similar indicia, together with discounts. Cost analysis is the review and evaluation of each element of cost to determine reasonableness, allocability and allowability.

#### **§ 84.46 Procurement records.**

Procurement records and files for purchases in excess of the small purchase threshold shall include the following at a minimum:

- (a) Basis for contractor selection;
- (b) Justification for lack of competition when competitive bids or offers are not obtained; and
- (c) Basis for award cost or price.

#### **§ 84.47 Contract administration.**

A system for contract administration shall be maintained to ensure contractor conformance with the terms, conditions and specifications of the contract and to ensure adequate and timely follow up of all purchases. Recipients shall evaluate contractor performance and document, as appropriate, whether contractors have met the terms, conditions and specifications of the contract.

#### **§ 84.48 Contract provisions.**

The recipient shall include, in addition to provisions to define a sound and complete agreement, the following provisions in all contracts. The following provisions shall also be applied to subcontracts.

- (a) Contracts in excess of the small purchase threshold shall contain contractual provisions or conditions that allow for administrative, contractual, or legal remedies in instances in which a contractor violates or breaches the contract terms, and provide for such remedial actions as may be appropriate.
- (b) All contracts in excess of the small purchase threshold shall contain suitable provisions for termination by the recipient, including the manner by which termination shall be effected and the basis for settlement. In addition, such contracts 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.
- (c) Except as otherwise required by statute, an award that requires the contracting (or subcontracting) for construction or facility improvements shall provide for the recipient to follow its

own requirements relating to bid guarantees, performance bonds, and payment bonds unless the construction contract or subcontract exceeds \$100,000. For those contracts or subcontracts exceeding \$100,000, HUD may accept the bonding policy and requirements of the recipient, provided HUD has made a determination that the Federal Government's interest is adequately protected. If such a determination has not been made, the minimum requirements shall be as follows:

(1) A bid guarantee from each bidder equivalent to five percent of the bid price. The "bid guarantee" shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder shall, upon acceptance of his bid, execute such contractual documents as may be required within the time specified.

(2) A performance bond on the part of the contractor for 100 percent of the contract price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.

(3) A payment bond on the part of the contractor for 100 percent of the contract price. A "payment bond" is one executed in connection with a contract to assure payment as required by statute of all persons supplying labor and material in the execution of the work provided for in the contract.

(4) Where bonds are required in the situations described herein, the bonds shall be obtained from companies holding certificates of authority as acceptable sureties pursuant to 31 CFR part 223, "Surety Companies Doing Business with the United States."

(d) All negotiated contracts (except those for less than the small purchase threshold) awarded by recipients shall include a provision to the effect that the recipient, HUD, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers and records of the contractor which are directly pertinent to a specific program for the purpose of making audits, examinations, excerpts and transcriptions.

(e) All contracts, including small purchases, awarded by recipients and their contractors shall contain the procurement provisions of Appendix A to this rule, as applicable.

## **Reports and Records**

### **§ 84.50 Purpose of reports and records.**

Sections 84.51 through 84.53 set forth the procedures for monitoring and reporting on the recipient's financial and program performance and the necessary standard reporting forms. They also set forth record retention requirements.

### **§ 84.51 Monitoring and reporting program performance.**

(a) Recipients are responsible for managing and monitoring each project, program, subaward, function or activity supported by the award. Recipients shall monitor subawards to ensure subrecipients have met the audit requirements as delineated in §84.26.

(b) HUD shall prescribe the frequency with which the performance reports shall be submitted. Except as provided in §84.51(f), performance reports shall not be required more frequently than quarterly or less frequently than annually. Annual reports shall be due 90 calendar days after the grant year; quarterly or semi-annual reports shall be due 30 days after the reporting period. HUD may require annual reports before the anniversary dates of multiple year awards in lieu of these requirements. The final performance reports are due 90 calendar days after the expiration or termination of the award.

(c) If inappropriate, a final technical or performance report shall not be required after completion of the project.

(d) When required, performance reports shall generally contain, for each award, brief information on each of the following:

(1) A comparison of actual accomplishments with the goals and objectives established for the period, the findings of the investigator, or both. Whenever appropriate and the output of

programs or projects can be readily quantified, such quantitative data should be related to cost data for computation of unit costs.

(2) Reasons why established goals were not met, if appropriate.

(3) Other pertinent information including, when appropriate, analysis and explanation of cost overruns or high unit costs.

(e) Recipients shall not be required to submit more than the original and two copies of performance reports.

(f) Recipients shall immediately notify HUD of developments that have a significant impact on the award-supported activities. Also, notification shall be given in the case of problems, delays, or adverse conditions which materially impair the ability to meet the objectives of the award. This notification shall include a statement of the action taken or contemplated, and any assistance needed to resolve the situation.

(g) HUD may make site visits, as needed.

(h) HUD shall comply with clearance requirements of 5 CFR part 1320 when requesting performance data from recipients.

## **§ 84.52 Financial reporting.**

(a) The following forms or such other forms as may be approved by OMB are authorized for obtaining financial information from recipients.

(1) SF-269 or SF-269A, Financial Status Report.

(i) HUD requires recipients to use the SF-269 or SF-269A to report the status of funds for all nonconstruction projects or programs. HUD has the option of not requiring the SF-269 or SF-269A when the SF-270, Request for Advance or Reimbursement, or SF-272, Report of Federal Cash Transactions, is determined to provide adequate information to meet its needs, except that a final SF-269 or SF-269A shall be required at the completion of the project when the SF-270 is used only for advances.

(ii) HUD shall prescribe whether the report shall be on a cash or accrual basis. If HUD requires accrual information and the recipient's accounting records are not normally kept on the accrual basis, the recipient shall not be required to convert its accounting system, but shall develop such accrual information through best estimates based on an analysis of the documentation on hand.

(iii) HUD shall determine the frequency of the Financial Status Report for each project or program, considering the size and complexity of the particular project or program. However, the report shall not be required more frequently than quarterly or less frequently than annually. A final report shall be required at the completion of the agreement.

(iv) HUD requires recipients to submit the SF-269 or SF-269A (an original and no more than two copies) no later than 30 days after the end of each specified reporting period for quarterly and semi-annual reports, and 90 calendar days for annual and final reports. Extensions of reporting due dates may be approved by HUD upon request of the recipient.

(2) SF-272, Report of Federal Cash Transactions.

(i) When funds are advanced to recipients HUD shall require each recipient to submit the SF-272 and, when necessary, its continuation sheet, SF-272a. HUD shall use this report to monitor cash advanced to recipients and to obtain disbursement information for each agreement with the recipients.

(ii) HUD may require forecasts of Federal cash requirements in the "Remarks" section of the report.

(iii) When practical and deemed necessary, HUD may require recipients to report in the "Remarks" section the amount of cash advances received and retained in excess of three days. Recipients shall provide short narrative explanations of actions taken to reduce the excess balances.

(iv) Recipients shall be required to submit not more than the original and two copies of the SF-272 15 calendar days following the end of each quarter. HUD may require a

monthly report from those recipients receiving advances totaling \$1 million or more per year.

(v) HUD may waive the requirement for submission of the SF-272 for any one of the following reasons:

(A) When monthly advances do not exceed \$25,000 per recipient, provided that such advances are monitored through other forms contained in this section;

(B) If, in HUD's opinion, the recipient's accounting controls are adequate to minimize excessive Federal advances; or

(C) When the electronic payment mechanisms provide adequate data.

(b) When HUD needs additional information or more frequent reports, the following shall be observed.

(1) When additional information is needed to comply with legislative requirements, HUD shall issue instructions to require recipients to submit such information under the "Remarks" section of the reports.

(2) When HUD determines that a recipient's accounting system does not meet the standards in §84.21, additional pertinent information to further monitor awards may be obtained upon written notice to the recipient until such time as the system is brought up to standard. HUD, in obtaining this information, shall comply with report clearance requirements of 5 CFR part 1320.

(3) HUD will shade out any line item on any report if not necessary.

(4) HUD may accept the identical information from the recipients in machine readable format or computer printouts or electronic outputs in lieu of prescribed formats.

(5) HUD may provide computer or electronic outputs to recipients when such expedites or contributes to the accuracy of reporting.

#### **§ 84.53 Retention and access requirements for records.**

(a) This section sets forth requirements for record retention and access to records for awards to recipients. HUD shall not impose any other record retention or access requirements upon recipients.

(b) Financial records, supporting documents, statistical records, and all other records pertinent to an award shall be retained for a period of three years from the date of submission of the final expenditure report or, for awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, as authorized by HUD. The only exceptions are the following.

(1) If any litigation, claim, or audit is started before the expiration of the 3-year period, the records shall be retained until all litigation, claims or audit findings involving the records have been resolved and final action taken.

(2) Records for real property and equipment acquired with Federal funds shall be retained for 3 years after final disposition.

(3) When records are transferred to or maintained by HUD, the 3-year retention requirement is not applicable to the recipient.

(4) Indirect cost rate proposals, cost allocation plans, etc. as specified in §84.53(g).

(c) Copies of original records may be substituted for the original records if authorized by HUD.

(d) HUD shall request transfer of certain records to its custody from recipients when it determines that the records possess long term retention value. However, in order to avoid duplicate recordkeeping, HUD may make arrangements for recipients to retain any records that are continuously needed for joint use.

(e) HUD, the Inspector General, Comptroller General of the United States, or any of their duly authorized representatives, have the right of timely and unrestricted access to any books, documents, papers, or other records of recipients that are pertinent to the awards, in order to make audits, examinations, excerpts, transcripts and copies of such documents. This right also includes timely and reasonable access to a recipient's personnel for the purpose of interview and discussion related to such documents. The rights of access in this paragraph (e) are not limited to the required retention period, but shall last as long as records are retained.



(f) Unless required by statute, HUD shall not place restrictions on recipients that limit public access to the records of recipients that are pertinent to an award, except when HUD can demonstrate that such records shall be kept confidential and would have been exempted from disclosure pursuant to the Freedom of Information Act (5 U.S.C. 552) if the records had belonged to HUD.

(g) *Indirect cost rate proposals, cost allocation plans, etc.* Paragraphs (g)(1) and (g)(2) of this section apply to the following types of documents, and their supporting records—indirect cost rate computations or proposals, cost allocation plans, and any similar accounting computations of the rate at which a particular group of costs is chargeable (such as computer usage chargeback rates or composite fringe benefit rates).

(1) *If submitted for negotiation.* If the recipient submits to HUD or the subrecipient submits to the recipient the proposal, plan, or other computation to form the basis for negotiation of the rate, then the 3-year retention period for its supporting records starts on the date of such submission.

(2) *If not submitted for negotiation.* If the recipient is not required to submit to HUD or the subrecipient is not required to submit to the recipient the proposal, plan, or other computation for negotiation purposes, then the 3-year retention period for the proposal, plan, or other computation and its supporting records starts at the end of the fiscal year (or other accounting period) covered by the proposal, plan, or other computation.

## **Termination and Enforcement**

### **§ 84.60 Purpose of termination and enforcement.**

Sections 84.61 and 84.62 set forth uniform suspension, termination and enforcement procedures.

### **§ 84.61 Termination.**

(a) Awards may be terminated in whole or in part only if paragraphs (a)(1), (a)(2) or (a)(3) of this section apply.

(1) By HUD, if a recipient materially fails to comply with the terms and conditions of an award.

(2) By HUD with the consent of the recipient, in which case the two parties shall agree upon the termination conditions, including the effective date and, in the case of partial termination, the portion to be terminated.

(3) By the recipient upon sending to HUD written notification setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion to be terminated. However, if HUD determines in the case of partial termination that the reduced or modified portion of the grant will not accomplish the purposes for which the grant was made, it may terminate the grant in its entirety under either paragraphs (a)(1) or (a)(2) of this section.

(b) If costs are allowed under an award, the responsibilities of the recipient referred to in §84.71(a), including those for property management as applicable, shall be considered in the termination of the award, and provision shall be made for continuing responsibilities of the recipient after termination, as appropriate.

### **§ 84.62 Enforcement.**

(a) *Remedies for noncompliance.* If a recipient materially fails to comply with the terms and conditions of an award, whether stated in a Federal statute, regulation, assurance, application, or notice of award, HUD may, in addition to imposing any of the special conditions outlined in §84.14, take one or more of the following actions, as appropriate in the circumstances.

(1) Temporarily withhold cash payments pending correction of the deficiency by the recipient or more severe enforcement action by HUD.

(2) Disallow (that is, deny both use of funds and any applicable matching credit for) all or part of the cost of the activity or action not in compliance.

- (3) Wholly or partly suspend or terminate the current award.
- (4) Withhold further awards for the project or program.
- (5) Take other remedies that may be legally available.
- (b) *Hearings and appeals.* In taking an enforcement action, HUD shall provide the recipient an opportunity for hearing, appeal, or other administrative proceeding to which the recipient is entitled under any statute or regulation applicable to the action involved.
- (c) *Effects of suspension and termination.* Costs of a recipient resulting from obligations incurred by the recipient during a suspension or after termination of an award are not allowable unless HUD expressly authorizes them in the notice of suspension or termination or subsequently. Other recipient costs during suspension or after termination which are necessary and not reasonably avoidable are allowable if paragraphs (c)(1) and (c)(2) of this section apply.
  - (1) The costs result from obligations which were properly incurred by the recipient before the effective date of suspension or termination, are not in anticipation of it, and in the case of a termination, are noncancellable.
  - (2) The costs would be allowable if the award were not suspended or expired normally at the end of the funding period in which the termination takes effect.
- (d) *Relationship to debarment and suspension.* The enforcement remedies identified in this section, including suspension and termination, do not preclude a recipient from being subject to debarment and suspension under E.O.s 12549 and 12689 and HUD's implementing regulations at 24 CFR part 24 (see §84.13).

## **Subpart D—After-the-Award Requirements**

### **§ 84.70 Purpose.**

Sections 84.71 through 84.73 contain closeout procedures and other procedures for subsequent disallowances and adjustments.

### **§ 84.71 Closeout procedures.**

- (a) Recipients shall submit, within 90 calendar days after the date of completion of the award, all financial, performance, and other reports as required by the terms and conditions of the award. HUD may approve extensions when requested by the recipient.
- (b) Unless HUD authorizes an extension, a recipient shall liquidate all obligations incurred under the award not later than 90 calendar days after the funding period or the date of completion as specified in the terms and conditions of the award or in HUD instructions.
- (c) HUD shall make prompt payments to a recipient for allowable reimbursable costs under the award being closed out.
- (d) The recipient shall promptly refund any balances of unobligated cash that HUD has advanced or paid and that is not authorized to be retained by the recipient for use in other projects. OMB Circular A-129 governs unreturned amounts that become delinquent debts.
- (e) When authorized by the terms and conditions of the award, HUD shall make a settlement for any upward or downward adjustments to the Federal share of costs after closeout reports are received.
- (f) The recipient shall account for any real and personal property acquired with Federal funds or received from the Federal Government in accordance with §§84.31 through 84.37.
- (g) In the event a final audit has not been performed prior to the closeout of an award, HUD shall retain the right to recover an appropriate amount after fully considering the recommendations on disallowed costs resulting from the final audit.

### **§ 84.72 Subsequent adjustments and continuing responsibilities.**

- (a) The closeout of an award does not affect any of the following.
  - (1) The right of HUD to disallow costs and recover funds on the basis of a later audit or other review.

- (2) The obligation of the recipient to return any funds due as a result of later refunds, corrections, or other transactions.
  - (3) Audit requirements in §84.26.
  - (4) Property management requirements in §§84.31 through 84.37.
  - (5) Records retention as required in §84.53.
- (b) After closeout of an award, a relationship created under an award may be modified or ended in whole or in part with the consent of HUD and the recipient, provided the responsibilities of the recipient referred to in §84.73(a), including those for property management as applicable, are considered and provisions made for continuing responsibilities of the recipient, as appropriate.

#### **§ 84.73 Collection of amounts due.**

- (a) Any funds paid to a recipient in excess of the amount to which the recipient is finally determined to be entitled under the terms and conditions of the award constitute a debt to the Federal Government. If not paid within a reasonable period after the demand for payment, HUD may reduce the debt by paragraphs (a)(1), (a)(2) or (a)(3) of this section.
- (1) Making an administrative offset against other requests for reimbursements.
  - (2) Withholding advance payments otherwise due to the recipient.
  - (3) Taking other action permitted by statute.
- (b) Except as otherwise provided by law, HUD shall charge interest on an overdue debt in accordance with 4 CFR Chapter II, "Federal Claims Collection Standards."

#### **Subpart E—Use of Lump Sum Grants**

#### **§ 84.80 Conditions for use of Lump Sum (fixed price or fixed amount) grants.**

- (a) Heads of awarding activities (HAAs) shall determine and publish the funding arrangement for award programs having a published program regulation or Notice of Funding Availability. For other awards, discretion may be provided to Grant Officers to determine the funding arrangement on a transaction basis. In such cases, Grant Officers shall document the basis for selection of the funding arrangement in the negotiation record. Appropriate consideration to fixed amount (lump sum) awards shall be made if one or more of the following conditions are present:
- (1) The HUD funding amount is definitely less than the total actual cost of the project.
  - (2) The HUD funding amount does not exceed \$100,000 or the small purchase threshold fixed at 41 U.S.C. 403 (11), whichever is greater.
  - (3) The project scope is very specific and adequate cost, historical, or unit pricing data is available to establish a fixed amount award with assurance that the recipient will realize no increment above actual cost.
- (b) [Reserved]

#### **§ 84.81 Definition.**

- (a) A lump sum award is an award for a predetermined amount, as set forth in the grant agreement, which amount does not vary with the amount of the recipient's actual incurred costs. Under this type of award, HUD does not pay the recipient for its incurred costs but rather for completing certain defined events in the work or achievement of some other well-defined milestone. Some of the ways in which the grant amount may be paid are, but are not limited to:
- (1) In several partial payments, the amount of each agreed upon in advance, and the "milestone" or event triggering the payment also agreed upon in advance, and set forth in the grant;
  - (2) On a unit price basis, for a defined unit or units (such as a housing counseling unit), at a defined price or prices, agreed to in advance of performance of the grant and set forth in the grant; or,
  - (3) In one payment at grant completion.

(b) The key distinction between a lump sum and a cost reimbursement grant is the lack of a direct relationship between the costs incurred by the recipient and the amount paid by HUD in the lump sum arrangement.

#### **§ 84.82 Provisions applicable only to lump sum grants.**

In addition to the provisions of this subpart E, subparts A and B of this part apply to lump sum grants.

(a) *Financial and program management.* Paragraphs (b) through (e) of this section prescribe standards for financial management systems, methods for making payments, budget revision approvals, and making audits.

(b) *Standards for financial management systems.*

(1) Records that identify adequately the source and application of funds for federally-sponsored activities are required. These records shall contain information pertaining to Federal awards, authorizations, obligations, unobligated balances, assets, outlays, income and interest.

(2) Effective control over and accountability for all funds, property and other assets are required. Recipients shall adequately safeguard all such assets and assure they are used solely for authorized purposes.

(3) Comparison of outlays with budget amounts for each award is required. Whenever appropriate, financial information should be related to performance and unit cost data.

(4) Where HUD guarantees or insures the repayment of money borrowed by the recipient, HUD, at its discretion, may require adequate bonding and insurance if the bonding and insurance requirements of the recipient are not deemed adequate to protect the interest of the Federal Government.

(5) HUD may require adequate fidelity bond coverage where the recipient lacks sufficient coverage to protect the Federal Government's interest.

(6) Where bonds are required in the situations described above, the bonds shall be obtained from companies holding certificates of authority as acceptable sureties, as prescribed in 31 CFR part 223, "Surety Companies Doing Business with the United States."

(c) *Payment.*

(1) The standard governing the use of banks and other institutions as depositories of funds advanced under awards is, HUD shall not require separate depository accounts for funds provided to a recipient or establish any eligibility requirements for depositories for funds provided to a recipient. However, recipients must be able to account for the receipt, obligation and expenditure of funds.

(2) Consistent with the national goal of expanding the opportunities for women-owned and minority-owned business enterprises, recipients shall be encouraged to use women-owned and minority-owned banks (a bank which is owned at least 50 percent by women or minority group members).

(3) Except as noted elsewhere in this part, only the following forms shall be authorized for the recipients in requesting payments. HUD shall not require more than an original and two copies of these forms.

(i) *SF-270, Request for Advance or Reimbursement.* HUD has adopted the SF-270 as a standard form for all non-construction programs when electronic funds transfer or predetermined advance methods are not used. The SF-270 shall also be used for lump sum payment requests. HUD, however, has the option of using this form for construction programs in lieu of the SF-271, "Outlay Report and Request for Reimbursement for Construction Programs."

(ii) *SF-271, Outlay Report and Request for Reimbursement for Construction Programs.* HUD has adopted the SF-271 as the standard form to be used for requesting reimbursement for construction programs. However, HUD may substitute the SF-270 when HUD determines that it provides adequate information to meet HUD's needs.

(d) *Revision of budget and program plans.*

(1) The budget plan is the financial expression of the project or program as approved during the award process. It may include either the Federal and non-Federal share, or only the

Federal share, depending upon HUD requirements. It shall be related to performance for program evaluation purposes whenever appropriate.

(2) Recipients are required to report deviations from program plans, and request prior approvals for budget and program plan revisions, in accordance with this section.

(3) For non-construction awards, recipients shall request prior approvals from HUD for one or more of the following program or budget related reasons.

(i) Change in the scope or the objective of the project or program (even if there is no associated budget revision requiring prior written approval).

(ii) The need for additional Federal funding.

(iii) Unless described in the application and funded in the approved awards, the subaward, transfer or contracting out of any work under an award. This provision does not apply to the purchase of supplies, material, equipment or general support services.

(4) No other prior approval requirements for specific items may be imposed unless a deviation has been approved by OMB.

(5) Except for requirements listed in paragraphs (d)(3)(i) and (d)(3)(ii) of this section, HUD is authorized, at its option, to waive cost-related and administrative prior written approvals required by Circular A-110 and OMB Circulars A-21 and A-122. Such waivers may include authorizing recipients to do any one or more of the following.

(i) Initiate a one-time extension of the expiration date of the award of up to 12 months unless one or more of the following conditions apply. For one-time extensions, the recipient must notify HUD in writing with the supporting reasons and revised expiration date at least 10 days before the expiration date specified in the award. This action may be taken unless:

(A) The terms and conditions of award prohibit the extension.

(B) The extension requires additional Federal funds.

(C) The extension involves any change in the approved objectives or scope of the project.

(6) For construction awards, recipients shall request prior written approval promptly from HUD for budget revisions whenever paragraphs (d)(6)(i) or (d)(6)(ii) of this section apply.

(i) The revision results from changes in the scope or the objective of the project or program.

(ii) The need arises for additional Federal funds to complete the project.

(7) No other prior approval requirements for specific items may be imposed unless a deviation has been approved by OMB.

(8) When HUD makes an award that provides support for both construction and nonconstruction work, HUD may require the recipient to request prior approval from HUD before making any fund or budget transfers between the two types of work supported.

(e) *Non-Federal audits.*

(1) Recipients and subrecipients that are institutions of higher education or other non-profit organizations (including hospitals) shall be subject to the audit requirements contained in the Single Audit Act Amendments of 1996 (31 U.S.C. 7501-7507) and revised OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

(i) Non-profit organizations subject to regulations in the part 200 and part 800 series of this title which receive awards subject to part 84 shall comply with the audit requirements of revised OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations." For HUD programs, a non-profit organization is the mortgagor or owner (as these terms are defined in the regulations in the part 200 and part 800 series) and not a related or affiliated organization or entity.

(ii) [Reserved]

(2) State and local governments shall be subject to the audit requirements contained in the Single Audit Act Amendments of 1996 (31 U.S.C. 7501-7507) and revised OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

(3) For-profit hospitals not covered by the audit provisions of revised OMB Circular A-133 shall be subject to the audit requirements of the Federal awarding agencies.

(4) Commercial organizations shall be subject to the audit requirements of HUD or the prime recipient as incorporated into the award document.

### § 84.83 Property standards.

(a) *Purpose of property standards.* Paragraphs (b) through (g) of this section set forth uniform standards governing management and disposition of property furnished by the Federal Government whose cost was charged to a project supported by a Federal award. HUD shall require recipients to observe these standards under awards and shall not impose additional requirements, unless specifically required by Federal statute. The recipient may use its own property management standards and procedures provided it observes the provisions of paragraphs (b) through (g) of this section.

(b) *Insurance coverage.* Recipients shall, at a minimum, provide the equivalent insurance coverage for real property and equipment acquired with Federal funds as provided to property owned by the recipient. Federally-owned property need not be insured unless required by the terms and conditions of the award.

(c) *Real property.* HUD prescribes the following requirements for recipients concerning the use and disposition of real property acquired in whole or in part under awards:

(1) Title to real property shall vest in the recipient subject to the condition that the recipient shall use the real property for the authorized purpose of the project as long as it is needed and shall not encumber the property without approval of HUD.

(2) The recipient shall obtain written approval by HUD for the use of real property in other federally-sponsored projects when the recipient determines that the property is no longer needed for the purpose of the original project. Use in other projects shall be limited to those under federally-sponsored projects (i.e., awards) or programs that have purposes consistent with those authorized for support by HUD.

(d) *Federally-owned and exempt property—*

(1) *Federally-owned property—*

(i) *Title to federally-owned property remains vested in the Federal Government.*

Recipients shall submit annually an inventory listing of federally-owned property in their custody to HUD. Upon completion of the award or when the property is no longer needed, the recipient shall report the property to HUD for further HUD utilization.

(ii) If HUD has no further need for the property, it shall be declared excess and reported to the General Services Administration, unless HUD has statutory authority to dispose of the property by alternative methods (e.g., the authority provided by the Federal Technology Transfer Act (15 U.S.C. 3710 (l)) to donate research equipment to educational and non-profit organizations in accordance with E.O. 12821, "Improving Mathematics and Science Education in Support of the National Education Goals.")

Appropriate instructions shall be issued to the recipient by HUD.

(2) *Exempt property.* When statutory authority exists, HUD has the option to vest title to property acquired with Federal funds in the recipient without further obligation to the Federal Government and under conditions HUD considers appropriate. Such property is "exempt property." Should HUD not establish conditions, title to exempt property upon acquisition shall vest in the recipient without further obligation to the Federal Government.

(e) *Equipment.*

(1) Title to equipment acquired by a recipient with Federal funds shall vest in the recipient, subject to conditions of this section.

(2) The recipient shall use the equipment in the project or program for which it was acquired as long as needed, whether or not the project or program continues to be supported by Federal funds and shall not encumber the equipment without approval of HUD. When the equipment is no longer needed for the original project or program, the recipient shall use the equipment in connection with its other federally-sponsored activities, in the following order of priority:

(i) Activities sponsored by HUD which funded the original project; then

(ii) Activities sponsored by other Federal awarding agencies.

(3) During the time that equipment is used on the project or program for which it was acquired, the recipient shall make it available for use on other projects or programs if such other use will not interfere with the work on the project or program for which the equipment was originally acquired. First preference for such other use shall be given to other projects or

programs sponsored by HUD that financed the equipment; second preference shall be given to projects or programs sponsored by other Federal awarding agencies. If the equipment is owned by the Federal Government, use on other activities not sponsored by the Federal Government shall be permissible if authorized by HUD.

(4) The recipient's property management standards for equipment acquired with Federal funds and federally-owned equipment shall include all of the following.

(i) Equipment records shall be maintained accurately and shall include the following information.

(A) A description of the equipment.

(B) Manufacturer's serial number, model number, Federal stock number, national stock number, or other identification number.

(C) Source of the equipment, including the award number.

(D) Whether title vests in the recipient or the Federal Government.

(E) Acquisition date (or date received, if the equipment was furnished by the Federal Government) and cost.

(F) Location and condition of the equipment and the date the information was reported.

(ii) Equipment owned by the Federal Government shall be identified to indicate Federal ownership.

(iii) A physical inventory of equipment shall be taken and the results reconciled with the equipment records at least once every two years. Any differences between quantities determined by the physical inspection and those shown in the accounting records shall be investigated to determine the causes of the difference. The recipient shall, in connection with the inventory, verify the existence, current utilization, and continued need for the equipment.

(iv) A control system shall be in effect to insure adequate safeguards to prevent loss, damage, or theft of the equipment. Any loss, damage, or theft of equipment shall be investigated and fully documented; if the equipment was owned by the Federal Government, the recipient shall promptly notify HUD.

(v) Adequate maintenance procedures shall be implemented to keep the equipment in good condition.

(5) HUD may reserve the right to transfer the title to the Federal Government or to a third party named by the Federal Government when such third party is otherwise eligible under existing statutes. Such transfer shall be subject to the following standards.

(i) The equipment shall be appropriately identified in the award or otherwise made known to the recipient in writing.

(ii) HUD shall issue disposition instructions within 120 calendar days after receipt of a final inventory. The final inventory shall list all equipment acquired with grant funds and federally-owned equipment. If HUD fails to issue disposition instructions within the 120 calendar day period, the recipient shall apply the standards of this section, as appropriate.

(iii) When HUD exercises its right to take title, the equipment shall be subject to the provisions for federally-owned equipment.

(f) *Intangible property.*

(1) The recipient may copyright any work that is subject to copyright and was developed, or for which ownership was purchased, under an award. HUD reserves a royalty-free, nonexclusive and irrevocable right to reproduce, publish, or otherwise use the work for Federal purposes, and to authorize others to do so.

(2) Recipients are subject to applicable regulations governing patents and inventions, including government-wide regulations issued by the Department of Commerce at 37 CFR part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements."

(3) Unless waived by HUD, the Federal Government has the right to paragraphs (f)(3)(i) and (f)(3)(ii) of this section.

(i) Obtain, reproduce, publish or otherwise use the data first produced under an award.

(ii) Authorize others to receive, reproduce, publish, or otherwise use such data for Federal purposes.

(4) Title to intangible property and debt instruments acquired under an award or subaward vests upon acquisition in the recipient. The recipient shall use that property for the originally-authorized purpose.

(g) *Property trust relationship.* Real property, equipment, intangible property and debt instruments that are acquired or improved with Federal funds shall be held in trust by the recipient as trustee for the beneficiaries of the project or program under which the property was acquired or improved. HUD may require recipients to record liens or other appropriate notices of record to indicate that personal or real property has been acquired or improved with Federal funds and that use and disposition conditions apply to the property.

#### **§ 84.84 Procurement standards.**

(a) *Purpose of procurement standards.* Paragraphs (b) through (i) of this section set forth standards for use by recipients in establishing procedures for the procurement of supplies and other expendable property, equipment, real property and other services with Federal funds. These standards are furnished to ensure that such materials and services are obtained in an effective manner and in compliance with the provisions of applicable Federal statutes and executive orders. No additional procurement standards or requirements shall be imposed by HUD upon recipients, unless specifically required by Federal statute or executive order or approved by OMB.

(b) *Recipient responsibilities.* The standards contained in this section do not relieve the recipient of the contractual responsibilities arising under its contract(s). The recipient is the responsible authority, without recourse to HUD, regarding the settlement and satisfaction of all contractual and administrative issues arising out of procurements entered into in support of an award or other agreement. This includes disputes, claims, protests of award, source evaluation or other matters of a contractual nature. Matters concerning violation of statute are to be referred to such Federal, State or local authority as may have proper jurisdiction.

(c) *Codes of conduct.* The recipient shall maintain written standards of conduct governing the performance of its employees engaged in the award and administration of contracts. 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. Such a conflict would arise when the employee, officer, or agent, any member of his or her immediate family, his or her partner, or an organization which employs or is about to employ any of the parties indicated herein, has a financial or other interest in the firm selected for an award. The officers, employees, and agents of the recipient shall neither solicit nor accept gratuities, favors, or anything of monetary value from contractors, or parties to sub-agreements. However, recipients may set standards for situations in which the financial interest is not substantial or the gift is an unsolicited item of nominal value. The standards of conduct shall provide for disciplinary actions to be applied for violations of such standards by officers, employees, or agents of the recipient.

(d) *Competition.* All procurement transactions shall be conducted in a manner to provide, to the maximum extent practical, open and free competition. The recipient shall be alert to organizational conflicts of interest as well as noncompetitive practices among contractors that may restrict or eliminate competition or otherwise restrain trade. In order to ensure objective contractor performance and eliminate unfair competitive advantage, contractors that develop or draft specifications, requirements, statements of work, invitations for bids and/or requests for proposals shall be excluded from competing for such procurements. Awards shall be made to the bidder or offeror whose bid or offer is responsive to the solicitation and is most advantageous to the recipient, price, quality and other factors considered. The other factors shall include the bidder's or offeror's compliance with Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u), hereafter referred to as "Section 3." Section 3 provides that, to the greatest extent feasible, and consistent with existing Federal, State, and local laws, and regulations, economic opportunities generated by certain HUD financial assistance shall be directed to low- and very low-income persons. Solicitations shall clearly set forth all requirements that the bidder or offeror shall fulfill in order for the bid or offer to be evaluated by the recipient. Any and all bids or offers may be rejected when it is in the recipient's interest to do so.



(e) *Procurement procedures.*

(1) All recipients shall establish written procurement procedures. These procedures shall provide for, at a minimum, that paragraphs (e)(1)(i), (e)(1)(ii) and (e)(1)(iii) of this section apply.

(i) Recipients avoid purchasing unnecessary items.

(ii) Where appropriate, an analysis is made of lease and purchase alternatives to determine which would be the most economical and practical procurement for the recipient.

(iii) Solicitations for goods and services provide for all of the following.

(A) A clear and accurate description of the technical requirements for the material, product or service to be procured. In competitive procurements, such a description shall not contain features which unduly restrict competition.

(B) Requirements which the bidder/offeror must fulfill and all other factors to be used in evaluating bids or proposals.

(C) A description, whenever practicable, of technical requirements in terms of functions to be performed or performance required, including the range of acceptable characteristics or minimum acceptable standards.

(D) The specific features of "brand name or equal" descriptions that bidders are required to meet when such items are included in the solicitation.

(E) The acceptance, to the extent practicable and economically feasible, of products and services dimensioned in the metric system of measurement.

(F) Preference, to the extent practicable and economically feasible, for products and services that conserve natural resources and protect the environment and are energy efficient.

(2) Positive efforts shall be made by recipients to utilize small businesses, minority-owned firms, and women's business enterprises, whenever possible. Recipients of Federal awards shall take all of the following steps to further this goal.

(i) Ensure that small businesses, minority-owned firms, and women's business enterprises are used to the fullest extent practicable.

(ii) Make information on forthcoming opportunities available and arrange time frames for purchases and contracts to encourage and facilitate participation by small businesses, minority-owned firms, and women's business enterprises.

(iii) Consider in the contract process whether firms competing for larger contracts intend to subcontract with small businesses, minority-owned firms, and women's business enterprises.

(iv) Encourage contracting with consortiums of small businesses, minority-owned firms and women's business enterprises when a contract is too large for one of these firms to handle individually.

(v) Use the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Department of Commerce's Minority Business Development Agency in the solicitation and utilization of small businesses, minority-owned firms and women's business enterprises.

(3) The type of procuring instruments used (e.g., fixed price contracts, cost reimbursable contracts, purchase orders, and incentive contracts) shall be determined by the recipient but shall be appropriate for the particular procurement and for promoting the best interest of the program or project involved. The "cost-plus-a-percentage-of-cost" or "percentage of construction cost" methods of contracting shall not be used.

(4) Contracts shall be made only with responsible contractors who possess the potential ability to perform successfully under the terms and conditions of the proposed procurement. Consideration shall be given to such matters as contractor integrity; compliance with public policy, including, where applicable, Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u); record of past performance; financial and technical resources or accessibility to other necessary resources. In certain circumstances, contracts with certain parties are restricted by agencies' implementation of E.O.'s 12549 and 12689, "Debarment and Suspension," as set forth at 24 CFR part 24.

(5) Recipients shall, on request, make available for the Federal awarding agency, pre-award review and procurement documents, such as requests for proposals or invitations for bids, independent cost estimates, etc., when any of the following conditions apply.

(i) A recipient's procurement procedures or operation fails to comply with the procurement standards in HUD's implementation of Circular A-110.

(ii) The procurement is expected to exceed \$100,000 or the small purchase threshold fixed at 41 U.S.C. 403 (11), whichever is greater, and is to be awarded without competition or only one bid or offer is received in response to a solicitation.

(iii) The procurement, which is expected to exceed the small purchase threshold, specifies a "brand name" product.

(iv) The proposed award over the small purchase threshold is to be awarded to other than the apparent low bidder under a sealed bid procurement.

(v) A proposed contract modification changes the scope of a contract or increases the contract amount by more than the amount of the small purchase threshold.

(f) *Cost and price analysis.* Some form of cost or price analysis shall be made and documented in the procurement files in connection with every procurement action. Price analysis may be accomplished in various ways, including the comparison of price quotations submitted, market prices and similar indicia, together with discounts. Cost analysis is the review and evaluation of each element of cost to determine reasonableness, allocability and allowability.

(g) *Procurement records.* Procurement records and files for purchases in excess of the small purchase threshold shall include the following at a minimum:

(1) Basis for contractor selection;

(2) Justification for lack of competition when competitive bids or offers are not obtained; and

(3) Basis for award cost or price.

(h) *Contract administration.* A system for contract administration shall be maintained to ensure contractor conformance with the terms, conditions and specifications of the contract and to ensure adequate and timely follow up of all purchases. Recipients shall evaluate contractor performance and document, as appropriate, whether contractors have met the terms, conditions and specifications of the contract.

(i) *Contract provisions.* The recipient shall include, in addition to provisions to define a sound and complete agreement, the following provisions in all contracts. The following provisions shall also be applied to subcontracts.

(1) Contracts in excess of the small purchase threshold shall contain contractual provisions or conditions that allow for administrative, contractual, or legal remedies in instances in which a contractor violates or breaches the contract terms, and provide for such remedial actions as may be appropriate.

(2) All contracts in excess of the small purchase threshold shall contain suitable provisions for termination by the recipient, including the manner by which termination shall be effected and the basis for settlement. In addition, such contracts 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.

(3) Except as otherwise required by statute, an award that requires the contracting (or subcontracting) for construction or facility improvements shall provide for the recipient to follow its own requirements relating to bid guarantees, performance bonds, and payment bonds unless the construction contract or subcontract exceeds \$100,000. For those contracts or subcontracts exceeding \$100,000, HUD may accept the bonding policy and requirements of the recipient, provided HUD has made a determination that the Federal Government's interest is adequately protected. If such a determination has not been made, the minimum requirements shall be as follows:

(i) A bid guarantee from each bidder equivalent to five percent of the bid price. The "bid guarantee" shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder shall, upon acceptance of his bid, execute such contractual documents as may be required within the time specified.

(ii) A performance bond on the part of the contractor for 100 percent of the contract price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.

- (iii) A payment bond on the part of the contractor for 100 percent of the contract price. A "payment bond" is one executed in connection with a contract to assure payment as required by statute of all persons supplying labor and material in the execution of the work provided for in the contract.
- (iv) Where bonds are required in the situations described herein, the bonds shall be obtained from companies holding certificates of authority as acceptable sureties pursuant to 31 CFR part 223, "Surety Companies Doing Business with the United States."
- (4) All negotiated contracts (except those for less than the small purchase threshold) awarded by recipients shall include a provision to the effect that the recipient, HUD, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers and records of the contractor which are directly pertinent to a specific program for the purpose of making audits, examinations, excerpts and transcriptions.
- (5) All contracts, including small purchases, awarded by recipients and their contractors shall contain the procurement provisions of Appendix A to this rule, as applicable.

#### **§ 84.85 Reports and records.**

(a) *Purpose of reports and records.* Paragraphs (b) and (c) of this section set forth the procedures for monitoring and reporting on the recipient's financial and program performance and the necessary standard reporting forms. They also set forth record retention requirements.

(b) *Monitoring and reporting program performance.*

- (1) Recipients are responsible for managing and monitoring each project, program, subaward, function or activity supported by the award. Recipients shall monitor subawards to ensure subrecipients have met the audit requirements as delineated in §84.82(e).
- (2) The Federal awarding agency shall prescribe the frequency with which the performance reports shall be submitted. Except as provided in paragraph (b)(6) of this section, performance reports shall not be required more frequently than quarterly or less frequently than annually. Annual reports shall be due 90 calendar days after the grant year; quarterly or semi-annual reports shall be due 30 days after the reporting period. The Federal awarding agency may require annual reports before the anniversary dates of multiple year awards in lieu of these requirements. The final performance reports are due 90 calendar days after the expiration or termination of the award.
- (3) If inappropriate, a final technical or performance report shall not be required after completion of the project.
- (4) When required, performance reports shall generally contain, for each award, brief information on each of the following:
  - (i) A comparison of actual accomplishments with the goals and objectives established for the period, the findings of the investigator, or both. Whenever appropriate and the output of programs or projects can be readily quantified, such quantitative data should be related to cost data for computation of unit costs.
  - (ii) Reasons why established goals were not met, if appropriate.
- (5) Recipients shall not be required to submit more than the original and two copies of performance reports.
- (6) Recipients shall immediately notify HUD of developments that have a significant impact on the award-supported activities. Also, notification shall be given in the case of problems, delays, or adverse conditions which materially impair the ability to meet the objectives of the award. This notification shall include a statement of the action taken or contemplated, and any assistance needed to resolve the situation.
- (7) HUD may make site visits, as needed.
- (8) HUD shall comply with clearance requirements of 5 CFR part 1320 when requesting performance data from recipients.

(c) *Retention and access requirements for records.*

- (1) This paragraph (c) sets forth requirements for record retention and access to records for awards to recipients. Federal awarding agencies shall not impose any other record retention or access requirements upon recipients.

(2) Financial records, supporting documents, statistical records, and all other records pertinent to an award shall be retained for a period of three years from the date of submission of the final expenditure report or, for awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, as authorized by HUD. The only exceptions are the following.

(i) If any litigation, claim, or audit is started before the expiration of the 3-year period, the records shall be retained until all litigation, claims or audit findings involving the records have been resolved and final action taken.

(ii) Records for real property and equipment acquired with Federal funds shall be retained for 3 years after final disposition.

(iii) When records are transferred to or maintained by the Federal awarding agency, the 3-year retention requirement is not applicable to the recipient.

(3) Copies of original records may be substituted for the original records if authorized by HUD.

(4) HUD shall request transfer of certain records to its custody from recipients when it determines that the records possess long term retention value. However, in order to avoid duplicate recordkeeping, HUD may make arrangements for recipients to retain any records that are continuously needed for joint use.

(5) HUD, the Inspector General, Comptroller General of the United States, or any of their duly authorized representatives, have the right of timely and unrestricted access to any books, documents, papers, or other records of recipients that are pertinent to the awards, in order to make audits, examinations, excerpts, transcripts and copies of such documents. This right also includes timely and reasonable access to a recipient's personnel for the purpose of interview and discussion related to such documents. The rights of access in this paragraph (c)(5) are not limited to the required retention period, but shall last as long as records are retained.

(6) Unless required by statute, HUD shall not place restrictions on recipients that limit public access to the records of recipients that are pertinent to an award, except when HUD can demonstrate that such records shall be kept confidential and would have been exempted from disclosure pursuant to the Freedom of Information Act (5 U.S.C. 552) if the records had belonged to HUD.

#### **§ 84.86 Termination and enforcement.**

##### **(a) Termination.**

(1) Awards may be terminated in whole or in part only if paragraphs (a)(1)(i), (a)(1)(ii), or (a)(1)(iii) of this section apply.

(i) By HUD, if a recipient materially fails to comply with the terms and conditions of an award.

(ii) By HUD with the consent of the recipient, in which case the two parties shall agree upon the termination conditions, including the effective date and, in the case of partial termination, the portion to be terminated.

(iii) By the recipient upon sending to HUD written notification setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion to be terminated. However, if HUD determines in the case of partial termination that the reduced or modified portion of the grant will not accomplish the purposes for which the grant was made, it may terminate the grant in its entirety under either paragraphs (a)(1)(i) or (a)(1)(ii) of this section.

(2) If costs are allowed under an award, the responsibilities of the recipient referred to in §84.87(a)(1), including those for property management as applicable, shall be considered in the termination of the award, and provision shall be made for continuing responsibilities of the recipient after termination, as appropriate.

(3) If costs are allowed, the cost principles in §84.27 apply, even though the award was made on a lump-sum basis. Alternatively, a termination settlement may be reached by prorating the grant amount against the percentage of completion or by some other method as determined

by the Grant Officer, as long as the method used results in an equitable settlement to both parties.

(b) *Enforcement—*

(1) *Remedies for noncompliance.* If a recipient materially fails to comply with the terms and conditions of an award, whether stated in a Federal statute, regulation, assurance, application, or notice of award, HUD may, in addition to imposing any of the special conditions outlined in §84.14, take one or more of the following actions, as appropriate in the circumstances.

(i) Temporarily withhold cash payments pending correction of the deficiency by the recipient or more severe enforcement action by HUD.

(ii) Wholly or partly suspend or terminate the current award.

(iii) Withhold further awards for the project or program.

(iv) Take other remedies that may be legally available.

(2) *Hearings and appeals.* In taking an enforcement action, HUD shall provide the recipient an opportunity for hearing, appeal, or other administrative proceeding to which the recipient is entitled under any statute or regulation applicable to the action involved.

(3) *Effects of suspension and termination.* Costs of a recipient resulting from obligations incurred by the recipient during a suspension or after termination of an award are not allowable unless HUD expressly authorizes them in the notice of suspension or termination or subsequently. Other recipient costs during suspension or after termination which are necessary and not reasonably avoidable are allowable if paragraphs (b)(3)(i) and (b)(3)(ii) of this section apply.

(i) The costs result from obligations which were properly incurred by the recipient before the effective date of suspension or termination, are not in anticipation of it, and in the case of a termination, are noncancellable.

(ii) The costs would be allowable if the award were not suspended or expired normally at the end of the funding period in which the termination takes effect.

(4) *Relationship to debarment and suspension.* The enforcement remedies identified in this section, including suspension and termination, do not preclude a recipient from being subject to debarment and suspension under E.O.s 12549 and 12689 and HUD's implementing regulations at 24 CFR part 24 (see §84.13).

**§ 84.87 Closeout procedures, subsequent adjustments and continuing responsibilities.**

(a) *Closeout procedures.*

(1) Recipients shall submit, within 90 calendar days after the date of completion of the award, all financial, performance, and other reports as required by the terms and conditions of the award. HUD may approve extensions when requested by the recipient.

(2) The recipient shall account for any real and personal property acquired with Federal funds or received from the Federal Government in accordance with §§84.83(b) through (g).

(b) *Subsequent adjustments and continuing responsibilities.*

(1) The closeout of an award does not affect any of the following:

(i) Audit requirements in §84.26.

(ii) Property management requirements in §§84.83(b) through (g).

(iii) Records retention as required in §84.53.

(2) After closeout of an award, a relationship created under an award may be modified or ended in whole or in part with the consent of HUD and the recipient, provided the responsibilities of the recipient are considered and provisions made for continuing responsibilities of the recipient, as appropriate.

**Appendix A to Part 84—Contract Provisions**

All contracts, awarded by a recipient including small purchases, shall contain the following provisions as applicable:

1. *Equal Employment Opportunity*—All contracts shall contain a provision requiring compliance with E.O. 11246, “Equal Employment Opportunity,” as amended by E.O. 11375, “Amending Executive Order 11246 Relating to Equal Employment Opportunity,” and as supplemented by regulations at 41 CFR part 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.”

2. *Copeland “Anti-Kickback” Act (18 U.S.C. 874 and 40 U.S.C. 276c)*—All contracts and subgrants in excess of \$2000 for construction or repair awarded by recipients and subrecipients shall include a provision for compliance with the Copeland “Anti-Kickback” Act (18 U.S.C. 874), as supplemented by Department of Labor regulations (29 CFR part 3, “Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States”). The Act provides that each contractor or subrecipient shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he is otherwise entitled. The recipient shall report all suspected or reported violations to HUD.

3. *Davis-Bacon Act, as amended (40 U.S.C. 276a to a-7)*—When required by Federal program legislation, all construction contracts awarded by the recipients and subrecipients of more than \$2000 shall include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 276a to a-7) and as supplemented by Department of Labor regulations (29 CFR part 5, “Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction”). Under this Act, contractors shall be required to pay wages to laborers and mechanics at a rate not less than the minimum wages specified in a wage determination made by the Secretary of Labor. In addition, contractors shall be required to pay wages not less than once a week. The recipient shall place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation and the award of a contract shall be conditioned upon the acceptance of the wage determination. The recipient shall report all suspected or reported violations to HUD.

4. *Contract Work Hours and Safety Standards Act (40 U.S.C. 327 through 333)*—Where applicable, all contracts awarded by recipients in excess of \$2000 for construction contracts and in excess of \$2500 for other contracts that involve the employment of mechanics or laborers shall include a provision for compliance with Sections 102 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327–333), as supplemented by Department of Labor regulations (29 CFR part 5). Under Section 102 of the Act, each contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard workweek of 40 hours. Work in excess of the standard workweek is permissible provided that the worker is compensated at a rate of not less than 1 1/2 times the basic rate of pay for all hours worked in excess of 40 hours in the workweek. Section 107 of the Act is applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

5. *Rights to Inventions Made Under a Contract or Agreement*—Contracts or agreements for the performance of experimental, developmental, or research work shall provide for the rights of the Federal Government and the recipient in any resulting invention in accordance with 37 CFR part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by HUD.

6. *Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.)*, as amended—Contracts and subgrants of amounts in excess of \$100,000 shall contain a provision that requires the recipient to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.) and the

Federal Water Pollution Control Act as amended (33 U.S.C. 1251 *et seq.*). Violations shall be reported to HUD and the Regional Office of the Environmental Protection Agency (EPA).

7. *Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)*—Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

8. *Debarment and Suspension (E.O.s 12549 and 12689)*—No contract shall be made to parties listed on the General Services Administration's List of Parties Excluded from Federal Procurement or Nonprocurement Programs in accordance with E.O.s 12549 and 12689, "Debarment and Suspension," as set forth at 24 CFR part 24. This list contains the names of parties debarred, suspended, or otherwise excluded by agencies, and contractors declared ineligible under statutory or regulatory authority other than E.O. 12549. Contractors with awards that exceed the small purchase threshold shall provide the required certification regarding its exclusion status and that of its principal employees.

9. *Drug-Free Workplace Requirements*—The Drug-Free Workplace Act of 1988 (42 U.S.C. 701) requires grantees (including individuals) of federal agencies, as a prior condition of being awarded a grant, to certify that they will provide drug-free workplaces. Each potential recipient must certify that it will comply with drug-free workplace requirements in accordance with the Act and with HUD's rules at 24 CFR part 24, subpart F.

U.S. Department of Housing and Urban Development

**BID FOR LUMP SUM CONTRACTS**

Place \_\_\_\_\_

Date \_\_\_\_\_

Project No. \_\_\_\_\_

Proposal of \_\_\_\_\_ (hereinafter called "Bidder") (a \_\_\_\_\_

(State)

corporation/ a partnership/ an individual doing business as \_\_\_\_\_)

(STRIKE OUT INAPPLICABLE TERMS)

To **The Phil Campbell Housing Authority, Phil Campbell, Alabama**, (hereinafter called "Owner":

The Bidder, in compliance with your invitation for bids for the construction of:

**NIX ROAD RENOVATIONS 2018  
FOR  
THE PHIL CAMPBELL HOUSING AUTHORITY  
PHIL CAMPBELL, ALABAMA  
PROJECT NO. 18-212**

Having examined the plans and specifications with related documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby proposes to furnish all labor, materials, and supplies, and to construct the project in accordance with the Contract Documents, within the time set fourth therein, and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the Contract Documents, of which this proposal is a part.

Bidder hereby agrees to commence work under this contract on or before a date(s) to be specified in written "Notice to Proceed" of the Owner and to fully complete the project as follows:

**BASE BID WORK: ADA Restrooms Renovations:** All interior renovation work related to the two ADA restrooms shall be complete within **21 calendar Days** of the commencement of work date issued in the Notice to Proceed.

**ALTERNATE #1 WORK: Construction of ADA Ramp(s) and repair of sidewalks:** All work related to the Construction of the ADA Ramp(s) and the sidewalk repair at the front of building #1 and the miscellaneous sidewalk repairs as indicated in Unit Price #2, shall be complete within **35 calendar Days** of the commencement of work date issued in the Notice to Proceed.

**NOTE:** The Complete durations **WILL NOT** be added together cumulatively. One Notice to Proceed Date will be issued and the time duration for Both Base Bid and Alternate work will begin on the SAME DATE to be completed within the timeframes indicated above.

**NOTE:** The Owner intends to issue the Notice to Proceed within 35 Calendar Days of the completion of the construction contract. It is the Contractors responsibility to submit all required Submittal Documents within this time frame which allows for a 10 day submittal review by the Architect prior to the expiration of the 35 Days. Additionally, the Contractor shall plan accordingly to have materials ready for construction at the end of the 35 day period.

Bidder further agrees to pay as liquidated damages, the sum of **\$ 300.00** for each consecutive calendar day thereafter as hereinafter provided in Paragraph 33 of the General Conditions.

Bidder acknowledges receipt of the following addendum:

Addendum # \_\_\_\_\_ dated \_\_\_\_\_

Addendum # \_\_\_\_\_ dated \_\_\_\_\_

Addendum # \_\_\_\_\_ dated \_\_\_\_\_

Addendum # \_\_\_\_\_ dated \_\_\_\_\_



**UNIT PRICE #1:** For the furnishing and installation **100 Board Feet (BF)** of 2x4 wood studs at locations as designated by the Architect:

**100 BF @ \_\_\_\_\_ per BF equals total dollars of \$ \_\_\_\_\_ ( INCLUDED IN BASE BID )**

**UNIT PRICE #2:** For the furnishing and installation **70 Linear Feet (LF)** of Concrete Side walk 4 feet wide and 4" thick with 2" gravel base at locations as designated by the Architect:

**70 LF @ \_\_\_\_\_ per LF equals total dollars of \$ \_\_\_\_\_ ( INCLUDED IN ALTERNATE #1 )**

The above Unit Price establish Unit Prices that the Owner can delete/add quantities from the Contracts required. The total dollar amount indicated is to be INCLUDED within the Base Bid and Alternate amounts, respectively.

**BASE BID PROPOSAL:** Bidder agrees to perform all work described in the plans and specifications to renovate the two ADA Restrooms in Units 87 and 88. This includes Unit Price #1, listed above and the general project contingency listed in specification section -----. Work will be completed for the sum of:

(Amount shall be shown in both words and figures. In case of discrepancy the amount shown in words will govern).

\_\_\_\_\_  
WORDS Dollars \$ FIGURES

**ALTERNATES:** If alternates as set forth in the Bid Documents are accepted, the following adjustments are to be made to the Base Bid:

**ALTERNATE #1 WORK: Construction of ADA Ramp(s) and repair of sidewalks:** Bidder agrees to perform all work described in the plans and specifications related to the Construction of the ADA Ramp(s) and the sidewalk repair at the front of building #1 and the miscellaneous sidewalk repairs as indicated in Unit Price #2. This work shall be completed for a sum of

(ADD) \$ \_\_\_\_\_ Dollars \$ \_\_\_\_\_  
WORDS FIGURES

Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The bidder agrees that this bid shall be good and may not be withdrawn for a period of **60** calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the acceptance of this bid, Bidder will execute the formal contract attached within 10 days and deliver a Surety Bond or Bonds as required by the Project Manual.

The bid security attached in the sum of \_\_\_\_\_ (\$ \_\_\_\_\_)  
is to become the property of the Owner in the event the contract and bond are not executed within the time above set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

Contractor: \_\_\_\_\_

Address: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

State Of Alabama License # \_\_\_\_\_

Bid Limit: \_\_\_\_\_

## Bid Bond

KNOWN ALL MEN BY THESE PRESENTS that we, \_\_\_\_\_ hereinafter referred to as "Principle", and \_\_\_\_\_ hereinafter referred to as the "Surety" are held and firmly bound unto the **Phil Campbell Housing Authority, Phil Campbell, Alabama**, hereinafter referred to as the "Owner", in the sum of \_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such that, whereas the Principal has submitted the accompanying bid dated \_\_\_\_\_ for contract titled:

**NIX ROAD RENOVATIONS 2018  
FOR  
THE PHIL CAMPBELL HOUSING AUTHORITY  
PHIL CAMPBELL, ALABAMA  
PROJECT NO. 18-212**

NOW, THEREFORE, if the Principal shall not withdraw his bid within the period specified therein after the opening of same, or if no period specified, within sixty (60) days after said opening, and shall within ten (10) days after he has received notice of acceptance of his bid, enter into a written contract with the Owner in accordance with the bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract, then this obligation to be void, otherwise in full force and effect; provided, and it is expressly agreed, that the full amount of this bond shall be and become minimum amount of damages suffered by the Owner as liquidated damages if said Principal shall fail to enter into such contract and give security for the performance of the same, as herein required.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be affixed and these presents to be signed by their proper officers this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
PRINCIPAL

By

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
Title

\_\_\_\_\_  
SURETY

By

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
ATTORNEY-IN-FACT

MCKEE PROJECT  
NUMBER 18-212

**U.S. Department of Housing  
and Urban Development**  
Office of Public and Indian Housing

**Representations, Certifications,  
and Other Statements of Bidders**  
**Public and Indian Housing Programs**

# Representations, Certifications, and Other Statements of Bidders

## Public and Indian Housing Programs

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### 1. Certificate of Independent Price Determination

#### (a) The bidder certifies that--

(1) The prices in this bid have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other bidder or competitor relating to (i) those prices, (ii) the intention to submit a bid, or (iii) the methods or factors used to calculate the prices offered;

(2) The prices in this bid have not been and will not be knowingly disclosed by the bidder, directly or indirectly, to any other bidder or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a competitive proposal solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the bidder to induce any other concern to submit or not to submit a bid for the purpose of restricting competition.

(b) Each signature on the bid is considered to be a certification by the signatory that the signatory--

(1) Is the person in the bidder's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above.

[insert full name of person(s) in the bidder's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the bidder's organization];

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) above.

(c) If the bidder deletes or modifies subparagraph (a)2 above, the bidder must furnish with its bid a signed statement setting forth in detail the circumstances of the disclosure.

[ ] [Contracting Officer check if following paragraph is applicable]

(d) Non-collusive affidavit. (applicable to contracts for construction and equipment exceeding \$50,000)

(1) Each bidder shall execute, in the form provided by the PHA/IHA, an affidavit to the effect that he/she has not colluded with any other person, firm or corporation in regard to any bid submitted in response to this solicitation. If the successful bidder did not submit the affidavit with his/her bid, he/she must submit it within three (3) working days of bid opening. Failure to submit the affidavit by that date may render the bid nonresponsive. No contract award will be made without a properly executed affidavit.

(2) A fully executed "Non-collusive Affidavit" [ ] is, [ ] is not included with the bid.

### 2. Contingent Fee Representation and Agreement

#### (a) Definitions. As used in this provision:

"Bona fide employee" means a person, employed by a bidder and subject to the bidder's supervision and control as to time, place, and manner of performance, who neither exerts, nor proposes to exert improper influence to solicit or obtain contracts nor holds out as being able to obtain any contract(s) through improper influence.

"Improper influence" means any influence that induces or tends to induce a PHA/IHA employee or officer to give consideration or to act regarding a PHA/IHA contract on any basis other than the merits of the matter.

(b) The bidder represents and certifies as part of its bid that, except for full-time bona fide employees working solely for the bidder, the bidder:

(1) [ ] has, [ ] has not employed or retained any person or company to solicit or obtain this contract; and

(2) [ ] has, [ ] has not paid or agreed to pay to any person or company employed or retained to solicit or obtain this contract any commission, percentage, brokerage, or other fee contingent upon or resulting from the award of this contract.

(c) If the answer to either (a)(1) or (a)(2) above is affirmative, the bidder shall make an immediate and full written disclosure to the PHA/IHA Contracting Officer.

(d) Any misrepresentation by the bidder shall give the PHA/IHA the right to (1) terminate the contract; (2) at its discretion, deduct from contract payments the amount of any commission, percentage, brokerage, or other contingent fee; or (3) take other remedy pursuant to the contract.

### 3. Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions (applicable to contracts exceeding \$100,000)

(a) The definitions and prohibitions contained in Section 1352 of title 31, United States Code, are hereby incorporated by reference in paragraph (b) of this certification.

(b) The bidder, by signing its bid, hereby certifies to the best of his or her knowledge and belief as of December 23, 1989 that:

(1) No 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 agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of a contract resulting from this solicitation;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the bidder shall complete and submit, with its bid, OMB standard form LLL, "Disclosure of Lobbying Activities;" and

(3) He or she will include the language of this certification in all subcontracts at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

(d) Indian tribes (except those chartered by States) and Indian organizations as defined in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) are exempt from the requirements of this provision.

#### 4. Organizational Conflicts of Interest Certification

The bidder certifies that to the best of its knowledge and belief and except as otherwise disclosed, he or she does not have any organizational conflict of interest which is defined as a situation in which the nature of work to be performed under this proposed contract and the bidder's organizational, financial, contractual, or other interests may, without some restriction on future activities:

(a) Result in an unfair competitive advantage to the bidder; or,  
(b) Impair the bidder's objectivity in performing the contract work.  
[ ] In the absence of any actual or apparent conflict, I hereby certify that to the best of my knowledge and belief, no actual or apparent conflict of interest exists with regard to my possible performance of this procurement.

#### 5. Bidder's Certification of Eligibility

(a) By the submission of this bid, the bidder certifies that to the best of its knowledge and belief, neither it, nor any person or firm which has an interest in the bidder's firm, nor any of the bidder's subcontractors, is ineligible to:

(1) Be awarded contracts by any agency of the United States Government, HUD, or the State in which this contract is to be performed; or,

(2) Participate in HUD programs pursuant to 24 CFR Part 24.

(b) The certification in paragraph (a) above is a material representation of fact upon which reliance was placed when making award. If it is later determined that the bidder knowingly rendered an erroneous certification, the contract may be terminated for default, and the bidder may be debarred or suspended from participation in HUD programs and other Federal contract programs.

#### 6. Minimum Bid Acceptance Period

(a) "Acceptance period," as used in this provision, means the number of calendar days available to the PHA/IHA for awarding a contract from the date specified in this solicitation for receipt of bids.

(b) This provision supersedes any language pertaining to the acceptance period that may appear elsewhere in this solicitation.

(c) The PHA/IHA requires a minimum acceptance period of [Contracting Officer insert time period] calendar days.

(d) In the space provided immediately below, bidders may specify a longer acceptance period than the PHA's/IHA's minimum requirement. The bidder allows the following acceptance period: calendar days.

(e) A bid allowing less than the PHA's/IHA's minimum acceptance period will be rejected.

(f) The bidder agrees to execute all that it has undertaken to do, in compliance with its bid, if that bid is accepted in writing within (1) the acceptance period stated in paragraph (c) above or (2) any longer acceptance period stated in paragraph (d) above.

#### 7. Small, Minority, Women-Owned Business Concern Representation

The bidder represents and certifies as part of its bid/ offer that it --

(a) [ ] is, [ ] is not a small business concern. "Small business concern," as used in this provision, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding, and qualified as a small business under the criteria and size standards in 13 CFR 121.

(b) [ ] is, [ ] is not a women-owned business enterprise. "Women-owned business enterprise," as used in this provision, means a business that is at least 51 percent owned by a woman or women who are U.S. citizens and who also control and operate the business.

(c) [ ] is, [ ] is not a minority business enterprise. "Minority business enterprise," as used in this provision, means a business which is at least 51 percent owned or controlled by one or more minority group members or, in the case of a publicly owned business, at least 51 percent of its voting stock is owned by one or more minority group members, and whose management and daily operations are controlled by one or more such individuals. For the purpose of this definition, minority group members are:

(Check the block applicable to you)

[ ] Black Americans	[ ] Asian Pacific Americans
[ ] Hispanic Americans	[ ] Asian Indian Americans
[ ] Native Americans	[ ] Hasidic Jewish Americans

#### 8. Indian-Owned Economic Enterprise and Indian Organization Representation (applicable only if this solicitation is for a contract to be performed on a project for an Indian Housing Authority)

The bidder represents and certifies that it:

(a) [ ] is, [ ] is not an Indian-owned economic enterprise. "Economic enterprise," as used in this provision, means any commercial, industrial, or business activity established or organized for the purpose of profit, which is at least 51 percent Indian owned. "Indian," as used in this provision, means any person who is a member of any tribe, band, group, pueblo, or community which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs and any "Native" as defined in the Alaska Native Claims Settlement Act.

(b) [ ] is, [ ] is not an Indian organization. "Indian organization," as used in this provision, means the governing body of any Indian tribe or entity established or recognized by such governing body. Indian "tribe" means any Indian tribe, band, group, pueblo, or

community including Native villages and Native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, which is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs.

**9. Certification of Eligibility Under the Davis-Bacon Act** (applicable to construction contracts exceeding \$2,000)

(a) By the submission of this bid, the bidder certifies that neither it nor any person or firm who has an interest in the bidder's firm is a person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(b) No part of the contract resulting from this solicitation shall be subcontracted to any person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(c) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001.

**10. Certification of Nonsegregated Facilities** (applicable to contracts exceeding \$10,000)

(a) The bidder's attention is called to the clause entitled **Equal Employment Opportunity** of the General Conditions of the Contract for Construction.

(b) "Segregated facilities," as used in this provision, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin because of habit, local custom, or otherwise.

(c) By the submission of this bid, the bidder certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The bidder agrees that a breach of this certification is a violation of the Equal Employment Opportunity clause in the contract.

(d) The bidder further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) prior to entering into subcontracts which exceed \$10,000 and are not exempt from the requirements of the Equal Employment Opportunity clause, it will:

(1) Obtain identical certifications from the proposed subcontractors;

(2) Retain the certifications in its files; and

(3) Forward the following notice to the proposed subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods):

**Notice to Prospective Subcontractors of Requirement for Certifications of Nonsegregated Facilities**

A Certification of Nonsegregated Facilities must be submitted before the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Employment Opportunity clause of the prime contract. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

**Note:** The penalty for making false statements in bids is prescribed in 18 U.S.C. 1001.

**11. Clean Air and Water Certification** (applicable to contracts exceeding \$100,000)

The bidder certifies that:

(a) Any facility to be used in the performance of this contract [ ] is, [ ] is not listed on the Environmental Protection Agency List of Violating Facilities:

(b) The bidder will immediately notify the PHA/IHA Contracting Officer, before award, of the receipt of any communication from the Administrator, or a designee, of the Environmental Protection Agency, indicating that any facility that the bidder proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities; and,

(c) The bidder will include a certification substantially the same as this certification, including this paragraph (c), in every nonexempt subcontract.

**12. Previous Participation Certificate** (applicable to construction and equipment contracts exceeding \$50,000)

(a) The bidder shall complete and submit with his/her bid the Form HUD-2530, "Previous Participation Certificate." If the successful bidder does not submit the certificate with his/her bid, he/she must submit it within three (3) working days of bid opening. Failure to submit the certificate by that date may render the bid nonresponsive. No contract award will be made without a properly executed certificate.

(b) A fully executed "Previous Participation Certificate" [ ] is, [ ] is not included with the bid.

**13. Bidder's Signature**

The bidder hereby certifies that the information contained in these certifications and representations is accurate, complete, and current.

\_\_\_\_\_  
(Signature and Date)

\_\_\_\_\_  
(Typed or Printed Name)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Company Address)

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NON-COLLUSIVE/NON-IDENTITY OF INTEREST AFFIDAVIT

(To be modified if law requires other Form)

A F F I D A V I T

(Prime Bidder)

State of \_\_\_\_\_ ) ss.

County of \_\_\_\_\_ )

\_\_\_\_\_,  
being first duly sworn, deposes and says:

(1) That undersigned is \_\_\_\_\_ (a partner or officer of the firm of, etc..) \_\_\_\_\_ the party making the foregoing proposal or bid; (2) that such proposal or bid is genuine and not collusive or sham; that said Bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any Bidder or person, to put in a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement or collusion, or communication or conference, with any person, to fix any overhead, profit or cost element of said bid price, or of that of any other bidder, or to secure any advantage against the \_\_\_\_\_ (Owner) \_\_\_\_\_ or any person interested in the proposed contract; and (3) that no identity of interest exists or will exist between Bidder and the Owner or Architect.

WARNING: U.S. Criminal Code, Section 1001, Title 18 U.S.C. provides as follows: Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme or device a material fact, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement of entry, shall be fined not more than \$10,000 or imprisoned not more than five years, or both.

An identity of interest will be construed to exist:

- (a) If there is any financial interest of the Owner in the general contractor;
  - (b) If any of the officers or directors of the Owner is also an officer, director, or stockholder of the general contractor;
  - (c) If any officer or director of the Owner has any financial interest whatsoever in the general contractor;
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Appendix 13

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- (d) If the general contractor advances any funds to the Owner; including providing a land option or any of the costs of obtaining a land option;
  - (e) If the general contractor provides and pays, on behalf of the Owner, the cost of any architectural or engineering service other than those of a surveyor, general superintendent, or engineer employed by a general contractor in connection with his/her obligations under the construction contract;
  - (f) If the general contractor has any interest in the Owner corporation as part of the consideration for payment;
  - (g) When there exists (or comes into being) any side deals, agreements, contracts or undertaking entered into or contemplated, thereby altering, amending, or cancelling any financial interest whatsoever in the architectural firm;
  - (h) When the contractor or any officer, director, stockholder, or partner of such contractor has any financial interest whatsoever in the architectural firm;
  - (i) When the architect has stock or any financial interest in the contractor.
  - (j) When the contractor or any officer, director, stockholder or partner of such contract provides any of the required architectural services; or where the contractor, or any officer, director, stockholder or partner of such providing an architectural service, acts as a consultant to the project architect.
  - (k) When there exists (or comes into being) any side deals, agreements, contracts or undertaking, thereby altering, amending, or cancelling any of the required closing documents.
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Appendix 13

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Signature of:

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Bidder, if the Bidder is an



individual;

By\_\_\_\_\_

Partner, if the Bidder is a  
partnership;

Title\_\_\_\_\_

Officer, if the Bidder is a  
corporation.

Subscribed and sworn to before me  
this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_.

My commission expires \_\_\_\_\_, 19\_\_.

WUFGrcctwo gpvqhJ qwulpi cpf Wtdcp Fgxngro gpv  
Office of Housing/Federal Housing Commissioner

WUFGrcctwo gpvqhCi tlewnwt g  
Farmers Home Administration

RctvKw dg eqo rnygf d{ Rtlpekr cmqhO wnlkro k{ Rtqlgevu (See instructions)		Hqt J WF J S Hb J C wug qpr{	
Reason for submission: 30Agency name and City where the application is filed		4. Project Name, Project Number, City and Zip Code	
5. Loan or Contract amount \$	6. Number of Units or Beds	7. Section of Act	8. Type of Project (check one) <input type="checkbox"/> Existing <input type="checkbox"/> Rehabilitation <input type="checkbox"/> Proposed (New)

90Nhwcmrtqrqgf Rtlpekr cmcpf cwcej qti cplk cvlqp ej ctvht cmqti cplk cvlqpu

Name and address of Principals and Affiliates (Name: Last, First, Middle Initial) proposing to participate	: Tqg qhGcej Rtlpekr cnlp Rtqlgev	; 0Gzrgevdf ' Qy pgtuj lr lp Rtqlgev	320UUP qt KtUGo rmlf gt Pwo dgt

Certifications: The principal(s) listed above hereby apply to HUD or USDA FmHA, as the case maybe, for approval to participate as principal(s) in the role(s) and project listed above. The principal(s) each certify that all the statements made on this form are true, complete and correct to the best of their knowledge and belief and are made in good faith, including any Exhibits attached to this form. Y ctpkpi <HUD will prosecute false claims and statements. Conviction may result in criminal and/or civil penalties. The principal(s) further certify that to the best of their knowledge and belief:

- Schedule A contains a listing, for the last ten years, of every project assisted or insured by HUD, USDA FmHA and/or State and local government housing finance agencies in which the principal(s) have participated or are now participating.
- For the period beginning 10 years prior to the date of this certification, and except as shown on the certification:
  - No mortgage on a project listed has ever been in default, assigned to the Government or foreclosed, nor has it received mortgage relief from the mortgagee;
  - The principals have no defaults or noncompliance under any Conventional Contract or Turnkey Contract of Sale in connection with a public housing project;
  - There are no known unresolved findings as a result of HUD audits, management reviews or other Governmental investigations concerning the principals or their projects;
  - There has not been a suspension or termination of payments under any HUD assistance contract due to the principal's fault or negligence;
  - The principals have not been convicted of a felony and are not presently the subject of a complaint or indictment charging a felony. (A felony is defined as any offense punishable by imprisonment for a term exceeding one year, but does not include any offense classified as a misdemeanor under the laws of a State and punishable by imprisonment of two years or less);
  - The principals have not been suspended, debarred or otherwise restricted by any Department or Agency of the Federal Government or of a State Government from doing business with such Department or Agency;
  - The principals have not defaulted on an obligation covered by a surety or performance bond and have not been the subject of a claim under an employee fidelity bond;
- All the names of the principals who propose to participate in this project are listed above.
- None of the principals is a HUD/FmHA employee or a member of a HUD/FmHA employee's immediate household as defined in Standards of Ethical Conduct for Employees of the Executive Branch in 5 C.F.R. Part 2635 (57 FR 35006) and HUD's Standard of Conduct in 24 C.F.R. Part 0 and USDA's Standard of Conduct in 7 C.F.R. Part 0 Subpart B.
- None of the principals is a participant in an assisted or insured project as of this date on which construction has stopped for a period in excess of 20 days or which has been substantially completed for more than 90 days and documents for closing, including final cost certification, have not been filed with HUD or FmHA.
- None of the principals have been found by HUD or FmHA to be in noncompliance with any applicable fair housing and civil rights requirements in 24 CFR 5.105(a). (If any principals or affiliates have been found to be in noncompliance with any requirements, attach a signed statement explaining the relevant facts, circumstances, and resolution, if any).
- None of the principals is a Member of Congress or a Resident Commissioner nor otherwise prohibited or limited by law from contracting with the Government of the United States of America.
- Statements above (if any) to which the principal(s) cannot certify have been deleted by striking through the words with a pen, and the relevant principal(s) have initialed each deletion (if any) and have attached a true and accurate signed statement (if applicable) to explain the facts and circumstances.

Pco g qhRtlpekr cn	Uli pcwvt g qhRtlpekr cn	EgtvHecvqp Fcv*o o Ff H{{{	Ctgc Eqf g cpf Vgr0Pq0
Vj luhqto rtgrctgf d{ *rtlpvpcg g+	Ctgc Eqf g cpf Vgr0Pq0		

# Previous Participation Certification

OMB Approval No. 2502-0118

(Exp. 02/29/2016)

**Uej gf wng C< Nkuvqh Rt gxlqwu Rt qlgevu cpf Ugevlqp : Eqpvtcevu** Below is a complete list of the principals' previous participation projects and participation history in multifamily Housing programs of HUD/FmHA, State and local Housing Finance Agencies. **Pqvg<** Read and follow the instruction sheet carefully. Make full disclosure. Add extra sheets if you need more space. Double check for accuracy. If no previous projects, write by your name, **"Pq rt gxlqwu rct vlek cvlqp. Hlt uv Gzrgt lpegeö."**

1. Principals Name (Last, First)	2. List of previous projects (Project name, project ID and, Govt. agency involved )	3.List Principals' Role(s) (indicate dates participated, and if fee or identity of interest participant)	4. Status of loan (current, defaulted, assigned, foreclosed)	5. Was the Project ever in default during your participation [ guPq H{gu gznrlp		6. Last MOR rating and Physical Insp. Score and date

## Rct v Ht J WF Kpvt pcnRt qegulpi Qprf

Received and checked by me for accuracy and completeness; recommend approval or refer to Headquarters after checking appropriate box.

Date (mm/dd/yyyy)	Tel No. and area code	<input type="checkbox"/> A. No adverse information; form HUD-2530 approval recommended.  <input type="checkbox"/> B. Name match in system	<input type="checkbox"/> C. Disclosure or Certification problem  <input type="checkbox"/> D. Other (attach memorandum)
Staff	Processing and Control		
Supervisor	Director of Housing/Director, Multifamily Division	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date (mm/dd/yyyy)

**Ինքնաշարժիչ Եզրագծի վրա Ռեգիստրացիայի Վճար/4752**

Carefully read these instructions and the applicable regulations. A copy of those regulations published at 24 C.F.R. 200.210 to 200.245 can be obtained from the Multifamily Housing Representative at any HUD Office. Type or print neatly in ink when filling out this form. Mark answers in all blocks of the form. If the form is not filled completely, it will delay approval of your application.

Attach extra sheets as you need them. Be sure to indicate "Continued on Attachments" wherever appropriate. Sign each additional page that you attach if it refers to you or your record.

**Եզրագծի տեղեկությունները լրացրե՛ք (գրե՛ք կամ խմբագրե՛ք)**

Any questions regarding the form or how to complete it can be answered by your HUD Office Multifamily Housing Representative.

**Րաճաճություն** < This form provides HUD with a certified report of all previous participation in HUD multifamily housing projects by those parties making application. The information requested in this form is used by HUD to determine if you meet the standards established to ensure that all principal participants in HUD projects will honor their legal, financial and contractual obligations and are acceptable risks from the underwriting standpoint of an insurer, lender or governmental agency. HUD requires that you certify your record of previous participation in HUD/USDA-FmHA, State and Local Housing Finance Agency projects by completing and signing this form, before your project application or participation can be approved.

HUD approval of your certification is a necessary precondition for your participation in the project and in the capacity that you propose. If you do not file this certification, do not furnish the information requested accurately, or do not meet established standards, HUD will not approve your certification.

*Note that approval of your certification does not obligate HUD to approve your project application, and it does not satisfy all other HUD program requirements relative to your qualifications.*

**Կապակցությունների և Կապակցության Վճար/4752**

Form HUD-2530 must be completed and signed by all principals applying to participate in HUD multifamily housing projects, including those who have no previous participation. The form must be signed and filed by all principals and their affiliates who propose participating in the HUD project. Use a separate form for each role in the project unless there is an identity of interest.

Principals include all individuals, joint ventures,

partnerships, corporations, trusts, non-profit organizations, any other public or private entity that will participate in the proposed project as a sponsor, owner, prime contractor, turnkey developer, managing agent, nursing home administrator or operator, packager, or consultant. Architects and attorneys who have any interest in the project other than an arm's length fee arrangement for professional services are also considered principals by HUD.

In the case of partnerships, all general partners regardless of their percentage interest and limited partners having a 25 percent or more interest in the partnership are considered principals. In the case of public or private corporations or governmental entities, principals include the president, vice president, secretary, treasurer and all other executive officers who are directly responsible to the board of directors, or any equivalent governing body, as well as all directors and each stockholder having a 10 percent or more interest in the corporation.

Affiliates are defined as any person or business concern that directly or indirectly controls the policy of a principal or has the power to do so. A holding or parent corporation would be an example of an affiliate if one of its subsidiaries is a principal.

**Գլխավորի և Եզրագծի Կապակցություն** – All principals and affiliates must personally sign the certificate except in the following situation. When a corporation is a principal, all of its officers, directors, trustees and stockholders with 10 percent or more of the common (voting) stock need not sign personally if they all have the same record to report. The officer who is authorized to sign for the corporation or agency will list the names and title of those who elect not to sign. However, any person who has a record of participation in HUD projects that is separate from that of his or her organization must report that activity on this form and sign his or her name. The objective is full disclosure.

**Գլխավորի և Կապակցության Ծանոթություն** The names of the following parties do not need to be listed on form HUD-2530: Public Housing Agencies, tenants, owners of less than five condominium or cooperative units and all others whose interests were acquired by inheritance or court order.

**Կապակցության և Կապակցության Վճար/4752 Ծանոթություն**

**Կապակցություն** < The original of this form must be submitted to the HUD Office where your project application will be processed at the same time you file your initial project application. This form must be filed with applications for projects, or when otherwise required in the situations listed below:

- Projects to be financed with mortgages insured under the National Housing Act (FHA).

- Projects to be financed according to Section 202 of the Housing Act of 1959 (Elderly and Handicapped).
- Projects in which 20 percent or more of the units are to receive a subsidy as described in 24 C.F.R. 200.213.
- Purchase of a project subject to a mortgage insured or held by the Secretary of HUD.
- Purchase of a Secretary-owned project.
- Proposed substitution or addition of a principal or principal participation in a different capacity from that previously approved for the same project.
- Proposed acquisition by an existing limited partner of an additional interest in a project resulting in a total interest of 25 percent or more or proposed acquisition by a corporate stockholder of an additional interest in a project resulting in a total interest of 10 percent or more.
- Projects with U.S.D.A., Farmers Home Administration, or with state or local government housing finance agencies that include rental assistance under Section 8 of the Housing Act of 1937. For projects of this type, form HUD-2530 should be filed with the appropriate applications directly to those agencies.

**Կապակցության և Կապակցության Կապակցություն** < If approval of your participation in a HUD project is denied, withheld, or conditionally granted on the basis of your record of previous participation, you will be notified by the HUD Office. You may request reconsideration by the HUD Review Committee. Alternatively, you may request a hearing before a Hearing Officer. Either request must be made in writing within 30 days from your receipt of the notice of determination.

If you do request reconsideration by the Review Committee and the reconsideration results in an adverse determination, you may then request a hearing before a Hearing Officer. The Hearing Officer will issue a report to the Review Committee. You will be notified of the final ruling by certified mail.

**Կապակցության և Կապակցության Կապակցություն**

**Կապակցության և Կապակցության Կապակցություն** < this Certification: e.g., refinance, change in ownership, change in management agent, transfer of physical assets, etc.

**Կապակցություն** < Fill in the name of the agency to which you are applying. For example: HUD Office, Farmers Home Administration District office, or the name of a State or local housing finance agency. Below that, fill in the name of the city where the office is located.

**Կապակցություն** < Fill in the name of the project, such as "Greenwood Apts." If the name has not yet been selected, write "Name unknown." Below that, enter the HUD contract or project identification number, the Farmers Home Administration project number, or

the State or local housing finance agency project or contract number. Include **cm** project or contract identification numbers that are relevant to the project. Also enter the name of the city in which the project is located, and the ZIP Code.

**Կապակցություն** < Fill in the dollar amount requested in the proposed mortgage, or the annual amount of rental assistance requested.

**Կապակցություն** < Fill in the number of apartment units proposed, such as "40 units." For hospital projects or nursing homes, fill in the number of beds proposed, such as "100 beds."

**Կապակցություն** < Fill in the section of the Housing Act under which the application is filed.

**Կապակցություն** < Definitions of all those who are considered principals and affiliates are given above in the section titled "Who Must Sign and File...."

**Կապակցություն** < Beside the name of each principal, fill in the appropriate role. The following are examples of possible roles that the principals may assume: Owner/Mortgagor, Managing Agent, Sponsor, Developer, General Contractor, Packager, Consultant, Nursing Home Administrator etc.

**Կապակցություն** < Fill in the percentage of ownership in the proposed project that each principal is expected to have.

**Կապակցություն** < Fill in the Social Security Number or IRS employer number of every principal listed, including affiliates.

**Կապակցության և Կապակցության Կապակցություն**

Be sure that Schedule A is filled-in completely, accurately and the certification is properly dated and signed, because it will serve as a legal record of your previous experience. All Multifamily Housing projects involving HUD/ FmHA, and State and local Housing Finance Agencies in which you have previously participated **o w w d g** listed. Applicants are reminded that previous participation pertains to the individual principal within an entity as well as the entity itself. A newly formed company may not have previous participation, but the principals within the company may have had extensive participation and disclosure of that activity is required.

**Կապակցություն** < **All previous projects must be listed or your certification cannot be processed.** Include the name of all projects, project number, city where it is located and the governmental agency (HUD, USDA-FmHA or state or local housing finance agency) that was involved.

**Կապակցություն** < List the role(s) as a principal, dates participated and if fee or identity of interest (IOI) with owners.

<p><b>Equino p 60</b>Indicate the current status of the loan. Except for current loan, the date associated with the status is required. Loans under a workout arrangement are considered assigned. For all noncurrent loans, an explanation of the status is required.</p> <p><b>Equino p 70</b> Explain any project defaults during your participation.</p> <p><b>Equino p 80</b>Provide the latest Management Review (MOR) rating and Physical Inspection score.</p> <p><b>Egtvllcevp</b>&lt;After you have completed all other parts of</p>	<p>form HUD-2530, including schedule A, read the Certification carefully. In the box below the statement of the certification, fill in the names of all principals and affiliates as listed in block 7. Each principal should sign the certification with the exception in some cases of individuals associated with a corporation (see "Exception for Corporations" in the section of the instructions titled "Who Must Sign and File Form HUD-2530). Principal who is signing on behalf of the entity should attach signature authority document. Each principal who signs the form</p>	<p>should fill in the date of the signature and a telephone number. By providing a telephone number, HUD can reach you in the event of any questions.</p> <p>If you cannot certify and sign the certification as it is printed because some statements do not correctly describe your record, use a pen to strike through those parts that differ with your record, and then sign and certify.</p> <p>Attach a signed statement of explanation of the items you have struck out on the certification. Item 2e. relates to felony</p>	<p>convictions within the past 10 years. If you are convicted of a felony within the past 10 years, strike out 2e. and attach statement of explanation. A felony conviction will not necessarily cause your participation to be disapproved unless there is a criminal record or other evidence that your previous conduct or method of doing business has been such that your participation in the project would make it an unacceptable risk from the underwriting stand point of an insurer, lender or governmental agency.</p>
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The Department of Housing and Urban Development (HUD) is authorized to collect this information by law (42 U.S.C. 3535(d) and 24 C.F.R. 200.217) and by regulation at 24 CFR 200.210. This information is needed so that principals applying to participate in multifamily programs can become HUD-approved participants. The information you provide will enable HUD to evaluate your record with respect to established standards of performance, responsibility and eligibility. Without prior approval, a principal may not participate in a proposed or existing multifamily project. HUD uses this information to evaluate whether or not principals pose an unsatisfactory underwriting risk. The information is used to evaluate the potential principals and approve only individuals and organizations that will honor their legal, financial and contractual obligations.

**Rtlxce{ CevUcvgp gpv**< The Housing and Community Development Act of 1987, 42 U.S.C. 3543 requires persons applying for a Federally-insured or guaranteed loan to furnish his/her Social Security Number (SSN). HUD must have your SSN for identification of your records. HUD may use your SSN for automated processing of your records and to make requests for information about you and your previous records with other public agencies and private sector sources. HUD may disclose certain information to Federal, State and local agencies when relevant to civil, criminal, or regulatory investigations and prosecutions. It will not be otherwise disclosed or released outside of HUD, except as required and permitted by law. You must provide all of the information requested in this application, including your SSN.

**Rwdnle tgrqtvpj dwtfgp** for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This agency may not collect this information, and you are not required to complete this form, unless it displays a currently valid OMB control number.

A response is mandatory. Failure to provide any of the information will result in your disapproval of participation in this HUD program.

**CERTIFICATION OF BIDDER REGARDING  
EQUAL EMPLOYMENT OPPORTUNITY**

**INSTRUCTIONS**

This certification is required pursuant to Executive Order 11246 (30 F.R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed sub-contractors, shall state as an initial part of the bid or negotiations of the contract, whether it has participated on any previous contract of subcontract subject to the Equal Opportunity Clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless report is submitted.

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**CERTIFICATION BY BIDDER**

Bidder's Name: \_\_\_\_\_

Address: \_\_\_\_\_

1. Bidder has participated in a previous contract or subcontract subject of the Equal Opportunity Clause.

\_\_\_\_\_ Yes \_\_\_\_\_ No

2. Compliance reports were required to be filed in connections with such contract or subcontract.

\_\_\_\_\_ Yes \_\_\_\_\_ No

3. Bidder has filed all compliance reports due under applicable instructions, including SF-100.

\_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ None Required

4. If answer to item 3 is "No", please explain in detail on reverse side of this certification.

Certification – the information above is true and complete to the best of my knowledge and belief.

---

Name and Title of Signer (Please type)

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Signature

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Date

# General Conditions for Construction Contracts - Public Housing Programs

## U.S. Department of Housing and Urban Development

Office of Public and Indian Housing  
OMB Approval No. 2577-0157 (exp. 01/31/2014)

**Applicability. This form is applicable to any construction/development contract greater than \$100,000.**

This form includes those clauses required by OMB's common rule on grantee procurement, implemented at HUD in 24 CFR 85.36, and those requirements set forth in Section 3 of the Housing and Urban Development Act of 1968 and its amendment by the Housing and Community Development Act of 1992, implemented by HUD at 24 CFR Part 135. The form is required for construction contracts awarded by Public Housing Agencies (PHAs).

The form is used by Housing Authorities in solicitations to provide necessary contract clauses. If the form were not used, HAs would be unable to enforce their contracts.

Public reporting burden for this collection of information is estimated to average 1.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Responses to the collection of information are required to obtain a benefit or to retain a benefit.

The information requested does not lend itself to confidentiality.

HUD may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB number.

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## 1. Definitions

- (a) "Architect" means the person or other entity engaged by the PHA to perform architectural, engineering, design, and other services related to the work as provided for in the contract. When a PHA uses an engineer to act in this capacity, the terms "architect" and "engineer" shall be synonymous. The Architect shall serve as a technical representative of the Contracting Officer. The Architect's authority is as set forth elsewhere in this contract.
- (b) "Contract" means the contract entered into between the PHA and the Contractor. It includes the forms of Bid, the Bid Bond, the Performance and Payment Bond or Bonds or other assurance of completion, the Certifications, Representations, and Other Statements of Bidders (form HUD-5370), these General Conditions of the Contract for Construction (form HUD-5370), the applicable wage rate determinations from the U.S. Department of Labor, any special conditions included elsewhere in the contract, the specifications, and drawings. It includes all formal changes to any of those documents by addendum, change order, or other modification.
- (c) "Contracting Officer" means the person delegated the authority by the PHA to enter into, administer, and/or terminate this contract and designated as such in writing to the Contractor. The term includes any successor Contracting Officer and any duly authorized representative of the Contracting Officer also designated in writing. The Contracting Officer shall be deemed the authorized agent of the PHA in all dealings with the Contractor.
- (d) "Contractor" means the person or other entity entering into the contract with the PHA to perform all of the work required under the contract.
- (e) "Drawings" means the drawings enumerated in the schedule of drawings contained in the Specifications and as described in the contract clause entitled Specifications and Drawings for Construction herein.
- (f) "HUD" means the United States of America acting through the Department of Housing and Urban Development including the Secretary, or any other person designated to act on its behalf. HUD has agreed, subject to the provisions of an Annual Contributions Contract (ACC), to provide financial assistance to the PHA, which includes assistance in financing the work to be performed under this contract. As defined elsewhere in these General Conditions or the contract documents, the determination of HUD may be required to authorize changes in the work or for release of funds to the PHA for payment to the Contractor. Notwithstanding HUD's role, nothing in this contract shall be construed to create any contractual relationship between the Contractor and HUD.
- (g) "Project" means the entire project, whether construction or rehabilitation, the work for which is provided for in whole or in part under this contract.
- (h) "PHA" means the Public Housing Agency organized under applicable state laws which is a party to this contract.
- (j) "Specifications" means the written description of the technical requirements for construction and includes the criteria and tests for determining whether the requirements are met.
- (l) "Work" means materials, workmanship, and manufacture and fabrication of components.
- (a) The Contractor shall furnish all necessary labor, materials, tools, equipment, and transportation necessary for performance of the work. The Contractor shall also furnish all necessary water, heat, light, and power not made available to the Contractor by the PHA pursuant to the clause entitled Availability and Use of Utility Services herein.
- (b) The Contractor shall perform on the site, and with its own organization, work equivalent to at least [ ] (12 percent unless otherwise indicated) of the total amount of work to be performed under the order. This percentage may be reduced by a supplemental agreement to this order if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the PHA.
- (c) At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the work site a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.
- (d) The Contractor shall be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence, and shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. The Contractor shall hold and save the PHA, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.
- (e) The Contractor shall lay out the work from base lines and bench marks indicated on the drawings and be responsible for all lines, levels, and measurements of all work executed under the contract. The Contractor shall verify the figures before laying out the work and will be held responsible for any error resulting from its failure to do so.
- (f) The Contractor shall confine all operations (including storage of materials) on PHA premises to areas authorized or approved by the Contracting Officer.
- (g) The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. After completing the work and before final inspection, the Contractor shall (1) remove from the premises all scaffolding, equipment, tools, and materials (including rejected materials) that are not the property of the PHA and all rubbish caused by its work; (2) leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer; (3) perform all specified tests; and, (4) deliver the installation in complete and operating condition.
- (h) The Contractor's responsibility will terminate when all work has been completed, the final inspection made, and the work accepted by the Contracting Officer. The Contractor will then be released from further obligation except as required by the warranties specified elsewhere in the contract.

## 3. Architect's Duties, Responsibilities, and Authority

- (a) The Architect for this contract, and any successor, shall be designated in writing by the Contracting Officer.



- (b) The Architect shall serve as the Contracting Officer's technical representative with respect to architectural, engineering, and design matters related to the work performed under the contract. The Architect may provide direction on contract performance. Such direction shall be within the scope of the contract and may not be of a nature which: (1) institutes additional work outside the scope of the contract; (2) constitutes a change as defined in the Changes clause herein; (3) causes an increase or decrease in the cost of the contract; (4) alters the Construction Progress Schedule; or (5) changes any of the other express terms or conditions of the contract.
- (c) The Architect's duties and responsibilities may include but shall not be limited to:
- (1) Making periodic visits to the work site, and on the basis of his/her on-site inspections, issuing written reports to the PHA which shall include all observed deficiencies. The Architect shall file a copy of the report with the Contractor's designated representative at the site;
  - (2) Making modifications in drawings and technical specifications and assisting the Contracting Officer in the preparation of change orders and other contract modifications for issuance by the Contracting Officer;
  - (3) Reviewing and making recommendations with respect to - (i) the Contractor's construction progress schedules; (ii) the Contractor's shop and detailed drawings; (iii) the machinery, mechanical and other equipment and materials or other articles proposed for use by the Contractor; and, (iv) the Contractor's price breakdown and progress payment estimates; and,
  - (4) Assisting in inspections, signing Certificates of Completion, and making recommendations with respect to acceptance of work completed under the contract.

#### **4. Other Contracts**

The PHA may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with PHA employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by PHA employees

### **Construction Requirements**

#### **5. Pre-construction Conference and Notice to Proceed**

- (a) Within ten calendar days of contract execution, and prior to the commencement of work, the Contractor shall attend a preconstruction conference with representatives of the PHA, its Architect, and other interested parties convened by the PHA. The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the contract. The PHA will provide the Contractor with the date, time, and place of the conference.
- (b) The contractor shall begin work upon receipt of a written Notice to Proceed from the Contracting Officer or designee. The Contractor shall not begin work prior to receiving such notice.

#### **6. Construction Progress Schedule**

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

#### **7. Site Investigation and Conditions Affecting the Work**

- (a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to, (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, and roads; (3) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is

reasonably ascertainable from an inspection of the site, including all exploratory work done by the PHA, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the PHA.

- (b) The PHA assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the PHA. Nor does the PHA assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

## 8. Differing Site Conditions

- (a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or (2) unknown physical conditions at the site(s), of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.
- (b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. Work shall not proceed at the affected site, except at the Contractor's risk, until the Contracting Officer has provided written instructions to the Contractor. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, the Contractor shall file a claim in writing to the PHA within ten days after receipt of such instructions and, in any event, before proceeding with the work. An equitable adjustment in the contract price, the delivery schedule, or both shall be made under this clause and the contract modified in writing accordingly.
- (c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.
- (d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

## 9. Specifications and Drawings for Construction

- (a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be required in the planning and production of the work. Such

promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

- (b) Wherever in the specifications or upon the drawings the words 'directed', 'required', 'ordered', 'designated', 'prescribed', or words of like import are used, it shall be understood that the 'direction', 'requirement', 'order', 'designation', or 'prescription', of the Contracting Officer is intended and similarly the words 'approved', 'acceptable', 'satisfactory', or words of like import shall mean 'approved by', or 'acceptable to', or 'satisfactory to' the Contracting Officer, unless otherwise expressly stated.
- (c) Where 'as shown', 'as indicated', 'as detailed', or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word 'provided' as used herein shall be understood to mean 'provide complete in place' that is 'furnished and installed'.
- (d) 'Shop drawings' means drawings, submitted to the PHA by the Contractor, subcontractor, or any lower tier subcontractor, showing in detail (1) the proposed fabrication and assembly of structural elements and (2) the installation (i.e., form, fit, and attachment details) of materials of equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the work required by the contract. The PHA may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.
- (e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with other contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the PHA's reasons therefore. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) below.
- (f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Architect approves any such variation and the Contracting Officer concurs, the Contracting Officer shall issue an appropriate modification to the contract, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.
- (g) It shall be the responsibility of the Contractor to make timely requests of the PHA for such large scale and full size drawings, color schemes, and other additional information, not already in his possession, which shall be requests may be submitted as the need arises, but each

such request shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay.

- (h) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the PHA and one set will be returned to the Contractor. As required by the Contracting Officer, the Contractor, upon completing the work under this contract, shall furnish a complete set of all shop drawings as finally approved. These drawings shall show all changes and revisions made up to the time the work is completed and accepted.
- (i) This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all shop drawings prepared by subcontractors are submitted to the Contracting Officer.

## 10. As-Built Drawings

- (a) 'As-built drawings,' as used in this clause, means drawings submitted by the Contractor or subcontractor at any tier to show the construction of a particular structure or work as actually completed under the contract. 'As-built drawings' shall be synonymous with 'Record drawings.'
- (b) As required by the Contracting Officer, the Contractor shall provide the Contracting Officer accurate information to be used in the preparation of permanent as-built drawings. For this purpose, the Contractor shall record on one set of contract drawings all changes from the installations originally indicated, and record final locations of underground lines by depth from finish grade and by accurate horizontal offset distances to permanent surface improvements such as buildings, curbs, or edges of walks.
- (c) This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all as-built drawings prepared by subcontractors are submitted to the Contracting Officer.

## 11. Material and Workmanship

- (a) All equipment, material, and articles furnished under this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the contract to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of, and as approved by the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.
- (b) Approval of equipment and materials.
- (1) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment.
- waivers. Before installing the work, the Contractor shall

When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

- (2) When required by the specifications or the Contracting Officer, the Contractor shall submit appropriately marked samples (and certificates related to them) for approval at the Contractor's expense, with all shipping charges prepaid. The Contractor shall label, or otherwise properly mark on the container, the material or product represented, its place of origin, the name of the producer, the Contractor's name, and the identification of the construction project for which the material or product is intended to be used.
- (3) Certificates shall be submitted in triplicate, describing each sample submitted for approval and certifying that the material, equipment or accessory complies with contract requirements. The certificates shall include the name and brand of the product, name of manufacturer, and the location where produced.
- (4) Approval of a sample shall not constitute a waiver of the PHA right to demand full compliance with contract requirements. Materials, equipment and accessories may be rejected for cause even though samples have been approved.
- (5) Wherever materials are required to comply with recognized standards or specifications, such specifications shall be accepted as establishing the technical qualities and testing methods, but shall not govern the number of tests required to be made nor modify other contract requirements. The Contracting Officer may require laboratory test reports on items submitted for approval or may approve materials on the basis of data submitted in certificates with samples. Check tests will be made on materials delivered for use only as frequently as the Contracting Officer determines necessary to insure compliance of materials with the specifications. The Contractor will assume all costs of retesting materials which fail to meet contract requirements and/or testing materials offered in substitution for those found deficient.
- (6) After approval, samples will be kept in the Project office until completion of work. They may be built into the work after a substantial quantity of the materials they represent has been built in and accepted.
- (c) Requirements concerning lead-based paint. The Contractor shall comply with the requirements concerning lead-based paint contained in the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4821-4846) as implemented by 24 CFR Part 35.

## 12. Permits and Codes

- (a) The Contractor shall give all notices and comply with all applicable laws, ordinances, codes, rules and regulations. Notwithstanding the requirement of the Contractor to comply with the drawings and specifications in the contract, all work installed shall comply with all applicable codes and regulations as amended by any

examine the drawings and the specifications for

compliance with applicable codes and regulations bearing on the work and shall immediately report any discrepancy it may discover to the Contracting Officer. Where the requirements of the drawings and specifications fail to comply with the applicable code or regulation, the Contracting Officer shall modify the contract by change order pursuant to the clause entitled Changes herein to conform to the code or regulation.

- (b) The Contractor shall secure and pay for all permits, fees, and licenses necessary for the proper execution and completion of the work. Where the PHA can arrange for the issuance of all or part of these permits, fees and licenses, without cost to the Contractor, the contract amount shall be reduced accordingly.

### 13. Health, Safety, and Accident Prevention

- (a) In performing this contract, the Contractor shall:
  - (1) Ensure that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his/her health and/or safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation;
  - (2) Protect the lives, health, and safety of other persons;
  - (3) Prevent damage to property, materials, supplies, and equipment; and,
  - (4) Avoid work interruptions.
- (b) For these purposes, the Contractor shall:
  - (1) Comply with regulations and standards issued by the Secretary of Labor at 29 CFR Part 1926. Failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54, 83 Stat. 96), 40 U.S.C. 3701 et seq.; and
  - (2) Include the terms of this clause in every subcontract so that such terms will be binding on each subcontractor.
- (c) The Contractor shall maintain an accurate record of exposure data on all accidents incident to work performed under this contract resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment, and shall report this data in the manner prescribed by 29 CFR Part 1904.
- (d) The Contracting Officer shall notify the Contractor of any noncompliance with these requirements and of the corrective action required. This notice, when delivered to the Contractor or the Contractor's representative at the site of the work, shall be deemed sufficient notice of the noncompliance and corrective action required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to take corrective action promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not base any claim or request for equitable adjustment for additional time or money on any stop order issued under these circumstances.
- (e) The Contractor shall be responsible for its subcontractors' compliance with the provisions of this clause. The Contractor shall take such action with respect to any subcontract as the PHA, the Secretary of Housing and Urban Development, or the Secretary of Labor shall direct as a means of enforcing such provisions.

- (f) New work which connects to existing work

### 14. Temporary Heating

The Contractor shall provide and pay for temporary heating, covering, and enclosures necessary to properly protect all work and materials against damage by dampness and cold, to dry out the work, and to facilitate the completion of the work. Any permanent heating equipment used shall be turned over to the PHA in the condition and at the time required by the specifications.

### 15. Availability and Use of Utility Services

- (a) The PHA shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract. Unless otherwise provided in the contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the PHA or, where the utility is produced by the PHA, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.
- (b) The Contractor, at its expense and in a manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of each utility used for the purpose of determining charges. Before final acceptance of the work by the PHA, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.

### 16. Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements

- (a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed under this contract, and which do not unreasonably interfere with the work required under this contract.
- (b) The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during performance of this contract, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.
- (c) The Contractor shall protect from damage all existing improvements and utilities (1) at or near the work site and (2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. Prior to disturbing the ground at the construction site, the Contractor shall ensure that all underground utility lines are clearly marked.
- (d) The Contractor shall shore up, brace, underpin, secure, and protect as necessary all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be affected by the excavations or other operations connected with the construction of the project.
- (e) Any equipment temporarily removed as a result of work under this contract shall be protected, cleaned, and replaced in the same condition as at the time of award of this contract.

shall correspond in all respects with that to which it

connects and/or be similar to existing work unless otherwise required by the specifications.

- (g) No structural members shall be altered or in any way weakened without the written authorization of the Contracting Officer, unless such work is clearly specified in the plans or specifications.
- (h) If the removal of the existing work exposes discolored or unfinished surfaces, or work out of alignment, such surfaces shall be refinished, or the material replaced as necessary to make the continuous work uniform and harmonious. This, however, shall not be construed to require the refinishing or reconstruction of dissimilar finishes previously exposed, or finished surfaces in good condition, but in different planes or on different levels when brought together by the removal of intervening work, unless such refinishing or reconstruction is specified in the plans or specifications.
- (i) The Contractor shall give all required notices to any adjoining or adjacent property owner or other party before the commencement of any work.
- (j) The Contractor shall indemnify and save harmless the PHA from any damages on account of settlement or the loss of lateral support of adjoining property, any damages from changes in topography affecting drainage, and from all loss or expense and all damages for which the PHA may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.
- (k) The Contractor shall repair any damage to vegetation, structures, equipment, utilities, or improvements, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

## 17. Temporary Buildings and Transportation of Materials

- (a) Temporary buildings (e.g., storage sheds, shops, offices, sanitary facilities) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the PHA. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.
- (b) The Contractor shall, as directed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any federal, state, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

## 18. Clean Air and Water

The contractor shall comply with the Clean Air Act, as

- (f) The PHA may conduct routine inspections of the construction site on a daily basis.

amended, 42 USC 7401 et seq., the Federal Water Pollution Control Water Act, as amended, 33 U.S.C. 1251 et seq., and standards issued pursuant thereto in the facilities in which this contract is to be performed.

## 19. Energy Efficiency

The Contractor shall comply with mandatory standards and policies relating to energy efficiency which are contained in the energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub.L. 94-163) for the State in which the work under the contract is performed.

## 20. Inspection and Acceptance of Construction

- (a) Definitions. As used in this clause -
  - (1) "Acceptance" means the act of an authorized representative of the PHA by which the PHA approves and assumes ownership of the work performed under this contract. Acceptance may be partial or complete.
  - (2) "Inspection" means examining and testing the work performed under the contract (including, when appropriate, raw materials, equipment, components, and intermediate assemblies) to determine whether it conforms to contract requirements.
  - (3) "Testing" means that element of inspection that determines the properties or elements, including functional operation of materials, equipment, or their components, by the application of established scientific principles and procedures.
- (b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. All work is subject to PHA inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.
- (c) PHA inspections and tests are for the sole benefit of the PHA and do not: (1) relieve the Contractor of responsibility for providing adequate quality control measures; (2) relieve the Contractor of responsibility for loss or damage of the material before acceptance; (3) constitute or imply acceptance; or, (4) affect the continuing rights of the PHA after acceptance of the completed work under paragraph (j) below.
- (d) The presence or absence of the PHA inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specifications without the Contracting Officer's written authorization. All instructions and approvals with respect to the work shall be given to the Contractor by the Contracting Officer.
- (e) The Contractor shall promptly furnish, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The PHA may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The PHA shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.
- (g) The Contractor shall, without charge, replace or correct work found by the PHA not to conform to

contract requirements, unless the PHA decides that it is in its interest to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

- (h) If the Contractor does not promptly replace or correct rejected work, the PHA may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor, or (2) terminate for default the Contractor's right to proceed.
- (i) If any work requiring inspection is covered up without approval of the PHA, it must, if requested by the Contracting Officer, be uncovered at the expense of the Contractor. If at any time before final acceptance of the entire work, the PHA considers it necessary or advisable, to examine work already completed by removing or tearing it out, the Contractor, shall on request, promptly furnish all necessary facilities, labor, and material. If such work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray all the expenses of the examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, the Contracting Officer shall make an equitable adjustment to cover the cost of the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.
- (j) The Contractor shall notify the Contracting Officer, in writing, as to the date when in its opinion all or a designated portion of the work will be substantially completed and ready for inspection. If the Architect determines that the state of preparedness is as represented, the PHA will promptly arrange for the inspection. Unless otherwise specified in the contract, the PHA shall accept, as soon as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines and designates can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the PHA's right under any warranty or guarantee.

## 21. Use and Possession Prior to Completion

- (a) The PHA shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the PHA intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The PHA's possession or use shall not be deemed an acceptance of any work under the contract.
- (b) While the PHA has such possession or use, the Contractor shall be relieved of the responsibility for (1) the loss of or damage to the work resulting from the PHA's possession or use, notwithstanding the terms of the clause entitled Permits and Codes herein; (2) all maintenance costs on the areas occupied; and, (3) furnishing heat, light, power, and water used in the areas occupied without proper remuneration therefore. If prior possession or use by the PHA delays the progress of the
- (h) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the

work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.

## 22. Warranty of Title

The Contractor warrants good title to all materials, supplies, and equipment incorporated in the work and agrees to deliver the premises together with all improvements thereon free from any claims, liens or charges, and agrees further that neither it nor any other person, firm or corporation shall have any right to a lien upon the premises or anything appurtenant thereto.

## 23. Warranty of Construction

- (a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (j) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or workmanship performed by the Contractor or any subcontractor or supplier at any tier. This warranty shall continue for a period of \_\_\_\_\_ (one year unless otherwise indicated) from the date of final acceptance of the work. If the PHA takes possession of any part of the work before final acceptance, this warranty shall continue for a period of (one year unless otherwise indicated) from the date that the PHA takes possession.
- (b) The Contractor shall remedy, at the Contractor's expense, any failure to conform, or any defect. In addition, the Contractor shall remedy, at the Contractor's expense, any damage to PHA-owned or controlled real or personal property when the damage is the result of—
  - (1) The Contractor's failure to conform to contract requirements; or
  - (2) Any defects of equipment, material, workmanship or design furnished by the Contractor.
- (c) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for (one year unless otherwise indicated) from the date of repair or replacement.
- (d) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect or damage.
- (e) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the PHA shall have the right to replace, repair or otherwise remedy the failure, defect, or damage at the Contractor's expense.
- (f) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall:
  - (1) Obtain all warranties that would be given in normal commercial practice;
  - (2) Require all warranties to be executed in writing, for the benefit of the PHA; and,
  - (3) Enforce all warranties for the benefit of the PHA.
- (g) In the event the Contractor's warranty under paragraph (a) of this clause has expired, the PHA may bring suit at its own expense to enforce a subcontractor's, manufacturer's or supplier's warranty.

Contractor shall not be liable for the repair of any defect of material or design furnished by the PHA nor for the

repair of any damage that results from any defect in PHA furnished material or design.

- (i) Notwithstanding any provisions herein to the contrary, the establishment of the time periods in paragraphs (a) and (c) above relate only to the specific obligation of the Contractor to correct the work, and have no relationship to the time within which its obligation to comply with the contract 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 its obligation other than specifically to correct the work.
- (j) This warranty shall not limit the PHA's rights under the Inspection and Acceptance of Construction clause of this contract with respect to latent defects, gross mistakes or fraud.

## 24. Prohibition Against Liens

The Contractor is prohibited from placing a lien on the PHA's property. This prohibition shall apply to all subcontractors at any tier and all materials suppliers.

## Administrative Requirements

### 25. Contract Period

The Contractor shall complete all work required under this contract within \_\_\_\_\_ calendar days of the effective date of the contract, or within the time schedule established in the notice to proceed issued by the Contracting Officer.

### 26. Order of Provisions

In the event of a conflict between these General Conditions and the Specifications, the General Conditions shall prevail. In the event of a conflict between the contract and any applicable state or local law or regulation, the state or local law or regulation shall prevail; provided that such state or local law or regulation does not conflict with, or is less restrictive than applicable federal law, regulation, or Executive Order. In the event of such a conflict, applicable federal law, regulation, and Executive Order shall prevail.

### 27. Payments

- (a) The PHA shall pay the Contractor the price as provided in this contract.
- (b) The PHA shall make progress payments approximately every 30 days as the work proceeds, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer. The PHA may, subject to written determination and approval of the Contracting Officer, make more frequent payments to contractors which are qualified small businesses.
- (c) Before the first progress payment under this contract, the Contractor shall furnish, in such detail as requested by the Contracting Officer, a breakdown of the total contract price showing the amount included therein for each principal category of the work, which shall substantiate the payment amount requested in order to provide a basis for determining progress payments. The breakdown shall be approved by the Contracting Officer and must be Material delivered to the Contractor at locations other than the site may also be taken into consideration if the Contractor furnishes satisfactory evidence that (1) it has

acceptable to HUD. If the contract covers more than one project, the Contractor shall furnish a separate breakdown for each. The values and quantities employed in making up this breakdown are for determining the amount of progress payments and shall not be construed as a basis for additions to or deductions from the contract price. The Contractor shall prorate its overhead and profit over the construction period of the contract.

- (d) The Contractor shall submit, on forms provided by the PHA, periodic estimates showing the value of the work performed during each period based upon the approved breakdown of the contract price. Such estimates shall be submitted not later than \_\_\_\_\_ days in advance of the date set for payment and are subject to correction and revision as required. The estimates must be approved by the Contracting Officer with the concurrence of the Architect prior to payment. If the contract covers more than one project, the Contractor shall furnish a separate progress payment estimate for each.
- (e) Along with each request for progress payments and the required estimates, the Contractor shall furnish the following certification, or payment shall not be made: I hereby certify, to the best of my knowledge and belief, that:
  - (1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;
  - (2) Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements; and,
  - (3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract.

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

- (f) Except as otherwise provided in State law, the PHA shall retain ten (10) percent of the amount of progress payments until completion and acceptance of all work under the contract; except, that if upon completion of 50 percent of the work, the Contracting Officer, after consulting with the Architect, determines that the Contractor's performance and progress are satisfactory, the PHA may make the remaining payments in full for the work subsequently completed. If the Contracting Officer subsequently determines that the Contractor's performance and progress are unsatisfactory, the PHA shall reinstate the ten (10) percent (or other percentage as provided in State law) retainage until such time as the Contracting Officer determines that performance and progress are satisfactory.
- (g) The Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration when computing progress payments.

acquired title to such material; (2) the material is properly stored in a bonded warehouse, storage yard, or similar suitable place as may be approved by the Contracting

Officer; (3) the material is insured to cover its full value; and (4) the material will be used to perform this contract. Before any progress payment which includes delivered material is made, the Contractor shall furnish such documentation as the Contracting Officer may require to assure the protection of the PHA's interest in such materials. The Contractor shall remain responsible for such stored material notwithstanding the transfer of title to the PHA.

- (h) All material and work covered by progress payments made shall, at the time of payment become the sole property of the PHA, but this shall not be construed as (1) relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or, (2) waiving the right of the PHA to require the fulfillment of all of the terms of the contract. In the event the work of the Contractor has been damaged by other contractors or persons other than employees of the PHA in the course of their employment, the Contractor shall restore such damaged work without cost to the PHA and to seek redress for its damage only from those who directly caused it.
- (i) The PHA shall make the final payment due the Contractor under this contract after (1) completion and final acceptance of all work; and (2) presentation of release of all claims against the PHA arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. Each such exception shall embrace no more than one claim, the basis and scope of which shall be clearly defined. The amounts for such excepted claims shall not be included in the request for final payment. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned.
- (j) Prior to making any payment, the Contracting Officer may require the Contractor to furnish receipts or other evidence of payment from all persons performing work and supplying material to the Contractor, if the Contracting Officer determines such evidence is necessary to substantiate claimed costs.
- (k) The PHA shall not; (1) determine or adjust any claims for payment or disputes arising there under between the Contractor and its subcontractors or material suppliers; or, (2) withhold any moneys for the protection of the subcontractors or material suppliers. The failure or refusal of the PHA to withhold moneys from the Contractor shall in nowise impair the obligations of any surety or sureties under any bonds furnished under this contract.

## 28. Contract Modifications

- (a) Only the Contracting Officer has authority to modify any term or condition of this contract. Any contract modification shall be authorized in writing.
- (b) The Contracting Officer may modify the contract unilaterally (1) pursuant to a specific authorization stated in a contract clause (e.g., Changes); or (2) for administrative matters which do not change the rights or responsibilities of the parties (e.g., change in the PHA address). All other contract modifications shall be in the form of supplemental agreements signed by the
  - (1) Direct Costs. Materials (list individual items, the quantity and unit cost of each, and the aggregate cost); Transportation and delivery costs associated with materials; Labor breakdowns by hours or unit

Contractor and the Contracting Officer.

- (c) When a proposed modification requires the approval of HUD prior to its issuance (e.g., a change order that exceeds the PHA's approved threshold), such modification shall not be effective until the required approval is received by the PHA.

## 29. Changes

- (a) The Contracting Officer may, at any time, without notice to the sureties, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract including changes:
  - (1) In the specifications (including drawings and designs);
  - (2) In the method or manner of performance of the work;
  - (3) PHA-furnished facilities, equipment, materials, services, or site; or,
  - (4) Directing the acceleration in the performance of the work.
- (b) Any other written order or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating (1) the date, circumstances and source of the order and (2) that the Contractor regards the order as a change order.
- (c) Except as provided in this clause, no order, statement or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.
- (d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for a adjustment based on defective specifications, no proposal for any change under paragraph (b) above shall be allowed for any costs incurred more than 20 days (5 days for oral orders) before the Contractor gives written notice as required. In the case of defective specifications for which the PHA is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.
- (e) The Contractor must assert its right to an adjustment under this clause within 30 days after (1) receipt of a written change order under paragraph (a) of this clause, or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting a written statement describing the general nature and the amount of the proposal. If the facts justify it, the Contracting Officer may extend the period for submission. The proposal may be included in the notice required under paragraph (b) above. No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.
- (f) The Contractor's written proposal for equitable adjustment shall be submitted in the form of a lump sum proposal supported with an itemized breakdown of all increases and decreases in the contract in at least the following details:
  - costs (identified with specific work to be performed);
  - Construction equipment exclusively necessary for the change;
  - Costs of preparation and/ or revision to shop drawings resulting from the change;
  - Worker's



Compensation and Public Liability Insurance;  
Employment taxes under FICA and FUTA; and, Bond  
Costs when size of change warrants revision.

- (2) Indirect Costs. Indirect costs may include overhead, general and administrative expenses, and fringe benefits not normally treated as direct costs.
- (3) Profit. The amount of profit shall be negotiated and may vary according to the nature, extent, and complexity of the work required by the change.

The allowability of the direct and indirect costs shall be determined in accordance with the Contract Cost Principles and Procedures for Commercial Firms in Part 31 of the Federal Acquisition Regulation (48 CFR 1-31), as implemented by HUD Handbook 2210.18, in effect on the date of this contract. The Contractor shall not be allowed a profit on the profit received by any subcontractor. Equitable adjustments for deleted work shall include a credit for profit and may include a credit for indirect costs. On proposals covering both increases and decreases in the amount of the contract, the application of indirect costs and profit shall be on the net-change in direct costs for the Contractor or subcontractor performing the work.

- (g) The Contractor shall include in the proposal its request for time extension (if any), and shall include sufficient information and dates to demonstrate whether and to what extent the change will delay the completion of the contract in its entirety.
- (h) The Contracting Officer shall act on proposals within 30 days after their receipt, or notify the Contractor of the date when such action will be taken.
- (i) Failure to reach an agreement on any proposal shall be a dispute under the clause entitled Disputes herein. Nothing in this clause, however, shall excuse the Contractor from proceeding with the contract as changed.
- (j) Except in an emergency endangering life or property, no change shall be made by the Contractor without a prior order from the Contracting Officer.

### 30. Suspension of Work

- (a) The Contracting Officer may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the PHA.
- (b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer's failure to act within the time specified (or within a reasonable time if not specified) in this contract an adjustment shall be made for any increase in the cost of performance of the contract (excluding profit) necessarily caused by such unreasonable suspension, delay, or interruption and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have

been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor or for which any equitable adjustment is provided for or excluded under any other provision of this contract.

- (c) A claim under this clause shall not be allowed (1) for any proceed with the work (or separable part of the work) that has been delayed. In this event, the PHA may take over the work and complete it, by contract or otherwise, and

costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order); and, (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

### 31. Disputes

- (a) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract. A claim arising under the contract, unlike a claim relating to the contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim. The submission may be converted to a claim by complying with the requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.
- (b) Except for disputes arising under the clauses entitled Labor Standards - Davis Bacon and Related Acts, herein, all disputes arising under or relating to this contract, including any claims for damages for the alleged breach thereof which are not disposed of by agreement, shall be resolved under this clause.
- (c) All claims by the Contractor shall be made in writing and submitted to the Contracting Officer for a written decision. A claim by the PHA against the Contractor shall be subject to a written decision by the Contracting Officer.
- (d) The Contracting Officer shall, within 60 (unless otherwise indicated) days after receipt of the request, decide the claim or notify the Contractor of the date by which the decision will be made.
- (e) The Contracting Officer's decision shall be final unless the Contractor (1) appeals in writing to a higher level in the PHA in accordance with the PHA's policy and procedures, (2) refers the appeal to an independent mediator or arbitrator, or (3) files suit in a court of competent jurisdiction. Such appeal must be made within (30 unless otherwise indicated) days after receipt of the Contracting Officer's decision.
- (f) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.

### 32. Default

- (a) If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with the diligence that will insure its completion within the time specified in this contract, or any extension thereof, or fails to complete said work within this time, the Contracting Officer may, by written notice to the Contractor, terminate the right to

may take possession of and use any materials, equipment, and plant on the work site necessary for completing the work. The Contractor and its sureties shall

be liable for any damage to the PHA resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the PHA in completing the work.

- (b) The Contractor's right to proceed shall not be terminated or the Contractor charged with damages under this clause if—
- (1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include (i) acts of God, or of the public enemy, (ii) acts of the PHA or other governmental entity in either its sovereign or contractual capacity, (iii) acts of another contractor in the performance of a contract with the PHA, (iv) fires, (v) floods, (vi) epidemics, (vii) quarantine restrictions, (viii) strikes, (ix) freight embargoes, (x) unusually severe weather, or (xi) delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and
  - (2) The Contractor, within days (10 days unless otherwise indicated) from the beginning of such delay (unless extended by the Contracting Officer) notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of the delay. If, in the judgment of the Contracting Officer, the findings of fact warrant such action, time for completing the work shall be extended by written modification to the contract. The findings of the Contracting Officer shall be reduced to a written decision which shall be subject to the provisions of the Disputes clause of this contract.
- (c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been for convenience of the PHA.

### 33. Liquidated Damages

- (a) If the Contractor fails to complete the work within the time specified in the contract, or any extension, as specified in the clause entitled Default of this contract, the Contractor shall pay to the PHA as liquidated damages, the sum of \$ \_\_\_\_\_ [Contracting Officer insert amount] for each day of delay. If different completion dates are specified in the contract for separate parts or stages of the work, the amount of liquidated damages shall be assessed on those parts or stages which are delayed. To the extent that the Contractor's delay or nonperformance is excused under another clause in this contract, liquidated damages shall not be due the PHA. The Contractor remains liable for damages caused other than by delay.
- (b) If the PHA terminates the Contractor's right to proceed, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final

**NOTE: REFER TO INSURANCE REQUIREMENTS  
WITHIN SPEC 00100 - GENERAL  
REQUIREMENTS**

completion of the work together with any increased costs occasioned the PHA in completing the work.

- (c) If the PHA does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted.

### 34. Termination for Convenience

- (a) The Contracting Officer may terminate this contract in whole, or in part, whenever the Contracting Officer determines that such termination is in the best interest of the PHA. Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which the performance of the work under the contract is terminated, and the date upon which such termination becomes effective.
- (b) If the performance of the work is terminated, either in whole or in part, the PHA shall be liable to the Contractor for reasonable and proper costs resulting from such termination upon the receipt by the PHA of a properly presented claim setting out in detail: (1) the total cost of the work performed to date of termination less the total amount of contract payments made to the Contractor; (2) the cost (including reasonable profit) of settling and paying claims under subcontracts and material orders for work performed and materials and supplies delivered to the site, payment for which has not been made by the PHA to the Contractor or by the Contractor to the subcontractor or supplier; (3) the cost of preserving and protecting the work already performed until the PHA or assignee takes possession thereof or assumes responsibility therefore; (4) the actual or estimated cost of legal and accounting services reasonably necessary to prepare and present the termination claim to the PHA; and (5) an amount constituting a reasonable profit on the value of the work performed by the Contractor.
- (c) The Contracting Officer will act on the Contractor's claim within days (60 days unless otherwise indicated) of receipt of the Contractor's claim.
- (d) Any disputes with regard to this clause are expressly made subject to the provisions of the Disputes clause of this contract.

### 35. Assignment of Contract

The Contractor shall not assign or transfer any interest in this contract; except that claims for monies due or to become due from the PHA under the contract may be assigned to a bank, trust company, or other financial institution. Such assignments of claims shall only be made with the written concurrence of the Contracting Officer. If the Contractor is a partnership, this contract shall inure to the benefit of the surviving or remaining member(s) of such partnership as approved by the Contracting Officer.

### 36. Insurance

- (a) Before commencing work, the Contractor and each subcontractor shall furnish the PHA with certificates of insurance showing the following insurance is in force and will insure all operations under the Contract:
- (1) Workers' Compensation, in accordance with state or Territorial Workers' Compensation laws.
  - (2) Commercial General Liability with a combined single limit for bodily injury and property damage of not less than \$ \_\_\_\_\_ [Contracting Officer insert amount]

per occurrence to protect the Contractor and each subcontractor against claims for bodily injury or death and damage to the property of others. This shall cover the use of all equipment, hoists, and vehicles on the site(s) not covered by Automobile Liability under (3) below. If the Contractor has a "claims-made" policy, then the following additional requirements apply: the policy must provide a "retroactive date" which must be on or before the execution date of the Contract; and the extended reporting period may not be less than five years following the completion date of the Contract.

- (3) Automobile Liability on owned and non-owned motor vehicles used on the site(s) or in connection therewith for a combined single limit for bodily injury and property damage of not less than \$\_\_\_\_\_ [Contracting Officer insert amount] per occurrence.
- (b) Before commencing work, the Contractor shall furnish the PHA with a certificate of insurance evidencing that Builder's Risk (fire and extended coverage) Insurance on all work in place and/or materials stored at the building site(s), including foundations and building equipment, is in force. The Builder's Risk Insurance shall be for the benefit of the Contractor and the PHA as their interests may appear and each shall be named in the policy or policies as an insured. The Contractor in installing equipment supplied by the PHA shall carry insurance on such equipment from the time the Contractor takes possession thereof until the Contract work is accepted by the PHA. The Builder's Risk Insurance need not be carried on excavations, piers, footings, or foundations until such time as work on the superstructure is started. It need not be carried on landscape work. Policies shall furnish coverage at all times for the full cash value of all completed construction, as well as materials in place and/or stored at the site(s), whether or not partial payment has been made by the PHA. The Contractor may terminate this insurance on buildings as of the date taken over for occupancy by the PHA. The Contractor is not required to carry Builder's Risk Insurance for modernization work which does not involve structural alterations or additions and where the PHA's existing fire and extended coverage policy can be endorsed to include such work.
- (c) All insurance shall be carried with companies which are financially responsible and admitted to do business in the State in which the project is located. If any such insurance is due to expire during the construction period, the Contractor (including subcontractors, as applicable) shall not permit the coverage to lapse and shall furnish evidence of coverage to the Contracting Officer. All certificates of insurance, as evidence of coverage, shall provide that no coverage may be canceled or non-renewed by the insurance company until at least 30 days prior written notice has been given to the Contracting Officer.

### **37. Subcontracts**

- (a) Definitions. As used in this contract -
- (1) "Subcontract" means any contract, purchase order, or other purchase agreement, including modifications and change orders to the foregoing, entered into by a subcontractor to furnish supplies, materials, equipment, and services for the performance of the prime contract or a subcontract.

- (2) "Subcontractor" means any supplier, vendor, or firm that furnishes supplies, materials, equipment, or services to or for the Contractor or another subcontractor.
- (b) The Contractor shall not enter into any subcontract with any subcontractor who has been temporarily denied participation in a HUD program or who has been suspended or debarred from participating in contracting programs by any agency of the United States Government or of the state in which the work under this contract is to be performed.
- (c) The Contractor shall be as fully responsible for the acts or omissions of its subcontractors, and of persons either directly or indirectly employed by them as for the acts or omissions of persons directly employed by the Contractor.
- (d) The Contractor shall insert appropriate clauses in all subcontracts to bind subcontractors to the terms and conditions of this contract insofar as they are applicable to the work of subcontractors.
- (e) Nothing contained in this contract shall create any contractual relationship between any subcontractor and the PHA or between the subcontractor and HUD.

### **38. Subcontracting with Small and Minority Firms, Women's Business Enterprise, and Labor Surplus Area Firms**

The Contractor shall take the following steps to ensure that, whenever possible, subcontracts are awarded to small business firms, minority firms, women's business enterprises, and labor surplus area firms:

- (a) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (b) Ensuring that small and minority businesses and women's business enterprises are solicited whenever they are potential sources;
- (c) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women's business enterprises;
- (d) Establishing delivery schedules, where the requirements of the contract permit, which encourage participation by small and minority businesses and women's business enterprises; and
- (e) Using the services and assistance of the U.S. Small Business Administration, the Minority Business Development Agency of the U.S. Department of Commerce, and State and local governmental small business agencies.

### **39. Equal Employment Opportunity**

During the performance of this contract, the Contractor agrees as follows:

- (a) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or handicap.
- (b) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, national origin, or handicap. Such action shall include, but not be limited to, (1) employment, (2) upgrading, (3) demotion, (4) transfer, (5) recruitment or recruitment advertising, (6) layoff or termination, (7) rates of pay or other forms of compensation, and (8) selection for training, including apprenticeship.

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- (c) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.
- (d) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, or handicap.
- (e) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.
- (f) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.
- (g) The Contractor shall furnish all information and reports required by Executive Order 11246, as amended, Section 503 of the Rehabilitation Act of 1973, as amended, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto. The Contractor shall permit access to its books, records, and accounts by the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (h) In the event of a determination that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part, and the Contractor may be declared ineligible for further Government contracts, or Federally assisted construction contracts under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended, the rules, regulations, and orders of the Secretary of Labor, or as otherwise provided by law.
- (i) The Contractor shall include the terms and conditions of this clause in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor. The Contractor shall take such action with respect to any subcontract or purchase order as the Secretary of Housing and Urban Development or the Secretary of Labor may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.
- (j) Compliance with the requirements of this clause shall be to the maximum extent consistent with, but not in derogation of, compliance with section 7(b) of the Indian Self-Determination and Education Assistance Act and the Indian Preference clause of this contract.
- 40. Employment, Training, and Contracting Opportunities for Low-Income Persons, Section 3 of the Housing and Urban Development Act of 1968.**
- (a) 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. 1701u (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
- (b) The parties to this contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the Part 135 regulations.
- (c) The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- (d) The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR Part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR Part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR Part 135.
- (e) The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) 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 contractor's obligations under 24 CFR Part 135.
- (f) Noncompliance with HUD's regulations in 24 CFR Part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.
- (g) With respect to work performed in connection with section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of section 3 and section 7(b) agree to comply with section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).
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#### 41. Interest of Members of Congress

No member of or delegate to the Congress of the United States of America shall be admitted to any share or part of this contract or to any benefit that may arise therefrom.

#### **42. Interest of Members, Officers, or Employees and Former Members, Officers, or Employees**

No member, officer, or employee of the PHA, no member of the governing body of the locality in which the project is situated, no member of the governing body of the locality in which the PHA was activated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the project, shall, during his or her tenure, or for one year thereafter, have any interest, direct or indirect, in this contract or the proceeds thereof.

#### **43. Limitations on Payments made to Influence Certain Federal Financial Transactions**

- (a) The Contractor agrees to comply with Section 1352 of Title 31, United States Code which prohibits the use of Federal appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: 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; or the modification of any Federal contract, grant, loan, or cooperative agreement.
- (b) The Contractor further agrees to comply with the requirement of the Act to furnish a disclosure (OMB Standard Form LLL, Disclosure of Lobbying Activities) if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

#### **44. Royalties and Patents**

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringement of any patent rights and shall save the PHA harmless from loss on account thereof; except that the PHA shall be responsible for all such loss when a particular design, process or the product of a particular manufacturer or manufacturers is specified and the Contractor has no reason to believe that the specified design, process, or product is an infringement. If, however, the Contractor has reason to believe that any design, process or product specified is an infringement of a patent, the Contractor shall promptly notify the Contracting Officer. Failure to give such notice shall make the Contractor responsible for resultant loss.

#### **45. Examination and Retention of Contractor's Records**

be posted at all times by the Contractor and its

- (a) The PHA, HUD, or Comptroller General of the United States, or any of their duly authorized representatives shall, until 3 years after final payment under this contract, have access to and the right to examine any of the Contractor's directly pertinent books, documents, papers, or other records involving transactions related to this contract for the purpose of making audit, examination, excerpts, and transcriptions.
- (b) The Contractor agrees to include in first-tier subcontracts under this contract a clause substantially the same as paragraph (a) above. "Subcontract," as used in this clause, excludes purchase orders not exceeding \$10,000.
- (c) The periods of access and examination in paragraphs (a) and (b) above for records relating to (1) appeals under the Disputes clause of this contract, (2) litigation or settlement of claims arising from the performance of this contract, or (3) costs and expenses of this contract to which the PHA, HUD, or Comptroller General or any of their duly authorized representatives has taken exception shall continue until disposition of such appeals, litigation, claims, or exceptions.

#### **46. Labor Standards - Davis-Bacon and Related Acts**

If the total amount of this contract exceeds \$2,000, the Federal labor standards set forth in the clause below shall apply to the development or construction work to be performed under the contract.

- (a) Minimum Wages.
  - (1) All laborers and mechanics employed under this contract in the development or construction of the project(s) involved 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 1(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 regular 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 in 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 subcontractors at the site of the work in a prominent and

accessible place where it can be easily seen by the workers.

(2) (i) Any class of laborers or mechanics, including helpers, 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 all the following criteria have been met: (A) The work to be performed by the classification requested is not performed by a classification in the wage determination; and (B) The classification is utilized in the area by the construction industry; and (C) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(ii) 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, Employee Standards Administration, U.S. Department of Labor, Washington, DC 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.

(iii) 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 of the Wage and Hour Division 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.

(iv) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (a)(2)(ii) or (iii) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in classification.

(3) 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.

(4) 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.

(b) Withholding of funds. 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 in the construction or development of the project, all or part of the wages required by the contract, HUD or its designee 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. 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.

(c) Payrolls and basic records.

(1) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working in the construction or development of the project. 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 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, under 29 CFR 5.5(a)(1)(iv), that the wages of any laborer or mechanic include the amount of 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 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.



- (2) (i) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer 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 subparagraph (c)(1) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The 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 1214-0149.)
- (ii) 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:
- (A) That the payroll for the payroll period contains the information required to be maintained under paragraph (c) (1) of this clause and that such information is correct and complete;
- (B) 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; and
- (C) 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.
- (iii) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirements for submission of the "Statement of Compliance" required by subparagraph (c)(2)(ii) of this clause.
- (iv) 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 3729 of Title 31 of the United States Code.
- (3) The Contractor or subcontractor shall make the records required under subparagraph (c)(1) available for inspection, copying, or transcription by authorized representatives of HUD or its designee, the Contracting Officer, 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, 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.

- (d) (1) 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 and Training, Employer and Labor Services (OATELS), or with a State Apprenticeship Agency recognized by OATELS, 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 OATELS or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification 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 in this paragraph, 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 journeyman 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 of 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 OATELS, or a State Apprenticeship Agency recognized by OATELS, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (2) 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 in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination 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 in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in 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.
- (3) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.
- (e) Compliance with Copeland Act requirements. The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.
- (f) Contract termination; debarment. A breach of this contract clause may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in 29 CFR 5.12.
- (g) 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.
- (h) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this clause 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 the PHA, HUD, the U.S. Department of Labor, or the employees or their representatives.
- (i) Certification of eligibility.
- (1) 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 contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (2) No part of this contract shall be subcontracted to any person or firm ineligible for award of a United States Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- (3) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001.
- (j) Contract Work Hours and Safety Standards Act. 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, including watchmen and guards, shall require or permit any such laborer or mechanic in any workweek in which the individual 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 provisions set forth in subparagraph (j)(1) of this clause, 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 provisions set forth in subparagraph (j)(1) of this clause, 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 provisions set forth in subparagraph (j)(1) of this clause.
- (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 Federal contract with the same prime Contractor, 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 provisions set forth in subparagraph (j)(2) of this clause.
- (k) Subcontracts. The Contractor or subcontractor shall insert in any subcontracts all the provisions contained in this clause, and such other clauses as HUD or its designee may by appropriate instructions require, and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all these provisions.



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#### 47. Non-Federal Prevailing Wage Rates

- (a) Any prevailing wage rate (including basic hourly rate and any fringe benefits), determined under State or tribal law to be prevailing, with respect to any employee in any trade or position employed under the contract, is inapplicable to the contract and shall not be enforced against the Contractor or any subcontractor, with respect to employees engaged under the contract whenever such non-Federal prevailing wage rate exceeds: (1) The applicable wage rate determined by the Secretary of Labor pursuant to the Davis-Bacon Act (40 U.S.C. 3141 et seq.) to be prevailing in the locality with respect to such trade;
- (b) An applicable apprentice wage rate based thereon specified in an apprenticeship program registered with the U.S. Department of Labor (DOL) or a DOL-recognized State Apprenticeship Agency; or
- (c) An applicable trainee wage rate based thereon specified in a DOL-certified trainee program.

#### 48. Procurement of Recovered Materials.

- (a) In accordance with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, the Contractor shall procure items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition. The Contractor shall procure items designated in the EPA guidelines that contain the highest percentage of recovered materials practicable unless the Contractor determines that such items: (1) are not reasonably available in a reasonable period of time; (2) fail to meet reasonable performance standards, which shall be determined on the basis of the guidelines of the National Institute of Standards and Technology, if applicable to the item; or (3) are only available at an unreasonable price.
- (b) Paragraph (a) of this clause shall apply to items purchased under this contract where: (1) the Contractor purchases in excess of \$10,000 of the item under this contract; or (2) during the preceding Federal fiscal year, the Contractor: (i) purchased any amount of the items for use under a contract that was funded with Federal appropriations and was with a Federal agency or a State agency or agency of a political subdivision of a State; and (ii) purchased a total of in excess of \$10,000 of the item both under and outside that contract.

# Supplementary Conditions of the Contract for Construction

U.S. Department of Housing  
and Urban Development  
Office of Housing  
Federal Housing Commissioner

OMB Approval No. 2502-0470  
(Expires 5/31/2010)

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This information is required to obtain benefits and voluntary. HUD may not collect this information, and you are not required to complete this form, unless it displays a currently valid OMB control number.

This information collection is necessary to ensure that viable projects are developed. It is important to obtain information from applicants to assist HUD in determining if nonprofit organizations initially funded continue to have the financial and administrative capacity needed to develop a project and that the project design meets the needs of the residents. The Department will use this information to set forth the obligations of the contractor or subcontractor performing under the covered contract. This information is required in order to obtain benefits. This information is considered non-sensitive and no assurance of confidentiality is provided.

## Article 1 – Labor Standards

### Instructions

Whenever only FHA mortgage insurance is involved, use paragraph (A) and (C) of Article 1 – Labor Standards. Whenever any direct form of assistance (Section 8, Section 202/811 Capital Advance, grants etc.) is involved, use paragraphs (A) and (B) and (C) of Article 1 – Labor Standards.

### Applicability

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

**A. 1. (i) Minimum Wages.** All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), 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 1(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 Part 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 Part 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 therefore 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 A.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 (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), 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 and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). 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 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 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 1(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 Part 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, D.C. 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 Part 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 paragraph A.3.(ii)(b) of this section.

**(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 paragraph A.3.(i) of this section 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 Part 5.12.

**4. (i) Apprentices and Trainees. 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, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, 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 Bureau of Apprenticeship and Training 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 Bureau

of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, 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's 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 classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program 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 this part 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 29 CFR 5.5(a)(1) through (10) and such other clauses as HUD or its designee may be appropriate instructions require, 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 29 CFR Part 5.5.

**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 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 1010, 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."

**B. Contract Work Hours and Safety Standards Act.** 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 forty 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 forty hours in such workweek.

**2. Violation; liability for unpaid wages, liquidated damages.** In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefore 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 forty hours without payment of the overtime wages required by the clause set forth in subparagraph (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 contractor, 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.** The Contractor will be required to execute FHA Form No. 2403-A, Contractor's Prevailing Wage Certificate, as a condition precedent to insurance by the Federal Housing Administration of that certain mortgage loan, or an advance thereof, made or to be made by the mortgagee in connection with the construction of the project.

## **Article 2 – Equal Employment Opportunity**

The applicant hereby agrees that it will incorporate or cause to be

incorporated into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the following equal opportunity clause:

During the performance of this contract, the Contractor agrees as follows:

**A.** The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: 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. The Contractor agrees to post in conspicuous places available to employees and applicants for employment notices to be provided setting forth the provisions of this nondiscrimination clause.

**B.** The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

**C.** The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding a notice to be provided advising the said labor union or workers representatives of the Contractor's commitments hereunder, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

**D.** The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965 and of the rules, regulations, and relevant orders of the Secretary of Labor.

**E.** The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

**F.** In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulations or order of the Secretary of Labor, or as otherwise provided by law.

**G.** The Contractor will include the portion of the sentence immediately preceding paragraph A and the provisions of paragraphs A through G in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Secretary of Housing and Urban Development or the Secretary of Labor may direct as a means of enforcing such provisions, including sanctions for noncompliance. *Provided, however,* that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Secretary of Housing and Urban Development or the Secretary of Labor, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

**H.** The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work:

*Provided, That* if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

**I.** The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

**J.** The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

### **Article 3 – Equal Opportunity for Businesses and Lower Income Persons Located Within the Project Area**

(Applicable to Section 236 projects, where the estimated replacement cost of the project as determined by the Secretary of Housing and Urban Development exceeds \$500,000, and to all projects, including Section 236 regardless of estimated replacement cost, receiving rent supplement assistance under Title I, Section 101 of the Housing and Urban Development Act of 1965.)

**A.** The work to be performed under this contract is on a project assisted under a program providing direct Federal financial assistance from the Department of Housing and Urban Development and is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u. Section 3 requires that to the greatest extent feasible opportunities for training and employment be given lower income residents of the unit of local government or the metropolitan area (or nonmetropolitan county) as determined by the Secretary of Housing and Urban Development in which the projects located and contracts for work in connection with the project be awarded to business concerns which are located in, or owned in substantial part by persons residing in the same metropolitan area (or nonmetropolitan county) as the project.

### **Article 4 – Health and Safety**

**A.** 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.

**B.** The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 (formerly part 1518) and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54, 83 Stat. 96).

**C.** The Contractor shall include the provisions of this Article 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 of the Secretary of Labor shall direct as a means of enforcing such provisions.

## SUPPLEMENTARY GENERAL CONDITIONS

1. The following supplements shall modify, delete and/or add to the General Conditions of the Contract. Where any article, paragraph or subparagraph in the General Conditions is supplemented by one of the following paragraphs, the provisions of such article, paragraph, or subparagraph shall remain in effect and the supplemental provisions shall be considered as added thereto. Where any article, paragraph or subparagraph in the General Conditions is amended, voided or superseded by any of the following paragraphs, the provisions of such article, paragraph or subparagraph not so amended, voided or superseded shall remain in effect.
2. **Architect:** Construction documents for this project have been developed by McKee and Associates, Architects, 631 South Hull Street, Montgomery, Alabama, 36104 (334) 834-9933 commissioned by the Owner.

**Person of Contact:** Jay Evans, [evansj@mckeeassoc.com](mailto:evansj@mckeeassoc.com)

**Owner or Authority:** The Phil Campbell Housing Authority, Phil Campbell, Alabama (PCHA). Unless otherwise stated, all papers required to be delivered to the Owner shall be forwarded through the Architect.

3. **Copies of plans & specs to be furnished to the Contractor:** Ten (5) copies of the drawings and specifications will be furnished to the Contractor by the Architect without charge, upon award of contract. Other copies requested will be furnished at the cost of reproduction.
4. **Color Submittals:** All submittals related to color selections, for the entire project, shall be submitted to the Architect at the same time. Piece-meal submittals for color selection will not be permitted.
5. **Codes:** All required work on this project shall be performed in accordance with the appropriate current International Building Code for that portion(s) of work being renovated and any recent revisions and amendments and/or as directed and required by The Local Municipality, Chief Building Inspector and/or Code Enforcement Officer(s).

International Plumbing Code, Revisions & Amendments  
International Fuel Gas Code, Revisions & Amendments  
International Mechanical Code, Revisions & Amendments  
International Fire Prevention Code, Revisions & Amendments  
International Life Safety Code, Revisions & Amendments  
National Electrical Code, Revisions & Amendments  
International Housing Code, Revisions & Amendments  
International Code for the Installation of Roof Coverings, Revisions &

Amendments  
International Code for Flood Plan Management, Revisions & Amendments  
International Federal Accessibility for Handicap Accessibility (ADA)

NOTE: The Codes as listed above constitute the "State Building Code" as prescribed by the law and should be the most recent codes with revisions and amendments.

6. **Conflicts:** Where the General Contract specification requirements exceed or conflict with those of the General Conditions, these General Contract specifications shall govern.
7. **Standards:** Where the Specifications call for a named product or one that meets or exceeds it in quality, the decision of the Architect or Engineer and the Authority as to the acceptability of any product offered by the Contractor shall be binding. Some products may be specified only by one specific model and/or manufacturer due to matching existing products already used in prior contracts and/or due to maintenance inventory control.

On all items specified "or equal" substitutions must be submitted to the Architect ten (5) days prior to bid opening and Architect will act on substitution five (2) days prior to bids and notify all Contractors.

8. The Architect shall not be liable for any damage or injury to property or any person or persons arising from the presence of/or effects of any hazardous materials or hazardous elements in any state of form in connection with the work under this Contract. All such liability shall lie with the Contractor. It is the responsibility of the Contractor to report any potential hazardous materials, if they are encountered during renovation work.
9. **Additional Fees due to Incompletion of Work:** If this contract extends thirty (30) days past Completion Date (as defined by the Contract and any subsequent adjustments or change orders), the Owner/ Authority shall deduct from the Contractor's final payment, a sum equal to the additional expense incurred by the Owner, for contract administration services by the Architect, any Engineering disciplines and/or any Clerk of the Works services.
10. **No Use of Asbestos or Hazardous Materials:** Prior to final acceptance by the Owner, the Contractor shall furnish a letter to the Owner, certifying that the material used on this project contained no asbestos or any Hazardous Materials as defined by NESHAP.
11. **Skilled Labor:** All labor shall be performed in the best and most workmanlike manner by persons skilled in their respective assignments or trades. Workmen whose work is unsatisfactory to the Architect or the Owner, or who are

considered unfit or unskilled, or otherwise objectionable, shall be dismissed upon notice from the Architect or Owner.

12. **Taxes:** Materials incorporated into the Work are **NOT** exempt from sales and use tax. The Contractor and its subcontractors shall be responsible for complying with the rules and regulations of the Sales, Use, & Business Tax Division of the Alabama Department of Revenue regarding sales and use tax when making purchases from vendors. The Contractor shall pay all applicable taxes which are imposed as of the date of receipt of bids, including those imposed as of the date of receipt of bids but scheduled to go into effect after that date.
13. **Warranties:** All manufactures warranties shall commence on the date as set forth on the Substantial Completion Form, no exceptions.
14. **Utilities:** The Contractor shall provide all water, electrical power and other utilities required for construction. The Contractor shall make all arrangements, installations, construction, etc. necessary to bring either permanent and/or temporary service from the present locations to the construction area. This shall all be coordinated with the appropriate utility department.
15. **Builders Risk Insurance:** The Contractor shall maintain the insurance coverage listed including "Builder's Risk Insurance" and shall furnish to the Owner a certificate of insurance evidencing the coverage before commencing any work.
16. **Royalties and Patents:** The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringements of any patent rights and shall save the Owner and Architect harmless for loss on account thereof.
17. **Permits and Inspection Fees:** The Contractor shall obtain all necessary permits required by laws and regulations, give all required notices, and pay all lawful fees. The Contractor and each of his subcontractors shall secure and pay for all inspections and certifications of their work as required by laws and regulations in effect in the locality involved.
18. **Building Permits:** The Contractor shall obtain all building permits prior to beginning work. Upon obtaining the building permit, the Contractor shall notify the Architect of such and only then shall any work be started.
19. **Ongoing Occupancy:** The buildings will be occupied by the Owner's tenants during construction. The Contractor shall not allow the construction activities to interfere with the tenants use of their units. The Contractor shall take all necessary precautions to protect the Owner's property from damage caused by this work. The Contractor shall make the necessary arrangements for the tenants to carry-on living conditions during the construction.
20. **Temporary Facilities:**



The Contractor shall provide all temporary facilities required to complete the work. Temporary facilities shall include but not be limited to the following:

- a. Suitable and sanitary toilet facilities for the workmen during the course of construction shall be provided. The facilities shall be kept clean and sanitary and shall be removed at the completion of the construction.
  - b. First aid cabinet shall be provided for use in construction accidents.
  - c. Fire fighting equipment for new work, etc. shall be provided in conformance with requirements of the National Board of Fire Underwriters and Insurance Companies.
  - d. Barricades, scaffolding, rails, fences, lighting, warning light, signs, guards, flagmen and other safety devices and precautions as required to protect the construction personnel, the public and the work shall be provided. All items shall comply with recognized safety rules and any prevailing laws or ordinances applicable thereto.
  - f. Adequate facilities for drinking water shall be provided.
  - g. Telephone service at the project site shall be provided for the duration of the construction period.
21. **Material Storage:** Materials stored at site shall be done in proper manner to protect them and keep in proper condition for use, and located on the site to meet approval of the Architect and Owner. Materials shall be stored in a manner not to interfere with building or facility operations; nor interfere with any Tenants or Occupants of the facilities. Contractor must furnish legible invoices covering stored material items. The invoices must identify the stored materials in some logical way other than by a series of numbers.
22. **Storage of the Contractor's Equipment:** Site available for storage of equipment and/or job trailers shall be designated by, and coordinated with, the Architect and Housing Authority.
- a. Storage and protection of material and equipment shall be solely the responsibility of the Contractor.
23. **Disposal:** All debris, cartons, trash, etc., resulting from work completed under this Contract shall not be allowed to accumulate and shall either be removed from the project site at the end of each work day or stored within a dumpster provided by the General Contractor or sub-contractors.
- a. Neither the Owner's facility dumpsters nor the tenant's trash receptacles shall be used by the Contractor or Subcontractor(s) for disposal of any material.

- b. Each working day contractors shall remove all debris including existing roofing, and magnetic removal of old tacks from the ground and related work.
  - c. Refer to project plans and other parts of this project manual for additional debris and trash removal requirements.
24. **Repair:** The Contractor will be held responsible for any damage caused by the Contractor and/or Subcontractor(s) in the execution of the Contract work.
- a. Should the Contractor in the course of his Contract work find additional repairs or replacements needed, it shall be brought to the attention of the Architect at once. Do not proceed with any work prior to receiving instructions in writing from the Architect and/or The Housing Authority.
25. **Special Conditions:** Where the word "Provide" is used in the specifications, it shall be interpreted to mean the materials, labor, etc. that shall be furnished and completely installed by the Contractor and/or Subcontractor(s).
26. **Surface Conditions:**
- Inspections: Prior to starting any work in a different trade, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where proper installation may commence.
- Verify that work required may be installed in accordance with the Original design, all pertinent codes and regulations and the referenced standards.
27. **Discrepancies:** In the event of discrepancy, immediately notify the Architect and Housing Authority.
28. **Existing Conditions:** The Contractor and each Subcontractor shall be responsible for checking all existing conditions, dimensions, quantities, materials, locations, and other items required to complete the work specified herein for a complete job. All verifications shall be accomplished by the Contractor and/or Subcontractor(s) prior to submission of a bid proposal. Any discrepancy with plans and/or specifications shall be called to the Architect's attention. **The intent of these specifications is for the Contractor to furnish a one (1) year warranted lock and key complete job for all work to be accomplished on each portion of this contract** by themselves and their Subcontractors along with all required and/or specified regular manufacturer's extended warranties.
29. **Work Schedule:** The Contractor shall furnish and install necessary equipment and services for organized work to start no later than as per stated on Notice to Proceed. All work shall be completely finished as stipulated in the allotted calendar days or the Contractor shall be charged liquidated damages for each

calendar day work is not fully completed, approved, and accepted by the Housing Authority, Clerk of the Works and/ or Architect, and local municipality's building inspection department, as stated below in "Time for Completion."

The Contractor shall schedule his work so that it will coincide, as closely as possible, with the normal work schedule of the project, and will not interfere with the normal Housing Authority operations any more than is absolutely necessary. Refer to the Proposal Form "Bid for Lump Sum Contract" for statement of allowable working hours.

Unless otherwise approved by the Housing Authority and the Architect No Work may be scheduled on weekends, holidays and/or nights. The General Contractor must obtain prior written approval to work outside the normal allot time frames.

However, to accomplish required tie-ins, cut-through and/or finish work that would cause power outages or other inconveniences to tenants, occupants, or the Authority, the General Contractor shall discuss and schedule the timing of the work as directed by the Housing Authority and/ or the Architect. GC shall not impose any additional costs relate to overtime or odd hours of work.

All such work as stated above shall be scheduled and coordinated with the Housing Authority and the Authority's Architect and/ or Clerk of the Works. The same requirements shall apply to work occurring in the inside or at units, as well as non-unit related work.

The Contractor shall coordinate his work schedule with the Housing Authority, its Architect and/or Clerk of the Works and shall notify each as to each day of his proposed schedule so that they may have sufficient time to make plans for the Contractor's working schedule(s) as relates to each unit, building, item, etc. The Authority and/or Architect may impose a phasing plan or order of work, as it relates to areas of work or order of Unit availability for renovation. This may be imposed after bids are received at no additional costs to the owner.

At the issuance of the "Notice to Proceed", the Housing Authority will release housing units to the contractor for renovation, in entirety, OR as per the direction of phasing plan or Unit availability plan.

Prior to beginning any work the General Contractor shall provide a schedule or all work activities. An update schedule shall be provide immediately upon the point of a change in the previous schedule.

30. **Time for Completion:** The Contractor shall fully complete all work required by these specifications and construction drawings and shall be fully approved and accepted by the Housing Authority, Clerk of the Works, Engineers, Architect and local municipality's building inspection department. However, the Housing

Authority cannot fully accept any units until they have also received a Certificate of Occupancy from the local municipality's building inspection department. The total project completion and full approval and acceptance, with Certificate of Occupancy, shall be as stated above and shall be within time frame, as stipulated by Proposal Form (Bid for Lumpsum Contracts), these general conditions and as stated in the Notice to Proceed. Full completion, acceptance, approval, and Certificate of Occupancy shall not be grounds for any final payment(s) to contractor. Final payment(s) shall only be made by the Housing Authority after the contractor has completed all work along with all approvals and acceptances, as stated above, and the contracted project has been closed out, including all required paperwork, such as but not limited to Advertisement for Completion, Certified Payrolls, Release of Lien Waivers from each supplier, subcontractor and general contractor, all warranties and required manuals, all required certification and post-job submittals, etc.

31. **Liquidated Damages:** As actual damages for any delay in completion are impossible of determination, the Contractor and his sureties shall be liable for and shall pay the Housing Authority the sum of dollars as indicated on the Proposal Form (Bid for Lump Sum Contracts). This is fixed and agreed as liquidated damages for each calendar day of delay until the work is fully completed, approved, and fully accepted, as stipulated above.
32. **Communications:** All notices, demands, requests, instructions, approvals, proposals, and claims must be in writing. Any notice given or demand made by either party to the Contract shall be sufficiently given if delivered at the office of the other party, with receipt requested, or deposited, as certified mail with receipt requested, in the United States mail in a sealed, postage-prepaid envelope, or delivered to any telegraph company for transmission.

Any such notice shall be deemed to have been given as of the time of actual delivery, or of actual receipt in the case of telegrams, or in the case of mailing, when it should have been received in due course in post.

For communicating purposes, the office of the Contractor shall be stated on the signature page of the Contract, and that of the Housing Authority shall be stated in the Advertisement for Bids. Any subsequent change in address of either party shall be communicated to the other in writing.

33. **Minimum Rates of Pay:** A schedule of the minimum wage rates of pay applicable to this Contract is as stated under the section "Wage Determination".
34. **General Use Of Site:**
  - a. Where vehicles are to be used, If any ruts are made by vehicles, the General Contractor and/or Subcontractor(s) shall return grounds to original condition. It is also recommended to use sheets of heavy-duty

plywood on any grassed areas to minimize ruts and damage in yards where vehicles may be used. If any sub-terrain utilities are found to be damaged in the area of vehicle or other heavy equip use, it shall be the responsibility of the General Contractor to repair these utilities to proper working condition.

- b. Damage to any property, grass, shrubbery, trees, flowers, sidewalks, curbing or asphalt paving by the General Contractor and/or any Subcontractor(s) shall be the sole responsibility of the General Contractor and in the event of damage to any of the above items, the General Contractor shall, at his own expense, return the damaged item or items to their original condition and this shall meet with the approval of the Architect, the Housing Authority and/or Clerk of the Works. Prior commencing work and any given area, the General Contractor is responsible for video or photographic documentation of existing conditions.
35. **Lead Base Paint:** The Contractor nor any subcontractor shall not be permitted to use or have in their possession any paint having a lead base. Anyone found to be using a lead base paint shall be held liable and in violation of Federal Regulations. It shall be the sole responsibility of the contractor and/or subcontractor(s) for complete removal and rectification of such findings. All contractors and subcontractors shall comply with the requirements of 24 CFR Part 35 that prohibits the use of lead-based paints.
36. **Project Superintendent:** The Project Superintendent shall be defined as stated below and all requirements noted shall also apply to any assistant Project Superintendent, if involved with the work.

The Contractor shall designate a project superintendent that will be on the job site, **at all times**, while the Contractor's personnel and subcontracting personnel are working. The project superintendent shall have the authority to coordinate with the Housing Authority's Project Manager, Architect and/or Clerk of the Works in making day-to-day decisions for the project. Prior to the Superintendent beginning work, the Housing Authority and Architect must be provided with a resume on the project superintendent. This resume should include the project superintendent's experience on projects of similar size and character. The Housing Authority will be authorized to stop work at any time the project superintendent is not present on the site. The Housing Authority's Project Manager, Architect and/or Clerk of the Works will communicate all on-site decisions to the project superintendent and will not be required to communicate directly with the Contractor's other personnel or any of the subcontractors, unless Architect deems it necessary. It shall be the project superintendent's primary responsibility to coordinate the continuing flow of work with the Contractor's personnel and all of the subcontractors' personnel. The project superintendent shall be paid the appropriate amount of pay as determined by the "wage

determination" found in project manual. **The Project Superintendent may NOT be a Sub-contractor, OR be employed by a sub-contractor. The Project Superintendent must be employed directly by the General Contractor** and must have coverage under the General Contractor's insurance policies.

If the General Contractor decides to make a change in the designation of the Project Superintendent or any Assistant Superintendents. **The Architect and the Housing Authority must be notified in writing ten (10) days prior to the change.** All of the above requirements shall apply to the change in personnel.

37. The Contractor, subcontractors, or suppliers are prohibited from placing a lien on the Housing Authorities property.

### 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 1(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 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 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 1(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) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request 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 contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to HUD or its designee. (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 provided under 29 CFR 5.5 (a)(3)(ii), the appropriate information is being 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 in 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 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 the individual 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 subparagraph (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 subparagraph (1) of this paragraph.

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**(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 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, (Public Law 91-54, 83 Stat 96). 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 subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

**General Decision Number: AL180082 01/05/2018 AL82**

**Superseded General Decision Number: AL20170082**

**State: Alabama**

**Construction Type: Residential**

**County: Marshall County in Alabama.**

RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.35 for calendar year 2018 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.35 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2018. The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/05/2018

\* SUAL2007-109 10/23/2007

	Rates	Fringes
BRICKLAYER.....	\$ 12.25	0.00
CARPENTER, Including Blown Insulation.....	\$ 10.78	0.00

CEMENT MASON/CONCRETE FINISHER...	\$ 12.59	0.00
DRYWALL FINISHER/TAPER.....	\$ 9.13	0.00
ELECTRICIAN, Including HVAC Temperature Control Installation.....	\$ 11.90	0.00
LABORER: Common or General.....	\$ 7.25	0.00
LABORER: Landscape.....	\$ 7.27	0.00
LABORER: Mason Tender - Cement/Concrete.....	\$ 8.00	0.00
OPERATOR: Backhoe.....	\$ 9.80	0.00
OPERATOR: Bulldozer.....	\$ 11.71	0.00
PAINTER: Brush and Roller, Excludes Drywall Finishing/Taping.....	\$ 10.06	0.00
PLUMBER.....	\$ 11.18	0.00
ROOFER, Including Shake & Shingle, Single Ply Roofs.....	\$ 7.25	0.00
SHEETMETAL WORKER, Including HVAC Duct Installation.....	\$ 12.80	0.00
TRUCK DRIVER.....	\$ 10.08	0.00

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WELDERS - Receive rate prescribed for craft performing  
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave  
for Federal Contractors applies to all contracts subject to the  
Davis-Bacon Act for which the contract is awarded (and any  
solicitation was issued) on or after January 1, 2017. If this

contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

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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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the

most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

### Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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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

# NOTICE TO ALL EMPLOYEES



## Working on Federal or Federally Financed Construction Projects

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### MINIMUM WAGES

You must be paid not less than the wage rate in the schedule posted in 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:

Robert Habern, Wage Coordinator, ODOT  
1885 N. McCullough  
Lima, OH 45801  
419-222-9055 ext. 208

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**



## AGREEMENT

This Agreement, made the \_\_\_\_ day of \_\_\_\_\_, 2018, by and between the **Phil Campbell Housing Authority, Phil Campbell, Alabama**, hereinafter called the "OWNER", and

\_\_\_\_\_ 35406 hereinafter called the "CONTRACTOR";

WITNESSETH:

That whereas the OWNER intends to install site work improvements where indicated for

**NIX ROAD RENOVATIONS 2018  
FOR  
THE PHIL CAMPBELL HOUSING AUTHORITY  
PHIL CAMPBELL, ALABAMA  
PROJECT NO. 18-212**

hereinafter called the PROJECT, in accordance with the Contract Documents prepared by McKee And Associates. Now, therefore, the parties of these presents, each in consideration of the Agreement on the part and behalf of the other herein contained, have mutually agreed, and hereby mutually agree, the OWNER, for itself and its successors, and the Contractor for Itself and its successors and assigns, as follows:

1. The Contractor agrees to furnish all the necessary labor, materials, equipment, tools, and services to perform and complete in a workmanlike manner and in strict and full accord with the specifications prepared by the Owner and attached hereto, all work required for the construction of the PROJECT, in strict compliance with the Contract Documents herein mentioned, which are hereby made a part of the Contract, including the following Addenda:

Addendum No.

Dated

_____	_____
_____	_____
_____	_____
_____	_____

2. Bidder hereby agrees to commence work under this contract on or before a date to be specified in written "Notice to Proceed" of the Owner and to fully complete the project as follows:

**BASE BID WORK: ADA Restrooms Renovations:** All interior renovation work related to the two ADA restrooms shall be complete within **21 calendar Days** of the commencement of work date issued in the Notice to Proceed.

**ALTERNATE #1 WORK: Construction of ADA Ramp(s) and repair of sidewalks:** All work related to the Construction of the ADA Ramp(s) and the sidewalk repair at the front of building #1 and the miscellaneous sidewalk repairs as indicated in Unit Price #2, shall be complete within **35 calendar Days** of the commencement of work date issued in the Notice to Proceed.

**NOTE:** The Complete durations **WILL NOT** be added together cumulatively. One Notice to Proceed Date will be issued and the time duration for Both Base Bid and Alternate work will begin on the SAME DATE to be completed within the timeframes indicated above.

MCKEE PROJECT NUMBER 18-212

**NOTE:** The Owner intends to issue the Notice to Proceed within 35 Calendar Days of the completion of the construction contract. It is the Contractors responsibility to submit all required Submittal Documents within this time frame which allows for a 10 day submittal review by the Architect prior to the expiration of the 35 Days. Additionally, the Contractor shall plan accordingly to have materials ready for construction at the end of the 35 day period.

3. The CONTRACTOR agrees to bind every subcontractor by the terms of the Contract Documents. The Contract Documents shall not be construed as creating any contractual relation between any subcontractor and the OWNER.
4. The OWNER agrees to pay and the CONTRACTOR agrees to accept as full compensation for the complete performance of this Contract, the amount of **Base Bid & Alternate # 1:**  

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subject to additions and deductions as provided in the Contract Documents; the above amount to cover the cost of all work, services, labor, materials, tools, equipment, plans, and appliances of every name or description to complete the entire Work as specified and the removal of all debris, temporary work, and appliances. Progress payments will be made in accordance with the General Conditions of the Contract.
5. All work shall be done under the general supervision of the OWNER or its assignee. The OWNER shall decide any and all questions which may arise as to the quality and acceptability of materials furnished, work performed, rate of progress of the work, interpretation of the Contract Documents, and all questions as to the acceptable fulfillment of the Contract on the part of the CONTRACTOR.
6. The CONTRACTOR further agrees that he and his sureties shall be liable and shall pay to the OWNER, the sum of **Three Hundred Dollars (\$300.00)** per day, as fixed, agreed and liquidated damages for each calendar day of delay (not beyond the control of the CONTRACTOR) until the Work is completed and his sureties shall be liable for the amount thereof; provided that the right of the CONTRACTOR to proceed shall not be terminated or the CONTRACTOR charged with liquidated damages because of any delays in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including, but not restricted to, Acts of God, or of the Public Enemy, Acts of the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, or delays of subcontractors due to such causes. Provided further, that the CONTRACTOR shall within ten days from the beginning of any such delay notify the OWNER in writing, of the causes of any such delay. The OWNER shall ascertain the fact and the extent of the delay and shall extent the time for completing the Contract within the findings of fact justify such extension.

No payment or compensation of any kind shall be made to the CONTRACTOR because of hindrance or delay from any cause in the progress of the Work, whether such delay be avoidable or unavoidable and extension of the time will be granted only as provided above.

7. The CONTRACTOR represents and warrants that:
  - A. It is financially solvent, it is experienced in and competent to perform the type of Work contemplated by this Contract, the facts stated or shown in the papers accompanying its proposal are true, and it is authorized to do business in the State of Alabama.
  - B. It has carefully examined the Contract Documents and the site and it has satisfied itself from its own investigations as to the nature and location of the work and facilities needed for the performance of the Work, the general and local conditions, and all other matters which may in any way affect the Work.
  - C. The conditions at the site of the Work are such that the Work can be carried on and completed in accordance with the Contract Documents in their present form, and accordingly, it accepts all conditions as they may be eventually

MCKEE PROJECT NUMBER 18-212

found to exist, and undertakes that all work required because of any unforeseen condition shall be wholly at its own cost and expense, everything in this Contract or the Contract Documents to the contrary, notwithstanding.

- D. The CONTRACTOR agrees to comply with all the Federal, State, Municipal Laws, Ordinances, and Regulations which may in any way affect the Work.
8. The OWNER may withhold from the CONTRACTOR so much of payments due him as may in the judgment of the OWNER be necessary:
- A. To assure the payment of just claims then due and unpaid of any persons supplying labor or materials for the Work.
  - B. To protect the OWNER from loss due to defective work not remedied.
  - C. To protect the OWNER from loss due to injury to persons or damage to property caused by the act or neglect of the CONTRACTOR.
9. The foregoing provisions shall be construed solely for the benefit of the OWNER and shall not require the OWNER to determine or adjust any claims or disputes between the CONTRACTOR and his Subcontractors or material men, or to withhold any moneys for their protection unless the OWNER elects to do so. The failure or refusal of the OWNER to withhold any moneys from the CONTRACTOR shall in no way impair the obligations of any surety or sureties under any bonds furnished under this Contract.
10. This Agreement and all of the covenants hereof shall inure to the benefit of and be binding upon the OWNER and the CONTRACTOR respectively and his partners, successors, assigns, and legal representatives. Neither the OWNER nor the CONTRACTOR shall have the right to assign, transfer, or sublet his interests or obligations hereunder without written consent of the other party.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed, the day and year first above written.

**PHIL CAMPBELL HOUSING AUTHORITY**  
OWNER

\_\_\_\_\_  
CONTRACTOR

\_\_\_\_\_  
BY

\_\_\_\_\_  
BY

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
BUSINESS ADDRESS

STATE OF \_\_\_\_\_

\_\_\_\_\_  
CITY

\_\_\_\_\_  
STATE

COUNTY OF \_\_\_\_\_)

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year **2018** before me, the undersigned Notary Public in and for said state personally appeared

\_\_\_\_\_ personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s), who name(s) is(are) subscribed to the written instrument and acknowledged to me that he/she/they

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executed the same in his/her/their capacity(ies), and that his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

---

Notary Public

## **Required Documents for completing a HUD Construction Agreement**

Below is the list of items to be include within a Housing Authority (HUD) Agreement /Contract between Owner & General Contractor.

Produce 3 Original Copies of all of the below:

- **Transmittal**
- **00036 Letter of Intent to Award**
- **Copy of this Check List**
- **00032 GC/ Owner Agreement Form Completed**
  - Use copy from Project Manual
  - GC signature must be Notarized
- **A Certified Bid Tab** (Produce by McKee & Associates)
- **00021 Copy of GC Bid Proposal Form** (This must also contain the following completed Documents, that were to be submitted with Bid Proposal.)
  - **00021** Completed Proposal Form (copy provided in Project Manual)
  - A Copy of General Contractors License in the State of Alabama
    - Must be license for the type of work per Contract Docs; review with the state licensing board if required.
  - Certified Statement of Non-Debarment per HUD Title 24: Part 84, sub-part 84.13, signed by organization president or CEO.
  - Certified Statement of Company Compliance with a Drug Free Workplace, per HUD Title 24: Part 84, sub-part 84.13, signed by organization president or CEO.
  - **00022** Bid Bond in format provided in Project Manual
  - **00023** Completed HUD form 5369-A: Representations, Certificates and other Statements of Bidders (copy provided in Project Manual).
  - **00024** Non-Collusive Affidavit (copy provided in Project Manual).
  - **00025** Previous Participation Certification (copy provided in Project Manual).
  - **00026** Certification of Bidder Regarding Equal Employment Opportunity (copy provided in Project Manual).

**Each of the Above must be complete and/or executed and/or signed by the Bidder, where required.**

- **00027 General Conditions HUD Document 5370** (pull from Spec and fill in details)
- **00028 Supplementary General Conditions**, HUD Document 2554.
- **00029 Supplementary General Conditions McKee**
- **00033 Performance Bond and 00034 Payment Bond**
  - GC is required to use the HUD version; Architect to email a Word Version to GC
  - Make sure bonds are signed by all necessary parties
  - Date(s) must be the same as the date on the construction contract.
- **GC to provide Insurance Forms**
  - GC to Provide 3 copies of insurance certificate(s) to include, workers comp., general liability and auto. Insurance shall meet requirements as specified in the HUD General and Supplementary Conditions and as listed in the General Requirements (Spec Section 00100). Both the Housing Authority and McKee & Associates shall be listed as additional insured.

**Additionally, Required at this time, but not part of Contract:**

- Send the **E-Verify Documents** to GC to complete. Make sure the HA gets a copy.

Note after receiving the Completed Contract and Documents from GC, The Architect is to include the following when sending to the Housing Authority for Final Signatures.

- **00035 Owner's Attorney Contract Review Acknowledgement** (from Project Manual)



(1) **PERFORMANCE BOND**

USE BLACK INK ONLY

SURETY'S BOND NUMBER

(2) The **PRINCIPAL** *(Name and address of Contractor as appear in the Construction Contract)*

(3) The **SURETY** *(Name and Principal Place of Business)*

(4) The **OWNER** *(Name and address, same as appears in the Construction Contract)*

(5) The **PENAL SUM** of this Bond (the Contract Sum)

Dollars (\$) ).

(6) **DATE** of the Construction Contract :

(7) The **PROJECT**: *(Same as appears in the Construction Contract)*

1. **WE, THE PRINCIPAL (hereinafter "Contractor") AND THE SURETY**, jointly and severally, hereby bind ourselves, our heirs, executors, administrators, successors, and assigns to the Owner in the Penal Sum stated above for the performance of the Contract, and Contract Change Orders, in accord with the requirements of the Contract Documents, which are incorporated herein by reference. If the Contractor performs the Contract, and Contract Change Orders, in accordance with the Contract Documents, then this obligation shall be null and void; otherwise it shall remain in full force and effect.
2. The Penal Sum shall remain equal to the Contract Sum as the Contract Sum is adjusted by Contract Change Orders. All Contract Change Orders involving an increase in the Contract Sum will require consent of Surety by endorsement of the Contract Change Order form. The Surety waives notification of any Contract Change Orders involving only extension of the Contract Time.

3. Whenever the Architect gives the Contractor and the Surety, at their addresses stated above, a written Notice to Cure a condition for which the Contract may be terminated in accordance with the Contract Documents, the Surety may, within the time stated in the notice, cure or provide the Architect with written verification that satisfactory positive action is in process to cure the condition.
4. The Surety's obligation under this Bond becomes effective after the Contractor fails to satisfy a Notice to Cure and the Owner:
  - (a) gives the Contractor and the Surety, at their addresses stated above, a written Notice of Termination declaring the Contractor to be in default under the Contract and stating that the Contractor's right to complete the Work, or a designated portion of the Work, shall terminate seven days after the Contractor's receipt of the notice; and
  - (b) gives the Surety a written demand that, upon the effective date of the Notice of Termination, the Surety promptly fulfill its obligation under this Bond.
5. In the presence of the conditions described in Paragraph 4, the Surety shall, at its expense:
  - (a) On the effective date of the Notice of Termination, take charge of the Work and be responsible for the safety, security, and protection of the Work, including materials and equipment stored on and off the Project site, and
  - (b) Within twenty-one days after the effective date of the Notice of Termination, proceed, or provide the Owner with written verification that satisfactory positive action is in process to facilitate proceeding promptly, to complete the Work in accordance with the Contract Documents, either with the Surety's resources or through a contract between the Surety and a qualified contractor to whom the Owner has no reasonable objection.
6. As conditions precedent to taking charge of and completing the Work pursuant to Paragraph 5, the Surety shall neither require, nor be entitled to, any agreements or conditions other than those of this Bond and the Contract Documents. In taking charge of and completing the Work, the Surety shall assume all rights and obligations of the Contractor under the Contract Documents; however, the Surety shall also have the right to assert "Surety Claims" to the Owner in accordance with the Contract Documents. The presence or possibility of a Surety Claim shall not be just cause for the Surety to fail or refuse to promptly take charge of and complete the Work or for the Owner to fail or refuse to continue to make payments in accordance with the Contract Documents.
7. By accepting this Bond as a condition of executing the Construction Contract, and by taking the actions described in Paragraph 4, the Owner agrees that:
  - (a) the Owner shall promptly advise the Surety of the unpaid balance of the Contract Sum and, upon request, shall make available or furnish to the Surety, at the cost of reproduction, any portions of the Project Record, and
  - (b) as the Surety completes the Work, or has it completed by a qualified contractor, the Owner shall pay the Surety, in accordance with terms of payment of the Contract Documents, the unpaid balance of the Contract Sum, less any amounts that may be or become due the Owner from the Contractor under the Construction Contract or from the Contractor or the Surety under this Bond.
8. In the presence of the conditions described in Paragraph 4, the Surety's obligation includes responsibility for the correction of Defective Work, liquidated damages, and reimbursement of any reasonable expenses incurred by the Owner as a result of the Contractor's default under the Contract, including architectural, engineering, administrative, and legal services.

9. Nothing contained in this Bond shall be construed to mean that the Surety shall be liable to the Owner for an amount exceeding the Penal Sum of this Bond, except in the event that the Surety should be in default under the Bond by failing or refusing to take charge of and complete the Work pursuant to Paragraph 5. If the Surety should fail or refuse to take charge of and complete the Work, the Owner shall have the authority to take charge of and complete the Work, or have it completed, and the following costs to the Owner, less the unpaid balance of the Contract Sum, shall be recoverable under this Bond:

- (a) the cost of completing the Contractor's responsibilities under the Contract, including correction of Defective Work;
- (b) additional architectural, engineering, managerial, and administrative services, and reasonable attorneys' fees incident to completing the Work;
- (c) interest on, and the cost of obtaining, funds to supplement the unpaid balance of the Contract Sum as may be necessary to cover the foregoing costs;
- (d) the fair market value of any reductions in the scope of the Work necessitated by insufficiency of the unpaid balance of the Contract Sum and available supplemental funds to cover the foregoing costs; and
- (f) additional architectural, engineering, managerial, and administrative services, and reasonable attorneys' fees incident to ascertaining and collecting the Owner's losses under the Bond.

10. All claims and disputes arising out of or related to this bond, or its breach, shall be resolved in accordance with Article 24, General Conditions of the Contract.

(8) **SIGNED AND SEALED** this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

(9) **ATTEST:** **CONTRACTOR as PRINCIPAL:**

\_\_\_\_\_

\_\_\_\_\_

By \_\_\_\_\_

\_\_\_\_\_  
Name and Title

(10) Countersigned by  
Alabama Resident Agent for Surety:

**SURETY:**

By \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Name

By \_\_\_\_\_

\_\_\_\_\_  
Address

\_\_\_\_\_  
Name and Title

(11) **NOTE:** Power of attorney for the Surety's signatory shall be furnished with the original and five copies of the bond.

(1) **PAYMENT BOND**

USE BLACK INK ONLY

SURETY'S BOND NUMBER

(2) The **PRINCIPAL** *(Name and address of Contractor, same as appears in the Construction Contract)*

(3) The **SURETY** *(Name and Principal Place of Business)*

(4) The **OWNER(s)** *(Name and address, same as appears in the Construction Contract)*

(5) The **PENAL SUM** of this Bond (the Contract Sum) Dollars (\$) ).

(6) **DATE** of the Construction Contract :

(7) The **PROJECT**: *(Same as appears in the Construction Contract)*

1. **WE, THE PRINCIPAL (hereinafter "Contractor") AND THE SURETY**, jointly and severally, hereby bind ourselves, our heirs, executors, administrators, successors, and assigns to the Owner in the Penal Sum stated above to promptly pay all persons supplying labor, materials, or supplies for or in the prosecution of the Contract, which is incorporated herein by reference, and any modifications thereof by Contract Change Orders. If the Contractor and its Subcontractors promptly pay all persons supplying labor, materials, or supplies for or in the prosecution of the Contract and Contract Change Orders, then this obligation shall be null and void; otherwise to remain and be in full force and effect.
2. The Penal Sum shall remain equal to the Contract Sum as the Contract Sum is adjusted by Contract Change Orders. All Contract Change Orders involving an increase in the Contract Sum will require consent of Surety by endorsement of the Contract Change Order form. The Surety waives notification of any Contract Change Orders involving only extension of the Contract Time.

3. Any person that has furnished labor, materials, or supplies for or in the prosecution of the Contract and Contract Change Orders for which payment has not been timely made may institute a civil action upon this Bond and have their rights and claims adjudicated in a civil action and judgment entered thereon. Notwithstanding the foregoing, a civil action may not be instituted on this bond until 45 days after written notice to the Surety of the amount claimed to be due and the nature of the claim. The civil action must commence not later than one year from the date of final settlement of the Contract. The giving of notice by registered or certified mail, postage prepaid, addressed to the Surety at any of its places of business or offices shall be deemed sufficient. In the event the Surety or Contractor fails to pay the claim in full within 45 days from the mailing of the notice, then the person or persons may recover from the Contractor and Surety, in addition to the amount of the claim, a reasonable attorney's fee based on the result, together with interest on the claim from the date of the notice.
4. Every person having a right of action on this bond shall, upon written application to the Owner indicating that labor, material, or supplies for the Work have been supplied and that payment has not been made, be promptly furnished a certified copy of this bond and the Construction Contract. The claimant may bring a civil action in the claimant's name on this Bond against the Contractor and the Surety, or either of them, in the county in which the Work is to be or has been performed or in any other county where venue is otherwise allowed by law.
5. This bond is furnished to comply with Code of Alabama, §39-1-1, and all provisions thereof shall be applicable to civil actions upon this bond.
6. All claims and disputes between Owner and either the Contractor or Surety arising out of or related to this bond, or its breach, shall be resolved in accordance with Article 24, General Conditions of the Contract

(8) **SIGNED AND SEALED** this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

(9) **ATTEST:** **CONTRACTOR as PRINCIPAL:**

\_\_\_\_\_

By \_\_\_\_\_

\_\_\_\_\_  
Name and Title

(10) Countersigned by  
Alabama Resident Agent for Surety:

**SURETY:**

By \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
Name

By \_\_\_\_\_

\_\_\_\_\_  
Address

\_\_\_\_\_  
Name and Title

(11) **NOTE:** Power of attorney for the Surety's signatory shall be furnished with the original and five copies of the bond.

CERTIFICATE OF OWNERS ATTORNEY

I, THE UNDERSIGNED, \_\_\_\_\_, the duly authorized  
and acting legal representative of \_\_\_\_\_  
do hereby certify as follows:

I have examined the attached contract(s) and surety bonds and the manner of execution thereof, and I am of the opinion that each of the foresaid agreements has been duly executed by the proper parties thereto acting through their duly authorized representatives; and said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the forgoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with terms, conditions and provisions thereof.

\_\_\_\_\_

Date: \_\_\_\_\_

## LETTER OF INTENT TO AWARD

**Date:**

**To:** {CONTRACTOR NAME}  
{ADDRESS}

**Re: Contract:**

**NIX ROAD RENOVATIONS 2018  
FOR  
THE PHIL CAMPBELL HOUSING AUTHORITY  
PHIL CAMPBELL, ALABAMA  
PROJECT NO. 18-212**

CONTRACT DOCUMENTS -- AWARD PHASE

Dear \_\_\_\_\_:

Congratulations on your successful bid for the project. Please be advised that the **Housing Authority** intends to award the project to \_\_\_\_\_ by completion of attached contract.

Enclosed please find **three (3) copies** of the subject Contract for your immediate review and execution. Please return all **three (3) copies** to the Architect for our execution and further handling.

In order to facilitate the issuance of your Notice to Proceed, you are required to return all executed contract documents with insurance to the Architect, within ten (10) days of this notice. Refer to the Contract Documents, Form HUD-5370 General Conditions of the Contract for Construction - Public Housing Program, Clause 36, Insurance and the Supplementary General Conditions, Paragraph 5 for the insurance requirements. All Insurance Certificates are required to have a 30 day written cancellation clause and name the **Housing Authority** as an additional insured and certificate holder under your general liability coverage.

Also, with each copy of the contract, you will be required to deliver an original 100% Performance and Payment Bond. This shall be provided within ten (10) days of this notice. Such Performance and Payment Bonds shall be executed on the forms furnished by the Authority (copies enclosed) and shall be written in the amount of the approved Contract sum. No other bond forms will be accepted. The bonds shall be dated on or after the date of the Contract.

Also, please begin to prepare the following documents so that they will be ready for submission when the Pre-Construction Meeting is scheduled.

Submit a formal letter listing all subcontractor's and major suppliers, including MBE's, who will be performing work under this Contract; include company name, address, telephone number and contact person.

As the Prime Contractor, it is your responsibility to ensure that none of your subcontractors are on the U.S. General Services Administration Office of Acquisition Policy List of Parties Excluded from Federal Procurement or Non-procurement Programs.

MCKEE PROJECT  
NUMBER 18-212

For each subcontractor, you must submit an executed Affidavit of Collusion; insurance certificates showing all required coverages (30 day written cancellation clause and name the **Housing Authority** as additional insured under the general liability coverage as well as certificate holder), and a copy of the executed subcontract agreement.

Since progress payments will be necessary for this contract, you will be required to prepare a detailed construction progress schedule immediately after issuance of a Notice to Proceed. The information provided must be realistic and consistent with the information you will provide on a "Schedule of Amounts for Contract Payments" (HUD-51000) which must be reviewed and approved by the Authority prior to acceptance.

A Pre-Construction Meeting will be scheduled in the near future for the purpose of discussing the execution the complete Contract documents. Please do not hesitate to contact me should you have any questions or comments.

Sincerely,

**Jay Evans**  
**McKee & Associates Architects**



# Notice To Proceed

**Date:**

**To:** { Contractors Name }  
 { Contractors street address }  
 { City, State, Zip code }

**Re: Contract for:**

**NIX ROAD RENOVATIONS 2018  
FOR  
THE PHIL CAMPBELL HOUSING AUTHORITY  
PHIL CAMPBELL, ALABAMA  
PROJECT NO. 18-212**

Pursuant to the terms of the above contract, you are hereby notified to commence work at the start of business on **[date]**. The time for completion, including the starting day, as established by the contract, is **[date]**.

It is the responsibility of the contractor to meet the schedule as set forth and in accordance with the terms and conditions of the contract. Failure to comply with the schedule will result in the enforcement of the liquidated damages stated in the contract.

Please note carefully and fulfill the requirements of the contract regarding the submittal and approval of Workmen's Compensation and Manufacturer's and Contractor's Public Liability Insurance.

The contractor shall also contract the Housing Authority office in writing within five (5) days prior to mobilization on the project to enable the Housing Authority to coordinate this work with tenant's and others.

The contractor shall, within ten days after receipt of this notice, send to the Housing Authority office copies of all required permits for work to be performed under this contract. Refer to Pre-Construction requirements for additional paperwork needed prior to commencing work. Failure to comply with these instructions shall constitute a breach of contract.

Your cooperation on this construction to its conclusion is of the utmost importance to the Housing Authority.

Sincerely,

**Phil Campbell Housing Authority, Contracting Officer**

**AND**

**McKee & Associates Architects**

Cc: Contract File

MCKEE PROJECT NUMBER 18-212



## Instructions for Preparation of form HUD-51000

1. A separate breakdown is required for each project and prime contract instructions for preparation are given below.
    - a. **Heading.** Enter all identifying information required for both forms.
    - b. **Columns 1 and 2.** In column 1, enter the item numbers starting with No. 1, and in column 2 enter each principal division of work incorporated in the contract work.
      - (1) **Master List.** The Master list contains the basic items into which any construction contract may be subdivided for the purpose of preparing the Construction Progress Schedule and the Periodical Estimates for Partial Payments. Only those items shall be selected which apply to the particular contract. To ensure uniformity, no change shall be made in the item numbers. Generally, about 25 to 40 major items appear in a contract.
      - (2) **Items Subdivided.** In the Contractor's breakdown, against which all periodical estimates will be checked prior to payment, each major item must be subdivided into sub-items pertinent to the project involved and in agreement with the Contractor's intended basis for requesting monthly payments.
    - c. **Column 3.** Enter the total quantity for each sub-item of each principal division of work listed in the breakdown.
  - d. **Column 4.** Enter the appropriate unit of measure for each sub-item of work opposite the quantities described in column 3, such as "sq. ft.," "cu. yd.," "tons," "lb.," "lumber per M/BM," "brickwork per M," etc., applicable to the particular sub-item. Items shown on "lump sum" or equivalent basis will be paid for only on completion of the whole item and not on a percentage of completion basis.
  - e. **Column 5.** Enter the unit price, in place, of each sub-item of work.
  - f. **Column 6.** Enter the amount of each sub-item obtained by multiplying the quantities in column 3 by the corresponding unit prices in column 5.
  - g. **Column 7.** Enter the amount of principal item only, obtained by adding the amounts of all sub-items of each principal division of work listed in column 6. Continue with the breakdown on form HUD-51000.
  - h. The "Schedule of Amounts for Contract Payments" shall be signed and dated in the space provided at the bottom of each sheet of the form by the individual who prepared the breakdown for the Contractor.
2. The minimum number of copies required for each submission for approval is an original and two copies. When approved, one fully approved copy will be returned to the Contractor.

### Master List of Items

Item No.	Division of Work	Item No.	Division of Work	Item No.	Division of Work
1	Bond	20	Rough Carpentry		<b>Site Improvements</b>
2	General Conditions \1	21	Metal Bucks	44	Retaining Walls
3	Demolition & Clearing	22	Caulking	45	Storm Sewers
	<b>Structures</b>	23	Weatherstripping	46	Sanitary Sewers
4	General Excavation	24	Lath & Plastering-Drywall	47	Water Distribution System
5	Footing Excavation	25	Stucco	48	Gas Distribution System
6	Backfill	26	Finish Carpentry	49	Electrical Distribution System
7	Foundation Piles & Caissons	27	Finish Hardware	50	Street & Yard Lighting
8	Concrete Foundations	28	Glass & Glazing	51	Fire & Police Alarm System
9	Concrete Superstructures	29	Metal Doors	52	Fire Protection System
10	Reinforcing Steel	30	Metal Base & Trim	53	Street Work
11	Waterproofing & Dampproofing	31	Toilet Partitions	54	Yard Work
12	Spandrel Waterproofing	32	Floors	55	(Other)
13	Structural Steel	33	Painting & Decorating	56	(Other)
14	Masonry	34	Screens		<b>Equipment</b>
15	Stonework	35	Plumbing	57	Shades & Drapery Rods
16	Miscellaneous & Ornamental Metal	36	Heating	58	Ranges
17	Metal Windows	37	Ventilating System	59	Refrigerators
18	Roofing	38	Electrical	60	Kitchen Cabinets & Work Tables
19	Sheet Metal	39	Elevators	61	Laundry Equipment
		40	Elevator Enclosures—Metal	62	(Other)
		41	Incinerators—Masonry & Parts		<b>Punch List \2</b>
		42	(Other)	63	Lawns & Planting
		43	(Other)	64	

1 General Conditions should be 3% to 5% of contract amount.

2 Punch List should be approximately 1/2 of 1% or \$30 per dwelling unit, whichever is greater.

## Periodic Estimate for Partial Payment

**U.S. Department of Housing  
and Urban Development**  
Office of Public and Indian Housing

OMB Approval No. 2577-0025  
(exp. 4/30/2001)

Submit original and one copy to the Public Housing Agency.  
Complete instructions are on the back of this form.

Public reporting burden for this collection of information is estimated to average 3.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless that collection displays a valid OMB control number.

This information is collected under the authority of Section 6(c) of the U.S Housing Act of 1937 and HUD regulations. HAs are responsible for contract administration to ensure that the work for project development is done in accordance with State laws and HUD requirements. The contractor/subcontractor reports provide details and summaries on payments, change orders, and schedule of materials stored for the project. The information will be used to ensure that the total development costs, identified in the ACC, are kept as low as possible and consistent with HUD construction requirements. Responses to the collection are necessary to obtain a benefit. The information requested does not lend itself to confidentiality.

Name of Public Housing Agency	Periodic Estimate Number	Period From (mm/dd/yyyy) To (mm/dd/yyyy)
-------------------------------	--------------------------	---

Location of Project	Project Number
---------------------	----------------

Name of Contractor	Contract Number
--------------------	-----------------

Item Number (1)	Description of Item (2)	Completed to Date (3)
		\$

Value of Contract Work Completed to Date (Transfer this total to line 5 on back of this sheet)	\$
--	----

## Instructions

**Headings.** Enter all identifying data required. Periodic estimates must be numbered in sequence beginning with the number 1.

**Columns 1 and 2.** The "Item Number" and "Description of Item" must correspond to the number and descriptive title assigned to each principal division of work in the "Schedule of Amounts for Contract Payments", form HUD-51000.

**Column 3.** Enter the accumulated value of each principal division of work completed as of the closing date of the periodic estimate. Enter the total in the space provided.

**Certifications.** The certification of the contractor includes the analysis of amounts used to determine the net balance due. In the first paragraph, enter the name of the Public Housing Agency, the contractor, and the date of the contract. Enter the calculations used in arriving at the "Balance Due This Payment" on lines 1 through 16.

Enter the contractor's name and signature in the certification following line 16.

The latter portion of this certification relating to payment of legal rates of wages, is required by the contract before any payment may be made. However, if the contractor does not choose to certify on behalf of his/her subcontractors to wage payments made by them, he/she may modify the language to cover only himself /herself and attach a list of all subcontractors who employed labor on the site during the period covered by the Periodic Estimate, together with the individual certifications of each.

### Certification of the Contractor or Duly Authorized Representative

According to the best of my knowledge and belief, I certify that all items and amounts shown on the other side of this form are correct; that all work has been performed and material supplied in full accordance with the items and conditions of the contract between the (name of owner) \_\_\_\_\_ and (contractor) \_\_\_\_\_

dated (mm/dd/yyyy) \_\_\_\_\_, and duly authorized deviations, substitutions, alterations, and additions; that the following is a true and correct statement of the Contract Account up to and including the last day of the period covered by this estimate, and that no part of the "Balance Due This Payment" has been received.

1. Original Contract Amount \$ \_\_\_\_\_

#### Approved Change Orders:

2. Additions (Total from Col. 3, form HUD-51002) \$ \_\_\_\_\_

3. Deductions (Total from Col. 5, form HUD-51002) \$ \_\_\_\_\_ (net) \$ \_\_\_\_\_

4. Current Adjusted Contract Amount (line 1 plus or minus net) \$ \_\_\_\_\_

#### Computation of Balance Due this Payment

5. Value of Original Contract work completed to date (from other side of this form) \$ \_\_\_\_\_

#### Completed Under Approved Change Orders

6. Additions (from Col. 4, form HUD-51002) \$ \_\_\_\_\_

7. Deductions (from Col. 5, form HUD-51002) \$ \_\_\_\_\_ (net) \$ \_\_\_\_\_

8. Total Value of Work in Place (line 5 plus or minus net line 7) \$ \_\_\_\_\_

9. **Less:** Retainage, \_\_\_\_\_ % \$ \_\_\_\_\_

10. Net amount earned to date (line 8 less line 9) \$ \_\_\_\_\_

11. **Less:** Previously earned (line 10, last Periodic Estimate) \$ \_\_\_\_\_

12. Net amount due, work in place (line 10 less line 11) \$ \_\_\_\_\_

#### Value of Materials Properly Stored

13. At close of this period (from form HUD-51004) \$ \_\_\_\_\_

14. **Less:** Allowed last period \$ \_\_\_\_\_

15. Increase (decrease) from amount allowed last period \$ \_\_\_\_\_

16. **Balance Due This Payment** \$ \_\_\_\_\_

I further certify that all just and lawful bills against the undersigned and his/her subcontractors for labor, material, and equipment employed in the performance of this contract have been paid in full in accordance with the terms and conditions of this contract, and that the undersigned and his/her subcontractors have complied with, or that there is an honest dispute with respect to, the labor provisions of this contract.

Name of Contractor	Signature of Authorized Representative	Title	Date (mm/dd/yyyy)

### Certificate of Authorized Project Representative and of Contracting Officer

Each of us certifies that he/she has checked and verified this Periodic Estimate No. \_\_\_\_\_; that to the best of his/her knowledge and belief it is a true statement of the value of work performed and material supplied by the contractor; that all work and material included in this estimate has been inspected by him/her or by his/her authorized assistants; and that such work has been performed or supplied in full accordance with the drawings and specifications, the terms and conditions of the contract, and duly authorized deviations, substitutions, alterations, and additions, all of which have been duly approved.

We, therefore, approve as the "Balance Due this Payment" the amount of \$ \_\_\_\_\_.

Authorized Project Representative	Date (mm/dd/yyyy)	Contracting Officer	Date (mm/dd/yyyy)

**Warning:** HUD will prosecute false claims and statements. Conviction may result in criminal and/or civil penalties. (18 U.S.C. 1001, 1010, 1012; 31 U.S.C. 3729, 3802)



**CONTRACT CHANGE ORDER**

HUD Contract No. \_\_\_\_\_

Date \_\_\_\_\_

Project No. \_\_\_\_\_

Change Order No. ONE (1)

Location:

{Housing Authority Name}

{HA Address}

You are hereby requested to comply with the following changes from the contract plans and specifications:

ITEM NO. (1)	DESCRIPTION OF CHANGES – QUANTITIES, UNITS, UNIT PRICES, CHANGE IN COMPLETION SCHEDULE, ETC. (2)	DECREASE IN CONTRACT PRICE (3)	INCREASE IN CONTRACT PRICE (4)
1	Change Order Description #1	(\$0.00)	
2	Change Order Description #2	(\$0.00)	
	<u>Change in contract price due to this Change Order:</u>		
	Total decrease	(\$0.00)	
	Total increase		\$0.00
	Difference between Col. (3) and (4):		<b>(\$0.00)</b>
	Original Contract Amount:		\$ 0.00
	Previous Change Orders Total:		\$ 0.00
	Previous Contract Amount:		\$ 0.00
	Net New Contract Amount:		<b>\$ 0.00</b>

The total contract price is hereby decreased by a sum of **\$ 0.00**, and the total adjusted contract price to date is hereby **\$ 0.00**

The Construction Completion date is **unchanged.**

Accepted by: \_\_\_\_\_

CONTRACTOR

{General Contractor, LLC}

Date

Surety by: \_\_\_\_\_

SURETY

{Insurance Company, Inc.}

Date

Recommended by: \_\_\_\_\_

ARCHITECT/ENGINEER

McKee &amp; Associates, Inc.

Date

Approved by: \_\_\_\_\_

EXECUTIVE DIRECTOR

{Name} Housing Authority

Date

form **HUD-51003** (3/92)  
ref. Handbooks 7417.1 & 7450.1



# Summary of Materials Stored

U.S. Department of Housing  
and Urban Development  
Office of Public and Indian Housing

OMB Approval No. 2577-0025  
(exp. 4/30/2001)

Public reporting burden for this collection of information is estimated to average 2.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless that collection displays a valid OMB control number.

This information is collected under the authority of Section 6(c) of the U.S Housing Act of 1937 and HUD regulations. HAS are responsible for contract administration to ensure that the work for project development is done in accordance with State laws and HUD requirements. The contractor/subcontractor reports provide details and summaries on payments, change orders, and schedule of materials stored for the project. The information will be used to ensure that the total development costs, identified in the ACC, are kept as low as possible and consistent with HUD construction requirements. Responses to the collection are necessary to obtain a benefit. The information requested does not lend itself to confidentiality.

**Instructions:** This form is for the Contractor to summarize the value of materials stored at the site (as shown on the schedule, form HUD-51003). Use a separate line for the contractor and each of his/her subcontractors. Prepare an original and one copy, attach form HUD-51003, and send to the Public Housing Agency with the Periodic Estimate for Partial Payment, form HUD-51001. **Payment Value.** No more than 90 percent of the estimated value of the stored materials will be allowed, and only the net amount will be carried to line 13 on the back of the Periodic Estimate for Partial Payment, form HUD-51001. **Signatures.** This form must be signed by those employees of the contractor and of the Public Housing Agency who prepare and check the Schedule of Materials Stored, form HUD-51003.

Name of Public Housing Agency	Supporting Periodic Estimate for Partial Payment Number	Period From (mm/dd/yyyy)	To (mm/dd/yyyy)
-------------------------------	--	-----------------------------	-----------------

Location of Project	Project Number
---------------------	----------------

Name of General Contractor	Contract Number
----------------------------	-----------------

Name of General Contractor or Subcontractor	Amounts
General Contractor	\$

Subcontractors	\$
----------------	----

	<b>Total</b>	<b>\$</b>
	<b>Less 10%</b>	<b>\$</b>
	<b>Net</b>	<b>\$</b>

Prepared by	Date (mm/dd/yyyy)	Checked by	Date (mm/dd/yyyy)
-------------	-------------------	------------	-------------------

I certify that I or my authorized representatives have examined and checked in detail the invoices representing the cost of materials set forth in appended "Schedule of Materials Stored", form HUD-51003, dated (mm/dd/yyyy) \_\_\_\_\_ submitted by \_\_\_\_\_ consisting of \_\_\_\_\_ sheets with an indicated cost of \$ \_\_\_\_\_, and find that the net unit prices set forth in the schedule are the same or less than the invoices examined, and that such materials were suitably stored at the site of the development as of (date)(mm/dd/yyyy) \_\_\_\_\_.

Name of Owner	By (Authorized Representative)	Title	Date (mm/dd/yyyy)
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**Warning:** HUD will prosecute false claims and statements. Conviction may result in criminal and/or civil penalties. (18 U.S.C. 1001, 1010, 1012; 31 U.S.C. 3729, 3802)

NIX ROAD RENOVATIONS 2018  
FOR  
THE PHIL CAMPBELL HOUSING AUTHORITY  
PHIL CAMPBELL, ALABAMA  
PROJECT NO. 18-212

**CERTIFICATE OF PROJECT COMPLETION**

THIS IS TO CERTIFY, that all work and materials have been carefully inspected by duly authorized representative or agents of the \_\_\_\_\_,

Hereinafter called the Housing Authority, and that \_\_\_\_\_,  
hereafter called the Contractor, has furnished all labor, materials, and services required for the  
\_\_\_\_\_ {project name} \_\_\_\_\_ of the  
\_\_\_\_\_ located in \_\_\_\_\_, Alabama, in accordance  
with the requirements of the Specifications and Drawings and Contract dated \_\_\_\_\_, 2018,  
between the Housing Authority and the Contractor.

THIS IS TO CERTIFY:

1. That all work covered by this contract, originally required to be completed on \_\_\_\_\_ was actually completed on \_\_\_\_\_.
2. That all changes permitted or required to be made, except minor modifications and field adjustments, have been authorized by written and duly approved Change Orders, and all stop orders have been confirmed and listed in writing;
3. That all Proceed Orders have been supported by approved Change Orders equitably adjusting the contract price and/or time, where adjustment is necessary;
4. That Change Orders No's. \_\_\_\_\_ constitute the only amendments to the contract price and/or time, and that ALL Change Orders issued in connection with this contract are listed on the **attached Schedule**;
5. That all certificates, bonds, guarantees, warranties, insurance, and tests required under the contract have been furnished or performed by the Contractor;
6. That the Housing Authority had obtained from the Contractor the attached **Certificate and Release** releasing the Housing Authority in full from all further claims under this contract;

**NIX ROAD RENOVATIONS 2018  
FOR  
THE PHIL CAMPBELL HOUSING AUTHORITY  
PHIL CAMPBELL, ALABAMA  
PROJECT NO. 18-212**

7. That all laborers and mechanics have been paid not less than the minimum wage rates as established in said contract, and that there have been no claims made for infringement of any patent;
8. That no claims of any nature by any laborer, mechanic, subcontractor, material man, or vendor are outstanding against the Housing Authority; and
9. That:

The Date for completion fixed in contract is \_\_\_\_\_

The Date for completion as extended is \_\_\_\_\_

Actual completion date of contract work is \_\_\_\_\_

Original contract price \$ \_\_\_\_\_

Authorized Additions or Deductions excluding  
liquidated damages \$ \_\_\_\_\_

ADJUSTED CONTRACT PRICE \$ \_\_\_\_\_

LESS: Total previous payments to Contractor \$ \_\_\_\_\_

Total amount of liquidated

Damages assessed \$ \_\_\_\_\_

BALANCE Currently Due \$ \_\_\_\_\_

10. We hereby certify that the final payment in the amount of  
\_\_\_\_\_ (\$ \_\_\_\_\_) is due and payable.

\_\_\_\_\_  
EXECUTIVE DIRECTOR  
**{NAME} Housing Authority**

\_\_\_\_\_  
CONTRACTOR

## **FORM OF ADVERTISEMENT OF COMPLETION**

### **LEGAL NOTICE**

In accordance with Section 16, Title 50 Code of Alabama, 1940, notice is hereby given that \_\_\_\_\_ Contractor(s) have completed the Contract for (Construction, Reconstruction, Alteration, Equipment, or Improvements) of:

**NIX ROAD RENOVATIONS 2018  
FOR  
THE PHIL CAMPBELL HOUSING AUTHORITY  
PHIL CAMPBELL, ALABAMA  
PROJECT NO. 18-212**

**MCKEE & ASSOCIATES ARCHITECTS  
PROJECT NO. 18-212**

for the **PHIL CAMPBELL HOUSING AUTHORITY, PHIL CAMPBELL, ALABAMA**, (Owner) and have made request for final settlement of said contract.

\_\_\_\_\_  
Contractor(s)

## SECTION 00100 - GENERAL REQUIREMENTS

### PART 1 – GENERAL

#### RELATED DOCUMENTS

Drawings and general provisions of the Contract including General and Supplementary Conditions and other Division 1 Specification Sections apply to this Section.

#### General Requirements:

The General Contractor and Subcontractor(s) shall thoroughly familiarize himself/themselves with all local conditions affecting the cost of the work, and with the Specifications (including Invitation for Bids, Instructions to Bidder, all forms, bonds, certifications, the General Conditions, the General Scope of Work, Supplementary General Conditions, these Technical Specifications, and the drawings), Alternate(s) and Addendum(s), if any, thereto affecting the overall scope of work, labor, materials, equipment and services required to complete the project.

Contractor and/ or subcontractor(s) shall provide any and all work, equipment, accessories, hardware, trim, etc., as required, to complete the entire renovation.

The General Contractor and for each Subcontractor shall be responsible for removal of all debris, rubbish, packing materials, etc. from the job site, each working day.

Damage to any property, grass, shrubbery, trees, flowers, sidewalks, curbing, or asphalt paving by the General Contractor and/or any Subcontractor(s) shall be the sole responsibility of the General Contractor and in the event of damage to any of the above items, the General Contractor shall, at his own expense, return the damaged item(s) to their original condition and this shall meet with the approval and acceptance of the Architect, **Housing Authority**, and/or Clerk of the Works.

No vehicles are to be used beside or behind buildings. If any ruts are made by vehicles, the General Contractor and/or Subcontractor(s) shall return grounds to their original condition. It is also recommended to use sheets of heavy duty plywood on any grassed areas to minimize ruts and damage in front yards where vehicles may be used, if it becomes absolutely necessary.

#### Examination of Site:

The contractor and subcontractor(s) shall thoroughly examine the sites and satisfy himself/themselves as to the conditions under which the work is to be performed. The contractor and subcontractors shall verify, at the sites, all measurements, locations, sizes, types of equipment, exact quantities, and related codes affecting his work and shall be responsible for the correctness of the same. No extra compensation will be

allowed to the contractor and/or subcontractor(s) for the expenses due to his or their neglect to examine or failure to discover conditions which affect his or their required work. No extra compensation will be allowed on account of difference between actual dimensions, locations, and conditions and those indicated on the drawings. The drawings are not intended to cover the layout and design of all the work and are not to be scaled for exact measurements. Where specific detail, dimension, and location(s) for any work are not shown on the drawings, the contractor shall take measurements and make layouts as required for the proper installation of the work in coordination with all other trades and work on this project. No additional costs to the contract will be considered for work which must be relocated due to conflict between work of other trades. All verifications shall be accomplished prior to placing orders for materials and equipment to be used. No extra compensation will be allowed to the contractor and/or subcontractor(s) for expenses due to his or their neglect of all proper verifications. Many items, quantities, conditions, locations and areas vary slightly from one unit to another, as determined during investigative findings.

#### Shop Drawings and Samples:

Prepare shop drawings and/or sample submittals for all items of equipment and materials specified per General Conditions. The following requirements are for each item(s) as specified in each section of these specifications whether specifically called for or not.

Identify each item by manufacturer, brand and trade name, number, size, rating and whatever other data necessary to properly identify and check materials and equipment. The words "as specified" will not be considered sufficient identifications.

Each submitted item shall refer to specification section and paragraph in which the item is specified.

Accessories, controls, finish, etc. not submitted or identified with submitted equipment shall be furnished and installed as specified and/or as required to furnish completed work by each subcontractor(s) and general contractor.

Submittal shall be all-inclusive with all items being submitted at the same time. Individual submittals will not be accepted.

Place orders for all equipment in time to prevent any delay in the construction schedule or completion of the project. If any materials or equipment are not ordered in time, additional charges made by equipment manufacturers to complete their equipment in time to meet the construction schedule, together with any special handling charges, shall be borne by the contractor.

### Guarantees:

Submit all guarantees for equipment and work performed under this contract as per the General Conditions and General Requirements. Any extended warranties of equipment shall also be conveyed in written guarantee. All contracted work, supplies, and/or equipment supplied and/or installed by the General Contractor and any Subcontractor(s) shall be warranted for a minimum of 1 year from time of final completion and acceptance by the Architect, **Housing Authority**, and/or Clerk of the Works and local municipality's Building Inspector.

### Rules and Regulations:

All required work and materials shall be in strict and full accordance with the appropriate Federal, State, and local rules and regulations, International Federal Accessibility Standards (current), American National Standards Institute, Inc. (ANSI A117.1 -current) for Handicap Accessibility, State Fire Marshal, the local municipality's currently adopted International Building Code, including any revisions and amendments, International Plumbing Code and amendments, International Fuel and Gas Code, International Mechanical Code with amendments, International Fire Prevention Code with amendments, International Life Safety Code with amendments, National Electrical Code, Alabama State Department of Insurance and all other applicable laws, codes, or regulations for that portion(s) of work being renovated. Nothing in these plans or specifications shall be construed to permit work not conforming to the most recent of these codes, as listed above, and any revisions and amendments that apply.

Furnish, without charge, any additional materials, and labor when and where required to comply with these rules and regulations, though the work is not mentioned in the specifications or shown on the drawings. When specifications or drawings call for, or describe, materials or construction of a better quality or larger sizes than required by the above mentioned rules and regulations, the provisions of these specifications and accompanying drawings shall take precedence.

### Fees and Permits:

The contractor and/or subcontractors shall provide, procure and pay for all permits, licenses, certifications, inspections, etc. which will be required to carry out and complete the work outlined in these documents and drawings.

It shall be the Contractor's responsibility to provide his own electric power and gas service for his work and subcontractors' work throughout the project. It will also be the Contractor and his Subcontractor's responsibility, as well as any required utility company, to schedule required work at night, weekends, and/or holidays in order to accomplish required work. It shall be the Contractor's responsibility to pay for any extra charges as may be required for any work to be accomplished at night (after hours), weekends and/or holidays.

### Insurance:

Before commencing work, the General Contractor and each Subcontractor shall furnish the **Housing Authority** and/or Architect with Certificates of Insurance showing the following insurance is in force and will insure all operations under the contract.

The Contractor and each Subcontractor, at its sole expense, shall obtain and maintain in full force the following insurance to protect the Contractor, Subcontractor(s), Owner (The **Housing Authority**), the Architect, and Clerk of the Works at limits and coverage specified below. These limits and coverage specified are the minimum to be maintained and are not intended to represent the correct insurance needed to fully and adequately protect the Contractor And/or Subcontractor(s).

All insurance will be provided by insurers licensed to conduct business in the state of Alabama and shall have a minimum A.M. Best rating of A-VII and must be acceptable to the Owner. Self-insured plans and/or group funds not having an A.M. Best rating are not acceptable.

The General Contractor and each Subcontractor shall maintain insurance in such amount as will protect them and the Architect, **Housing Authority**, and Clerk of the Works from claims under Workers Compensation Act and other employee benefit acts, from claims for damages because of bodily injury, including death, and from claims for damages to property which may arise, both out of and during operations under this contract, whether such operations be by the General Contractor or by any Subcontractor, or anyone directly or indirectly employed by either of them. The General Contractor and/or any Subcontractor hereby agrees to indemnify and hold harmless the Architect, **Housing Authority**, and Clerk of the Works from liability, loss, damage costs, and expenses of any kind which may arise because of any such claims specified in this said Paragraph.

**No work shall be performed until proof of compliance with the insurance requirements, without limiting any provisions of the above Paragraph has been received by the Owner, along with all certificates, including additional insured for the Architect, Housing Authority, and Clerk of the Works with all the minimum coverages as listed below:**

#### Worker's Compensation and Employee Liability

Part One: Statutory Benefits as required by the State of Alabama

Part Two: Employer's Liability

E.L. each accident	\$1,000,000.00
E.L. disease-each employee	\$1,000,000.00
E.L. disease-policy limit	\$1,000,000.00

Bodily injury by accident (each accident)	\$1,000,000.00
Bodily injury by disease (aggregate)	\$1,000,000.00



### Commercial General Liability

Coverage on an occurrence form with a combined single limit (bodily injury and property damage combined) as follows:

Each occurrence	\$1,000,000.00
Damage to rented premises (ea. occurrence)	\$ 100,000.00
Medical expense (any one person)	\$ 5,000.00
Personal and advertising injury	\$1,000,000.00
Products/completed operation aggregate	\$2,000,000.00
General aggregate	\$2,000,000.00

Coverage to include:

Premises and operations

Personal injury and advertising injury

Independent contractors

Blanket contractual liability

Explosion, collapse, and underground hazards

Broad form property damage

Products/completed operations - This shall remain in effect for twenty four (24) months beyond completion and acceptance by Owner of the project, whichever is later. Railroad protective liability insurance, if work involves construction, demolition, or maintenance operations on or within 50' of a railroad.

### Automobile liability

Covering any auto, all owned, non-owned, and hired vehicles with a combined single limit (bodily injury and property damage combined) of \$1,000,000.00 each accident. The policy shall name the Architect, **Housing Authority**, and Clerk of the Works as additional insured.

### Excess/Umbrella Liability

Coverage shall be per each occurrence \$1,000,000.00

### Protection and Indemnity Insurance

If the contract involves work aboard and on, non-owned, or hired vessel, liability coverage in the amount of \$1,000,000.00 per occurrence shall be maintained.

### Waiver of Subrogation

The Worker's Compensation policy shall contain a Waiver of Subrogation in favor of the Architect, **Housing Authority**, and Clerk of the Works.

The Contractor and Subcontractors shall name the Architect, **Housing Authority**, and Clerk of the Works, their employees and agents as additional insured for claims arising out of the Contractor and/or Subcontractors' work. The ISO Form CG 20, 10, 11, 85, or a comparable form that is no more restrictive shall be required. The Additional Insured Form MUST include the current Operations and Products/Completed Operations of the Contractor. The naming of the additional insured does not obligate the additional insured, in any way, to pay any premiums due.

Aggregate limits shall be on a "per project" basis or an Owner's and Contractor's protective liability policy shall be provided in the name of the Owner, Owner's Representatives, the Contractor, and Subcontractors, with the limits to be the same as above for Commercial General Liability.

#### Certificate of Insurance

Certificate of Insurance evidencing the above minimum requirements must be provided to and accepted by the Owner **PRIOR** to commencement of any work on the contract. Each policy shall be endorsed to provide ten (10) days written notice of cancellation mailed to the address of the Owner as published herein. Wordings which make exceptions for failure to provide are not allowed on the certificate(s).

#### Coordination and Approvals:

Before beginning with any work and/or installation of equipment, carefully study all contract specification documents and drawings, and sites for any discrepancies and/or interference with other trades. If conflicts are discovered in specifications and/or drawings, or as work progresses, a set of prints marked with red pencil showing recommended installation methods shall be submitted to the Architect for approval prior to commencing with work and/or installation of equipment which must be relocated due to conflicts between work and/or equipment of different trades.

#### Inspection:

Do not allow any work to be covered up or enclosed until inspected, tested and approved by the Architect, **Housing Authority**, and Clerk of the Works, or any other authorities having jurisdiction over the work. Should any work be enclosed or covered up before such inspection and test, the contractor shall, at his own expense, uncover the work and after it has been inspected, tested and approved, make all repairs as necessary to restore all work disturbed by him to its original proper condition.

Upon completion of the work under this contract, a final inspection will be made by the Architect, **Housing Authority**, and Clerk of the Works, as they may designate, and building official with the local municipality's Inspection Department. Any deficiencies or discrepancies noted will be corrected prior to any final approvals and acceptance. A

certificate and/or letter of completion will be provided to the **Housing Authority** indicating that the contractor has completed all work required under this contract; that all equipment is functional and in operating order; and that all work has been inspected by local building officials and approved and released in writing.

#### Delivery, Storage and Partial Payments:

Deliver materials in ample quantities from time to time as necessary for uninterrupted progress of the work being performed. Store so as to cause the least destruction to the premises and as directed by the Architect and The **Housing Authority**. Distribute to prevent overloading to any portion of structure. Provide all temporary storage and shop areas that are required at the site for safe and proper storage of materials, tools and other items used in the performance of this work. Construct and/or locate only in approved locations as directed by the Architect and The **Housing Authority** and do not interfere with work of any other trades. Protect materials and equipment furnished under this contract, either stored or installed, until final acceptance of the project as a whole. Partial payment shall be made to the Contractor for materials delivered and stored at a secured on-site location as designated by the Architect. Materials stored at any other locations will not be considered for payment unless stored in a bonded and insured warehouse or unless the Contractor's insurance company issues a certificate of insurance on stored materials along with a certified invoice from the supplier and/or manufacturer. Payment for stored materials shall be made based on certified invoices of materials delivered to the project site from the materials supplier. Partial payments made to the Contractor for stored materials shall not relieve the contractor from being responsible for these materials. The Contractor must continue to carry all applicable insurance on these materials and replace said materials if they are stolen, damaged, or destroyed.

#### Drawings:

Install work as indicated on drawings. For purposes of clarity and legibility, the drawings are essentially diagrammatic to the extent that many offsets, bends, unions, special fittings and exact locations are not indicated. Make use of all data in all contract documents and verify information at the job-site. All dimensions, sizes, quantities and locations of equipment as shown on the plans, as mentioned elsewhere and/or as required, shall be verified at the job-site where work is to be performed and shall be the sole responsibility of the Contractor and Subcontractor(s). All verifications shall be accomplished by the Contractor and Subcontractor(s) prior to placing any orders for materials and equipment to be used.

#### Quality:

All materials and equipment shall be new and the best of their respective grades, free from all defects and of make, brand or quality herein specified or accepted by the Architect. All materials and equipment shall be identified by manufacturer's name or nameplate data. Unidentified materials or equipment shall be removed from the site at

no expense to the **Housing Authority**. Equipment specified by the manufacturer's number shall include all accessories, controls, etc. listed in the catalog as needed to accomplish the work required. Optional or additional accessories shall be furnished as specified. Where no specific make of material or equipment is mentioned, any first class product of a reputable manufacturer may be used, provided if it conforms to the requirements of the system and meets with the approval of the Architect.

Equipment and materials damaged during transportation, installation and operation shall be considered as "totally damaged" and shall be replaced with new materials. Any variance from this clause shall be made only with written approval of the Architect.

#### Interruption of Services:

Interruption of any existing services shall be kept to a minimum. Shutdowns shall be made only with approval of and at a time designated by the **Housing Authority**. The contractor shall include overtime work costs in his bid for this work to be performed at the least inconvenience. The contractor will not disrupt utility service to the existing units and/or Administrative Office without prior coordination with the **Housing Authority** and existing occupants. It shall be the contractor's responsibility to coordinate with the respective utility companies to perform his work and keep the power outage to the individual units to a very minimum. 1bis may require the contractor and the utility companies to perform their work during non-regular working hours, such as at night, holidays and/or weekends. It will be the contractor's responsibility to pay any additional charges from the utility companies to perform this work during non-regular working hours.

#### Temporary Services:

Provide temporary services when any existing services are interrupted in connection with work as outlined in these contract documents beyond the period of time acceptable and approved by the Architect and/or **Housing Authority**.

#### Cutting and Patching:

The Contractor and/or appropriate Subcontractor(s) shall do all fastening, sleeving, cutting and patching of rough and finish construction. All cutting, repairing and required structural reinforcing for installation of work under this contract shall be done in conformance with the Architect's directions and any damage caused by cutting and fastening shall be repaired equal to the original conditions. No cutting and fastening shall be done without prior approval.

#### Damage:

The Contractor and/or Subcontractor(s) shall be responsible for all damage to any part of the premises or work of others caused by carelessness, equipment and tools of any kind, equipment furnished or installed under this contract during the duration of construction and guarantee periods. Any damage shall be repaired and/or replaced equal to original conditions.

#### Installation:

Locations of all equipment, materials and supplies indicated on the drawings are approximate and shall be changed as required to meet aesthetic and structural conditions as required. All equipment, materials and supplies shall be accurately set, fastened and leveled. Supports shall be neatly placed and properly fastened. All equipment, materials and supplies shall be fastened in place using manufacturer's recommendations and required fasteners. No allowance of any kind will be made for negligence on the part of the contractor to foresee means of bringing in and installing equipment, materials and supplies into position inside the structure. Manufacturer's directions shall be covering points not specified or shown on drawings. Spaces provided in the structure shall be utilized and the work shall be kept within furring lines established. All piping and venting shall be cut accurately to measurements established by the contractor at or in the building and shall be worked into place without springing or forcing. Proper provisions shall be made for expansion and contraction of all materials and/or equipment by General Contractor and/or Subcontractors.

#### Equipment, Material & Supplies Brochures, Maintenance Instructions, Etc.:

At the completion of the project, the Contractor shall furnish three bound sets of documents containing complete maintenance instructions, all warranties, parts lists, operating instructions, control wiring diagrams and descriptions for all equipment, materials and supplies installed in this contract. The submission of these documents shall be precedent to final payment.

END OF SECTION 00100

## SECTION 01011 – CONTINGENCY ALLOWANCES (FOR EACH BID PROPSAL)

The General Contractor shall include in his bid proposal the following sums:

1. **Five Thousand Dollars (\$ 5,000.00)** as a contingency to cover unforeseen conditions or minor changes that are necessary to correct or supplement the work as detailed in the Contract Documents.

The Contractor shall include in his bid proposal all costs of office, job supervision, overhead, profit, and bond on this Contingency Allowance, because no such costs will be paid to Contractor for work performed under this Contingency Allowance. Only the direct costs of performing work under this provision shall be paid under and charged against the Contingency Allowance; such cost includes costs o materials and delivery, installation labor, payroll taxes and insurance, equipment expense, and the cost of subcontracted work (subcontractor's cost may include a maximum of 15% mark-up for overhead and profit).

After unknown conditions are identified and examined and the scope of work and method of repair determined, or request for a proposal to cover additional work has been issued by the Owner, the Contractor shall submit a proposal for such work to the Architect for the Owner's approval. If the Owner approves of such proposal, he will issue written authorization to the Contractor to perform the work and charge the related costs to the Contingency Allowance. At the Owner's option, work performed under this provision may be ordered done on a time and material basis, in which case; the Contractor shall keep accurate records of all time and materials used and submit such records to the Architect for his approval at the end of each day's work.

An accounting of the costs charged against this Contingency Allowance shall be mutually maintained by the Contractor, Architect, and Owner throughout the course of the project. Any of this Contingency Allowance not spent shall be credited to the Owner by Change Order at close out of the project, refer to Contingency Allowance Form attached to this Section.

Provide for payment.

The Contractor shall include a line item in the **Schedule of Values** entitled "Contingency Allowance" based on the total amount of this Section. The estimated value of work completed pursuant to fully executed Contingency Allowance Authorizations may be included in the Contractor's monthly Applications for Payment. Payments under this Contingency Allowance shall not exceed the net, total of fully executed Contingency Allowance Authorizations.

# CONTINGENCY ALLOWANCE AUTHORIZATION FORM

AUTHORIZATION No. \_\_\_\_\_ DATE \_\_\_\_\_

In accordance with Specification Section 01011 – CONTINGENCY ALLOWANCE, the Contractor \_\_\_\_\_, is hereby authorized to proceed with the changes in Work as are described below and is to be paid for the performance of these changes as provided in Specification Section 01011. This Authorization shall become effective when it is signed by the Contractor and the Owner's representative and it is understood and agreed that the amount(s) stipulated below constitute full compensation for these changes in Work.

TOTAL AMOUNT OF THIS AUTHORIZATION \$\_\_\_\_\_

ORIGINAL AMOUNT OF THE CONTINGENCY ALLOWANCE \$\_\_\_\_\_

NET TOTAL OF PREVIOUS AUTHORIZATIONS \$ \_\_\_\_\_

PREVIOUS REMAINING CONTINGENCY ALLOWANCE \$ \_\_\_\_\_

TOTAL AMOUNT OF THIS AUTHORIZATION \$ \_\_\_\_\_

CONTINGENCY ALLOWANCE REMAINING  
AFTER THIS CONTINGENCY \$ \_\_\_\_\_

Recommended By:

Authorized By:

Accepted By:

## Architect

**Housing Authority****Contractor**

END OF SECTION 01011

## **SECTION 01100 - MISCELLANEOUS PROVISIONS**

### **RELATED DOCUMENTS**

Drawings and general provisions of the Contract including General and Supplementary Conditions and other Division 1 Specification Sections apply to this Section.

### **SCOPE OF THE WORK:**

The work included under these Contract Documents consists of providing all items, articles, materials, operations, or methods listed, mentioned, or scheduled on the drawings and/or herein, including all labor, materials, services, equipment and incidentals necessary for the completion of the Project.

The work consists of but is not necessarily limited to the following:

**BASE BID WORK: ADA Restrooms Renovations:** All interior renovation work related to the renovation of two ADA restrooms. Refer to plans and specifications

**ALTERNATE #1 WORK: Construction of ADA Ramp(s) and repair of sidewalks:** All work related to the Construction of the ADA Ramp(s) and the sidewalk repair at the front of building #1 and the miscellaneous sidewalk repairs as indicated in Unit Price #2. Refer to plans and specifications.

### **MISCELLANEOUS PROVISIONS:**

All Apartment Units shall remain in operation during the construction process, any required interruption of utility services OR tenant access restriction shall be first be approved by the Owner and/ or Architect.

### **USE OF PREMISES**

General: The Contractor shall have full use of premises for construction operations as indicated on Drawings by the Contract limits. All existing egress exits shall be maintained during construction while the facility is being renovated and occupied.

Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated without prior approval from the Owner and the Architect.

1. Limits: Confine construction operations to areas within the Contract Limits.
2. Driveways and Entrances: Keep driveways, loading areas, and entrances serving existing buildings clear and available to the 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.
  - c. Any damages caused to existing driveways and entrances by the Contractor must be repaired or replaced by the General Contractor.
  - d. Temporary toilets are required at the project site by the Contractor. Existing facilities shall not be used by the Contractor's work force.
  - e. No firearms shall be allowed on any person or vehicle parked on the property at any time.
3. Parking for all workman shall be provided by the Contractor by the Owner at designated areas.
  4. Contractor's vehicles and worker's privately owned vehicles shall be under the jurisdiction of Owner.
  5. The Contractor shall construct and maintain adequate barricades and post warning signs where needed to prevent unauthorized persons from entering dangerous work areas.
  6. At the end of each work day the General Contractor shall clean and clear away any debris that may affect the use of the Apartment building areas.

### **OWNER'S OCCUPANCY REQUIREMENTS**

Owner Occupancy: Owner will occupy adjacent parking lots during entire construction period. Cooperate with Owner during construction operations adjacent to or near the existing building and parking to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits, unless otherwise indicated.

Maintain access to existing walkways and other adjacent occupied or used facilities. Do not close or obstruct walkways or other occupied or used facilities without written permission from Owner and authorities having jurisdiction. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.

### **WORK RESTRICTIONS**

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 Architect and Owner not less than two days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without Architect's and Owner's written permission.

## **NO SMOKING REQUIREMENT**

All sites are "Tobacco Free", **NO SMOKING** shall be allowed on the property at any time.

## **TOILET FACILITIES**

Temporary toilets are required at the project site by the Contractor. Existing facilities shall not be used by the Contractors work force.

## **FIREARMS**

No firearms shall be allowed on any person or vehicle parked on the property at any time.

## **SPECIFICATION FORMATS AND CONVENTIONS**

**Specification Format:** The Specifications are organized into Divisions and Sections using the 16-division format numbering system.

1. **Section Identification:** The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.

**Specification Content:** The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. **Abbreviated Language:** Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

- a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

### **PRECONSTRUCTION CONFERENCE:**

The Contractor and his superintendent and major subcontractors shall be required to meet with the Owner and Architect to discuss procedures required throughout the project. Time and place will be determined at a later date. The Contractor shall submit his proposed construction schedule at this meeting. All forms, etc. required as the project proceeds will be discussed.

### **PROGRESS MEETINGS:**

The Contractor or his superintendent and possibly sub-contractors shall be required to meet with the Owner and Architect once each month to discuss the progress, delays, problems, pay request, stored materials etc. of the project. If the project has a short schedule (12 weeks or less) then the Architect may require more frequent meetings.

Status of all shop drawings and samples submitted within the last month will be reviewed.

Contractor shall notify the Owner and Architect of any anticipated difficulties or delays at this time.

Construction schedule shall be discussed and brought up-to-date.

### **WEATHER DELAYS:**

All delays due to inclement weather shall be submitted to Architect within 10 days of delay. Each of these will be reviewed and either approved or not approved at this time. Any request for delays prior to this month will not be honored. The burden of proper documentation of the weather conditions lies with the General Contractor. GC must provide data from a creditable weather source that documents the actual weather conditions that occurred each given day in the area of the project (that resulted in a delay). The documentation information must be provided in an easy to follow format. "Piecemeal" documentation will not be allowed. Weather Delays shall only apply to exterior work of the project.

The Owner and Architect will use their best judgment in reviewing delay request based on the actual amount of time project work is hindered. This will vary depending on the type and phase of work currently ongoing at the point of the weather event. Any days that are granted as legitimate weather delays will be added to the next occurring change order.

## **CONSTRUCTION SCHEDULE**

The Contractor shall prepare a bar graph type schedule or CPM indicating beginning and completion dates for all phases of the work.

1. Indicate all major material ordering dates.
2. Contractor shall submit 3 copies to the Architect.
3. Contractor shall post one copy in building Contractor's job office for the duration of the job.
4. Schedule shall be up-dated at the end-of each week at must be sent to Architect if schedule dates are change during the progression of work.

END OF SECTION 01100

## SECTION 01600 - PRODUCT REQUIREMENTS

### PART 1 – GENERAL

#### RELATED DOCUMENTS

Drawings and general provisions of the Contract including General and Supplementary Conditions and other Division 1 Specification Sections apply to this Section.

#### SUMMARY

This Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and equal products.

Related Sections include the following:

1. Divisions 2 through 16 Sections for specific requirements for warranties on products and installations specified to be warranted.

#### DEFINITIONS

Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
3. Equal Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating equal products of other named manufacturers.

## SUBMITTALS

Product List: Submit a list, in tabular form, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.

1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
2. Form: Tabulate information for each product under the following column headings:
  - a. Specification Section number and title.
  - b. Generic name used in the Contract Documents.
  - c. Proprietary name, model number, and similar designations.
  - d. Manufacturer's name and address.
  - e. Supplier's name and address.
  - f. Installer's name and address.
  - g. Projected delivery date or time span of delivery period.
  - h. Identification of items that require early submittal approval for scheduled delivery date.
3. Completed List: Within 60 days after date of commencement of the Work, submit 3 copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
4. Architect's Action: Architect will respond in writing to Contractor within 15 days of receipt of completed product list. Architect's response will include a list of unacceptable product selections and a brief explanation of reasons for this action. Architect's response, or lack of response, does not constitute a waiver of requirement to comply with the Contract Documents.

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. Substitution Request Form: Use CSI Form 13.1A.
2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:

- a. Statement indicating why specified materials or products 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 accommodate 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, weight, size, durability, visual effect, and specific features and requirements indicated.
  - d. Product Data, 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 a 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.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within 7 days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.

- a. Form of Acceptance: Change Order.
- b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.
- c. If Contractor's Substitution Requests are repeatedly (i.e. 3 times) submitted incomplete, i.e., no definitive response to items "a" through "l", the Architect will not consider any further Substitution Requests.

Equal Product 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. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of an equal product request. Architect will notify Contractor of approval or rejection of proposed equal product request within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
  - a. Use product specified if Architect cannot make a decision on use of an equal product request within time allocated.

Basis-of-Design Product Specification Submittal: Comply with requirements in Division 1 Section 01330 "Submittal Procedures." Show compliance with requirements.

## QUALITY ASSURANCE

Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.

## PRODUCT DELIVERY, STORAGE, AND HANDLING

Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.

### Delivery and Handling:

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, unpacking, 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.

Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Store cementitious products and materials on elevated platforms.
5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
7. Protect stored products from damage and liquids from freezing.
8. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.
9. Materials Stored Off Site: Unless otherwise provided in the Contract Documents, the Contractor's cost of materials and equipment to be incorporated into the Work, which are stored off the site, may also be considered in monthly Applications for Payment under the following conditions:
  - a. The contractor has received written approval from the Architect and Owner to store the materials or equipment off site in advance of delivering the materials to the off site location.
  - b. A Certificate of Insurance is furnished to the Architect evidencing that a special insurance policy, or rider to an existing policy, has been obtained by the Contractor providing all-risk property insurance coverage, specifically naming the materials or equipment stored, and naming the Owner as an additionally insured party.
  - c. The Architect is provided with a detailed inventory of the stored materials or equipment and the materials or equipment are clearly marked in correlation to the inventory to facilitate inspection and verification of the presence of the materials or equipment by the Architect or Owner.

- d. The materials or equipment are properly and safely stored in a bonded warehouse, or a facility otherwise approved in advance by the Architect and Owner.
- e. 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.

## PRODUCT WARRANTIES

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 product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

- 1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
- 2. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.

Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.

- 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
- 2. Refer to Divisions 2 through 16 Sections for specific content requirements and particular requirements for submitting special warranties.

Warranty start for mechanical and electrical equipment being date of substantial completion.

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 standard products of types that have been produced and used successfully in similar situations on other projects.

3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Architect will make selection.
5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in Part 2 "Equal Products" Article to obtain approval for use of an unnamed product.

#### Product Selection Procedures:

1. Products and Manufacturers: In particular instances there may only be a single product or manufacturer appropriate for use on the project, in which case where Specifications name a single product and manufacturer and say "no equal", provide the named product.
2. Products and Manufacturers: When one or two products or manufacturers are specified and have the words "or approved equal", the Contractor may propose to provide alternatives in the form of a Substitution Request which once reviewed by the Architect will be either accepted or rejected. If Substitution Request is submitted for approval 7 days prior to the receipt of bids and approved by the Architect, said approvals will be included in Addenda. Only those Substitution Requests listed as approved in Addenda may bid the project.
3. Products and Manufacturers: Where Specifications include a list of three (3) or more names of both products and manufacturers, provide one of the products listed that complies with requirements. No substitutions will be accepted.
4. Basis-of-Design Product: Where Specifications name a product and include a list of manufacturers, provide the specified product or an equal product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named.
5. Visual Matching Specification: Where Specifications require matching an established Sample, product must comply with all requirements and must match Architect's sample. Architect's decision will be final on whether a proposed product matches.
  - a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.

6. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product that complies with other specified requirements.
  - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that does not include premium items.
  - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

## PRODUCT SUBSTITUTIONS

Timing: Architect will consider requests for substitution under the conditions set forth in this section under Product Selection Procedures, if received within 60 days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect.

Conditions: Architect will consider Contractor's request for substitution under the conditions set forth in this section under Product Selection Procedures and when the following conditions are satisfied. If the following conditions are not satisfied,

Architect will return requests without action, except to record noncompliance with these requirements:

1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
2. Requested substitution requires no or only very minor revisions (as determined by the Architect), to the Contract Documents.
3. Requested substitution is consistent with the Contract Documents and will produce indicated results.
4. Substitution request is fully documented and properly submitted.
5. Requested substitution will not adversely affect Contractor's Construction Schedule.
6. Requested substitution has received necessary approvals of authorities having jurisdiction.

7. Requested substitution is compatible with other portions of the Work.
8. Requested substitution has been coordinated with other portions of the Work.
9. Requested substitution provides specified warranty.
10. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

END OF SECTION 01600

## SECTION 02070 - SELECTIVE DEMOLITION

### PART 1 - GENERAL

#### RELATED DOCUMENTS

Drawings and general provisions of Contract including General and Supplementary Conditions and Division 1 Specification sections apply to work of this section.

#### DESCRIPTION OF WORK

Extent of demolition work is shown on drawings, as well as all items necessary to complete new work indicated on plans.

Schedule of Demolition Work: Demolition includes but is not limited to the following:

1. All work as indicated on the drawings.
2. No vehicles of any type shall be allowed to park on the existing grassed areas (yards). Therefore, the Contractor shall replace grass/sod damaged during the construction. Fill in ruts caused by equipment with topsoil and grass over to match existing conditions.
3. Any damage to the existing facilities at the site after the Contractor takes possession shall be repaired by this Contractor at his expense.
4. All utilities shall remain in the Owner's name during construction. The General Contractor shall compensate the Owner for water and power usage at the end of the project.

#### SUBMITTALS

Schedule: Submit proposed methods and operations to Architect for review prior to start of work. Include in schedule coordination for shut-off, capping and continuation of utility services as required.

1. Provide a detailed sequence of removal work to ensure uninterrupted progress of Owner's on-site operations.

#### JOB CONDITIONS

Conditions existing at time of inspection for bidding purposes will be maintained by Owner in so far as practicable.

Traffic: Conduct removal of debris to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities.

Do not close or obstruct streets, walks or other occupied or used facilities without permission from authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.

Protections: Ensure safe passage of persons (night or day) around area of work. Conduct operations to prevent injury to adjacent buildings, structures, other facilities and persons.

1. Erect temporary covered passageways as required by authorities having jurisdiction.

Damages: Promptly repair damages caused to adjacent facilities at no cost to Owner.

Utility Services: Maintain existing utilities indicated to remain, keep in service, and protect against damage during demolition operations.

1. Do not interrupt existing utilities serving occupied or used facilities, except when authorized in writing by authorities having jurisdiction. Provide temporary services during interruptions to existing utilities, as acceptable to governing authorities.
2. All electrical work to be removed, relocated or reconnected shall be performed by a licensed Electrical Contractor in accordance with the NEC and any applicable local codes and ordinances.

## PART 2 - PRODUCTS - NOT APPLICABLE

## PART 3 - EXECUTION

### DEMOLITION

### DISPOSAL OF DEMOLISHED MATERIALS

General: Remove from site debris, rubbish and other materials resulting from demolition operations.

Burning of removed materials from demolished structures will not be permitted on site.

Removal: Transport materials removed from demolished structures and legally dispose of off site, in area approved by all local authorities and ADEM.

END OF SECTION 02070

## SECTION 03310 - CONCRETE WORK

### GENERAL:

Drawings and general provisions of Contract including General and Supplementary Conditions and Division 1 Specification sections apply to work of this section.

### DESCRIPTION OF WORK:

Concrete stoops and pads. Extent of concrete work is shown on drawings.

### QUALITY ASSURANCE:

Codes and Standards: Comply with provisions of following codes, specifications and standards, except where more stringent requirements are shown or specified:

1. ACL 301 "Specifications for Structural Concrete for Buildings".
2. ACI 318 "Building Code Requirements for Reinforced Concrete"
3. Concrete Reinforcing Steel Institute, "Manual of Standard Practice".

### SUBMITTALS:

Product Data: Submit data for proprietary materials and items, including reinforcement and forming accessories, admixtures, patching compounds, joints systems, curing compounds, dry-shake finish materials and others as requested by Architect.

Shop Drawings Reinforcements: Submit shop drawings for fabrication, bending and placement of concrete reinforcement. Comply with ACI 315 "Manual of Standard Practice for Detailing Reinforced Concrete Structures" showing bar schedules, stirrup spacing, diagrams of bent bars, arrangement of concrete reinforcement.

Material Certificates: Provide materials certificates in lieu of materials laboratory test reports when permitted by Architect. Material certificates shall be signed by manufacturer and Contractor, certifying that each material item complies with, or exceeds, specified requirements.

### FORM MATERIALS:

Forms for Exposed Finish Concrete: Unless otherwise indicated, construct formwork for exposed concrete surfaces with plywood, metal, metal-framed plywood faced or other acceptable panel-type surfaces. Furnish in largest practicable sizes to minimize number of joints and to conform to joint system shown on drawings. Provide form material with sufficient thickness to withstand pressure of newly-placed concrete without bow or deflection.



Use plywood complying with U. S. Product Standard PS-1 "B-B (Concrete Form) Plywood", Class I, Exterior Grade or better, mill-oiled and edge-sealed, with each piece bearing legible inspection trademark.

Forms for Unexposed Finish Concrete: Form concrete surfaces which will be unexposed in finished structure with plywood, lumber, metal, or other acceptable material. Provide lumber dressed on at least two (2) edges and one (1) side for tight fit.

Form Coatings: Provide commercial formulation form-coating compounds that will not bond with, stain nor adversely affect concrete surfaces, and will not impair subsequent treatments of concrete surfaces.

#### REINFORCING MATERIALS:

Reinforcing Bars: ASTM A 615, Grade 60, deformed, unless otherwise noted.

1. Steel Wire: ASTM A 82, plain, cold-drawn, steel.
2. Welded Wire Fabric: ASTM A 185, welded steel wire fabric.

Supports for Reinforcement: Provide supports for reinforcement including bolsters, chairs, spacers and other devices for spacing, supporting and fastening reinforcing bars and welded wire fabric in place. Use wire bar type supports complying with CRSI specifications, unless otherwise acceptable.

For slabs-on-grade, use supports with sand plates or horizontal runners where base material will not support chair legs.

For exposed to view concrete surfaces, where legs of supports are in contact with forms, provide support with legs which are plastic protected (CRSI, Class I) or stainless steel protected (CRSI, Class 3).

#### CONCRETE MATERIALS:

Portland Cement: ASTM C 150, Type 1, unless otherwise acceptable to Architect.

Use one brand of cement throughout project, unless otherwise acceptable to Architect.

Normal Weight Aggregate: ASTM C 33, and as herein specified. Provide aggregate from a single source for all concrete.

Do not use fine or coarse aggregates containing spalling-causing deleterious substances.

Water: Drinkable.

Air-Entraining Admixture: ASTM C 260.

Manufacturers: The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function:

"Air-Mix", Euclid Chemical Co.

"Sika-Air", Sika Corp.

"Darex AEA", W. R. Grace

Equal products of other manufacturers may be used in the work, provide such products have been approved, by the Architect, not less than five (5) days prior to scheduled bid opening.

Water-Reducing, Non-Chloride Accelerator Admixture: ASTM C 494, Type E, and containing not more than 0.1% chloride ions.

Manufacturers: The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function:

"Accelguard 80"; Euclid Chemical Company

"Pozzolith High Gally"; Master Builders

Equal products of other manufacturers may be used in the work, provide such products have been approved, by the Architect, not less than five (5) days prior to scheduled bid opening.

Water-Reducing, Retarding Admixture: ASTM C 494, Type D, and contain not more than 0.1% chloride ions.

Manufacturers: The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function:

"Edoco 20006"; Edoco Technical Products

"Pozzolith 300-R"; Master Builders

"Eucon Retarder 75"; Euclid Chemical Company

"Daratard"; W. R. Grace

"Plastiment"; Sika Chemical Company

Equal products of other manufacturers may be used in the work, provide such products have been approved, by the Architect, not less than five (5) days prior to scheduled bid opening.

Certification: Provide admixture manufacturer's written certification that chloride ion content complies with specified requirements.

Calcium chloride or admixtures containing more than 0.1% chloride ions are not permitted.

#### RELATED MATERIALS:

Bonding Compound: Polyvinyl acetate or acrylic base, re-wettable type.

Manufacturers: The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function:

"Welcrete"; Larsen Products  
"EucoWeld"; Euclid Chemical Company  
"Hornweld"; A. C. Horn  
"Sonocrete"; Sonneborn-Contech  
"Acrylic Bondcrete"; The Burke Company

Equal products of other manufacturers may be used in the work, provide such products have been approved, by the Architect, not less than five (5) days prior to scheduled bid opening.

Epoxy Adhesive: ASTM C 881, two component material suitable for use on dry or damp surfaces. Provide material "Type", "Grade", and "Class" to suit project requirements.

Manufacturers: The following manufacturers' products have been used establish minimum standards for materials, workmanship and function:

"Epoxitite"; A. C. Horn  
"Sikadur Hi-Mod"; Sika Chemical Corporation  
"Euco Epoxy 463 or 615"; Euclid Chemical Company  
"Patch and Bond Epoxy"; The Burke Company  
"Sure-Poxy"; Kaufman Products, Inc.

Equal products of other manufacturers may be used in the work, provide such products have been approved, by the Architect, not less than five (5) days prior to scheduled bid opening.

#### PROPORTIONING AND DESIGN OF MIXES:

Prepare design mixes for each type and strength of concrete by either laboratory trial batch or field experience methods as specified in ACI 301. If trial batch method used, use an independent testing facility acceptable to Architect for preparing and reporting proposed mix designs. The testing facility shall not be the same as used for field quality control testing unless otherwise acceptable to Architect.

Submit written reports to Architect of each proposed mix for each class of concrete at least 15 days prior to start of work. Do not begin concrete production until mixes have been reviewed by Architect.

Design mixes to provide normal weight concrete as indicated on drawings and schedules.

Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when characteristics of materials, job conditions, weather, test results, or other circumstances warrant; at no additional cost to Owner and as accepted by Architect. Laboratory test data for revised mix design and strength results must be submitted to and accepted by Architect before using in work.

Admixtures:

Use water-reducing admixture in all concrete for ease of placement and workability.

Use non-chloride accelerating admixture in concrete slabs placed at ambient temperatures below 50 degrees F.

Use air-entraining admixture in all concrete, unless otherwise indicated. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having total air content of 6% with a tolerance of plus-or-minus 1-1/2%.

Slump Limits: Proportion and design mixes to result in concrete slump at point of placement as follows:

1. Walks and Pads: 3" to 5".

CONCRETE MIXES:

Ready-Mix Concrete: Comply with requirements of ASTM C 94, and as herein specified.

During hot weather, or under conditions contributing to rapid setting of concrete, a shorter mixing time than specified in ASTM C 94 may be required.

When air temperature is between 85 degrees F and 90 degrees, reduce mixing and delivery time from 1-1/2 hours to 75 minutes, and when air temperature is above 90 degrees F, reduce mixing and delivery time to 60 minutes.

FORMS:

Design, erect, support, brace and maintain formwork to support vertical and lateral loads that might be applied until such loads can be supported by concrete structure.

Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation and position.

Design formwork to be readily removable without impact, shock or damage to cast-in-place concrete surfaces and adjacent materials.

Construct forms to sizes, shapes, lines and dimensions shown and to obtain accurate alignment, location, grades, level and plumb work in finished structures. Provide for openings, off-sets, sinkages, keyways, recesses, moldings, rustications, reglets, chamfers, blocking, screeds, bulkheads, anchorages and inserts and other features required in work. Use selected materials to obtain required finishes. Solidly butt joints and provide back-up at joints to prevent leakage of cement paste.

Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush plates or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces where slope is too steep to place concrete with bottom forms only. Kerf wood inserts for forming keyways, reglets, recesses and the like, to prevent swelling and for easy removal.

Provide temporary openings where interior area of formwork is inaccessible for cleanout, for inspection before concrete placement, and for placement of concrete. Securely brace temporary openings and set time to forms to prevent loss of concrete mortar. Locate temporary openings on forms at inconspicuous locations.

Chamfer exposed corners and edges as indicated, using wood, metal, PVC or rubber chamfer strips fabricated to produce uniform smooth lines and tight edge joints.

Form Ties: Factory-fabricated, adjustable-length, removable, or snap-off metal form ties, designed to prevent form deflection, and to prevent spalling concrete surfaces upon removal.

Unless otherwise indicated, provide ties so portion remaining within concrete after removal is 1" inside concrete and will not leave holes larger than 1" diameter in concrete surface.

Provisions for Other Trades: Provide openings in concrete formwork to accommodate work of other trades. Determine size and location of openings, recesses and chases from trades providing such items. Accurately place and securely support items built into forms.

Cleaning and Tightening: Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt or other debris just before concrete is placed. Retighten forms and bracing after concrete placement is required to eliminate mortar leaks and maintain proper alignment.

## PLACING REINFORCEMENT:

Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars" for details and methods of reinforcement placement and supports, and as herein specified.

Clean reinforcement of loose rust and mill scale, earth, ice and other materials which reduce or destroy bond with concrete.

Accurately position, support and secure reinforcement against displacement by formwork, construction or concrete placement operations. Locate and support reinforcing by metal chairs, runners, bolsters, spacers and hangers as required.

Place reinforcement to obtain at least minimum coverages for concrete protection. Arrange, space and securely tie bars and bar supports to hold reinforcement in position during concrete placement operations. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.

Install welded wire fabric in as long lengths as practicable. Lap adjoining pieces at least one full mesh and lace splices with wire. Offset end laps in adjacent widths to prevent continuous laps in either direction.

#### JOINTS:

Construction Joints: Locate and install construction joints as indicated, or if not indicated, locate so as not to impair strength and appearance of the structure, as acceptable to Architect.

Place construction joints perpendicular to main reinforcement. Continue reinforcement across construction joints.

Isolation Joints in Slabs-On-Ground: Construct isolation joints in slabs-on-ground at points of contact between slabs on ground and vertical surfaces, such as column pedestals, and elsewhere as indicated.

Joint filler and sealant materials are specified in Division-7 sections of these specifications.

Construction Joints in Slabs-On-Ground: Construct construction joints in slabs-on-ground to form panels of patterns no larger than 600 square feet and as shown and as detailed. An alternative control joint detail may be inserts 1/8" to 1/4" wide x 1/4 of slab depth.

Form contraction joints by inserting premolded plastic, hardboard strip into fresh concrete until top surface of strip is flush with slab surface. Tool slab edges round on

each side of insert. After concrete has cured, remove inserts and clean groove of loose debris, fill groove with joint sealant.

### INSTALLATION OF EMBEDDED ITEMS:

General: Set and build into work anchorage devices and other embedded items required for other work that is attached to, or supported by, cast-in-place concrete. Use setting drawings, diagrams, instructions and directions provided by suppliers of items to be attached thereto.

Edge Forms and Screed Strips for Slabs: Set edge forms or bulkheads and intermediate screed strips for slabs to obtain required elevations and contours in finished slab surface. Provide and secure units sufficiently strong to support types of screed strips by use of strike-off templates or accepted compacting type screeds.

### PREPARATION OF FORM SURFACES:

Clean re-used forms of concrete matrix residue, repair and patch as required to return forms to acceptable surface condition.

Coat contact surfaces of forms with a form-coating compound before reinforcement is placed.

Thin form-coating compounds only with thinning agent of type, and in amount, and under conditions of form-coating compound manufacturer's directions. Do not allow excess form-coating material to accumulate in forms or to come into contact with in-place concrete surfaces against which fresh concrete will be placed. Apply in compliance with manufacturer's instructions.

### CONCRETE PLACEMENT:

Replacement Inspection: Before placing concrete, inspect and complete formwork installation, reinforcing steel, and items to be embedded or cast-in. Notify other crafts to permit installation of their work; cooperate with other trades in setting such work. Moisten wood forms immediately before placing concrete where form coatings are not used.

Coordinate the installation of joint materials and moisture barriers with placement of forms and reinforcing steel.

General: Comply with ACI 304 "Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete", and as herein specified.

Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete which has hardened sufficiently to cause the formation of seams of planes of weakness. If a section cannot be placed continuously, provide construction joints as herein specified. Deposit concrete as nearly as practicable to its final location to avoid segregation.

**Placing Concrete in Forms:** Deposit concrete in forms in horizontal layers not deeper than 24" and in a manner to avoid inclined construction joints. Where placement consists of several layers, place each layer while preceding layer is still plastic to avoid cold joints.

Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding or tamping. Use equipment and procedures for consolidation of concrete in accordance with ACI recommended practices.

Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations not farther than visible effectiveness of machine. Place vibrators to rapidly penetrate placed layer at least 6" into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing segregation of mix.

**Cold Weather Placing:** Protect concrete work from physical damage or reduced strength which could be caused by frost, freezing actions, or low temperatures, in compliance with ACI 306 and as herein specified.

When air temperature has fallen to or is expected to fall below 40 degrees F uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 degrees F. and not more than 80 degrees F at point of placement.

Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.

Do not place concrete when air temperature has fallen to or is expected to fall below **35° F.**

Do not use calcium chloride, salt and other materials containing antifreeze agents or chemical accelerators, unless otherwise accepted in mix designs.

**Hot Weather Placing:** When hot weather conditions exist that would seriously impair quality and strength of concrete, place concrete in compliance with ACE 305 and as herein specified.

Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 degrees F. Mixing water may be chilled, or chopped ice may be used to



control temperature provided water equivalent of ice is calculated to total amount of mixing water. Use of liquid nitrogen to cool concrete is Contractor's option.

Cover reinforcing steel with water-soaked burlap if it becomes too hot, so that steel temperature will not exceed the ambient air temperature immediately before embedment in concrete.

Fog spray forms, reinforcing steel and subgrade just before concrete is placed.

Use water-reducing retarding admixture (Type D) when required by high temperatures, low humidity, or other adverse placing conditions.

#### FINISH OF SURFACES:

Non-Slip Broom Finish: Apply non-slip broom finish to exterior concrete platforms, steps and ramps and elsewhere as indicated.

Immediately after trowel finishing, slightly roughen concrete surface by brooming with fiber bristle broom perpendicular to main traffic route. Coordinate required final finish with Architect before application.

#### CONCRETE CURING AND PROTECTION:

General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.

Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing. Keep continuously moist for not less than 7 days.

Begin final curing procedures immediately following initial curing and before concrete has dried. Continue final curing for at least seven (7) days in accordance with ACI 301 procedures. Avoid rapid drying at end of final curing period.

Curing Methods: Perform curing of concrete by curing and sealing compound, by moist curing, by moisture-retaining cover curing, and by combinations thereof, as herein specified.

Provide moisture curing by one of the following methods or by a combination of the following methods:

1. Keep concrete surface continuously wet by covering with water.
2. Continuous water-fog spray.
3. Covering concrete surface with specified absorptive cover, thoroughly saturating cover with water and keeping continuously wet. Place

absorptive cover to provide coverage of concrete surfaces and edges, with 4" lap over adjacent absorptive covers.

Provide moisture-cover curing as follows:

1. Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width with sides and ends lapped at least 3" and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.

Provide curing and sealing compound to interior slabs with resilient flooring, carpet over cushion, or left exposed; and to exterior slabs, walks, and curbs as follows:

1. Apply specified curing and sealing compound to concrete slabs as soon as final finishing operations are complete (within two hours). Apply uniformly in continuous operation by power-spray or roller in accordance with manufacturer's directions. Recoat areas subjected to heavy rainfall within three (3) hours after initial application. Maintain continuity of coating and repair damage during curing period.

Do not use membrane curing compounds on surface which are to be covered with coating material applied directly to concrete, liquid floor hardener, waterproofing, dampproofing, membrane roofing, flooring (such as ceramic or quarry tile, glue-down carpet), painting and other coatings and finish materials, unless otherwise acceptable to Architect.

Curing Formed Surfaces: Cure formed concrete surfaces, by moist curing with forms in place for full curing period or until forms are removed. If forms are removed, continue curing by methods specified above, as applicable.

Curing Unformed Surfaces: Cure unformed surfaces, such as slabs, floor topping, and other flat surfaces by application of appropriate curing method.

Final cure concrete surfaces to receive liquid floor hardener or finish flooring by use of moisture-retaining cover, unless otherwise directed.

Sealer and Dustproofer: Apply a second coat of specified curing and sealing compound only to surfaces given a first coat.

#### REMOVAL OF FORMS:

Formwork not supporting weight of concrete, such as sides of walls, and similar parts of the work, may be removed after cumulatively curing at not less than 50 degrees F for twenty-four (24) hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form removal operations, and provided cutting and protection operations are maintained.

Formwork supporting weight of concrete, may not be removed in less than fourteen (14) days and until concrete has attained design minimum compressive strength of in place concrete by testing field-cured specimens representative of concrete location in members.

Form facing material may be removed four (4) days after placement, only if shores and other vertical supports have been arranged to permit removal of form facing material without loosening or disturbing shores and supports.

#### RE-USE OF FORMS:

Clean and repair surfaces of forms to be re-used in work. Split, frayed, delaminated or otherwise damaged form facing material will not be acceptable for exposed surfaces. Apply new form coating compound as specified for new formwork.

When forms are extended for successive concrete placement, thoroughly clean surfaces, remove fins and laitance, and tighten forms to close joints. Align and secure joint to avoid offsets. Do not use "patched" forms for exposed concrete surfaces, except as acceptable to Architect.

#### MISCELLANEOUS CONCRETE ITEMS:

Filling-In: Fill-in holes and openings left in concrete structures for passage of work by other trades, unless otherwise shown or directed, after work of other trades is in place. Mix, place and cure concrete as herein specified, to blend with in-place construction. Provide other miscellaneous concrete filling shown or required to complete work.

Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and steel-troweling surfaces to a hard, dense finish with corners, intersections and terminations slightly rounded.

Equipment Bases and Foundations: Provide machine and equipment bases and foundations, as shown on drawings. Set anchor bolts for machines and equipment to template at correct elevations, complying with certified diagrams or templates of manufacturer furnishing machines and equipment.

Reinforced Masonry: Provide concrete grout for reinforced masonry, masonry lintels and bond beams where indicated on drawings and as scheduled. Maintain accurate location of reinforcing steel during concrete placement.

#### CONCRETE SURFACE REPAIRS:

Patching Defective Areas: Repair and patch defective areas with cement mortar immediately after removal of forms when acceptable to Architect.

Cut out honeycomb, rock pockets, voids over 1/4" in any dimension, and holes left by tie rods and bolts, down to solid concrete but, in no case to a depth of less than 1". Make edges of cuts perpendicular to the concrete surface. Thoroughly clean, dampen with water and brush-coat the area to be patched with specified bonding agent. Place patching mortar after bonding compound has dried.

For exposed to view surfaces, blend white portland cement and standard portland cement so that when dry, patching mortar will match color surrounding. Provide test areas at inconspicuous location to verify mixture and color match before proceeding with patching. Compact mortar in place and strike-off slightly higher than surrounding surface.

Repair of Formed Surfaces: Remove and replace concrete having defective surfaces if defects cannot be repaired to satisfaction of Architect. Surface defects, as such, include color and texture irregularities, cracks, spalls, air bubbles, honeycomb, rock pockets; fins and other projections on surface; and stains and other discolorations that cannot be removed by cleaning. Flush out form tie holes, fill with dry pack mortar, or precast cement cone plugs secured in place with bonding agent.

Repair concealed formed surfaces, where possible, that contain defects that affect the durability of concrete. If defects cannot be repaired, remove and replace concrete.

Repair of Unformed Surfaces: Test unformed surfaces, such as monolithic slabs, for smoothness and verify surface plane to tolerances specified for each surface and finish. Correct low and high areas as herein specified. Test unformed surfaces sloped to drain for trueness of slope, in addition to smoothness using a template having required slope.

Repair finished unformed surfaces that contain defects which affect durability of concrete. Surface defects, as such, include crazing, cracks in excess of 0.01" wide or which penetrate to reinforcement or completely through non-reinforced sections regardless of width, spalling, popouts, honeycomb, rock pockets and other objectionable conditions.

Correct high areas in unformed surfaces by grinding, after concrete has cured at least 14 days.

Correct low areas in unformed surfaces during, or immediately after, completion of surface finishing operations by cutting out low areas and replacing with fresh concrete. Finish repaired areas to blend into adjacent concrete. Proprietary patching compounds may be used when acceptable to Architect.

Repair defective areas, except random cracks and single holes not exceeding 1" diameter, by cutting out and replacing with fresh concrete. Remove defective areas to

sound concrete with clean, square cuts and exposed reinforcing steel with at least 3/4" clearance all around.

Dampen concrete surfaces in contact with patching concrete and apply bonding compound. Mix patching concrete of same materials to provide concrete of same type or class as original concrete. Place, compact and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.

Repair isolated random cracks and single holes not over 1" in diameter by dry-pack method. Groove top of cracks and cut-out holes to sound concrete and clean of dust, dirt and loose particles. Dampen cleaned concrete surfaces and apply bonding compound. Mix dry-pack, consisting of one part portland cement to 2-1/2 parts fine aggregate passing a No. 16 mesh sieve, using only enough water as required for handling and placing.

Place dry pack after bonding compound has dried. Compact dry-pack mixture in place and finish to match adjacent concrete. Keep patched area continuously moist for not less than seventy-two (72) hours.

Perform structural repairs with prior approval of Architect for method and procedure, using specified epoxy adhesive and mortar.  
Repair methods not specified above may be used, subject to acceptance of Architect.

#### QUALITY CONTROL TESTING DURING CONSTRUCTION:

The Owner will employ and pay for a testing laboratory to perform tests and to submit test reports. The Contractor shall notify testing agency 24 hours in advance of requirements.

Sampling and testing for quality control during placement of concrete may include the following, as directed by Architect.

The Contractor shall maintain equipment on site to cast cylinders, perform slump and air tests, and field cure specimens. Should the project testing agency be absent from the site, the Contractor will be responsible for performing the field tests below.

Sampling Fresh Concrete: ASTM C 172, except as modified for slump to comply with ASTM C 94.

1. Slump: ASTM C 143; one test at point of discharge for each day's pour of each type of concrete; additional tests when concrete consistency seems to have changed.
2. Concrete Temperature: Test hourly when air temperature is 40 degrees F. and below, and when 80 degrees F. and above; and each time a set of compression test specimens made.

3. Compression Test Specimen: ASTM C 31; one set of four (4) standard cylinders for each compressive strength test, unless otherwise directed. Mold and store cylinders for laboratory cured test specimens except when field-cure test specimens are required.

Compressive Strength Tests: ASTM C 39; one set for each day's pour plus additional sets for each 50 cu. yds. over and above the first 25 cu. yds. of each concrete class placed in any one day; one specimen tested at seven (7) days, two specimen tested at twenty-eight (28) days, and one specimen retained in reserve for later testing if required. Minimum compressive strength of concrete shall be 3,000 psi at 28 days unless otherwise indicated.

When frequency of testing will provide less than five (5) strength tests for a given class of concrete, conduct testing from at least five (5) randomly selected batches or from each batch if fewer than five (5) are used.

When total quantity of a given class of concrete is less than 50 cu. yds., strength test may be waived by Architect if, in his judgment, adequate evidence of satisfactory strength is provided.

When strength of field-cured cylinders is less than 85% of companion laboratory-cured cylinders, evaluate current operations and provide corrective procedures for protecting and curing the in-place concrete.

Test results shall be reported in writing to Architect and Contractor within twenty-four (24) hours that tests are made. Reports of compressive strength tests shall contain the project identification name and number, date of concrete placement, name of concrete testing service, concrete type and class, location of concrete batch in structure, design compressive strength at twenty-eight (28) days, concrete mix proportions and materials; compressive breaking strength and type of break for both 7-day tests and 28-day tests.

Nondestructive Testing: Impact hammer, sonoscope, or other non- destructive device may be permitted but shall not be used as the sole basis for acceptance or rejection.

Additional Tests: The testing service will make additional tests of in-place concrete when test results indicate specified concrete strengths and other characteristics have not been attained in the structure, as directed by Architect. Testing service may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42, or by other methods as directed.

Contractor shall pay for such tests conducted, and any other additional testing as may be required, when unacceptable concrete is verified.

END OF SECTION 03310

## SECTION 06100 - ROUGH CARPENTRY

### PART 1 - GENERAL

#### RELATED DOCUMENTS:

Drawings and general provisions of Contract including General and Supplementary Conditions and Division 1 Specification sections shall apply to work of this section.

#### WORK INCLUDED:

All wood, nails, bolts, screws, framing anchors and other rough hardware, and all other items needed for rough and finished carpentry in this work but not specifically described in other sections of these specifications.

#### QUALITY ASSURANCE:

Standards: In addition to complying with all pertinent codes and regulations, all materials of this section shall comply with pertinent provisions of:

Southern Pine	Southern Pine Inspection Bureau
Plywood	"Softwood Plywood - Construction and Industrial" (Amended June 1969), Product Standard PD 1-66 of U.S. Department of Commerce, Bureau of Standards, and A.P.A.
Wood Preservative	Standard P-5 of the American Wood Preservers Institute
Other	Similar and pertinent reference standards for the products needed.

Conflicting Requirements: In the event of conflict between pertinent codes and regulations and the requirements of the referenced standards or these specifications, the provisions of the more stringent shall govern.

Qualifications of Workmen: Provide sufficient skilled workmen and supervisors who shall be present at all times during execution of this portion of the work and who shall be thoroughly familiar with the type of construction involved and the materials and techniques specified.

Rejection: In the acceptance or rejection of rough carpentry, no allowance will be made for lack of skill on the part of workmen.

## PRODUCT HANDLING

Protection: Store all materials in such a manner as to ensure proper ventilation and drainage and to protect against damage and the weather.

1. Use all means necessary to protect lumber materials before, during and after delivery to the job site, and to protect the installed work and materials of all other trades.
2. Deliver the materials to the job site and store all in a safe area, out of the way of traffic, and shored up off the ground surface.
3. Protect all metal products with adequate weather-proof outer wrappings.
4. Use extreme care in the off-loading of lumber to prevent damage, splitting and breaking of materials.
5. Keep all material clearly identified with all grade marks legible; keep all damaged material clearly identified as damaged, and separately stored to prevent its inadvertent use.
6. Do not allow installation of damaged or otherwise non-complying material.
7. Use all means necessary to protect the installed work and materials of all other trades.

Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

## PART 2 - MATERIALS

Framing Lumber: Identify all framing lumber by proper grade stamp.

Moisture Content: Moisture content of any material for framing not to exceed 19% for boards 8" in width or less. Boards exceeding 8" in width not to exceed 15% at time of installation. All material used for finish and trim work to be kiln dried material with moisture content not to exceed that allowed by FHA for intended use.

## MATERIALS

All materials of this Section, unless specifically otherwise approved in advance by the Architect, shall meet or exceed the following:

<u>ITEM:</u>	<u>DESCRIPTION:</u>
Plates, Grounds or Furring in contact w/ concrete masonry or plaster	Pressure treated #2 KD Southern Yellow Pine
All Framing Members	Lodge Pole Spruce #2 KD
Plywood Sheathing	15/32" structural exterior plywood



Vapor Barrier	DuPont "Tyvek" Housewrap. Install as per manufacturer's directions over all wall sheathing.
Wood Preservative	Ammonical copper arsenite or 5% solution of pentachlorophenol
Steel Hardware	ASTM A-7 or A-36 (Use galvanized at exterior locations)
Machine Bolts	ASTM A-307
Lag Bolts	Federal Specifications FF-B-561
Nails	Common (Except as noted) Federal Specifications FF-N-1-1 (Use galvanized at exterior locations)
Flashing	Nerstral Seal Prof HD-20 except where metal is indicated

Other Materials: All other materials, not specifically described but required for a complete and proper installation as indicated on the drawings, shall be new, suitable for the intended use, and subject to the approval of the Architect.

### PART 3 - EXECUTION

Stockpiling: Stockpile all materials sufficiently in advance of need to ensure their availability in a timely manner for this work.

Delivery Schedules: Make as many trips to the job site as are necessary to deliver all materials of this section in a timely manner to ensure orderly progress of the total work.

Compliance: Do not permit materials not complying with the provisions of this section of these specifications to be brought onto or to be stored at the job site; immediately remove from the job site all non-complying materials and replace them with materials meeting the requirements of this section.

### SURFACE CONDITIONS

Inspection: Prior to all work of this section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this installation may properly commence.

1. Verify that rough carpentry may be performed in strict accordance with the original design and all pertinent codes and regulations.

Discrepancies: In the event of discrepancy, immediately notify the Architect.

1. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

## WORKMANSHIP

General: All rough carpentry shall produce joints true, tight, and well nailed with all members assembled in accordance with the drawings and with all pertinent codes and regulations.

Selection of Lumber Pieces: Carefully select all members; select individual pieces so that knots and obvious defects will not interfere with placing bolts or proper nailing or making proper connections.

1. Cut out and discard all defects which render a piece unable to serve its intended functions; lumber may be rejected by the Architect, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus, or mold, as well as for improper cutting and fitting.

Shimming: Do not shim sills, joists, short studs, trimmers, headers, lintels, or other framing components.

Treated Lumber: Use only treated lumber for all wood blocks and nailing grounds, etc. (other than foundation grade redwood) in, or in contact with, concrete.

Treatment: Treat all wood less than two feet above finished grade by spraying with the preservative specified in this section of these specifications, to a minimum distance of six inches from the ends, or otherwise treat as approved in advance by the Architect.

1. Perform all treatment in strict accordance with published recommendations of the manufacturer of the treatment preservative.

## GENERAL FRAMING

General: In addition to all framing operations normal to the fabrication and erection indicated on the drawings, install all backing required for the work of other trades.

1. Set all horizontal or sloped members with crown up.
2. Do not notch, bore, or cut members for pipes ducts conduits, or other seasons except as shown on the drawings or as specifically approved in advance by the Architect.

Bearing: Make all bearings full unless otherwise indicated on the drawings.

1. Finish all bearing surfaces on which structural members are to rest so as to give sure and even support; where framing members slope, cut or notch the ends as required to give uniform bearing surface.

Blocking: Install all blocking required to support all items of finish and to cut off all concealed draft openings, both vertical and horizontal, between ceiling and floor areas.

1. All other locations where openings could afford passage for rodents or flames.
2. Fire-block in the following specific locations:
  - a. In all stud walls at ceiling and floor levels.
  - b. In all stud walls, including furred spaces, so that the maximum dimension of each concealed space is not more than eight feet.
  - c. All other locations where openings could afford passage for rodents or flames.

### Stud Walls and Partitions

Studs: Make all studs single length, unspliced, and platform framed.

Corners and intersections: Unless otherwise indicated on the drawings, frame all corners and intersections with three or more studs and all required bearing for wall finish.

Alignment: On all framing members to receive a finished wall or ceiling, align the finish subsurface to vary not more than 1/8 inch from the plane of surfaces of adjacent framing and furring members.

### FASTENING:

Nailing Schedule: Unless otherwise indicated on the drawings or required by pertinent codes and regulations, provide at least the following nailings:

Blocking to joist bearing:	2-10d toenailed each side
Blocking to joist or stud:	2-10d toenailed each side
One inch brace to stud:	2-8d facenailed
Two inch brace to stud:	2-16d facenailed
Bridging to joist:	2-8d toenailed

Built-up beams eight inches or less in depth	16d @ twelve inches on center, staggered
Joists & Rafters to support at laps (twelve inches minimum)	2-10d toenailed each side
Multiple Joists:	16d @ twelve inches on centers, staggered
Joists to sill or girder	2-16d toenailed
One inch furring to under-side of joists: 2-8d (one straight; one slant) Provide galvanized framing anchors with required nails, where indicated on Drawings.	
Two inch furring to under-side of joists: 2-16d (one straight; one slant)	
Studs toenailed to plate:	2-10d each side
Studs endnailed to plate:	2-20d
Studs nailed together:	16d @ twelve inches on centers, staggered
Plates:	
Upper to Lower	16d @ twelve inches on centers, staggered
At splices:	2-16d facenailed
Plate lap at corners	2-16d facenailed

**Bolting:** Drill holes 1/16 inch larger in diameter than the bolts being used; drill straight and true from one side only.

1. Bolt threads must not bear on wood; use washers under head and nut where both bear on wood; use washers under all nuts.

**Screws:** For lag screws and wood screws, prebore holes same diameter as root of thread; enlarge holes to shank diameter for length of shank.

1. Screw, do not drive, all lag screws and wood screws.

**Cleaning Up:** Keep the premises in a neat, safe and orderly condition at all times during execution of this portion of the work, free from accumulation of sawdust, cut-ends, and debris.

END OF SECTION 06100

## SECTION 06200 - FINISH CARPENTRY

### PART 1 - GENERAL

#### RELATED DOCUMENTS:

Drawings and general provisions of Contract including General and Supplementary Conditions and Division 1 Specification sections apply to work of this section.

#### DESCRIPTION OF WORK

Definition: Finish carpentry includes carpentry work which is exposed to view, is non-structural, and which is not specified as part of other sections. Types of finish carpentry work in this section include:

1. Interior running and standing trim (crown molding)

#### PRODUCT DELIVERY, STORAGE AND HANDLING:

Protect finish carpentry materials during transit, delivery, storage and handling to prevent damage, soiling and deterioration.

Do not deliver finish carpentry materials, until operations which could damage, soil or deteriorate woodwork have been completed in installation areas. If, due to unforeseen circumstances, finish carpentry materials must be stored in other than installation areas, store only in areas meeting requirements specified for installation areas.

### PART 2 - PRODUCTS

#### MATERIALS:

##### General:

Nominal sizes are indicated, except as shown by detailed dimensions. Provide dressed or worked and dressed lumber, as applicable, manufactured to the actual sizes as required by PS 20 or to actual sizes and pattern as shown, unless otherwise indicated.

Moisture Content of Softwood Lumber: Provide kiln-dried (KD) lumber having a moisture content from time of manufacture until time of installation not greater than values required by the applicable grading rules of the respective grading and inspecting agency for the species and product indicated.

### Interior Finish Carpentry:

Standing and Running Trim for Painted Finish: "B" and better fir or poplar, sizes and shapes as indicated on plans.

### Miscellaneous Materials:

Fasteners and Anchorages: Provide nails, screws and other anchoring devices of the proper type, size, material and finish for application indicated to provide secure attachment, concealed where possible, and complying with applicable Federal Specifications.

1. Where finish carpentry is exposed on exterior or in areas of high relative humidity, provide fasteners and anchorages with a hot-dipped zinc coating (ASTM A 153).

Inspect each piece of lumber and plywood or each unit of finish carpentry after drying; do not use twisted, warped, bowed or otherwise damaged or defective wood.

## PART 3 - EXECUTION

### PREPARATION:

Condition wood materials to average prevailing humidity conditions in installation areas prior to installing.

Backprime lumber for finish exposed on the exterior or, to moisture and high relative humidities on the interior. Comply with requirements of section on painting within Division 9 for primers and their application.

### INSTALLATION:

Discard units of material which are unsound, warped, bowed, twisted, improperly treated, not adequately seasoned or too small to fabricate work with minimum of joints or optimum jointing arrangements, or which are of defective manufacturer with respect to surfaces, sizes or patterns.

Install the work plumb, level, true and straight with no distortions. Shim as required using concealed shims. Install to a tolerance of 1/8" in 8'-0" for plumb and level countertops; and with 1/16" maximum offset in flush adjoining and 1/8" maximum offsets in revealed adjoining surfaces.

Scribe and cut work to fit adjoining work, and refinish cut surfaces or repair damaged finish at cuts.

Standing and Running Trim: Install with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to the greatest extent possible. Stagger joints in adjacent and related members. Cope at returns, miter at corners, to produce tight fitting joints with full surface contact throughout length of joint. Use scarf joints for end-to-end joints.

Anchor finish carpentry work to anchorage devices or blocking built-in or directly attached to substrates. Secure to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailing as required for a complete installation. Except where prefinished matching fasteners heads are required, use fine finishing nail for exposed nailings, countersunk and filled flush with finished surface, and matching final finish where transparent is indicated.

#### ADJUSTMENT, CLEANING, FINISHING AND PROTECTION:

Repair damaged and defective finish carpentry work wherever possible to eliminate defects functionally and visually; where not possible to repair properly, replace woodwork. Adjust joinery for uniform appearance.

Clean finish carpentry work on exposed and semi-exposed surfaces. Touch-up shop-applied finishes to restore damaged or soiled areas.

Refer to Division 9 sections for final finishing of installed finish carpentry work.

Protection: Installer of finish carpentry work shall advise Contractor of final protection and maintained conditions necessary to ensure that work will be without damage or deterioration at time of acceptance.

END OF SECTION 06200

## SECTION 06220 - MILLWORK

### PART 1 - GENERAL

#### RELATED DOCUMENTS:

Drawings and general provisions of Contract including General and Supplementary Conditions and Division 1 Specification sections apply to work of this section.

#### DESCRIPTION OF WORK:

Extent of each type of millwork is shown on drawings and in schedules.

Types of millwork include the following:

1. Counters
2. Cabinets
3. Plastic laminate countertops

#### REFERENCES:

AWI Quality Standard: Comply with applicable requirements of "Architectural Woodwork Quality Standards" published by the Architectural Woodwork Institute (AWI), except as otherwise indicated.

Shop Drawings: Submit shop drawings showing location of each item, dimensioned plans and elevations, large scale details, attachment devices and other components. Submit shop drawings for the following:

1. Counters
2. Cabinets

#### PRODUCT DELIVERY, STORAGE AND HANDLING:

Protect millwork during transit, delivery, storage and handling to prevent damage, soiling and deterioration.

Do not deliver millwork, until wet work, grinding and similar operations which could damage, soil or deteriorate woodwork have been completed in installation areas. If, due to unforeseen circumstances, woodwork must be stored in other than installation areas, store only in areas meeting requirements specified for installation areas.



## JOB CONDITIONS:

Conditioning: Installer shall advise Contractor of temperature and humidity requirements for woodwork installation areas. Do not install millwork until required temperature and relative humidity have been stabilized and will be maintained in installation areas.

Maintain temperature and humidity in installation area as required to maintain moisture content of installed woodwork within a 1.0 percent tolerance of optimum moisture content, from date of installation through remainder of construction period. The fabricator of woodwork shall determine optimum moisture content and required temperature and humidity conditions.

## PART 2 - PRODUCTS

### BASIC MATERIALS AND FABRICATION METHODS:

Wood Moisture Content: Provide kiln-dried (KD) lumber with an average moisture content range and 6% to 11% for interior work. Maintain temperature and relative humidity during fabrication, storage and finishing operations so that moisture content values for millwork at time of installation do not exceed:

1. Interior Wood Finish: 4%-9% for dry regions (as defined by AWI).
2. Interior Wood Finish: 5%-10% for mild regions (as defined by AWI).
3. Interior Wood Finish: 8%-13% for damp regions (as defined by AWI).

Plastic Laminate: Comply with NEMA LD-3 for type, thickness, color, pattern and finish indicated for each application, or if not indicated, as selected by Architect from manufacturer's standard products. WilsonArt is the specified laminate.

Quality Standards: For following types of architectural millwork; comply with indicated standards as applicable:

1. Countertops: AWI Section 400.
2. Miscellaneous Work: AWI Section 700.

Design and Construction Features: Comply with details shown for profile and construction of architectural woodwork; and, where not otherwise shown, comply with applicable Quality Standards, with alternate details as Fabricator's option.

Pre-Cut Openings: Fabricate architectural woodwork with pre-cut openings, where possible, to receive hardware, appliances, plumbing fixtures, electrical work and similar items. Locate openings accurately and use templates or roughing-in diagrams for proper size and shape. Smooth edges of cutoffs and, where located in countertops and similar exposures seal edges of cutouts with a water-resistant coating.

Measurements: Before proceeding with fabrication of woodwork required to be fitted to other construction, obtain measurements and verify dimensions and shop drawing details as required for accurate fit.

1. Where sequence of measuring substrates before fabrication would delay the project, proceed with fabrication (without field measurements) and provide ample borders and edges to allow for subsequent scribing and trimming of woodwork for accurate fit.

## INTERIOR MILLWORK:

### COUNTERS, BASE CABINETS AND SHELVING

#### General:

Counters and cabinets shall be provided as indicated on plans with counters and base cabinets of essentially the same construction. Counters and cabinets shall be provided with wood blocks and braces glued and stapled in place as necessary to assure sturdy rigid construction. All visible wood to be stain grade A-B grade Oak plywood and oak solids. Plywood shall be book matched and all grain is to run as indicated on plans. All grain is to run the same direction.

#### Face Frame (Cabinets):

Cabinets shall be constructed with front frame members of sound kiln dried A-B grade oak plywood suitable for stain finish and of 3/4" nominal thickness. Face nailing shall not be permitted. End rails of face frame shall be dadoed to receive end panels.

#### End Panels:

Counter and cabinet end panels and shelves shall be 3/4" thick A-B grade plywood. All ends shall be machined to permit the shelves, back bottom and top to be let into the cabinet end.

#### Backs:

Backs of cabinets shall be 1/2" plywood attached to minimum size 3/4" x 3-1/2" solid wood hanging rails which shall be mortised to receive back and bottom. Where exposed, backs of cabinets shall be 3/4" hardwood plywood.

#### Doors

Cabinet shall be overlaid 3/4" thick, A-B and grade oak plywood. All other frames to match.

### Base Cabinet Bottoms

Bottoms of base cabinets 3/4" thick, B-C grade plywood let into end and backs.

### Hardware:

1. Hinges: Concealed Stanley 331, 332 or 335
2. Magnetic Door Catches: Stanley K & V or equal
3. Pulls: 4" wire-by Baldwin, Ives or Stanley, bright brass finish.

### Drawers:

Drawers shall be constructed with 3/4" thick A-B grade plywood fronts to match doors. Drawer bottoms shall be 1/4" hardboard and let into sides, back and front. Drawer to slide on Knappe and Vogt No. 1210, Grant No. 305 nylon roller drawer slides or approved equal.

Edges: At all drawers and doors install 1/2" wide hardwood edge.

### Adjustable Shelf Standards and Supports:

No. 255 and 2465 Knappe and Vogt or approved equal.

### Drawer Slide and Hardware:

Nylon rollers Knappe and Vogt, No. 1210. All hardware shall be K & V.

Provide dust panels of 1/4" thick plywood or tempered hardboard above compartments and drawers, except where located directly below countertops.

### COUNTERTOPS:

General: Provide materials which have been selected for surface flatness and smoothness. Exposed surfaces which exhibit pitting, seam marks, roller marks, stains, discolorations, telegraphing of core material, or other imperfections on finished units are not acceptable.

Adhesives or fasteners to be provided for securing of tops to cabinet work. Such materials to allow for contraction or expansion of tops where necessary.

Tops shall be 1" thick unless otherwise specified and provided with 4" high curbs where tops abut walls, columns, case ends, etc.

### Types:

1. Plastic laminate counter tops shall be surfaced with general purpose horizontal grade laminate. Cores shall be 1-1/8" built- up wood front edge; #45 density particleboard. All exposed edges, including back and end splashes, must be covered with the same laminate as top surfaces. When splice joints are required, they shall be joined with dowel pins and tite-joint fasteners as needed for a gapless joint.

Plastic Laminate Type: Fire-rated type, 0.050" thick; UL tested and labeled ratings of 25 for flame spread, 25 for fuel contributed and 100 for smoke developed when bonded to wood particle board.

Preparations for Finishing: Comply with AWI Quality Standards, Section I500, for sanding, filling countersunk fasteners, backpriming and similar preparations for finishing of architectural woodwork, as applicable to each unit of work.

## PART 3 - EXECUTION

### INSTALLATION:

Install the work plumb, level, true and straight with no distortions. Shim as required using concealed shims. Install to a tolerance of 1/8" in 8'-0" for plumb and level (including countertops); and with 1/16" maximum offset in flush adjoining surface, 1/8" maximum offsets in revealed adjoining surfaces.

Scribe and cut work to fit adjoining work, and refinish cut surfaces or repair damaged finish at cuts.

Anchor woodwork to anchors or blocking built-in or directly attached to substrates. Secure to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailings required for a complete installation. Except where prefinished matching fasteners heads are required, use fine finishing nails for exposed nailing, countersunk and filled flush with woodwork, and matching final finish where transparent finishes indicated.

Millwork: Install without distortion so that doors and drawers will fit openings properly and be accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete the installation of hardware and accessory items as indicated. Maintain veneer sequence matching (if any) of casework with transparent finish.

Countertops: Anchor securely to base units and other support systems as indicated.

Wood Storage Shelving: Complete the assembly of units and install in the areas indicated, including hardware and accessories as indicated.

ADJUSTMENT, CLEANING, FINISHING AND PROTECTION:

Repair damaged and defective woodwork wherever possible to eliminate defects functionally and visually; where not possible to repair properly, replace woodwork. Adjust joinery for uniform appearance.

Clean hardware, lubricate and make final adjustments for proper operation.

Clean woodwork on exposed and semi-exposed surfaces. Touch-up shop-applied finishes to restore damaged or soiled areas.

Complete the finishing work specified as work of this section, to whatever extent not completed at shop or prior to installation of woodwork.

Refer to the Division-9 sections for final finishing of installed millwork.

Protection: Installer of millwork shall advise Contractor of procedures required to protect millwork during remainder of construction period to ensure that work will be without damage or deterioration at time of acceptance.

END OF SECTION 06220

## SECTION 07200 – BATT INSULATION

### PART 1 – GENERAL

#### RELATED DOCUMENTS:

Drawings and general provisions of Contract including General and Supplementary Conditions and Division 1 Specification sections shall apply to work of this section.

#### DESCRIPTION OF WORK:

Extent of insulation work is shown on drawings and indicated by provisions of this section.

Applications of insulation specified in this section include the following:

1. Blanket-type at all exterior stud walls.
2. Sound batts at Interior Walls.
3. Blanket type building above new ceiling.

#### SUBMITTALS:

Product Data: Submit manufacturer's product specifications and installation instructions for each type of insulation and vapor barrier material required.

#### PRODUCT HANDLING:

General Protection: Protect insulations from physical damage and from becoming wet, soiled, or covered with ice or snow. Comply with manufacturer's recommendations for handling, storage and protection during installation.

### PART 2 – PRODUCTS

Manufacturers: The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function:

Certain-Teed Products Corp.; Valley Forge, PA  
Manville Bldg. Materials Corp.; Denver, CO.  
Owens-Corning Fiberglass Corp.; Toledo, OH.

Equal products of other manufacturers may be used in the work, provided such products have been approved by the Architect, not less than five (5) days prior to scheduled bid opening.

Mineral/Glass Fiber Blanket/Batt Insulation (M/GFB-Ins): Inorganic (non-asbestos) fibers formed into resilient flexible blankets or semi-rigid batts; FS HH-1-521. Manufacturer's standard lengths and widths as required to coordinate with spaces to be insulated.

1. Exterior Walls: Batt's will have a minimum "R" value of 13 as follows:  
Provide un-faced batts at all exterior wall applications that receive interior wall coverings (ie: sheetrock, plywood, etc.).
2. Interior Walls: Sound Attenuation at interior stud partitions. Thickness: 3 1/2" (nominal), unfaced batts.
3. Above Ceilings: Thickness: 10" (nominal), R-Factor: 30 as follows:  
Provide un-faced batts at exposed wood framed roof areas between the trusses at the bottom cord or joists that will receive interior coverings at the bottom of the system (ie: sheetrock, plywood, concrete, etc.)

### PART 3 – EXECUTION

#### INSPECTION AND PREPARATION:

Installer must examine substrates and conditions under which insulation work is to be performed and must notify Contractor in writing of unsatisfactory conditions. Do not proceed with insulation work until unsatisfactory conditions have been corrected in manner acceptable to Installer.

Clean substrates of substances harmful to insulations or vapor barriers, including removal of projections which might puncture vapor barriers.

Close off openings in cavities to receive poured-in-place and insulation, sufficiently to prevent escape of insulation. Provide bronze or stainless steel screen (inside) where openings must be maintained for drainage or ventilation.

#### INSTALLATION:

##### General:

Comply with manufacturer's instructions for particular conditions of installation in each case. If printed instructions are not available or do not apply to project conditions, consult manufacturer's technical representative for specific recommendations before proceeding with work.

Extend insulation full thickness as shown over entire area to be insulated. Cut and fit tightly around obstructions, and fill voids with insulation. Remove projections which interfere with placement.

PROTECTION:

General: Protect installed insulation and vapor barriers from harmful weather exposures and from possible physical abuses, where possible by non-delayed installation of concealing work or, where that is not possible, by temporary covering or enclosure. Installer shall advise Contractor of exposure hazards, including possible sources of deterioration and fire hazards.

END OF SECTION 07200



## SECTION 07900 - JOINT SEALERS

### PART 1 – GENERAL

#### DESCRIPTION OF WORK:

The extent of each form and type of joint sealer is indicated on drawings and by provisions of this section.

The applications for joint sealers as work of this section include the following:

1. Joints (Interior).
2. Interior wall/ceiling joints.

General Performance: Except as otherwise indicated, joint sealers are required to establish and maintain airtight and waterproof continuous seals on a permanent basis, within recognized limitations of wear and aging as indicated for each application. Failures of installed sealers to comply with this requirement will be recognized as failures of materials and workmanship.

#### SUBMITTALS:

Product Data: Submit manufacturer's product specifications, handling/installation/curing instructions, and performance tested data sheets for each elastomeric product required.

#### JOB CONDITIONS:

Weather Conditions: Do not proceed with installation of liquid sealants under unfavorable weather conditions. Install elastomeric sealants when temperature by manufacturer for installation.

### PART 2 – PRODUCTS

#### ACCEPTABLE MANUFACTURERS:

General: manufacturers listed in this article include those known to produce the indicated category of prime joint sealant material, either as a nominally pure generic product or as an equivalent-performance modification thereof or proprietary product.

Manufacturers: The following manufacturer's products have been used to establish minimum standards for materials, workmanship and function:

1. Acrylic Emulsion Latex Sealants:  
Bostik.  
Pecora Corp.  
Sonneborn Building Products.  
Tremco, Inc.
2. Butyl Sealants:  
Bostik.  
TEC Incorporated.  
Tremco, Inc.

Equal products of other manufacturers may be used in the work, provided such products have been approved by the Architect, not less than five (5) days prior to scheduled bid opening.

MATERIALS:

NOTE: The use of silicone sealants shall not be used at any exterior conditions.

General Purpose Interior Sealant: Acrylic emulsion latex; ASTM C 834, single component, paintable.

1. Color: Standard colors matching finished surfaces.
2. Applications: Use for:
  - a. Interior wall and ceiling control joints.
  - b. Joints between door and window frames and wall surfaces.
  - c. Other interior joints for which no other type of sealant is indicated.

Acoustical Sealant: Butyl or acrylic sealant; ASTM C 920, Grade NS, Class 12-1/2, Uses M and A; single component, solvent release curing, nonskinning.

1. Applications: Use for concealed locations only:
  - a. Sealant bead between top stud runner and structure and between bottom stud track and floor or wall.

Bituminous and Fiber Joint Filler (BtmF-JF) provide resilient and non-extruding type premolded bituminous-impregnated fiberboard units complying with ASTM D 1751; FS HH-F-341, Type I; or AASHTO M213.

Miscellaneous Materials:

Joint Primer/Sealer: Provide type of joint primer/sealer recommended by sealant manufacturer for joint surfaces to be primed or sealed.

Bond Breaker Tape (BB-Tp): Provide polyethylene tape or other plastic tape as recommended by sealant manufacturer, to be applied to sealant-contact surfaces where bond to substrate or joint filler must be avoided for proper performance of sealant. Provide self-adhesive tape where applicable.

Sealant Backer Rod (S-BR): provide compressible rod stock of polyethylene foam, polyurethane foam, polyethylene jacketed polyurethane foam, butyl rubber foam, neoprene foam or other recommended by sealant manufacturer for back-up of and compatibility with sealant. Where used with hot-applied sealant, provide heat-resistant type which will not be deteriorated by sealant application temperature as indicated.

### PART 3 – EXECUTION

#### INSPECTION:

Installer must examine substrate, (joint surfaces) and conditions under which joint sealer work is to be performed and must notify Prime Contractor of unsatisfactory conditions.

#### JOINT PREPARATION:

Clean joint surfaces immediately before installation of gaskets, sealants or caulking compounds. Remove dirt, insecure coatings, moisture and other substrate which could interfere with seal of gasket or bond of sealant or caulking compound. Etch concrete and masonry joint surfaces as recommended by sealant manufacturer. Roughen vitreous and glazed joint surfaces as recommended by sealant manufacturer.

Prime or seal joint surfaces where indicated, and where recommended by sealant manufacturer. Confine primer/sealer to areas of sealant bond; do not allow spillage or migration onto adjoining surfaces.

#### INSTALLATION:

Comply with manufacturer's printed instructions except where more stringent requirements are shown on specified, and except where manufacturer's technical representative directs otherwise.

Set joint filler units at depth or position in joint as indicated to coordinate with other work, including installation of bond breakers, backer rods and sealant. Do not leave voids or gaps between ends of joint filler units.

Install sealant backer rod for liquid-applied sealants, except where shown to be omitted or recommended to be omitted by sealant manufacturer for application indicated.

Install bond breaker tape where indicated and where required by manufacturer's recommendations to ensure that liquid-applied sealants will perform as intended.

Employ only proven installation techniques, which will ensure that sealants are deposited in uniform, continuous ribbons without gaps or air pockets, with complete “wetting” of joint bond surfaces equally on opposite sides. Except as otherwise indicated, fill sealant rabbet to a slightly concave surface, slightly below adjoining surfaces. Where horizontal joints are between a horizontal surface and vertical surface, fill joint to form a slight cove, so that joint will not trap moisture and dirt.

Install sealant to depths as shown or, if not shown, as recommended by sealant manufacturer but within the following general limitations, measured at center (thin) section of beads;

For normal moving joints sealed with elastomeric sealants but not subject to traffic, fill joints to a depth equal to 50% of joint width, but neither more than 1/2” deep nor less than 1/4” deep.

Spillage: Do not allow sealants or compounds to overflow from confines of joints, or to spill onto adjoining work, or to migrate into voids of exposed finishes. Clean adjoining surfaces by whatever means may be necessary to eliminate evidence of spillage.

Recess exposed edges of gaskets and exposed joint fillers slightly behind adjoining surfaces, unless otherwise shown, so that compressed units will not protrude from joints.

Bond ends of gaskets together with adhesive of “weld” by other means as recommended by manufacturer to ensure continuous watertight and airtight performance. Miter-cut and bond ends at corners unless molded corner units are provided.

#### CURE AND PROTECTION:

Cure sealants and caulking compounds in compliance with manufacturer’s instructions and recommendations, to obtain high early bond strength, internal cohesive strength and surface durability. Advise Prime Contractor of procedures required for cure and protection of joint sealers during construction period, so that they will be without deterioration or damage (other than normal wear and weathering) at time of substantial completion. Cure and protect sealants in manner which will minimize increases in modulus of elasticity and other accelerated aging effects. Replace or restore sealants which are damaged or deteriorated during construction period.

END OF SECTION 07900

## SECTION 09250 - GYPSUM DRYWALL

### PART 1 – GENERAL

#### RELATED DOCUMENTS:

Drawings and general provisions of Contract including General and Supplementary Conditions and Division 1 Specification sections apply to work of this section.

#### DESCRIPTION OF WORK:

Types of work include:

1. Gypsum drywall at walls and ceilings.
2. Drywall finishing (joint tape-and-compound treatment).

#### QUALITY ASSURANCE:

Fire-Resistance Ratings: Where gypsum drywall systems with fire- resistance ratings are indicated, provide materials and installations which are identical with those of applicable assemblies tested per ASTM E 119 by fire testing laboratories acceptable to authorities having jurisdiction.

1. Provide fire-resistance rated assemblies identical to those indicated by reference to GA File No.'s. in GA "Fire Resistance Design Manual" or to design designations in UL "Fire Resistance Directory" or in listing of other testing and agencies acceptable to authorities having jurisdiction.

Gypsum Board Terminology Standard: GA-505 by Gypsum Association.

Single-Source Responsibility: Obtain gypsum board products from a single manufacturer, or from manufacturers recommended by the prime manufacturer of gypsum boards.

#### SUBMITTALS:

Product Data: Submit manufacturer's product specifications and installation instructions for each gypsum drywall component, including other data as may be required to show compliance with these specifications.

#### DELIVERY, STORAGE AND HANDLING:

Deliver materials in original packages, containers or bundles bearing brand name and identification of manufacturer or supplier.

Store material inside under cover and in manner to keep them dry, protected from weather, direct sunlight, surface contamination, corrosion and damage from construction traffic and other causes. Neatly stack gypsum boards flat to prevent sagging.

Handle gypsum boards to prevent damage to edges, ends or surfaces. Protect metal corner beads and trim from being bent or damaged.

## PROJECT CONDITIONS:

Environmental Requirements, General: Comply with requirements of referenced gypsum board application standards and recommendations of gypsum board manufacturer, for environmental conditions before, during and after application of gypsum board.

Cold Weather Protection: When ambient outdoor temperatures are below 55 degrees F maintain continuous, uniform, comfortable building working temperatures of not less than 55 degrees F for a minimum period of 48 hours prior to, during and following application of gypsum board and joint treatment materials or bonding of adhesives.

Ventilation: Ventilate building spaces as required to remove water in excess of that required for drying of joint treatment material immediately after its application. Avoid drafts during dry, hot weather to prevent too rapid drying.

## PART 2 – PRODUCTS

Manufacturer: The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function:

### Gypsum Board and Related Products:

Georgia-Pacific Corp.

Gold Bond Building Products Div., National Gypsum Co.

United States Gypsum Co.

CertainTeed Corporation

Lafarge North America

Equal products of other manufacturers may be used in the work, provided such products have been approved by the Architect, not less than five (5) days prior to scheduled bid opening.

Gypsum Wallboard: ASTM C 36, of types, edge configuration and thickness indicated below; in maximum lengths available to minimize end-to-end butt joints.

Types as follows:

Non-fire rated Gypsum Board: Shall be plain tapered edge sheetrock, 4 feet wide, lengths 8 feet to 14 feet as manufactured by the United States Gypsum Co., or equal. Thickness to be 1/2".

Fire-rated Gypsum Board: Shall be 5/8" thick, with tapered edge conforming to ASTM C 36 (Type X), and bear label showing U. L. approval. Nails, screws or adhesives shall be as recommended by manufacturers of the gypsum board.

Water-Resistant Gypsum Wallboard: Shall be 1/2" tapered edge sheetrock (water-resistant) 4 feet wide, lengths as long as practical, as manufactured by the United States Gypsum Company or equal.

#### TRIM ACCESSORIES:

General: Provide manufacturer's standard trim accessories of types indicated for drywall work, formed of galvanized steel unless otherwise indicated, with either knurled and perforated or expanded flanges for nailing or stapling, and beaded for concealment of flanges in joint compound. Provide corner beads, L-type edge trim-beads, U-type edge trim-beads, special L-kerf-type edge trim-beads, and one-piece control joint beads.

Non-Beaded Trim: Non-beaded trim shall not be used, except with specific approval by the Architect.

#### JOINT TREATMENT MATERIALS:

General: ASTM C 475; type recommended by the manufacturer for the application indicated, except as otherwise indicated.

Joint Tape: Paper reinforcing tape.

Joint Compound: Ready-mixed vinyl-type for interior use.

1. Grade: A single multi-purpose grade, for entire application.

#### MISCELLANEOUS MATERIALS:

General: Provide auxiliary materials for gypsum drywall work of the type and grade recommended by the manufacturer of the gypsum board.

Gypsum Board Screws: Comply with ASTM C 646.

Gypsum Board Nails: Comply with ASTM C 514.

Concealed Acoustical Sealant: Nondrying, nonhardening, nonskinning, nonstaining, nonbleeding, gunnable sealant for concealed applications per ASTM C 919.

Exposed Acoustical Sealant: Nonoxidizing, skinnable, paintable, gunnable sealant for exposed applications per ASTM C 919.

Water-Resistant Adhesive: Type I organic adhesive for ceramic tile complying with ANSI A136.1.

### PART 3 – EXECUTION

#### GENERAL GYPSUM BOARD INSTALLATION REQUIREMENTS:

Gypsum Board Application and Finishing Standards: ASTM C 840 and GA 216.

Locate exposed end-butt joints as far from center of walls possible, and stagger not less than 1'-0" in alternate courses of board.

Install wall/partition boards vertically to avoid end-butt joints wherever possible.

Install exposed gypsum board with face side out. Do not install imperfect, damaged or damp boards. Butt boards together for a light contact at edges and ends with not more than 1/16" open space between boards. Do not force into place.

Locate all edge and end joints over supports. Stagger vertical joints over different studs on opposite sides of partitions.

Attach gypsum board to supplementary framing and blocking provided for additional support at openings and cutouts.

Form control joints and expansion joints with space between edges of boards, prepared to receive trim accessories.

Cover both faces of stud framing with gypsum board in concealed spaces (above ceilings, etc.), except in chase walls which are braced internally.

1. Except where concealed application is required for sound, fire, air or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. area, and may be limited to not less than 75% of full coverage.

Isolate perimeter of non-load-bearing drywall partitions at structural abutments. Provide 1/4" to 1/2" space and trim edge with J-type semi-finishing edge trim. Seal joints with acoustical sealant.



Space fasteners in gypsum boards in accordance with referenced standards and manufacturer's recommendations, except as otherwise indicated.

#### METHODS OF GYPSUM DRYWALL APPLICATION:

Single-Layer Application: Install gypsum wallboard.

1. On partitions/walls apply gypsum board vertically unless otherwise indicated, and provide sheet lengths which will minimize end joints.

#### INSTALLATION OF DRYWALL TRIM ACCESSORIES:

General: Where feasible, use the same fasteners to anchor trim accessory flanges as required to fasten gypsum board to the supports. Otherwise, fasten flanges by nailing or stapling in accordance with manufacturer's instructions and recommendations.

Install metal corner beads at external corners of drywall work.

Install metal edge trim whenever edge of gypsum board would otherwise be exposed or semi-exposed, and except where plastic trim is indicated. Provide type with face flange to receive joint compound except where semi-finishing type is indicated. Install L-type trim where work is tightly abutted to other work, and install special kerf-type where other work is kerfed to receive long leg of L-type trim. Install U-type trim where edge is exposed, revealed, gasketed, or sealant-filled (including expansion joints).

Install semi-finishing trim where indicated, and where exterior gypsum board edges are not covered by applied moldings or indicated to receive trim with face flanges covered with joint compound.

Provide control joints horizontally and/or vertically at no less than 24'-0" o.c. max. Refer to plans for specific location or installed as directed by Architect.

Install H-molding in exterior gypsum drywall work where control joints are indicated.

#### FINISHING OF DRYWALL:

General: Apply treatment at gypsum board joints (both directions), flanges of trim accessories, penetrations, fastener heads, surface defects and elsewhere as required to prepare work for decoration. Prefill open joints and rounded or beveled edges, if any, using type of compound recommended by manufacturer.

1. Apply joint tape at joints between gypsum boards, except where trim accessories are indicated.
2. Apply joint compound in 3 coats (not including prefill of openings in base), and sand between last 2 coats and after last coat.

3. Tape and finish gypsum board in accordance with ASTM C 840, GA 214 and GA 216.
4. Plenum areas above ceilings shall be finished to Level 1 in accordance with GA 214.
5. Water resistant gypsum backing board, ASTM C 630/C 630M, to receive ceramic tile shall be finished to Level 2 in accordance with GA 214.
6. ALL EXPOSED gypsum board surfaces shall be finished to Level 5 in accordance with GA 214. In accordance with GA 214 Level 5, apply a thin skim coat of joint compound to the entire gypsum board surface, after the two-coat joint and fastener treatment is complete and dry.
7. Provide joint, fastener depression, and corner treatment. Do not use fiber glass mesh tape with conventional drying type joint compounds; use setting or hardening type compounds only. Provide treatment for water-resistant gypsum board as recommended by the gypsum board manufacturer.

Partial Finishing: Omit third coat and sanding on concealed drywall work which is indicated for drywall finishing or which requires finishing to achieve fire-resistance rating, sound rating or to act as air or smoke barrier.

Refer to section on painting in Division 9 for decorative finishes to be applied to drywall work.

#### PROTECTION OF WORK:

Provide final protection and maintain conditions, in a manner suitable to Installer, which ensures gypsum drywall work being without damage or deterioration at time of substantial completion.

END OF SECTION 09250

## SECTION 09301 – PORCELAIN TILE

### PART 1 - GENERAL

#### RELATED DOCUMENTS:

Drawings and general provisions of Contract including General and Supplementary Conditions and Division 1 Specification sections apply to work of this section.

#### DESCRIPTION OF WORK:

Definition: Tile includes ceramic surfacing units made from clay or other ceramic materials.

Extent of tile work is indicated on drawings and schedules.

Types of tile work in this section include the following:

1. Porcelain ceramic floor, wall and base tile (Glazed and Unglazed).
2. Stone thresholds.

Portland cement plaster scratch coat on wall surfaces indicated to receive tile is work of this section.

Sealing expansion and other joints in tile work with elastomeric joint sealers is work of this section.

#### QUALITY ASSURANCE:

Source of Materials: Provide materials obtained from one source for each type and color of tile, grout, and setting materials.

#### SUBMITTALS:

Product Data: Submit manufacturer's technical information and installation instructions for materials required, except bulk materials.

Samples for Selection Purposes: Submit manufacturer's color charts consisting of actual tiles or sections of tile showing full range of colors, textures and patterns available for each type of tile indicated. Include samples of grout and accessories involving color selection.

## PRODUCT HANDLING:

Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Prevent damage or contamination to materials by water, freezing, foreign matter or other causes.

## PROJECT CONDITIONS:

Maintain environmental conditions and protect work during and after installation to comply with referenced standards and manufacturer's printed recommendations.

Vent temporary heaters to exterior to prevent damage to tile work from carbon dioxide buildup.

Maintain temperatures at not less than 50 degrees F in tiled areas during installation and for 7 days after completion, unless higher temperatures required by referenced installation standard or manufacturer's instructions.

## PART 2 – PRODUCTS

Manufacturers: The following manufacturers' products have been used to establish minimum standards for materials, workmanship and function:

### Unglazed and Glazed Porcelain Ceramic Mosaic Tile (porcelain tile):

American Olean Tile Co.  
Dal-Tile Corporation  
Crossville Ceramics  
Florida Tile  
Cisa  
Keope Tile  
Interceramic Tile Company  
Trinity Tile

Equal products of other manufacturers may be used in the work, provided such products have been approved by the Architect, not less than five (5) days prior to scheduled bid opening.

## PRODUCTS, GENERAL:

ANSI Standard for Ceramic Tile: Comply with ANSI A137.1 "American National Standard Specifications for Ceramic Tile" for types and grades of tile indicated.

1. Furnish tile complying with "Standard Grade" requirements unless otherwise indicated.

ANSI Standard for Tile Installation Materials: Comply with ANSI standard referenced with installation products and materials indicated.

Colors, Textures and Patterns: For tile and other products requiring selection of colors, surface textures or other appearance characteristics, provide products to match characteristics indicated or, if not otherwise indicated, as selected by Architect from manufacturer's standards.

1. Provide tile trim and accessories which match color and finish of adjoining flat tile.

Mounting: Where factory-mounted tile is required provide back- or edge-mounted tile assemblies as standard with manufacturer unless another mounting method is indicated.

1. Where tile is indicated for installation on exteriors or in wet areas, do not use back or edge-mounted tile assemblies unless tile manufacturer specifies that this type of mounting is suitable for these kinds of use and has been successfully used on other projects.

#### TILE PRODUCTS:

Porcelain Ceramic Wall, Floor and Base Tile (Glazed and Unglazed Units): Provide tile complying with the following requirements:

1. Field and Accent Colors: Shall have a value as listed below, if the Architect chooses tile of lesser value after Bid Process, the Contractor shall issue a deductive Change Order for the difference. All allowances shall be for material only, installation, profit and overhead shall be included in the Contractors Bid Proposal.
2. Type: **Porcelain equal to American Olean Castlegate (3 color options)**
3. Wearing Surface for Floors: "stable, firm and slip resistant", (exceeds 0.60 on the ASTM C-1028 test, wet and dry).
4. Nominal Thickness: 3/8"
5. Nominal Facial Dimensions:
  - a. 12" x 12" Floor Tile - Unglazed, with 1/4" grout joints. Shall have a value of **\$1.00** dollars per square foot (this allowance shall be for material only).
  - b. 12" x 12" Wall Tile - Glazed, with 1/4" grout joints. Shall have a value of **\$1.00** dollars per square foot (this allowance shall be for material only).
  - c. 6" x 12" Coved base - Unglazed. Shall have a value of **\$2.50** dollars per linear foot (this allowance shall be for material only).
6. Face: Plain with cushion edges.

Trim Units: Provide tile trim units to match characteristics of adjoining flat tile and to comply with following requirements:

1. Size: As indicated, coordinated with sizes and coursing of adjoining flat tile, where applicable.
2. Shapes: As follows, selected from manufacturer's standard shapes.
3. Base: 6" x 12" Coved base - Unglazed.
4. Wainscot Cap: 6" x 12" Bullnose cap to match main field color.
5. External Corners for Portland Cement Mortar Installations: Bullnose shape with a radius of not less than 3/4" unless otherwise indicated.
6. Internal Corners: Field-butt square corners, except use internal cove and cap angle pieces designed to member with stretcher shapes.

#### STONE THRESHOLDS:

General: Provide stone which is uniform in color and finish, fabricated to sizes and profiles indicated or required to provide transition between tile surfaces and adjoining finished floor surfaces.

Marble Thresholds: Provide marble thresholds complying with ASTM C 503 requirements for exterior use and abrasion resistant for uses subject to heavy foot traffic.

1. Provide white, bonded marble complying with MIA Group "A" requirements for soundness.

#### SETTING MATERIALS:

Portland Cement Mortar Installation Materials: Provide materials to comply with ANSI A108.1 as required for installation method designated, unless otherwise indicated.

#### GROUTING MATERIALS:

Stainless Grout: Equal to Latapoxy SP-100.

#### MISCELLANEOUS MATERIALS:

Single-Component Sealants: ASTM C 920, Type S, Grade NS, use NT (for use in joints in non-traffic areas).

Two-Component Sealants: ASTM C 920, Type M, Grade P, Class 25, use T (for use in joints subject to pedestrian traffic).

Tile Cleaner: Product specifically acceptable to manufacturer of tile and grout manufacturer for application indicated and as recommended by National Tile Promotion Federation, 112 North Alfred St., Alexandria, VA 22134 or Ceramic Tile Institute, 700 N. Virgil Ave., Los Angeles, CA 90029.

## PART 3 – EXECUTION

### INSPECTION:

Examine surfaces to receive tile work and conditions under which tile will be installed. Do not proceed with tile work until surfaces and conditions comply with requirements indicated in referenced tile installation standard.

### INSTALLATION, GENERAL:

ANSI Tile Installation Standard: Comply with applicable parts of ANSI 108 series of tile installation standards included under "American National Standard Specifications for the Installation of Ceramic Tile".

TCA Installation Guidelines: TCA "Handbook for Ceramic Tile Installation"; comply with TCA installation methods indicated or, if not otherwise indicated, as applicable to installation conditions shown.

### **Setting beds for floor tile shall be thinset. Walls shall be thinset.**

Extend tile work into recesses and under or behind equipment and fixtures, to form a complete covering without interruptions, except as otherwise shown. Terminate work neatly at obstructions, edges and corners without disrupting pattern or joint alignments.

Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures and other penetrations so that plates, collars, or covers overlap tile.

Jointing Pattern: Unless otherwise shown, lay tile in grid pattern. Align joints when adjoining tiles on floor, base, walls and trim are same size. Layout tile work and center tile fields in both directions in each space or on each wall area. Adjust to minimize tile cutting. Provide uniform joint widths, unless otherwise shown.

1. For tile mounted in sheets make joints between tile sheets same width as joints within tile sheets so that extent of each sheet is not apparent in finished work.

Lay out tile wainscots to next full tile beyond dimensions indicated.

Expansion Joints: Locate expansion joints and other sealant filled joints, including control, contraction and isolation joints, where indicated, or if not indicated, at spacing and locations recommended in TCA "Handbook for Ceramic Tile Installation", and approved by Architect.

1. Prepare joints and apply sealants to comply with requirements of referenced standards and sealant manufacturer.

Grout tile to comply with referenced installation standards, using grout materials indicated.

#### FLOOR INSTALLATION METHODS:

Porcelain Tile: Install tile to comply with requirements indicated below for setting bed methods, TCA installation methods related to types of subfloor construction, and grout types:

1. Concrete Subfloors, Interior: TCA F113 with isolation membrane equal to Nobleseal CIS.
2. Grout: Stainless Grout equal to Latapoxy SP-100. Grout color to be selected from standard ranges by Architect.

Stone Thresholds: Install stone thresholds at locations indicated; set in same type of setting bed as abutting field tile unless otherwise indicated.

Metal Edge Strips: Install at locations indicated or where exposed edge of tile flooring meets carpet, wood or other flooring which finishes flush with top of tile.

#### WALL TILE INSTALLATION METHODS:

Install types of tile designated for wall application to comply with requirements indicated below for setting bed methods, TCA installation methods related to subsurface wall conditions, and grout types:

1. Solid Backing, Interior: TCA W221 in wet areas and W213 or W223 25 applicable in other areas.
2. Grout: Stainless Grout equal to Latapoxy SP-100. Grout color to be selected from standard ranges by Architect.

#### CLEANING AND PROTECTION:

Cleaning: Upon completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.

1. Unglazed tile shall be cleaned with non-acid solutions only recommended by tile and grout manufacturer's printed instructions, but no sooner than



14 days after installation. Protect metal surfaces, cast iron and vitreous plumbing fixtures from effects of tile cleaning. Flush surface with clean water after cleaning.

Finished Tile Work: Leave finished installation clean and free of cracked, chipped, broken, unbonded, or otherwise defective tile work.

Protection: When recommended by tile manufacturer, apply a protective coat of neutral protective cleaner to completed tile walls and floors. Protect installed tile work with kraft paper or other heavy covering during construction period to prevent staining, damage and wear.

Prohibit foot and wheel traffic from using tiled floors for at least 7 days after grouting is completed.

Before final inspection, remove protective coverings and rinse neutral cleaner from tile surfaces.

EXTRA STOCK:

Deliver stock of maintenance materials to Owner. Furnish maintenance materials from same manufactured lot as materials installed and enclosed in protective packaging with appropriate identifying labels.

1. Tile Flooring: Furnish not less than one box for each type, color, pattern and size installed.

END OF SECTION 09301

## SECTION 09900 – PAINTING

### PART 1 - GENERAL

#### RELATED DOCUMENTS:

Drawings and general provisions of Contract including General and Supplementary Conditions and Division 1 Specification sections apply to work of this section.

#### DESCRIPTION OF WORK:

Extent of painting work is indicated on drawings and schedules, and as herein specified including accent painting.

Work includes painting and finishing of interior and exterior exposed items and surfaces throughout project, except as otherwise indicated.

1. Surface preparation, priming and coats of paint specified are in addition to shop-priming and surface treatments specified under other sections of work.

Work includes field painting of exposed bare and covered pipes and ducts (including color coding), and of hangers, exposed steel and iron work, and primed metal surfaces of equipment installed under mechanical and electrical work, except as otherwise indicated.

"Paint" as used herein means all coating systems materials, including primers, emulsions, enamels, stains, sealers and fillers, and other applied materials whether used as prime, intermediate or finish coats.

Surfaces to be Painted: Except where natural finish of material is specifically noted as a surface not to be painted, paint exposed surfaces whether or not colors are designated in "schedules". Where items or surfaces are not specifically mentioned, paint the same as similar adjacent materials or areas. If color or finish is not designated, Architect will select these from standard colors or finishes available.

Following categories of work are not included as part of field-applied finish work.

1. Pre-Finished Items: Unless otherwise indicated, do not include painting when factory-finishing or installer finishing is specified for such items as (but not limited to) metal toilet enclosures, prefinished partition systems, acoustic materials, elevator entrance doors and frames, elevator equipment, and finished mechanical and electrical equipment, including light fixtures, switchgear and distribution cabinets.

2. Concealed Surfaces: Unless otherwise indicated, painting is not required on surfaces such as walls or ceilings in concealed areas and generally inaccessible areas, foundation spaces, furred areas, utility tunnels, pipe spaces, duct shafts and elevator shafts.
3. Finished Metal Surfaces: Unless otherwise indicated, metal surfaces of anodized aluminum, stainless steel, chromium plate, copper, bronze and similar finished materials will not require finish painting.
4. Operating Parts: Unless otherwise indicated, moving parts of operating units, mechanical and electrical parts, such as valve and damper operators, linkages, sinkages, sensing devices, motor and fan shafts will not require finish painting.

Following categories of work are included under other sections of these specifications.

1. Shop Priming: Unless otherwise specified, shop priming of ferrous metal items is included under various sections for structural steel, metal fabrications, hollow metal work and similar items.
2. Unless otherwise specified, shop priming of fabricated components such as shop-fabricated or factory-built mechanical and electrical equipment or accessories is included under other sections of these specifications.

Do not paint over any code-required labels, such as Underwriters' Laboratories and Factory Mutual, or any equipment identification, performance rating, name, or nomenclature plates.

#### QUALITY ASSURANCE:

Single Source Responsibility: Provide primers and other undercoat paint produced by same manufacturer as finish coats. Use only thinners approved by paint manufacturer, and use only within recommended limits.

Coordination of Work: Review other sections of these specifications in which prime paints are to be provided to ensure compatibility of total coatings system for various substrates. Upon request from other trades, furnish information or characteristics of finish materials provided for use, to ensure compatible prime coats are used.

#### SUBMITTALS:

Product Data: Submit manufacturer's technical information including paint label analysis and application instructions for each material proposed for use.

Samples: Prior to beginning work, Architect will furnish color chips for surfaces to be painted. Use representative colors when preparing samples for review. Submit samples for Architect's re- view of color and texture only.

Provide a listing of material and application for each coat of each finish sample. Provide a 4' x 4' sample application of each color paint for Architect's approval prior to final ordering of product. Sample application shall be applied in an inconspicuous place, satisfactory to the Architect.

#### DELIVERY AND STORAGE:

Deliver materials to job site in original, new and unopened packages and containers bearing manufacturer's name and label, and following information:

1. Name or title of material.
2. Fed. Spec. number, if applicable.
3. Manufacturer's stock number and date of manufacturer.
4. Manufacturer's name.
5. Contents by volume, for major pigment and vehicle constituents.
6. Thinning instructions.
7. Application instructions.
8. Color name and number.

Store materials not in actual use in tightly covered containers. Maintain containers used in storage of paint in a clean condition, free of foreign materials and residue.

1. Protect from freezing where necessary. Keep storage area neat and orderly. Remove oily rags and waste daily. Take all precautions to ensure that workmen and work areas are adequately protected from fire hazards and health hazards resulting from handling, mixing and application of paints.

#### JOB CONDITIONS:

Apply water-base paints only when temperature of surfaces to be painted and surrounding air temperatures are between 50 degree F and 90 degrees F, unless otherwise permitted by paint manufacturer's printed instructions.

Apply solvent-thinned paints only when temperature of surfaces to be painted and surrounding air temperatures are between 45 degree F and 95 degree F, unless otherwise permitted by paint manufacturer's printed instructions.

Do not apply paint in snow, rain, fog or mist, or when relative humidity exceeds 85% or to damp or wet surfaces, unless otherwise permitted by paint manufacturer's printed instructions.

1. Painting may be continued during inclement weather if areas and surfaces to be painted are enclosed and heated within temperature limits specified by paint manufacturer during application and drying periods.

## PART 2 – PRODUCTS

Manufacturers: The following manufacturers' are listed as acceptable substitutions to the establish minimum standards. Sherwin Williams Products are listed as the standard of product performance and quality.

Sherwin Williams Paint Company (SW)  
Dulux Paint Company  
Benjamin Moore and Co. (Moore).  
Pittsburgh Paints (PPG).  
Pratt and Lambert (P & L).  
Martin Senour Paint Company

Equal products of other manufacturers may be used in the work, provided such products have been approved by the Architect, not less than five (5) days prior to scheduled bid opening.

### MATERIALS:

Material Quality: Provide best quality grade of various types of coatings as regularly manufactured by acceptable paint materials manufacturers. Materials not displaying manufacturer's identification as a standard, best-grade product will not be acceptable.

1. Proprietary names used to designate colors or materials are not intended to imply that products of named manufacturers are required to exclusion of equivalent products of other manufacturers.
2. Federal Specifications establish minimum acceptable quality for paint materials. Provide written certification from paint manufacturer that materials provided meet or exceed these minimums.
3. Manufacturer's products which comply with coating qualitative requirements of applicable Federal Specifications, yet differ in quantitative requirements, may be considered for use when acceptable to Architect. Furnish material data and manufacturer's certificate of performance to Architect for any proposed substitutions.

Color Pigments: Pure, non-fading, applicable types to suit substrates and service indicated.

## PART 3 – EXECUTION

### INSPECTION:

**Applicator must examine areas and conditions under which painting work is to be applied and notify Contractor in writing of conditions detrimental to proper and timely completion of work. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Applicator. If work is begun before satisfactory conditions are met, then it shall be the Applicators' responsibility for the finish surfaces conditions.**

Starting of painting work will be construed as Applicator's acceptance of surfaces and conditions within any particular area.

Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to formation of a durable paint film.

### SURFACE PREPARATION:

General: Perform preparation and cleaning procedures in accordance with paint manufacturer's instructions and as herein specified, for each particular substrate condition.

1. Provide barrier coats over incompatible primers or remove and reprime as required. Notify Architect in writing of any anticipated problems in using the specified coating systems with substrates primed by others.
2. Remove hardware, hardware accessories, machined surfaces, plates, lighting fixtures, and similar items in place and not to be finish-painted, or provide surface-applied protection prior to surface preparation and painting operations. Remove, if necessary, for complete painting of items and adjacent surfaces. Following completion of painting of each space or area, reinstall removed items.
3. Clean surfaces to be painted before applying paint or surface treatments. Remove oil and grease prior to mechanical cleaning. Program cleaning and painting so that contaminants from cleaning process will not fall onto wet, newly-painted surfaces.

Wood: Clean wood surfaces to be painted of dirt, oil, or other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Sandpaper smooth those finished surfaces exposed to view, and dust off. Scrape and clean small, dry, seasoned knots and apply a thin coat of white shellac or other recommended knot sealer, before application of priming coat. After priming, fill holes and imperfections in finish surfaces with putty or plastic wood-filler. Sandpaper smooth when dried.

1. Prime, stain, or seal wood required to be job-painted immediately upon delivery to job. Prime edges, ends, faces, undersides, and backsides of such wood, including cabinets, counters, cases, paneling.
2. When transparent finish is required, use spar varnish for backpriming.
3. Backprime all exposed exterior wood. Backprime paneling on interior partitions only where masonry, plaster, or other wet wall construction occurs on backside.
4. Seal tops, bottoms, and cut-outs of unprimed wood doors with a heavy coat of varnish or equivalent sealer immediately upon delivery to job.

Ferrous Metals: Clean ferrous surfaces, which are not galvanized or shop-coated, of oil, grease, dirt, loose mill scale and other foreign substances by solvent or mechanical cleaning.

1. Touch-up shop-applied prime coats wherever damaged or bare. Clean and touch-up with same type shop primer.

Galvanized Surfaces: Clean free of oil and surface contaminants with non-petroleum based solvent.

#### MATERIALS PREPARATION:

Mix and prepare painting materials in accordance with manufacturer's directions.

Maintain containers used in mixing and application of paint in a clean condition, free of foreign materials and residue.

Stir materials before application to produce a mixture of uniform density, and stir as required during application. Do not stir surface film into material. Remove film and, if

#### APPLICATION:

General: Apply paint in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied.

1. Paint colors, surface treatments, and finishes, are indicated in "schedules" of the contract documents.
2. Provide finish coats which are compatible with prime paints used.
3. Apply additional coats when undercoats, stains or other conditions show through final coat of paint, until paint film is of uniform finish, color and appearance. Give special attention to insure that surfaces, including edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness not less than specified thickness.
4. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Paint surfaces behind permanently-fixed equipment or furniture with prime coat only before final installation of equipment.

5. Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, non-specular black paint.
6. Paint back sides of access panels, and removable or hinged covers to match exposed surfaces.
7. Finish exterior doors on tops, bottoms and side edges same as exterior faces, unless otherwise indicated.
8. Sand lightly between each succeeding enamel or varnish coat.
9. Omit first coat (primer) on metal surfaces which have been shop-primed and touch-up painted, unless otherwise indicated.

Scheduling Painting: Apply first-coat material to surfaces that have been cleaned, pretreated or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.

1. Allow sufficient time between successive coatings to permit proper drying. Do not recoat until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and application of another coat of paint does not cause lifting or loss adhesion of the undercoat.

Minimum Coating Thickness: Apply materials at not less than manufacturer's recommended spreading rate, to establish a total dry film thickness as indicated or, if not indicated, as recommended by coating manufacturer.

Prime Coats: Apply prime coat where required to be painted or finished, and which has not been primed coated by others.

1. Recoat primed and sealed surfaces where there is evidence of suction spots or unsealed areas in first coat, to assure a finish coat with no burn-through or other defects due to insufficient sealing.

Pigmented (Opaque) Finishes: Completely cover to provide an opaque, smooth surface of uniform finish, color, appearance and coverage. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness or other surface imperfections will not be acceptable.

Transparent (Clear) Finishes: Use multiple coats to produce glass-smooth surface film of even luster. Provide a finish free of laps, cloudiness, color irregularity, runs, brush marks, orange peel, nail holes, or other surface imperfections.

1. Provide satin finish for final coats, unless otherwise indicated.

Completed Work: Match approved samples for color, texture and coverage. Remove, refinish or repaint work not in compliance with specified requirements.



### FIELD QUALITY CONTROL:

The right is reserved by Owner to invoke the following material testing procedure at any time, and any number of times during period of field painting:

1. Engage services of an independent testing laboratory to sample paint being used. Samples of materials delivered to project site will be taken, identified and sealed, and certified in presence of Contractor.
2. Testing laboratory will perform appropriate tests for any or all of following characteristics: Abrasion resistance, apparent reflectivity, flexibility, washability, absorption, accelerated weathering, dry opacity, accelerated yellowness, recoating, skinning, color retention, alkali resistance and quantitative materials analysis.

If test results show that material being used does not comply with specified requirements, Contractor may be directed to stop painting work, and remove non-complying paint; pay for testing; repaint surfaces coated with rejected paint; remove rejected paint from previously painted surfaces if, upon repainting with specified paint, the two coatings are non-compatible.

### CLEAN-UP AND PROTECTION:

Clean-Up: During progress of work, remove from site discarded paint materials, rubbish, cans and rags at end of each day.

Upon completion of painting work, clean window glass and other paint-spattered surfaces. Remove spattered paint by proper methods of washing and scraping, using care not to scratch or otherwise damage finished surfaces.

Protection: Protect work of other trades, whether to be painted or not, against damage by painting and finishing work. Correct any damage by cleaning, repairing or replacing, and repainting, as acceptable to Architect.

1. Provide "Wet Paint" signs as required to protect newly painted finishes. Remove temporary protective wrappings provided by others for protection of their work, after completion of painting operations.

At completion of work of other trades, touch-up and restore all damaged or defaced painted surfaces.

### EXTRA STOCK:

Deliver stock of maintenance materials to Owner. Furnish maintenance materials from same manufactured lot as materials installed and enclosed in protective packaging with appropriate identifying labels.

1. Paint: Furnish not less than one gallon for each type and color, applied.

## **INTERIOR PAINT SCHEDULE:**

Drywall Systems: 3 coats with total dry film thickness not less than 3.5 mils

Drywall Walls and Ceilings: Interior Eggshell Finish Acrylic Latex with dry film thickness not less than 3.8 mils.

- 1st Coat: S-W PrepRite® 200 Latex Primer, B28W200  
(4 mils wet, 1.2 mils dry)
- 2nd Coat: S-W ProMar® 200 Latex Eggshell, B31W2200 Series
- 3rd Coat: S-W ProMar® 200 Latex Eggshell, B31W2200 Series  
(4 mils wet, 1.3 mils dry per coat)

Ferrous Metal: Alkyd Gloss Enamel Finish: 2 Finish Coats over primer, with total dry film thickness not less than 6.0 mils.

- 1st Coat: S-W Pro-Cryl® Universal Acrylic Primer B66-310 Series  
(2.0 - 4.0 mils dry per coat)
- 2nd Coat: S-W Industrial Enamel, B54 Series
- 3rd Coat: S-W Industrial Enamel, B54 Series, (2-4 mils dry per coat)

Zinc-Coated Metal: Alkyd Gloss Finish: 2 Coats over primer, with total dry film thickness not less than 6.0 mils.

- 1st Coat: S-W Pro-Cryl® Universal Acrylic Primer B66-310 Series  
(2.0 - 4.0 mils dry per coat)
- 2nd Coat: S-W Industrial Enamel, B54 Series
- 3rd Coat: S-W Industrial Enamel, B54 Series, (2-4 mils dry per coat)

Wood Trim: Interior Semi-Gloss Acrylic Latex with dry film thickness not less than 3.8 mils.

- 1st Coat: S-W PrepRite® 200 Latex Primer, B28W200  
(4 mils wet, 1.2 mils dry)
- 2nd Coat: S-W ProMar® 200 Latex Semi-Gloss, B31W2200 Series
- 3rd Coat: S-W ProMar® 200 Latex Semi-Gloss, B31W2200 Series  
(4 mils wet, 1.3 mils dry per coat)

Cabinets for Stained - Varnish Rubbed Finish: 3 Finish Coats over stain plus filler on open grain wood.

- 1st Coat: S-W WoodClassics Oil Stain, A49 Series  
(450-500 sq ft/gal)
- 2nd Coat: S-W WoodClassics Polyurethane Varnish, A67 Series
- 3rd Coat: S-W WoodClassics Polyurethane Varnish, A67 Series  
(350-400 sq ft/gal)

## **EXTERIOR PAINT SCHEDULE**

General: Provide the following paint systems for the various substrates, as indicated.

Ferrous Metals: Gloss Alkyd Enamel: 2 Finish coats over primer with total dry film thickness of not less than 6.0 mils.

1st Coat:	S-W Pro-Cryl® Universal Acrylic Primer B66-310 Series (2.0 - 4.0 mils dry per coat)
2nd Coat:	S-W Industrial Enamel, B54 Series
3rd Coat:	S-W Industrial Enamel, B54 Series, (2-4 mils dry per coat)

END OF SECTION 09900

## SECTION 10800 - TOILET ACCESSORIES

### PART 1 – GENERAL

#### GENERAL

#### RELATED DOCUMENTS:

Drawings and general provisions of contract including General and Supplementary Conditions and Division 1 Specification sections apply to work of this section.

#### DESCRIPTION OF WORK:

Extent of each type of toilet accessory is indicated on drawings and schedules.

Types of toilet accessories required include the following:

1. Toilet paper holder – see drawings for locations
2. Grab bars – see drawings for locations
3. Shower Rod
4. Shower Curtain Hooks
5. Vinyl Shower Curtain
6. Robe Hook
7. Medicine Cabinets – see drawings for locations

#### QUALITY ASSURANCE:

Behind all wall mounted accessories, contractor will provide solid wood backing to receive screws and/or anchors.

Accessory Locations: Coordinate accessory locations with other work to avoid interference and to assure proper operation and servicing of accessory units.

Products: Provide products of same manufacturer for each type of accessory unit and for units exposed in same areas, unless other- wise acceptable to Architect.

#### SUBMITTALS:

Product Data: Submit manufacturer's technical data and installation instructions for each toilet accessory.

### PART 2 – PRODUCTS

The following manufacturer's products have been used to establish minimum standards for materials, workmanship and function.

Bradley – Basis of Design

Equals by:

ASI

Bobrick

1. Toilet Tissue Dispensers: ( TTD )  
#508-32 Bradley
2. Grab Bars: ( GB-# ) (Where shown on Plans) with Safety-Grip Finish.  
#8122 Bradley
3. Medicine Cabinet (Recessed) ( CAB-1 ):  
#9661  
(22" x 16" x 2 7/8") Bradley
4. Shower Rod: At each shower unit as indicated on the drawings, shower rod unit shall be polished stainless steel:  
#9531-4 Bradley
5. Vinyl Shower Curtain: Curtain shall be 6 gauge vinyl fabric, 72" high, 12" wider than openings exceeding 48", color - white:  
#9533 Bradley
6. Shower Curtain Hooks: Supply stainless steel hooks for each shower curtain as required:  
#9540 Bradley
7. Double Robe Hook: Polished stainless steel. Owner to direct locations.  
#9125 Bradley

Equal products of other manufacturers may be used in the work provided such products have been approved by the Architect not less than five (10) days prior to scheduled bid opening.

#### MATERIALS, GENERAL:

Stainless Steel: AISI Type 302/304, with polished No. 4 finish, 22 gage minimum, unless otherwise indicated.

Mirror Units: Mirror glass shall be FS DD-G-451, Type I, Class I, Quality q2, 1/4" thick, with silver coating, copper protective coating, and non-metallic paint coating complying with FS DD-M-411. Mirror shall be provided in stainless steel frames.

Fasteners: Screws, bolts, and other devices of same material as accessory unit or of galvanized steel where concealed.

#### FABRICATION:

General: Stamped names or labels on exposed faces of toilet accessory units are not permitted, except where otherwise indicated; in obtrusive labels on surfaces not exposed to view are acceptable. Where locks are required for a particular type of toilet accessory, provide same keying throughout project. Furnish two keys for each lock.

Surface Mounted Toilet Accessories General: Except where otherwise indicated, fabricate units with tight seams and joints, exposed edges rolled. Hang doors or access panels with continuous stainless steel piano hinge. Provide concealed anchorage wherever possible.

Recessed Toilet Accessories, General: Except where otherwise indicated, fabricate units of all welded construction, without mitered corners. Hang doors or access panels with full-length stainless steel piano hinge. Provide anchorage which is fully concealed when unit is closed.

### PART 3 – EXECUTION

#### INSTALLATION:

Install toilet accessory units in accordance with manufacturer's instructions, using fasteners which are appropriate to substrate and recommended by manufacturer of unit. Install units plumb and level, firmly anchored in locations and at heights indicated.

#### ADJUSTING AND CLEANING:

Adjust toilet accessories for proper operation and verify that mechanisms function smoothly. Replace damaged or defective items.

Clean and polish all exposed surfaces after removing labels and protective coatings.

END OF SECTION 10800

These specifications sections were prepared by and under the direct supervision of the Engineer of Record for this project.

Division 15 – MECHANICAL

15010	Mechanical General Provisions
15400	Plumbing



November 6, 2018

## SECTION 15010

### GENERAL MECHANICAL PROVISIONS

#### PART 1. GENERAL

- 1.1. **General Requirements:** Division One is applicable in full hereto. For the purpose of this specification the word "provide" shall mean, "furnish and install, complete and ready for use". No materials or products which contain asbestos, formaldehyde, lead or mercury, in excess of limits mandated and defined by OSHA, LEED and the EPA, shall be utilized.
- 1.2. **Codes and Standards and Listings:** Comply with all current editions of applicable NFPA, ASME, OSHA, IBC, ASHRAE, Americans with Disabilities Act (ADA), 2010 ADA Standards for Accessible Design, SMACNA and ANSI requirements, with Local Building Codes, Mechanical Codes, Gas Codes, Plumbing Codes, ANSI/ASHRAE/IESNA Standard 90.1 (2013), International Energy Conservation Code, International Fuel Gas Code, International Fire Code, Americans with Disability Act Accessibility Guidelines and with all applicable local ordinances and codes. Equipment shall bear Underwriters Laboratories Inc. (UL) listing label, Canadian Standards Association (CSA) listing label or ETL approved rating. All electrical components and products shall also comply with the respective Code of Federal Regulations (CFR). All pressure vessels shall be constructed and tested in accordance with applicable ASME Codes and shall bear ASME stamps unless specified otherwise. Where conflicts occur between a Code, Standard or Listing and the contract drawings or contract specifications, the most stringent requirements shall govern and be applied. Advisory provisions listed in all Codes referenced in the Contract Documents shall be considered mandatory.
- 1.3. **Permits:** Provide all permits, pay all fees and arrange for inspections as required by all applicable Governing Authorities. Furnish certificates of all inspections and approvals from all Governing Authorities. Provide additional materials, parts, methods, etc. and modify the work as required by Governing Authorities' Inspections and Regulations. Correct all deficiencies required by Code officials at no additional cost to the Owner.
- 1.4. **Drawings:** In the interest of clearness, the work is not always shown to scale or exact location. Check all measurements, location of pipe, all required appurtenances for duct and piping, ducts, and equipment with the detail architectural, structural and electrical drawings, and lay out work so as to fit in with ceiling grids, lighting and other parts. Make minor adjustments in the field as required to provide the optimum result to facilitate ease of service, efficient operation and best appearance. Where doubt arises as to the meaning of the plans and specifications, obtain the Architect's decision, in writing, before proceeding with parts affected; otherwise assume liability for damage to other work and for making necessary corrections to work in question. **DO NOT SCALE** the Plumbing and HVAC drawings. The various scales used on the drawings do not allow for all fittings, offsets and accessories that may be required to complete the work. The Contractor shall carefully investigate the conditions that would affect the work to be performed and shall arrange such work as necessary to comply with the intent of the construction documents. Refer to Architectural drawings for dimensions and verify scale shown on the drawings. All drawings are diagrammatic and are intended to quantify the materials specified and indicate their intended relationship to each other. The drawings and specifications are complementary and work shown, but not specified,



or specified, but not shown, shall be the same as though required by both.

- 1.5. **Conflicts, Coordinations and Changes:** In the event that interferences or conflicts occur, the Architect shall decide which equipment shall be relocated regardless of which was first installed. In the interest of avoiding such conflicts, each Sub-Contractor who is using common space, etc., shall coordinate his work with all other trades and other parts of his own work. If, during this coordination, it is discovered that necessary or desirable changes should be made, advise the Architect and secure his decision in writing. Do not fabricate any duct nor install any pipe until all coordination has been accomplished.
- 1.6. **Coordination Drawings:** Before starting work, submit for approval, coordination shop drawings showing proposed arrangement of equipment, all piping, ducts, detailed plan sections and isometric of mechanical room piping, floor drains, power requirements, and controls. As a minimum, submit detail layouts of potential conflicts at plumbing risers, equipment rooms, limited ceiling space, etc. Refer to subsequent Sections for additional specific requirements. Failure to submit shop drawings will make the Contractor responsible for changes required to facilitate installation of, and the proper operation of, all systems at no additional cost to the Owner. Additionally, follow procedures set forth in Division One.
- 1.7. **Maintenance, Replacement and Service Access:** Locate equipment as shown on the plans. The Contractor shall install equipment, valves, piping, smoke detectors, etc. with the maintenance, service and replacement access required by the Manufacturer of the respective installed item. All items shall be installed to provide maximum safety, and service, replacement and maintenance access. All piping with valves, mechanical equipment, smoke detectors and other items which may require maintenance, service and replacement access shall be located no more than 24" above the finished ceiling nor more than 12'-0" above finish floor in areas without ceilings, to ensure proper access for maintenance, replacement and service. Coordinate all questionable access or location of items which may present a nuisance, if installed as specified above, with the Engineer or the Architect's field representative prior to installing any item.
- 1.8. **Warranty:** Guarantee in writing to make good without cost any defects in materials and workmanship for one year following the date of acceptance of the project. Provide free maintenance and service during the guarantee period to **include furnishing and replacing of filters**. Filter changes shall be done quarterly. Contractor shall inscribe onto the filters' casing the date they were installed/replaced. See other Division 15 Sections for additional requirements for guarantee of air conditioning compressors, water heaters, heat exchangers, etc.
- 1.9. **Submittal Data:** Partial or incomplete submittals will not be reviewed. Within 25 days after award of the contract, submit for approval a complete schedule of material and equipment proposed. When incomplete schedules of materials and equipment are submitted, the Contractor is responsible for providing all items specified. Include catalog data, scheduled capacities, fan curves, sound data, etc. Where substitutions are proposed, unless the Contractor states in writing, on a separate summary sheet in the front of the respective submittal, the differences of the substituted equipment or material, he shall be held responsible to replace such items any time discrepancies are found.

All submittals shall be separately bound into a 3-ring binder (if provided in hard copy) or

in pdf format (if provided electronically). Submittals shall be indexed and tabbed. Refer to the Architectural General Conditions and Division 1 for the format required by the Architect. **Do not combine Plumbing submittals with HVAC Submittals.** A cover sheet shall be provided which states, as a minimum, the Project name and location, the name of the Owner, the Architectural firm, the Engineering firm, the General Contractor, the Mechanical Contractor (Plumbing Contractor for plumbing submittals and each Contractors' point of contact, with phone number. A summary sheet shall be inserted at the beginning of each tabbed section to summarize the contents of each respective tabbed section. The summary sheet shall include any items that have been changed or removed due to Project cost constraints, addendums or Value Engineering (VE). Include materials used, methods of installation, product manufacturer, equipment capacities, etc. HVAC equipment items shall follow the identical tabular format, category by category, shown on the HVAC equipment schedules. As a minimum, the summary sheet shall indicate the **submitted values compared to all of the specified values.** Plumbing submittal items shall be provided in the same manner. **Failure to provide the submittals in the format specified will be cause for automatic rejection without review.**

**The General Contractor shall review and approve all submittals prior to submitting them to the Architect.** Submittals without the General Contractor's approval will be rejected without review.

- 1.10. **Site and Existing Conditions:** Bidders shall visit the site and become acquainted with all job conditions. Report to the Architect, prior to bid, any conditions that are required to accomplish the installation of all systems. Provide for required adjustments to complete the intent of the work. No consideration will be given after bid opening for alleged misunderstanding regarding job conditions, utility connections, permits, fees, etc.
- 1.11. **Line Locators:** Before proceeding with excavating or trenching, arrange with the Owner, all utility companies, and line locating firm(s) to describe and mark all of the systems which might be damaged by construction operations.
- 1.12. **Phasing:** Interrupt existing services only at times approved by the Architect and the Owner. The General Contractor shall provide a written request to the Architect and the Owner for permission to interrupt services to the facility. The request shall be provided a minimum of seven (7) days prior to the desired date of the interruption. Hold interruptions to a minimum in duration and frequency.
- 1.13. **Record Drawings:** Provide in such detail, as is set forth under General and Supplemental Conditions.

Additionally, keep an accurate record of changes made during construction.

Transfer these changes to a set of reproducible copies of original drawings that the Architect will sell to Contractor at printing cost. Enclose a hard copy of the record drawings, and an electronic copy in PDF format, with the Bound and Framed Instructions. PDF drawings for HVAC and Plumbing shall be bound separately as a complete set for each discipline. Plumbing and HVAC PDF's shall be provided with an embedded index which displays each sheet number and title. It shall appear in the left hand window of the opened PDF so that the Owner or his maintenance personnel can "click" on the indexed item and move immediately to that specific sheet. HVAC hard copy record drawings may be sheet metal shop drawings provided they are reproducible copies of the final corrected sheet metal shop drawings. When work is

completed submit corrected reproducible drawings to the Architect for record. The drawings are provided to the Contractor "as is". The Contractor is responsible for providing and showing all changes to the drawings that are different from the original contract drawings, including but not limited to addendums, change-orders, VE items, etc.

## **PART 2. WORK RELATED TO OTHER TRADES**

- 2.1. Foundations:** Applicable Mechanical or Plumbing Contractor shall provide foundations, supports, etc. not specified under other Divisions and as required to mount all items in a safe, sound, workmanlike and structurally sound manner. Consult all contract documents pertaining to other trades to determine extent of their work. Applicable Contractor shall provide stands, roof timbers, interior pads, floor penetrations; etc.; and all sub-framing extending from typical structural members to supported items. Concrete pads for outside equipment are specified under other Sections. Concrete work shall meet requirements of Division 3.
- 2.2. Roof Flashing:** Built-up base flashing, pitch pans around timbers and pipes and other related roofing work is specified under Roofing Section but with reservation that roofer be advised of requirements and furnished items to be installed before roofing is in place. Flashing cones, counter flashing hoods, storm collars, flashing for vent stacks and roof drains are to be provided by applicable Contractor. Coordinate all items furnished and adhere to roofing manufacturer's requirements so as not to void the roofing warranty.
- 2.3. Pipe Sleeves:** Fit all pipes passing through walls, partitions and floors (except slabs on grade construction) with sleeves. Sleeves shall be built-in as work progresses. Sleeves in new construction shall be set before concrete is poured or masonry is erected. Sleeves in existing construction shall be firmly grouted in place. Sleeves for pipe passing through floors, interior walls or partitions shall be 20 gage galvanized steel, 1/2" larger in diameter than pipe or piping covering and shall extend a minimum of 2" on each side of the partition or floor. Sleeves for pipe passing through exterior walls or partitions that contain refrigerant piping shall be Schedule 40 PVC pipe, 1/2" larger in diameter than piping and piping covering. Where copper pipe passes through a slab on grade, provide a 24" long plastic pipe sleeve. Install all under-slab on-grade copper piping in plastic jacket equal to "Plastic Sleeve" as manufactured by Plastic products Company of Stanton, California.
- 2.4. Access Panels and Doors:** Furnish to General Contractor for installation wherever required for access to valve, damper, air vent, cleanout, smoke detector or similar device. Doors shall be suitable for wall or ceiling finish involved, 16" x 16" unless otherwise indicated or as required to permit removal of equipment and/or provide acceptable maintenance access. Access panels and doors shall be fire rated where rated assemblies are penetrated. Access panels and doors for items located outdoors shall be weatherproof. Identify all access panels and doors to indicate item for which access is provided for. Ex. Motorized damper, fire damper, filters, etc. Additionally, add the following to each access panel identifier: "*DO NOT BLOCK*". See specification section "Miscellaneous Requirements, Identification" for materials and methods required. Access panels and doors shall be as manufactured by Milcor, Philip Carey, Zurn or other approved equal. The Architect must approve proposed types which are to be installed in areas which are exposed to view and in finished areas. Exposed access panels and doors shall be factory cleaned and primed for painting in the field. Colors

shall be as selected by the Architect. Refer to Architectural Section, Painting, for additional information.

Where device occurs above a lift-out acoustical ceiling panel, provide engraved plastic labels of type specified in "Miscellaneous Requirements, Identification" below. In addition to identification of items above the ceiling, provide engraved plastic labels below the item, on the ceiling grid. Engraved plastic labels shall match ceiling grid color and be neatly glued to the ceiling grid adjacent to the ceiling tile that should be removed for access to the item. The label shall have engraved on it the item being identified and its designation as shown on the plans, valve chart, etc. Refer to Section "Identification" below for additional requirements.

- 2.5. Cutting and Patching:** Openings are to be laid out and built-in. Furnish detailed layout drawings to other trades in advance of their work. Failure to furnish layout shop drawings to General Contractor shall make the applicable Mechanical / Plumbing / Fire Protection Contractor responsible to rebuild openings as directed by the Architect. Piping within walls or behind walls must be installed before wall is erected. Otherwise, walls, etc. affected must be reworked by trade which erected it at expense of the respective Contractor. Chasing and cutting of new work will not be accepted.

The Millwork Contractor, upon receipt of proper templates, shall make cutouts in countertops. Openings in existing walls shall be made by trade requiring same, with repairing and patching required thereby done by the respective trade whose work is damaged.

- 2.6. Painting and Finishing:** Clean and paint with two coats of black latex paint all exposed ferrous metal parts of hangers, unistrut and other assemblies used for supporting of ducts (except duct straps/band hangers), piping and plumbing related items in mechanical rooms, crawl space, above ceilings, etc. Include black steel pipe, uncoated cast iron pipe, hangers, brackets, etc. **Bare, unprotected/uncoated steel or galvanized hangers, brackets, unistrut, supports, etc., are not allowed.** In lieu of painting, the Contractor may substitute factory painted, powder coated or epoxy coated items to prevent rusting of the items listed above. All paints and coatings shall comply with 25/50 smoke and flame spread requirements. Also, see specification section, "Identification" for additional requirements.

Painting of ducts, piping, grilles, diffusers and other surfaces in finished areas is specified in Architectural Section "Painting" or similar section. Refer to those sections for additional requirements. Where the Architectural specifications require items to be painted, the Contractor shall furnish it with a factory applied prime coat from the Manufacturer of that item.

Where factory finished items are marred, scratched or damaged, replace the item, or upon approval from the Architect or Owner, refinish or touch-up as required to bring to a like new condition.

### **PART 3. EXCAVATION, TRENCHING & BACKFILLING**

- 3.1. Excavating:** Insure that walls and footings and adjacent load bearing soils are not disturbed in any way, except where lines must cross under a footing. Where a line must pass under a footing, make crossing with the smallest possible trench to

accommodate the pipe. Where a line must pass adjacent to and below the bottom of a column footing, or the corner of a continuous footing, backfill the trench with concrete up to the level of the footing bottom, for a distance away from the footing equal to the depth of the fill.

Keep excavation free from water by pumping if necessary. Dig trenches true to line and with a flat, even bottom. Form bell-holes to allow proper bedding of the pipe sections. Top of all piping must be a minimum of 30 inches below finish grade. Remove and relocate existing obstructions as directed by the Architect.

- 3.2. **Pipe Trenches:** Make true to grade using string and batter-boards. Place pipe on undisturbed earth where possible; otherwise provide concrete pads or mortar laid masonry piers at all joints and no further than 8' on centers.
- 3.3. **Shoring, Sub-Soil Assumptions and Data, Work Around Trees, Surplus Earth:** Refer to Section "Earthwork".
- 3.4. **Backfilling:** Immediately after testing and/or inspection, carefully backfill trenches with earth free from clods, brick, etc., to a depth one-half the pipe diameter. Then firmly puddle and tamp as not to disturb the alignment or joints of the pipe. Thereafter, puddle and tamp every vertical foot. Do not place clods, brick, stones or other debris in the trench until the pipe has one-foot cover, and not in trenches under the building slab in any case.

Backfill within the building and under paved areas shall meet compaction requirements established under Division 2. Fill material shall be pit run gravel or similar granular material.
- 3.5. **Broken Pavement:** In public streets or on the project site, backfill and repair to satisfaction of authorities having jurisdiction and the Architect.

#### **PART 4. PIPE HANGERS AND SUPPORTS**

- 4.1. **General:** Provide factory fabricated pipe hangers and supports for all piping of type and size specified bolts, washers, etc. as required for a complete functional installation. Material items, methods and general requirements not covered in this specification shall be provided in strict accordance with Manufacturer's Standardization Society Specification MSS SP-58, MSS SP-69 and Manufacturer's Published Product Information.
- 4.2. **Painting: Bare, unprotected/uncoated steel or galvanized hangers, brackets, supports, etc., are not allowed.** Clean and paint with two coats of black latex paint all exposed ferrous metal parts of hangers, unistrut and other assemblies used for supporting of any piping and plumbing related items in mechanical rooms, crawl space, above ceilings, etc. Include black steel pipe, uncoated cast iron pipe, hangers, brackets, etc. In lieu of painting, the Contractor may substitute factory painted, powder coated or epoxy coated items to prevent rusting of the items listed above. All paints and coatings shall comply with 25/50 smoke and flame spread requirements. Also, see specification section, "Identification" for additional requirements..
- 4.3. **Spacing:** Install supports as required to prevent sags, bends or vibration. In any case, provide on both sides of and within 6 inches of all elbows, take-off fittings, valves, any

change in direction of item supported and at ends of branches over 5 feet long and on centers not exceeding the following:

copper tubing	up to 1", 6 feet; over 1", 8 feet
steel pipe	up to 1 ¼", 6 feet; over 1 ½" and 2", 8 feet
	2" through 3 ½", 10 feet; over 3 ½", 12 feet

Provide additional building attachments where support is required for additional concentrated loads, including valves, in-line pumps, flange guides, strainers, expansion joints and at all changes in direction of piping.

Support cast iron pipe adjacent to each fitting and on centers not exceeding five feet.

At no-hub pipe, support as above, and in addition provide adequate sway bracing to stabilize all components of the system. Provide special support for fixture arms, closet bends, etc.

- 4.4. **At Typical Suspended Horizontal Pipe:** Painted or epoxy coated adjustable clevis or split-ring type equal to Elcen Fig. 12 or 10c. Do not use for refrigerant piping. See part "Hanger Rods" below for limitations on use of clevis hangers. See Refrigerant Piping Support requirements in Section 15700, Refrigerant Piping and Accessories.
- 4.5. **Vertical Piping along Wall:** Elcen Fig. 39 and 37 painted or epoxy coated riser clamps at floors and Fig. 44 standoff brackets toggle bolted to wall. Place under hubs or couplings where at all possible. For piping up to 6" use two-bolt riser clamps. For piping over 6" use four-bolt riser clamps.
- 4.6. **On Insulated Lines:** All piping shall be routed within the building insulation envelope to prevent freezing. **No installation of pipe hangers for insulated piping will be allowed to be in contact with piping or penetrate the piping insulation.** Refer to details on plans for additional requirements. Size hanger loops to fit over insulation. Provide 12" long, 22 ga. galvanized sheet metal, half round saddles, to protect all piping up to 1 1/4".

Provide a preformed, pre-insulated saddle assembly consisting of an integral metal saddle and insulation for piping over 1 1/4". The assembly shall be a 360 degree section of 3.0 pcf density polyisocyanurate pipe insulation. The assembly shall have a 6-mil thickness, .01 perms rated industrial grade vapor retarder film. The insulation shield shall be a G-90 galvanized steel, 360 degree self-clamping and be integral with the insulation. The assembly shall also be provided with an insulation lock joint longitudinal seam. The assembly shall meet the requirements of ASTM D1622 for insulation density, ASTM C518 for thermal conductivity, ASTM D1621 for 50 PSI compressive resistance, and ASTM D374. The insulation jacket shall have a hazard rating not to exceed 25 flame spread and 50 for fuel contributed and smoke developed as determined by ASTM E-84, NFPA 255 and UL 723. The assembly shall be equal to Buckaroos, Inc, Model 3300E of Indianapolis, IN.

- 4.7. **Manifolds and Parallel Runs:** At his option, Contractor may provide a painted or epoxy coated Unistrut system complete with standard fittings, clamps (every other strut) and accessories required. Refer to "Hanger Rods" below for locations that require a unistrut assembly. Furnish for approval proposed system components. Regardless of system used, **piping insulation shall be continuous and not cut away for installation of clamps**, etc.

Unistrut assemblies shall also be provided for refrigerant piping. Refer to Section 15700, Refrigerant Piping and Accessories for additional requirements.

- 4.8. **Where in Contact with Copper Pipe:** Same as above except assembly shall be copper plated.
- 4.9. **Hanger Rods:** Shall be mild steel, threaded as required. Use not smaller than 3/8" rods for pipe 2" and under, 1/2" rods for pipes 2 1/2" through 4", 3/4" rods for 5" through 12" and 1" rods for piping over 12", but generally as standard for the hanger selected. Support rods with threaded Underwriters' listed inserts, expansion shields or beam clamps shall be all galvanized. Beam clamps shall be equal to Elcen Fig. 34 or 36 with rod and eye end.

At bar joists, support from bottom chord at panel points. For piping over 6" provide supplemental steel angle supports and welding to span 3 joists when running parallel to joists and welded angle between two panel points for piping running perpendicular to joists. Concrete inserts shall be equal to Grinnell Figure 282.

Wherever piping hanger support rods exceed 36" length from top of the supported item to the structure above, Contractor shall provide a uni-strut support assembly and provide bracing of the assembly with minimum 1"x1"x1/4" angle iron or as required for the weight of the supported item, whichever is greater, and anchor to structure above to prevent swaying

- 4.10. **Spring Type Pipe Hangers:** Provide as required to isolate pipe vibration from the building.
- 4.11. **Supports for Water Supply Piping in Spaces Behind Plumbing Fixtures:** ABS brackets and U-bolts. Secure the 2-piece brackets to cast iron stacks. U-bolts shall be sized to bear on the pipe. Brackets shall be P&M Bracket Co. or equal.
- 4.12. **Lateral Movement/Swaying of Supports:** Support piping as required to control lateral movement without affecting expansion and construction movement. Install cushion clamp assemblies of type as manufactured by Hydra-Zorb Company.
- 4.13. **Bracing:** Where hanger rods height exceed 36", provide sway bracing as specified above in "Hanger Rods". Bracing shall be provided at every other uni-strut assembly and attached to the building structural system.
- 4.14. **Approved Equivalents:** By Grinnell, Elcen, Stockham or Crane will be accepted.

## **PART 5. MISCELLANEOUS REQUIREMENTS**

- 5.1. **Materials and Equipment:** New and of best quality in every respect. Pipe and fittings shall conform to the ASTM Standard designated for pipe of each material. Equipment shall bear Underwriters Laboratories Inc. (UL) listing label, Canadian Standards Association (CSA) listing label or ETL approved rating. All electrical components and products shall also comply with the respective Code of Federal Regulations (CFR). All pressure vessels shall be constructed and tested in accordance with applicable ASME Codes and shall bear ASME stamps unless specified otherwise. Where conflicts occur between a Code, Standard, Listing and the contract drawings or contract

specifications, the most stringent requirements shall govern and be applied. Where two or more units of the same class of equipment are required, these units shall be products of a single manufacturer, however, the component parts of each unit need not be. All pressure vessels shall be constructed and tested in accordance with applicable ASME Codes and shall bear ASME stamps unless stated otherwise. Minimum pressure rating shall satisfy job conditions. No materials or products which contain asbestos, formaldehyde, lead or mercury, in excess of limits mandated and defined by OSHA, LEED and the EPA, shall be utilized.

- 5.2. **Spare Parts:** Manufacturer of any equipment specified shall have a wholesale outlet for readily available replacement parts in the nearest major USA city.
- 5.3. **Workmanship:** First class, premium and in accordance with best practice. Pipe shall be cut clean, properly reamed, threaded or soldered, erected plumb and secure. Make changes in pipe size with reducing fittings without the use of bushings. Work shall be executed by experienced mechanics and shall present a neat appearance. Install all equipment in accordance with manufacturer's recommendations. Absolute coordination is required with the other Contractors on the project before proceeding with installation of any system or item.

At all stages of installation, protect pipe openings, fixtures, ductwork, condenser coils and equipment against the entrance of foreign materials and from damage by the elements, mortar, paint, etc... If air moving equipment must be used during construction, temporary filtration media with a Minimum Efficiency Reporting Value (MERV) of 8, as determined by ASHRAE 52.2-2012, and shall be installed at each return air grille, return air register, exhaust grille, exhaust register, and unit return air inlet. ALL condenser coils, open portions of ductwork and equipment shall be covered with a self-adhesive film (not visqueen) or airtight sheetmetal caps to prevent the intrusion of contaminants. All equipment openings, duct taps, duct take-offs, etc., shall be protected immediately after the tap, take-off, etc. has been fabricated in the field. In effect, there shall be no ductwork opening or equipment opening that is exposed to the ambient air. The material shall be a minimum of 3 mils thick and have a minimum tensile strength of 10 psi. It shall be waterproof and recyclable. Material shall be DuroDyne Dyn-O-Wrap or approved equivalent. Where bare sheetmetal is delivered unassembled to the job site, all ductwork shall be covered and protected with visqueen. After fabricating the duct in the field, the interior bare metal shall be wiped clean with a clean damp cloth before erection in the field. After erection, duct shall be protected as specified above. Any ductwork discovered to be unprotected as specified is subject to immediate rejection for use on this project.

- 5.4. **Testing Documentation:** Through out the Division 15 specifications, there are various tests required. Provide the Architect written certification and results of all tests specified, including those indicating failure. The absence of written testing certification and results will be considered the same as if testing was never done. Include all testing documentation in the Operating and Maintenance Manuals.
- 5.5. **Factory Finishes:** Furnish to the Architect, color cards for standard and premium colors available. **The Architect shall select color where choices exist.** Provide Manufacturer's standard color where color choices are not available. Coordinate all color selections with appropriate Architectural specification sections.
- 5.6. **Expansion:** Provide for expansion and contraction of all piping, ductwork, etc. and make proper provisions so that excessive strain will not occur on piping, ductwork or



other parts. Provide flexible connections for all piping and ductwork at all building expansion joints.

- 5.7. **Safety Provisions:** Provide covers or guards on all hot, moving and projecting items that could be construed as a hazard to occupants of the building or to service personnel.
- 5.8. **Cleaning and Adjusting:** Upon completion of work, clear all drains, traps, fixtures, ducts and pipe. Adjust all valves, remove rubbish and leave work in clean and excellent operating condition. Install final permanent type filters only after cleaning of building is completed.
- 5.9. **Escutcheons:** Where pipes pass through floors, walls and ceilings of finished rooms provide pressed chrome-plated brass or steel plates securely fastened in place. Pack penetrations with insulation or firestopping compound as required. Caulk pipe openings behind escutcheons to prevent passage of smoke and make vermin proof.
- 5.10. **Identification:** All above ceiling identification specified, including firestopping identification, shall be completed prior to the above ceiling inspection. All remaining identification shall be completed prior to the final inspection. Failure to comply with this provision will be cause for cancellation of the inspection with all costs of the cancelled inspection to be borne by the respective Contractor responsible. All identification shall follow nomenclature used on the plans. Identify all piping, including refrigerant piping, and jacket of insulated pipe exposed to view and/or accessible through removable ceilings, attics or access panels, with Seton "Snap-Around" or Seton "Strap-Around" pipe line markers, Marking Services Inc (MSI) Series MS-970 or approved equivalent. The markers shall be color-coded in accordance with ANSI Standard A13.1. Identification shall bear name of pipe contents and show direction of flow and in the case of gas/air systems, shall indicate pressure of the pipe contents. "Stick-on" type markers are unacceptable. Install markers adjacent to all valves, flanges, fitting, change in piping direction, and both sides of floor and wall penetrations, at each branch take-off and along runs of pipe as required for proper identification but not further apart than 10 feet. Gas piping identification intervals shall be a maximum of 6'-0". Provide piping identification in small areas (closets, storage rooms, etc.) above ceilings where partition walls go to the structure above. Additionally, plumbing system piping identification shall comply with IBC requirements.

Paint all piping and jacket of insulated pipe in Mechanical Rooms and any room with exposed piping with two coats of enamel paint. Colors to be in accordance with ANSI A-13.1 standard. The Contractor shall obtain ANSI A-13.1 and comply with all requirements.

All equipment, smoke detectors, fire dampers, filter access locations, access panels, motor starters, disconnects, thermostats, humidistats, CO2 sensors, other control systems components, control switches, and related devices shall be equipped with engraved laminated plastic nameplates, as described below, but not less than 1/4" high. Filter access locations' identification shall include the size and number of filters required for that specific piece of equipment. Provide identification for all access doors as specified hereinbefore. Refer to Paragraph "Access Panels and Doors" above for requirements.

Labels shall be a minimum of 4" x 3" x 1/16" thick, laminated plastic labels (larger if needed) with 1" high x 1/4" stroke numerals and all capital letters to identify all

equipment furnished under this Section. Labels attached to the ceiling grid shall be the same width as the ceiling grid it is attached to. Properly adjust lettering height to fit within the smaller width label. Red with white lettering or white with red lettering as required for maximum contrast with color of the equipment. In finished areas where identification is attached to the ceiling grid, the Architect shall select colors of materials. Engrave equipment designation and numbers as shown on plan and drawings on upper half of tag, leaving lower half of tag for future engraving by Owner. Where equipment is typed (HP-A, HP-B, EF-A, etc.) rather than numbered (HP-1, HP-2, EF-1, etc.) the tag shall include the room number(s) of the area served. Room numbers shall be as designated by the Owner. In absence of Owner's room numbers, numbers shall be as indicated on the architectural plans. Additionally, each piece of equipment (in-line fan, access door, fire damper, etc.) located above the ceiling shall be identified with an engraved laminated label, of the type specified above, and neatly glued to the ceiling tile grid below the item. Neatly attach identification with permanent adhesive.

Permanently affixed warning labels shall be attached to all equipment, on a highly visible location on the equipment, which can be automatically started. The warning label shall read as follows: ***"CAUTION!! This equipment is operating under automatic control and may start or stop at any time without warning. Switch disconnect switch to "OFF" position before servicing or attempting to work on equipment"***. Permanently affixed warning labels shall be attached to all motor starters and all control panels which are connected to multiple power sources utilizing separate disconnect switches. The warning labels shall read as follows: ***"This equipment is fed from more than one power source with separate disconnects. Disconnect all power sources before servicing or working on this item"***.

Fit all valves (except equipment service valves and sprinkler valves) with engraved laminated plastic valve tags firmly secured with brass jack-chain and s-hooks to valve yoke or stem (not handles) or adjacent pipe. Fabricate tags as 2" x 3" x 1/16" white plastic with beveled corners, engraved both sides with 1/2" high x 1/4" stroke red letters and numerals. Locate numbers at one edge of tag leaving room for future engraving by others. Number tags in sequence, starting with number 1; prefix the number with the trade ("P" for plumbing items and "M" for HVAC/Mechanical items). Also, for each valve identified above the ceiling, provide an engraved laminated label, of the type specified above, and glue to the ceiling tile grid below the valve. Provide a valve chart framed under glass or plastic which shows the number and location of each valve and type of service. Locate a valve chart in each equipment room and each janitor closet. Permanently attach each chart to the wall as directed by the Architect. Include a copy of the valve chart in the Owner's Operation and Maintenance Manuals.

Where the tag, label or marker occurs in a plenum (return air) space, the plastic employed shall carry a Class A Flame Spread Rating per ASTM E-84, and shall meet ASTM D-635 (such as Westinghouse Micarta engraving stock).

Access openings to fire dampers and smoke dampers shall be permanently identified on the exterior of the access panel and on the ceiling grid below by a label having letters not less than 3/4" in height and reading: ***"FIRE DAMPER – DO NOT OBSTRUCT ACCESS"***.

- 5.11. **Firestopping:** Wherever pipes, ducts, hanger rods, etc. penetrate **any type of construction that extends to the underside of the structure above it, whether it is fire rated or not fire rated** (walls, partitions, or floors), the space between the penetrating member and the building construction shall be sealed with a U.L. certified

firestop assembly that provides an effective barrier against the spread of fire, smoke and gas, equal to the rating of the respective wall, partition or floor. Where partitions are not indicated as fire rated, the firestopping assembly used shall be a minimum of one-hour resistance. Where partitions do not extend to the structure above, firestopping material is not required in the penetration. Instead, close the respective openings with insulation and seal with material equal in characteristics of the penetrated partition.

All fire stop material employed on the project must be same brand throughout. At each through penetration, attach identification labels on both sides, in location where label will be visible to anyone seeking to remove penetrating items or firestopping. Attach labels permanently to surfaces adjacent to and within 6 inches of edge of the firestop systems so that labels will be visible to anyone seeking to remove penetrating items or firestop systems. Provide metal labels in areas used as return air plenums. Use mechanical fasteners for metal labels. For plastic labels, use self-adhering type with adhesives capable of permanently bonding labels to surfaces on which labels are placed and, in combination with label material, will result in partial destruction of label if removal is attempted. Labels shall be Hilti Firestop Identification Labels 00339611 or approved equivalent by 3M. Firestop identification labels shall include the following information on labels:

1. The words: "*Warning--Through-Penetration Firestop System--Do Not Disturb. Notify Building Management of Any Damage.*"
2. Contractor's name, address, and phone number.
3. Through-penetration firestop system designation of applicable testing and inspecting agency.
4. Date of installation.
5. Through-penetration firestop system manufacturer's name.
6. Installer's name.

Carefully coordinate work with types of construction encountered and with Para. Pipe Sleeves above.

- 5.12. **Delivery and Storage:** All equipment and materials delivered and placed in storage shall be protected from the weather, humidity and temperature variations, dirt and dust, and other contaminants. See Section 15700 and this Section 15010 for additional requirements for ductwork and equipment.
- 5.13. **Dielectric Isolation:** Provide dielectric isolation where dissimilar metals are joined, at supports, etc. For pipe sizes 2" through 6", copper piping flanges shall be drilled to ANSI B 16.5 150/125 Standard and powder coated, with an EPDM insulator adhered to the plate steel flange protruding inside of the steel flange to prevent contact with the copper flange adapter. The copper component of the flange adapter shall be Third Party Classified by Underwriters Laboratories, Inc. Minimum working pressure shall be 300 psi at 272°F.

## END OF SECTION

## SECTION 15400

### PLUMBING

#### PART 1. GENERAL & MISCELLANEOUS

- 1.1. **General Provisions:** Section 15010 is applicable in full hereto. **No building materials or products which contain asbestos, formaldehyde, lead or mercury, in excess of limits mandated and defined by OSHA, LEED and the EPA, shall be utilized.**
- 1.2. **Scope:** Include all equipment, material and labor required for a complete operating plumbing system even though every item involved is not indicated. Refer to architectural drawings and verify all plumbing fixtures. Notify the architect prior to bid of any discrepancies. Do not attach any items to other trades' assemblies. Items shall be attached to building structural system. Advisory provisions listed in all Codes referenced in the Contract Documents shall be considered mandatory. Where conflicts occur between a Code, Standard, the contract drawings or specifications, the more stringent requirements shall govern and be applicable.
- 1.3. **Qualifications:** Must be properly licensed and established as a Plumbing Contractor at location of the work and shall maintain locally adequate service facilities. He shall have had previous experience in the satisfactory installation of at least six (6) systems of this type, size and scope.
- 1.4. **Spare Parts:** Manufacturer of any equipment specified shall have a wholesale outlet for readily available replacement parts in the nearest major USA city.
- 1.5. **Electrical Work:** All electric power wiring required for installation of equipment under this Section is specified under Electrical Division. Plumbing Contractor shall furnish and install all controls and control wiring as specified or required to properly complete the installation. Control conduit is specified under Electrical Division or shown on electrical drawings; all other control conduit shall be provided under this Section of the work. Electrical work performed under this Section shall meet requirements set forth in the Electrical Division.
- 1.6. **Submittals:** Refer to Section 15010 for requirements.
- 1.7. **Identification:** **Refer to Section 15010 for identification and firestopping identification requirements. There are specific requirements prior to the above ceiling and final inspections, respectively, that are mandatory.** The identification section of the specification is extensive. The Contractor shall refer to Section 15010, review and provide all identification requirements specified..
- 1.8. **Firestopping:** Refer to Section 15010 for requirements. **Note that Division 15 firestopping specifications require firestopping of all penetrations regardless of wall/ceiling/floor construction. Refer to Division 1 for additional requirements.** Where there is a conflict between Division 1 specifications and Division 15 specifications, the most stringent requirements shall govern, be applicable and shall be provided.
- 1.9. **Bound and Framed Instructions:** **Two weeks before final inspection,** furnish three complete sets of operating and maintenance instructions, bound in hard cover,

indexed and tabbed. The first sheet in the bound instructions shall be a list with each product, name, address and telephone number of:

- a. Subcontractor or installer.
- b. Table of Contents listing all products numbers in the order which they appear in the specifications and label the tab accordingly. Include all "P" numbers also.
- c. Local source of supply for parts and replacement
- d. Include wiring and control diagrams with explanatory data describing start-up, operation and shutdown; operating and maintenance instructions for each piece of equipment; manufacturer's bulletins and catalog data; parts list and recommended spare parts. Fold in large sheets of drawings.
- e. Provide a list indicating all routine maintenance procedures based on the respective manufacturer's recommended intervals
- f. Provide drawings of system and wiring diagrams, condensed operating instructions and include in binder. All components shall be numbered and identified on diagram.
- g. Record drawings of the Plumbing drawings in hard copy and PDF format.
- h. Provide written results of all tests specified.
- i. Provide domestic water samples testing and results specified.
- j. All cleanouts shall be indicated on record/as-built drawings.

Additionally, the Contractor shall provide all of the aforementioned information in digital Adobe Acrobat PDF format. The PDF file shall be provided with an embedded index for each item specified. It shall appear in the left hand window of the opened document so that the Owner or his maintenance personnel can "click" on the indexed item and move immediately to that specific item.

## **PART 2. TESTS**

- 2.1. **General:** Perform all tests in the presence of the Architect. Refer to Division One for Fuel, water and power required therefore. In absence of specific testing procedure comply with code requirements and/or nationally acceptable industry standards. Furnish written reports of all tests results specified to Architect.
- 2.2. **Drainage and Vent System:** Plug all openings, fill entire system with water to point of overflow and hold for at least one hour before inspection. System must remain full during the test without leakage. Each vertical stack with its branches may be tested separately, but any portion tested must have minimum ten-foot head.
- 2.3. **Water Supply System:** Test and secure acceptance of entire system before the piping or hot water storage heaters are insulated or otherwise concealed. Test as follows: disconnect and cap all outlets to plumbing fixtures and all other equipment not designed for the full test pressure. Fill the system with water; apply 150 psi hydrostatic pressure and hold for a minimum of two hours without pressure loss. All piping throughout shall be tight under test. Water piping shall remain under normal water pressure during construction except when freezing weather is expected.
- 2.4. **Fixtures:** Test for soundness, stability of support and satisfactory operation.

## **PART 3. SANITARY PIPING**

- 3.1. **Scope:** Provide a system of soil, waste and vent piping connecting all plumbing fixtures, equipment, etc. to the house sewer, with **consolidated vent connections** extending through the building roof, all as shown on the drawings and as required for complete installation. Rework existing waste roughing as required to facilitate renovation work.
- 3.2. **Soil, Waste and Vent Piping Inside the Building Walls and to Points Outside the Building as Indicated:** Provide service weight hub-and spigot cast iron soil pipe and fittings for underground service and hubless for above ground service, meeting ASTM A-74 for hub and spigot and ASTM A-888 for hubless, coated inside and out. Pipe exposed within the building shall be uncoated outside and left clean for painting. Fittings to receive screwed pipe arms shall be recessed drainage type. Soil and waste pipe shall have long sweep connections. All cast iron soil pipe and fittings shall be marked with the collective trademark of the Cast Iron Soil Pipe Institute (CISPI) and be listed by NSF International.

Joints for hub and spigot pipe shall be made with compression gaskets meeting ASTM C-564. Joints for hubless pipe and fittings shall be equivalent to MG couplings meeting ASTM A-48 and C-564, or Husky "SD-4000" heavy-duty couplings of Type 304 stainless steel, meeting ASTM C 1540 standard.

**Option:** Contractor may use solid wall PVC schedule 40 DWV pipe and fittings meeting ASTM Standard D2665 and 1785 for above ground service and underground service. Use cast iron in areas used as return air plenums, return air platforms and where passing through or within a fire rated assembly. All vents thru roof shall be cast iron pipe (minimum 18"), secure cast iron VTR to structure with heavy gauge 1-hole strap. All floor drains shall have **cast iron** deep seal p-trap. **"Cellcore" piping is not allowed.** In kitchen area, the grease line below the floor shall be equivalent to Zurn Flame Retardant polypropylene schedule 40 pipe and fittings. Provide fusion joints below ground and mechanical joints above ground. Make joints in strict accordance with manufacturer's recommendations. Equivalent products as manufactured by Enfield, Orion, GEO and Fisher will be accepted. Piping and fittings above the floor shall be solid wall PVC schedule 40 DWV pipe and fittings as specified hereinbefore.

- 3.3. **Laying Out Work:** Vents from any fixture, when connected to a vent line serving other fixtures, shall be extended at least 6 inches above flood level rim of highest of such fixtures to prevent use of vent lines as a waste. Make changes in direction by appropriate use of 45 degree Y's, 1/2 Y's, or long sweep 1/4, 1/6, 1/8 or 1/16 bends. Sanitary T's or short 1/4 bends may be used on vertical stacks or drainage lines where change in direction of flow is from horizontal to vertical; except that long-turn TY's shall be used when two fixtures are installed back to back with common drain. Straight T's, Ells and Crosses may be used on vent lines. Make no change in direction of flow greater than 90 degrees. Where different sizes of drainage pipe or fittings are connected use standard increasers and reducers of proper size. Do not reduce size of drainage piping in direction of flow. Drilling and tapping of house drains, soil, waste or vent pipes, and use of saddle hubs and bands are prohibited. **All plumbing vents through the roof shall be located a minimum of 10'-0" away from all outside air intakes.** Coordinate all plumbing vents locations with the HVAC plans.

Do not begin work until elevation of final connection point is verified and grading of entire system can be determined (even if final connection is specified under another Section).

- 3.4. **Hangers:** Support cast iron and PVC pipe adjacent to, and on both sides of, each fitting, take-off and on centers not exceeding five feet with hangers as specified herein. Rigidly support base of vertical runs with solid masonry or concrete.

At no-hub pipe, support as above, and in addition provide adequate sway bracing to stabilize all components of the system. Provide special support for fixture arms, closet bends, etc.

- 3.5. **Grading:** Uniform and not less than 1/8" PLF for pipe 4" and over, and not less than 1/4" PLF for 2" and 3" piping.
- 3.6. **Waste Arms:** Type K copper or IPS brass pipe typical; Schedule 40 PVC or IPS brass pipe at urinals.
- 3.7. **Test Fittings:** Not shown on the drawings; provide where required for partial tests.
- 3.8. **Miscellaneous Joints:** Where cast iron pipe joins clay or transite pipe, make joint by caulking with jute and filling (at one pouring) with hot compound meeting FS SS-C-608.

Use slip joints and unions only upstream from a trap seal.

#### **PART 4. WATER PIPING**

- 4.1. **Scope:** Connect to water main as indicated and extend to all plumbing fixtures, hose bibbs, water heaters, etc.; and to HAC, kitchen, laundry and special equipment as indicated or required. Rework existing water roughing as required to facilitate renovation work. Refer to Section 15010 for hanger rods, hangers, spacing and uni-strut support assembly requirements.
- 4.2. **General Workmanship:** Cut accurately to measurements established at site and work into place without springing or forcing, properly clearing all openings, finished ceilings, etc. All piping with valves and other items which may require maintenance access shall be located no more than 24" above the finished ceiling and no more than 10'-0" in areas without ceilings. Piping located in attics shall be supported such that maintenance access can be accomplished without the use of a ladder. Route all piping through previously built in sleeves and avoid excessive cutting or other weakening of the structure. Ream all piping to remove burrs. Make changes in direction and size with fittings. Cap or plug open pipe ends during installation to keep out foreign material. Make connections carefully to insure unrestricted flow, eliminate air pockets, and to permit complete drainage of the systems. Supply piping to fixtures, faucets, hydrants, shower heads and flush valves shall be anchored to prevent movement. Install all buried piping with at least 36" of earth cover. All piping below slab-on-grade construction shall be installed in plastic jacket equivalent to Plasti-sleeve, as manufactured by Plastic Products Co. of Stanton, California.
- 4.3. **Freeze Protection:** Do not install piping in spaces subject to freezing. Install piping within building insulation envelope.
- 4.4. **Grading:** Grade pipe upward from source to facilitate drainage and air relief. Where low points are required because of long runs or where sections may be valved off,

provide with 3/4" globe valve and hose nipple for drainage at low point. Make all connections to risers and fixtures from top of mains.

- 4.5. **Nipples:** Of same material as pipe in which they are installed; provide extra strong when unthreaded portion is less than 1 inch long.
- 4.6. **Piping and Fittings:** Typical lines to be of copper tubing meeting ASTM B-88, Type "L" hard above ground and Type "K" soft below ground. Make up joints with sweat fittings of wrought copper, and 95-5 or Harris "BRIDGIT" lead free solder complying with ASTM B-32-89. Surfaces shall be cleaned with steel wool or emery cloth before applying. Do not make joints or branch connections below a slab on grade. **All 90° and 45° elbows and fittings shall be full radius, long sweep, with radius 1.5 times the pipe diameter. All offsets of water piping shall be made with 45° fittings in lieu of 90° fittings wherever possible.**
- 4.7. **Disinfection:** Disinfect and test the entire distribution system as required by AWWA C651-14, The International Plumbing Code, the City Water Works and The Alabama State Board of Health before acceptance for domestic operation. Plumbing Contractor shall engage the services of a certified, licensed, testing laboratory to provide a bacteriological water analysis to include a standard heterotrophic plate count (HPC), microbial, bacterial, pathogens and coliform count. Test a minimum of three (3) samples of domestic water from three (3) separate locations within the facility. Test locations shall be selected by the Architect. In addition to the three (3) locations required for testing, the supply line feeding the Kitchen area (if project contains a Kitchen) shall also be tested, thereby requiring a total of four (4) test locations. **Prior to the final site visit**, the Contractor shall provide to the Architect, certified test results confirming the disinfection of the domestic water system. The testing laboratory shall provide an analysis of the findings and indicate whether the water is safe for consumption. If the lab results indicate an unacceptable level of microbial, bacterial, pathogens and coliform or an HPC greater than 500 CFU/mL, the Contractor shall disinfect the system in its entirety and obtain new test results as outlined hereinbefore until levels are reached as required by AWWA C651-14. **No Certificate of Occupancy will be provided to the Owner without the required lab results indicating the potable water system is safe for consumption.** The Testing Laboratory shall identify the locations tested in its report.
- 4.8. **System Drainage:** Provide valves and hose nipple to allow for drainage of all risers and other system low points.

## **PART 5. WATER PIPING SPECIALTIES**

- 5.1. **General:** All valves in insulated piping, temperature wells, pressure wells and similar items shall be provided with extended stems, operators, etc. as required to provide a minimum of 1" of clearance between the outside of the insulation jacket and the valve handle, well nipples, etc.. Seal the opening where the stem, nipple, etc., penetrates the insulation as required to maintain the continuity of the insulation and vapor barrier.
- 5.2. **Unions:** 150 lb. rated; cast brass ground-joint type in copper pipe, galvanized malleable iron in wrought iron or galvanized pipe. Provide in all sizes of threaded pipe, and in sweat-jointed pipe over 1 inch, so as to facilitate easy repairs. In such lines install adjacent to water heaters, pumps, tanks, etc. into which piping is



terminated; and on at least one side of valves, cocks, strainers, etc. and other devices which occur in piping runs.

Provide dielectric unions between ferrous and non-ferrous piping (including piping and water heater stubs where different).

- 5.3. **Valves:** Provide where shown and/or specified, including all fixtures or equipment not furnished with stops. All valves of each type shall be the product of one manufacturer, Nibco units as indicated below, or equivalents by Watts, Hammond or Apollo. All valves shall be rated equivalent to Nibco Figure numbers. Arrange and install valves to be readily accessible for servicing.

**Ball Valves for Water Piping in Size ½" through 3":** Valve shall be "Lead-Free" forged bronze/forged brass, 600 PSI CWP, 150 PSI WP, two-piece body, full port, blowout proof stem, PTFE seats, steel lever handle with plastic covering. Valve shall meet NSF, ANSI, FM, UL and MSS SP-110 standards. Approved valve manufacturers by Nibco, Watts, Hammond, Apollo and Kitz.

## **PART 6. PIPE HANGERS AND SUPPORTS**

- 6.1. **General:** Refer to Section 15010.

## **PART 7. PIPE INSULATION**

- 7.1. **General Provisions:** All work by experienced insulation subcontractor whose primary business is the installation of insulating materials in accordance with insulation manufacturers' recommendations. Piping must be clean, dry and pressure tested before covering is applied. Size pipe hangers to fit insulated pipe size. **No installation of pipe hangers for insulated piping will be allowed to be in contact with piping or penetrate the piping insulation. Piping insulation shall be continuous and not cut away for installation of clamps, etc. Refer to details on plans for additional requirements.** See Section 15010, "Pipe Hangers and Supports" for additional requirements. Cover fittings, valves and flanges with insulation material as hereinafter specified to same thickness as adjacent pipe covering except screwed unions in hot piping and other specifically named items. Neatly bevel covering edges adjacent to unions and other points of termination and seal ends. All insulation material (including coatings, mastics, jackets and adhesives) shall have a composite flame spread rating not to exceed of 25 (with no fuel contributed and smoke developed) as determined by ASTM E-84, NFPA 255 and UL 723.
- 7.2. **Scope:** Insulate all hot and cold water piping except that below grade, and excluding plated brass fixture connections. All piping shall be routed within the building insulation envelope to prevent freezing. Insulate rainwater drainage system as noted in that Part. Insulate all p-traps located in return air plenums, horizontal overhead drain lines, including p-traps, from mechanical room floor drains, ice machine drains, cooler drains and other condensate receiving floor drains, to the respective riser same as cold water piping. Include all overhead floor drain sumps and vertical pipe connection.

- 7.3. **Insulation:** No installation of pipe hangers for insulated piping will be allowed to be in contact with piping or penetrate the piping insulation. Refer to details on plans for additional requirements. Size hanger loops to fit **over** insulation. Glass fiber insulation, CertainTeed Snap-on, ASJ-SSL with kraft-foil-laminated jacket, or equivalent by Owens-Corning or JM. Apply by sealing longitudinal jacket flaps and jacket bands (butt strips) with adhesive and with insulation staples on 4" centers. Insulation staples shall be coated with a vapor retarder coating, PVDC adhesive tape or greater than 3 ply laminate jacket (less than 0.0000 perm) adhesive tape. Provide 3" wide jacket material butt strips at joints and at mid-points of lengths.

Insulation thickness shall be 1".

- 7.4. **Fittings:** Insulate with Fiberglas low pressure pipe covering mitered to fit snugly or fiberglass inserts of the same thickness as the pipe covering. Regardless of method used, each shall be finished with premolded PVC covers.
- 7.5. **Exposed Ends:** Finish open ends of sectional covering by rounding off with cement, and sizing with fiberglass cloth jacket around the pipe and finish with Foster 30-36 mastic cement.
- 7.6. **At Walls and Floors:** Refer to Section 15010 Pipe Sleeves. In any case insulation shall extend through floors, partitions and walls.
- 7.7. **At Hangers:** Provide 12" long, 22 ga. galvanized sheet metal, half round saddles, to protect all piping up to 1 1/4". Provide a preformed, pre-insulated saddle assembly consisting of an integral metal saddle and insulation for piping over 1 1/4". The assembly shall be a 360 degree section of 3.0 pcf density polyisocyanurate pipe insulation. The assembly shall have a 6-mil thickness, .01 perms rated industrial grade vapor retarder film. The insulation shield shall be a G-90 galvanized steel, 360 degree self-clamping and be integral with the insulation. The assembly shall also be provided with an insulation lock joint longitudinal seam. The assembly shall meet the requirements of ASTM D1622 for insulation density, ASTM C518 for thermal conductivity, ASTM D1621 for 50 PSI compressive resistance, and ASTM D374. The insulation jacket shall have a hazard rating not to exceed 25 flame spread and 50 for fuel contributed and smoke developed as determined by ASTM E-84, NFPA 255 and UL 723. The assembly shall be equivalent to Buckaroos, Inc, Model 3300E of Indianapolis, IN.

## **PART 8. FIXTURES SUPPORTS, CONNECTIONS AND MOUNTING HEIGHTS**

- 8.1. **General:** All fixtures including lavatories, urinals, water closets, electric water coolers, etc., must be securely fastened to the walls or floor.
- 8.2. **Floor Connections:** Provide cast iron or galvanized malleable iron floor flanges at least 3/16" thick, screwed or caulked to drainage pipe. Bolt the connection and make tight to fixture with plumbing fixture setting compound, wax setting ring or polyethylene gasket flange. Offset flanges for water closets are not allowed.
- 8.3. **Water Supply Connections:** Provide brass nipple from water riser to fixture stop valve (steel pipe will not be approved). Exposed portion of nipple shall be chromium

plated.

8.4. **Waste Arms to Fixtures:** As specified hereinbefore. Where copper or brass pipe is specified, all joints downstream from the trap shall be soldered joints.

8.5. **Mounting Heights:** Coordinate all mounting heights with Architectural plans prior to roughing in or ordering fixtures

## **PART 9. SCHEDULED FIXTURES AND MISCELLANEOUS ITEMS**

9.1. **Acceptable Manufacturers:** Fixtures listed are from Kohler Catalog. Equivalent products by Toto, American Standard, Zurn, Beneke, Olsonite, EBC or Just will be accepted.

9.2. **Fixture Trim:** Exposed metal parts to be of heavy weight polished brass, heavily chromium plated, of best quality as regularly furnished by the plumbing fixture manufacturer. Provide stop valve in supply to all fixtures and equipment.

9.3. **Compliance with Americans Disabilities Act:** All handicapped fixtures, faucets, flush valves, clearances, and installation shall comply with requirements of the Americans Disabilities Act.

9.4. **Scheduled Items: See drawings.**

## **END OF SECTION**

## Division 16



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Prepared by Kenneth R. Gunn Jr., P.E.

**SECTION 16100**  
**ELECTRICAL**

**PART 1 - GENERAL**

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**1.01. RELATED DOCUMENTS:**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections apply to work specified in this section.

**1.02. QUALIFICATIONS OF ELECTRICAL CONTRACTORS:**

- A. Electrical contractor must be properly established as an electrical contractor by the State of Alabama. Electrical contractor shall have had previous experience in the satisfactory installation of at least three systems of this type and size in the State of Alabama.

**1.03. CODES, PERMITS AND INSPECTIONS:**

- A. Comply with applicable laws of the community, with latest edition of National Electrical Code (NEC), NFC 70, and the International Building Code (IBCC) or the edition adopted by the local authority having jurisdiction, where not in conflict with those laws, and with the service rules of the local utility company.
- B. Obtain and pay for all permits and deposits, and arrange for inspections as required.
- C. After completion of the work, submit certificate of final inspection and approval from the local electrical inspector, certifying that the installation complies with all regulations governing same.

**1.04. MATERIALS:**

- A. All materials shall be new, and UL approved where a standard has been established.
- B. Manufacturers' names and model numbers shown on the plans and in the specifications are given to indicate the type and general quality of items to be provided. Equal products by other manufacturers will be accepted.
- C. Material substitutions will be considered only when evidence of equality and suitability, satisfactory to the Architect/Engineer has been presented in writing, with samples if requested by the Architect/Engineer. All prior approvals must have the approval of the engineer of record at the offices of Gunn and Associates, P.C. located at 3102 Highway 14, Millbrook, AL 36054, Phone: 334-285-1273, Fax: 334-285-1274
- D. All proposed substitutions shall be approved in writing at least ten (10) days prior to the bid date.
- E. It shall be understood that the Architect/Engineer has the authority to reject any material or equipment used which is not specified or approved, or showing defects of manufacture or workmanship, before or after such material or equipment is installed.

**1.05. WORKMANSHIP:**

- A. Execute all work so as to present a neat and workmanlike appearance when completed.

**1.06. DESCRIPTION OF WORK:**

- A. Furnish all labor and materials required to complete the electrical work indicated on the drawings or herein specified. Major work included in Section 16 shall be:
- B. Arrange with the local utility companies for providing such electrical services as indicated on drawings or herein specified. Any charges for electrical service to the facility by the utility company shall be included in the contractor's bid price.
- C. Remove or relocate all electrical or electronic services located on or crossing through the project property, either above or below grade, which would obstruct the construction of the project or conflict in any manner with the complete project or any code pertaining thereto.
- D. Furnish and install a complete electrical light and power system including but not limited to the connection of all meters, switchboards, panelboards, circuit breakers, power outlets,

convenience outlets, lighting fixtures, switches, and/or other equipment forming part of the electrical system.

- E. Furnish and install a complete system of outlet boxes, face plates, conduit raceways, backboard, and service entrance conduit for the communications system.
- F. Connect all electrical equipment whether furnished by this contractor or by others.
- G. Furnish and install all disconnect switches not included as an integral part of equipment.
- H. Furnish and install a complete Lighting Devices.
- I. Complete the alterations, additions, and renovations to the electrical system in the existing building as specified herein or as shown on the drawings.
- J. Procure and pay for permits and certifications as required by local and state ordinances and Fire Underwriters certificate of inspection.
- K. Visit the site and determine conditions that affect this contract. Failure to do so will in no way relieve the Contractor of his responsibility under his contract.
- L. Submit to the Architect a certificate of final inspection from local and/or state inspection authorities.
- M. Establish and maintain temporary electrical services for construction purposes.

#### **1.07. DRAWINGS AND SPECIFICATIONS:**

- A. This Contractor shall examine drawings and Specifications relating to the work of all trades and become fully informed as to the extent and character of work required and its relation to all other work in the project prior to submission of bid and prior to the start of any construction.
- B. Drawings and Specifications shall be considered as complementary each to the other. What is called for by one shall be as binding as if called for by both. Where conflicts occur, secure clarification from the Architect in advance of bidding; otherwise incorporate the more stringent conditions into the bid price.
- C. Omissions from the drawings and specifications or the mis-description of details of work which are evidently necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the Contractor from performing such omissions and details of work; they shall be performed as if fully and correctly set forth and described in the drawings and specifications
- D. The drawings indicate diagrammatically the extent, general character, and the approximate location of the work to be performed. In the interest of clearness, the work is not always shown to scale or exact location. Check all measurements, locations of conduit, fixtures, outlets, and equipment with the detailed architectural, structural, and mechanical drawings, and lay out work so as to fit in with ceiling grids, ductwork, sprinkler piping and heads, and other parts. Take finished dimensions at the job site in preference to using scale dimensions.
- E. Where the work is indicated but with minor details omitted, furnish and install the work complete so as to perform its intended functions.
- F. Where doubt arises as to the meaning of the plans and specifications, obtain the Architect's decision before proceeding with parts affected; otherwise assume liability for damage to other work and for making necessary corrections to work in question.
- G. Except as noted above, make no changes in or deviations from the work as shown or specified except on written order of the Architect.

#### **1.08. EXISTING CONDITIONS:**

- A. Before submitting a bid, visit the site and ascertain all existing conditions.
- B. Make such adjustments in work as are required by the actual conditions encountered.
- C. No consideration will be given after bid opening for alleged misunderstandings regarding utility connections, integration of work with existing system, or other existing conditions.

#### **1.09. SUBMITTALS:**

- A. Follow procedure outlined in Division 1.

- B. Submittals shall be bound together and shall include a coversheet indicating the following:
  - 1. Project name
  - 2. Trade contractor's name
  - 3. Supplier's name
  - 4. Name and phone number of supplier's contact person
  - 5. A list of each item submitted with manufacturers' names and model numbers.
- C. Within 20 days of award of contract and prior to beginning any work on the project submit six (6) copies of manufacturer's drawings/data sheets for the following items to the Engineer for review:
  - 1. Conductors
  - 2. Wiring Devices
  - 3. Conduit Wrapping Tape
  - 4. Switchboards
  - 5. Panelboards
  - 6. Power system breaker coordination. Submit proper breaker settings recommendations with breaker coordination study.
  - 7. Contractor shall coordinate with mechanical/plumbing shop drawings prior to submitting power package to engineer. Adjust overcurrent devices accordingly.
  - 8. Disconnect Switches
  - 9. Fire Stopping
  - 10. Lighting Control System: Include conduit and cable layout, terminal to terminal wiring showing color code and wire numbers, and complete technical data on each system component. Furnish the Owner one set of as built drawings at completion of the project. Coordinate with lighting control riser on drawings for further shop drawings requirements.
  - 11. Lighting Fixtures (include photometric data for each fixture)
    - a. Lamps
    - b. Ballasts
  - 12. Fixture Support Equipment
  - 13. Secondary Surge Arresters
  - 14. Transient Voltage Surge Suppressors(Surge Protective Devices)
- D. Submit samples upon request.
- E. The Contractor is responsible for verifying all quantities and for verifying and coordinating dimensional data with the available space for items other than the basis of design.
- F. Provide a 1/2"= 1'- 0" scale drawing of all electrical rooms containing more than a single panelboard section or containing a panelboard and other electrical and/or mechanical equipment. These drawings shall be submitted along with equipment data sheets.
- G. The contractor shall review and approve, or make appropriate notations on each item prior to submittal to the architect. Submittals without contractor's approval will be rejected.

#### **1.10. COORDINATION OF SERVICE WITH OTHER TRADES:**

- A. It shall be the responsibility of the Electrical Contractor to coordinate the electrical service characteristics to each piece of electrically operated equipment with all trades providing electrically operated equipment.
- B. Within ten (10) working days of notification to proceed with construction from the Architect, the Electrical Contractor shall notify, in writing, all trades providing electrically operated equipment the characteristic of the electrical power being supplied to each piece of electrically operated equipment.
- C. A copy of this notification shall be provided to the General Contractor and the Architect.
- D. Be informed as to equipment being furnished by other trades, but not liable for added cost incurred by equipment substitutions made by others which require excess electrical wiring or equipment above that indicated on drawings or specified.
- E. The contractor providing the equipment shall be responsible for the additional costs.

#### **1.11. PROGRESS OF WORK:**

- A. Schedule work as necessary to cooperate with other trades, Do not delay other trades. Maintain necessary competent mechanics and supervision to provide an orderly progression of the work.

**1.12. PROTECTION OF PERSONS AND PROPERTY DURING CONSTRUCTION:**

- A. Take all precautions necessary to provide safety and protection to persons and the protection of materials and property.
- B. Protect items of equipment from stains, corrosion, scratches, and any other damage or dirt, whether in storage, at job site or installed. No damaged or dirty equipment, lenses, or reflectors will be accepted.
- C. Live panelboards, outlets, switches, motor control equipment, junction boxes, etc., shall be protected against contact of live parts and conductors by personnel.

**1.13. CLEANING UP:**

- A. During the progress of work, keep the Owner's premises in a neat and orderly condition, free from accumulation of debris resulting from this work. At the completion of the work, remove all material, scrap, etc. not a part of this Contract.

**1.14. AS-BUILT DRAWINGS, AND OPERATING AND MAINTENANCE INSTRUCTIONS:**

- A. Prior to the Final Acceptance Inspection the Contractor shall turn over to the Architect one set of reproducible "as built" drawings, including corrected fire alarm system shop drawings, three (3) sets of all equipment catalogs and maintenance data, manufacturers' warranties, and three (3) sets of shop drawings on all equipment.

**1.15. TESTING:**

- A. Upon completion of the work, conduct a thorough test in the presence of Architect or his representative, and demonstrate that all systems are in perfect working condition.

**1.16. INSPECTIONS:**

- A. The contractor shall have all systems ready for operation and an electrician available to remove panel fronts, coverplates, fixture doors, etc., at the final inspection and any other scheduled inspections.

**1.17. DEMONSTRATION:**

- A. By on-off, stop-start operation, demonstrate to the Owner or his representative, the use, working, resetting, and adjusting of each and every system. Submit statement initialed by the Owner that such demonstration has been made.

**1.18. WARRANTY:**

- A. Warrant the entire electrical system in proper working order. Replace, without additional charge, all work or material that may develop defects (ordinary wear and tear or damage resulting from improper handling excepted) within a period of one year from date of final to general contractor. Provide the owner with two bound copies of all manufacturers' warranties.

**1.19. TEMPORARY SYSTEMS:**

- A. The Electrical Contractor shall be responsible for furnishing and installing equipment and materials necessary for providing electrical power and lighting where needed for the construction of the project.
- B. Electrical Contractor will be responsible for paying for and providing temporary construction power and lighting for entire job site. Coordinate with local jurisdictions and utility companies and pay all fees necessary to get temporary power to the job site. General Contractor shall be responsible for all monthly utility cost for duration of project or date of substantial completion.

**1.20. SERVICE INTERRUPTION CLEARANCE WITH OWNER:**

- A. Before submitting a proposal, check with the Owner concerning interruption of service to the existing electrical systems. No interruption shall be made except at such time and for such duration as approved by the Owner. The Contractor's bid shall include all necessary over-time and weekend work.



### **1.21. DEFINITIONS:**

- "AWG" - American Wire Gauge
- "ADA" – Americans with Disabilities Act
- "As required" - Any and all items required to complete the installation of an item so as to perform its intended function.
- "Circuiting" - Conductors, raceways, raceway fittings, and associated hardware.
- "EMT" – Electrical Metallic Tubing, "thin wall"
- "IBC" – International Building Code
- "Install" - furnish, install, and make all necessary connections to and/or for the item(s) indicated or specified.
- "NEC" - National Electrical Code, ANSI/NFPA 70, latest edition or the edition adopted by the authority having jurisdiction.
- "Necessary" - Any and all items required to complete the installation of an item so as to perform its intended function.
- "NEMA"- National Electrical Manufacturers' Association
- "NFPA" - National Fire Protection Association
- "PVC Conduit" – Rigid Nonmetallic Polyvinyl Chloride conduit
- "RGS Conduit" – Rigid galvanized steel conduit
- "UL" - Underwriters' Laboratories, Inc.

## **PART 2 - MATERIALS**

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### **2.01. GENERAL:**

- A. This section includes all basic materials for raceways, fittings, busways, conductors, panelboards, lighting fixtures and accessories, etc., as required for a complete installation.
- B. All materials shall be new and listed by the Underwriters Laboratories. Material substitutions will be considered only when evidence of equality and suitability, satisfactory to the Architect has been presented in writing, with samples if requested by the Architect.
- C. It shall be understood that the Architect/Engineer has the authority to reject any material or equipment used which is not specified or approved, or showing defects of manufacture or workmanship, before or after such material or equipment is installed.

### **2.02. CONDUITS:**

- A. Rigid Metal (Galvanized Steel-RGS) Conduit: Rigid metal conduit shall be mild steel piping, galvanized inside and outside, and conform to ASA Specification 080.1 and Underwriters' Laboratories Specifications. By Sprang, Republic, Wheatland, Triangle or Pittsburgh.
- B. Intermediate Metal Conduit (IMC): IMC shall be hot dipped galvanized inside and outside and manufactured in accordance with U.L. Standard #6 or #1242. By Allied or approved equal.
- C. Electrical Metallic Tubing (EMT): EMT shall be high grade steel electro-galvanized outside and lacquer or enamel coating inside and conform to ASA Specifications 080.1 and Underwriters' Laboratories Specifications. By Sprang, Republic, Wheatland, Triangle or Pittsburgh.
- D. Rigid Nonmetallic Conduit (PVC): PVC conduit where exposed shall be high impact Schedule 80; below ground and below or in slab PVC shall be of high impact Schedule 40 PVC and shall conform to Underwriters' Laboratories Standard UL-651. By Carlon, Kraley Pittsburgh, R.G. Sloan or Southwestern.
- E. Rigid Aluminum: Rigid Aluminum conduit shall be manufactured from 6063, t-1 aluminum alloy and shall meet the requirements of Federal Spec. WW-C-540c and ANSI C80.5 and shall be U.L. listed in accordance with UL-6. Equal to products by V.A.W. of America.

### **2.03. COUPLINGS, FITTINGS, AND CONNECTORS:**

- A. RGS & IMC: By Appleton, Crouse-Hinds, Efcor, O-Z/Gedney, Raco, or Republic.
- B. EMT: EMT fittings shall be all steel type setscrew or insulated throat compression type. Pressure indented or slip fit type will not be accepted. All connectors to be insulated. By Appleton, Efcor, Raco Steel City, or Thomas & Betts.

- C. PVC: PVC fittings shall be of high impact PVC Schedule 40 or Schedule 80 to match the installed conduit. Joints shall be made with PVC solvent cement as recommended by manufacturer. By Pittsburgh, R.G. Sloan or Carlon.
- D. Rigid Aluminum: Fittings used with Rigid Aluminum conduit shall be formed of the same alloy as the conduit or shall be copper free cast aluminum unless specifically indicated otherwise.

**2.04. CONDUIT BODIES:**

- A. Conduit bodies shall be malleable iron except in kitchen, dishwashing, and waste water treatment areas conduit bodies shall be copper free cast aluminum with stamped aluminum covers.
- B. Covers shall be screw retained with wedge nut or threaded body. Covers on bodies installed outdoors shall be approved and rated for installation outdoors.
- C. Bodies shall comply with NEC 370 and 373.
- D. RGS & IMC: By Appleton, Crouse-Hinds, Efcor, O-Z/Gedney, Racor, or Republic.
- E. Conduit cannot be used as ground. Provide separate insulated green grounding wire.

**2.05. BUSHINGS:**

- A. Bushings up to and including 1" shall have a tapered throat.
- B. Bushings 1-1/4" and larger shall be the insulating type.
- C. Grounding bushings shall be specification grade insulated grounding type bushings with tin plated copper grounding saddles and shall be equal to O-Z/Gedney Type BLG or HBLG.
- D. Bushings shall be zinc plated malleable iron or copper free cast aluminum.
- E. Bushings for terminating Data, Telecommunications, control, CATV, and similar conduits above ceilings and at backboards may be PVC or Polyethylene insulating bushings equal to those manufactured by Arlington Industries and Bridgeport Fittings.

**2.06. EXPANSION FITTINGS:**

- A. Conduit Expansion Joints shall be UL Listed.
- B. Expansion joints in rigid metal conduits shall consist of a threaded malleable iron body, pressure bushing, watertight packing, pressure ring, gasket, insulating bushing, and external grounding jumper, and shall be equal to O-Z Gedney Type AX with Type BJ bonding jumper.
- C. Expansion joints for EMT conduit shall be same as above with additional EMT couplings and connectors, and shall be equal to O-Z Gedney Type TX with Type BJ bonding jumper.
- D. Expansion joints in PVC conduit shall be equal to Carlon Series E945.
- E. Expansion joints shall provide a minimum of 4" of conduit movement.

**2.07. BELOW GRADE THRU WALL WATER SEALS:**

- A. Thru wall water seals for conduits penetrating exterior below grade concrete walls shall be seal systems by O-Z/Gedney or The Metraflex Company.
- B. Thru wall water seals for conduits penetrating exterior below grade concrete walls shall be Metraseal thru wall water seals by The Metraflex Company.

**2.08. CONDUIT ACCESSORIES:**

- A. Conduit clamps and supports for metallic conduit shall be galvanized steel by Efcor, Steel City, or Mineralac. Conduit fittings by Appleton, Crouse-Hinds, O-Z/Gedney, Pyle-National or approved equal.
- B. Conduit clamps and supports for nonmetallic conduit shall be nonmetallic high impact PVC by Carlon, Pittsburgh, or Sloan.
- C. Conduit clamps for aluminum conduits shall be stainless steel or cast copper free aluminum with stainless steel fasteners.

**2.09. FLEXIBLE CONDUIT:**

- A. Liquidtight flexible metal conduit:

1. Neoprene-jacketed liquidtight flexible metal conduit.
2. Equal to Anaconda Sealtite.

**2.10. ELECTRICAL TAPES:**

- A. General use electrical tape shall be 8 mil (.008") thick, minimum, premium grade, pressure sensitive, flame retardant, vinyl electrical tape meeting UL 510, ASTM-D-3005, and MIL-I-24391C. The tape shall be equal to 3M No. 88 or Plymouth Premium 85 CW.
- B. Rubber tape used as primary tape shall be a 30 mil (.030") thick, minimum self-amalgamating, low voltage rubber tape rated for use through 600 V. Rubber tape shall be equal to 3M No. 2150 or Plymouth 122 Rubber Tape.
- C. Electrical filler tape shall be a 125 mil (.125") thick, minimum, self-amalgamating, low voltage insulating compound rated for use through 5 kV. Filler tape shall be equal to 3M SCOTCHFILL or Plymouth 125 Electrical Filler Tape.

**2.11. PIPE WRAPPING TAPE:**

- A. Pipe wrapping tape shall be a 10 mil (.010") thick, minimum, pressure sensitive, vinyl tape manufactured for pipe wrapping applications.
- B. The tape shall be UV, bacteria, and fungus resistant.
- C. The manufacturer's name and tape type shall be printed on the back of the tape.
- D. Pipe wrapping tape shall be equal to Plymouth Rubber Co. PLYWRAP 11, or 3M No. 50.

**2.12. WIRE NUTS:**

- A. Wire nuts for conductor splicing shall be winged type connectors with a square, plated steel spring and flame retardant thermoplastic shell.
- B. The connector shall be rated for the number and size conductors being connected.
- C. The Wire Nuts shall be rated for 105°C. And UL 486C listed.
- D. Wire nuts shall be equal to connectors by Ideal/Buchanan, 3M/Scotch, or T & B,

**2.13. SPLIT BOLT CONNECTORS:**

- A. Split bolt connectors for splicing conductors shall be UL 486A listed, shall be tin plated copper, and shall have a hexagonal head and nut.
- B. Split bolt connectors for conductors size AWG #4 and larger shall have a serrated spacer bar between conductors.
- C. Split bolt connectors for splicing conductors AWG #12 through #6 shall be equal to Ilco Type SEL and Type SK for AWG #4 and larger conductors.

**2.14. MULTI-TAP CONNECTORS:**

- A. Multi-tap connectors shall be insulated type
- B. Multi-tap connectors shall be rated for the conductor sizes indicated on the drawings.
- C. The connectors shall be provided for the number of conductors indicated, including any future taps shown, plus a minimum of one additional tap.
- D. Multi-tap connectors shall be equal to Ilco Type PCT or Type PED-CP.

**2.15. WATERPROOF WIRE JOINTS:**

- A. Splices made below grade shall be made connectors, UL listed as waterproof, for below grade applications.
- B. Waterproof Twist On Connectors for Up to 2#6 W/1#12 tap Conductors: Single piece wire nut pre-filled with silicone sealant. Sealant shall be rated for 45-400 degrees F. Connectors shall have same insulation rating as conductors. Sizes shall be available for connecting up to 2 #6 w1#12 tap conductors. Connectors shall be UL listed as waterproof for below grade applications and equal to Ideal Buchanan B-Cap Twist and Seal Wire Connectors, King Safety Products, Tyco/Raychem GelCap SL, or equal.

- C. Waterproof Stub Splice Kit for up to #2/0 Conductors: Kit containing connector block, outer waterproof sleeve, and lubricant. Sleeve shall have same insulation rating as conductors. Kit shall be rated for feeder wire sizes #14 through #2/0 and tap wire sizes of #14 through #6. Connectors shall be UL listed as waterproof for below grade applications and equal to Tyco/Raychem GelCap SL.
- D. Waterproof In-line Splice Kit for up to #2/0 Conductors: Kit containing connector block, outer waterproof sleeve, and lubricant. Sleeve shall have same insulation rating as conductors. Kit shall be rated for wire sizes #6 through #350 kcm. Connectors shall be equal to Tyco/Raychem GTAP.
- E. Waterproof Splice Kit for Conductors above #2/0: Kit containing connector block, outer waterproof sleeve, and lubricant. Sleeve shall have same insulation rating as conductors. Kit shall be rated for wire sizes #14 through #2/0. Connectors shall be equal to Tyco/Raychem GHFC.

**2.16. PLASTIC MARKING TAPE FOR MARKING UNDERGROUND CABLES AND CONDUITS:**

- A. Plastic marking tape shall be acid and alkali-resistant polyethylene film, 6 inches wide with minimum thickness of 0.004 inch.
- B. Tape shall have a minimum strength of 1750 psi lengthwise and 1500 psi crosswise.
- C. The tape shall be manufactured with integral wires, foil backing or other means to enable detection by a metal detector when the tape is buried up to 3 feet deep.
- D. The tape shall be of a type specifically manufactured for marking and locating underground utilities.
- E. The metallic core of the tape shall be encased in a protective jacket or provided with other means to protect it from corrosion.
- F. Tape color shall be as specified in the table below and shall bear a continuous printed inscription describing the specific utility.
 

Red:	Electric
Orange:	Data, Telephone, Television,

**2.17. FIRE STOPPING:**

- A. Fire sealant shall be intumescent caulk, putty, sheet and/or wrap/strip as required to attain the proper rating.
- B. Caulk shall be equal to 3M CP25 N/S and/or S/L.
- C. Putty shall be equal to 3M Fire Barrier Moldable Putty.
- D. Sheet equal to 3M CS195.
- E. Wrap/strip equal to 3M FS195.
- F. Equal products by Dow Corning, Hilti, and Metacaulk will be accepted.

**2.18. SPACERS FOR CONCRETE ENCASED ELECTRICAL DUCTS:**

- A. Spacers shall be interlocking high impact plastic assemblies, which provide horizontal and vertical spacing, and hold the ducts and re-bar, where applicable, in place.
- B. The spacers shall be equal to Carlon Snap-Lok Spacers.

**2.19. JUNCTION BOXES (THRU 4-11/16"):**

- A. Sheet Metal: To be standard type with knockouts made of hot dipped galvanized steel, By Steel City, Raco, Appleton or approved equal.
- B. Cast: To be type FS, FD, JB, GS or SEH as required for application.

**2.20. JUNCTION AND PULL BOXES (LARGER THAN 4-11/16"):**

- A. Shall be cast metal for all below grade exterior use and where indicated on plans. All other shall be oil tight, JIC boxes not less than 16 gauge, equal to Hoffman type "CH" boxes.

**2.21. PULL BOXES:**

- A. Galvanized sheet metal screw-cover type with UL label as produced by Austin, B & C Metal Stamping Company, E-Box, Hoffman, Wiegmann, or approved equal.

**2.22. JUNCTION AND TERMINAL BOXES FOR AUXILIARY SYSTEMS:**

- A. Junction boxes for auxiliary system circuiting splicing shall be formed of galvanized steel.
- B. Boxes shall have hinged front, locking door(s).
- C. Metal back plates shall be provided for mounting terminal strips or other devices.
- D. Screw terminal strips shall be provided with a minimum of 25 percent spare terminals.
- E. Boxes shall be sized to accommodate the terminal blocks and conductors, providing code required bending space.
- F. Boxes for auxiliary systems shall be manufactured by Austin, E-Box, Hoffman, or Wiegmann.

**2.23. AUXILIARY GUTTERS (WIRING TROUGHS):**

- A. Gutters shall be of sizes shown and/or required by the NEC (whichever is larger), constructed of code gauge, galvanized sheet steel, painted ANSI 61 gray.
- B. Gutters shall be UL listed and shall be of NEMA 3R construction in wet or damp locations or shall be as indicated on the drawings.
- C. Gutters shall be as produced by Austin, B & C Metal Stamping Company, E-Box, Hoffman, Wiegmann, or approved equal.

**2.24. STRUT SYSTEM FOR SUPPORT OF ELECTRICAL EQUIPMENT:**

- A. Strut shall be 1-5/8" except where heavier strut is required to support the load, for rigidity, or where specifically indicated otherwise.
- B. Cold-formed steel, ASTM A 570 or A 446 GR A.
- C. Stainless Steel Strut: Type 304, ASTM A 240.
- D. Hot Dipped Galvanized Steel Strut: Zinc coated after manufacturing operations are complete, ASTM A 123 or A 153
- E. Electro-galvanized Steel Strut: Electrolytically zinc coated, ASTM B 633 Type III SC 1.
- F. Fittings: Same material as strut, ASTM A 575, A 576, A 36, A 635, or A 240.
- G. Zinc Primer: As recommended by strut manufacturer.
- H. Strut Systems shall be as manufactured by B-Line, Erico, Globe, Kindorf, MasterStrut, Power Strut, T&B SuperStrut, or Unistrut.

**2.25. OUTLET BOXES:**

- A. General: Except as noted, boxes shall be standard hot dipped galvanized steel at least 1-1/2" deep, of metal at least 1/16" thick; sized to accommodate devices and conductors per NEC Article 370; product of Appleton, National, Steel City, or approved equal.
- B. Ceiling and Wall Bracket Outlets: 4" octagonal boxes with plaster rings appropriate for finish surface.
- C. Typical boxes (for switches, receptacles and auxiliary systems):
  - 1. 4" square boxes ganged as required. Box volume shall be in accordance with NEC Section 370 – provide extensions as required.
  - 2. Furnish with 3/4" plaster rings where employed in plaster, 1" tile covers where used in ceramic tile, 1" plaster rings where set in exposed concrete, and otherwise appropriate for surface and construction.
  - 3. Use 4-11/16" square, 2-1/8" deep boxes where more than 10 conductors enter the boxes. Provide extensions as required to provide volume per NEC.
- D. Boxes in Exposed (or Thin-Coat Plastered) Masonry: Where conduit connections permit, employ solid flush-type, square-cornered, masonry boxes with turned-in device holders; otherwise employ typical box with 1-1/2" square-cut tile cover.
- E. Boxes used with Exposed Conduit: 4" square utility boxes.

- F. Exterior Boxes: Galvanized cast-metal boxes, Crouse-Hinds Type FS or FD as appropriate. Make weatherproof with gasketed covers. Equal products by Appleton, Killark, O-Z/Gedney, or approved equal will be accepted.
- G. Boxes used with Recessed Lighting Fixtures: Provide a 4" square box with blank cover.
- H. Boxes in Dry Wall Construction: Sectional type switch boxes at least 2-1/2" deep may be used instead of typical box (but not where dry wall finish is applied over masonry back-up and not where multi-gang devices occur).

## **2.26. CONDUCTORS AND CABLES:**

- A. Power Conductors
  - 1. The ungrounded conductors (phase) and the grounded conductor (neutral) of each voltage system being installed shall be phase identified the full length of the conductor with the color characteristics manufactured in the insulation of cable from the cable manufacturer. Required color cable will then be installed for the specific voltage system as identified in these specifications.
  - 2. All conductors shall be copper with not less than 98% conductivity and with current carrying capacities per N.E.C. for 60°C. for sizes through #1 AWG and 75°C for conductors #1/0 and above.
  - 3. All conductors shall have manufacturer's name, type insulation, and conductor size imprinted on jacket at regular intervals.
  - 4. Conductors of size #10 and smaller shall be solid copper conductors with 600 volt type THHN or THWN insulation.
  - 5. Conductors of size #8 and larger shall be stranded copper conductors with 600 volt type THHN or THWN insulation.
  - 6. All motor branch circuits, HVAC, and plumbing equipment shall be stranded copper conductors with 600 volt type RHH-RHW insulation.
  - 7. All conductors installed in conduit below grade shall be rated for wet location.
  - 8. Manufacturer: Conductors shall be products of GE, Triangle, Phelps- Dodge, Anaconda, Rome, Habirshaw, General Cable, or approved equal.
  - 9. Fixture Wire:
    - a. Conductors feeding into fixtures, other than fluorescent fixtures, of 300 watts or less shall be #14, 200°C., type SF-2, for fixtures of more than 300 watts #12, 200°C., type SF-2 shall be used.
    - b. Conductors pulled through fluorescent fixtures shall have Type TFN or TFFN fixture wire, rated 90oC.
    - c. Conductors shall be by Dodge, Anaconda, Rome General Cable or Southwire.
- B. Control and Signal Wire: Conductor type TFF, minimum size #16 copper and fully color-coded, shall be used. Conductors shall be by Anaconda, Houston Wire & Cable, General Cable, Phelps Dodge, Rome, or Southwire.

## **2.27. WIRING DEVICES:**

- A. General: Manufacturer's and catalog numbers listed are used to establish style, type and quality. Unless otherwise indicated on drawings, all wiring devices shall be UL listed, side-wired specification grade.
- B. Manufacturers: Equal devices by Hubbell, Leviton, and P & S will be accepted. All devices shall have plaster ears.
- C. Wall switches: 120/277V, 20A, AC, flush enclosed, quiet type switches with thermoplastic body and polycarbonate toggles. Switches shall meet Federal Specification WS-896. Switches shall be, Hubbell 1200 series, Leviton 1200 series, or P & S PS20AC series single pole, 2-pole, 3-way, or 4-way as required.
- D. Duplex receptacles (general purpose): 125V/20A flush duplex back and side wired hard use specification grade receptacles, NEMA 5-20R configuration, with nylon face and body, grounding terminal and break-off fins for converting to 2-circuit use. Receptacles shall meet Federal Specification WC-596. Color to match wall switches. Equal to P & S 5362, Hubbell CR20, or Leviton 5362.

- E. Ground Fault Circuit Interrupt Receptacles: 125V/20 amp ground fault circuit interrupting receptacle for personnel protection, NEMA 5-20R configuration, Equal to Hubbell #GF5362, Leviton #6599, or P & S 2091. Each GFCI symbol on drawing indicates a GFCI type receptacle. Do not through-wire non-GFCI receptacles from GFCI receptacles where ground fault protection is required. All exterior receptacles shall be ground fault interrupting type with weatherproof coverplates.
- F. Faceless Ground Fault Circuit Interrupter: 125V, 20 amp ground fault circuit interrupter UL listed for personnel protection, equal to Hubbell GFR5350 Series, Leviton 6490, or Pass & Seymour Series 2081.
- G. Single Receptacles: Flush Bakelite receptacles with side wiring and grounding terminal, voltage, amperage, and configuration as required for circuit indicated.
- H. Each single or multi outlet receptacle, other than straight blade, 15 or 20 amp, 120 volts, NEMA 5-15R or NEMA 5-20R, shall be provided with matching cord plugs.
- I. Plugs for kitchen equipment to be plugged into wall mounted straight blade receptacles shall be angled type.
- J. Wiring devices shall be of color as directed by Architect. Devices must be available in ivory, brown, black, white, and gray.
- K. Pin and Sleeve Devices:
  - 1. Pin and Sleeve Devices shall be watertight plugs and receptacles of the ratings shown on the legend and/or schedules.
  - 2. Devices shall be listed to UL Standard 498 and UL Classified to IEC Standards 309-1 and 309-2.
  - 3. Devices shall be furnished as matching plugs and receptacles with cast aluminum angled backbox.
  - 4. Devices shall be manufactured by Hubbell, Leviton, or P&S.

## **2.28. DEVICE PLATES:**

- A. Type appropriate for the associated wiring device, equal to Sierra Stainless Steel Smoothline. Device plates shall be of color as directed by Architect. Devices must be available in ivory, brown, black, white, and stainless steel. Provide single plate of proper gang where more than one device occurs (do not gang dimmers with rocker switches).
- B. Damp Location: 20 amp, 125 and 250 volt receptacles - Covers shall be weatherproof when plugs are not installed, provide cast aluminum weatherproof coverplates with single lift cover and gasket equal to Hubbell CWP26H.
- C. Wet Locations, 20 amp, 125 and 250 volt receptacles: Covers shall be weatherproof In-Use covers, rated NEMA 3R when in use and shall be constructed of cast aluminum with sealing gasket. Covers shall be equal to products by Hubbell, Leviton, Steel City, T & B, and Taymac.
- D. Wet Locations, 20 amp, 125 and 250 volt receptacles: Covers shall be weatherproof In-Use covers, rated NEMA 3R when in use and shall be constructed of impact resistant polycarbonate with sealing gasket. Covers shall be equal to products by Hubbell, Leviton, Steel City, T & B, and Taymac.
- E. Coverplates for exposed cast aluminum boxes in kitchen and dishwashing areas shall be cast coverplates, without lift cover, unless specifically indicated otherwise on the drawings.
- F. Color: Wiring device cover plates shall be of color as indicated on drawings or directed by Architect. Devices must be available in ivory, brown, black, white, gray, and stainless steel.
- G. Jumbo and Mini-Jumbo plates will not be accepted.

## **2.29. OCCUPANCY SENSORS AND ACCESSORIES FOR LIGHTING CONTROL:**

- A. Occupancy sensors shall be totally passive in nature, in that the sensors shall not emit or interfere with any other electronic device, or human characteristic. Sensors shall be dual technology, i.e.: Passive Infrared (PIR) and Microphonic.
- B. PIR shall initiate an "on" condition and the PIR or microphones shall maintain the load "on".

- C. Upon detection of human activity by the detector the lights shall come on and a time delay shall be initiated to maintain the lights on for a pre-set time period. The time delay shall be factory set and field adjustable from 30 seconds to 20 minutes.
- D. All devices shall be factory warranted for 5 years.
- E. All sensors shall be low voltage, 12 to 24 volts and shall work in conjunction with remote power packs.
- F. Occupancy sensors shall be as shown on drawings.

#### **2.30. GROUNDING:**

- A. Ground Rods shall be  $\frac{3}{4}$ " x 10' copperclad steel.
- B. All grounding conductors shall be copper.

#### **2.31. LIGHTING FIXTURES**

- A. General:
  - 1. All Lighting Fixtures shall be UL labeled.
  - 2. Fixtures installed in fire rated ceilings or ceiling assemblies shall be rated for installation in fire rated ceilings.
  - 3. Furnish fixtures complete with lamps, ballasts and internal wiring factory installed.
  - 4. Fixtures shall be furnished as specified herein and as shown on the fixture schedule on the plans. Catalog numbers shown are for basic units; furnish all fixtures complete with flexible connections, trim, plaster frames, and all other appurtenances necessary to the installation.
  - 5. Fluorescent fixtures shall be equipped with flat, flush steel doors, unless scheduled otherwise, with spring loaded cam latches, shall be powder coat painted after fabrication, shall have lenses equal to ALP or KSH 12.125, .125" lenses, and shall be rated for installation in fire rated ceilings.
  - 6. Substitutions: Reference to a specific manufacturer's product is made to establish a standard of quality and design, and to give a general description of the basic type desired. Equal products by the listed manufacturers will be accepted subject to the Engineer's approval.
  - 7. It shall be the responsibility of the contractor to verify the exact type ceiling, type fixture mounting and trim, and recessing depth of all recessed fixtures prior to purchasing any fixtures.
  - 8. Stems on stem mounted fixtures shall be approved ball aligner type, swivel 30 degrees from vertical with swivel below canopy. Paint stems the same color as the fixture trim. Stems in unfinished areas may be unpainted conduit.
  - 9. Fixtures installed on the exterior of buildings, on poles, or on pedestals shall be rated for wet location installation.
  - 10. Lamping for all new luminaries shall be new at the time of final acceptance. Building permanent lighting shall not be used for temporary or construction lighting at anytime prior to final acceptance. If used for temporary construction lighting, then relamp all fixtures prior to final inspection.
- B. Emergency and Exit lighting Fixtures shall be equipped with a Self-testing module which shall perform the following functions:
  - 1. Continuous monitoring of charger operation and battery voltage with visual indication of normal operation and of malfunction.
  - 2. Monthly discharge cycling of battery with monitoring of transfer circuit function, battery capacity and emergency lamp operation with visual indication of malfunction. The battery capacity test may be conducted by using a synthetic load.
  - 3. Manual test switch to simulate a discharge test cycle.
  - 4. Modules shall have low voltage battery disconnect (LVD) and brownout protection circuit.
  - 5. All lighting fixtures and exit signs shown as emergency on drawings shall be provided with a minimum 1100 lumen emergency battery ballast capable of 90 minutes of illumination. No exceptions.
- C. Ballasts:



1. Fluorescent ballasts:
  - a. Fluorescent ballasts shall be high frequency, above 40 kHz, electronic rapid start ballasts. Multi-lamp ballasts shall be parallel wired. Ballasts shall be UL-ETL-CBM labeled and shall have Class P overheating protection and Class A sound rating and shall be manufactured by Advance, Sylvania, or Universal.
  - b. Ballasts shall be equipped with ANSI C62.41 Cat. A Transient Protection.
  - c. Ballasts shall operate from a line voltage of 120 – 277 volts.
  - d. Ballasts shall withstand a sustained short to ground or open circuit of any output leads.
  - e. Ballasts shall have a 5 year warranty from the date of manufacture.
  - f. T8 Lamp Ballasts:
    - 1) T8 Lamp Fluorescent ballasts shall be rapid start ballasts.
    - 2) Minimum ballast factors shall be 0.88, power factor shall be .97 or greater, crest factor less than 1.70, and total harmonic distortion less than 10%.
2. It shall be the responsibility of the lighting fixture supplier to insure compatibility of the ballasts and lamps provided.
- D. Lamps: Type and size as scheduled, GE, Osram/Sylvania, Phillips, or approved equal.
  1. LED's shall be equal to what is provided in the lighting schedule.
  2. Warranties:
    - a. LED's shall be guaranteed for one year from date of final acceptance.

## **2.32. PANELBOARDS:**

- A. General: All panelboards shall be dead front type manufactured and installed in accordance with UL and NEMA standards, and shall carry a UL label. Ampacity, service voltage, and configuration shall be as indicated on drawings. Panelboards shall be clearly marked with ampacity, voltage, and maximum short current ratings.
- B. Manufacturer: Panelboards shall be as manufactured by Cutler-Hammer, GE, Siemens, or Square "D".
- C. Enclosure:
  1. Panelboard enclosures shall be as indicated on drawings.
  2. Unless otherwise indicated, all boxes shall be constructed of galvanized (or equivalent rust-resistant) sheet steel with hinged front trim.
  3. Fronts shall be door in door with two lockable latches to open door, lock, and latch. All panelboard locks shall be keyed alike. Piano hinges with screw latches will not be permitted.
  4. Fronts shall be finished with gray baked enamel over a rust-inhibiting phosphatized coating.
  5. All dual section panels shall be equal in size. Sub-Feed circuit breakers will not be allowed to feed second section.
  6. Sub-Feed circuit breakers feeding additional panels or equipment shall be branch mounted.
  7. Provide permanent numbering of the panelboards. Stickers are not considered permanent.
  8. Any panelboard schedule that indicates more than 42 circuits shall be provided in two equally sized panelboards.
- D. Buss Assembly:
  1. Bussing shall be copper.
  2. The buss assembly A.I.C. shall be rated as indicated on drawings. Ratings shall be established by heat rise tests, in accordance with UL Standard 67.
  3. All bussing shall accept bolt on circuit breakers.
  4. Current carrying parts of all bussing shall be plated. In lighting and receptacle panels, bussing shall be designed for connection to the branch circuit breakers in the phase sequence format. Distribution panelboards shall be fully bussed.
  5. Ground bars shall be provided in all panelboards.
  6. Neutral bar shall be fully sized with lugs suitable for incoming and outgoing conductors.
  7. Provide insulated ground buss where indicated on the panelboard schedules.
- E. Circuit Breakers:

1. Circuit breakers shall be quick-make, quick-break, thermal magnetic, molded case, bolt on type.
  2. Circuit Breakers shall be numbered and arranged as indicated on the panelboard schedules and/or single line wiring diagrams. Numbers shall be permanently attached to trim.
  3. SWD Circuit Breakers: Single pole circuit breakers rated 15 and 20 amperes and intended to switch 277 volts or less fluorescent lighting loads shall be UL rated for switching duty and shall be marked "SWD".
  4. HACR Circuit Breakers: Circuit breakers 60 amperes or below, 240 volts, 1-, 2-, or 3-pole, intended to protect multi-motor and combination-load installations involved in heating, air conditioning, and refrigerating equipment shall be UL listed as HACR type and shall be marked "Listed HACR Type."
  5. Circuit breakers serving fire alarm systems, dedicated emergency/exit lighting circuits, and area of rescue communications systems shall be equipped with a screw-on, mechanical handle blocking device which locks the circuit breaker in the "ON" position.
  6. Circuit breakers serving circuits in residential bedrooms shall be Arc Fault Interrupting(AFI) type circuit breakers and shall be UL 1699 listed.
- F. Directories:
1. Each panelboard shall be equipped with a metal directory frame with a clear cover welded to the inside of the door.
- G. Equipment Short Circuit Rating: Short Circuit Interrupting Ratings shall be as indicated on the plans and schedules. Unless specifically indicated otherwise all rating are "Fully Rated" capacities. Where no rating is given, the contractor shall verify the available short current with the serving utility and provide equipment rated accordingly.
- H. Lighting panelboard cans shall be a maximum of 20" wide and 5 3/4" deep. Cans of multi-section panelboards shall be the same size.
- I. Provide nameplate as called out on drawings.
- J. All flush mounted panel shall be provided with six (6) 3/4" conduit stubbed up above accessible ceiling.

### **2.33. DISTRIBUTION PANELBOARDS:**

- A. Furnish and install distribution and power panelboards as indicated in the panelboard schedule(s) or single line wiring diagrams and where shown on the plans.
- B. Panelboards shall be dead front, safety type equipped with thermal magnetic, molded case circuit breakers with trip ratings as indicated on the schedule(s).
- C. Panelboard bussing shall be copper.
- D. Panelboard buss structure and main lugs or main breaker(s) shall have the fault current ratings as indicated on the drawings. Ratings shall be established by heat rise tests conducted according to UL Standard UL67.
- E. Circuit breakers shall be equipped with individually insulated, braced and protected connectors. The front faces of all circuit breakers shall be flush with each other.
- F. An engraved phenolic label shall be permanently attached to the front of the panelboard adjacent to each circuit breaker identifying the load served by the circuit breaker.
- G. Automatic tripping shall be clearly shown by the breaker handle taking a position between ON and OFF when the breaker is automatically tripped.
- H. Provisions for additional breakers shall be such that no additional connectors or hardware will be required to add breakers.
- I. The panelboard assembly shall be enclosed in a steel cabinet. The rigidity and gauge of steel shall be as specified in UL Standards. End walls shall be removable. The size of wiring gutters shall be in accordance with the National Electrical Code, NEMA, and UL Standards for panelboards.
- J. Cabinets shall be equipped with four piece fronts.
- K. The panelboard interior assembly shall be dead front with panelboard front removed.

- L. Main lugs or main breaker shall be barriered on live sides.
- M. The barrier in front of the main lugs shall be hinged to a fixed part of the interior. The end of the buss structure opposite the mains shall be barriered.
- N. Circuit breakers serving Fire Alarm Systems, Security Systems, and/or Emergency/Exit lights shall be equipped with mechanical, screw-on type, locking devices. These devices shall not be padlock type devices.
- O. Panelboards shall be listed by Underwriters' Laboratories and to bear UL label. Panelboards shall be rated for use as Service Entrance Equipment where required by the National Electrical Code. Panelboards shall be by Cutler-Hammer, General Electric, Siemens, or Square D.
- P. Provide nameplate as called out on drawings.
- Q. All flush mounted panel shall be provided with six (6) ¾" conduit stubbed up above accessible ceiling.

#### **2.34. SAFETY SWITCHES:**

- A. Furnish and install safety switches as indicated on the drawings.
- B. Switches installed on 277/480 volts systems shall be rated for 600 volts and those installed on 120/208 volt or 120/240 volt systems shall be rated for 240 volts.
- C. Switches shall be NEMA Heavy Duty Type HD and Underwriters' Laboratory listed. Safety switches shall be Cutler Hammer, Square D, Siemens, or General Electric.
- D. Enclosures for switches mounted outdoors shall be NEMA 3R or as indicated on the plans.
- E. Enclosures for switches installed in kitchen and dishwashing areas shall be NEMA 4X stainless steel or as indicated on the plans.
- F. All safety switches for equipment with remote controls shall be equipped with a control circuit disconnect interlock.
- G. Switches shall be lockable in the "ON" and in the "OFF" positions.
- H. Provide each disconnect with a nameplate that indicates equipment name, voltage/phase, and feed from location.
- I. Provide keyed brass locks on all disconnects that is located on the exterior of the building or in any area that is accessible to children or the public. All the brass locks shall be keyed the same, and turn over 10 sets of keys to the owner at substantial completion.
- J. Disconnect locations shown on drawings is diagrammatically shown. Disconnects shall be coordinated with other trades and placed in the optimal locations to serve equipment and shall be installed in the least obtrusive location. Disconnects will have to be moved at the cost of the contractor when there is conflicts with NEC clearances, access to space, or servicing of equipment. Architect/Engineer will have final judgment of proper location.

#### **2.35. MOTOR RATED SWITCHES (WITHOUT OVERLOAD PROTECTION):**

- A. Motor Rated Switches without overload switches shall be rated for motor starting operation.
- B. Switches shall be 20 or 30 amp, two or three pole as required for the application.
  - 1. 20 amp two pole switches shall be 277 volt rated equal to Pass & Seymour #20AC2-HP.
  - 2. 30 amp two pole switches shall be 277 volt rated equal to Pass & Seymour #30AC2-HP or #7802 for higher HP applications.
  - 3. Three pole switches shall be 30 amp, 600 volt switches equal to Pass & Seymour #7803.
- C. Switches installed for site disconnect switches shall be equipped with padlocking provisions.
- D. Motor Rated Switches shall be equal to Pass & Seymour #7801 or #7830 outdoor locations, installed with tamper proof screws.

#### **2.36. MANUAL MOTOR STARTERS (TUMBLER SWITCH TYPE WITH OVERLOAD PROTECTION):**

- A. Starting and thermal overload protection for single phase motors 1/8 Hp to 1 HP shall be provided by manual motor starters with overload units rated as required by the specific motor to be served.

- B. Switches installed for site disconnect switches shall be equipped with padlocking provisions.
- C. Starters shall be by Cutler Hammer, General Electric, Square D, or Siemens with NEMA Type 1 enclosure or NEMA Type 3R enclosure where installed outdoors.

### **2.37. TRANSIENT VOLTAGE SURGE PROTECTORS (SURGE PROTECTIVE DEVICES):**

- A. Provide transient voltage surge protectors (Surge Protective Devices) where indicated on the plans and schedules.
- B. Service Entrance Panelboards and at Subpanel Protectors shall be listed and labeled and components recognized in accordance with UL 1283 and UL 1449 Second Edition, including highest fault current of Section 37.3.
- C. All devices shall meet or exceed the following:
  - 1. NEMA LS 1-1992.
  - 2. Minimum surge current capability, single pulse rated, per mode:
    - a. Service Entrance – 100 kA (200 kA per phase)
    - a. Distribution and branch panelboards – 80 kA (160 kA per phase)
  - 3. UL 1449, Second Edition, Listed and Labeled, and Recognized Component Suppressed Voltage Ratings shall not exceed (1.2x50 $\mu$ s, 6kV open circuit and 8x20 $\mu$ s, 500A short circuit test wave forms at end of 6" lead):
 

Voltage	L-N	L-G	N-G	L-L
208Y/120v	400	400	330	700
  - 4. Testing shall be done at the end of 6" leads with the complete unit including any fuses and all other components making up the unit.
- D. The devices shall have a minimum EMI/RFI filtering of –50dB at 100kHz with an insertion ratio of 50:1 using MIL-STD-220A methodology.
- E. Devices shall utilize MOV's of 25 mm diameter or larger, shall have pilot lights visible on the outside of the enclosure to indicate device operating condition, and shall provide contacts for remote monitoring of device condition.
- F. Devices shall be modular in design with individual module fusing and thermal protection.
- G. Devices shall incorporate visual alarm signals that indicate the failure of a single MOV and total loss of protection.
- H. Wye connected devices shall provide L-L, L-N, L-G, and N-G surge diversion with L-N/L-G bonded at service entrance devices. Delta connected devices shall provide L-L and L-G protection.
- I. Data Line Surge Protectors: Data Line Surge Protectors shall be UL 497B listed and labeled. The units shall be heavy duty devices utilizing a combination of silicone diodes and gas tube technology to provide surge protection.
- J. All devices shall have a minimum warranty period of five years, incorporating unlimited replacement of suppressor parts if they fail during the warranty period.
- K. Transient voltage surge suppressors shall be manufactured by AC Data Systems, Advanced Protection Technologies, Current Technologies, Cutler-Hammer, General Electric, Joslyn, Liebert, or MCG.

### **2.38. SECONDARY SURGE ARRESTERS:**

- A. Secondary surge arresters shall be UL listed under UL Classification (Lightning Protection) Surge Arresters(OWHX).
- B. Surge arresters shall be rated at same voltage and phase configuration as service.
- C. Arresters shall be equal to Cooper Power Systems ASZH Series, Cutler-Hammer, GE Tranquell, Joslyn Electronic Systems, Leviton, Square D Secondary Surge Arrester, models as required to match the voltage of the system served.

### **2.39. FUSES:**

- A. General: Fuses shall be UL listed time delay types with a minimum interrupting rating of 100,000 amps symmetrical.

- B. 200 amps and below: Provide Class RK-5 current limiting, time delay, rejection type as manufactured by Busman Manufacturing, Ferraz Shawmut, or Littlefuse.
- C. 201 to 600 amps: Class RK-1, current limiting, time delay, rejection type as manufactured by Bussman, Ferraz Shawmut, or Littlefuse.
- D. Above 600 amps: Class L current limiting, time delay, as manufactured by Busman Manufacturing, Ferraz Shawmut, or Littlefuse.

**2.40. LABELING:**

- A. Provide laminated plastic nameplates for each panelboard, equipment enclosure, relay, switch, and device.
- B. Each nameplate inscription shall identify the function and, when applicable, the position. Nameplates shall be melamine plastic 0.125 inch thick, white with black center core.
- C. Provide red laminated plastic label with white center core where indicated.
- D. Surface shall be matte finish. Corners shall be square. Accurately align lettering and engrave into the core.
- E. Minimum size of nameplates shall be one by 2.5 inches.
- F. Lettering shall be a minimum of 0.25 inch high normal block style.
- G. See Panelboard details for proper labeling of all panelboards.

**2.41. CONCRETE:**

- A. Concrete for electrical requirements shall be:
  - 1. Composed of fine aggregate (sand), coarse aggregate (graded from three-sixteenth (3/16) inch to one (1) inch), Portland cement, and water proportioned and mixed so as to produce a plastic, workable mixture.
  - 2. Aggregates shall be free from detrimental amounts of dirt, vegetable matter, soft fragments, or other foreign substances.
  - 3. Water shall be fresh, clean, and free from salts, alkali, organic matter, and other impurities.
  - 4. Concrete shall have a minimum 3000 psi ultimate twenty-eight day compressive strength and a maximum three (3) inch slump.

## **PART 3 - EXECUTION**

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**3.01. GENERAL:**

- A. This section includes the installation of the complete electrical system.

**3.02. ELECTRICAL SYSTEM DEMOLITION:**

- A. Before any new work begins the Contractor shall determine and document in writing to the satisfaction of the Engineer the condition of existing electrical work and auxiliary systems that are to remain in service. After the new work begins any existing electrical work or systems that are found to be inoperative or defective and not so documented shall be repaired or replaced by the Contractor at no additional cost to the Owner.
- B. Existing electrical equipment and materials to be reused shall be tested and repaired as required and installed for first class operation.
- C. General: The manner in which the remaining portions of the electrical system are terminated, supported and generally maintained for permanent use shall comply with all applicable regulations of the National Electrical Code, applicable NFPA codes and any local codes.
- D. Refer carefully to construction drawings prior to commencing with demolition to determine the intent of demolition. Contact the Engineer if there appears to be any conflict between the demolition and construction drawings.
- E. See "Renovation" Section regarding modification and relocation of circuits.
- F. Phasing: Phasing shall be as coordinated by the General Contractor.

- G. Work in Occupied Areas: Coordinate work carefully with General Contractor to provide minimum disruption to occupied portions of project. Provide minimum of 24 hours advance notice to Owner of demolition activities that will affect Owner's normal operation.
- H. Protections: Take necessary measures as required for protection of the Owner's personnel and the general public, as well as Owner's property. Provide temporary barricades, partitions, bracing, and weather protection as needed. Remove all temporary protections at completion of work.
- I. Flame Cutting: Do not use cutting torches for removal until work area is cleared of flammable materials. Maintain portable fire suppression equipment during flame-cutting operations.
- J. System Protection: Protect and maintain all portions of existing system not indicated for demolition, including but not limited to light fixtures, panelboards and circuits.
- K. Fire Protection: Coordinate with general contractor to insure that all penetrations of fire-rated decks and partitions are properly sealed.
- L. Removal of Circuits: All circuits indicated for removal shall be entirely removed, including raceway, back to take-off point or as far as possible without chasing (unless chasing is indicated). Where it is not possible to remove conduit, all conductors shall be removed and the conduit shall be permanently capped. Floor outlets indicated for removal shall be entirely removed, including outlet box, and capped below floor level (minimum 4" below floor level if in slab).
- M. Where floor slab is damaged in the course of demolition, it shall be permanently repaired as soon as practicable.
- N. Leave existing branch circuits and feeders which run through reworked areas and serve existing equipment to remain in service, continuous and uninterrupted.
- O. Where service interruptions are required, obtain approval for interruptions in writing from Architect 14 days prior to interruption. Submit schedule of work to be performed and the time required to accomplish work with request for interruption.
- P. Disposition of Material: Where electrical equipment is indicated for removal and not indicated for re-use, the owner shall have the option of taking possession of the equipment, the Contractor shall deliver any such material to a local site designated by the owner. The Contractor shall be responsible for disposing of all other materials in accordance with applicable codes and laws.

### **3.03. ELECTRICAL SYSTEM RENOVATION:**

- A. General: Provide renovations as indicated on drawings and specified herein as required for a complete, operational system, even though every item is not indicated.
  - 1. This Section is intended to serve as a supplement to the applicable sections within this Division, and in no way relieves the contractor from the requirements of any other Section.
  - 2. All renovations shall comply with all applicable regulations of the National Electric Code, applicable NFPA codes and any local codes
- B. Materials and workmanship: Execute all work so as to present a neat and workmanlike appearance when completed. Except where otherwise indicated, all materials shall be new, UL approved where a standard has been established. Where specific means and methods for affecting renovations are not covered in drawings and specifications, the contractor shall exercise prudent judgment in following accepted practices.
- C. Modifications: All major deviations from the drawings and specifications shall be approved in writing by the Engineer.
- D. Inspection:
  - 1. Inspect all existing electrical system components which are accessible, including fixtures, wiring devices, raceway and panelboards.
  - 2. Perform minor repairs to loose or damaged connections, damaged or missing supports, replacement of broken devices, replacement of missing plates and junction box covers and other visible damage or disrepair.
  - 3. Report major damage to Engineer.

- E. Renovation Services: In addition to the scope of work indicated on the drawings and specified herein, it shall be the responsibility of this Division to provide minor modification and repair services made necessary to electrical system components through the normal course of renovation. Such services shall include but not be limited to minor repair or relocation of branch circuits necessitated by the work of other trades, as coordinated by the General Contractor.
- F. Penetrations: Coordinate penetrations of existing walls, decks, and roofs required for electrical system with General Contractor. Do not cut structural members without the prior consent of Structural Engineer.
- G. Raceway.
  - b. Unless specifically indicated otherwise, existing raceway may not be used.
  - c. Where existing raceway is indicated for possible re-use, it shall be the responsibility of this Division to verify that the condition and configuration of the raceway is in compliance with the NEC.
- H. Panelboards: Where new circuits are run to an existing panelboard, thoroughly inspect the panelboard for any indications of arcing, overheating, or other damage. Report damage to the Engineer. Unless specifically allowed, tandem circuit breakers shall not be utilized.
- I. Clearing of Neutral Faults: Any and all neutral faults to ground on existing system shall be corrected.
- J. Service Ground: Visually inspect existing service ground electrode system for damage and code compliance. Check continuity from panel to each electrode with a meter. Make repairs as required.
- K. Lighting Fixtures: Where existing lighting fixtures are indicated for re-use, they shall be thoroughly cleaned and relamped, no exceptions. Where existing lighting fixtures are indicated for replacement, it shall be the responsibility of this Division to verify the compatibility of new fixtures with existing ceiling type, existing penetrations, available support, and other existing conditions prior to submittal of fixtures. Any variances or required modifications shall be clearly indicated on the fixture submittal.
- L. Backfilling, Grading, and Sodding:
  - 1. Restore surface features, including vegetation, at areas disturbed by Work of this Section.
  - 2. Reestablish original grades, unless otherwise indicated.
  - 3. If sod has been removed, replace it as soon as possible after backfilling is completed.
  - 4. Restore areas disturbed by trenching, storing of dirt, cable laying, and other activities to their original condition.
  - 5. Include application of topsoil, fertilizer, lime, seed, sod, sprig, and mulch. Comply with Division 2 Section "Landscaping." Maintain restored surfaces.
  - 6. Restore disturbed paving as indicated.

#### **3.04. GROUNDING:**

- A. Bond the neutral conductor and various conductive materials in the building per NEC Article 250.
- B. Grounding Electrode System: A bare copper grounding conductor shall be bonded to grounding electrodes as specified below. This conductor shall serve as ground for system neutral and for building equipment bonding. Where conductor is #6, or smaller, or is subject to injury, it shall be run in conduit, Schedule 80 PVC or Rigid Galvanized to which the conductor shall be bonded at both ends.
  - 1. Grounding electrodes shall be as follows:
    - a. Cold water piping, if metal and in direct contact with the earth for 10 feet or more, at the point of entry into the building. Grounding electrode shall be attached with UL approved bronze clamp.
    - b. Building structural steel, if present and accessible.
    - c. Grounding electrode shall be attached with exothermic weld connector.
    - d. Foundation reinforcing bar system. Coordinate with General Contractor to provide turned up re-bar (sleeved) near service point for attachment of grounding electrode

- above grade. Grounding electrode shall be attached with UL approved bronze clamp or exothermic weld connector.
- e. Driven ground rod(s).
    - 1) Three 3/4" x 10' copper weld rods shall be driven into the ground at the lowest point adjacent to the building, spaced a minimum of 10' apart.
    - 2) Ground rods shall be driven to 12" below grade.
    - 3) The grounding electrode conductor shall be attached to the rod(s) with UL approved bronze clamp or exothermic weld connector.
  - f. Existing grounding electrode system. If an existing electrical service is in place, it must be bonded to the new grounding electrode system.
- C. Connections to grounding rods, building structure, counterpoise, and conductor junctions shall be made by exothermic weld unless specifically noted otherwise.
- D. Electric system (neutral) ground: The current carrying neutral leg of the wiring system shall be of insulated conductor, and shall be connected to the grounding electrode conductor only via the neutral connection at the service equipment. Each branch circuit or multi-outlet branch circuit shall be provided with a dedicated neutral conductor.
- E. Equipment grounding conductors:
- 1. An equipment grounding conductor (copper with green insulation except where bare copper is used) shall be provided in all wiring raceways.
  - 2. Sizes shall be in accordance with NEC 250.
  - 3. The equipment grounding conductor shall originate in the same panelboard, panelboard section, as the circuit conductors.
  - 4. The equipment grounding conductor bonding the sections of multi-section panelboards shall be sized per NEC 250.
  - 5. The equipment grounding conductor is not included in number of branch circuit conductors indicated on the drawings.
- F. Grounding electrode resistance shall be less than 15 ohms. The resistance of the grounding electrode shall be tested by the Fall of Potential Method.

### **3.05. EXCAVATION, CUTTING AND BACKFILLING:**

- A. Provide cutting and patching, under the supervision of the General Contractor, as required for the work in Section 16.
- B. Locate all existing below grade and/or below floor utilities prior to beginning any site excavation or cutting of existing floor slabs. The Contractor shall repair any damage to existing utilities or systems.
- C. Saw cut existing concrete slabs and asphalt paving.
- D. Trenching:
  - 1. Dig trenches true to line, with a flat, even bottom.
  - 2. Width of the trench shall provide not less than 3 inches clearance from the conduit to each side of the trench.
  - 3. Insure that foundation walls and footings and adjacent load bearing soils are not disturbed in any way.
  - 4. Conduits shall be installed below footings where possible. Where a line passes under a footing, make crossing with the smallest possible trench to accommodate the conduits/sleeves.
  - 5. Where a line must pass adjacent to and below the bottom of a column footing, or the corner of a continuous footing, backfill the trench with concrete up to the level of the footing bottom, for a distance away from the footing equal to the depth of the fill.
  - 6. Keep excavation free from water, by pumping if necessary.
  - 7. Where rock, soft spots, or sharp-edged materials are encountered, excavate the bottom for an additional 3 inches, fill and tamp level to proper elevation with sand or earth free from particles that would be retained on a 1/4 inch sieve.
  - 8. Remove and relocate existing obstructions as directed.
  - 9. The Contractor shall be responsible for the repair and/or replacement of any damage to existing utilities, structure, or finishes.



10. Coordinate work with other trades as work progresses so cutting and patching will be minimal.
  11. Refer to Section "Earthwork" for shoring, sub-soil assumptions and data, work around trees, surplus earth, etc.
- E. See Section 16100, "Conduit Installation, Below grade and below slab conduit installation", for installation of conduits in trenches.
- F. Backfilling:
1. Immediately after inspection, cover conduits with 3" of compacted sand or earth free from particles that would be retained on a 1/4 inch sieve. Do not to disturb the alignment or joints of the conduits.
  2. Carefully backfill with 4" of earth free from clods, brick, etc., firmly puddling and tamping.
  3. Thereafter, puddle and tamp every vertical 4" for hand tamping or 8" for heavy duty mechanical tamping.
  4. Backfill shall meet the compaction requirements set forth in Division 2.
  5. Backfilling Beneath Slabs and Pavement: Trenches beneath future slabs or pavement, including but not limited to buildings, drives, parking areas, sidewalks, playground surfaces, and equipment pads, shall be backfilled, from 3" above top of conduits to final grade, with crushed aggregate, AHD 825, type B, compacted in 4" layers to 100% ASTM 698.
  6. Install marking tape above conduits at 12 inches below grade.

### **3.06. SLEEVES, INSERTS, AND SUPPORTS:**

- A. Provide and install No. 16 gauge galvanized steel or iron sleeves in all walls, floors, ceilings, and partitions. Sleeves shall have no more than 1/2" clearance around pipes and insulation.
- B. The contractor shall furnish to other responsible trades all sleeves, inserts, anchors and other required items which are to be built in by other trades for securing of all hangers or other supports by the Contractor.
- C. The contractor shall assume all responsibility for the placing and sizing of all sleeves, inserts, etc., and shall either directly supervise or give explicit instructions to other trades for their installation.
- D. The contractor shall seal all conduits through floors, smoke partitions, and floor partitions, with a sealant approved for the application.
- E. All sleeves through sound barrier walls and partitions shall be sealed with mineral wool.
- F. Furnish and install steel angles and channels as required for mounting and bracing heavy equipment and conduits. Steel shall be securely bolted or welded to structure and equipment bolted to the steel framework. Obtain the approval of the Architect prior to welding.

### **3.07. BELOW GRADE THRU WALL WATER SEALS:**

- A. Each conduit penetrating exterior, below grade, cast concrete walls shall have the annular space around the conduit sealed with an approved Thru Wall Water Seal System.
- B. Where the system includes water seal thru wall sleeves, the Electrical shall provide properly sized sleeves to the contractor responsible for constructing the walls and shall be responsible for the proper location of each sleeve.
- C. Where openings are to be core drilled, the Electrical Contractor shall be responsible for the core drilling and for coordinating proper sizing and location of each opening.

### **3.08. FIRE STOPPING:**

- A. The Electrical Contractor shall be responsible for firestopping of all penetrations of fire rated partitions made by any and all lighting, power, and auxiliary circuiting, sleeves and/or equipment.
- B. The Electrical Contractor shall submit manufacturers' UL System drawings for the systems to be utilized. The systems shall be compatible with the partition ratings as indicated on the Architectural drawings and in accordance with details on the Electrical drawings.

- C. Penetrations of fire rated partitions shall be sealed with an approved fire sealant resulting in the completed penetration having the same fire rating as the partition.
- D. The installation shall be in accordance with the manufacturer's UL system detail and installation instructions to attain the required fire partition rating.
- E. Empty sleeves through 1 and 2 hour rated partitions shall be plugged with mineral wool.
- F. Sleeves through 4 hour rated partitions shall be plugged with mineral wool and fire stopping material.

### **3.09. ROOF PENETRATIONS:**

- A. Furnish roof flashing for all equipment, installed under Section 16, which penetrates through the roof. Flashing shall be approved by the Architect prior to installation.

### **3.10. CONDUIT INSTALLATION:**

- A. Conduits shall be as follows:
  - 1. Overhead Service Entrance - Rigid Galvanized Steel (RGS) Conduit or IMC.
  - 2. Underground Service Laterals: Schedule 40 rigid PVC in horizontal runs with rigid galvanized steel elbows turning up to vertical RGS.
  - 3. Where subject to moisture or mechanical injury - RGS conduit.
  - 4. ALL conduits exposed to moisture or subject to mechanical damage shall be RGS. Where conduit exits building, the changeover from EMT to rigid shall be inside exterior wall.
  - 5. In open shop and industrial installations RGS shall be run to 10' A.F.F.
  - 6. All conduit exposed on the outside of the building envelope shall be Rigid Galvanized Steel (RGS) conduit. This includes all conduits on and/or under canopies or awnings.
  - 7. In concrete or solid masonry – RGS conduit
  - 8. Above furred spaces or in cells of hollow masonry - EMT
  - 9. Concealed inside drywall construction walls and above lay-in ceilings – EMT.
  - 10. Exposed conduits:
    - a. Conduits installed exposed in shop, warehouse, and manufacturing areas shall be RGS up to 12' A.F.F. Conduits in such spaces above 12' A.F.F. may be EMT unless indicated otherwise on the drawings.
    - b. Exposed indoors in non-hazardous unfinished areas not subject to physical damage - EMT
    - c. Exposed in kitchen and dishwashing areas: Rigid aluminum.
  - 11. Branch circuits in slab (3/4") - PVC. Turn up through slab with RGS ells - no exceptions. Extend rigid turn-ups 2" minimum above finish floor level.
  - 12. Circuits beneath building vapor barrier - PVC. Turn up through slab with RGS ells - no exceptions. All elbows 45° and greater shall be RGS in runs longer than 50 feet. Extend RGS turn-ups 2" minimum above finish floor level.
  - 13. Below Grade – PVC with RGS, or rigid aluminum where applicable, elbows turning up to vertical. All below grade elbows 45° and greater shall be RGS in runs longer than 50 feet.
  - 14. Motor, HVAC equipment, and vibrating equipment connections - flexible metal conduit, liquid tight flexible metal conduit outdoors, in kitchen and dishwashing area, or in other wet areas. Liquidtight flexible nonmetallic conduit shall be used only where specifically indicated.
  - 15. IMC may be used where RGS is indicated.
- B. Conduit sizes:
  - 1. Unless specifically indicated otherwise herein or on the drawings, the minimum conduit size shall be 3/4".
    - a. All conduits installed below grade or below slab shall be 3/4" minimum.
    - b. The minimum size for flexible lighting fixture "whips" shall be 3/8" and the maximum length shall be 6 feet. Lighting fixture "whips" shall be defined as flexible conduits with conductors feeding one or more recessed lighting fixtures installed in suspended, lay-in, acoustical ceiling systems from a single junction box.
    - c. 1/2" conduit may be for final connections to equipment or fixtures where conduit is less than three (3) feet in length and is extended from a junction box or from a 3/4" conduit stub up.

2. Conduits shall be sized in accordance with the National Electrical Code as adopted by the local authority having jurisdiction or as amended to date, except where a larger size is indicated on the drawings or specified herein.
- C. Layout:
1. Generally follow the conduit layout shown on the drawings. However, the layout is diagrammatic only and must be adjusted for structural conditions, built-in equipment and other factors. Offsets are not indicated and must be furnished as required.
  2. Install all conduits concealed except in equipment rooms and where exposed runs are specifically indicated.
  3. Install conduit runs to avoid proximity to steam or hot water pipes. In no place shall a conduit be run within 6" of such pipes except where crossings are unavoidable, then conduit shall be kept at least 1" from the covering of the pipe crossed.
  4. Eliminate trapped runs insofar as possible.
  5. Do not chase new work, but instead build in conduit as work progresses.
  6. Do not run conduit in cavity of exterior walls.
  7. Run concealed conduits in direct line with long sweep bends and offsets where practicable.
  8. Install exposed conduit with runs parallel or perpendicular to walls, structural members, or intersections of vertical planes and ceilings, with right-angle turns consisting of cast-metal fittings or symmetrical bends.
  9. Where conduits are indicated exposed overhead, runs down to wall outlets shall be concealed in wall.
- D. Conduit Installation:
1. Securely fasten conduits to all sheet metal outlets, cabinets, junction and pull boxes with locknuts and bushings, taking care to see that stout mechanical and solid electrical connections are obtained.
  2. All conduits shall have bushings with smooth beveled throats installed at both ends prior to installing conductors. Split bushings around conductors shall be taken to indicate that the conductors were pulled into conduit without the proper bushings installed and a basis for requiring the replacing of the conductors.
  3. Conduits entering service enclosures (panelboards, disconnect switches, switchboards, motor control centers, etc. used as service entrance equipment) shall be provided with specification grade, insulating, grounding type bushings. Grounding bushing shall be bonded together and bonded to the service grounding buss.
  4. Support:
    - a. Raceways shall be securely and rigidly supported to the building structure in a neat and workmanlike manner, and wherever possible, parallel runs or horizontal conduit shall be grouped together on adjustable trapeze hangers.
    - b. Support shall be provided at appropriate intervals not exceeding eight(8) feet with straps, hangers, and brackets specifically designed for the application.
    - c. Channels shall be 1 inch for 18-inch wide trapeze, 1-3/8 inch for 24 to 30 inch, and 1-5/8 inch for over 30 inch wide trapeze.
    - d. Perforated steel straphangers, "butterfly clips", or tie-wire supports are not acceptable.
    - e. Conduits shall not be supported from ceiling support wires.
    - f. Conduits installed along wall surfaces shall be supported with galvanized steel brackets specifically designed for conduits and sized for the conduit used.
    - g. PVC conduits shall be supported per the NEC with PVC or stainless clamps and stainless steel hardware.
    - h. Attach to supporting devices with screws, bolts, expansion sleeves or other workmanlike means appropriate to the surface.
    - i. In stud walls, anchors shall be completely rattle proof.
    - j. For conduits in damp and wet locations, use stainless steel clamps and stand-offs, or galvanized malleable or cast iron clamps and spacers.
    - k. All mounting hardware for aluminum conduit shall be stainless steel.
    - l. Surface mounted conduits installed in kitchen and dishwashing areas shall be supported off walls approximately 3/16".

5. Thread rigid conduits so that the ends meet in couplings; cut ends square, ream smooth and draw up tight.
  6. All field cut threads shall be cleaned with a solvent such as mineral spirits and painted with two coats of galvanize primer.
  7. Cap conduit ends to keep out water and trash during construction.
  8. Field made bends:
    - a. Avoid field-made bends where possible, but where necessary, use a proper hickey or conduit-bending machine.
    - b. Field made bends in PVC conduit shall be made with a heated PVC conduit bender.
    - c. Make no bends with radius less than six times the conduit diameter, nor more than 90 degrees.
  9. Make changes in direction with pull boxes, symmetrical bends and/or cast-metal fittings.
  10. Total bends in any conduit run shall not exceed the equivalent of four, quarter (90°) bends for a total of 360°, per NEC, between pull boxes.
  11. Replace any crushed or deformed conduits.
  12. Conduits passing through roofs shall be in place before roof is installed.
  13. Conduits installed in concrete/grout filled CMU walls shall be Rigid steel or IMC conduits installed field wrapped with 0.010 inch thick pipe-wrapping plastic tape applied with a 50 percent overlay. Painted on coating shall not be acceptable.
  14. Where conduits pass through or across building expansion joints, provide hot-dipped galvanized expansion fittings with bonding jumpers.
  15. Insure that all penetrations of firewalls are sealed per NEC and IBCC.
  16. Right and left couplings shall not be used; conduit couplings of the Erikson type shall be used at location requiring such joints.
  17. Paint all conduits exposed in finished spaces. Paint shall consist of one coat of zinc rich primer plus two top coats of water-based latex paint, color to match adjacent finishes. Verify colors and paint system with Architect.
  18. All conduit runs entering the building from outdoors shall be sealed against moisture migration and condensation by filling with insulating type foam.
  19. All conduits passing through walls of coolers or freezers shall have seal fitting installed on the outside of the cooler/freezer wall and within 3" of the wall. Fitting shall be sealed per manufacturer's recommendations.
  20. Install telephone, data, intercom, and signal system raceways, 2-inch trade size and smaller, in maximum lengths of 150 feet and with a maximum of two 90-degree bends or equivalent. Separate lengths with pull or junction boxes where necessary to comply with these requirements, in addition to requirements above.
- E. Below grade and below slab conduit installation:
1. See Section 16100, "Excavation, Cutting, and Backfilling" for trenching and backfilling requirements.
  2. Rigid steel or IMC conduits installed below slab-on-grade or in the earth shall be field wrapped with 0.010 inch thick pipe-wrapping plastic tape applied with a 50 percent overlay, or shall have a factory-applied polyvinyl chloride, plastic resin, or epoxy coating system. Painted on coatings shall not be acceptable. Wrap shall extend a minimum of 1" above slabs or 3" above finished grade where there is no slab. Alternate methods must approved by Engineer prior to bids.
  3. Top of the conduit shall be not less than 30 inches below grade.
  4. Run conduit in straight lines except where a change of direction is necessary.
  5. Conduits stubbed up from below grade or slab into exterior walls shall be turned toward the interior of the building below slab fill perpendicular to the wall. Conduits shall not be turned out toward the exterior unless specifically indicated to do so.
  6. Placing of conduits below slab on grade:
    - a. Conduits 1-1/4" and larger shall be installed a minimum of 12" below the bottom of slab in the clay/sand fill below any gravel fill material.
    - b. Conduits 1" and smaller may be installed in the porous/gravel fill below the vapor barrier.
  7. Multiple Conduits:

- a. Separate multiple conduits by a minimum distance of 2-1/2 inches horizontally and 3 inches vertically, except that light and power conduits shall be separated from control, signal, and telephone conduits by a minimum distance of 3 inches horizontally and vertically.
- b. Where multiple layers of conduits are to be placed in a trench, each layer shall be placed in the trench, straight and parallel, clear fill material (see Excavation, Cutting, and Backfilling) placed and tamped in place to provide the specified spacing, and each subsequent layer placed in the same manner.
- c. Stagger the joints of the conduits by rows and layers to strengthen the conduit assembly.
- d. Conduits shall not be placed haphazardly in the trench.
8. Where conduits pass through footings or foundation walls:
  - a. Conduits roughed in beneath slab shall exit the foundation perpendicular to the building spaced approximately 3" apart. Conduits shall be arranged in a single horizontal row where practical.
  - b. Secure approval from the Architect and Structural Engineer prior to penetrating any footing or foundation wall.
  - c. Schedule 40 PVC sleeves shall be cast in the footings or foundation wall for the conduits to pass through.
  - d. Multiple sleeves shall have 3" clearance, vertically and horizontally, between the sleeves unless directed otherwise by the Architect and/or Structural Engineer.
9. Where PVC conduit is installed below grade a PVC to rigid metallic conduit coupling shall be installed in the horizontal run and a rigid galvanized steel conduit elbow installed to turn up to above grade. Where above grade conduits are indicated to be rigid aluminum the elbow turning up to vertical shall be rigid aluminum.
10. Rigid aluminum conduit shall be wrapped same as RGS through concrete from 2" each side of the concrete.
11. Rigid galvanized conduit shall extend a minimum of 6" above the finished floor level.
12. In hazardous areas the coupling shall be below grade and a single section of conduit installed up to 18" A.F.F. to accept the required seal fitting.
13. Wiring shall be extended in rigid threaded conduit to equipment, except that where required, flexible conduit may be used from 6 inches above the floor to the served equipment.
14. Conduits shall exit concrete slabs vertically.
  - a. Where adequate support cannot be obtained by wiring to reinforcing steel, obtain support with solid iron stakes (which may be driven through membrane) cut off flush with slab after pouring.
  - b. At turn-ups of adjacent runs of exposed conduit, obtain alignment by wiring members to a temporary horizontal member.
15. Empty or spare conduit stub-ups shall be capped with a threaded cap.
16. Encasement Under Roads, Structures, and at other locations indicated on the drawings:
  - a. Under roads, paved areas, railroad tracks, and other locations indicated on the plans install conduits in concrete encasement of rectangular cross-section providing a minimum of 3 inch concrete cover around ducts.
  - c. Provide plastic duct spacers that interlock vertically and horizontally. Spacer assemblies shall consist of base spacers, intermediate spacers, and top spacers to provide a completely enclosed and locked-in conduit assembly.
  - d. Install #4 rebar at each corner of the encasement and at not more than 18" on center vertically and horizontally on the sides of the encasement. #4 rebar hoops shall be installed at not more than 18" on center along the length of the encasement.
  - e. Concrete encasement shall extend at least 5 feet beyond the edges of paved areas and roads, and 12 feet beyond the rails on each side of railroad tracks.
17. Conduits to be installed under existing paved areas, which are not to be disturbed, and under roads and railroad tracks, shall be installed through a zinc coated, rigid steel, sleeve, jacked into place.

18. Conduits installed between handholes, manholes or other accessible areas shall have a minimum slope of 3 inches in each 100 feet away from buildings and toward manholes and other necessary drainage points.
- F. Conduit Installation in concrete slabs:
  1. Conduit installed in concrete slabs shall be rigid steel or IMC. Rigid steel or IMC conduits installed in slabs-on-grade shall be field wrapped with 0.010 inch thick pipe-wrapping plastic tape applied with a 50 percent overlay, or shall have a factory-applied polyvinyl chloride, plastic resin, or epoxy coating system. Painted on coatings shall not be acceptable.
  2. At slabs on grade, conduit, 3/4" maximum, may be run in the slab; larger conduit shall be run below slab.
  3. Where adequate support cannot be obtained by wiring to reinforcing steel, obtain support with solid iron stakes (which may be driven through membrane) cut off flush with slab after pouring.
  4. At turn-ups of adjacent runs of exposed conduit, obtain alignment by wiring members to a temporary horizontal member.
- G. Flexible conduit:
  1. At motor or equipment connections:
    - a. The maximum length allowable for flexible conduit shall be 36 inches except at lighting fixtures.
    - b. Flexible conduit installed outdoors shall be installed so as to provide an 8 inch minimum drip loop as measured from the lowest end of the conduit.
  2. At lighting fixture connections provide flexible steel conduit by one of the manufacturers named for rigid.
    - a. Maximum length allowable shall be 72 inches.
    - b. Support flexible conduit such that it does not contact the ceiling system, ductwork, or other equipment above the ceiling. The conduit shall not be attached to a ceiling or ceiling support system.
    - c. All fixture whips shall be supported within 12" of outlet/junction boxes with single hole clamps.
- H. Empty conduit:
  1. Install a #14 galvanized fish wire or polypropylene pull cord with 14-inch free ends in all empty power and/or auxiliary conduits.
  2. All conduits indicated to be terminated above the ceiling shall have an elbow turned out above the ceiling and shall be terminated with an insulating bushing.
  3. Empty conduits stubbed out of buildings below grade:
    - a. Empty conduits stubbed out of buildings below grade shall extend 5 feet outside of the building foundation.
    - b. Install a 12"x 12"x 6" concrete marker at grade, above the end of the conduits, with "ELEC" inscribed on top.
    - f. Note on as-built drawings the exact location where empty conduit(s) are stubbed out below grade to the building exterior. Indicate conduit sizes and number of each size.
- I. Conduit entries into enclosures, panelboards, and wiring troughs:
  1. Layout conduit entries carefully to allow clearances for the number and sizes of conduits, electrical equipment, and future expansion.
  2. In sheet metal equipment use Greenlee Knock-Out punch, or equal, to cut holes for conduit installation. Do not drill holes, or cut holes out with snips or torch.
  3. In cast enclosures and boxes drill conduit openings with correct size drill for tight fit.
- J. **All junction box covers above the ceiling shall be labeled to which circuits or systems they contain.**

### 3.11. CONDUIT BODIES:

- A. Conduit bodies shall be sized in accordance with NEC 370, and 373.
  1. Conduit bodies for conductor sizes AWG #4 and larger shall be mogul type bodies sized in accordance with NEC 370-28.

2. Conduit bodies for conductor sizes AWG #6 and smaller shall be sized in accordance with NEC 370-16(c).

### **3.12. JUNCTION AND PULL BOXES:**

- A. Junction and pull boxes shall be sized per NEC to accommodate the installed number and size of conductors and conduits.
- B. Boxes shall be securely fastened in place.
- C. Boxes serving lighting fixtures installed in accessible, suspended ceilings:
  1. Provide number of boxes as required to maintain fixture whips within the 6' maximum length.
  2. Generally attach to underside of structure above, in accessible location, to accommodate a maximum 6' flexible conduit connection to each fixture or fixture run.
  3. Where the structure above is more than 18" above the ceiling the boxes shall be supported within 18 inches of the ceiling with all thread rod and/or strut.
- D. Install galvanized steel utility box plates, by box manufacturer, at exposed conduit fittings or boxes.
- E. **All junction box covers above the ceiling shall be labeled to which circuits or systems they contain.**

### **3.13. WIRE AND CABLE INSTALLATION:**

- A. No conductor shall be smaller than #12 except where so designated on the drawings or specified elsewhere.
- B. Multiwire lighting branch circuits shall be used where indicated.
- C. Wiring devices shall be connected such that each device can be removed without interrupting the neutral or equipment grounding conductors serving other outlets on the same circuit(s).
- D. Joints and splices in wire shall be made with solderless connectors, and covered so that insulation is equal to conductor insulation. Wire nuts shall not be used for conductor #8 and larger.
- E. No splices shall be pulled into conduit.
- F. Both conductors and conduit shall be continuous from outlet to outlet.
- G. No conductor shall be pulled into the conduit until the conduit is cleaned of all foreign matter.
- H. When installing parallel conductors, it is mandatory that all conductors making up the feeder be exactly the same length, the same size, and type of conductor with the same insulation. Each group of conductors making up a phase or neutral must be bonded together at both ends in an approved manner.
- I. MC cable or Romex cable will not be accepted unless specifically called for on drawings.
- J. Wiring thru light fixtures and receptacles will not be accepted.

### **3.14. AUXILIARY GUTTERS (WIRING TROUGHS):**

- A. Auxiliary Gutters shall be sized per NEC to accommodate the installed number, size, and orientation of conductors and conduits.
- B. Conductors serving a gutter shall be extended without reduction in size, for the entire length of the gutter.
- C. All taps and splices shall be made with insulated multi-tap connectors.

### **3.15. CIRCUITS AND BRANCH CIRCUITS:**

- A. Outlets shall be connected to branch circuits as indicated on the drawings by circuit number adjacent to outlet symbols, and no more outlets than are indicated shall be connected to a circuit.

### **3.16. WIRE JOINTS:**

- A. Except for motor circuits, wire joints for #8 and smaller wire shall be made with twist on connectors.

- B. Wire joints and splices for motor circuits, for conductors #6 and larger, and for smaller conductors where other connectors are not rated for the number of conductors involved shall be made with split bolt connectors rated for the applicable conductor size, number of conductors, and conductor material.
  - 1. Properly tape and insulate all joints to attain the same insulation rating as the cable insulation.
  - 2. Splices for #6 through #1 shall have a minimum of two (2) layers of rubber tape covered by a minimum of three (3) layers of electrical tape.
  - 3. Splices for #1/0 and larger conductors shall have a minimum of two (2) layers of electrical filler tape covered by a minimum of three (3) layers of electrical tape.
- C. Splices in control conductors shall be avoided as much as possible. Stranded control conductor up to #12 may be connected or spliced with hand crimped type compression connectors. The connectors shall be of the proper size for the conductors being connected.
- D. Splices and joints made with mechanical/hydraulic type compression connectors:
  - 1. Connections and splices shall be made with connectors rated for the applicable conductor size and conductor material.
  - 2. Dies used shall leave the die number embossed in the connector. The Contractor shall provide the Engineer with the Manufacturer's connector and die chart prior to final inspection.
- E. Taps and splices in auxiliary gutters/troughs shall be made with insulated multi-tap connectors.
- F. Wire joints and splices made below grade shall be made with UL listed waterproof connectors, wire nuts, or splice kits.
- G. All joints and splices shall be made in junction boxes, wiring troughs, or conduit bodies sized per NEC.
- H. All connections to switchboards, panelboards, transformers, generators, ATS, or any other type electrical distribution type equipment shall be compression type fittings. Mechanical fittings will not be accepted in these applications.

### **3.17. STRUT SYSTEM FOR SUPPORT OF ELECTRICAL EQUIPMENT:**

- A. Strut Systems: Strut shall be utilized to rack exposed piping vertically or horizontally on walls and across slabs (where applicable). Strut may be utilized to support piping above ceilings, for support of equipment, and elsewhere as deemed appropriate.
  - 1. Strut in conditioned spaces and above accessible ceilings shall be electro-galvanized.
  - 2. Strut installed outdoors, in mechanical rooms, and in other unconditioned spaces shall be hot-dipped galvanized.
  - 3. Strut installed in waste water treatment facilities, kitchens, dishwashing spaces, and labs shall be stainless steel.
  - 4. Strut fittings and hardware, including anchors, shall be same material as strut.
  - 5. Saw cut strut square, 6" minimum lengths. Strut on continuous runs of pipe shall be same length. File or grind burrs from saw cuts.
  - 6. After installation, electro-galvanized and hot-dipped galvanized strut shall be painted with two coats of zinc primer.

### **3.18. OUTLET BOX INSTALLATION:**

- A. General: The drawings indicate approximate locations only; determine the exact location at the building in view of all structural and architectural conditions. Obtain Architect's verification of final locations.
- B. Outlet boxes shall be sized per NEC to accommodate the installed number and size of conductors, wiring devices, and conduits.
- C. Ceiling and Wall Bracket Outlets: 4" octagonal boxes with plaster rings appropriate for finish surface.
- D. Typical boxes (for switches, receptacles and auxiliary systems): 4" square boxes ganged as required. Furnish with 3/4" plaster rings where employed in plaster, 1" tile covers where used in



ceramic tile, 1" plaster rings where set in exposed concrete, and otherwise appropriate for surface and construction.

- E. Boxes in Exposed (or Thin-Coat Plastered) Masonry: Where conduit connections permit, employ solid flush-type, square-cornered, masonry boxes with turned-in device holders; otherwise employ typical box with 1-1/2" square-cut tile cover. .
- F. Boxes used with Exposed Conduit: 4" square utility boxes.
- G. Exterior Boxes: Cast-metal boxes, Crouse-Hinds Type FS or FD as appropriate. Make weatherproof with gasketed covers. Equal products by Appleton, Killark, O-Z/Gedney, or approved equal will be accepted.
- H. Boxes used with Recessed Lighting Fixtures in suspended acoustical tile ceilings:
  - 1. Provide a 4" square box with blank cover adjacent to each fixture or fixture group.
  - 2. Install a flexible metal conduit fixture "whip" from the box to the fixtures. The "whip" shall not be longer than 72".
  - 3. Attach the box to the underside of the structure above, in an accessible location, not more than 18" above the lay-in ceiling.
  - 4. Where structure is more than 18" above the ceiling, the boxes shall be supported from all-thread rods, strut, or a combination of rod and strut.
- I. Boxes in Dry Wall Construction:
  - 1. Outlet boxes shall be securely fastened in place.
  - 2. Outlet boxes installed in metal stud construction shall be supported by brackets screwed to studs. Clip on brackets shall not be accepted.
    - a. Where a single outlet box is installed adjacent to a stud, brackets may attach to a single stud with a brace against the back of the opposite wall. Use a bracket equal to Caddy Fasteners "H" Series.
    - b. Where outlets do not fall next to a stud or where more than one outlet is installed between studs use a metal bracket attached to both studs. Brackets shall be equal to Caddy Fasteners "SGB", "TSGB", or "RBS" series brackets.
    - c. Outlet boxes three gangs and wider shall be supported with support member screwed to the two adjacent studs. Brackets equal to Caddy Fasteners SGB or TSGB brackets may be used.
- J. Sectional type switch boxes at least 2-1/2" deep may be used instead of typical box (but not where dry wall finish is applied over masonry back-up and not where multi- gang devices occur).
- K. Outlets in unfinished masonry walls may be slightly adjusted upward or downward to suit masonry courses, provided outlets are mounted at uniform heights throughout the installation.
- L. Coordinate installation of outlet boxes in masonry walls with the masonry contractor to insure that boxes are flush with face of wall and grouted smooth around boxes such that covers, fixtures or devices install flush on face of wall.
- M. Where outlets at different levels are shown adjacent, install in one vertical line where possible. Avoid conflict with wainscot caps, splash backs and upper cabinets by adjusting height slightly up or down as directed.
- N. Back to back boxes shall be staggered with at least 3 inches between boxes.
- O. Back to back boxes in fire rated partitions shall have a minimum of 24" horizontal and/or vertical separation between them.
- P. Backs of boxes three gang and larger installed in fire rated partitions shall be wrapped with self adhesive fire stopping tape.
- Q. Locate switch outlets on the lock side of doors and so that the first switch in a single or gang installation is approximately 6" to 10" from the doorjamb. Verify door swings on Architectural Drawings.
- R. Coordinate carefully with appropriate trades the size and orientation (vertical, horizontal) of outlet boxes for thermostats, data outlets, fire alarm equipment, security equipment, and other control and communications outlets.

- S. Mounting Heights:
- |  |   |
|--|---|
| Switches, generally                    | 48" A.F.F. to top of outlet   |
| Safety switches                        | Center of Switch 48" A.F.F. or as required.   |
| Receptacles, generally                 | 16" A.F.F. to bottom of outlet  |
| Receptacles over counters              | Bottom of outlet 6" above countertops or 2" above backsplashes  |
| Wall mounted exit and emergency lights | Bottom of fixture 7'- 6" A.F.F. or 12" below Ceiling whichever is lower   |
| Thermostat                             | Top of outlet 48" A.F.F. or as noted by mechanical drawings.  |
| Electric Water Coolers                 | Coordinate location with plumbing contractor to locate the receptacle(s) concealed within the EWC enclosure per manufacturer's installation instructions. |
- T. Install blank coverplates on all unused power and auxiliary outlet boxes. Blank coverplates shall match other cover plates installed in the facility.
- U. Furnish blank plates, matching those on the other outlets in the same area, on TV outlets and other outlets installed for future use.

### 3.19. WIRING DEVICES:

- A. Install wall devices vertically' unless otherwise noted, so that all devices of any given height will align exactly.
- B. Where boxes are not flush or square with the finished wall surface install wiring devices utilizing a leveler and retainer equal to Caddy #RLC or Steel City #SSF-SR.
- C. Plates shall be plumb and true with all four edges contacting wall surface.
- D. Mount receptacles with grounding terminals down.
- E. Do not install devices until plastering or other type wall covering has been completed; install ahead of painting work, but protect from paint spatter.
- F. Use screw terminal connections only.
- G. Do not gang dimmer switches with toggle switches.
- H. Each single or multi outlet receptacle, other than straight blade, 15 or 20 amp, 120 volts, NEMA 5-15R or NEMA 5-20R, shall be provided with matching cord plugs and a minimum of 8 feet of Type SOW cable matching the receptacle size and configuration.
- I. Provide "Kellums" type grips at the plug, cord connector, and for overhead support on all overhead cord connector drops.

### 3.20. ELECTRICALLY POWERED EQUIPMENT AND CONTROLS:

- A. Provide and install power circuits for all electrically powered equipment and controls.
- B. Heating, Ventilating, and Air Conditioning Control Wiring and Conduit:
  1. The electrical contractor shall be responsible for installing outlet boxes for flush mounted HVAC system thermostats in dry wall or masonry wall construction and, where called for on the plans, for surface mounted metallic raceway in finished areas. Extend ¼" conduit from the outlet to above nearest accessible ceiling and terminate horizontally. Refer to the Mechanical/HVAC plans for thermostat locations and coordinate exact type outlet required and orientation with the Mechanical/HVAC contractor.
  2. The Mechanical Contractor shall be responsible for the installation of all outlets and conduit for surface mounted devices in unfinished areas such as shops, warehouses, industrial facilities, etc.
  3. The mechanical contractor shall furnish and install all low and line voltage control wiring required for the temperature control and/or ventilation systems.
- C. Where Fire Alarm system duct mounted smoke detectors and HVAC shut down interface relays are provided, the Electrical contractor shall provide wiring from the smoke detectors to the HVAC shut down interface relay. All circuiting from the shut down relay to the HVAC controls and/or starters shall be provided and installed by the Mechanical/Controls contractor.

- D. The mechanical contractor shall furnish all motor starters for the temperature control and/or ventilation equipment unless otherwise indicated on the electrical plans or elsewhere in these electrical specifications. The electrical contractor shall install all motor starters, except for equipment with factory installed starters, for the temperature control and/or ventilation equipment.
- E. Where exhaust fans are supplied with field installed speed controllers, the Electrical Contractor shall provide all necessary circuiting to the fan/speed controller and between the fan and the speed controller.

### **3.21. DISCONNECTING MEANS:**

- A. Where required by the National Electrical Code and/or other applicable codes or authorities, or where indicated on the electrical plans, the electrical contractor shall furnish and install an approved disconnecting means for all electrically powered equipment and/or controllers for such equipment whether the disconnecting means is or is not shown on the electrical plans.
  - 1. The location, rating, and enclosure for the disconnecting means shall be as required by the National Electrical Code and/or other applicable codes or authorities.
  - 2. Manual motor starters with thermal overload protection may be used in lieu of safety switches for individual motors under 1 horsepower.
  - 3. Motor rated switches may be used for the disconnecting means when supplied of correct voltage, phase, amperage rating, and enclosure type.
  - 4. The disconnecting means shall be as manufactured by General Electric, Square D, Cutler Hammer, or Siemens.
- B. Where the disconnecting means shown on the electrical plans has a rating greater than the required code rating, the greater rating device shall be installed.
- C. An approved horsepower rated fusible safety switch shall be installed where the circuit overcurrent protection does not provide overload protection for the equipment served and where required to meet the equipment's listing requirements.
- D. Motor rated switches may be used as service disconnect switches when supplied with a padlockable, handle locking guard.
- E. Install an engraved phenolic nameplate on the front of each switch enclosure identifying the equipment served by the safety switch and source of power (i.e., panel name and circuit number). Plates shall be white with black lettering. The plates shall be permanently installed with stainless steel screws or stainless steel rivets.
- F. All disconnects installed in public areas or in areas readily accessible to the public shall be lockable and shall be furnished with a brass lock. Provide 10 keys for each lock. All disconnect locks furnished on the project shall be keyed alike.

### **3.22. LIGHTING FIXTURES:**

- A. The installation and support of all lighting fixtures shall be the responsibility of the Electrical Contractor.
- B. Lay out work as shown, and to provide attractive and efficient arrangement.
- C. Install fixtures level, plumb, and true with ceiling and walls, and in alignment with adjacent lighting fixtures.
- D. Provide adequate and substantial supports for fixtures in accordance with manufacturers' directions and as specified herein.
- E. A Re-lock system will not be accepted for installing lights.
- F. Wire grid mounted luminaries individually to junction boxes with flexible conduit not more than 6 feet in length. Individual flexible connections shall be 2 #14 and 1 #14 ground THHN in 3/8" flexible conduit. Ground wire shall be bonded at each end.
- G. Fixtures mounted in inverted "T" grids:
  - 1. For round fixtures or fixtures smaller in size than the ceiling grid, provide a minimum of four wires per fixture located within 4 inches of each corner of the ceiling grid in which the fixture is located. Do not support fixtures by ceiling acoustical panels. Fixtures shall be supported independent of the ceiling system or shall be supported by at least two metal

- channels spanning the grid system, and secured to, the ceiling tees. One support wire shall be attached to the center of the fixture or to each of the metal channels.
2. Surface mounted fixtures:
    - a. Surface mounted fixtures installed on lay-in ceiling systems shall be supported independent of the ceiling system from the building structure with a minimum of two (2) 3/8", minimum, all-thread rods.
    - b. Install nuts and washers on inside and outside of the fixture housing to provide a rigid installation.
    - c. Provide cross bracing as required such that fixtures have no lateral movement.
  - H. All stems on fluorescent fixtures shall be installed as follows: (except fixtures with slide grip hangers) first and last stem in row in first knockout from end of fixture. One stem shall be installed between each two fixtures, stem shall center joint, where fixtures join, and attach by use of "jointing plates". Nipples with lock nuts and bushings shall connect all fixtures in continuous rows other than recessed grid type.
  - I. All suspended lighting fixtures shall be provided with chain or cable sway bracing to keep fixtures from swinging.
  - J. Fixtures installed in fire rated assemblies shall be tented in accordance with the specified assembly.
  - K. Means shall be provided to keep insulation 4" minimum away from fixtures not rated for direct contact with insulation.
  - L. Prior to final inspection clean fixtures and lamps with a soft cloth or sponge and detergent (not soap) solution.
  - M. All fluorescent, induction or HID lighting fixtures installed in gymnasiums, hangars, high bay or similar use areas shall be equipped with wire guards.
  - N. All emergency and exit lights designated on drawings shall be provided with an 1400-lumen battery ballast.
  - O. See "Typical Lay-In Luminaire Detail" on drawings for further requirements.

### **3.23. PANELBOARDSS:**

- A. Panelboards shall be installed where shown on the drawings.
- B. Ratings and configurations shall be as scheduled and/or indicated on the drawings.
- C. The Electrical Contractor shall coordinate installation of equipment in Electrical and Electrical/Mechanical spaces with other trades such that Code required clearances and working space around the electrical equipment is maintained.
- D. Conduit termination:
  1. In general use panelboards with blank ends, without knockouts.
  2. Layout conduit entries carefully to allow clearances for drywall or CMU wall thickness, and to accommodate the number and sizes of home run conduits and specified spare conduits.
  3. Use Greenlee Knock-Out punch, or equal, to cut holes in panelboard ends and/or sides for conduit installation. Do not drill holes, or cut holes out with snips or torch.
- E. Phase arrangement in panelboards shall be per the NEC, phase A, B, C from front to back, top to bottom, or left to right as viewed from the front.
- F. In Delta connected systems the "high" leg shall be the B phase and shall be clearly marked with an orange outer finish.
- G. Multi-Section Panelboards:
  1. Sub-feed conductors shall be the same size as the conductors feeding the main section.
  2. Circuiting originating in one section shall not pass through another section.
  3. Circuit conductors and grounding conductors shall originate in the same panelboard section.
  4. A separate isolated grounding conductor shall be installed from the main section to the sub-feed section(s).
  5. Where the panelboard is rated for service entrance equipment the each sub-feed section shall have a separate isolated ground buss fed from the main section ground buss.

H. Labeling:

1. Each panelboard shall have an engraved phenolic plate permanently installed on the front of the panel with the panel name, current rating, and voltage rating.
2. Where there is more than one nominal voltage system the panel shall also have an engraved phenolic plate describing the means of identification used to identify the phase and system of each ungrounded conductor of the system served by the panel.
3. Plates shall be white with black lettering.
4. Panelboard circuit numbers shall be as indicated on the panelboard schedules.

**3.24. IDENTIFICATION AND LABELING:**

A. Feeder Designation:

1. Non-ferrous identifying tags or pressure sensitive labels shall be securely fastened to all cables, feeders, and power circuits in vaults, pull boxes, manholes, switch gear and at termination of cables. Tags or labels shall be stamped or printed to correspond with markings on drawings so that feeder or cable number and phase can be readily identified.
2. Where there is more than one nominal voltage system, each ungrounded system conductor shall be identified by phase and system wherever accessible per NEC. The means of identification shall be permanently posted at each branch-circuit panelboard.

B. Color Coding of Conductors:

1. The ungrounded (phase) conductors and the grounded (neutral) conductors of each voltage system shall be identified by the following color coding method:
  - a. 120/240 Volts, Single Phase, 3 Wire:
    - 1) Grounded (Neutral) Conductor --- White
    - 2) Ungrounded (Phase) Conductors --- Red, Black
  - b. 120/240 Volts, Three Phase, 4 wire:
    - 3) Grounded (Neutral) Conductor --- White
    - 4) Ungrounded (Phase) Conductors --- Red, Orange, Black
  - c. 120/208 Volts, 3 Phase, 4 Wire:
    - 5) Grounded (neutral) Conductor --- White
    - 6) Ungrounded (phase) Conductors --- Black, Blue, Red
2. Green shall be used for equipment grounding conductors only.
3. The insulation color shall be visible for the entire length of wire.

C. Panelboard:

1. Each Lighting and Power Panelboard shall contain a typed circuit directory listing all circuit breakers and the load served by each.
2. Panelboard directories shall be typewritten, and shall include adequate descriptions for proper identification of individual circuits. Do not write in or on panelboards.
3. On Distribution panelboards, provide and install an engraved laminated label for each circuit, indicating circuit's number and load served.
4. Each panelboard shall have an engraved phenolic plate permanently installed on the front of the panel with the panel name, current rating, and voltage rating.
5. Where there is more than one nominal voltage system each panelboard shall have an engraved phenolic plate describing the means of identification used to identify each phase, neutral, and grounding conductors of the system served by the panelboard per NEC.
6. Plates shall be white with black lettering.

D. Wall Switches: Where three or more switches are ganged, and elsewhere as indicated, identify each switch with approved legend engraved on the wall plate.

E. Receptacles: Install a label on the face of the coverplate and tags or wire markers inside the outlet box identifying the panelboard and circuit number from which the outlet is served. Use machine-printed, pressure-sensitive, abrasion-resistant label tape on face of coverplate- black print on clear tape on light colored or stainless steel plates and white print on clear tape on dark colored plates. Embossed tape labels will not be accepted. Use durable wire markers or tags within outlet boxes.

G. Disconnect Switches:

1. Install an engraved phenolic nameplate on the front of each switch enclosure identifying the equipment served by the safety switch and source of power (i.e., panel name and circuit number).
  2. Plates shall be white with black lettering.
  3. The plates shall be permanently installed with stainless steel screws or stainless steel rivets. Plates installed with glue or other adhesives will not be accepted.
  4. Where motor rated switches are used as service disconnect switches, labeling shall be as described for receptacles.
- H. Junction boxes: Identify circuits enclosed in concealed junction boxes on the cover with permanent marking pen.
1. For power and lighting circuits indicate panelboard of origin and panelboard circuit number(s).
  2. For auxiliary systems circuiting indicate the system and zone served.
- I. Service disconnects:
1. An additional engraved sign shall be permanently attached next to panelboard circuit breakers, on enclosed circuit breaker enclosures, and/or on disconnect switches used as service disconnects to identify each main service disconnect.
  2. The sign shall be red with white lettering a minimum of ½" high.
  3. Where multiple main disconnects are utilized the labels shall identify each as one of a group, i.e., "Service Disconnect 1 of 3", etc. where there are three service disconnects.

### **3.25. SECONDARY SURGE ARRESTERS:**

- A. Secondary surge arresters shall be installed in strict accordance with the manufacturer's recommendations.
- B. Arrester may be mounted to the side of a surface mounted panelboard or trough. If such a surface is not available, the arrester shall be mounted on a bracket in its own flush mount enclosure located immediately adjacent to the service panel. Insure that all leads are attached per manufacturer's recommendations. Excess lead length shall be cut off prior to making connections.

### **3.26. CONCRETE:**

- A. The Electrical Contractor shall be responsible for placing concrete for electrical equipment pads, lighting standard bases, electrical equipment supports, and at other locations as indicated on the electrical drawings and/or specified herein.
- B. This Contractor shall be responsible for size, location, and orientation of the pads, bases, etc. Any required additions or modifications to concrete due to incorrect size, location, or orientation shall be the responsibility of this contractor.
- C. Concrete shall be cured for a period of not less than seven (7) days prior to setting poles, transformers, switchgear, motor control centers, or other pad mounted equipment.
- D. Forms shall be completely removed after concrete has cured and prior to setting equipment.
- E. A smooth wood float finish shall be given to exposed, unformed concrete.
- F. Honeycombed, or otherwise defective areas of concrete shall be repaired by patching with cement mortar.

### **3.27. SPARE PARTS:**

- A. Provide one spare set of fuses for each size and type fuse used.
- B. For fire alarm systems provide one spare unit of each type initiating and notification device for every 50 devices installed, providing a minimum of one of each type device.

### **3.28. EQUIPMENT TOUCHUP AND PAINTING:**

- A. Clean damaged and disturbed areas on all painted surfaces of enclosures, cabinets, and equipment, sand smooth, and apply primer, intermediate, and finish coats of paint to suit the degree of damage at each location. Paint shall be the manufacturer's supplied touch up paint or a matching paint. Prep all surfaces to be painted by removing all rust, dirt, oil, and any other material that might inhibit good paint adhesion by mechanical means and/or with solvents.

- B. Follow paint manufacturer's written instructions for surface preparation and for timing and application of successive coats.
- C. Repair damage to galvanized finishes with two coats of zinc-rich paint recommended by manufacturer.
  - 1. Paint cut ends.
  - 2. Paint all drilled and punched holes.
  - 3. Paint all knicks and scratches.
  - 4. Paint all field cut conduit threads.
- D. Repair damage to PVC or paint finishes with matching touchup coating recommended by manufacturer.

END OF SECTION