

Project Manual

**INVITATION FOR BID
(IFB)**

Exterior Brick Sealer Project

Capitol Plaza / Franklin Plaza



**Boise City/Ada County Housing Authorities
Construction Department
March, 2020**

Important Dates:

Pre-Bid Conference Date-----	April 8, 2020	June 17, 2020
Bid Due Date-----	April 22, 2020	June 30, 2020
Bid Opening Date-----	April 23, 2020	July 1, 2020

Contact:

Ben Duke, Owner Representative
Boise City/Ada County Housing Authorities
1001 S. Orchard Street
Boise, Idaho 83705
(208) 345-4907

Invitation for Bids (IFB)

The Boise City Housing Authority invites sealed bids from qualified contractors for the Capitol/Franklin Exterior Brick Sealer Project at Capitol Plaza – 700 W. Cunningham Pl., Boise, ID 83702, and Franklin Plaza – 1555 W. Franklin St., Boise, ID 83702. The work consists of: Application of a penetrating Silane Siloxane sealer to the exterior brick of the buildings as described in the plans and specifications prepared by the Boise City Housing Authority.

All Bids are subject to all applicable Federal and Idaho State Laws and Regulations.

June 30, 2020

Sealed Bids will be received until 4:00PM on ~~April 22, 2020~~ and publicly opened the following day at 10:00AM at the Boise City/Ada County Housing Authority, 1001 S. Orchard Street, Boise, ID 83705. All bids shall be accompanied by a Bid Bond that is not less than five (5%) of the greatest possible bid amount (considering all alternates if applicable), and made payable to the Boise City Housing Authority.

Bid Package, Drawings and Specifications, including Bidding Documents and Conditions of Agreement are available for review and download at our website, BCACHA.org, starting March 27, 2020.

All bids must be submitted on the forms furnished and must be signed by the Bidder in pen and ink with his/her name and mailing address.

Prime Bidders are required to attend the Pre-Bid Conference and Site Tour. The Conference will be held at 9:00AM on Wednesday, ~~April 8, 2020~~ at the offices of the Boise City/Ada County Housing Authority, 1001 S. Orchard Street, Boise, ID 83705. A site tour will immediately follow.

June 17, 2020

All Contractors submitting a bid must hold a valid and appropriate Idaho Public Works Contractor's license prior to bidding for the Work contemplated herein, and shall provide proof of license at the time of submitting its bid. The Boise City Housing Authority may reject any and all bids, and waive informalities or minor irregularities in bids received, and to accept the bid deemed best for the Boise City Housing Authority.

Bids received after the time for submission of bid shall not be considered, and no bidder may withdraw its bid after the hour set for opening, or before award of contract unless said award is delayed for a period of sixty (60) days.

Before a contract will be awarded for the work contemplated herein, the Boise City Housing Authority shall conduct such investigation, as it deems necessary to determine the performance record and ability of the apparent low bidder to perform the size and type of project specified under this Contract. Upon request, the Bidder shall submit such information as deemed necessary for such evaluation.

The successful Contractor shall carry out his/her employment practices and payment of wages according to the provisions of Title 44, Chapter 10, Sections 44-1001 through 44-1006 inclusive, Idaho Code Amended, and shall comply with the Equal Employment Opportunity (EEO) provisions, Minority Business Enterprise (MBE) provisions, Disadvantaged Business Enterprise (DBE) provisions and Davis Bacon Wage Determination as defined in the respective Code of Federal Regulations.

Boise City Housing Authority is an Equal Opportunity Employer. We encourage Disadvantaged Business Enterprises, Small and Minority firms, Women's Business Enterprise, Labor Surplus Area and Section 3 firms to submit a bid.

Ben Duke
Boise City/Ada County Housing Authorities
1001 S. Orchard Street
Boise, Idaho 83705
(208) 345-4907

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

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

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 —

Deanna L. Watson
1001 S. Orchard Street
Boise, Idaho 83705

[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.

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.

BID FORM

Pursuant to and in compliance with the Invitation for Bid and the proposed Contract Documents relating to the Boise City Housing Authority Exterior Brick Sealer Project at Capitol Plaza – 700 W. Cunningham Pl., Boise Idaho, 83702, and Franklin Plaza – 1555 W. Franklin St., Boise, ID 83702.

The undersigned, having become thoroughly familiar with the terms and conditions of the proposed Contract Documents and with local conditions affecting the performance and costs of the Work at the places where the Work is to be completed, and having fully inspected the site, hereby proposes and agrees to fully perform the Work within the time stated and in strict accordance with the proposed Contract Documents, including furnishing any and all labor and materials, and to do all of the Work required to complete said Work in accordance with the Contract Documents, for the herein stated total sum of money.

Bid includes: All labor, materials, services, and equipment necessary for completion of the Work shown in the Specifications.

I agree to complete the work within 75 consecutive calendar days or less. Bidder further agrees to pay as liquidated damages, the sum of **\$200.00** for each consecutive calendar day thereafter.

TAXES: The bid amount and/or amounts include all taxes, fees, licenses, building permits and specifically all State of Idaho Sales Tax, all of which shall be paid for by the Contractor.

I understand that the Owner reserves the right to reject this bid, but that this bid shall remain open and not be withdrawn for a period of 30 days from the date prescribed for its opening.

If written notice of the acceptance of this bid is mailed or delivered to the undersigned within thirty 30 days after the date set for the opening of this bid, or any delay of award exceeding (60) days, or at any other time thereafter before it is withdrawn, the undersigned will execute the Contract Documents in accordance with this bid as accepted, and will also furnish proof of insurance coverage including any required Performance and Payment Bonds within seven (7) days after personal delivery or after deposit in the mails of the notification of acceptance of this bid (Notice of Award).

If applicable, attach to this bid a copy of the Bidder's Public Works License and a list of Subcontractors as stated in the Instructions to Bidders, including their perspective Public Works License type and number.

Acknowledgement is made of the receipt of the following documents and addenda:

1. Project Manual
2. Form of Contract;
3. General Conditions of the Contract for Construction form HUD-5370;
4. Representations, Certifications, and Other Statements of Bidders form HUD-5369-A;
5. Instructions to Bidders form HUD 5369;
6. HUD determined "Davis Bacon" wage rate and;
7. Section 3 Resident Employment Plan;
8. Section 3 Certification and Compliance Agreement.
9. Non-Collusive Affidavit;

- 10. Affidavit of MBE participation;
- 11. Bidders Qualifications.
- 12. Invitation for Bid's (IFB)

BASE BID PROPOSAL: Bidder agrees to perform all of the proposal work described in the Specifications of the Exterior Brick Sealer Project for the total sum of _____ Dollars (\$ _____).

~~**ALTERNATES:** Bidder, upon Contracting Officer's acceptance, will include the following scope of work and cost changes listed. Alternates will be accepted in numerical order.~~

~~1. Bid Alternate No. 1
Add the sum of _____ dollars,
(\$ _____) in lawful money of the United States of America.~~

Amounts shall be shown in both words and figures; in the event of discrepancy, the amount in words shall govern.

Notice of acceptance, or request(s) for additional information, may be addressed to the undersigned at the address set forth below:

The names of all persons interested in the foregoing bid as principals are:

IMPORTANT NOTICE: If bidder or other interested person is a corporation, give legal name of corporation, state where incorporated, and names of president and secretary; if a partnership, give name of firm and names of all individual co-partners composing the firm; if bidder or other interested person is an individual, give first and last names in full:

SIGN HERE:

Signature of Authorized Representative of Bidder

NOTE: If Bidder is a corporation, set forth the legal name of the corporation together with the signature of the officer(s) authorized to sign contracts on behalf of the corporation. If Bidder is a partnership, set

forth the name of the firm together with the signature of the partner(s) authorized to sign contracts on behalf of the partnership.

Business Name: _____

Business Address: _____

Telephone number: _____

Date of Proposal: _____

**LIST OF SUB-CONTRACTORS:
(If additional space in required, attach separate form.)**

1. Business Name: _____
Business Address: _____
Telephone Number: _____
Trade & License #: _____

2. Business Name: _____
Business Address: _____
Telephone Number: _____
Trade & License #: _____

3. Business Name: _____
Business Address: _____
Telephone Number: _____
Trade & License #: _____

4. Business Name: _____
Business Address: _____
Telephone Number: _____
Trade & License #: _____

5. Business Name: _____
Business Address: _____
Telephone Number: _____
Trade & License #: _____

Section 3

What is Section 3?

Section 3 is a provision of the Housing and Urban Development (HUD) Act of 1968 that helps foster local economic development, neighborhood economic improvement, and individual self-sufficiency. The Section 3 program requires that recipients of certain HUD financial assistance, to the greatest extent feasible, provide job training, employment, and contracting opportunities for low- or very-low income residents in connection with projects and activities in their neighborhoods.

How does Section 3 promote self- sufficiency?

Section 3 is a starting point to obtain job training, employment and contracting opportunities. From this integral foundation coupled with other resources

- Federal, state and local programs
- Advocacy groups
- Community and faith-based organizations

comes the opportunity for economic advancement and self-sufficiency.

How does Section 3 promote homeownership?

Section 3 is a starting point to homeownership. Once a Section 3 resident has obtained employment or contracting opportunities they have begun the first step to self-sufficiency.

Remember, "It doesn't have to be fields of dreams". Homeownership is achievable. For more information visit our HUD [website](#).

Who are Section 3 residents?

Section 3 residents are:

- Public housing residents or
- Persons who live in the area where a HUD-assisted project is located and who have a household income that falls below [HUD's income limits](#).

Determining Income Levels

- Low income is defined as 80% or below the median income of that area.
- Very low income is defined as 50% or below the median income of that area.

What is a Section 3 business concern?

A business that:

- Is 51 percent or more owned by Section 3 residents;

- Employs Section 3 residents for at least 30 percent of its full-time, permanent staff; or
- Provides evidence of a commitment to subcontract to Section 3 business concerns, 25 percent or more of the dollar amount of the awarded contract.

What programs are covered?

Section 3 applies to HUD-funded Public and Indian Housing assistance for development, operating, and modernization expenditures.

Section 3 also applies to certain HUD-funded Housing and Community Development projects that complete housing rehabilitation, housing construction, and other public construction.

What types of economic opportunities are available under Section 3?

- Job training
- Employment
- Contracts

Any employment resulting from these expenditures, including administration, management, clerical support, and construction, is subject to compliance with Section 3.

Examples of Opportunities include:

- | | | |
|------------------------|-------------------------|-----------------------|
| • Accounting | • Electrical | • Marketing |
| • Architecture | • Elevator Construction | • Painting |
| • Appliance repair | • Engineering | • Payroll Photography |
| • Bookkeeping | • Fencing | • Plastering |
| • Bricklaying | • Florists | • Plumbing |
| • Carpentry | • Heating | • Printing Purchasing |
| • Carpet Installation | • Iron Works | • Research |
| • Catering | • Janitorial | • Surveying |
| • Cement/Masonry | • Landscaping | • Tile setting |
| • Computer/Information | • Machine Operation | • Transportation |
| • Demolition | • Manufacturing | • Word processing |
| • Drywall | | |

Who will award the economic opportunities?

Recipients of HUD financial assistance will award the economic opportunities. They and their contractors and subcontractors are required to provide, to the greatest extent feasible, economic opportunities consistent with existing Federal, State, and local laws and regulations.

Who receives priority under Section 3?

For training and employment:

- Persons in public and assisted housing

- Persons in the area where the HUD financial assistance is spent
- Participants in HUD Youthbuild programs
- Homeless persons

For contracting:

- Businesses that meet the definition of a Section 3 business concern

How can businesses find Section 3 residents to work for them?

Businesses can recruit Section 3 residents in public housing developments and in the neighborhoods where the HUD assistance is being spent. Effective ways of informing residents about available training and job opportunities are:

- Contacting resident organizations, local community development and employment agencies
- Distributing flyers
- Posting signs
- Placing ads in local newspapers

Are recipients, contractors, and subcontractors required to provide long-term employment opportunities, not simply seasonal or temporary employment?

Recipients are required, to the greatest extent feasible, to provide all types of employment opportunities to low and very low-income persons, including permanent employment and long-term jobs.

Recipients and contractors are encouraged to have Section 3 residents make up at least 30 percent of their permanent, full-time staff.

A Section 3 resident who has been employed for 3 years may no longer be counted towards meeting the 30 percent requirement. This encourages recipients to continue hiring Section 3 residents when employment opportunities are available.

What if it appears an entity is not complying with Section 3?

There is a complaint process. Section 3 residents, businesses, or a representative for either may file a complaint if it seems a recipient is violating Section 3 requirements are being on a HUD-funded project.

Will HUD require compliance?

Yes. HUD monitors the performance of contractors, reviews annual reports from recipients, and investigates complaints. HUD also examines employment and contract records for evidence that recipients are training and employing Section 3 residents and awarding contracts to Section 3 businesses.

How can Section 3 residents or Section 3 business concerns allege Section 3 violations?

You can file a written complaint with the local HUD Field Office or mail it to:

The Assistant Secretary for Fair Housing and Equal Opportunity
Attn: Office of Economic Opportunity
U.S. Department of Housing and Urban Development
451 Seventh Street, S.W.,
Room 5100
Washington, D.C. 20410-2000

A written complaint should contain:

- Name and address of the person filing the complaint
- Name and address of subject of complaint (HUD recipient, contractor or subcontractor)
- Description of acts or omissions in alleged violation of Section 3
- Statement of corrective action sought i.e. training, employment or contracts

**CERTIFICATION FOR BUSINESS CONCERNS SEEKING SECTION 3
PREFERENCE IN CONTRACTING**

Name of Business _____

Address of Business _____

Name: _____ Title: _____

Type of Business: Corporation Partnership
 Sole Proprietorship Joint Venture

Project Information

Project Name: _____

Project Address: _____

Section 3 Business Concern determination

1. Is your business owned (51% or more) by individuals whose household income is **NO GREATER THAN 80%** of the Area Median Income (AMI)? Please reference the attached FY 2019 Income Limits as determined by HUD

() Yes () No

2. Do 30% or more of your full time, permanent employees have household incomes that are **NO GREATER THAN 80%** of Area Median Income (AMI)? Please reference the attached FY 2019 Income Limits as determined by HUD

() Yes () No

3. Will you subcontract more than 25% of this contract with any business that is either 51% owned by Section 3 residents or 30% or more of its employees are Section 3 residents? Please reference the attached FY 2019 Income Limits as determined by HUD

() Yes () No

If any of the questions above are marketed "YES", the business qualifies as a Section 3 Business

I certify that the above statements are true, complete, and correct to the best of my knowledge and belief.

Signature: _____ Date: _____

Print Name: _____

Boise City/Ada County Housing Authority Section 3 Resident Employment Plan

- Section 3 of the Housing and Urban Development Act of 1968 (hereinafter "Section 3") requires BCACHA to the greatest extent feasible to provide employment opportunities to "Section 3 residents." Section 3 Residents include residents of BCACHA communities and other low income residents of Ada County. Each bidder is required to submit with their bid package a plan which will result in the hiring of Section 3 residents to perform the work contemplated by the bid. BCACHA residents, preferably residents of the BCACHA community in which the work is to be done, are favored over other low-income residents of Ada County. At a minimum, the Contractor and its subcontractors shall advertise new positions created in order to perform the work called for herein and will post notices of the Contractor's commitments under Section 3 in conspicuous places at the work site. In addition, the Contractor must notify each labor organization with which it or its subcontractors have a collective bargaining agreement or other understanding of these Section 3 commitments. The plan should specify the number of positions the Contractor expects will be created and what minimum qualifications and skills will be required in order to perform the positions. The plan should also address the Contractor's strategy for recruiting Section 3 Residents for the available positions.

Signature:		Date Signed:
Name:	Title:	
Company Name:		
Address:		Telephone Number:

- How many new positions do you expect this contract will require you to create?

- Describe each position and provide the name and provide the location of the person(s) taking applications for each such position.

- What minimum skills will be required for each position?

- Please describe any training opportunities which the contract may create and any agreements concerning training you have.

- How will you advertise these positions to Section 3 Residents?

**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)

AFFIDAVIT OF MBE/WBE/ESB PARTICIPATION

State of _____ County of _____

I, _____, being first duly sworn, deposes, and says that:

1. She/He is the _____, (owner, partner, officer, representative or agent) of _____, the Contractor who has submitted the attached bid to the Boise City/Ada County Housing Authority for work described as

2. To conform with the goals of the Boise City/Ada County Housing Authority in achieving twenty percent (20%) participation by minority owned businesses, women owned businesses, or emerging small businesses in the execution of this project, the Contractor submits herein for Owner's approval a listing of "Certified" MBE/WBE/ESB participants and a description of their participation as follows:

- a.
- | | |
|----------------|------------------------|
| _____ | _____ |
| (Name) | (Address) |
| _____ | _____ |
| (Company Name) | (Telephone Number) |
| _____ | \$ _____ |
| (Trade) | (Participation Amount) |
- b.
- | | |
|----------------|--------------------------|
| _____ | _____ |
| (Name) | (Address) |
| _____ | _____ |
| (Company Name) | (Telephone Number) |
| _____ | \$ _____ |
| (Trade) | (Participation Amount) f |

c.

(Name)

(Address)

(Company Name)

(Telephone Number)

(Trade)

\$ _____
(Participation Amount)

NOTE: IF MORE SPACE IS NEEDED, ATTACHMENT TO THIS SHEET IS ACCEPTABLE.

- 3. The Contractor affirms that the above listed MBE/WBE/ESB participant(s) is (are) bound by agreement with the Contractor to perform services and/or provide material as listed herein, all in conformance with the project specifications, and the Contractor further affirms that the Agreement between the MBE/WBE/ESB participant(s) and the Contractor shall remain binding for a period of 60 days from the date bids are opened unless the Contractor's bid is rejected by BCACHA or a contract to perform the work is executed prior to the expiration of 60 days

- 4. In the event the above signed Contractor is awarded a contract to perform this work, the Contractor states that it shall submit the proposed MBE/WBE/ESB subcontractor listed above to BCACHA for approval to participate in this contract and that, after BCACHA approval, the Contractor shall execute subcontracts with the proposed MBE/WBE/ESB participant in contract amounts of no less than those stated above.

SIGNED BY: _____

TITLE: _____

Subscribed and sworn before me this _____ day of _____

NOTARY PUBLIC

Commission Expires: _____

NON-COLLUSIVE AFFADAVIT

State of _____

County of _____

_____, being first duly sworn,

(Contracting Company's Name)

deposes, and says:

That he/she _____,

(Individual, Partner, or Officer of the Company)

is the party making the foregoing proposal or bid, that such proposal or bid is genuine and not collusive or sham, that said bidder or person 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 of conference, with any person, to fix the bid prices or proposal of any bidder, or to fix any overhead, profit or cost element of said bid price of that bidder, or to secure any advantage against the Boise City/Ada County Housing Authority or any person interested in the proposed contract; and all statement in said proposal or bid are true.

(Contractor)

(By)

(Title)

(Date)

"General Decision Number: ID20200025 01/24/2020

Superseded General Decision Number: ID20190025

State: Idaho

Construction Type: Building

County: Ada County in Idaho.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 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 \$10.80 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 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). 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.

Modification Number	Publication Date
0	01/03/2020
1	01/24/2020

BRID0003-002 06/01/2019

	Rates	Fringes
BRICKLAYER.....	\$ 30.00	17.78

ELEC0291-001 01/01/2019		

	Rates	Fringes
ELECTRICIAN.....	\$ 30.75	12.61+6%

ELEV0038-001 01/01/2018

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 42.74	32.645

IRON0732-002 06/01/2019

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 27.15	19.85

* LAB00155-006 01/01/2020

	Rates	Fringes
LABORER: Mason Tender (Cement/Concrete & Brick) Group 4.....	\$ 29.02	13.42

SFID0669-001 04/01/2019

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers).....	\$ 33.60	23.06

SHEE0055-004 06/01/2019

	Rates	Fringes
SHEET METAL WORKER (Includes HVAC Duct Installation).....	\$ 27.25	19.24

SUID2010-018 08/08/2012

	Rates	Fringes
CARPENTER (Form Work Only).....	\$ 27.27	9.10
CARPENTER, Includes Acoustical Ceiling Installation, and Drywall Hanging (Excludes Form Work).....	\$ 17.32	3.34

CEMENT MASON/CONCRETE FINISHER...\$ 21.03	5.12
DRYWALL FINISHER/TAPER.....\$ 15.69	2.00
GLAZIER.....\$ 18.04	1.22
HVAC MECHANIC: HVAC UNIT INSTALLATION.....\$ 18.00	0.00
INSULATOR - MECHANICAL (Duct, Pipe & Mechanical System Insulation).....\$ 17.10	1.80
IRONWORKER, REINFORCING.....\$ 24.74	14.82
LABORER: Asbestos Abatement (Removal from Floors, Walls, & Ceilings).....\$ 15.94	0.71
LABORER: Carpenter Tender.....\$ 9.00	0.00
LABORER: Common or General.....\$ 12.28	0.00
LABORER: Demolition.....\$ 13.60	0.00
OPERATOR: Backhoe/Excavator.....\$ 25.20	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader.....\$ 17.36	0.00
OPERATOR: Bulldozer.....\$ 24.52	7.87
OPERATOR: Forklift.....\$ 18.27	1.10
OPERATOR: Loader (Front End)....\$ 21.27	5.54
PAINTER: Brush, Roller and Spray.....\$ 14.10	0.00
PLUMBER.....\$ 22.50	5.40
ROOFER.....\$ 23.00	8.96
TRUCK DRIVER: Dump Truck.....\$ 14.08	0.00

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.

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)).

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.

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"

SUBMITTALS CHECKLIST AND ACKNOWLEDGMENT

For

_____ Capitol/Franklin Exterior Brick Sealer Project _____

CHECK LIST

Contractor's Bid Form (completely filled out, signed and dated);

Bid Bond (5% of total bid amount including add alternates);

Section 3 Resident Employment Plan;

Affidavit of MBE Participation;

Representations Certifications and Other Statements of Bidders form HUD 5369-A;

Certification for Small Business Concerns;

Copy of current Idaho Public Works License for bidder;

Submittals Checklist and Acknowledgement (this form) and;

Non-Collusive Affidavit.

The Boise City Housing Authority intends to award a contract on the basis of the (lowest price quoted including any add alternates or highest ranked) that is also responsible and responsive to this solicitation and qualified for the work described in the IFB/RFP documents. **To be responsive, the Bidder must submit all of the above Check List items in a sealed envelope.**

The Boise City Housing Authority shall reject Bids as non-responsive that do not include each of the above documents, fully completed and properly executed.

ACKNOWLEDGEMNT and SIGNATURE SHEET

**Boise City Housing Authority
Capitol/Franklin Exterior Brick Sealer Project**

My signature certifies that the Bid as submitted complies with all requirements set forth in the Bid solicitation documents.

Complete Legal Name of Company: _____

Address: _____

Federal Tax ID Number: _____

Telephone: (____) _____ **Fax No.:** (____) _____

Email Address: _____

To receive consideration for award, this Acknowledgement and Signature Sheet must be returned to the Housing Authority.

I further acknowledge receipt of the following:

Bid Documents
<ol style="list-style-type: none">1. Contractor's Bid Form2. Form of Contract3. General Conditions for Constructions, form HUD 5370;4. Plans, Specifications and Supplementals as provided by BCACHA;5. Certifications Representations and other Statements of Bidder, form HUD 5369-A6. Section 3 Resident Employment Plan7. Davis Bacon Wage Rate8. Instructions to Bidders, form HUD 53699. Invitation for Bid's (IFB)10. Public Works Contract Report

All Bidders' are encouraged to carefully examine all Bid Documents and project site. Failure to do so shall be at the sole risk of Bidder.

I hereby certify that I am authorized to sign as a Representative for the Bidder

Signature: _____

Name (type/print): _____

Title: _____ **Date:** _____

FORM OF CONTRACT

THIS AGREEMENT made this ____ day of _____, in the year 2020 by and between: Contractor (the “Contractor”) and Boise City Housing Authority, an independent public body politic and corporate constituting a public instrumentality, duly organized and existing under the Constitution and laws of the State of Idaho (the “PHA”).

WITNESSETH, that the Contractor and the PHA for the consideration stated herein mutually agree as follows:

ARTICLE I

STATEMENT OF WORK

The Contractor shall furnish all labor, material, equipment, services, and permits and perform and complete all work required for: Capitol/Franklin Exterior Brick Sealer Project.

ARTICLE II

CONTRACT PRICE

The PHA shall pay the Contractor for the performance of the Contract, in current funds, the sum total of: _____ (_____) **Dollars.**

Payment will be made in accordance to contract documents.

ARTICLE III

PERFORMANCE

The Contractor agrees that time is of the essence in the completion of the work and shall complete the work within a reasonable amount of time. This work will be completed no later than (75) calendar days from date of contract.

ARTICLE IV

CONTRACT DOCUMENTS

The Contract shall consist of the following component parts:

- A. This Form of Contract;
- B. General Conditions form HUD-5370;
- C. Contractor's Bid Form dated _____;
- D. Plans and Specifications as provided;
- E. Davis Bacon Wage Determination dated _____;
- F. Certifications and Representations form HUD-5369-A;
- G. Addenda _____

This instrument, together with the other documents enumerated in this ARTICLE IV, which said other documents are as fully a part of the Contract as if hereto attached or herein repeated, form the Contract. In the event that any provision of any other component part of this Contract conflicts with any provision of any other component part, the provision of the component part first enumerated in the ARTICLE IV shall govern, except as otherwise specially stated. The various provisions in Addenda shall be construed in the order of the preference of the component part of the Contract which each modifies.

IN WITNESS WHEREOF, THE PARTIES HERETO HAVE CAUSED THIS instrument to be executed in (2) original counterparts as of the day and year first above written.

CONTRACTOR:

BY: _____

TITLE: _____

PHA:

**Boise City Housing Authority
1001 S. Orchard Street
Boise, Idaho 83705**

BY: _____

TITLE: _____

CONTRACTOR'S CERTIFICATION

I, _____, certify that I am the _____ of the Corporation named as Contractor herein, and that I who signed the Contract on behalf of the Contractor, was then the _____ of said Corporation; that said Contract was duly signed for and on behalf of said Corporation by authority of its governing body, and is within the scope of its corporate powers.

Corporate Seal

BY: _____

TITLE: _____

CONTRACTOR: _____

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. 3/31/2020)

Applicability. This form is applicable to any construction/development contract greater than \$150,000.

This form includes those clauses required by OMB's common rule on grantee procurement, implemented at HUD in 2 CFR 200, 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.

2. Contractor's Responsibility for Work

- (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

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 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

required in the planning and production of the work. Such 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. 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

waivers. Before installing the work, the Contractor shall 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.

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.

- (f) New work which connects to existing work 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 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.

- (f) The PHA may conduct routine inspections of the construction site on a daily basis.
- (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 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.

- (h) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any 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

this contract within 75 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 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 15 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.

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 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 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 an 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:

- (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 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 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

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 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 \$ 200 [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

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 \$ 2,000,000 [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 \$ **1,000,000** [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.

- (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).

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

- (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

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.

- (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.

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.

State Tax Commission
PUBLIC WORKS CONTRACT REPORT

Ref. No.	Code No.
<i>This space for state use only.</i>	

Sections 54-1904A and 63-3624(g), Idaho Code, require all Public Works Contracts to be reported to the State Tax Commission.

Contract awarded by (public body and address)

Contract awarded to (contractor's name and home address)

State of Incorporation	Federal employer number	Date qualified to do business in Idaho (Section 30-501, I.C.)
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Business operates as <input type="checkbox"/> Sole proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation	Public Works contractor license number
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Sole proprietor's social security number	Sales/Use tax permit number	Withholding tax permit number
--	-----------------------------	-------------------------------

Project number (if any)	Amount of contract \$
-------------------------	--------------------------

Description and location of work to be performed

Scheduled project start date: _____ and completion date: _____

If the following information is not available at this time, please indicate when it will be. _____
Date

This form must be filed with the State Tax Commission within 30 days after a contract is awarded.

ALL SUBCONTRACTORS

Name	State of Incorporation	Federal employer number
Address	Date qualified to do business in Idaho	Public works contractor number
City, State, Zip	Business operates as <input type="checkbox"/> Sole proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation	Amount of subcontract \$
Description of work		

Name	State of Incorporation	Federal employer number
Address	Date qualified to do business in Idaho	Public works contractor number
City, State, Zip	Business operates as <input type="checkbox"/> Sole proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation	Amount of subcontract \$
Description of work		

Name	State of Incorporation	Federal employer number
Address	Date qualified to do business in Idaho	Public works contractor number
City, State, Zip	Business operates as <input type="checkbox"/> Sole proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation	Amount of subcontract \$
Description of work		

Name	State of Incorporation	Federal employer number
Address	Date qualified to do business in Idaho	Public works contractor number
City, State, Zip	Business operates as <input type="checkbox"/> Sole proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation	Amount of subcontract \$
Description of work		

Name	State of Incorporation	Federal employer number
Address	Date qualified to do business in Idaho	Public works contractor number
City, State, Zip	Business operates as <input type="checkbox"/> Sole proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation	Amount of subcontract \$
Description of work		

ALL SUBCONTRACTORS (Continued)

Name	State of Incorporation	Federal employer number
Address	Date qualified to do business in Idaho	Public works contractor number
City, State, Zip	Business operates as <input type="checkbox"/> Partnership <input type="checkbox"/> Sole proprietorship <input type="checkbox"/> Corporation <input type="checkbox"/> Corporation	Amount of subcontract \$
Description of work		

Name	State of Incorporation	Federal employer number
Address	Date qualified to do business in Idaho	Public works contractor number
City, State, Zip	Business operates as <input type="checkbox"/> Partnership <input type="checkbox"/> Sole proprietorship <input type="checkbox"/> Corporation <input type="checkbox"/> Corporation	Amount of subcontract \$
Description of work		

Name	State of Incorporation	Federal employer number
Address	Date qualified to do business in Idaho	Public works contractor number
City, State, Zip	Business operates as <input type="checkbox"/> Partnership <input type="checkbox"/> Sole proprietorship <input type="checkbox"/> Corporation <input type="checkbox"/> Corporation	Amount of subcontract \$
Description of work		

SUPPLIERS

Use the space below to report: Major suppliers of materials and supplies: items removed from inventory; equipment purchased, rented or leased for use in project; materials provided by government agency. Please indicate how sales or use tax was paid.

Name	Address	Phone number	<input type="checkbox"/> Tax paid to supplier. <input type="checkbox"/> Tax paid to state. * <input type="checkbox"/> No tax paid.
Materials and equipment purchased and used:		Total value \$	

Name	Address	Phone number	<input type="checkbox"/> Tax paid to supplier. <input type="checkbox"/> Tax paid to state. * <input type="checkbox"/> No tax paid.
Materials and equipment purchased and used:		Total value \$	

Name	Address	Phone number	<input type="checkbox"/> Tax paid to supplier. <input type="checkbox"/> Tax paid to state. * <input type="checkbox"/> No tax paid.
Materials and equipment purchased and used:		Total value \$	

Name	Address	Phone number	<input type="checkbox"/> Tax paid to supplier. <input type="checkbox"/> Tax paid to state. * <input type="checkbox"/> No tax paid.
Materials and equipment purchased and used:		Total value \$	

Name	Address	Phone number	<input type="checkbox"/> Tax paid to supplier. <input type="checkbox"/> Tax paid to state. * <input type="checkbox"/> No tax paid.
Materials and equipment purchased and used:		Total value \$	

* If tax was not paid to suppliers, but WAS or WILL BE reported as "Items Subject to Use Tax" under your permit number, indicate period of return on which payment WAS or WILL BE reported: _____
 If tax was remitted to a state other than Idaho, name state next to "Total value" box(es) above.
 If tax is due and has not previously been reported, attach payment to this form.

SIGN HERE >	Authorized signature	Print name	Phone number	Date
-------------	----------------------	------------	--------------	------



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

NAME OF CONTRACTOR OR SUBCONTRACTOR ADDRESS PROJECT OR CONTRACT NO.

PAYROLL NO. PROJECT AND LOCATION

(1) NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	(2) EXEMPTIONS OR	(3) WORK CLASSIFICATION	(4) DAY AND DATE	(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS			(9) NET WAGES PAID FOR WEEK
							FICA	WITH- HOLDING TAX	OTHER	

While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.9(a). The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(e)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Public Burden Statement

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

Date _____

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

do hereby state:

(1) That I pay or supervise the payment of the persons employed by _____ (Contractor or Subcontractor) on the _____ (Building or Work); that during the payroll period commencing on the _____ day of _____, and ending the _____ day of _____,

all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said _____ (Contractor or Subcontractor) from the full weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 967, 76 Stat. 357, 40 U.S.C. § 3145), and described below:

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

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

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

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

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

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

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS:

NAME AND TITLE

SIGNATURE

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

How to Correctly Fill Out a WH-347 Payroll Form

The completion of the WH-347 Payroll Form is optional; contractors may utilize their own payroll system as long as it conforms to the WH-347 Payroll Form and contains all the necessary information. If you utilize WH-347 Payroll Form as a pdf, saving it electronically aids in making any needed corrections.

Check one of the boxes and list name of contractor or subcontractor

The last day of the payroll period.


Fill out completely with contractor or subcontractor address

Payrolls must be numbered sequentially and should be based on the weeks worked under a contract.

Indicate the days and dates of the pay period. (should match week ending directly above)

The name and location of project.

The prime contractor should include the project number as listed in the loan



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

PAYROLL

(For Contractor's Optional Use; See instructions at www.dol.gov/esa/whd/forms/wh347Instr.htm)

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

Rev. Dec. 2008

OMB No. 1215-0149

Expires: 12/31/2011

NAME OF CONTRACTOR OR SUBCONTRACTOR

Sample Construction Company

PROJECT OR CONTRACT NO.

3000

ADDRESS: 385 West Drive, Madison WI 53703

PROJECT AND LOCATION

Robin Street Apartments, Delafield WI 53018

PAYROLL NO.	NAME AND INDIVIDUAL IDENTIFYING NUMBER (I.E. LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	WORK CLASSIFICATION	(4) DAY AND DATE							(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS			(9) NET AMOUNT PAID FOR WEEK				
			Sun	Mon	Tue	Wed	Thurs	Frid	Sat				FICA	State withholding tax	Medicare		OTHER			
1	Alex Driver - #####	Power Equipment Operator Bull Dozer Group 2								2.00	\$62.83	\$1,422.84	\$161.00	\$185.15	\$156.97	\$50.31	\$85.00	\$26.43	\$1,374.03	
										27.50	\$172.00	\$2,012.46								

Sample WH-347 Payroll Form

Page 1 of 5

WHEDA Rev. 02/2010

List each worker's name.
 Only laborers and mechanics performing construction work under the contract should be listed.
 Please note: Business Owners need only include their name, work classification including "owner" and the daily total hours worked.

Specify the job classification located in the contract wage decision and/or the corresponding job title.

List hourly wage rate and fringes paid in cash (not those paid to plans)

Specify the net amount paid to the employee for the pay

NAME AND INDIVIDUAL IDENTIFICATION NUMBER (i.e., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER OF WORKER)	EXEMPTION NUMBER	WORK CLASSIFICATION	(4) DAY AND DATE							TOTAL HOURS	RATE AMOUNT OF PAY	GROSS AMOUNT PAID	FICA	DEDUCTIONS	TOTAL DEDUCTIONS	NET WAGE PAID TO EMPLOYEE	
			Sun	Mon	Tue	Wed	Thur	Frid	Sat								
Alex Driver - #####	2	Power Equipment Bull Dozer Group 2							1.00	2.00	\$62.83	\$122.84	\$161.00			\$161.00	\$1,374.03
Jason Worker - #####	2	General Laborer							4.00	40.00	\$17.25	\$690.00	\$136.06			\$136.06	\$1,233.07
Shawn Worker - #####	3	Apprentice Carpenter 1st 6 mo. at 40%							1.50	1.50	\$60.19	\$90.28	\$11.00	\$128.35	\$47.19	\$43.14	\$1,406.18
Roy Wrench - #####	5	Plumber							20.00	20.00	\$32.72	\$654.40	\$85.18	\$90.50	\$26.62	\$307.71	\$757.01
Bart Turner - #####	1	Steamfitter							20.00	20.00	\$34.41	\$688.20	\$163.46	\$118.51	\$51.08	\$480.16	\$1,563.04
		Power Equipment Rotary Drill Group 4							24.00	24.00	\$60.80	\$1,459.20	\$115.46	\$142.48	\$35.98	\$415.93	\$1,023.27

Must accurately reflect overtime and straight time hours worked under the contract.

Specify the gross earnings for the hours worked under the contract.

For Contractor's Optional Use: See Instructions at www.dol.gov/esa/whd/forms/WH347Inst.htm
 Persons are not required to report to the collection of information unless it displays a currently valid OMB control number.
 ADDRESS: 365 West Drive, Madison, WI 53703
 PROJECT AND LOCATION: Robin Street Apartments, Dalesfield WI 53118
 PROJECTOR CODE: 3000

While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to furnish weekly a statement with respect to the wages paid each 28 C.F.R. § 5.50(c)(10) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" showing the proper Davis-Bacon prevailing wage rate for the work performed. DOL and Federal contracting agencies receiving this information review the information for compliance with the Davis-Bacon Act.
 Public Bulletin Statement

If part of a worker's weekly wage was earned on projects other than the project described on this payroll, enter the gross amount earned on this contract in the top half of column 7. Enter the gross amount earned during the week for all projects in the bottom half.

Alex Driver worked 29.5 hours on this contract and 12.5 hours on another contract. The gross wages earned on this project, \$1,422.84, is entered in the top half of column 7. The gross wages earned on all projects, \$2,012.46, is entered in the

(1) NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	(2) NUMBER OF HOURS	(3) WORK CLASSIFICATION	(4) DAY AND DATE							TOTAL HOURS	RATE OF PAY	GROSS AMOUNT EARNED	DEDUCTIONS				NET WAGES PAID FOR WEEK			
			Sun	Mon	Tue	Wed	Thu	Fri	Sat				FICA	WITH- HOLDING TAX	State work- ing int	Medicare		OTHER	TOTAL DEDUCTIONS	
Alex Driver - #####	2	Power Equipment Bull Dozer Group 2									2.00	\$62.83	\$1,422.84	\$61.07	\$185.15	\$156.97	\$50.31	\$85.00	\$638.43	\$1,374.03
Jason Worker - #####	2	General Laborer									4.00	\$40.70	\$2,012.46	\$35.06	\$156.47	\$132.66	\$42.52		\$467.71	\$1,233.07
Sharon Wood - #####	3	Carpenter									1.50	\$60.19	\$1,887.49	\$151.00	\$154.77	\$128.35	\$47.19		\$481.31	\$1,406.18
Reggie Tree - #####	1	Apprentice Carpenter 1st 6 mo. at 40%									40.00	\$32.72	\$1,064.72	\$85.18	\$105.41	\$90.50	\$26.62		\$307.71	\$757.01
Roy Wrench - #####	5	Plumber									20.00	\$67.88	\$1,004.80	\$163.46	\$147.11	\$118.51	\$51.08		\$480.16	\$1,563.04
Roy Wrench - #####	5	Steamfitter									20.00	\$69.13	\$1,064.72	\$115.41	\$142.48	\$122.33	\$35.98		\$475.53	\$1,023.27
Bert Turner - #####	1	Power Equipment Rotary Drill Group 4									24.00	\$60.80	\$2,043.20	\$115.41	\$142.48	\$122.33	\$35.98		\$475.53	\$1,023.27

If an employee performs multiple work classifications under the contract, use two or more lines to distinguish the different job classifications, hours worked, and hourly wage earned for each.

Combine the two classifications when recording the gross amount earned for this pay period, deductions, and net wages.

A registered apprentice performing work under a contract must be reported. The payroll must include the current pay scale & provide a copy of the apprenticeship agreement.

Provide explanation of "other" deductions on signatory page.

PAYROLL

Optional Use; See Instructions at www.dot.gov/esa/whd/forms/wh347
 Used to respond to the collection of information unless it displays a currently valid OMB control number.

Division: 2100
 Project No: 540149
 Expires: 12/25/2011

ADDRESS: 385 West Drive, Madison WI 53703
 PROJECT AND LOCATION: Robin Street Apartments, Delafield WI 53018
 PROJECT OR CONTRACT NO: 3000

(1) NAME AND INDIVIDUAL IDENTIFYING NUMBER (09 - LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER OF WORKER)	(2) NO. OF EMPLOYMENT EXCEPTIONS	(3) WORK CLASSIFICATION	(4) DAY AND DATE							(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS			(9) NET WAGES PAID FOR WEEK			
			Sun	Mon	Tue	Wed	Thurs	Frid	Sat				FICA	WITH- HOLDING TAX	State work Injuring Ins		Medicare	OTHER DEDUCTIONS	
Alex Driver - #####	0	Power Equipment Bull Dozer Group 2								2.00	\$62.83	\$1,422.84	\$161.00	\$185.15	\$156.97	\$50.31	\$85.00	\$638.43	\$1,374.09
Jason Worker - #####	0	General Laborer								4.00	\$49.20	\$1,700.78	\$136.06	\$156.47	\$132.66	\$42.52		\$467.71	\$1,233.07
Sharon Wood - #####	0	Carpenter								1.50	\$60.19	\$1,887.49	\$151.80	\$154.77	\$128.95	\$47.19		\$481.31	\$1,406.18
Reggie Tree - #####	0	Apprentice Carpenter 1st 6 mo at 40%								40.00	\$32.72	\$1,064.72	\$85.18	\$105.41	\$90.50	\$26.62		\$307.71	\$757.01
Roy Wrench - #####	0	Plumber								20.00	\$67.88	\$1,004.80							
Roy Wrench - #####	0	Steamfitter								20.00	\$59.13	\$1,038.40	\$163.46	\$147.11	\$118.51	\$51.08		\$480.16	\$1,563.04
Bart Turner - #####	0	Power Equipment Rotary Drill Group 4								24.00	\$60.80	\$719.28	\$115.14	\$142.48	\$122.33	\$35.98		\$415.93	\$1,023.27

Fringe benefits are not paid as cash to Bart Turner: explanation is included under "(c) exceptions" on signatory page.

When completion of Form WH-347 is required by the contractor, the contractor shall submit a copy of this form to the contractor's local office of the Department of Transportation, 200 Constitution Avenue, N.W., Washington, D.C. 20515.

We estimate that it will take approximately 15 minutes to complete this form. If you have any comments regarding this form, please contact the Bureau, send them to the Assistant Secretary for Fielding this Bureau, send them to the Assistant Secretary for Fielding this Bureau, Room 31502, 200 Constitution Avenue, N.W., Washington, D.C. 20515.

(over)

Date 04/28/2010

I, Tiffany Payer Payroll Supervisor
(Name of Signatory Party) (Title)

do hereby state:

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

Sample Construction Company

(Contractor or Subcontractor) on the

Robin Street Apartments, Delafield WI that during the payroll period commencing on the

18 day of 4 2010 and ending the 24 day of 4 2010
all persons employed on said project have been paid the full weekly wages earned, that no rebates have
been or will be made either directly or indirectly to or on behalf of said

Sample Construction Company from the full
(Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly
from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part
3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948
63 Stat. 108, 72 Stat. 987, 76 Stat. 357, 40 U.S.C. § 3145), and described below.

Alex Driver - excess - other deductions - \$95 for child support

Explanation of "other"

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

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

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS
 -- in addition to the basic hourly wage rates paid to each laborer or mechanic listed in
the above referenced payroll, payments of fringe benefits as listed in the contract
have been or will be made to appropriate programs for the benefit of such
employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

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

(c) EXCEPTIONS

EXCEPTION/COMPANY	EXPLANATION
Power Equipment Rotary Drill Group 4	paid directly to plan: health & dental at \$12.50 per hour and Pension at \$6.25 per hour
Explanation of exception to fringe benefits	

EXPLANATION

NAME AND TITLE
Robert Sample, Owner

SIGNATURE

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

**Certificate from Contractor Appointing
Officer or Employee to Supervise
Payment of Employee**

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

Project Name _____ Date (mm/dd/yyyy) _____

Location _____ Project No. _____

(I) (We) hereby certify that (I am) (we are) (the prime contractor) (a subcontractor) for _____

(specify "General Construction," "Plumbing," "Roofing," etc.) in connection with construction of the above-mentioned Low-Rent Housing Project,

and that (I) (we) have appointed _____, whose signature

appears below, to supervise the payment of (my) (our) employees beginning (Date: mm/dd/yyyy) _____ ;

That he/she is in a position to have full knowledge of the facts set forth in the payroll documents and in the statement of compliance

required by the so-called Kick-Back Statue which he/she is to execute with (my) (our) full authority and approval until such time as (I)

(we) submit to the (Name of Local Authority) _____

a new certificate appointing some other person for the purposes hereinabove stated.

(Identifying Signature of Appointee)

Attest (If required)

(Name of Firm or Corporation)

(Signature)

By _____
(Signature)

(Title)

(Title)

(Date: mm/dd/yyyy)

(Date: mm/dd/yyyy)

Note: This certificate must be execute by an authorized officer of a corporation or by a member of a partnership, and shall be executed prior to and be submitted with the first payroll. Should the appointee be changed, a new certificate must accompany the first payroll for which the new appointee executes a statement of compliance required by the Kick-Back Statue.

AUTHORIZATION FOR PAYROLL DEDUCTION

Employee Name: _____

Employee Address: _____

Employee Phone: _____

I hereby authorize _____ to deduct the following from my payroll check:

Amount of deduction: _____

Start date of deduction: _____

Frequency of deduction: _____

Termination date of deduction: _____

Reason for deduction:

Employees Signature: _____

Date: _____

EXHIBIT A

SCOPE OF WORK

SUMMARY

A. This Exhibit includes the following:

1. Work covered by the Contract Documents
2. Use of Premises
3. Owner's occupancy requirements

WORK COVERED BY THE CONTRACT DOCUMENTS

A. Project Identification:

- Capitol Plaza, commonly known as: 700 W. Cunningham Place, Boise, Idaho 83702.
- Franklin Plaza, commonly known as: 1555 W. Franklin St., Boise, Idaho 83702.

B. Owner: Boise City Housing Authority, 1001 S. Orchard St., Boise, Idaho 83705

1. Owner's Representative: Ben Duke (208) 287-1073

C. The desired results from this project are the application of a penetrating sealer to all exterior, vertical, horizontal, exposed brick (and exposed vertical concrete) at both buildings. There are a total of ninety three (93) units at Capitol Plaza. There are a total of sixty seven (67) units at Franklin Plaza. One contract will be awarded to the "Lowest – Responsible - Responsive – Qualified Bidder".

D. The work consists of the following:

1. Contractor shall take all necessary precautions to minimize and avoid damaging any items of the work site or building. In the event damage is unavoidable or intentional then contractor will, at Owners sole discretion either properly repair or replace damaged item and match to existing construction. No additional costs shall be awarded.
2. Preparation: Prior to applying product, contractor to clean the brick by using pressurized water cleaning techniques as indicated by The Brick Industry Association, Technical Notes on Brick Construction, Cleaning Brickwork, dated August 2018 (Attached). Follow all applicable requirements.
3. Product: Foundation Armor SX5000 Water Based Penetrating Silane Siloxane Water Repellent Sealer or Owner approved equivalent.

4. Product Application: Follow manufacturer's application instructions (attached). Application will be a two-coat process. Second coat to be applied using a "wet-on-wet" procedure.
- E. Project will be constructed under a Form of Contract between Owner and Contractor, where the basis of payment is a Stipulated Sum. See Form of Contract.

USE OF PREMISES

- A. General: Contractor shall have access to the premises for construction operations between the hours of 0800 and 1700, Monday through Friday, excluding any federal holidays.
- B. Work Planning: Throughout the execution of the Work, the current occupants will use the building as their main place of residence. Occupants may not be displaced from the residences for any extended periods of time that would exceed 8 hours during the course of any single work day and no more than once per resident during construction.
- C. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 1. Keep driveways, parking areas and entrances serving premises clear and available to Owner, Owner's employees, residents and emergency vehicles at all times. Do not use these areas for storage of materials.
 2. Schedule deliveries to minimize use of driveways and entrances.
 3. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.
 4. Remove all construction material, tools, equipment, and trucks from site daily.
 5. Maintain project work site area in a safe manner at all times.
 6. Contractor and their employees, suppliers and subcontractors shall be polite and courteous at all times to occupants of the premises.

OWNER'S OCCUPANCY REQUIREMENTS

- A. Full Occupancy: Tenant will occupy site and existing building during entire construction period. Cooperate with Owner and Tenant during construction operations to minimize conflicts and facilitate Tenant usage. Perform the Work so as to minimize interference with Owner and occupants' day-to-day operations. Maintain existing exits, unless otherwise indicated.
 1. 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.

WATER REPELLENTS



Foundation Armor water repellent sealers chemically react below the surface to form a hydrophobic barrier within the pores. Once fully cured, the hydrophobic barrier will cause water and other liquids to bead off the surface, preventing deterioration caused by water absorption such as cracking, spalling, pitting, and staining. Surfaces sealed with a water repellent sealer are also more resistant to the formation of efflorescence and the growth of mold and mildew.

BENEFITS

- Waterproofs brick chimneys, walls, and facades against wind-driven rainwater
- Reduces water seepage and moisture seepage from below ground
- Protects against freeze-thaw damage and road salts
- Reduces damage caused by water absorption, such as pitting, spalling, dusting and crumbling
- Resists spills, motor oil, grease, and chemical spills
- Provides an easier-to-clean surface
- Reduces the growth of mold, mildew and algae
- Reduces water vapor transmission through the substrate
- Reduces the formation of efflorescence
- Will provide up to 10 years of life before the need for a recoat
- Will not change the look or color of the concrete, brick, pavers, stone, or masonry

USES: Concrete, Brick, Pavers, Aggregate, Stone

ARMOR SX5000

DOT approved high solids Silane-Siloxane water repellent sealer. Solvent based, 2 coat application.

Coverage: 1 gallon will cover up to 250 square feet in one coat depending on the porosity of the surface.



ARMOR SX5000 WB

DOT approved high solids Silane-Siloxane water repellent sealer. Water based, 2 coat application.

Coverage: 1 gallon will cover up to 250 square feet in one coat depending on the porosity of the surface.



ARMOR SC25

Water based catalyzed Siliconate water repellent sealer. 1 coat application.

Coverage: 1 gallon will cover up to 250 square feet in one coat depending on the porosity of the surface.





Armor SX5000 WB Approved Silane Siloxane Water Repellent Sealer

Foundation Armor
472 Amherst Street #14
Nashua, NH 03063
(866) 306-0246
FoundationArmor.com

PRODUCT DESCRIPTION

The Armor SX5000 WB is a high solids, water based Silane-Siloxane water repellent sealer that penetrates deep into the concrete surface where it chemically reacts to form a hydrophobic barrier within the pores. Surfaces sealed with the Armor SX5000 WB are more resistant to the damaging effects of water absorption, such as cracking, spalling, pitting, freeze thaw and salt damage, staining, mold and mildew, and efflorescence. It can be applied to interior and exterior, vertical and horizontal surfaces.

BENEFITS/FEATURES

- ◆ Contains up to 5X more active ingredients than similar products
- ◆ Will maintain the natural, unsealed look and feel of the substrate
- ◆ Will provide up to 10 years of life before the need for a recoat
- ◆ Breathable, low odor.
- ◆ Will reduce deterioration caused by water absorption such as cracking, spalling, pitting, staining
- ◆ Will reduce the formation of mold and mildew
- ◆ Will reduce freeze-thaw and salt damage
- ◆ Will reduce the movement of moisture through the concrete pores
- ◆ Is approved by the Department of Transportation as a water repellent sealer in several states

SUGGESTED APPLICATIONS

- ◆ Poured, broom finished, and troweled concrete.
- ◆ Pavers and brick.
- ◆ Aggregate and natural stone.
- ◆ Driveways, walkways, and stairs.
- ◆ Pool decks and patios.
- ◆ Garage, warehouse, and basement floors and walls.
- ◆ Car ports, pole barns, retail and restaurant floors.

TECHNICAL INFORMATION

Solids.....	+/- 20%	Wet Appearance.....	Clear
Drying Time.....	1-2 hours	Dry Appearance.....	Invisible
Re-Coat Time.....	Wet on Wet	VOC Content.....	Low VOC
Foot Traffic.....	12-24 hours	Blush Resistance.....	Excellent
Wheel Traffic.....	24 - 48 hours	Alkalinity Resistance.....	Excellent
Application Temp.....	45°F - 85°F	Concrete Adhesion.....	Excellent

COVERAGE

Porous Substrates	125-175 ft ² /gallon in one coat.
Dense, Trowel Finished Substrates	250-350 ft ² /gallon in one coat.

The average coverage rate is 250 FT²/gallon in one coat. Coverage rates will vary depending upon surface porosity and texture, and application method. Excessive build up should be avoided.

COMPLIANCES

- ◆ NCHRP 244 Report, Series II:
 - ◆ Reduction in Water Absorption: +/- 81-95%
 - ◆ Reduction in chloride ion content: +/- 84%
 - ◆ Reduction in water vapor transmission: +/- 100%
- ◆ Dried coating is USDA accepted

SHELF LIFE

When properly sealed and stored, the shelf life of the Armor SX5000 WB is up to 1 year.

PACKAGING

The Armor SX5000 WB is available in a 16 OZ Sample, 1 Gallon Bottle, 5 Gallon Pail, and 55 Gallon Drum.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION: Prior to surface preparation, protect people, property, automobiles, plants and any other non-masonry surfaces and objects from the material, wind drift, and splash, residue, and fumes of the material. Proper surface preparation is highly important. Use the proper cleaning detergent for the substrate at hand. It is recommended that Armor SX5000 WB be applied on a clean, dry and absorbent surface. Please note that excessive moisture inhibits good penetration, which can reduce the life and performance of the coating. Newly constructed and repointed substrates should be fully cleaned and cured 28 days prior to application. Always test for compatibility before applying. Please test using the following application instructions. It is important to let the test area dry completely before final inspection and approval.

The temperature of the air and surface must be 45-85 degrees F during application. If freezing conditions exist prior to application, it is highly recommended that the substrate be allowed to fully thaw. Should this recommendation not be followed, the product may not yield adequate protective properties.

Proper equipment should be used when applying Armor SX5000 WB. A brush, roller, or low pressure sprayer should be used to apply. If using a sprayer, be sure the psi is no greater than 20. Set the sprayer to achieve a good, wet stream, avoiding atomization of the product.

APPLICATION:

Using a pump sprayer or roller, apply first coat of Armor SX5000 WB, ensuring the entire surface is evenly saturated. Broom out puddles until surface is penetrated. Second coat should be applied "wet-on-wet".

Substrates sealed with Armor SX5000 WB may be coated with silicone emulsion paints and many oil based paints once the surface has had 72 hours to dry. Testing is always necessary and recommended to assure proper adhesion. Adhesion may be improved if the surface is pressure washed and allowed to dry prior to application. Armor SX5000 WB is not a paint primer. Adhesion of cementitious coatings, stucco, plaster, etc., may be adversely affected. These types of substrate treatments should be installed and allowed to fully cure before applying Armor SX5000 WB. Always test to verify compatibility.

- Allow fresh concrete at least four weeks, preferably six weeks, to set before applying sealer.
- Remove coarse particles and dust from new, unsoiled surfaces with a brush or compressed air. Use super heated steam to clean surfaces that are heavily soiled with oil, abraded rubber, etc. prior to treatment.
- Only seal concrete that has a uniformly dry surface with no damp patches. Do not apply if it is expected to rain within 24 hours of applying sealer.
- The sealed substrate should be protected from weathering conditions for at least 24 hours after application. A neutral pH surface may need several days to achieve full water repellency.

CLEAN-UP

Use warm water and soap. Dispose of containers in accordance with local and federal regulations.

PRODUCT REMOVAL

Armor SX5000 WB penetrates deep into to the surface. Removal is not recommended.

PRECAUTIONS AND LIMITATIONS

- ◆ Apply sealer with plenty of ventilation. Should be stored in accordance with local laws.
- ◆ It is recommended to store this product in an area where the temperature is between 45-85 degrees F.
- ◆ Do not allow sealer to be subject to any form of rain or moisture for at least 24 hours after application.
- ◆ Coverage rates depend upon many conditions including application method, surface porosity, applicator, etc.
- ◆ Sealer was designed for a water repellent for porous surfaces. Not intended as a decorative topcoat.
- ◆ Sealer will not keep water out of cracks, defects, or open joints.
- ◆ Sealer should never be thinned or mixed with any form of liquid.

CONTACT

Still have questions? Contact a Foundation Armor Technician at 866-306-0246.

SAFETY DATA SHEET

Issue Date 01-JAN-2020

Revision Date 01-JAN-2020

Version 1

1. IDENTIFICATION

Product Identifier

Product Name Armor SX5000 WB

Other means of identification

Product Code SX5000WB

Synonyms

Recommended use of the chemical and restrictions on use

Recommended Use Concrete Water Repellent.

Uses advised against No Data

Details of the supplier of the safety data sheet

Distributor Address

Foundation Armor 3 Howe Drive Unit 2 Amherst, NH 03031 (866) 306-0246

Emergency telephone number

Company Phone Number (866) 306-0246

24 Hour Emergency Phone Number (800) 424-9300 (United States & Canada)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Emergency Overview

CAUTION

Hazard statements

May cause eye irritation

May cause respiratory irritation

May cause skin irritation

Harmful if swallowed



Appearance Milky White Liquid

Physical state liquid

Odor Mild

Precautionary Statements - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood
 Keep container tightly closed
 Ground/bond container and receiving equipment
 Avoid breathing dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling
 Use only outdoors or in a well-ventilated area
 Avoid release to the environment
 Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
 If skin irritation occurs: Get medical advice or attention.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contacts, if present and easy to do. Continue rinsing.
 If eye irritation persists: Get medical advice/attention
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
 IF SWALLOWED: Immediately call a POISON CONTROL CENTER/doctor
 Do NOT induce vomiting.
 Take off contaminated clothing and wash before reuse
 In case of fire use, "alcohol resistant" foam, dry chemical, halon or carbon dioxide to extinguish.
 Collect spillage

Precautionary Statements - Storage

Store in well-ventilated place. Keep Cool. Keep container tightly closed. Store locked up.

Precautionary Statements - Disposal

Dispose of contents/container in accordance with local/regional/national regulations.

Hazards not otherwise classified (HNOC)

This material releases ethanol upon hydrolysis. Ethanol (CAS No. 64-17-5) is an irritant to the eyes and mucous membranes. Overexposure has been shown to cause central nervous system depression. Direct contact with the eyes will cause burning and stinging.

Other Information

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No.	Weight-%	Trade Secret
Non-hazardous ingredient(s)	-	60 - 100	*
Octyl Triethoxy Silane	35435-21-3	7 - 13	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General advice Move out of the dangerous area. Consult a physician. Provide this Safety Data Sheet to the doctor in attendance.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash off immediately with soap and plenty of water. If skin irritation

persists, call a physician.

Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician.

Ingestion IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Symptoms Eye, Skin, and Respiratory Irritation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically. For additional information, see Safety Data Sheet.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry Chemical, Alcohol Resistant Foam, Halon or Carbon Dioxide.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical

None Known.

Hazardous combustion products Carbon dioxide (CO2). Carbon monoxide.

Explosion data

Sensitivity to Mechanical Impact Not available.

Sensitivity to Static Discharge No.

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Use personal protective equipment as required. P261 - Avoid breathing dust/fume/gas/mist/vapors/spray. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not allow product to enter any drains or waterways.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so. Dike to collect large liquid spills.

Methods for cleaning up Use a non-combustible material like vermiculite or sand to soak up the product and place into a container for later disposal. Use clean non-sparking tools to collect absorbed material. Dispose according to local regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Use only with adequate ventilation and in closed systems.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Incompatible materials Keep away from strong oxidizing agents, strong alkalis, and strong acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines Product as supplied does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Appropriate engineering controls

Engineering Controls General/Local Ventilation Recommended.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Wear chemical resistant gloves at minimum. Wash skin immediately upon contact. Wash hands at mealtime and end of shift.

Respiratory protection Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands before and after breaks and at the end of the work day.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid	Odor	Mild
Appearance	Milky White Liquid	Odor threshold	No data available
Color	white		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not Available	
Melting point / freezing point	Not Available	
Boiling point / boiling range	Not Available	
Flash point	> 100 °C (> 212 °F)	CC (closed cup)
Evaporation rate	Not Available	
Flammability (solid, gas)	Not Relevant	
Flammability Limit in Air		
Upper flammability limit:	Not Available	
Lower flammability limit:	Not Available	
Vapor pressure	Not Available	
Vapor density	Not Available	

Relative density	.992 @ 70 Degrees F
Water solubility	Soluble in water
Solubility in other solvents	Not Available
Partition coefficient	Not Available
Autoignition temperature	Not Available
Decomposition temperature	Not Available
Kinematic viscosity	Not Available
Dynamic viscosity	Not Available
Explosive properties	Not Available
Oxidizing properties	Not Available

Other Information

Softening point	Not Relevant
Molecular weight	Not Available
VOC Content (%)	< 100 g/L
Density	Not Available
Bulk density	Not Available

10. STABILITY AND REACTIVITY

Reactivity

Not Available

Chemical stability

Stable.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extreme temperature and direct sunlight

Incompatible materials

Keep away from strong oxidizing agents, strong alkalis, and strong acids.

Hazardous Decomposition Products

None Known based on information supplied

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Avoid breathing vapors or mists.
Eye contact	Avoid contact with eyes.
Skin contact	Avoid direct contact with skin
Ingestion	Do not taste or swallow.

Information on toxicological effects

Symptoms	May cause irritation.
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Delayed and Immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	No information available.
Serious eye damage/eye irritation	No information available.
Irritation	No information available.

Sensitization	No data available.
Germ cell mutagenicity	No data available.
Carcinogenicity	No Data Available.
Reproductive toxicity	Not Available.
STOT - single exposure	Not Available.
STOT - repeated exposure	Not Available.
Aspiration hazard	Not Available.

Numerical measures of toxicity - Product Information

12. ECOLOGICAL INFORMATION

No available data.

Ecotoxicity

Persistence and degradability

No data available.

Bioaccumulation

No data available.

Other adverse effects

No data available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT

Marine pollutant

Not regulated This material has been tested and does not sustain combustion.
No available data.

IATA

Not regulated

IMDG

Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDL	Complies
EINECS/ELINCS	No Data Available
ENCS	No Data Available
IECSC	No Data Available
KECL	No Data Available
PICCS	No Data Available
AICS	No Data Available

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

<u>NFPA</u>	Health hazards 1	Flammability 0	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 1	Flammability 0	Physical hazards 0	Personal protection X

Issue Date 01-JAN-2020
 Revision Date 01-JAN-2020
 Revision Note
 No data available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the

date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Cleaning Brickwork

Abstract: This *Technical Note* addresses cleaning of brickwork and brick pavements. Methods for removal of efflorescence and a variety of specific stains are discussed, which should result in the successful cleaning of brickwork.

Key Words: abrasive blasting, acid, bucket and brush cleaning, cleaning, efflorescence, poultice, pressurized water, stains.

SUMMARY OF RECOMMENDATIONS:

During Construction

- Store brick off the ground under protective covering
- Protect wall surfaces and unlaidd brick from rain-splashed mud and mortar splatter
- Use bricklaying techniques that reduce mortar smears during construction; brush excess mortar after tooling and remove large mortar tags using wooden paddles or nonmetallic tools
- Protect any unfinished walls with waterproof cover at the end of the workday, and extend covering at least 2 ft (0.6 m) down from the top of the wall on all sides

Prior to Cleaning

- Match the cleaning method and cleaning solution to the type of brick
- Verify that the cleaning method and cleaning solution used are approved by the brick manufacturer
- Protect adjacent materials that may be damaged by the brick cleaning process
- Perform trial cleaning on a 20 sq ft (2 m²) sample area and allow wall to dry before evaluating results
- For some projects, multiple cleaning trials may be required in order to achieve acceptable results
- Control and/or treat runoff in accordance with the requirements of the jurisdiction

For All Cleaning Methods

- Follow the brick manufacturer's recommended cleaning procedure
- When manufacturer recommendations are not provided, refer to **Table 1** for recommended cleaning methods for various brick categories
- Select the gentlest effective cleaning method
- Do not allow cleaning solution to dry on brickwork
- Do not use unbuffered muriatic (hydrochloric) or hydrofluoric acid
- Clean new masonry as soon as possible after mortar hardens, typically between 24 hours and seven days, depending on the cleaning method used
- Apply cleaning solution as recommended by the cleaning product manufacturer

Bucket and Brush Cleaning

- For pre-wetting, saturate the area to be cleaned and brickwork below with water prior to applying cleaning solution, and keep the entire area wet during the cleaning process

- Mix and apply cleaning solution according to cleaning product manufacturer's instructions
- Thoroughly rinse the area being cleaned and the area below with water

Pressurized Water Cleaning

- Use a stainless steel 25 to 50 deg. fan tip, held a minimum of 12 in. (305 mm) from the brick surface
- Do not use water pressures higher than 400 psi (2800 kPa) as measured at the nozzle tip unless permitted by brick manufacturer
- For pre-wetting, use very low pressure (less than 100 psi [700 kPa])
- Saturate the area to be cleaned and brickwork below prior to applying cleaning solution, and keep wet until final rinse
- Apply cleaning solution according to manufacturer's instructions by brush or a chemical pump/tank sprayer with a wide-angle fan-shaped sprayer nozzle tip, maximum 30 to 50 psi (200 to 350 kPa)
- For rinsing, use low pressure (100 to 400 psi [700 to 2800 kPa])

Other Cleaning Methods

- Poultice: Do not use as a general cleaning method; use only on persistent, localized stains
- Abrasive blasting: Except as noted in this document, do not use
- Microabrasives: Consult manufacturers of proprietary systems for suitability; these are gentler alternatives to abrasive blasting
- Lasers: Match laser type and light wavelength to stains to be removed; specialized contractors are required
- Refer to "Removing Specific Stains" for cleaning solution recommendations to clean various known stains

Efflorescence Control

- Allow one year of weathering to naturally remove new-building bloom
- Remove light efflorescence by dry-brushing or brushing with a stiff fiber brush and water
- Before attempting to clean recurring efflorescence, identify and correct the source of water penetration and allow the brickwork to dry
- Remove stubborn accumulations with a proprietary cleaning product according to the manufacturer's instructions

INTRODUCTION

The final appearance of brickwork depends primarily on the attention given to masonry surfaces during construction and the cleaning process. Even with good practices during construction, some cleaning may be required at the end of brickwork installation. Recommended cleaning methods and materials vary based on the type of brick, mortar, construction and reason for cleaning. For example, cleaning newly constructed brickwork of an entire building requires a different approach from removing stains from an isolated portion of an existing wall.

The selection of effective cleaning solutions, as well as the use of consistent and appropriate cleaning procedures throughout the job, is essential to successful cleaning and cannot be overemphasized. Improper cleaning practices can cause a host of problems that in severe cases cannot be repaired.

This *Technical Note* does not address specific safety issues related to various methods of cleaning brick masonry. Beware that cleaning agents and processes may be hazardous and may cause injury if used carelessly or inappropriately. Cleaning operations should be performed only by personnel trained to handle the safety risks associated with the work and following the label instructions.

GENERAL

Prior to beginning masonry cleaning, there are a number of considerations common to all projects that should be addressed during the planning process.

Project Considerations

Clean Water. Water used for cleaning should be potable (suitable for drinking). Iron content should be less than 2 parts per million by weight. Determine whether the local water includes additives, water softeners or other agents that may cause issues if used for cleaning.

Cold Weather. Air temperature, temperature of masonry and wind conditions affect the drying time and reaction rate of cleaning solutions. Chemical cleaning solutions are generally more effective when the outdoor temperature is 50 °F (10 °C) or above. To avoid harming the masonry or increasing the risk of efflorescence, do not clean during freezing weather or when freezing weather is expected. It is preferred to use cleaning methods that involve water only when the ambient temperature will be 40 °F or above and will remain so until the wall is dry. Ideally, temperatures should be above freezing for seven days after cleaning is completed.

Hot Weather. Do not allow cleaning solutions to dry on brickwork. Be aware that an increased risk of rapid drying exists in high temperatures. In hot weather, the cleaning crew can reduce this risk by working on small or shaded areas and being diligent about keeping the wall saturated during cleaning solution application and rinsing.

Work Area. The size of the work area should be determined after trial cleaning or as part of the first area cleaned. The size of the work area can be modified as appropriate while the work progresses.

Work Sequencing. Cleaning should be performed systematically, proceeding consistently per the “General Cleaning Procedure” section of this document within a given work area or scaffolding tier and from one end of the elevation to the other. Perform cleaning to achieve uniform coverage of surfaces, including corners, moldings and interstices, and to produce consistent results without streaking or damaging the wall surface. Avoid overlapping work areas.

Safety. Some chemicals used to clean brickwork may be harmful, including their fumes. Protecting people and property is an essential component of any cleaning project. Use protective clothing and accessories, ensure proper ventilation, and exercise safe handling procedures in accordance with OSHA requirements. Comply with federal, state or local laws regulating the use and disposal of chemicals and cleaning runoff or wastewater. Some jurisdictions may require containment and treatment of the runoff water before it can leave the site. Dilution of runoff and its release into the stormwater management system should not be expected or allowed unless expressly permitted by the applicable jurisdiction. Strictly observe the cleaner manufacturer’s safety data sheets and recommended handling requirements. The contractor should consider preparing a formal cleaning plan describing the cleaning process, materials and procedures to ensure that these handling and protection issues are addressed.

Brick Texture. Brick texture may also influence the effectiveness of cleaning operations. Mortar stains and smears are generally easier to remove from brick with smooth textures because less surface area is exposed. Smoother brick textures include die skin extruded brick, glazed brick, water-struck molded brick and dry-pressed brick. Brick

with smoother surfaces are easier to clean because residue, acid staining, and mortar smears are more visible on their unbroken surfaces. Mortar and dirt tend to penetrate deeper into textured surfaces. Brick that are wire-cut or coated, or textured extruded brick and sand-struck molded brick, provide additional surface area for water and acid absorption. Use of pressurized water may assist in achieving complete rinsing of rough-textured brick.

Characteristics Requiring Extra Care. Both new and existing brickwork may incorporate characteristics that must be considered in the development of a cleaning plan to avoid damage during the cleaning process. These can include but are not limited to decorative coatings or finishes, water repellents, mortar type, mortar color or historic significance.

Trial Cleaning

Before cleaning, it is beneficial to test potential cleaning procedures and solutions on a sample area of about 20 sq ft (2 m²), or large enough to evaluate the selected cleaning procedure. Although not common for small residential projects, trial cleaning on larger, more complex projects not only serves as a means to determine whether mortar or stains can be removed but also helps to identify the most effective procedures that cause the least damage to the masonry. Optimal concentrations of cleaning products and solutions to unexpected problems can also be determined through trial cleaning. Once approved, the test area can serve as a standard for the appearance of the brickwork after cleaning.

Reactions between cleaning solutions and certain minerals found in some brick or their surface coatings may cause stains or worsen existing stains. It is always best to test a small area before subjecting the entire project to the cleaning procedure. Ideally, a portion of the sample panel can be tested, leaving the building and the rest of the sample panel undamaged in case the brickwork is adversely affected. Trial cleaning should be performed on an inconspicuous location on the building and conducted at temperature and humidity conditions that will closely approximate the conditions that will be experienced during cleaning of the remainder of the building.

Judge the effectiveness of a cleaning agent or procedure by inspecting both brick and mortar in the trial area after it has dried sufficiently, usually in about one week. Approval of the cleaned brickwork in cleaning area should precede application of the cleaning agent to the remainder of the building.

CLEANING NEW BRICKWORK

With new construction, keeping the masonry clean as it is erected can be very cost-effective, as it can eliminate the need for extensive cleaning after construction. Brickwork should be cleaned soon after construction is completed to remove mortar smears and construction dirt that detract from the appearance of the masonry. When it is determined that brickwork needs to be cleaned, the manufacturer's identification card on the brick cube and other pertinent manufacturer information should be consulted first to ascertain the recommended cleaning products and procedures for the brick. As discussed in the "Select Cleaning Method by Brick Category" section, recommended cleaning materials and methods vary with the type of brick.

Keeping Brickwork Clean During Construction

When constructing new brick masonry, it is important to use construction practices that will minimize the amount of cleaning required. The following are some general practices that can be used to construct a cleaner wall:

- Protect site-stored brick from mud. Store brick off the ground and under a waterproof covering.
- Erect scaffolding far enough away from the wall to allow mortar droppings to fall to the ground. Scaffold boards closest to the wall should be angled away from the wall or removed at the end of the day to remove excess mortar droppings and to prevent rain from splashing mortar and dirt directly onto the completed masonry.
- Protect the base of the wall from rain-splashed mud and mortar splatter. Use straw, sand, sawdust, plastic sheeting or fabric spread out on the ground, extending 3 to 4 ft (0.9 to 1.2 m) from the wall surface and 2 to 3 ft (0.6 to 0.9 m) up the wall. Keep this protection in place until final landscaping.
- Cover wall openings and tops of walls with a waterproof membrane at the end of the workday and during other work stoppages to prevent mortar joint washout and entry of water into the completed masonry. Extend covering a minimum of 2 ft (0.6 m) down each side of the wall.
- Protect newly constructed brickwork from adjacent construction practices that may cause staining, such as placing concrete or spraying curing agent.

It is always advisable to keep brickwork as free from mortar smears as possible. Masons should also be careful to prevent excessive mortar droppings from contacting the face of the wall or falling into the air space. In addition to the bricklaying techniques described in *Technical Note 7B*, the following practices should be followed:

- After spreading mortar, but before laying brick, the trowel edge should be used to cut mortar even with the wall face, preventing excessive extrusion of mortar onto the face of the wall as the brick are laid.
- After tooling joints, excess mortar and dust should be brushed from the wall surface, preferably using a medium-soft bristle or fiber brush. Brushes with steel bristles are not recommended, as they may leave behind small particles that can rust. Brushing is preferable to bagging or sacking—the practice of rubbing a damp burlap material across the face of the masonry. Avoid any motion that will result in rubbing or pressing mortar into the brick faces.
- Large clumps of mortar that adhere to brickwork should be allowed to dry and become firm before removing by hand with wooden paddles or nonmetallic tools.

Select Cleaning Method by Brick Category

Generally, the cleaning method that effectively cleans the brickwork while being the gentlest, or least harmful to the masonry, is the most appropriate. Try cleaning masonry by hand with a bucket and brush or pressurized water before using chemical cleaners.

Always consult brick manufacturers for recommendations on cleaning specific brick. This information is usually on the identification card located on the brick cube, in the product data literature or on the manufacturer’s website. In some cases, the manufacturer’s recommendations will permit the contractor to proceed to a specific cleaning product and method. When more than one type or color of brick is used, the brick manufacturer can aid in identifying a cleaning method that will be safe for all the brickwork. **Table 1** recommends appropriate cleaning methods for various brick types when guidelines are not available from the brick manufacturer. These are general recommendations and may not be effective on all brick described in each category. As noted in **Table 1**, the use of colored mortars may require special consideration.

Multiple methods may be required on the same wall to achieve an adequate level of cleaning. Once the method(s) of cleaning are selected, refer to the section “General Cleaning Procedure.”

TABLE 1
Quick Guide for Cleaning Brickwork

Brick Category	Cleaning Method	Remarks
Red and Red Flashed	<ul style="list-style-type: none"> • Bucket and brush hand-cleaning • Pressurized water 	Clean with water, detergents, emulsifying agents or suitable proprietary compounds. Do not clean with unbuffered muriatic (hydrochloric) acid solutions. Abrasive blasting is not recommended for heavy sand finishes.
White, Tan, Buff, Gray, Pink, Brown, Black, Specks and Spots	<ul style="list-style-type: none"> • Bucket and brush hand-cleaning • Pressurized water 	Clean with water, detergents, emulsifying agents or suitable proprietary compounds. Do not use unbuffered muriatic (hydrochloric) acid solutions. Light-colored brick are more susceptible to “acid burn” and stains compared with darker units. Abrasive blasting is not recommended for heavy sand finishes.
Sand Finish or Surface Coating	<ul style="list-style-type: none"> • Bucket and brush hand-cleaning 	Clean with water and scrub brush using light pressure. Stubborn mortar stains may require use of cleaning solutions. Use of pressurized water or abrasive blasting is not recommended. Cleaning may affect appearance. See “Brick Category” for additional remarks based on brick color.
Glazed Brick	<ul style="list-style-type: none"> • Bucket and brush hand-cleaning • Pressurized water 	Wipe glazed surface with soft cloth within a few minutes of laying units. Use a soft sponge or brush plus ample water for final washing. Use detergents where necessary and proprietary cleaners only for very difficult mortar stains. Consult brick and cleaner manufacturer before using proprietary cleaners on salt glazed or metallic glazed brick. Do not use abrasive powders. Do not use metal cleaning tools or brushes.
Colored Mortars	<ul style="list-style-type: none"> • Method is generally controlled by brick category 	Many manufacturers of colored mortars do not recommend chemical cleaning solutions. Unbuffered acids and some proprietary cleaners tend to bleach colored mortars. Mild detergent solutions are generally recommended. Evaluate effects as part of cleaning trials.

Bucket and Brush Hand Cleaning. This is a popular but misunderstood method used to clean brick masonry. Its popularity is due to the simplicity of execution and the availability of proprietary cleaning compounds. This cleaning method is the least aggressive of the methods listed here and is applicable to virtually all brick types. Hot water (temperature of 120 °F [49 °C]) can be used to improve effectiveness of cleaning with water. If a chemical cleaning solution is used, then it should be compatible with the brick.

Pressurized Water Cleaning. The brick manufacturer should be consulted before use of pressurized water to clean brick. Cleaning contractors often use pressurized water because it is less labor intensive than bucket and brush cleaning and permits large areas to be cleaned much more quickly. Pressurized water cleaning permits the operator to spray clean water on a wall over 100 ft (30 m) from the tank and compressor. However, the method requires more skill than the bucket and brush method, because effective results depend on maintaining a consistent, appropriate pressure, water flow rate, distance from the wall, and angle between the nozzle and the wall. It is also important to use uniform horizontal strokes. The effects of pressurized water cleaning on each project or type of brick should be carefully considered, because excessive pressure may damage brick surfaces, erode mortar joints, and remove finishes or other surface coatings, resulting in a different appearance. The following definitions apply for pressurized water cleaning:

- Very low pressure: Less than 100 psi (700 kPa); 4 to 6 gal per minute (15 to 23 L per minute).
- Low pressure: 100 to 400 psi (700 to 2800 kPa); 4 to 6 gal per minute (15 to 23 L per minute).
- Medium pressure: 400 to 800 psi (2800 to 5600 kPa); 4 to 6 gal per minute (15 to 23 L per minute). Medium pressure water cleaning may be appropriate in some cases, with certain types of brick. Use only if permitted by the brick manufacturer.
- High pressure: Greater than 800 psi (5600 kPa). High-pressure water cleaning is not appropriate for brick and may damage the brickwork.

Pressures should be measured at the tip of the nozzle to determine conformance. Use a 25 to 50 deg. fan-shaped stainless steel nozzle tip, and maintain a distance of 12 in. (305 mm) minimum between the nozzle tip and the brick surface.

Hot water can also be used in pressurized water cleaning. However, note that some pressure-washing equipment may not be capable of providing or using hot water.

General Cleaning Procedure

The following general cleaning procedure is applicable to a variety of cleaning methods and is commonly used for new brickwork, as well as for existing masonry.

1. **Timing.** Identify the appropriate time frame to begin cleaning. Mortar must be hardened prior to cleaning. It is generally best to schedule cleaning at least seven days after brickwork is completed. In some cases, it may be possible to clean earlier; however, effects on the masonry and influencing factors such as weather conditions and the type of brick and mortar should be carefully considered. If cleaning with water only (no chemicals added), cleaning may begin 24 to 36 hours after completion of brickwork. Avoid waiting too long between the completion of the masonry and cleaning. After one month, mortar smears and splatters left on brickwork become increasingly difficult to remove.
2. **Remove Mortar Clumps.** Remove larger clumps of mortar using wooden paddles or nonmetallic tools. Metal tools may damage the brickwork or leave behind fragments that oxidize and cause rust stains. Remove smaller particles using a fiber bristle brush.
3. **Select Cleaning Solution.** Select the proper cleaning solution for the condition/application. There are many types of proprietary cleaners available that are formulated to remove specific stains or are for use with a particular type of brick. Be careful to select cleaning products suitable for the brick, mortar and adjacent materials. Strictly follow the cleaner manufacturer's recommended instructions, including recommendations for cleaning procedure direction (top-down or bottom-up) during all stages of the project, such as saturating the wall, applying the cleaning solution and rinsing. Verify compatibility of the cleaning solution with the application equipment to be used. The cleaning solution should be approved by the architect/engineer and/or brick manufacturer. Each product being considered should be evaluated as discussed in "Trial Cleaning." It is recommended to evaluate the effectiveness of

cleaning solutions for overall cleaning, starting from the gentlest solution and method, in the following order:

- a. Water only
- b. Mild detergents/surfactants
- c. One-step chemical cleaners
- d. Two-step chemical cleaners

Treatment of specific stains does not necessarily need to follow this order of cleaning solution application, but the overall premise of starting with gentler cleaning methods still applies. If overall cleaning will be performed on the project, then complete it prior to treatment of the specific stains. The overall cleaning may reduce the intensity or area of the specific stain, allowing the stronger chemicals to be used on a smaller area.

Do not use unbuffered muriatic (hydrochloric) or hydrofluoric acid. Use of unbuffered high-strength acid solutions such as these tends to cause further stains and damage mortar joints. Many proprietary cleaners contain acids; however, their formulations include other chemicals that make them safer, easier to use properly and more environmentally responsible. Be aware that some cleaning solutions use compounds that will convert to these acids when combined with water. Review product safety data sheets to determine whether these compounds are present.

4. **Protect Surroundings.** Protect adjacent materials and nearby plants. Mask or otherwise protect windows; doors; and materials such as sealants, metal, glass, wood, limestone, cast stone, concrete masonry and ornamental trim from cleaning solutions. Cleaning chemicals may also damage plants and grass. It may be necessary to prevent the cleaning solution and runoff from contacting plants or the surrounding soil. Use protective clothing, equipment and accessories, in addition to proper ventilation and safe handling procedures in accordance with OSHA requirements to protect applicators.
5. **Saturate with Water.** Thoroughly saturate the area to be cleaned with water to keep it from absorbing the cleaning solution or dissolved mortar particles to a depth where they will be difficult to remove. When using pressurized water, a very low pressure (no more than 100 psi [700 kPa]) is recommended. Surfaces below the area being cleaned should also be saturated and kept wet until after the final rinse to prevent streaking and absorption of the runoff from above. If the wall surface appears to be drying, then reapply water until ready to apply the cleaning solution. Cleaning solutions containing dissolved mortar particles can be drawn into dry masonry and cause staining.
6. **Apply Cleaning Solution.** Mix and apply the cleaning solution in strict accordance with the cleaner manufacturer's instructions. Clean 20 sq ft (2 m²) of wall area at a time. The solution may be applied using a masonry cleaning brush or chemical pump/tank sprayer. Brushes should be long handled with stiff bristle fibers. Do not use metal brushes, which may damage mortar joints or result in further staining. If spraying, use a wide-angle fan-shaped sprayer nozzle tip and a pressure of 30 to 50 psi (200 to 350 kPa). No more than 50 psi (350 kPa) of pressure should be used, because higher pressure can force the cleaning solution deep into the masonry to become a source of future staining. For proprietary compounds, follow the cleaner manufacturer's instructions for application, dwell time and cleaning technique. Depend on the chemical reaction of the cleaner rather than the scrubbing action of the brush or pressure of the sprayer. If stubborn mortar smears are not removed, reapplication is often more effective than harder scrubbing or applying more pressure.
7. **Rinse Thoroughly with Water.** Flush walls with large amounts of clean water, in strict accordance with the cleaner manufacturer's instructions, before cleaned surfaces can dry (approximately 5 to 10 minutes after application). For pressurized water cleaning, low pressure (less than 400 psi [2800 kPa]) is recommended to flush the cleaning solution from the brickwork. If trial cleaning or prior experience with the selected brick has established that no damage will result, then higher pressures may be used. No matter what method is used, a thorough and uniform rinse is critical. Failure to completely flush the wall of cleaning solution and dissolved matter may result in the formation of "white scum." During rinsing, monitor the appearance of the runoff. Clear runoff at the base of the wall indicates adequate rinsing. In addition, the pH of the wall surface and the water runoff should

be checked periodically with pH paper to confirm that both are returned to neutral (pH 6.5 to 7.5). Additional rinsing is needed if the pH is outside these values in either direction (too acidic or too basic). Measure the pH of the wall surface again 48 hours after cleaning has been completed, when the wall is dry. If the pH is not neutral, then rinse the surface until neutral pH is achieved.

Improper Cleaning

Cleaning failures generally result from one of the following actions:

- **Failure to thoroughly saturate the brick masonry surface with water before and after application of chemical or detergent cleaning solutions.** Dry masonry permits absorption of the cleaning solution and may result in white scum, efflorescence, manganese or vanadium stains. Saturating the surface prior to cleaning reduces the masonry's absorption rate, permitting the cleaning solution to stay on the surface of the brickwork rather than being absorbed. Likewise, thorough rinsing reduces the potential for stains caused by cleaning solution residue.
- **Use of improper chemical cleaning solutions.** Improperly mixed or overly concentrated acid solutions can etch the brick or dissolve cementitious materials from mortar joints. Unbuffered acid tends to discolor masonry units, particularly lighter shades, producing an appearance frequently termed "acid burn," and can also promote the development of vanadium and manganese stains.
- **Excessively aggressive cleaning methods.** Cleaning methods such as abrasive blasting and high-pressure water cleaning, which remove stains from the masonry by abrasion, can etch mortar joints and remove the outer surface of brick, resulting in permanent damage.
- **Failure to protect windows, doors and trim.** Many cleaning agents, particularly acid solutions, have a corrosive effect on metal. If permitted to come in contact with metal frames, the solutions may cause pitting of the metal or staining of the masonry surface and trim materials such as limestone, concrete masonry and cast stone.

CLEANING EXISTING MASONRY

During periodic inspections of existing masonry structures, areas of discoloration or stains should be identified and addressed as a part of routine maintenance. When maintenance cleaning is deferred, pollution and atmospheric conditions can cause stains, dirt and soil to accumulate on masonry surfaces. Accumulated stains will likely require stronger cleaning products and methods to remove them, which can result in increased risk of damage to the masonry.

It is always advisable to collect as much information as possible before attempting to clean existing masonry. In some cases, water repellents may have been applied to the masonry, or there may be other unexpected treatments or conditions that interfere with cleaning. In these instances, professional guidance should be sought in determining how to address these conditions to achieve successful cleaning.

Large-scale cleaning of existing masonry typically occurs as part of a maintenance or repair project. If repairs will be performed, sequencing is important. Consider the intensity of the soiling and other work to be performed to accurately assess needed repairs and to avoid introducing excess water into the wall assembly. Refer to *Technical Note 46* for more information on repairs and maintenance.

Bucket and brush hand cleaning and pressurized water cleaning, discussed in "Select Cleaning Method by Brick Category," are also used to remove general stains from existing masonry. Besides these, other techniques used to remove dirt or specific stains from existing masonry [Ref. 3] are described briefly in this section.

Using a Poultice

A poultice is a paste made with a solvent or reagent and an inert material. It works by dissolving a stain and absorbing or pulling it into the poultice. Poultices are normally effective for deep, localized stains affecting small areas of brickwork. They are not intended for overall cleaning. Poultices tend to prevent stains from spreading during treatment and to pull stains out of the pores of brick.

Poultices for cleaning masonry can be purchased commercially or made on-site. The inert material used in the poultice may be talc, whiting, fuller's earth, diatomaceous earth, bentonite or other clay. Any chemical cleaner can be turned into a poultice. The solution or solvent used depends upon the nature of the stain to be removed. Enough of the solution or solvent is added to a small quantity of the inert material to make a smooth paste. The

paste is smeared onto the stained area with a trowel or spatula to make a coating at least $\frac{1}{8}$ in. (3 mm) thick. The paste is covered with plastic for 24 hours, the plastic is removed, and then the paste is allowed to dry. When dried, the remaining powder, which now contains the staining material, is scraped, brushed or washed off. Repeated applications may be necessary.

If the solvent used in preparing a poultice is an acid, then do not use whiting as the inert material. Whiting is a carbonate that reacts with acids to give off carbon dioxide. While this is not dangerous, the whiting will become extremely foamy and destroy the power of the acid.

There are also proprietary poultice-like cleaning materials that cure to the consistency of a film and can be pulled from the surface in sheets instead of removing dried paste. These are marketed for cleaning interior surfaces because they do not require the use of water but are also appropriate for exterior applications. The formulation of these materials allows for use over much larger areas than typical poultices.

Abrasive Blasting

Nearly all abrasive blasting procedures, by their nature, will result in silica exposure, potentially from both the blast media and the material removed from the brickwork. The dust created can be harmful if inhaled, which poses health and safety concerns. Respirators should be used in combination with other personal protective equipment during any cleaning involving abrasive blasting methods.

Abrasive methods are not generally recommended for cleaning brickwork. Attempting to remove dirt or stains by abrasion is risky because the outer surface of the masonry may also be removed, resulting in permanent damage and increased water penetration. Abrasive cleaning may erode mortar joints and may also roughen the surface of the masonry, which increases its tendency to hold dirt, becoming dirtier faster and making future cleaning more difficult. Sanded, coated, glazed and slurry-finished brick should not be cleaned by abrasive blasting. This topic is discussed in more detail in "Dangers of Abrasive Cleaning to Historic Buildings" [Ref. 4], which can also be applicable to some newer brick.

In some cases, it may be possible to safely clean brick masonry by abrasive blasting; however, this typically requires a gentle abrasive and a highly qualified operator, in conjunction with proper specifications and job inspection. In a few instances, abrasive blasting is the only method that will remove persistent stains. This method is sometimes preferred over conventional wet cleaning, since it eliminates the problem of chemical reactions with vanadium salts and other materials used in manufacturing brick. Abrasive blasting involves an air compressor, blasting tank, blasting hose and nozzle, as well as protective clothing, a hood and a respirator for the operator. The air compressor should be capable of producing 60 to 100 psi (400 to 700 kPa) at a minimum air flow capacity of 125 ft³ (3.5 m³) per minute. The inside orifice or bore of the nozzle may vary from $\frac{3}{16}$ to $\frac{5}{16}$ in. (4.8 to 7.9 mm) in diameter. The sandblast machine (tank) should be equipped with controls to regulate the flow of abrasive materials to the nozzle at a minimum rate of 300 lb per hour (136 kg per hour).

Methods for cleaning masonry using abrasives may be executed at high or low pressures and with dry abrasives or abrasives added to a stream of water. Abrasives should be selected based on the degree of cutting or cleaning desired and the amount of change in the surface of the masonry permissible. Silica sands, crushed quartz, crushed granite and white um sand (round particles) are among the harder abrasives at approximately 6 on the Mohs scale. Softer abrasives include crushed nut shells, dry ice and baking soda. If used, these materials should have a gradation appropriate for the intended use [Ref. 2].

Dry abrasive blasting (sandblasting) at high pressure is perhaps the best known of these methods but has a significant potential to damage masonry. Wet sand cleaning depends on water-cushioned abrasive action for its effectiveness. It is similar to sandblasting, with the addition of water into the air stream, which eliminates dust. It is often suggested when abrasion of the surface is permissible. Such instances may include removal of paint or other surface coatings.

Wet aggregates delivered at low pressure through a special nozzle are sometimes used on soft brick and soft stone materials, and are particularly effective on surfaces with flutings, carvings and other ornamentation. Wet aggregate cleaning is a gentle but thorough process, employing a mixture of water and a friable aggregate free from silica, with a scouring action that cleans effectively with less surface damage than sandblasting or wet sand cleaning.

The steps listed in "General Cleaning Procedure" can also be followed for abrasive blasting with the following modifications:

- In step 3, instead of selecting a cleaning solution, select abrasives that are clean, dust-free and sufficiently hard. Test-clean several areas at varying distances from the wall and at several angles that afford the best cleaning job without damaging brick and mortar joints. Workers should be instructed to direct abrasive at the brick and not directly at the mortar joints.
- Omit steps 5 through 7.

Other Methods

Microabrasives. Microabrasive cleaning methods may be better suited to use on masonry than traditional abrasive methods, as they are gentler and less likely to damage substrates. These methods differ from the traditional methods due to the media used and the lower pressures involved. They often include collection and encapsulation of the media after application, resulting in less cleanup. These systems are currently proprietary but have been in use in the United States and Europe since the 1980s.

Lasers. In recent years, laser technology has progressed such that handheld units are available and feasible for use on building exteriors. Stain removal occurs by vaporization and/or by breaking the chemical bond of the stain to the substrate. Specialized contractors are required for laser use, and not all laser types are effective on all stains due to incompatibility of the stain color with the laser wavelength. It is expected that laser technology for cleaning brickwork will continue to improve.

REMOVING EFFLORESCENCE

The removal of efflorescing salts is relatively easy compared with some other stains. Efflorescing salts are water soluble and generally will disappear of their own accord with normal weathering. This is particularly true of "new-building bloom," which tends to occur during construction or shortly after construction is completed due to normal water loss during post-construction drying.

Before efflorescence is removed, any sources of moisture ingress should be repaired and the brickwork allowed to dry. White efflorescence can often be removed by dry-brushing or brushing with a stiff fiber brush and water. Heavy accumulations or stubborn deposits of white efflorescence may be removed with a proprietary cleaner. It is imperative that the manufacturer's instructions be carefully followed. Refer to *Technical Note 23A* for a more detailed discussion on removing and preventing efflorescence.

REMOVING SPECIFIC STAINS

Whether a stain results from chemical reactions within a brick or external materials being spilled, splattered on or absorbed by brickwork, each is an individual case and must be treated accordingly. When using any cleaner, it is advisable to consult the brick manufacturer for cleaning advice, to follow the instructions of the cleaner manufacturer, and to trial clean in an inconspicuous area before using a cleaning method on an entire project.

There are a variety of proprietary cleaners that effectively remove most of the common substances that stain brickwork, including bronze and copper stains, efflorescence, graffiti, iron stains (rust), lime run, manganese stain, moss, oil and tar stains, paint, smoke and vanadium stain. When available, these are preferred over site-mixed or "homemade" cleaning solutions because they are generally safer, easier to control and more consistent, resulting in successful cleaning. In some cases, these cleaners have been developed in conjunction with brick manufacturers.

In addition to proprietary cleaners, many stains can be removed by scrubbing with kitchen cleansers, bleach or other household chemicals. A combination, such as is found in some kitchen cleansers, may prove most effective. The sections below list some nonproprietary alternatives for removal of common stains. Further information on causes and prevention of stains is contained in the *Technical Note 23 Series*.

Brick Dust

Dust produced from the cutting of brick sometimes adheres to the surface of brickwork. A soft fiber brush is recommended to remove dust particles from the brick surface. Wire brushes should not be used to remove dust because they can damage the brick surface. When removing dust, it is important to wear a dust mask or respirator

to ensure that dust particles are not inhaled. Afterward, the surface should be wiped down using a dust mop or a damp cloth. Use of compressed air to clean dust is not recommended due to the increased risk of particle inhalation.

Dirt and Mud

Dirt and mud stains can be difficult to remove, particularly from textured brick. In addition to proprietary cleaners, scouring powder and a stiff bristle brush are effective if the texture is not too rough. For very rough textures, pressurized water cleaning can be effective.

Egg Splatter

Brickwork vandalized with raw eggs has been successfully cleaned by pre-wetting the stain, applying a saturated solution of oxalic acid crystals dissolved in water, and rinsing with water. Mix the solution in a nonmetallic container and apply with a brush.

If the egg splatter is to be removed from brick that contain vanadium (typically light-colored units), then a solution of 15 oz washing soda (sodium carbonate) per 1 gal of water (113.5 g per 1 L) should be applied to the brickwork following the oxalic acid solution. Without this neutralizing solution, cleaning with oxalic acid may cause more severe staining.

Manganese (Brown) Stain

Besides specially formulated proprietary compounds, an alternate treatment sometimes suggested for new and mild manganese stains is oxalic acid crystals and water. Mix 1 lb of crystals per 1 gal of water (119 g per 1 L). The neutralizing wash mentioned in the "Egg Splatter" section should be considered when oxalic acid is applied to brown or light-colored brick. Another recommended effective treatment for manganese stains is a solution of equal parts white vinegar, hydrogen peroxide (3 percent solution) and distilled water.

Oil and Tar Stains

Oil and tar stains may be effectively removed with commercially available oil and tar removers. For heavy tar stains, mix the agents with kerosene to remove the tar, and then rinse with water to remove the kerosene. After application, the stains can be hosed off. When used in a steam-cleaning apparatus, cleaners have been known to remove tar without the use of kerosene.

Where the area to be cleaned is small, or where minimal cleanup is desired, a poultice using naphtha or trichloroethylene is most effective in removing oil stains.

Dry ice or compressed carbon dioxide may be applied to make tar brittle. Then light tapping with a small hammer and prying with a putty knife generally will be adequate to remove thick tar splatters.

Organic Growth

Occasionally, an exterior masonry surface remains in a constantly damp condition, thus encouraging moss, algae, lichen, or other microbial or organic growth. Manufacturers of masonry cleaning products offer biocides targeted to remove organic and microbial growth on masonry surfaces. Applications of household bleach, ammonium sulfate or weed killer, in accordance with furnished directions, can also successfully remove organic material in some cases.

Paint, Coatings and Graffiti

Commercial and proprietary paint removers and organic solvents are most effective at softening or dissolving paint so that it can be removed with a scraper and a stiff bristle brush or rinsed away with water. Specialized cleaning systems designed for encapsulation and peeling of applied coatings are also effective. For very old dried paint, organic solvents may not be effective, in which case the paint may be removed by abrasive blasting or scrubbing with a nonmetallic abrasive pad. Try removing paint and coatings using nonabrasive methods first before proceeding to abrasive methods. Note that methods involving scraping and abrasive blasting are not recommended when there is a risk that lead paint is present unless abatement protection procedures are

included, as the lead paint particles can be dispersed into the air. Graffiti that has penetrated into masonry is best removed by a poultice, paste or gel that can cling to the masonry, extending its working time on the stain.

Smoke

Scrubbing with scouring powder (particularly one containing bleach) and a stiff bristle brush is often effective.

Vanadium (Green) Stain

Applying a solution of either potassium hydroxide or sodium hydroxide, consisting of 0.5 lb hydroxide per 1 qt of water (240 g per 1 L) to brickwork is an alternative treatment for vanadium stains. The solution should be allowed to remain on the brickwork for two or three days and then washed off. Use a hose to remove any white residue remaining on the brickwork after this treatment.

Sodium hypochlorite, the active ingredient in household bleaches, can also be used to remove mild vanadium stains. Spray or brush onto the stain, and then rinse off after the stain disappears.

Oxalic acid is another chemical known to remove vanadium stains. A mixture of 3 to 6 oz oxalic acid per 1 gal of water, preferably warm, (22.4 to 44.8 g per 1 L) should be applied to the brickwork, followed by the neutralizing wash described in the "Egg Splatter" section. More severe staining may result if the oxalic acid solution is applied without the neutralizing wash.

Welding Splatter

When metal is welded too close to brick stored on-site or completed brickwork, molten metal may splash onto the brick and melt into the surface. A mixture of 1 lb oxalic crystals and 0.5 lb of ammonium bifluoride per 1 gal of water (119 g and 61 g per 1 L) is particularly effective in removing welding splatters. This mixture should be used with caution, as it generates dangerous hydrofluoric acid, which can also etch brick and glass.

Scrape as much of the metal as possible from the brick. Apply the mixture in a poultice and remove when it is dried. If the stain has not disappeared, use sandpaper to remove as much as possible and then apply a fresh poultice. For stubborn stains, several applications may be necessary.

Stains of Unknown Origin

Stains of unknown origin can be a real challenge. Applying a cleaning agent without identifying the initial stain may result in additional stains that are more difficult to remove. The visual characteristics of a stain may be the first clues as to its source. Identification of stains is discussed further in *Technical Note 23*.

To determine the composition of an unknown stain, samples of the stain should be extracted from the wall and sent to a testing laboratory. Then the appropriate method may be implemented to clean the brickwork.

CLEANING HISTORIC STRUCTURES

Improper cleaning can cause irreparable damage to historic brickwork. Therefore, cleaning of structures with historic significance should be overseen by a restoration specialist. Such a specialist will be able to identify previous treatments, determine appropriate cleaners and cleaning methods, and provide quality assurance for the project.

Before a historic structure is cleaned, consider the purpose of cleaning: to improve the appearance, to slow deterioration, or to provide a clean surface for evaluation or further treatments. With historic structures, it is imperative to use the least harmful cleaning method that will achieve the desired results. Cleaning methods and materials must be carefully matched to the substrate to be cleaned, the type of soiling/staining to be removed and the desired results. It is recommended to use cleaning trials to evaluate the effectiveness of various cleaning products and methods. It is also recommended to determine the level of cleanliness appropriate for the historic brickwork and structure. These issues are discussed in detail in the National Park Service Preservation Brief "Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings" [Ref. 5].

CLEANING BRICK PAVING

Some of the methods already described for cleaning brick walls, such as pressurized water cleaning or using a bucket and brush, can be used successfully to remove stains that also affect pavements such as efflorescence, hardened mortar, plant life, oil and tar, etc. However, acid-based cleaning solutions may not be appropriate for pavements containing joint sand stabilizers or polymeric sand-filled joints. Prior to selecting a cleaning solution for brick pavements, it is recommended to verify the compatibility of the cleaner with the paver manufacturer. Most paver manufacturers will provide literature on recommended cleaning procedures.

Most paving systems can be kept clean in most environments by regular sweeping. In situations that lead to a greater degree of grease buildup, stains from deicing salts, materials tracked or spilled onto the pavement, tire marks or other stains, frequent sweeping or pressurized water cleaning at low pressure will help reduce the need for more aggressive cleaning methods and solutions. Low-pressure water cleaning can be more effective when hot water is used and when mild detergents are applied to the pavement surface.

Fresh mortar stains can be removed from existing or mortarless pavements before they set by covering the pavement with clean, slightly damp, washed sand and sweeping toward the edges. When the surface is almost clean, sweeping with dry sand should remove the remaining residue.

More stubborn stains, including food and paint, can be cleaned by scraping off the hard residue and then scrubbing with a stiff bristle brush and scouring powder. Chewing gum can usually be removed from brick pavements with nonmetallic tools, carefully applied medium-pressure water or freezing each piece of gum with compressed carbon dioxide or dry ice, and then scraping or chiseling it off the pavement. Food stains and tire marks are typically removed by scrubbing with a detergent or a proprietary cleaner. In damp or shady areas where moss and lichens have grown in the joints, these can be killed using bleach and water mixed in a ratio of one to one or proprietary biocide treatments.

Stains from polymeric sand can occur on paver surface adjacent to joints. To prevent this during construction, it is critical to remove all sand or dust from the surface before and after activation. Leaf blowers on the lowest setting held at a low angle can help redirect remaining sand and water into the joints. Using a shop vacuum can also be effective in removing sand or dust from the paver surface. If the sand is not removed after activation and haze stains appear on the paver surface, it is recommended to use a nonmetallic bristle brush with hot water (approximately 180 °F or 82 °C) or vinegar to remove the haze. Proprietary cleaning products formulated for haze removal are also available. Be aware that typical cleaning products formulated for masonry may react adversely with the polymer in the sand and should not be used to clean the haze. In addition, many cleaning products marketed by polymer sand manufacturers consist of unbuffered hydrochloric (muriatic) acid and should not be used on clay pavers.

Cleaning solutions, polymeric sands or other products applied directly to clay pavers should always be tested on a small, inconspicuous area before application to the entire project. Some of these products have been known to haze, stain or discolor certain pavers. Stabilized sand-filled joints are generally resistant to pressure washing if the nozzles are kept clear of the surface and the water jet is not aimed directly along the joints. Aggressive pressure washing can cause localized removal of joint sand.

SUMMARY

Testing of cleaning procedures and chemicals as suggested in this *Technical Note* is strongly recommended. Such testing should be performed under conditions of temperature and humidity that closely approximate the conditions under which the brick masonry will be cleaned. Cleaning solutions and methods recommended by the brick or cleaning agent manufacturer should also be trial tested over a small area before being committed to an entire project. To minimize the risk of damaging the brickwork, begin by selecting the gentlest cleaning methods and materials appropriate for the situation. The effects of any cleaning process on the brickwork, people and the environment should be carefully evaluated before any cleaning begins.

The recommendations in this *Technical Note* should be used as a guide for successful cleaning of brick masonry. Due to the diverse nature of cleaning solutions, procedures and problems, the Brick Industry Association cannot accept responsibility for the final success or effectiveness of these procedures.

Nothing is quite as effective as careful attention exercised during construction to keep brickwork relatively clean. If this is successful, then it will eliminate the need for costly cleaning procedures.

The information and suggestions contained in this Technical Note are based on the available data and the combined experience of engineering staff and members of the Brick Industry Association. The information contained herein must be used in conjunction with good technical judgment and a basic understanding of the properties of brick masonry. Final decisions on the use of the information contained in this Technical Note are not within the purview of the Brick Industry Association and must rest with the project architect, engineer and owner.

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