

PROJECT MANUAL

**TRUMANN HOUSING AUTHORITY
109 SPRUCE DRIVE
TRUMANN, ARKANSAS 72472**

NEW COMMUNITY BUILDING

THE U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

WILBANKS
Architecture & Associates, LLC

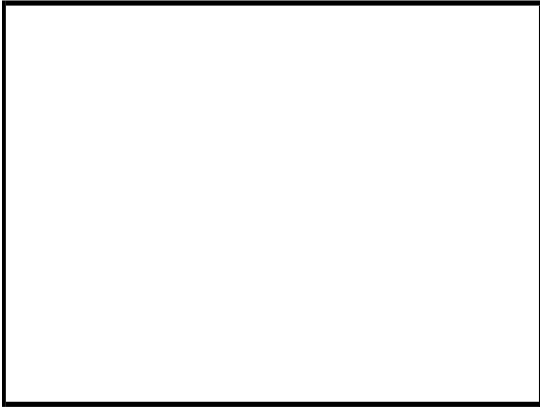
Date: March 15, 2024

Job 1314-33

SET NO. _____

File No. 1314-33

REGISTRATION CERTIFICATION 00001



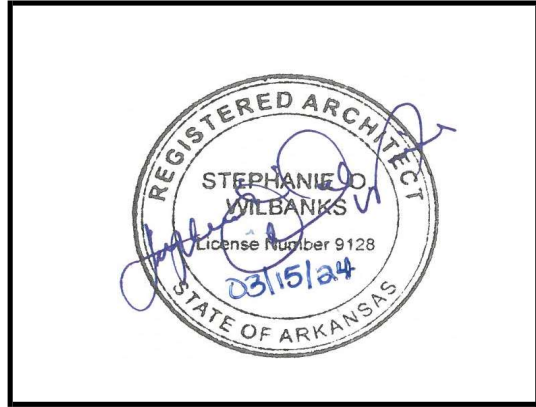
CIVIL ENGINEER



MECHANICAL ENGINEER



STRUCTURAL ENGINEER



ARCHITECT



ELECTRICAL ENGINEER

PROJECT DIRECTORY

SECTION 00001

OWNER

Trumann Housing Authority
109 Spruce Drive
Trumann, Arkansas 72472
(870) 483-5223

ARCHITECT/ENGINEER

Wilbanks Architecture & Associates, LLC
5567 Commander Drive, Suite 105
Arlington, TN 38002
(901) 867-5220

END OF DIRECTORY

SECTION 00002

General

This project manual follows the Construction Specifications Institute Format Documents Identifying System and Cost Accounting Numbers.

Nonapplicable division and section references have been omitted.

Recipients of bidding instruments must consult the Table of Contents to determine the full scope of the work involved and to ensure that all pages of the project manual and drawings have been included.

Neither the Owner nor the A/E will be responsible for bids submitted that are based on incomplete bidding instruments.

DIVISION 0 - BIDDING AND CONTRACT DOCUMENTS

Section 00000 - Cover Page

- 00001 - Project Directory
- 00002 - Index to Project Manual
- 00012 - Invitation For Bids
- 00150 - Instructions to Bidders (HUD-5369)
- 00151 - Additions to Instructions to Bidders
- 00152 - Modifications to Instruction to Bidders
- 00310 - Representations, Certification and other Statement of Bidders (HUD-5369-A)
- 00320 - Bid Form
- 00420 - Bid Bond
- 00480 - Noncollusive Affidavit of Prime Bidder
- 00481 - Noncollusive Affidavit of Subcontractor
- 00482 - Certification of Bidder Regarding Section 3 and Segregated Facilities
- 00483 - Contractor Section 3 Plan Format
- 00484 - Previous Participation Certification (Required for Contracts over \$50,000) HUD-2530
- 00485 - Contractors Certification for Contracts, Grants, Loans and Cooperative Agreements
- 00486 - Bidders Section 3 Clause Certification
- 00502 - Contract
- 00670 - Arkansas Performance and Payment Bond
- 00715 - General Conditions of the Contract for Construction (HUD-5370)
- 00716 - Additions to the General Conditions
- 00717 - Modifications to the General Conditions
- 00820 - Certification of Prime Bidder Regarding Equal Employment Opportunity
- 00821 - Certification by Proposed Subcontractor Regarding Equal Employment Opportunity
- 00822 - Certification of Prime Bidder Regarding Nonsegregated Facilities
- 00823 - Certification of Proposed Subcontractor Regarding Section 3 and Segregated Facilities
- 00824 - Subcontractor Section 3 Plan Format
- 00826 - Standard Federal Equal Employment Opportunity Construction Contract Specifications
(Executive Order 11246)
- 00828 - Interest of Members, Officers, or Employees of Grantee, Members of Local Governing
Body, or Other Public Officials

- 00829 - Interest of Certain Federal Officials
- 00830 - Prohibition of Use of Lead Based Paint and Elimination of Lead Based Paint Hazard in Department of Housing and Urban Development Associated Projects
- 00831 - Section 3 Clause of the Housing and Urban Development Act of 1968, as Amended, 12 USC 1701u
- 00850 - Wage Rates
- 00851 - Contractor's Certification Concerning Labor Standards and Prevailing Wage Requirements
- 00852 - Subcontractor's Certification Concerning Labor Standards and Prevailing
- 00900 - Construction Progress Schedule (HUD-5372)
- 00901 - Schedule of Amounts for Contract Payments (HUD-51000)
- 00902 - Change Order, AIA, G701, 2001 Edition
- 00904 - Periodical Estimate for Partial Payment, (HUD 51001)
- 00905 - Schedule of Change Orders, (HUD-51002)
- 00906 - Schedule of Materials Stored, (HUD-51003)
- 00907 - Summary of Materials Stored, (HUD-51004)
- 00908 - Payroll Form, (WH-347)
- 00909 - Certificate and Release
- 00910 - Certificate of Completion--Consolidated
- 00914 - Certificate of Progress Payment

DIVISION 1 - GENERAL REQUIREMENTS

- Section 01010 - Summary of Work
 - 01035 - Weather Delays
 - 01040 - Coordination
 - 01045 - Cutting and Patching
 - 01200 - Project Meetings
 - 01302 - Submittals and Substitutions
 - 01340 - Submittals
 - 01400 - Quality Control
 - 01410 - Testing Laboratory Services
 - 01500 - Construction Facilities and Temporary Controls
 - 01546 - Safety and Health
 - 01600 - Material and Equipment Substitutions
 - 01620 - Equipment and Material Storage
 - 01700 - Contract Closeout
 - 01710 - Construction and Final Cleaning
 - 01720 - Project Record Documents

DIVISION 2 - SITE WORK

- Section 02010 - Existing Surface and Subsurface Conditions
 - 02050 - Selective Demolition & Removal Work
 - 02060 - Building Demolition
 - 02100 - Clearing and Grubbing
 - 02120 - Soil Erosion & Sediment Control
 - 02151 - Removal of Structures & Obstructions
 - 02200 - Earthwork
 - 02203 - Embankment
 - 02260 - Finish Grading

02281 - Termite Control
02290 - Select Foundation, Bedding and Backfilling
02374 - Erosion and Sediment Control
02510 - Concrete Sidewalks
02513 - Asphalt Paving
02515 - Site Concrete
02580 - Pavement Markings
02721 - Site Drainage
02900 - Landscaping
02930 - Lawns and Grasses

DIVISION 3 - CONCRETE

NOT USED

DIVISION 4 - MASONRY

Section 04200 - Unit Masonry

DIVISION 5 - METAL

Section 05500 - Metal Fabrication

DIVISION 6 - WOOD AND PLASTICS

Section 06100 - Rough Carpentry
06112 - Framing and Sheathing
06130 - Wood Trusses
06200 - Finish Carpentry

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

Section 07210 - Building Insulation
07311 - Asphalt Shingles
07461 - Fiber-Cement Siding and Accessories
07600 - Sheet Metal Flashing and Trim
07712 - Gutters and Downspouts
07920 - Sealants and Caulking

DIVISION 8 - DOORS AND WINDOWS

Section 08100 - Hollow Metal Doors and Frames
08410 - Aluminum Entrance & Storefront

DIVISION 9 - FINISHES

Section 09250 - Gypsum Wallboard
09300 - Tile
09510 - Acoustical Ceilings
09900 - Painting

DIVISION 10 - SPECIALTIES

Section 10426 - Signage
10800 - Toilet Accessories

DIVISION 11 - EQUIPMENT

Section 11100 - Equipment (Owner Furnished and Contractor Installed)
11451 - Appliances
11460 - Manufactured Cabinetry

DIVISION 12 - FURNISHINGS

NOT USED

DIVISION 13 - SPECIAL CONSTRUCTION

NOT USED

DIVISION 14 - CONVEYING SYSTEMS

NOT USED

DIVISION 15 - MECHANICAL

NOT USED

DIVISION 16 - ELECTRICAL

NOT USED

END OF INDEX

INVITATION FOR BIDS

The Housing Authority of the City of Trumann, Arkansas, hereafter called the “Public Housing Agency” or PHA, will receive sealed bids for the New Community Building until 10:30 a.m., Tuesday, April 23, 2024, at 109 Spruce Street, Trumann, Arkansas 72472, at which time and place all bids will be publicly opened and read aloud.

ANY BID RECEIVED AFTER THE CLOSING TIME WILL BE RETURNED UNOPENED.

Plans may be viewed, downloaded, and physical copies ordered at the Memphis Reprographics' Web Site Plan Room at www.mrplanroom.com.

In order to be a qualified bidder, bidding documents must be obtained from the plan room above.

All bids must be submitted on forms furnished by the PHA, submitted in **duplicate** and submitted in a sealed envelope plainly marked to show the name and address of the bidder, contract job number, and date and time of bid opening. Bidders are required to have an Arkansas Contractor's License. This is in accordance with Arkansas State Statute 71-701 et seq. **Each bid submitted must contain the items listed in Specification Section 00151, Page 1, Item 1.**

The successful bidder shall be required to furnish an Arkansas Performance and Payment Bond or Bonds in the amount of 100 percent of the Contract Bid for contracts that exceed \$25,000 in accordance with Arkansas Statute 18-44-503.

The PHA reserves the right to reject any or all bids or to waive any informalities in the bidding.

No bid shall be withdrawn for a period of sixty (60) days subsequent to the opening of bids without the consent of the PHA.

WALK THROUGH AND PREBID CONFERENCE

At 10:30 a.m., Tuesday, April 2, 2024, a Pre-bid Conference will be held at 109 Spruce Street, in Trumann, Arkansas for the purpose of answering questions Bidders may have and to consider any suggestions they may wish to make concerning the project. Immediately following the Pre-bid Conference, a site visit of the project will be held by the Owner. All Contractors are **strongly recommended** to attend this walk through and pre-bid conference.

HOUSING AUTHORITY OF THE CITY OF
TRUMANN, ARKANSAS

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

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

Instructions to Bidders for Contracts

Public and Indian Housing Programs

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1. Bid Preparation and Submission

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

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

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

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

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

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

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

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

2. Explanations and Interpretations to Prospective Bidders

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

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

3. Amendments to Invitations for Bids

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

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

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

4. Responsibility of Prospective Contractor

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

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

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

5. Late Submissions, Modifications, and Withdrawal of Bids

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

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

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

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

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

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

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

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

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

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

6. Bid Opening

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

7. Service of Protest

(a) Definitions. As used in this provision:

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

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

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

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

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

8. Contract Award

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

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

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

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

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

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

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

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

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

10. Assurance of Completion

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

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

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

(3) a 20 percent cash escrow;

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

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

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

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

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

11. Preconstruction Conference (applicable to construction contracts)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ADDITIONS TO INSTRUCTIONS TO BIDDERS 00151

The following articles are added to the Instructions to Bidders Public and Indian Housing Programs, Document Form HUD-5369 (10/2002), included in the Project Manual as follows:

1. ARTICLE 13. SUBMITTAL REQUIRED AT BIDDING (**An Original and One Copy** of entire bid package are required at Bid Opening.)

a.	<u>Section No.</u>	<u>Submit with Bid Package:</u>
	1. 00310	Representations, Certifications, and Other Statements of Bidders
	2. 00320	Bid Form
	3. 00420	Bid Bond (May be on Surety Provided Documents)
	4. 00480	Non collusion Affidavit of Prime Bidder
	5. 00482	Certification of Bidder Regarding Section 3 and Segregated Facilities
	6. 00483	Contractor Section 3 Plan
	7. 00484	Previous Participation Certification (Only Required for Contracts over \$50,000.00)
	8. 00485	Contractors Certification for Contracts, Grants, Loans and Cooperative Agreements
	9. 00820	Certification of Prime Bidder Regarding Equal Employment Opportunity
	10. 00822	Certification by Prime Bidder Regarding Nonsegregated Facilities
	11. 00851	Contractor' s Certification Concerning Labor Standards and Prevailing Wage Requirements

COMPLETE AND ATTACH TO FRONT OF BID ENVELOPE

Project Name:
Bid Date:
Bid Time:
GENERAL CONTRACTOR
Name:
License No.:
Expiration Date:
Part of Classification Applicable to Bid:
REQUIRED IF THE FOLLOWING SUBCONTRACTORS ARE MORE THAN \$25,000: (N/A for Arkansas)
MECHANICAL CONTRACTOR: (If General State Name)
Name:
License No.
Expiration Date:
PLUMBING CONTRACTOR: (If General State Name)
Name:
License No.:
Expiration Date:
ELECTRICAL CONTRACTOR: (If General State Name)
Name:
License No.:
Expiration Date:
MASONRY CONTRACTOR: (If General State Name) (if over \$100,000)
Name:
License No.:
Expiration Date:
OR:
Check below which disciplines' contract is less than \$25,000.
Mechanical:
Plumbing:
Electrical:

MODIFICATIONS TO INSTRUCTIONS TO BIDDERS 00152

The Instructions to Bidders for Contracts, Public and Indian Housing Programs, Documents Form HUD-5369 (10/2002) included in the Project Manual, is revised as follows;

1. GENERAL

Disregard all references to Indian Housing Authority and IHA throughout this document.

2. ARTICLE 1., Paragraph (i), add the following paragraph:

- (i) It is the responsibility of each bidder to familiarize himself with the project site, subsurface conditions and general work conditions as required for preparation of the bid. Each unit price or a lump sum price shall include all materials and labor, overhead and profit associated with the complete installation of new work or replacement of existing items of work. The price shall also include adjustment of adjacent existing surfaces of fixtures in order to produce a complete product with all appurtenances thereto.

3. ARTICLE 2., Paragraph (a): In the first sentence change 7 days to 10 days.

4. ARTICLE 7., Paragraph (b), Protests shall be served to:

The Trumann Housing Authority
109 Spruce Drive
Trumann, Arkansas 72472
Telephone: 870-483-5223

5. ARTICLE 12., This article is not applicable.

END OF DOCUMENT

**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)

FROM:

TO:

_____ Trumann Housing Authority _____

NAME OF BIDDER

NAME OF PHA

ADDRESS

_____ 109 Spruce Drive _____
ADDRESS

CITY STATE ZIP

_____ Trumann, AR 72472 _____
CITY STATE ZIP

Gentlemen:

- 1. The Undersigned, having familiarized themselves with the local conditions affecting the cost of the work, and with the Specifications (including the Invitation for Bids, Instructions to Bidders, this bid, the form of Bid Bond; the Representations, Certifications, and Other Statements of Bidders; the form of Contract, and the form of the Arkansas Performance and Payment Bond or Bonds, the General Conditions and Amendments to, the Scope of Work and the Technical Specifications and Wage Rates) and addenda, if any thereto, hereby proposes to furnish all labor, materials, equipment and services required to complete the

New Community Building, all in accordance with the Specifications and outlined in Section 01010, Summary of Work.

BASE BID:

For construction of the Project in accordance with the Bidding Documents, our Base Bid is for the sum of:

_____ (\$ _____).

The undersigned acknowledges receipt and inclusion as a part of the Contract Documents the following addenda:

<u>Addendum No.</u>	<u>Dated</u>
_____	_____
_____	_____

- 2 In submitting this bid, it is understood that the right is reserved by the PHA to reject any and all bids. If written notice of the acceptance of this bid is mailed, telegraphed, or delivered to the undersigned within sixty (60) days after the opening thereof, or at any time thereafter before this bid is withdrawn, the undersigned agrees to execute and deliver a contract in the prescribe form and furnish the required Performance and Payment Bond within ten (10) days after the contract is presented to him for signature.
- 3 Security in the sum of _____ Dollars (\$ _____), in the form of _____ is submitted herewith in accordance with the Specifications.
- 4 That if awarded the Contract, the Bidder hereby agrees to fully complete the contract within 300 consecutive calendar days after the date of the "Notice to Proceed" and should he fail to fully complete the work within the above stated time, he shall pay the PHA as fixed, agreed and liquidated damages and not as a penalty, the sum of \$500.00 for each calendar day of delay until the work is completed and accepted.
- 5 Attached hereto is an affidavit in proof that the undersigned has not entered into any collusion with any person in respect to this proposal or any other proposal or the submitting of proposals for the contract for which this proposal is submitted.

00320-2

- 6 The bidder represents that he () has, () has not, participated in a previous contract or subcontracts subject to the equal opportunity clause prescribed by Executive Orders 10925, 11114 or 11246 or the Secretary of Labor; that he () has, () has not, filed all required compliance reports, signed by proposed subcontractors, will be obtained prior to the subcontract awards. (The above representation need not be submitted in connection with contracts or subcontracts which are exempt from the clause.
- 7 Certification of Nonsegregated Facilities. By signing this bid, the bidder certifies that he does not maintain or provide for his employees any segregated facilities at any of this establishments, and he does not permit his employees to perform their services at any locations, under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any locations, under his control, where segregated facilities are maintained. The bidder agrees that a breach of this certification is a violation of the equal opportunity clause in this contract. As

used in this certification, the term “segregated facilities” 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 which 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. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain subcontractors exceeding \$10,000 which are not exempt from the provisions of the equal opportunity clause; that he will retain such certifications in his files; and that he will forward a notice to his proposed subcontractors as provided in the Instructions to Bidders.

8. The bidder proposes to subcontract the following portions of the contract:

TRADES

9. Listed below are all bidders’ partners (or members of the corporation):

NAME

TITLE

ADDRESS

Note: The penalty for making false statements in offers prescribed in 18 U.S.C. 1001.

DATE _____, 20__

NAME OF BIDDER

ARKANSAS LICENSE NO.

BY: _____

TITLE: _____

OFFICIAL ADDRESS:

TAX ID# _____

00320-4

END OF DOCUMENT

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned, _____

(Name of Principal)

as PRINCIPAL, and _____

_____, as SURETY are

(Name of Surety)

held and firmly bound unto _____ hereinafter

called the "Local Authority," in the penal sum of _____

_____ DOLLARS,

lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted the accompanying bid, dated _____, 20____ for _____

NOW, THEREFORE, if the Principal shall not withdraw said bid within the period specified therein after the opening of the same, or, if no period be specified, within sixty (60) days after the said opening, and shall within the period specified therefore, or, if no period be specified within ten (10) days after the prescribed forms are presented to him for signature, enter into a written contract with the Local Authority in accordance with the bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract; or in the event of the withdrawal of said bid within the period specified, or the failure to enter into such contract and give such bond within the time specified, if the Principal shall pay the Local Authority the difference between the amount specified in said bid and the amount for which the Local Authority may procure the required work or supplies or both, if the latter amount be in excess of the former, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument under their several seals this _____ day of _____, 20____, the name and corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

IN PRESENCE OF:

(Individual Principal) (Seal)

(Business Address)

(Individual Principal) (Seal)

(Business Address)

ATTEST:

(Corporate Principal)

(Business Address)

By _____
(Affix Corporate Seal)

ATTEST:

(Corporate Principal)

(Business Address)

By _____
(Affix Corporate Seal)

(Attorney)

(Power-of-Attorney for person signing for surety company must be attached to bond.)

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the _____ Secretary of the corporation named as Principal in the within bond; that _____, who signed the same bond on behalf of the Principal was then _____ of said corporation, that I know this signature thereto is genuine; and that said bond was duly signed, sealed, and attested to for and in behalf of said corporation by authority of its governing body.

Corporate Seal

END OF DOCUMENT

NONCOLLUSION AFFIDAVIT OF PRIME BIDDER 00480

State of _____)

of _____)

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

1. He is _____ of _____, the Bidder who has submitted the attached Bid.
2. He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid.
3. Such Bid is genuine and is not a collusive or sham Bid.
4. Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including this affiant, has in any way colluded, conspired, connived, or agreed, directly or indirectly, with any other Bidder, firm, or person to submit a collusive, or sham bid in connection with the contract for which the attached bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm, or person to fix the price or prices in the attached Bid price or the Bid prices of any other Bidder, firm, or person to fix the price or prices in the attached Bid price or the Bid prices of any other Bidder, or to fix any overhead, profit, or cost element of the price or the bid prices of any other bidder or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against the City or any person interested in the Contract; and
5. The price or prices quoted in the attached Bid are fair and proper and are not tainted by an collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

Title

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

By: _____

Title: _____

My commission expires: _____

NONCOLLUSION AFFIDAVIT OF SUBCONTRACTOR 00481

State of _____)
)ss.
of _____)

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

1. He is _____ of _____, the Bidder who has submitted the attached Bid:
2. He is fully informed respecting the preparation and contents of his subcontract price and all pertinent circumstances respecting such pricing.
3. Neither the said Subcontractor nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including this affiant, has in any way colluded, conspired, connived, or agreed, directly or indirectly, with any other Bidder, firm, or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm, or person, to fix the price or prices in the attached Bid or of any other Bidder, or to fix overhead, profit, or cost element of the Bid price or the Bid prices of any other Bidder, or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against the City of any person interested in the Contract; and
4. The price or prices quoted in the attached Bid are fair and proper and are not tainted by a collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

(Signed) _____

(Title)

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

By: _____

Title: _____

My commission expires: _____

END OF DOCUMENT

CERTIFICATION OF BIDDER REGARDING SECTION 3
AND SEGREGATED FACILITIES 00482

Name of Prime Contractor

Project: Trumann Housing Authority
New Community Building
Project Name and Number: 1314-33

The undersigned hereby certifies that

1. Section 3 provisions are included in the Contract.
2. A written Section 3 Plan was prepared and submitted as part of the bid proceedings (if bid equals or exceeds \$200,000).
3. No segregated facilities will be maintained.

Name _____
Name and Title of Signer (Print or Type)

Signature

Date

END OF DOCUMENT

CONTRACTOR SECTION 3 PLAN FORMAT 00483

_____ (Contractor) agrees to implement the following specific affirmative action steps directed at increasing the utilization of lower income residents and business within the City of Trumann and Poinsett County, Arkansas.

- A. To ascertain from the locality's program official the exact boundaries of the Section 3 covered project area and where advantageous, seek the assistance of local officials in preparing and implementing the affirmative action plan.
- B. To attempt to recruit from within the city necessary number of lower income residents through: local advertising media, signs placed at the proposed site for the project, and community organizations and public or private institutions operating within or serving the project area such as Service Employment and Redevelopment (SER); Opportunities Industrial Center (OIC); Urban League; Concentrated Employment Program; Home-Town Plan; YouthBuild; or U.S. Employment Service.
- C. To maintain a list of all lower income residents who have applied either on their own or on referral from any source, and to employ such persons, if otherwise eligible and if a vacancy exists.
- D.* To insert this Section 3 Plan in all bid documents, and to require all bidders on subcontracts to submit a Section 3 Affirmative Action Plan including utilization goals and the specific steps planned to accomplish these goals.
- E. To ensure that subcontractors which are typically let on a negotiated rather than a bid basis in areas other than Section 3 covered project areas are also let on a negotiated basis, whenever feasible, when let in a Section 3 covered project area.
- F. To formally contact unions, subcontractors, and trade associations to secure their cooperation for the program.
- G. To ensure that all appropriate project area business concerns are notified of pending sub contractual opportunities.
- H. To maintain records, including copies of correspondence, memoranda, etc., which document that all of the above affirmative action steps have been taken.
- I. Solicit, and take application, for employment on the project from project area residents and provide the Housing Authority with evidence and results of the effort.
- J. To make an effort to achieve the Section 3 goals established by the Housing Authority for this project as follows:
 - 1. **Targeted Section 3 workers: 5% of total worker labor hours.
 - 2. Total Section 3 workers: 25% of total worker labor hours.

- K. To provide documentation to the Housing Authority regarding the number of low income persons, housing authority residents and Section 3 businesses utilized on this project. Reports in a format acceptable to the PHA will be submitted on a monthly basis and the summary at the completion of the project.
- L. To appoint or recruit an executive official of the company or agency as Equal Opportunity Officer to coordinate the implementation of this Section 3 Plan.

* Loans, grants, contracts, and subsidies for less than \$200,000 will be exempt.

** Targeted Section 3 worker for public housing financial assistance means a Section 3 worker who is:

1. A worker employed by a Section 3 business concern, or
2. A worker who currently fits or when hired fit at least one of the following categories, as documented within the past five years:
 - a. A resident of public housing or Section 8-assisted housing.
 - b. A resident of other public housing or Section 8-assisted housing managed by the PHA that is providing the assistance; or
 - c. A YouthBuild participant.

As officers and representatives of _____
(Name Of Contractor)

We the undersigned have read and fully agree to this Affirmative Action Plan and become a party to the full implementation of this program.

Signature

Title

Date

Signature

Title

Date

END OF DOCUMENT

US Department of Housing and Urban Development
Office of Housing/Federal Housing Commissioner

US Department of Agriculture
Farmers Home Administration

Part I to be completed by Controlling Participant(s) of Covered Projects <i>(See instructions)</i> Reason for submission:	For HUD HQ/FmHA use only
1. Agency name and City where the application is filed	2. Project Name, Project Number, City and Zip Code
3. Loan or Contract amount \$	4. Number of Units or Beds
5. Section of Act <input type="checkbox"/> Existing <input type="checkbox"/> Rehabilitation <input type="checkbox"/> Proposed (New)	
6. Type of Project (check one)	

7. List all proposed Controlling Participants and attach complete organization chart for all organizations showing ownership %

Name and address (Last, First, Middle Initial) of controlling participant(s) proposing to participate	9. SSN or IRS Employer Number (UIN)

Certifications: The controlling participants(s) listed above hereby apply to HUD or USDA FmHA, as the case may be, for approval to participate as controlling participant(s) in the role(s) and project listed above. The controlling participant(s) certify that the information provided on this form and in any accompanying documentation is true and accurate. I/we acknowledge that making, presenting, or submitting a false, fictitious, or fraudulent statement, representation, or certification may result in criminal, civil, and/or administrative sanctions, including fines, penalties, and imprisonment. The controlling participant(s) further certify to the truth and accuracy of the following:

1. Schedule A contains a listing, for the last ten years, of every project assisted or insured by HUD, USDA FmHA and/or State and local government housing finance agencies in which the controlling participant(s) have participated or are now participating.
2. For the period beginning 10 years prior to the date of this certification, and except as shown on the certification:
 - a. No mortgage on a project listed has ever been in default, assigned to the Government or foreclosed, nor has it received mortgage relief from the mortgagee;
 - b. The controlling participants have no defaults or noncompliance under any Conventional Contract or Turnkey Contract of Sale in connection with a public housing project;
 - c. There are no known unresolved findings as a result of HUD audits, management reviews or other Governmental investigations concerning the controlling participants or their projects;
 - d. There has not been a suspension or termination of payments under any HUD assistance contract due to the controlling participant's fault or negligence;
 - e. The controlling participants have not been convicted of a felony and are not presently the subject of a complaint or indictment charging a felony. (A felony is defined as any offense punishable by imprisonment for a term exceeding one year, but does not include any offense classified as a misdemeanor under the laws of a State and punishable by imprisonment of two years or less);
 - f. The controlling participants have not been suspended, debarred or otherwise restricted by any Department or Agency of the Federal Government or of a State Government from doing business with such Department or Agency;
 - g. The controlling participants have not defaulted on an obligation covered by a surety or performance bond and have not been the subject of a claim under an employee fidelity bond;
3. All the names of the controlling participants who propose to participate in this project are listed above.
4. None of the controlling participants is a HUD/FmHA employee or a member of a HUD/FmHA employee's immediate household as defined in Standards of Ethical Conduct for Employees of the Executive Branch in 5 C.F.R. Part 2635 (57 FR 35006) and HUD's Standard of Conduct in 24 C.F.R. Part 0 and USDA's Standard of Conduct in 7 C.F.R. Part 0 Subpart B.
5. None of the controlling participants is a participant in an assisted or insured project as of this date on which construction has stopped for a period in excess of 20 days or which has been substantially completed for more than 90 days and documents for closing, including final cost certification, have not been filed with HUD or FmHA.
6. None of the controlling participants have been found by HUD or FmHA to be in noncompliance with any applicable fair housing and civil rights requirements in 24 CFR 5.105(a). (If any controlling participants have been found to be in noncompliance with any requirements, attach a signed statement explaining the relevant facts, circumstances, and resolution, if any).
7. None of the controlling participants is a Member of Congress or a Resident Commissioner nor otherwise prohibited or limited by law from contracting with the Government of the United States of America.
8. Statements above (if any) to which the controlling participant(s) cannot certify have been deleted by striking through the words with a pen, and the controlling participant(s) have initialed each deletion (if any) and have attached a true and accurate signed statement (if applicable) to explain the facts and circumstances.

Name of Controlling Participant	Signature of Controlling Participant	Certification Date (mm/dd/yyyy)	Area Code and Tel. No.
This form prepared by (print name)		Area Code and Tel. No.	

Schedule A: List of Previous Projects and Section 8 Contracts. Below is a complete list of the controlling participants' previous participation projects and participation history in covered projects as per 24 CFR, part 200 §200.214 and multifamily Housing programs of FmHA, State and local Housing Finance Agencies, if applicable. **Note:** Read and follow the instruction sheet carefully. Make full disclosure. Add extra sheets if you need more space. Double check for accuracy. If no previous projects, write by your name, **"No previous participation, First Experience"**.

1. Controlling Participants' Name (Last, First)	2. List of previous projects (Project name, project ID and, Govt. agency involved)	3. List Participants' Role(s) (indicate dates participated, and if fee or identity of interest participant)	4. Status of loan (current, defaulted, assigned, foreclosed)	5. Was the Project ever in default during your participation Yes No If yes, explain	6. Last MOR rating and Physical Insp. Score and date

Part II- For HUD Internal Processing Only

Received and checked by me for accuracy and completeness; recommend approval or refer to Headquarters after checking appropriate box.

Date (mm/dd/yyyy)	Tel No. and area code	<input type="checkbox"/> A. No adverse information; form HUD-2530 approval recommended. <input type="checkbox"/> C. Disclosure or Certification problem
Staff	Processing and Control	<input type="checkbox"/> B. Name match in system <input type="checkbox"/> D. Other (attach memorandum)
Signature of authorized reviewer	Signature of authorized reviewer	Approved <input type="checkbox"/> Yes <input type="checkbox"/> No Date (mm/dd/yyyy)

Instructions for Completing the Previous Participation Certificate, form HUD-2530

Carefully read these instructions and the applicable regulations. A copy of the regulations published at 24 C.F.R. part 200, subpart H, § 200.210-200.222 can be obtained on-line at www.gpo.gov and from the Account Executive at any HUD Office. Type or print neatly in ink when filling out this form. Incomplete form will be returned to the applicant.

Attach extra sheets as you need them. Be sure to indicate "Continued on Attachments" wherever appropriate. Sign each additional page that you attach if it refers to you or your record. **Carefully read the certification before you sign it.** Any questions regarding the form or how to complete it can be answered by your HUD Account Executive.

Purpose: This form provides HUD/USDA FmHA with a certified report of all previous participation in relevant HUD/USDA programs by those parties submitting the application. The information requested in this form is used by HUD/USDA to determine if you meet the standards established to ensure that all controlling participants in HUD/USDA projects will honor their legal, financial and contractual obligations and are of acceptable risks from the underwriting standpoint of an insurer, lender or governmental agency. HUD requires that you certify and submit your record of previous participation, in relevant projects, by completing and signing this form, before your participation can be approved.

HUD approval of your certification is a necessary precondition for your participation in the project and in the capacity that you propose. If you do not file this certification, do not furnish the information requested accurately, or do not meet established standards, HUD will not approve your certification.

Note that approval of your certification does not obligate HUD to approve your project application, and it does not satisfy all other HUD program requirements relative to your qualifications.

Who Must Sign and File Form HUD-2530: Form HUD-2530 must be completed and signed by all Controlling Participants of Covered Projects, as such terms are defined in 24 CFR part 200 §200.212, and as further clarified by the Processing Guide (HUD notice H 2016-15) referenced in 24 CFR §200.210(b) and available on the HUD website at: http://portal.hud.gov/hudportal/HUD?src=/program_offices/housing/mfh/prevparticipation.

Where and When Form HUD-2530 Must Be Filed: The original of this form must be submitted to the HUD Office where your project application will be processed at the same time you file your initial project application. This form must be filed with applications for projects listed in 24 CFR §200.214 and for the Triggering Events listed at 24 CFR §200.218.

Review of Adverse Determination: If approval of your participation in a HUD project is denied, withheld, or conditionally granted on the basis of your record of previous participation, you will be notified by the HUD Office. You may request reconsideration in accordance with 24 CFR §200.222 and further clarified by the Processing Guide. Request must be made in writing within 30 days from your receipt of the notice of determination.

The Department of Housing and Urban Development (HUD) is authorized to collect this information by law 42 U.S.C. 3535(d) and by regulation at 24 CFR 200.210. This information is needed so that principals applying to participate in multifamily programs can become HUD-approved controlling participants. The information you provide will enable HUD to evaluate your record with respect to established standards of performance, responsibility and eligibility. Without prior approval, a controlling participant may not participate in a proposed or existing multifamily or healthcare project. HUD uses this information to evaluate whether or not controlling participants pose an unsatisfactory underwriting risk. The information is used to evaluate the potential controlling participants and approve only individuals and organizations that will honor their legal, financial and contractual obligations.

Privacy Act Statement: The Housing and Community Development Act of 1987, 42 U.S.C. 3543 requires persons applying for a Federally-insured or guaranteed loan to furnish his/her Social Security Number (SSN). HUD must have your SSN for identification of your records. HUD may use your SSN for automated processing of your records and to make requests for information about you and your previous records with other public agencies and private sector sources. HUD may disclose certain information to Federal, State and local agencies when relevant to civil, criminal, or regulatory investigations and prosecutions. It will not be otherwise disclosed or released outside of HUD, except as required and permitted by law. You must provide all of the information requested in this application, including your SSN.

Public reporting burden for this collection of information is estimated to average three hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This agency may not collect this information, and you are not required to complete this form, unless it displays a currently valid OMB control number.

A response is mandatory. Failure to provide any of the information will result in your disapproval of participation in this HUD program.

CONTRACTOR'S CERTIFICATION FOR
CONTRACTS, GRANTS, LOANS, AND
COOPERATIVE AGREEMENT 00485

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all sub awards at all tiers (including subcontracts, sub grants, and contracts under grants, loans, and cooperative agreements) and that all sub recipients shall certify and disclose accordingly.

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

Executed this _____ day of _____, 20__.

(Contractor)

By _____
(Signature of Authorized Official)

(Address)

(Title of Authorized Official)

(CFP PROJECT NUMBER)

END OF DOCUMENT

SECTION 3 CLAUSE OF THE HOUSING AND URBAN
DEVELOPMENT ACT OF 1968, AS
AMENDED, 12 USC 1701u 00486

Every applicant, recipient, contracting party, contractor, and subcontractor shall incorporate, or cause to be incorporated, in all contracts for work in connection with a Section 3 covered project, the following clause, which is referred to as a Section 3 Clause.

- A. The work to be performed under this contract is on a project assisted under a program providing direct federal financial assistance from the Department of Housing and Urban Development and is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 USC 1701u. Section 3 requires that, to the greatest extent feasible, opportunities for training and employment be given to lower income residents of the project area and contracts for work in connection with the project be awarded to business concerns which are located in or owned in substantial part by persons residing in the area of the project.
- B. The parties to this contract will comply with the provisions of said Section 3 and the regulations issued pursuant thereto by the Secretary of Housing and Urban Development as set forth in 24 CFR, and all applicable rules and orders of the Department issued there under prior to the execution of this contract. The parties to this contract certify and agree that they are under no contractual or other disability which would prevent them from complying with these requirements.
- C. The contractor will send to each labor organization or representative of workers with which he has a collective bargaining agreement, or other contract of understanding, if any, a notice advising the said labor organization or workers' representatives of his commitments under this Section 3 clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment or training.
- D. The contractor will include this Section 3 clause in every subcontract for work in connection with the project and will, at the direction of the applicant for or recipient of federal financial assistance, take appropriate action pursuant to the subcontract upon a finding that the subcontractor is in violation of regulations issued by the Secretary of Housing and Urban Development, 24 CFR 135. The contractor will not subcontract with any subcontractor where he has notice or knowledge that the latter has been found in violation of regulations under 24 CFR 135 and will not let any subcontract unless the subcontractor has first provided him with a preliminary statement of ability to comply with the requirements of these regulations.

00486-1

- E. Compliance with the provisions of Section 3, the regulations set forth in 24 CFR 135, and all applicable rules and orders of the Department issued there under prior to the execution of the contract shall be a condition of the federal financial assistance provided to the

project binding upon the applicant or recipient for such assistance, his successors, and assigns. Failure to fulfill these requirements shall subject the applicant or recipient, his contractors and subcontractors, his successors, and assigns to those sanctions specified by the grant or loan agreement or contract through which federal assistance is provided, and to such sanctions as are specified by 24 CFR 135.

END OF DOCUMENT

THIS AGREEMENT, made this _____ day of _____ in the year of Two Thousand and Twenty Four by and between _____
(Fill in the exact name of Contractor)

hereinafter called the "Contractor", and Trumann Housing Authority, Arkansas, hereinafter called the "Public Housing Agency" or PHA.

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

ARTICLE 1. STATEMENT OF WORK. The Contractor shall furnish all labor, materials, equipment, and services and perform and complete all work required for the following:

New Community Building, all in accordance with the Specifications and outlined in Section 01010, Summary of Work.

all in strict accordance with the attached Plans and Specifications and the following Addenda:

Addendum No.	Date
_____	_____
_____	_____
_____	_____

which said Specifications, Addenda and Drawings are incorporated by reference and made part thereof.

ARTICLE 2. THE CONTRACT PRICE: The PHA shall pay the Contractor for the performance of the Contract in current funds, subject to additions and deductions as provided in the specifications in the sum of:

_____ (\$_____).

ARTICLE 3. INDEMNIFICATION: The Contractor shall indemnify, defend, and hold the HA (and its officers, employees, and agents) harmless from and against any and all claims, damages, losses, suits, actions, decrees, judgments, attorney's fees, court costs and other expenses of any kind or character, which are caused by, arise out of, or occur due to any failure of the Contractor to (1) abide by any of the applicable professional standards within its industry, or (2) comply with the terms, conditions, or covenants that are contained in this contract, or any other law, ordinance, or decree; or (4) ensure that any subcontractors abide by the terms of this provision and this contract; provided, however, that the contractor will not be required to indemnify the HA against loss or damage which was specifically caused by the HA providing inaccurate information to the Contractor, failing to provide necessary and requested information to the Contractor, or refusal to abide by any recommendation of the Contractor.

ARTICLE 4. JURISDICTION AND VENUE: In the event of a Contract dispute or litigation arising out of said Contract, it is understood and agreed that this Contract was executed and performed in Poinsett County, and, as such, it is agreed by both parties that venue for said litigation, including an action of Declaratory Judgment, will be in Poinsett County.

ARTICLE 5. ATTORNEY'S FEES. In the event of litigation arising out of said Contract, it is agreed that if _____ is held liable for damages, or is found to have breached the Contract, that _____ will also pay the Local Authority's reasonable attorney's fees and expenses involved in the litigation.

ARTICLE 6. CONTRACT TIME. The Contractor hereby agrees to commence work under this contract on or within ten (10) days of the date to be specified in the written "Notice to Proceed" by the PHA and to fully complete the project within 365 consecutive calendar days after the "Notice to Proceed" date. If the Contractor shall fail to complete the work in the time herein specified, he shall pay to the PHA, as liquidated damages, ascertained and agreed, and not in the nature of a penalty, the sum of five hundred and 00/100 dollars, (\$500.00) for each consecutive calendar day of delay until the work is completed and accepted, which shall be deducted from the final amount to be paid under the Contract.

ARTICLE 7. CONTRACT DOCUMENTS. The Contract shall consist of the following component parts:

- a. This instrument
- b. General Conditions (HUD-5370)
- c. Project Manual and Drawings

This instrument, together with the other documents enumerated in this Article 7, which said other documents are as fully a part of the Contract as if hereto attached or herein repeated, from the Contract. In the event that any provision of any other component part, the provision of the component part first enumerated in this Article 7 shall govern, except as otherwise specifically stated. The various provisions in Addenda shall be construed in the order of preference of the component part of the Contract which each modifies.

IN WITNESS WHERE OF, the parties hereto have caused this Instrument to be executed in three (3) original counterparts the day and year first above written.

Attest:

BY: _____
TITLE: _____
STREET: _____
CITY: _____
STATE: AR ZIP: _____

BY: _____

TITLE: Executive Director

STREET: 109 Spruce Drive

CITY: Trumann

STATE: Arkansas ZIP: 72472

(Print or type names underneath all signatures.)

CERTIFICATIONS

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

Corporate Seal

By _____

Title _____

ARKANSAS PERFORMANCE AND PAYMENT BOND 00670
(14-604 Arkansas Statutes)

KNOW ALL MEN BY THESE PRESENTS: That we (1) _____
a (2) _____ hereinafter called "Principal" and (3) _____
_____ of _____,
State of _____ hereinafter called the "Surety", are held and
firmly bound unto (4) _____, hereinafter called
"Owner" in the penal sum of _____ Dollars (\$_____)

in lawful money of the United States, for the payment of which sum well and truly to be made, said
Principals and Surety bind themselves, their heirs, administrators, executors, successors and assigns,
jointly and severally, by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a
certain contract with the Owner, dated the ____ day of _____, 20__ a copy of which is attached and
made a part hereof for the construction of: _____

NOW, THEREFORE, if the Principals shall well, truly and faithfully perform its duties, all the
undertakings, covenants, terms, conditions, and agreement of said contract during the original term
thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the
Surety, and if he shall satisfy all claims and demands incurred under such contract, and shall fully
indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of
failure to do so, and shall reimburse and repay the owner all outlay and expense which the Owner may
incur in making good any default, and shall promptly make payment of all persons, firms, subcontractors
and corporations furnishing materials for or performing labor in the prosecution of the work provided for
in such contract, and any authorized extension or modification thereof, all amounts due for not limited to,
materials, lubricants, oil, gasoline, coal and coke, repair on machinery, equipment and tools, consumed or
used in connection with the construction of said work fuel oil, camp equipment, food for men, feed for
animals, premium for bonds and liability and workmen's compensation insurance, rentals on machinery,
equipment and draft animals; also for taxes or payments due the State of Arkansas or any political
subdivisions thereof which shall have arisen on account of or in connection with the wages earned by
workmen covered by the bond; and for all labor, performed in such work whether by subcontractor or
otherwise, then this obligation shall be void, otherwise to remain in full force and effect.

ARKANSAS PERFORMANCE AND PAYMENT BOND 00670
(14-604 Arkansas Statutes)

The Surety agrees the terms of this bond shall cover the payment by the principal of not less than the prevailing hourly rate of wages as found by the Arkansas Department of Labor or as determined by the court on appeal to all workmen performing work under the contract.

PROVIDED, FURTHER, that the said Surety, for value hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the contract or to the work to be performed thereunder of the specifications accompanying the same shall in any wise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract as to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the owner and the contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in six (6) counterparts, each of which shall be deemed an original, this _____ day of _____, 20____.

ATTEST: _____
(PRINCIPAL)

_____ BY _____
SECRETARY (PRINCIPAL) (TITLE)

(SEAL) _____
(ADDRESS)

_____ (SURETY)
WITNESS AS TO PRINCIPAL

_____ BY _____
ADDRESS (ATTORNEY-IN-FACT)

(ADDRESS)

\$ _____ \$ _____ \$ _____
Amount of Contract Rate of Premium per Amount of Premium
\$1,000.00

ARKANSAS PERFORMANCE AND PAYMENT BOND 00670
(14-604 Arkansas Statutes)

ATTEST:

SECRETARY (SURETY)

(SEAL)

WITNESS AS TO ATTORNEY-IN-FACT

ADDRESS

NOTE: Date of Bond must not be prior to date of Contract. Bond must conform to the following:

- (1) Correct name of Contractor.
- (2) A Corporation, a Partnership, or an individual, as case may be.
- (3) Correct name of Surety.
- (4) Correct name of Owner.
- (5) If Contractor is Partnership, all partners should execute bond.
- (6) This bond must be filed with the Circuit Court of the where the work is to be performed prior to the start of construction.

END OF DOCUMENT

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. 11/30/2023)

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

Public reporting burden for this collection of information is estimated to average 1 hour. This includes the time for collecting, reviewing, and reporting the data. The information requested is required to obtain a benefit. 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, PHAs would be unable to enforce their contracts.. There are no assurances of confidentiality. HUD may not conduct or sponsor, and an applicant is not required to respond to a collection of information unless it displays a currently valid OMB control number.

Clause		Page	Clause		Page
1.	Definitions	2	Administrative Requirements		
2.	Contractor's Responsibility for Work	2	25.	Contract Period	9
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15.	Availability and Use of Utility Services	6	39.	Equal Employment Opportunity	13
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18.	Clean Air and Water	7	42.	Interest of Members, Officers, or Employees and Former Members, Officers, or Employees	15
19.	Energy Efficiency	7	43.	Limitations on Payments Made to Influence	15
20.	Inspection and Acceptance of Construction	7	44.	Royalties and Patents	15
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24.	Prohibition Against Liens	9	48.	Procurement of Recovered Materials	19

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 Terms and Conditions (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.
 - (i) "Specifications" means the written description of the technical requirements for construction and includes the criteria and tests for determining whether the requirements are met.
 - (l) "Work" means materials, workmanship, and manufacture and fabrication of components.
- (a) The Contractor shall furnish all necessary labor, materials, tools, equipment, and transportation necessary for performance of the work. The Contractor shall also furnish all necessary water, heat, light, and power not made available to the Contractor by the PHA pursuant to the clause entitled Availability and Use of Utility Services herein.
 - (b) The Contractor shall perform on the site, and with its own organization, work equivalent to at least [] (12 percent unless otherwise indicated) of the total amount of work to be performed under the order. This percentage may be reduced by a supplemental agreement to this order if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the PHA.
 - (c) At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the work site a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.
 - (d) The Contractor shall be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence, and shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. The Contractor shall hold and save the PHA, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.
 - (e) The Contractor shall lay out the work from base lines and bench marks indicated on the drawings and be responsible for all lines, levels, and measurements of all work executed under the contract. The Contractor shall verify the figures before laying out the work and will be held responsible for any error resulting from its failure to do so.
 - (f) The Contractor shall confine all operations (including storage of materials) on PHA premises to areas authorized or approved by the Contracting Officer.
 - (g) The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. After completing the work and before final inspection, the Contractor shall (1) remove from the premises all scaffolding, equipment, tools, and materials (including rejected materials) that are not the property of the PHA and all rubbish caused by its work; (2) leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer; (3) perform all specified tests; and, (4) deliver the installation in complete and operating condition.
 - (h) The Contractor's responsibility will terminate when all work has been completed, the final inspection made, and the work accepted by the Contracting Officer. The Contractor will then be released from further obligation except as required by the warranties specified elsewhere in the contract.

3. Architect's Duties, Responsibilities, and Authority

- (a) The Architect for this contract, and any successor, shall be designated in writing by the Contracting Officer.

2. Contractor's Responsibility for Work

- (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 words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place" that is "furnished and installed".
- (d) "Shop drawings" means drawings, submitted to the PHA by the Contractor, subcontractor, or any lower tier subcontractor, showing in detail (1) the proposed fabrication and assembly of structural elements and (2) the installation (i.e., form, fit, and attachment details) of materials of equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the work required by the contract. The PHA may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.
- (e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with other contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the PHA's reasons therefore. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) below.
- (f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Architect approves any such variation and the Contracting Officer concurs, the Contracting Officer shall issue an appropriate modification to the contract, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.
- (g) It shall be the responsibility of the Contractor to make timely requests of the PHA for such large scale and full size drawings, color schemes, and other additional information, not already in his possession, which shall be

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 _____ 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 submitted not later than _____ days in advance of the date set for payment and are subject to correction and revision as required. The estimates must be approved by the Contracting Officer with the concurrence of the Architect prior to payment. If the contract covers more than one project, the Contractor shall furnish a separate progress payment estimate for each.
- (e) Along with each request for progress payments and the required estimates, the Contractor shall furnish the following certification, or payment shall not be made: I hereby certify, to the best of my knowledge and belief, that:
 - (1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;
 - (2) Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements; and,
 - (3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract.

Name:

Title:

Date:

- (f) Except as otherwise provided in State law, the PHA shall retain ten (10) percent of the amount of progress payments until completion and acceptance of all work under the contract; except, that if upon completion of 50 percent of the work, the Contracting Officer, after consulting with the Architect, determines that the Contractor's performance and progress are satisfactory, the PHA may make the remaining payments in full for the work subsequently completed. If the Contracting Officer subsequently determines that the Contractor's performance and progress are unsatisfactory, the PHA shall reinstate the ten (10) percent (or other percentage as provided in State law) retainage until such time as the Contracting Officer determines that performance and progress are satisfactory.
- (g) The Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration when computing progress payments.

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 a adjustment based on defective specifications, no proposal for any change under paragraph (b) above shall be allowed for any costs incurred more than 20 days (5 days for oral orders) before the Contractor gives written notice as required. In the case of defective specifications for which the PHA is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.
- (e) The Contractor must assert its right to an adjustment under this clause within 30 days after (1) receipt of a written change order under paragraph (a) of this clause, or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting a written statement describing the general nature and the amount of the proposal. If the facts justify it, the Contracting Officer may extend the period for submission. The proposal may be included in the notice required under paragraph (b) above. No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.
- (f) The Contractor's written proposal for equitable adjustment shall be submitted in the form of a lump sum proposal supported with an itemized breakdown of all increases and decreases in the contract in at least the following details:

- (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 \$ _____ [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 \$ _____ [Contracting Officer insert amount]

per occurrence to protect the Contractor and each subcontractor against claims for bodily injury or death and damage to the property of others. This shall cover the use of all equipment, hoists, and vehicles on the site(s) not covered by Automobile Liability under (3) below. If the Contractor has a "claims made" policy, then the following additional requirements apply: the policy must provide a "retroactive date" which must be on or before the execution date of the Contract; and the extended reporting period may not be less than five years following the completion date of the Contract.

- (3) Automobile Liability on owned and non-owned motor vehicles used on the site(s) or in connection therewith for a combined single limit for bodily injury and property damage of not less than \$ _____ [Contracting Officer insert amount] per occurrence.
- (b) Before commencing work, the Contractor shall furnish the PHA with a certificate of insurance evidencing that Builder's Risk (fire and extended coverage) Insurance on all work in place and/or materials stored at the building site(s), including foundations and building equipment, is in force. The Builder's Risk Insurance shall be for the benefit of the Contractor and the PHA as their interests may appear and each shall be named in the policy or policies as an insured. The Contractor in installing equipment supplied by the PHA shall carry insurance on such equipment from the time the Contractor takes possession thereof until the Contract work is accepted by the PHA. The Builder's Risk Insurance need not be carried on excavations, piers, footings, or foundations until such time as work on the superstructure is started. It need not be carried on landscape work. Policies shall furnish coverage at all times for the full cash value of all completed construction, as well as materials in place and/or stored at the site(s), whether or not partial payment has been made by the PHA. The Contractor may terminate this insurance on buildings as of the date taken over for occupancy by the PHA. The Contractor is not required to carry Builder's Risk Insurance for modernization work which does not involve structural alterations or additions and where the PHA's existing fire and extended coverage policy can be endorsed to include such work.
- (c) All insurance shall be carried with companies which are financially responsible and admitted to do business in the State in which the project is located. If any such insurance is due to expire during the construction period, the Contractor (including subcontractors, as applicable) shall not permit the coverage to lapse and shall furnish evidence of coverage to the Contracting Officer. All certificates of insurance, as evidence of coverage, shall provide that no coverage may be canceled or non-renewed by the insurance company until at least 30 days prior written notice has been given to the Contracting Officer.

37. Subcontracts

- (a) Definitions. As used in this contract -
- (1) "Subcontract" means any contract, purchase order, or other purchase agreement, including modifications and change orders to the foregoing, entered into by a subcontractor to furnish supplies, materials, equipment, and services for the performance of the prime contract or a subcontract.

- (2) "Subcontractor" means any supplier, vendor, or firm that furnishes supplies, materials, equipment, or services to or for the Contractor or another subcontractor.
- (b) The Contractor shall not enter into any subcontract with any subcontractor who has been temporarily denied participation in a HUD program or who has been suspended or debarred from participating in contracting programs by any agency of the United States Government or of the state in which the work under this contract is to be performed.
- (c) The Contractor shall be as fully responsible for the acts or omissions of its subcontractors, and of persons either directly or indirectly employed by them as for the acts or omissions of persons directly employed by the Contractor.
- (d) The Contractor shall insert appropriate clauses in all subcontracts to bind subcontractors to the terms and conditions of this contract insofar as they are applicable to the work of subcontractors.
- (e) Nothing contained in this contract shall create any contractual relationship between any subcontractor and the PHA or between the subcontractor and HUD.

38. Subcontracting with Small and Minority Firms, Women's Business Enterprise, and Labor Surplus Area Firms

The Contractor shall take the following steps to ensure that, whenever possible, subcontracts are awarded to small business firms, minority firms, women's business enterprises, and labor surplus area firms:

- (a) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
- (b) Ensuring that small and minority businesses and women's business enterprises are solicited whenever they are potential sources;
- (c) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women's business enterprises;
- (d) Establishing delivery schedules, where the requirements of the contract permit, which encourage participation by small and minority businesses and women's business enterprises; and
- (e) Using the services and assistance of the U.S. Small Business Administration, the Minority Business Development Agency of the U.S. Department of Commerce, and State and local governmental small business agencies.

39. Equal Employment Opportunity

During the performance of this contract, the Contractor agrees as follows:

- (a) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, disability, or national origin.
- (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, sexual orientation, gender identity, disability, or national origin. Such action shall include, but not be limited to, (1) employment, (2) upgrading, 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 agrees to post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer setting forth the provisions of this nondiscrimination clause.

(d) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor/Seller, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(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 that the Contractor is in non-compliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor/seller may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(i) The contractor/seller will include the provisions of paragraphs (a) through (h) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each sub[contractor/seller] or vendor. The [contractor/seller] will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the [contractor/seller] becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the [contractor/seller] may request the United States to enter into such 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.

ADDITIONS TO THE GENERAL CONDITIONS 00716

The following articles are added to the General Conditions of the Contract for Construction Document Form HUD-5370 (11/23), included in the Project Manual, as follows:

1. ARTICLE 49. CONTRACT DOCUMENTS
 - (a) After a Contract is executed, one (1) set of the Project Manual and Drawings shall be furnished the General Contractor. If the contractor wishes to purchase additions copies, he/she may do so at their own expense.
2. ARTICLE 50. SALVAGE BY PHA
 - (a) Material or equipment to be removed by the Contractor and delivered to the PHA will be designated by the PHA. The Housing Authority has first rights to all salvageable material.
3. ARTICLE 51. TAXES ON OWNER-FURNISHED ITEMS
 - (a) The Contractor will be responsible for paying all applicable taxes on new Owner-furnished items included in the Work of the Contract. Items that are reused are excluded from this requirement.

END OF DOCUMENT

00716-1

MODIFICATIONS TO THE GENERAL CONDITIONS 00717

MODIFICATIONS

Document 00715 - General Conditions of the Contract for Construction, Document Form HUD-5370 (11/23) included in the Project Manual, is revised as follows.

1. ARTICLE 2., Paragraph (d), add the following sub-paragraphs:
 - (1) The Contractor shall be responsible for all damage to any property of the PHA and to all property of the tenants when this damage is caused by the Contractor in his compliance with the work as set forth in the Plans and Specifications.
 - (2) Should the Contractor, in the course of his Contract work, find additional repairs or replacement are needed, it shall be brought to the attention of the Housing Authority.
2. ARTICLE 2., Paragraph (f), add the following sub-paragraph:
 - (1) Sites available for storage of equipment and job trailers shall be designated by, and coordinated with, the PHA. Storage and protection of material and equipment shall be solely the responsibility of the Contractor. No enclosed space or area is available at site for storage.
3. ARTICLE 2., Paragraph (g), add the following sub-paragraphs:
 - (5) Contractor shall remove all debris, crates, cartons, packaging, and similar item, resulting from removal of existing items of work or from installation of new items of work and accessories shall not be allowed to accumulate and must be removed from the project site at the end of each work day.
 - (6) The Owner's dumpster will not be used for the disposal of debris, trash, cartons, packaging, and similar items resulting from work of this Contract.
4. ARTICLE 5., Paragraph (c), add the following paragraph:
 - (c) Material or equipment will not be permitted to be delivered to the project site until a formal Notice to Proceed has been issued by the Housing Authority to the Contractor.

MODIFICATIONS TO THE GENERAL CONDITIONS 00717

5. ARTICLE 6., Paragraph (a), add paragraphs (d) and (e) below:
 - (d) The Contractor shall furnish and install all necessary equipment and service for organized work to start no later than 10 calendar days after the date of the Notice to Proceed.
 - (e) The Contractor shall prepare a daily schedule to coincide, as closely as possible, with the normal daily work schedule of the PHA, which is Monday through Friday, 8:00 a.m. to 5:00 p.m. No work shall be started on any building unless that building can be secured and dried-in for overnight or over a weekend.
6. ARTICLE 7., Add the following paragraph:
 - (c) The Contractor shall be responsible for checking all existing conditions, exact dimensions, quantities, material and other items required to complete the work indicated on the Drawings and specified in the Project Manual to complete the Work of the Contract.
7. ARTICLE 9., Paragraph (d), for clarification shop drawings required by subcontractors and sub subcontractors are to be submitted to the General Contractor who then submits shop drawings to the A/E.
8. ARTICLE 9., Paragraph (h), change this paragraph to read as follows:
 - (h) The Contractor shall submit to the A/E for approval all shop drawings as called for under the various headings of the specifications. All copies will be returned to the Contractor for his use, with the exception of two (2) copies will be retained by the A/E and PHA. As required by the Contracting Officer, the Contractor, upon completing the work under this contract, shall furnish a complete set of all shop drawings and finally approved. These drawings shall show all changes and revisions made up to the time the work is completed and accepted.
 - (1) The general conditions reference to shop drawings shall imply all submittals required by the contract documents and shall include, but not limited to the following: shop drawings, technical/performance data, material/equipment samples, operation/maintenance manuals, etc.
9. ARTICLE 9., Add the following paragraph:
 - (j) Where the individual specification sections call for a named product or one that meets it or exceeds it in quality, the decision of the A/E as to the acceptability of any product offered by the Contractor shall be binding and final.

MODIFICATIONS TO THE GENERAL CONDITIONS 00717

10. ARTICLE 10., Change this entire article to read as follows:

RECORD DRAWINGS

- (1) "Record 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 of work as it progresses and as actually completed under the contract. The Contractor is to keep the record drawing current with all revisions to the work throughout the course of the contract.
- (2) 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.
- (3) This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all Record Drawings prepared by subcontractors are submitted to the Contracting Officer.

11. ARTICLE 11., Subparagraph (b)(6), add the following to subparagraph:

- (6) Where indicated, samples of all materials to be installed on this project shall be submitted to the Housing Authority (HA) for approval a minimum of 14 calendar days prior to installation and must be approved by the PHA prior to installation. Samples will not be returned to the Contractor, unless specifically indicated.

12. ARTICLE 11., Subparagraph (b), add the following subparagraph:

- (7) All requests for substitutions shall be submitted in writing in accordance with procedures outlined in Section 01600 - Material Equipment and Substitutions.

13. ARTICLE 11., Subparagraph (b), add the following subparagraph:

- (8) All work under this contract shall be performed in a skillful and workmanlike manner.

MODIFICATIONS TO THE GENERAL CONDITIONS 00717

14. ARTICLE 15., Paragraph (a), note the following:

The requirements for utilities specified in Section 01500, Construction Facilities and Temporary Controls shall govern over the requirements noted in this paragraph.
15. ARTICLE 17., Paragraph (a), Omit the last sentence of this paragraph.
16. ARTICLE 23., Paragraph (a), in the second and third sentence the warranty period shall be for a period of one (1) year.
17. ARTICLE 23., Paragraph (c), in the second sentence the warranty period for work repaired or replaced shall run for a period of one year.
18. ARTICLE 25., refer to Document 00320 - Contractor' s Proposal and Section 01010 - Summary of Work for number of calendar days to complete the Work.
19. ARTICLE 27., Paragraph (d), in the second sentence the periodic estimates for payments shall be submitted 30 days in advance of date set for payment.
20. ARTICLE 27., Paragraph (e), the Certification Form for progress payments and the required estimates is Document 00914 included in the Project Manual.
21. ARTICLE 27., Paragraph (1), add the following paragraph:
 - (1) Request for payment by the Contractor will not be accepted by the Owner unless all required payrolls or statements of no work are current and approved by the Owner through the end of the week preceding the end of the period covered by the Request for Payment.
22. ARTICLE 33., Paragraph (a), change the first sentence to read as follows:

"If the Contractor fails to complete the Work within the time specified in the Contract, or any extension, the Contractor shall pay to the PHA as liquidated damages, the sum stipulated for each calendar day of delay."

MODIFICATIONS TO THE GENERAL CONDITIONS 00717

23. ARTICLE 33., Paragraph (d), add the following paragraph:

- (d) If the actual damages for any delay in completion of the Work which the Contractor is required to perform under this Contract are impossible to determine, the Contractor and his Sureties shall be liable for and shall pay the Housing Authority as liquidated damages the fixed and agreed sum stipulated in Article 6 of Document 00502 - Form of Contract, the stipulated sum for each consecutive calendar day of delay from the schedule established in Section 1010 - Scope of Work for completion or as modified in accordance with Document 00715 - General Conditions, Article 29, changes until such work is satisfactorily completed and accepted.

24. ARTICLE 36., Paragraph (a), insurance certificates will read exactly as spelled out below:

- (1) Workers Compensation
 - a. State: Statutory
 - b. Applicable Federal: Statutory
- (2) Commercial General Liability - Combined Single Limit for Bodily Injury and Property Damage
 - a. \$1,000,000 Per Occurrence
- (3) Automobile Liability - Combined Single Limit for Bodily Injury and Property Damage
 - a. \$500,000 Per Occurrence

THIS APPLIES TO ALL SUBCONTRACTORS ALSO.

25. ARTICLE 36., Paragraph (d), add asbestos abatement insurance coverage as follows:

- (d) Where the scope of the work includes asbestos abatement, the Contractor's Insurer shall state on the Certificate of Insurance that the insurance company acknowledges and agrees that his policy is acceptable for the Contractor or subcontractor whose business is, or includes, asbestos abatement.
 - (1) Where the scope of work includes asbestos abatement, the Contractor's and Subcontractor's insurance certificates will read exactly as spelled out below:

MODIFICATIONS TO THE GENERAL CONDITIONS 00717

- a. Workers Compensation
 - 1. State: Statutory
 - 2. Applicable Federal: Statutory
 - 3. Employer's Liability: \$1,000,000 Each Accident

- b. Commercial General Liability - (including Premises Operations, Independent Contractor's Protective, and Broad Form Property Damage):
 - 1. Bodily Injury and Property Damage Combined Aggregate:
 - a. \$2,000,000 Each Occurrence
 - 2. Property Damage:
 - a. \$1,000,000 Each Occurrence
 - b. \$2,000,000 Annual Aggregate
 - 3. Property Damage Liability Insurance shall include coverage against explosion, collapse, and underground hazard.

- c. Contractual Liability
 - 1. Bodily Injury:
 - a. \$1,000,000 Each Occurrence
 - 2. Property Damage:
 - a. \$1,000,000 Each Occurrence
 - b. \$2,000,000 Annual Aggregate

- d. Personal Injury, with Employment Exclusion Deleted
\$1,000,000 Annual Aggregate

- e. Comprehensive Automobile Liability
 - 1. Bodily Injury and Property Damage Combined Single Unit:
\$500,000

ARTICLE 36., Paragraph (e), add lead based paint abatement insurance coverage as follows:

- (e) Where the scope of work includes lead base paint abatement, the Contractor will provide insurance to cover the Contractor, Subcontractor(s), Architect, and Owner for an occurrence arising out of the actual, alleged or threatened discharge, dispersal, release, escape, ingestion or presence of lead based paint during its abatement/removal. The limit of insurance will be \$1,000,000 per occurrence.

MODIFICATIONS TO THE GENERAL CONDITIONS 00717

26. ARTICLE 46., Subparagraph (c) (2), add the following subparagraph:
- (v) All payroll reports submitted in accordance with subject work must be and **Original Signatures** and dates. No copies will be accepted.

END OF DOCUMENT

CERTIFICATION OF PRIME BIDDER REGARDING
EQUAL EMPLOYMENT OPPORTUNITY 00820

INSTRUCTIONS

This certification is required pursuant to Executive Order 11246 (30 FR 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of his proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether he has participated in any previous contract or subcontract subject to the equal opportunity clause; and if so, whether he has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven (7) calendar days after bid opening. No contract shall be awarded unless such report is submitted.

CERTIFICATION BY BIDDER

Bidder's Name: _____

Address:

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause.
Yes _____ No _____
2. Compliance reports were required to be filed in connection with such contract or subcontract.
Yes _____ No _____
3. Bidder has filed all compliance reports due under applicable instructions, including SF-100.
Yes _____ No _____ None _____
4. If answer to Item 3 is "No", please explain in detail on reverse side of this certification.

Certification: The information above is true and complete to the best of my knowledge and belief.

Name and Title of Signer (Please Type)

Signature

Date

END OF DOCUMENT

00820-1

CERTIFICATION BY PROPOSED SUBCONTRACTOR REGARDING EQUAL EMPLOYMENT

OPPORTUNITY 00821

Name of Prime Contractor

Project Number

INSTRUCTIONS

This certification is required pursuant to Executive Order 11246 930 FR 12319-25). The implementing rules and regulations provide any bidder or prospective contractor, or any of his proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether he has anticipated in any previous contract or subcontract subject to the equal opportunity clause; and if so, whether he has filed all compliance reports due under applicable instructions. Where the certification indicates that the subcontractor has not filed a compliance report due under applicable instructions, such subcontractor shall required to submit a compliance report before the Owner approves the subcontractor or permits work to begin under the subcontract.

SUBCONTRACTOR' S CERTIFICATION

Subcontractor' s Name: _____

Address: _____

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause. Yes ____ No
2. Compliance reports were required to be filed in connection with such contract or subcontract. Yes ____ No
3. Bidder has filed all compliance reports due under applicable instructions, including SF-100. Yes ____ No ____ None
4. If answer to Item 3 is "No", please explain in detail on reverse side of this certification.

Name and Title of Signer (Please Type)

Signature

Date

END OF DOCUMENT

00821-1

CERTIFICATION OF PRIME BIDDER REGARDING
NONSEGREGATED FACILITIES 00822

The Bidder certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments and that he does not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The Bidder certifies further that he will not maintain or provide for his employees any segregated facilities at any of establishments and that he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The Bidder agrees that a breach of this certificate will be a violation of the Equal Opportunity clause in any Contract resulting from acceptance of this Bid. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restroom and washrooms, 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 which 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. The Bidder agrees that (except where he has obtained identical certification from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontractors exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause and that he will retain such certifications in his files.

Note: The penalty for making false statements in offers is prescribed in 18 USC, Section 1001.

(Date)

(Name of Bidder)

By: _____

Title: _____

Official Address (including Zip Code)

END OF DOCUMENT

CERTIFICATION OF PROPOSED SUBCONTRACTOR
REGARDING SECTION 3 AND SEGREGATED
FACILITIES 00823

Name of Subcontractor

Project Name and Number

The undersigned hereby certifies that:

Section 3 provisions are included in Contract

- (b) A written Section 3 plan was prepared and submitted as part of the bid proceedings (if bid equals or exceeds \$10,000).
- (c) No segregated facilities will be maintained as required by Title VI of the Civil Rights Act of 1964.

Name and Title of Signer (Print or Type)

Signature

Date

END OF DOCUMENT

SUBCONTRACTOR SECTION 3 PLAN FORMAT 00824

_____ (Subcontractor) agrees to implement the following specific affirmative action steps directed at increasing the utilization of lower income residents and business within the City of Trumann and Poinsett County, Arkansas.

- A. To ascertain from the locality's program official the exact boundaries of the Section 3 covered project area and where advantageous, seek the assistance of local officials in preparing and implementing the affirmative action plan.
- B. To attempt to recruit from within the city necessary number of lower income residents through local advertising media, signs placed at the proposed site for the project, and community organizations and public or private institutions operating within or serving the project area such as Service Employment and Redevelopment (SER); Opportunities Industrial Center (OIC); Urban League; Concentrated Employment Program; Home-Town Plan; or U.S. Employment Service.
- C. To maintain a list of all lower income residents who have applied either on their own or on referral from any source, and to employ such persons, if otherwise eligible and if a vacancy exists.
- D. To formally contact unions, subcontractors, and trade associations to secure their cooperation for the program.
- E. To ensure that all appropriate project area business concerns are notified of pending sub contractual opportunities.
- F. To maintain records, including copies of correspondence, memoranda, etc., which document that all of the above affirmative action steps have been taken.
- G. To appoint or recruit an executive official of the company or agency as Equal Opportunity Officer to coordinate the implementation of this Section 3 Plan.

As officers and representatives of _____
(Name of Subcontractor)

SUBCONTRACTOR SECTION 3 PLAN FORMAT 00824

As officers and representatives of _____
(Name Of Contractor)

We the undersigned have read and fully agree to this Affirmative Action Plan and become a party to the full implementation of this program.

Signature

Title

Date

Signature

Title

Date

END OF DOCUMENT

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
(EXECUTIVE ORDER 11246) 00826

1. As used in these specifications:
 - A. "Covered area" means the geographical area described in the solicitation from which this Contract resulted.
 - B. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority.
 - C. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - D. "Minority" includes:
 - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin;
 - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;
 - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); and
 - (4) American Indian or Alaskan native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the "Contractor, or any subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically included in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or subcontractor participating in an approved Plan is individually required to comply with its obligations under the Equal Employment Opportunity (EEO) clause and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7A through P of the specifications. The goals set forth in the solicitation from which this Contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
(EXECUTIVE ORDER 11246) 00826

excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

A. Ensure and maintain a working environment free of harassment, intimidation, and coercion

at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

B. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

C. Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.

D. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

E. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7B above.

F. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

G. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff,

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
(EXECUTIVE ORDER 11246) 00826

termination, or other employment decisions, including, specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

H. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and subcontractors with whom the Contractor does or anticipates doing business.

I. Direct its recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students, and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

J. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after-school, summer, and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

K. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

L. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

M. Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

N. Ensure that all facilities and company activities are nonsegregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

O. Document and maintain a record of all solicitations of offers for subcontracts from minority and female contractor associations and other business associations.

P. Conduct a review, at least annually, of all supervisor's adherence to and performance under the Contractor's EEO policies and affirmative action obligations

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7A through P). The efforts of a contractor association, joint contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7A through P of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female work-force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and separate single goal for women have been established. The

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
(EXECUTIVE ORDER 11246) 00826

Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women in underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity clause, including suspension, termination, and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps at least as extensive as those standards prescribed in Paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of Executive Order 11246, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government, and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

END OF DOCUMENT

INTEREST OF MEMBERS, OFFICERS, OR EMPLOYEES OF
GRANTEE, MEMBERS OF LOCAL GOVERNING BODY, OR
OTHER PUBLIC OFFICIALS 00828

No member, officer, or employee of the Grantee, or its designees or agents, no member of the governing body of the locality in which the program is situated, and no other public official of such locality or localities who exercise any functions or responsibilities with respect to the program during his tenure or for 1 year thereafter, shall have any interest, direct or indirect, in any contract or subcontract, or the proceeds thereof, for work to be performed in connection with the program assisted under the Agreement. The Grantee shall incorporate, or cause to be incorporated, in all such contracts or subcontracts a provision prohibiting such interest pursuant to the purposes of this section.

END OF DOCUMENT

00828-1

INTEREST OF CERTAIN FEDERAL OFFICIALS 00829

No member of or Delegate to the Congress of the United States and no Resident Commissioner shall be admitted to any share or part of this Agreement or to any benefit to arise from the same.

END OF DOCUMENT

PROHIBITION OF USE OF LEAD BASED PAINT AND ELIMINATION OF LEAD BASED
PAINT HAZARD IN DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
ASSOCIATED PROJECTS 00830

Every contract and subcontract, including painting, pursuant to which such federally assisted construction or rehabilitation is performed, shall include appropriate provisions prohibiting such use of lead based paint. Such provisions shall include any provisions necessary for the enforcement of that prohibition.

END OF DOCUMENT

SECTION 3 CLAUSE OF THE HOUSING AND URBAN
DEVELOPMENT ACT OF 1968, AS
AMENDED,
12 USC 1701u and 24 CFR Part 75
00831

Every applicant, recipient, contracting party, contractor, and subcontractor shall incorporate, or cause to be incorporated, in all contracts for work in connection with a Section 3 covered project, the following clause, which is referred to as a Section 3 Clause.

A. Authority. 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) and 24 CFR Part 75. 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. Contracting, Contract Certification and Compliance. The parties to this contract agree to comply with HUD's regulations in 24 CFR part 75, 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 75 regulations. Specifically, contracts must be:

(1) Consistent with existing Federal, state, and local laws and regulations, PHAs and other recipients of public housing financial assistance, and their contractors and subcontractors, must make their best efforts to award contracts and subcontracts to business concerns that provide economic opportunities to Section 3 workers.

(2) PHAs and other recipients, and their contractors and subcontractors, must make their best efforts in the following order of priority:

(a) To Section 3 business concerns that provide economic opportunities for residents of the public housing projects for which the assistance is provided;

(b) To Section 3 business concerns that provide economic opportunities for residents of other public housing projects or Section-8 assisted housing managed by the PHA that is providing the assistance;

(c) To YouthBuild programs; and

(d) To Section 3 business concerns that provide economic opportunities to Section 3 workers residing within the metropolitan area (or nonmetropolitan county) in which the assistance is provided.

C. Notice. 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. Subcontracts. The contractor agrees to include this **Section 3 Clause** in every subcontract subject to compliance with regulations in 24 CFR Part 75 and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this **Section 3 Clause** upon finding that the subcontractor is in violation of the regulations in 24 CFR Part 75. 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 75.

E. Employment and Training Opportunities. The contractor will certify that any vacant employment positions, including training positions, that are filled: after the contractor is selected but before the contract is executed, and with persons other than those to whom the regulations of 24 CFR Part 75 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR Part 75.

Specifically, the contract shall be consistent with existing Federal, State, and local laws and regulations. PHAs or other recipients receiving public housing financial assistance, as well as their contractors and subcontractors, must make their best efforts to provide employment and training opportunities generated by the public housing financial assistance to Section 3 workers. These best efforts must apply to the Section 3 workers in the following order of priority:

- (1) To residents of the public housing projects for which the public housing financial assistance is expended;
- (2) To residents of other public housing projects managed by the PHA that is providing the assistance or for residents of Section 8-assisted housing managed by the PHA;
- (3) To participants in YouthBuild programs; and
- (4) To low- and very low-income persons residing within the metropolitan area (or nonmetropolitan county) in which the assistance is expended.

F. Noncompliance with HUD's regulations in 24 CFR Part 75 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

MINIMUM WAGE RATES

There shall be paid to each employee engaged in work under this contract at the site of the project in the trade or occupation listed in this section not less than the wage rate set opposite same.

Wage rates are bound in this document.

"General Decision Number: AR20240031 01/05/2024

Superseded General Decision Number: AR20230031

State: Arkansas

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

County: Poinsett County in Arkansas.

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658.

Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

|If the contract is entered |. Executive Order 14026

|

into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:

generally applies to the contract.

The contractor must pay all covered workers at least \$17.20 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 2024.

If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:

Executive Order 13658 generally applies to the contract.

The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on

| | that contract in 2024.
 |
 |

 ___|

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/05/2024

BOIL0069-002 01/01/2021

	Rates	Fringes
BOILERMAKER.....	\$ 30.49	23.13

PAIN0424-009 07/01/2021

	Rates	Fringes
PAINTER (Brush, Roller and Spray).....	\$ 16.25 **	10.42

PLUM0155-015 08/01/2023

	Rates	Fringes
PIPEFITTER.....	\$ 31.58	13.36

SHEE0036-034 06/01/2021

	Rates	Fringes
SHEET METAL WORKER (Includes HVAC Duct Installation).....	\$ 24.44	13.66

SUAR2015-028 01/09/2017

	Rates	Fringes
BRICKLAYER.....	\$ 19.39	0.00
CARPENTER.....	\$ 17.96	4.81
CEMENT MASON/CONCRETE FINISHER....	\$ 17.03 **	0.00
ELECTRICIAN.....	\$ 18.69	4.17
INSULATOR - MECHANICAL (Duct, Pipe & Mechanical System Insulation).....	\$ 17.16 **	4.76
IRONWORKER, REINFORCING.....	\$ 14.00 **	0.00
IRONWORKER, STRUCTURAL.....	\$ 19.39	0.00
LABORER: Common or General.....	\$ 10.61 **	0.00
LABORER: Mason Tender - Brick....	\$ 12.04 **	0.00
LABORER: Pipelayer.....	\$ 14.02 **	0.00
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 22.75	0.00
OPERATOR: Bulldozer.....	\$ 15.88 **	0.00
OPERATOR: Crane.....	\$ 17.52	0.00
OPERATOR: Grader/Blade.....	\$ 14.66 **	0.00

OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 17.79	0.00
OPERATOR: Roller.....	\$ 14.34 **	0.00
PLUMBER.....	\$ 21.26	4.20
ROOFER.....	\$ 15.39 **	0.00
TRUCK DRIVER: Dump Truck.....	\$ 13.54 **	0.23

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$17.20) or 13658 (\$12.90). Please see the Note at the top of the wage determination for more information. Please also note that the minimum wage requirements of Executive Order 14026 are not currently being enforced as to any contract or subcontract to which the states of Texas, Louisiana, or Mississippi, including their agencies, are a party.

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 <https://www.dol.gov/agencies/whd/government-contracts>.

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) (iii)).

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.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has 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"

DOCUMENT 00851

CONTRACTOR'S CERTIFICATION
CONCERNING LABOR STANDARDS AND PREVAILING WAGE REQUIREMENTS

TO(<i>Appropriate Recipient</i>)	DATE
	PROJECT NUMBER (<i>If Any</i>)
c/o	PROJECT NAME

1. The undersigned, having executed a contract with _____
_____ for the construction of the above-identified project, acknowledge that:

The Labor Standards provisions are included in the aforesaid contract:

Correction of any infractions of the aforesaid conditions, including infractions by any of his subcontractors and any lower tier subcontractors, is his responsibility:

2. He certifies that:

Neither he nor any firm, partnership or association in which he has substantial interest is designated as an ineligible contractor by the Comptroller General of the United States pursuant to Section 5.6(b) of the Regulations of the Secretary of Labor, Par 5 (*29 CFR, Part 5*) or pursuant to Section 3 (a) of the Davis-Bacon Act, as amended (*40 U.S.C. 276a-2(a)*).

No part of the aforementioned contract has been or will be subcontracted to any subcontractor is such subcontractor or any firm, corporation, partnership or association in which such subcontractor has a substantial interest is designated as an ineligible contractor pursuant to any of the aforementioned regulatory or statutory provisions.

3. He agrees to obtain and forward to the aforementioned recipient within ten days after the execution of any subcontract, including those executed by his subcontractor and any lower tier subcontractors, a Subcontractors Certification Concerning Labor Standards and Prevailing Wage Requirements executed by the subcontractors.

4. He certifies that:

The legal name and the business address of the undersigned are:

The undersigned is:

(1) A SINGLE PROPRIETORSHIP

(3) A CORPORATION ORGANIZED IN THE STATE OF

(2) A PARTNERSHIP

(4) OTHER ORGANIZATION (*Describe*)

The name, title and address of the owner, partners or officers of the undersigned are:

NAME	TITLE	ADDRESS

The names and addresses of all other persons, both natural and corporate, having a substantial interest in the undersigned, and the nature of the interest are (*If none, so state*):

NAME	TITLE	NATURE OF INTEREST

The names, addresses and trade classification of all other building construction contractors in which the undersigned has a substantial interest are (*If none, so state*):

NAME	TITLE	TRADE CLASSIFICATION

(Subcontractor)

By _____

(Signature)

(Typed Name and Title)

WARNING

U.S. Criminal Code, Section 1010, Title 13, U.S.C., provides in part: "Whoever Makes, passes, utters or publishes any statement, knowing the same to be false Shall be fined not more than \$5,000 or imprisoned not more than two years or both."

END OF DOCUMENT
0851-2

DOCUMENT 00852

SUBCONTRACTOR'S CERTIFICATION
CONCERNING LABOR STANDARDS AND PREVAILING WAGE REQUIREMENTS

TO(<i>Appropriate Recipient</i>)	DATE
	PROJECT NUMBER (<i>If Any</i>)
c/o	PROJECT NAME

1. The undersigned, having executed a contract with _____
(*Contractor or Subcontractor*)

_____ for _____
(*Nature of Work*)

in the amount of \$ _____ in the construction of the above-identified project,
certifies that:

The Labor Standards Provisions of The Contract For Construction are included in the aforesaid contract.

Neither he nor any firm, partnership or association in which he has substantial interest is designated as an ineligible contractor by the Comptroller General of the United States pursuant to Section 5.6(b) of the Regulations of the Secretary of Labor, Par 5 (*29 CFR, Part 5*) or pursuant to Section 3 (a) of the Davis-Bacon Act, as amended (*40 U.S.C. 276a-2(a)*).

No part of the aforementioned contract has been or will be subcontracted to any subcontractor is such subcontractor or any firm, corporation, partnership or association in which such subcontractor has a substantial interest is designated as an ineligible contractor pursuant to any of the aforementioned regulatory or statutory provisions.

2. He agrees to obtain and forward to the contractor, for transmittal to the recipient, within ten days after the execution of any lower subcontract, a Subcontractor's Certification Concerning Labor Standards and Prevailing Wage Requirements, executed by the lower tier subcontractor, in duplicate.

The workmen will report for duty on or about _____
(*Date*)

3. He certifies that:

The legal name and the business address of the undersigned are:

The undersigned is:

(1) A SINGLE PROPRIETORSHIP

(3) A CORPORATION ORGANIZED IN THE STATE OF

(2) A PARTNERSHIP

(4) OTHER ORGANIZATION (*Describe*)

The name, title and address of the owner, partners or officers of the undersigned are:

NAME	TITLE	ADDRESS

The names and addresses of all other persons, both natural and corporate, having a substantial interest in the undersigned, and the nature of the interest are (*If none, so state*):

NAME	TITLE	NATURE OF INTEREST

The names, addresses and trade classification of all other building construction contractors in which the undersigned has a substantial interest are (*If none, so state*):

NAME	TITLE	TRADE CLASSIFICATION

(Subcontractor)

By

(Signature)

(Typed Name and Title)

WARNING

U.S. Criminal Code, Section 1010, Title 13, U.S.C., provides in part: "Whoever Makes, passes, utters or publishes any statement, knowing the same to be false Shall be fined not more than \$5,000 or imprisoned not more than two years or both."

END OF DOCUMENT-00852-2

Construction Progress Schedule

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

OMB Approval No. 2577-0157 (Exp. 11/30/2023)

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. HUD may not conduct or sponsor, and an applicant is not required to respond to a collection of information unless it displays a currently valid OMB control number.

Construction practices and HUD administrative requirements establish the need that HAs maintain certain records or submit certain documents in conjunction with the oversight of the award of construction contracts for the construction of new low-income housing developments or modernization of existing developments. These forms are used by HAs to provide information on the construction progress schedule and schedule of amounts for contract payments. 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.

1. Name of Public Housing Agency/Indian Housing Authority (PHA/IHA)

2. City		3. State	5. Project Name				
4. Location			6. Project Number				
7. Contract For			8. Contract Time (Days)				
9. From (mm/dd/yyyy)		To (mm/dd/yyyy)	10. Contract Price \$				
11. Number of Buildings		12. Number of Dwelling Units			13. Number of Rooms		

(Submit as many pages as necessary to cover the construction period.)	Year (yyy)						
	Month						
Actual Monthly Value, Work in Place	(\$)						
Actual Accumulated Progress	(%)						
Anticipated Monthly Value	(\$)						
Accumulated Scheduled Progress	(%)						

Submitted by	Contractor's Name		
	Title	Signature	Date (mm/dd/yyyy)
Approved by	PHA/IHA		
	Title		Date (mm/dd/yyyy)
Approved by	Architect		Date (mm/dd/yyyy)

**Instructions for Preparation of Construction Progress Schedule
Form HUD-5372**

General. The information required for items 1 through 6 can be obtained from the contract documents. (7.) Enter the type of work awarded by the PHA/IHA. This may be "general construction," "plumbing," "heating," "electrical," etc., depending upon prime contract awards. (8.) Enter the contract time in calendar days (unless otherwise stated). (9.) Enter the starting and completion dates as established by the Notice to Proceed.

Year and Month. At the top of the Schedule, space is provided for inserting the "Year" and "Month" to identify the times during which the work is to be performed.

Year. Enter the year when the Notice to Proceed was issued. If the starting date of the contract is such that the time assigned for completion will be carried into a succeeding year, two yearly designations will be shown, each centered over the applicable spread of time for each year.

Month. The body of the Schedule is divided into Columns, each representing a period of one month. Starting in the Column with the month stated in the Notice to Proceed, enter at the top of each column the successive months corresponding to the entire spread of the total contract time. The Schedule must contain monthly columns to cover the entire active period of contract, with extra columns for possible overruns in contract time.

Computation of Anticipated Monthly Value of Work in Place

Before presenting the form for approval, enter in each monthly column the dollar value (omit cents) of the increment of work anticipated to be put in place during that interval of time. This shall be the Contractor's best estimate of the rate of progress for each month. This section contains a suggested guide for the elapsed contract time vs. progress percentages.

The horizontal total of the monthly dollars shown for "Anticipated Monthly Value" must equal the contract price shown in the heading.

Accumulated Scheduled Progress – %

Entries on this line shall show in percentage of total completion the cumulative stage of progress that is scheduled to be reached at the end of each monthly interval. It is generally sufficient to state this anticipated progress to the nearest tenth of one percent, but for very large contracts it may be advisable to extend computations to the nearest hundredth.

The entry for the first month's column should be the % obtained by the anticipated monthly dollar value of work in place at the close of the first month being divided by the contract price.

The entry for the second month's column is obtained by the sum of the anticipated monthly dollar values of work in place for Columns 1 and 2 being divided by the contract price.

Enter in the third month's column the percentage computed similarly, using the sum of dollar values of work in place for Columns 1, 2, and 3. Continue in this manner for the succeeding monthly columns until "100" is reached in the final column.

Charting Actual Progress. The horizontal space extending through the monthly columns is divided into "Actual Monthly Value of Work in Place – \$" and "Actual Accumulated Progress – %." In each monthly column show the actual accumulated % of progress and the actual value of work in place for that month, as the work progresses. An anticipated complete shutdown at some stage in the work because of adverse seasonal weather or otherwise, as may occur in road work, excavation (grading), etc., is readily shown by a gap.

The Contractor's name shall be placed in the lower left-hand corner of the form, together with the signature and title of the employee who prepared the Schedule and the date. The form then shall be sent to the Architect for review. If the Architect considers that changes are necessary to make the Schedule more realistic, it will withhold approval and so advise the Contractor. When the form is acceptable and approved by the Architect, and the PHA/ IHA, it will be returned to the Contractor, who shall reproduce and submit the number and style of prints required by the PHA/ IHA.

Normal building construction experience has proved that the rate of overall progress (as measured by work in place) accelerates slowly at the start, reaches its peak in the middle third of the construction period, and tapers down at the close. The data following illustrate the general average expectancy of a well-balanced operation and may be used as a guide. If the proposed progress lies within reasonable range of these check points, the Schedule may be considered satisfactory insofar as the time-performance feature is involved.

% of Contract Time	% of Accumulated Progress
0	0
10	2
20	8
30	20
40	37
50	57
60	75
70	89
80	96
90	99
100	100

The foregoing percentages must be tempered by consideration of seasonal weather conditions and other known conditions which may affect the progress of the work. These percentages are offered for information only.

Schedule of Amounts for Contract Payments

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

OMB Approval No. 2577-0157
(Exp. 11/30/2023)

No progress payments shall be made to the contractor unless a schedule of amounts for contract payments in accordance with the construction contract is received.

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. HUD may not conduct or sponsor, and an applicant is not required to respond to a collection of information unless it displays a currently valid OMB control number. Construction practices and HUD administrative requirements establish the need that HAs maintain certain records or submit certain documents in conjunction with the oversight of the award of construction contracts for the construction of new low-income housing developments or modernization of existing developments. These forms are used by HAs to provide information on the construction progress schedule and schedule of amounts for contract payments. 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.

Project Name and Location	Project Number
---------------------------	----------------

Name, Address, and Zip Code of Contractor

Nature of Contract	Contract Number
--------------------	-----------------

Approved for Contractor by	Title	Date (mm/dd/yyyy)
----------------------------	-------	-------------------

Approved for Architect by	Title	Date (mm/dd/yyyy)
---------------------------	-------	-------------------

Approved for Owner by	Title	Date (mm/dd/yyyy)
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Item No. (1)	Description of Item (2)	Quantity (3)	Unit of Measure (4)	Unit Price in Place (5)	Amount of Sub-Item (6)	Amount of Principal Item (7)

Total Amount of Contract or Carried Forward	\$
--	----

To the best of my knowledge, all the information stated herein, as well as any information provided in the accompaniment herewith, is true and accurate.
Warning: HUD will prosecute false claims and statements. Conviction may result in criminal and/or civil penalties. (18 U.S.C. 1001, 1010, 1012; 31 U.S.C. 3729, 3802)

Signature of authorized representative	Date signed (mm/dd/yyyy)
--	--------------------------

Instructions for Preparation of form HUD-51000

1. A separate breakdown is required for each project and prime contract instructions for preparation are given below.
 - a. **Heading.** Enter all identifying information required for both forms.
 - b. **Columns 1 and 2.** In column 1, enter the item numbers starting with No. 1, and in column 2 enter each principal division of work incorporated in the contract work.
 - (1) **Master List.** The Master list contains the basic items into which any construction contract may be subdivided for the purpose of preparing the Construction Progress Schedule and the Periodical Estimates for Partial Payments. Only those items shall be selected which apply to the particular contract. To ensure uniformity, no change shall be made in the item numbers. Generally, about 25 to 40 major items appear in a contract.
 - (2) **Items Subdivided.** In the Contractor's breakdown, against which all periodical estimates will be checked prior to payment, each major item must be subdivided into sub-items pertinent to the project involved and in agreement with the Contractor's intended basis for requesting monthly payments.
 - c. **Column 3.** Enter the total quantity for each sub-item of each principal division of work listed in the breakdown.
 - d. **Column 4.** Enter the appropriate unit of measure for each sub-item of work opposite the quantities described in column 3, such as "sq. ft.," "cu. yd.," "tons," "lb.," "lumber per M/BM," "brickwork per M," etc., applicable to the particular sub-item. Items shown on "lump sum" or equivalent basis will be paid for only on completion of the whole item and not on a percentage of completion basis.
 - e. **Column 5.** Enter the unit price, in place, of each sub-item of work.
 - f. **Column 6.** Enter the amount of each sub-item obtained by multiplying the quantities in column 3 by the corresponding unit prices in column 5.
 - g. **Column 7.** Enter the amount of principal item only, obtained by adding the amounts of all sub-items of each principal division of work listed in column 6. Continue with the breakdown on form HUD-51000.
 - h. The "Schedule of Amounts for Contract Payments" shall be signed and dated in the space provided at the bottom of each sheet of the form by the individual who prepared the breakdown for the Contractor.
2. The minimum number of copies required for each submission for approval is an original and two copies. When approved, one fully approved copy will be returned to the Contractor.

Master List of Items

Item No.	Division of Work	Item No.	Division of Work	Item No.	Division of Work
1	Bond	20	Rough Carpentry		
2	General Conditions	21	Metal Bucks	44	Site Improvements Retaining Walls
3	Demolition & Clearing	22	Caulking	45	Storm Sewers
	Structures	23	Weatherstripping	46	Sanitary Sewers
4	General Excavation	24	Lath & Plastering-Drywall	47	Water Distribution System
5	Footing Excavation	25	Stucco	48	Gas Distribution System
6	Backfill	26	Finish Carpentry	49	Electrical Distribution System
7	Foundation Piles & Caissons	27	Finish Hardware	50	Street & Yard Lighting
8	Concrete Foundations	28	Glass & Glazing	51	Fire & Police Alarm System
9	Concrete Superstructures	29	Metal Doors	52	Fire Protection System
10	Reinforcing Steel	30	Metal Base & Trim	53	Street Work
11	Waterproofing & Dampproofing	31	Toilet Partitions	54	Yard Work
12	Spandrel Waterproofing	32	Floors	55	(Other)
13	Structural Steel	33	Painting & Decorating	56	(Other)
14	Masonry	34	Screens		
15	Stonework	35	Plumbing		Equipment
16	Miscellaneous & Ornamental Metal	36	Heating	57	Shades & Drapery Rods
17	Metal Windows	37	Ventilating System	58	Ranges
18	Roofing	38	Electrical	59	Refrigerators
19	Sheet Metal	39	Elevators	60	Kitchen Cabinets & Work Tables
		40	Elevator Enclosures—Metal	61	Laundry Equipment
		41	Incinerators—Masonry & Parts	62	(Other)
		42	(Other)		
		43	(Other)	63	Punch List ¹ / ₂
				64	Lawns & Planting

1 General Conditions should be 3% to 5% of contract amount.

2 Punch List should be approximately 1/2 of 1% or \$30 per dwelling unit, whichever is greater.

DRAFT AIA® Document G701™ - 2017

Change Order

PROJECT: <i>(Name and address)</i>	CONTRACT INFORMATION: Contract For: Date:	CHANGE ORDER INFORMATION: Change Order Number: Date:
OWNER: <i>(Name and address)</i>	ARCHITECT: <i>(Name and address)</i>	CONTRACTOR: <i>(Name and address)</i>

THE CONTRACT IS CHANGED AS FOLLOWS:

(Insert a detailed description of the change and, if applicable, attach or reference specific exhibits. Also include agreed upon adjustments attributable to executed Construction Change Directives.)

The original Contract Sum was _____
 The net change by previously authorized Change Orders _____
 The Contract Sum prior to this Change Order was _____
 The Contract Sum will be _____ by this Change Order in the amount of _____
 The new Contract Sum including this Change Order will be _____
 The Contract Time will be _____ by _____ () days.
 The new date of Substantial Completion will be _____

\$	_____
\$	_____
\$	_____
\$	_____
\$	_____

NOTE: This Change Order does not include adjustments to the Contract Sum or Guaranteed Maximum Price, or the Contract Time, that have been authorized by Construction Change Directive until the cost and time have been agreed upon by both the Owner and Contractor, in which case a Change Order is executed to supersede the Construction Change Directive.

NOT VALID UNTIL SIGNED BY THE ARCHITECT, CONTRACTOR AND OWNER.

_____ <i>ARCHITECT (Firm name)</i>	_____ <i>CONTRACTOR (Firm name)</i>	_____ <i>OWNER (Firm name)</i>
_____ SIGNATURE	_____ SIGNATURE	_____ SIGNATURE
_____ PRINTED NAME AND TITLE	_____ PRINTED NAME AND TITLE	_____ PRINTED NAME AND TITLE
_____ DATE	_____ DATE	_____ DATE

Periodic Estimate for Partial Payment

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

OMB Approval No. 2577-0157
(exp. 11/30/2023)

Submit original and one copy to the Public Housing Agency.
Complete instructions are on the back of this form.

Public reporting burden for this collection of information is estimated to average 3.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. HUD may not conduct or sponsor, and an applicant is not required to respond to a collection of information unless it displays a currently valid OMB control number. This information is collected under the authority of Section 6(c) of the U.S Housing Act of 1937 and HUD regulations. HAs are responsible for contract administration to ensure that the work for project development is done in accordance with State laws and HUD requirements. The contractor/subcontractor reports provide details and summaries on payments, change orders, and schedule of materials stored for the project. The information will be used to ensure that the total development costs, identified in the ACC, are kept as low as possible and consistent with HUD construction requirements. Responses to the collection are necessary to obtain a benefit. The information requested does not lend itself to confidentiality.

Name of Public Housing Agency	Periodic Estimate Number	Period From (mm/dd/yyyy) To (mm/dd/yyyy)
-------------------------------	--------------------------	---

Location of Project	Project Number
---------------------	----------------

Name of Contractor	Contract Number
--------------------	-----------------

Item Number (1)	Description of Item (2)	Completed to Date (3)
		\$

Value of Contract Work Completed to Date (Transfer this total to line 5 on back of this sheet)	\$
---	-----------

Instructions

Headings. Enter all identifying data required. Periodic estimates must be numbered in sequence beginning with the number 1.

Columns 1 and 2. The "Item Number" and "Description of Item" must correspond to the number and descriptive title assigned to each principal division of work in the "Schedule of Amounts for Contract Payments", form HUD-51000.

Column 3. Enter the accumulated value of each principal division of work completed as of the closing date of the periodic estimate. Enter the total in the space provided.

Certifications. The certification of the contractor includes the analysis of amounts used to determine the net balance due. In the first paragraph, enter the name of the Public Housing Agency, the contractor, and the date of the contract. Enter the calculations used in arriving at the "Balance Due This Payment" on lines 1 through 16.

Enter the contractor's name and signature in the certification following line 16.

The latter portion of this certification relating to payment of legal rates of wages, is required by the contract before any payment may be made. However, if the contractor does not choose to certify on behalf of his/her subcontractors to wage payments made by them, he/she may modify the language to cover only himself /herself and attach a list of all subcontractors who employed labor on the site during the period covered by the Periodic Estimate, together with the individual certifications of each.

Certification of the Contractor or Duly Authorized Representative

According to the best of my knowledge and belief, I certify that all items and amounts shown on the other side of this form are correct; that all work has been performed and material supplied in full accordance with the items and conditions of the contract between the (name of owner)

_____ and (contractor) _____

dated (mm/dd/yyyy) _____, and duly authorized deviations, substitutions, alterations, and additions; that the following is a true and correct statement of the Contract Account up to and including the last day of the period covered by this estimate, and that no part of the "Balance Due This Payment" has been received.

1. Original Contract Amount \$ _____

Approved Change Orders:

2. Additions (Total from Col. 3, form HUD-51002) \$ _____
3. Deductions (Total from Col. 5, form HUD-51002) \$ _____ (net) \$ _____
4. Current Adjusted Contract Amount (line 1 plus or minus net) \$ _____

Computation of Balance Due this Payment

5. Value of Original Contract work completed to date (from other side of this form) \$ _____

Completed Under Approved Change Orders

6. Additions (from Col. 4, form HUD-51002) \$ _____
7. Deductions (from Col.5, form HUD-51002) \$ _____ (net) \$ _____
8. Total Value of Work in Place (line 5 plus or minus net line 7) \$ _____
9. **Less:** Retainage, _____ % \$ _____
10. Net amount earned to date (line 8 less line 9) \$ _____
11. **Less:** Previously earned (line 10, last Periodic Estimate) \$ _____
12. Net amount due, work in place (line 10 less line 11) \$ _____

Value of Materials Properly Stored

13. At close of this period (from form HUD-51004) \$ _____
14. **Less:** Allowed last period \$ _____
15. Increase (decrease) from amount allowed last period \$ _____
16. **Balance Due This Payment** \$ _____

I further certify that all just and lawful bills against the undersigned and his/her subcontractors for labor, material, and equipment employed in the performance of this contract have been paid in full in accordance with the terms and conditions of this contract, and that the undersigned and his/her subcontractors have complied with, or that there is an honest dispute with respect to, the labor provisions of this contract.

Name of Contractor _____ Signature of Authorized Representative _____ Title _____ Date (mm/dd/yyyy) _____

Certificate of Authorized Project Representative and of Contracting Officer

Each of us certifies that he/she has checked and verified this Periodic Estimate No. _____; that to the best of his/her knowledge and belief it is a true statement of the value of work performed and material supplied by the contractor; that all work and material included in this estimate has been inspected by him/her or by his/her authorized assistants; and that such work has been performed or supplied in full accordance with the drawings and specifications, all applicable accessibility requirements (including Section 504 and Title II of the Americans with Disabilities Act; and the Fair Housing Act and Title III of the Americans with Disabilities Act, if applicable), the terms and conditions of the contract, and duly authorized deviations, substitutions, alterations, and additions, all of which have been duly approved.

We, therefore, approve as the "Balance Due this Payment" the amount of \$ _____

Authorized Project Representative _____ Date (mm/dd/yyyy) _____ Contracting Officer _____ Date (mm/dd/yyyy) _____

I certify the information on this form and in any accompanying documentation is true and accurate. I acknowledge making, presenting, or submitting a false, fictitious, or fraudulent statement, representation, or certification may result in criminal, civil, and/or administrative sanctions, including fines, penalties, and confinement for up to 5 years, (18 U.S.C. §§ 287, 1001 and 31 U.S.C. §3729)

Schedule of Change Orders

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

OMB Approval No. 2577-0157
(exp. 11/30/2023)

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. HUD may not conduct or sponsor, and an applicant is not required to respond to a collection of information unless it displays a currently valid OMB control number.

This information is collected under the authority of Section 6(c) of the U.S Housing Act of 1937 and HUD regulations. HAs are responsible for contract administration to ensure that the work for project development is done in accordance with State laws and HUD requirements. The contractor/subcontractor reports provide details and summaries on payments, change orders, and schedule of materials stored for the project. The information will be used to ensure that the total development costs, identified in the ACC, are kept as low as possible and consistent with HUD construction requirements. Responses to the collection are necessary to obtain a benefit. The information requested does not lend itself to confidentiality.

Instructions: Contractors use this form for reporting the details of approved Change Orders. Attach an original (or a copy) to each copy of the Periodic Estimate for Partial Payment (form HUD-51001) submission, and send to the Public Housing Agency. Complete all entries. Only Change Orders which bear the signatures required by the contract are to be recorded.

Name of Public Housing Agency	Supporting Periodic Estimate for Partial Payment Number	Period From (mm/dd/yyyy) to (mm/dd/yyyy)
Location of Project		Project Number
Name of Contractor		Contract Number

Approved Change Orders		Additions		Deductions
Change Order Number (1)	Dated (mm/dd/yyyy) (2)	Total Amount of Change Order (3)	Value of Work Completed to Date (4)	Total Amount of Change Order (5)
		\$	\$	\$
Totals		\$	\$	\$

Authorized Project Representative	Date (mm/dd/yyyy)
-----------------------------------	-------------------

I certify that the information provided on this form and in any accompanying documentation is true and accurate. I acknowledge that making, presenting, or submitting a false, fictitious, or fraudulent statement, representation, or certification may result in criminal, civil, and/or administrative sanctions, including fines, civil penalties, and confinement for up to 5 years. (18 U.S.C. §§ 287, 1001 and 31 U.S.C. §3729)

Schedule of Materials Stored

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

OMB Approval No. 2577-0157
(exp. 11/30/2023)

Public reporting burden for this collection of information is estimated to average 1.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. HUD may not conduct or sponsor, and an applicant is not required to respond to a collection of information unless it displays a currently valid OMB control number. This information is collected under the authority of Section 6(c) of the U.S Housing Act of 1937 and HUD regulations. HAs are responsible for contract administration to ensure that the work for project development is done in accordance with State laws and HUD requirements. The contractor/subcontractor reports provide details and summaries on payments, change orders, and schedule of materials stored for the project. The information will be used to ensure that the total development costs, identified in the ACC, are kept as low as possible and consistent with HUD construction requirements. Responses to the collection are necessary to obtain a benefit. The information requested does not lend itself to confidentiality.

Instructions: This form is to be used to support the Periodic Estimate for Partial Payment (form HUD-51001). The contractor must prepare a separate schedule for his/her materials and for those of his/her subcontractors. Attach an original (or a copy) to each copy of the Summary of Materials Stored (form HUD-51004). Enter all identifying data and list materials stored. The listing of materials stored must correspond to the arrangement established on the Schedule of Contract Payments (form HUD-51000) and each item will be keyed by corresponding item number. This form must be signed as noted.

Name of Public Housing Agency	Supporting Periodic Estimate for Partial Payment Number	Period From (mm/dd/yyyy) To (mm/dd/yyyy)
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Name and Location of Project	Project Number
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Name of General Contractor	Contract Number
----------------------------	-----------------

Name of Subcontractor	Subcontract Number
-----------------------	--------------------

Item Number*	Description and Quality	Quantity	Unit of Measure	Unit Price at Site	Total Price
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Amount Carried Forward	\$
-------------------------------	-----------

Item Number*	Description and Quality	Quantity	Unit of Measure	Unit Price at Site	Total Price

Total Amount or Amount Carried Forward	\$
---	-----------

Prepared by (Contractor's Representative)	Date (mm/dd/yyyy)	Checked by (Owner's Representative)	Date (mm/dd/yyyy)
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I certify that the information provided on this form and in any accompanying documentation is true and accurate. I acknowledge that making, presenting, or submitting a false, fictitious, or fraudulent statement, representation, or certification may result in criminal, civil, and/or administrative sanctions, including fines, penalties, and imprisonment.

As identified in Schedule of Amounts for Contract Payments, form HUD-51000.

Previous Editions are Obsolete

form **HUD-51003** (1/2014)

Summary of Materials Stored

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

OMB Approval No. 2577-0157
(exp. 11/30/2023)

Public reporting burden for this collection of information is estimated to average 2.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. HUD may not conduct or sponsor, and an applicant is not required to respond to a collection of information unless it displays a currently valid OMB control number. This information is collected under the authority of Section 6(c) of the U.S Housing Act of 1937 and HUD regulations. HAs are responsible for contract administration to ensure that the work for project development is done in accordance with State laws and HUD requirements. The contractor/subcontractor reports provide details and summaries on payments, change orders, and schedule of materials stored for the project. The information will be used to ensure that the total development costs, identified in the ACC, are kept as low as possible and consistent with HUD construction requirements. Responses to the collection are necessary to obtain a benefit. The information requested does not lend itself to confidentiality.

Instructions: This form is for the Contractor to summarize the value of materials stored at the site (as shown on the schedule, form HUD-51003). Use a separate line for the contractor and each of his/her subcontractors. Prepare an original and one copy, attach form HUD-51003, and send to the Public Housing Agency with the Periodic Estimate for Partial Payment, form HUD-51001. **Payment Value.** No more than 90 percent of the estimated value of the stored materials will be allowed, and only the net amount will be carried to line 13 on the back of the Periodic Estimate for Partial Payment, form HUD-51001. **Signatures.** This form must be signed by those employees of the contractor and of the Public Housing Agency who prepare and check the Schedule of Materials Stored, form HUD-51003.

Name of Public Housing Agency	Supporting Periodic Estimate for Partial Payment Number	Period From (mm/dd/yyyy)	To (mm/dd/yyyy)
-------------------------------	---	--------------------------	-----------------

Location of Project	Project Number
---------------------	----------------

Name of General Contractor	Contract Number
----------------------------	-----------------

Name of General Contractor or Subcontractor	Amounts
General Contractor	\$

Subcontractors	\$
----------------	----

	Total	\$
	Less 10%	\$
	Net	\$

Prepared by	Date (mm/dd/yyyy)	Checked by	Date (mm/dd/yyyy)
-------------	-------------------	------------	-------------------

I certify that I or my authorized representatives have examined and checked in detail the invoices representing the cost of materials set forth in appended "Schedule of Materials Stored", form HUD-51003, dated (mm/dd/yyyy) _____ submitted by _____ consisting of _____ sheets with an indicated cost of \$ _____, and find that the net unit prices set forth in the schedule are the same or less than the invoices examined, and that such materials were suitably stored at the site of the development as of (date)(mm/dd/yyyy) _____.

Name of Owner	By (Authorized Representative)	Title	Date (mm/dd/yyyy)
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Warning: HUD will prosecute false claims and statements. Conviction may result in criminal and/or civil penalties. (18 U.S.C. 1001, 1010, 1012; 31 U.S.C. 3729, 3802)



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

Rev. Dec. 2008

NAME OF CONTRACTOR OR SUBCONTRACTOR ADDRESS PROJECT AND LOCATION PROJECT OR CONTRACT NO.
OMB No.: 1235-0008 Expires: 04/30/2021

(1) NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	(2) EXEMPTIONS OR DEDUCTIONS	(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
			HOURS WORKED EACH DAY	OT	OR				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 projects to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) requires contractors and subcontractors performing work on Federally financed or assisted construction projects to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Public Burden Statement
We estimate that 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

(over)

Date _____

I, _____ (Name of Signatory Party) _____ (Title)
do hereby state:

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

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

_____ (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.	

CERTIFICATE AND RELEASE 00909

FROM: _____
Contractor's Name

TO: _____
Public Housing Agency

REFERENCE: CONTRACT NO. _____ ENTERED INTO THE _____ DAY
OF _____, BETWEEN THE

Public Housing Agency
OF _____
City State

HEREINAFTER CALLED THE LOCAL AUTHORITY,

AND _____
Contractor's Name

OF _____
City State

HEREINAFTER CALLED THE CONTRACTOR,

FOR THE _____
Type of Construction

OF _____, PROJECT NO. _____
Name of Project

LOCATED IN _____
City State

KNOW ALL MEN BY THESE PRESENTS:

1. The undersigned hereby certifies that there is due and payable under the contract and duly approved Change Orders and modifications the undisputed balance of .
2. The undersigned further certifies that in addition to the amount set forth in paragraph 1 hereof there are outstanding and unsettled the following items which he claims are just and due and owing by the Local Authority to the contractor:

- (a) _____
- (b) _____
- (c) _____

3. The undersigned further certifies that all work required under this contract including work required under Change Orders numbered _____ has been performed in accordance with the terms thereof, and that there are no claims of laborers or mechanics for unpaid wages arising out of the performance of this contract, and that the wages rates paid by the Contractor and all Subcontractors were in conformity with the contract provisions relating to said wage rates.

4. Except for the amounts stated in paragraphs 1 and 2 hereof the undersigned has received from the Local Authority all sums of money payable to the undersigned under of pursuant to the aforementioned contract or any change or modification thereof.

5. That in consideration of the payment of the amount stated in paragraph 1 hereof the undersigned does hereby release the Local Authority from any and all claims arising under or by virtue of this contract except the amounts listed in paragraph 2 hereof; provided, however, that if for any reason the Local Authority does not pay in full the amount stated in paragraph 1 hereof, said deduction shall not affect the validity of this release, but the amount so deducted shall be automatically included under paragraph 2 as an amount which the Contractor has not released but will release upon payment thereof. The Contractor further certifies that upon payment of the amounts listed in paragraph 2 hereof, and of any amount which may be deducted from paragraph 1 hereof, he will release the Local Authority from any and all claims of any nature whatsoever arising out of said contract or modification thereof and will execute such further releases of assurances as the Local Authority may request.

CERTIFICATE AND RELEASE 00909

IN WITNESS WHEREOF, the undersigned has signed and sealed this instrument this _____ day of _____, 20__.

Contractor

Signature and tile of officer

_____, being first duly sworn on oath, deposes and says, first, that he is the _____ of the _____, second, that he has read the foregoing Certificate and Release by him subscribed as of the _____.

Affiant further states that the matters and things stated herein are, to the best of his knowledge and belief, true.

Signature of affiant

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

Notary

My commission expires _____.

END OF DOCUMENT

CERTIFICATE OF COMPLETION CONSOLIDATED 00910

THIS IS TO CERTIFY that all work and materials have been carefully inspected by duly authorized representatives or agents of the _____, hereinafter called the Local Authority, and that the _____, hereinafter called the Contractor, has furnished all labor, material, and services required for the of the _____, located in _____ accordance with the requirements of the Specifications and Drawings and Contract No. dated _____, between the Local Authority and the Contractor.

THIS IS TO CERTIFY:

1. That all work covered by this contract, originally required to be completed on _____, was actually completed on _____.
2. That all changes permitted or required to be made, except minor modifications and field adjustments, have been authorized by written and duly approved Change Orders, and all stop orders have been confirmed and lifted in writing.
3. That all Proceed Orders have been supported by approved Change Orders equitably adjusting the contract price and/or time, where adjustment is indicated.
4. That Change Orders No. _____ constitute the only amendments to the contract price and/or time, and that all Change Orders issued in connection with this contract are listed on the attached Schedule.
5. That all certificates, bonds, guaranties, warranties, insurance, and tests required under the contract have been furnished or performed.
6. That the Local Authority has obtained from the Contractor the attached Certificate and Release releasing the Local Authority in full for all further claims under this contract.
7. That all laborers and mechanics have been paid not less than the minimum wage rates as established in said contract, and that there have been no claims made for infringement of any patent.
8. That no claims of any nature by any laborer, mechanic, subcontractor, material man, or vendor are outstanding against the Local Authority; and

9. That:

Date for completion fixed in the contract	_____
Date for completion as extended	_____
Actual completion date of contract work	_____
Original contract price	\$ _____
Authorized additions	_____
Subtotal	\$ _____
Authorized deductions excluding liquidated damages	_____
ADJUSTED CONTRACT PRICE	\$ _____
LESS: Total payments to Contractor	\$ _____
Total amount of Liquidated Damages assessed	\$ _____
Subtotal	\$ _____
BALANCE	\$ _____

10. That voucher for final payment in the amount of _____,
(\$ _____), is due and payable.

BY _____ BY _____

TITLE _____ TITLE _____

DATE _____ DATE _____

CONCURRED IN:

BY _____ BY _____

TITLE _____ TITLE _____

DATE _____ DATE _____

APPROVED FOR HUD:

BY _____

TITLE _____

DATE _____

CERTIFICATE OF PROGRESS PAYMENT 00914

I hereby certify, to the best of my knowledge and belief, that

The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;

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

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 contract.

(Name)

(Title)

(Date)

END OF DOCUMENT

SECTION 01010
SUMMARY OF WORK

PART 1 – GENERAL

REQUIREMENTS INCLUDED

- A. Title of Work and Type of Contract.
- B. Use of Premises.
- C. Owner Occupancy.
- D. Method of Contracting.
- E. Order and Timing of Work.
- F. General Completion.
- G. Inspection Procedures.

RELATED REQUIREMENTS

- A. Document 00150 – Instructions to Bidders
- B. Document 00715 – General Conditions

WORK COVERED BY CONTRACT DOCUMENTS

The scope of work for this project is for a New Community Building.

01010-1

OWNER

- A. The Owner shall be the Trumann Housing Authority, 109 Spruce Drive, Trumann, Arkansas 72472.

CONTRACT METHOD

- A. Construct the work under a lump sum bid contract.

METHOD OF CONTRACT AWARD

- A. The contract will be awarded based on the lowest evaluated bid.
- B. The Owner reserves the right to accept any bid, and to reject any and all bids, in accordance with applicable laws.
- C. Each Bidder shall be prepared, if so requested by the Owner, to present evidence of his experience, qualifications, and financial ability to carry out the terms of the contract. A bidder may be rejected if he does not have the experience or qualifications of financial ability necessary.
- D. The successful bidder shall be prepared to furnish bonds and insurance certificates, and to execute the Contract within ten (10) days after Notice of Award and return it to the Owner.

CONTRACTORS USE OF PREMISES

- A. The Contractor shall have partial use of the buildings which will be occupied during the entire construction period.
 - 1. The Contractor shall give the PHA seven (7) days prior notice of work to be started in each unit by address to allow the PHA to give the tenants notice of the work to be done.
 - 2. The contractor shall begin work in occupied buildings no earlier than 8:00 a.m. and shall be finished with that days work no later than 5:00 p.m.
 - 3. The Contractor will be permitted to work in 4 Units at a time unless otherwise specified by the PHA.
- B. Assume full responsibility for protection and safekeeping of products and materials stored on the site under this contract.
- C. Obtain and pay for additional storage or work areas needed for operations under this Contract.

ORDER AND TIMING OF THE WORK

A. Work Areas

Site of Existing Community Building.

Total Contract Time **365 Days**

1. Prior to commencement of the work, the Contractor will submit his Proposed work schedule to the Owner for review and approval. The Work schedule shall identify the Contractor's proposed schedule by work area as indicated above.
2. The Contractor is advised that the units will be occupied throughout the construction process. The contractor shall pre-plan and stage his work such that the lavatory, water closet, and the toilet room in general are usable at the end of each workday.
3. The Contractor will have a maximum of 365 calendar days to complete renovations to all dwelling buildings.
4. All items removed to accommodate the work will be replaced by the Contractor in like kind at no additional cost to the Owner.
5. The term "Units Renovated" is defined as, all Architect/Engineer punch list items being completed by the Contractor and accepted by the Owner.
6. The above definition of completion will be used to determine the assessment of liquidated damages.
7. The Contractor will execute the work, in phases, in accordance with the schedule prepared by the Contractor, in compliance with Paragraph 1.08 of this Section and submitted to and approved by the Owner and Architect/Engineer.

GENERAL COMPLETION

- A. Following completion of the Modifications, the Contractor shall perform the following at areas of and adjacent to the work:
 - 1. Clean all construction debris.
 - 2. Repair any damage to sites or buildings caused by construction.
- B. This work is not a separate pay item on the Bid Form but must be incorporated as general overhead by the Contractor into his total bid.

FINAL INSPECTION PROCEDURE

- A. When the completed work is ready for final inspection, the Contractor shall notify the Owner. The Owner will conduct the final inspection accompanied by a representative of the Contractor's staff and a representative from Wilbanks Architecture & Associates, LLC.
- B. All utilities must be in operation during the final inspection. The Contractor will bear the cost of providing these services.

PROTECTION AND/OR REPLACEMENT CONTIGUOUS ITEMS

- A. All contiguous items and other items which are disturbed, broken, removed, or otherwise damaged during the execution of this Contract shall be replaced with materials, methods, and design of the original construction.

CONTRACTOR USE OF PREMISES

- A. Confine operations at site to areas permitted by Law, Ordinances, and Permits and Contract Documents.

- B. Do not unreasonably encumber site with materials or equipment. Store materials and equipment in areas designated.
- C. Assume full responsibility for protection and safe keeping of products stored on premises.
- D. Move any stored products which interfere with operations of Owner or other contractor.
- E. Coordinate activities and use of roads, staging areas, etc., with Owner.
- F. Obtain and pay for use of additional storage or work area for needed operations.

01010-5
END OF SECTION

SECTION 01035

WEATHER DELAYS

PART 1 – GENERAL

1.01 EXTENSIONS OF CONTRACT TIME

- A. The basis for an extension of time in accordance General Conditions of the Contract for Construction, an extension of time may be granted only for the number of Weather Delay Days in excess of the number of days listed as the Standard for the Baseline for that month.

1.02 STANDARD BASELINE FOR AVERAGE CLIMATIC WEATHER

- A. Time extensions will not be granted for rain, wind, snow, or other natural phenomena of *normal intensity* for the locality where the Work is performed. For the purpose of determining extent of delay attributable to unusual weather phenomena, a determination shall be made by comparing the weather for the contract period involved with the average of the preceding five (5) year climatic range during the same time interval based on the National Oceanic and Atmospheric Administration National Service statistics for the locality where Work if performed and on daily weather logs kept on the job site by the Contractor reflecting the effect of the weather on progress of the Work. Request for extension of time shall be made in writing within Thirty (30) days following cause of delay. In case of continuing cause for delay, only one (1) claim is necessary.

1.03 ADVERSE WEATHER AND WEATHER DELAY DAYS

- A. Adverse Weather is defined as the occurrence of one or more of the following conditions which prevent exterior construction activity or access to the site within twenty-four (24) hours:
 - 1. Precipitation (rain, ice, snow) in excess of one inch (1.0") liquid measure.
 - 2. Temperatures which do not rise above 32°F by 10:00 a.m.
 - 3. Temperatures which do not rise above that specified for the day's construction activity by 10:00 a.m., if any specified.
 - 4. Sustained wind in excess of twenty-five (25) mph
 - 5. Standing snow in excess of one inch (1").
- B. Adverse Weather may include, if appropriate, "dry-out" or "mud" days when all the following conditions are met:
 - 1. For rain days above the standard baseline.
 - 2. Only if there is a hinderance to the site access or sitework, such as excavation, backfill and footings.
 - 3. At a rate no greater than 1 make-up day for each day of consecutive days of rain beyond the standard baseline that total 1.0 inch or more, liquid measure, unless specifically recommended otherwise by the A/E.
- C. A Weather Delay Day may be counted if adverse weather prevents work on the project for fifty percent (50%) or more of the Contractor's scheduled workday, including a weekend day or holiday if the contractor has scheduled construction activity that day.

1.04 DOCUMENTATION AND SUBMITTALS

- A. Submit daily (on a monthly basis) jobsite logs showing which and to what extent construction activities have been affected by weather.
- B. Submit actual weather data to support claim for time extension, obtained from nearest NOAA Weather Station or other independently verified source approved by the A/E at the beginning of the project.
- C. Use Standard Baseline data provided in this Section when documenting actual delays due to weather in excess of the average climatic range.
- D. Organize claim and documentation to facilitate evaluation on a basis of calendar month periods and submit to the A/E for review.
- E. If an extension of time is appropriate, it shall be affected in accordance with the provisions of General Conditions of the Contract for Construction.

END OF SECTION

SECTION 01040

COORDINATION

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes Contractor coordination of the portion of his work with that of his subcontractors, including all mechanical and electrical work.

1.02 RELATED SECTIONS

- A. Section 01010 – Summary of Work
- B. Section 01045 - Cutting and Patching
- C. Section 01200 - Project Meetings
- D. Section 01340 - Submittals
- E. Section 01500 – Temporary Construction Facilities
- F. Section 01600 - Materials and Equipment
- G. Section 01700 - Contract Closeout

1.03 CONTRACTOR'S DUTIES

- A. Work with trades specified in Divisions 2 through 16.
- B. Coordinate the schedules of all trades, including mechanical and electrical subcontractors.
 - 1. Verify timely deliveries of products for installation by all trades.
 - 2. Verify that labor and materials are adequate to maintain schedules.
- C. Conduct conferences among all subcontractors and other concerned parties, as necessary to:
 - 1. Maintain coordination and schedules.
 - 2. Resolve matters in dispute.
- D. Participate in project meetings:
 - 1. Report progress of each trade
 - 2. Recommend needed changes in schedules.
 - 3. Transmit minutes of meetings to trades as appropriate.
- E. Temporary Utilities:
 - 1. Coordinate installation, operation, and maintenance, to verify compliance with project requirements and with Contract Documents.
 - 2. Verify adequacy of service at required locations.

- F. Shop Drawings, Product Data and Samples - Submittals:
 - 1. Prior to submittal, review for compliance with Contract Documents.
 - a. Check field dimensions, clearance dimensions and finish requirements.
 - b. Check relation to available space.
 - c. Check anchor bolt settings and setting of other embedded items.
 - d. Review the effect of any changes on the work of other contracts or trades,
 - e. Check items to receive field finish. Verify that item is suitable to receive such finish.
 - f. Check compatibility with mechanical and electrical equipment and work of other trades.
 - g. Coordinate controls and interlocks:
 - (1) Voltages
 - (2) Wiring of pneumatic switches or relays.
 - (3) Coordinate wiring and control diagrams.
- G. Coordination Drawings:
 - 1. Prepare, as required to assure coordination of work of, or affected by trades or to resolve conflicts.
 - 2. Contractor to review prior to transmitting to appropriate trades.
 - 3. Reproduce and distribute Contractor approved copies to all concerned parties.
- H. Observe required testing: maintain a record of tests:
 - 1. Testing agency and name of inspector.
 - 2. Subcontractor.
 - 3. Manufacturer's Representative present.
 - 4. Date and time of testing.
 - 5. Type of product or equipment.
 - 6. Type of test and results.
 - 7. Retesting required.
- I. Verify that subcontractors maintain accurate record of documents.
- J. Substitution and Changes:
 - 1. Review proposals and request:
 - a. Check for compliance with Contract Documents.
 - b. Verify with work and equipment of other trades.
 - 2. Recommend action to concerned parties.
- K. Observe work of all trades, including mechanical and electrical work for compliance with requirements of Contract Documents.
 - 1. Maintain list of observed deficiencies.
 - 2. Promptly report deficiencies or discrepancies to applicable parties.
- L. Assemble documentation for handling of claims or disputes involving various trades.
- M. Equipment Startup:
 - 1. Check to assure that utilities and specified connections are complete and that equipment is in operable condition.
 - 2. Observe test, adjust and balance.
 - 3. Record results, including time and date of startup.

- N. Inspection and Acceptance of Equipment:
 - 1. Prior to inspection, check that equipment is clean, repainted as required, tested and operational.
 - 2. Assist inspector; prepare list of items to be completed or corrected.
 - 3. Should acceptance and operation of equipment constitute the beginning of the specified guarantee period, prepare and transmit written notice to Owner.
- O. Assemble Record Documents for subcontractors; transmit to Architect for delivery to Owner.
- P. Complete Contractor's Daily Report:
 - 1. Contractor's Daily Reports shall be available to the Owner and the A/E during each site visit of the A/E Inspector. Report is attached at the end of this section.

1.04 COORDINATION SCHEDULE

- A. The schedule designates areas of basic responsibility of contractors and subcontractors, including items of mechanical work for electrical power and control wiring for the project, but does not define scope.
- B. Refer to respective Sections of Project Manual for detailed descriptions of work required.
- C. Contractor Shall:
 - 1. Maintain Schedule throughout construction period, record changes in responsibilities due to:
 - a. Modifications to Contract.
 - b. Field orders.
 - c. Substitutions.
 - 2. Reproduce and distribute revised schedule promptly after each change to affected subcontractors, material suppliers and Owner.

END OF SECTION

CONTRACTOR'S DAILY REPORT

PROJECT _____ PROJECT NO. _____

CONTRACTOR _____ REPORT NO. _____

Contract Time: _____ Date _____

Days Elapsed: _____ Day: M T W TH F S S

Extensions: _____ Weather: Clear ___ Overcast ___ Rain ___ Mist ___ Hot ___ Cold ___
Warm ___ Foggy ___

Days Left: _____ Site Condition: Clear ___ Muddy ___ Dusty ___ Other _____

Temperature Range: _____

CONTRACTOR'S	Supervision	Carpenters	Laborers	Other	Total
LABOR FORCE:	_____	_____	_____	_____	_____

CONTRACTOR'S

MAJOR EQUIPMENT: _____

SUBCONTRACTORS

WORK PERFORMED: _____

REMARKS OR ACTION: _____

MAJOR DELIVERIES: _____

PHONE CALLS: _____

VISITORS: _____

SUPERINTENDANT: _____

SECTION 01045

CUTTING AND PATCHING

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Contractor shall be responsible for all cutting, fitting, and patching, including attendant excavation and back-fill, required to complete the Work or to:
 - 1. Uncover portions of the Work to provide for installation of ill-timed work.
 - 2. Remove and replace defective work.
 - 3. Remove and replace work not conforming to requirements of Contract Documents.
 - 4. Remove samples of installed work as specified for testing.
 - 5. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.

- B. Related Requirements in Other Parts of the Project Manual:
 - 1. Basic responsibilities of parties: Conditions of the Contract.

1.02 SUBMITTALS

- A. Submit a request to Owner well in advance of executing any cutting or alteration which affects:
 - 1. The work of the Owner or any separate contractor.
 - 2. The structural value or integrity of any element of the Project.
 - 3. The integrity or effectiveness of weather-exposed or moisture-resistant elements or systems.
 - 4. The efficiency, operational life, maintenance or safety of operational elements.
 - 5. The visual qualities of sight-exposed elements.

- B. The request shall include:
 - 1. Identification of the Project.
 - 2. Description of the affected work.
 - 3. The necessity for cutting, alteration, or excavation.
 - 4. The effect on the work of the Owner or any separate contractor, or on the structural or weatherproof integrity of the Project.
 - 5. Description of the proposed work:
 - a. The scope of cutting, patching, alteration, or excavation.
 - b. The trades who will execute the work.
 - c. Products proposed to be used.
 - d. The extent of refinishing to be done
 - 6. Alternatives to cutting and patching.
 - 7. Cost proposal, when applicable.
 - 8. Written permission of any separate contractor whose work will be affected.

- C. Should conditions of the work or the schedule indicate a change of products from the original installation Contractor shall submit a request for substitution as specified in Sections 01340 and 01600.

- D. Submit a notice to the Owner designating the date and the time the work will be uncovered.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Comply with specifications and standards for each specific product involved.

PART 3 – EXECUTION

3.01 INSPECTION

- A. Inspect existing conditions of the Project, including elements subject to damage or to movement during cutting and patching.
- B. After uncovering work, inspect the conditions affecting the installation of products, or performance of the work.
- C. Report unsatisfactory or questionable conditions to the Owner in writing; do not proceed with the work until the Owner has provided further instructions.

3.02 PREPARATION

- A. Provide adequate temporary support as necessary to assure the structural value or integrity of the affected portion of the Work.
- B. Provide devices and methods to protect other portions of the Project from damage.
- C. Provide protection from the elements for that portion of the Project which may be exposed by cutting and patching work and maintain excavations free from water.

3.03 PERFORMANCE

- A. Execute cutting and demolition by methods which will prevent damage to other work, and will provide proper surfaces to receive installation of repairs.
- B. Execute excavating and backfilling by methods which will prevent settlement or damage to other work.
- C. Employ the original Installer or Fabricator to perform cutting and patching for weather-exposed or moisture-resistant elements and sight-exposed finished surfaces.
- D. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- E. Restore work which has been cut or removed; install new products to provide completed Work in accordance with requirements of Contract Documents.
- F. Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- G. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes.

END OF SECTION

SECTION 01200

PROJECT MEETINGS

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. The A/E in concert with the Contractor shall schedule and administer preconstruction meeting. Monthly progress meetings and specially called meetings throughout the progress of the Work.
 - 1. Prepare agenda for meetings.
 - 2. Make physical arrangements for meetings.
 - 3. Record the minutes; include all significant proceedings and decisions.
 - 4. Reproduce and distribute copies of minutes within three days after each meeting.
 - a. To all participants in the meeting.
 - b. To all parties affected by decisions made at the meeting.
 - c. Furnish copies of minutes to the A/E.
- B. Representatives of Contractors, Subcontractors and suppliers attending the meetings shall be qualified and authorized to act on behalf of the entity each represents.
- C. The A/E will attend meetings to ascertain that work is expedited consistent with Contract Documents and the construction schedules.

1.02 PRE-CONSTRUCTION MEETING

- A. Pre-Construction meeting shall be scheduled at the project site within 15 days after date of Notice of Award. This meeting shall be attended by:
 - 1. Owner's Representative.
 - 2. The A/E or his representative.
 - 3. Contractor's Superintendent.
 - 4. Major Subcontractors.
 - 5. Others as Appropriate.
- B. The following is a suggested Agenda for this meeting:
 - 1. Review requirements of Divisions 0 and 1 of the Project Manual.
 - 2. Projected Construction Schedules.
 - 3. Critical work sequencing.
 - 4. Major priorities.
 - 5. Project Coordination.
 - 6. Procedures and processing of:
 - a. Field Decisions.
 - b. Submittals.
 - c. Payroll Submittals.
 - d. Change Orders and itemization of cost.
 - e. Applications for payment.
 - 7. Extension of time (weather data shall be based on U. S. Weather Bureau statistics).
 - 8. Adequacy of distribution of Contract Documents.
 - 9. Use of premises.
 - 10. Construction facilities, controls and construction aids.
 - 11. Temporary Utilities.

12. Safety and first-aid procedures.
13. Security procedures.
14. Housekeeping procedures.

1.03 PROGRESS MEETINGS

- A. Progress Meetings shall be scheduled at the Project Site every two (2) weeks or as necessary. Meetings will be attended by:
 1. The Owner's representative.
 2. The A/E or his representative.
 3. Contractor's Superintendent
 4. Subcontractors as appropriate to the agenda.
 5. Others, as required.

- B. The following is a suggested agenda for this meeting:
 1. Review of work progress since previous meeting.
 2. Application for Payment.
 3. Field observations, problems, conflicts.
 4. Problems which impede construction schedule.
 5. Review of off-site fabrication, delivery schedules.
 6. Corrective measures and procedures to regain projected schedule.
 7. Revisions to construction schedule.
 8. Plan progress, schedule, during succeeding work period.
 9. Coordination of schedules.
 10. Review submittal schedules: Expedite as required.
 11. Maintenance of quality standards.
 12. Other business, as required.

END OF SECTION

SECTION 01302

SUBMITTALS AND SUBSTITUTIONS

PART 1 - GENERAL

1.1 DESCRIPTION

A. Work Included

1. Wherever possible throughout the contract documents, the minimum acceptable quality of workmanship and materials has been defined by a manufacturer's name and catalogue number, reference to recognized industry and government standards, or description of required attributes and performance.
2. To ensure that the specified products are furnished and installed in accordance with the design intent, procedures have been established for advance submittal of design data and for their review by the A/E.
3. Make all submittals required by the contract documents, and revise and resubmit as necessary to establish compliance with the specified requirements.

B. Related Requirements

1. Section 00150 - Instruction to Bidders for Contracts (HUD-5369)
2. Section 00152 - Modifications to Instruction to Bidders
3. Section 00310 - Representatives, Certification, and Other Statements of Bidders (HUD-5369-A)
4. Section 00320 - Bid Form
5. Section 00420 - Bid Bond
6. Section 00480 - Noncollusion Affidavit of Prime Bidder
7. Section 00481 - Noncollusion Affidavit of Subcontractor
8. Section 00482 - Certification of Bidder Regarding Section 3 and Segregated Facilities
9. Section 00483 - Contractor Section 3 Plan Format
10. Section 00484 - Previous Participation Certification (HUD-2530)
11. Section 00502 - Form of Contract
12. Section 00670 - Performance and Payment Bond
13. Section 00715 - General Conditions of the Contract for Construction (HUD-5370)
14. Section 00716 - Additions to the General Conditions
15. Section 00717 - Modifications to the General Conditions
16. Section 00820 - Certification of Prime Bidder Regarding Equal Employment Opportunity
17. Section 00821 - Certification by Proposed Subcontractor Regarding Equal Employment Opportunity
18. Section 00822 - Certification of Prime Bidder Regarding Nonsegregated Facilities
19. Section 00823 - Certification of Proposed Subcontractor Regarding section 3 and Segregated Facilities
20. Section 00824 - Subcontractor Section 3 Plan Format
21. Section 00851 - Contractor's Certification Concerning Labor Standards and Prevailing Wage Requirements
22. Section 00852 - Subcontractor's Certification Concerning Labor Standards and Prevailing Wage Requirements
23. Section 00900 - Construction Progress Schedule (HUD-5372)
24. Section 00901 - Schedule of Amounts for Contract Payments (HUD-51000)
25. Section 00904 - Periodical Estimate for Partial Payment (HUD 51001)
26. Section 00905 - Schedule of Change Orders (HUD 51002)
27. Section 00906 - Schedule of Materials Stored (HUD 51003)

28. Section 00907 - Summary of Materials Stored (HUD 51004)
29. Section 00908 - Payroll Form (WH-347)
30. Section 00909 - Certificate and Release
31. Section 00914 - Certificate of Progress Payment
32. Section 01400 - Quality Control
33. Section 02080 - Asbestos Abatement
34. Section 02090 - Lead Abatement
35. **Individual requirements for product/material/equipment submittals are described in the technical sections of these specifications. Specific submittal requirements for each technical specification section are included at the end of each individual section.**

1.2 QUALITY ASSURANCE

A. Coordination of Submittals

1. Prior to each submittal, carefully review and coordinate all aspects of each item being submitted and verify that each item and the submittal for it conforms in all respects with the requirements of the bidding instruments.
2. **Shop drawings and submittals shall bear the stamp of approval of the Contractor as evidence that coordination has been performed. Submittals without this stamp of approval will not be considered but will be returned for proper resubmission.**

B. Certificates of Compliance

1. Certify that all materials used in the work comply with all specified provisions thereof. Certification shall not be construed as relieving the Contractor from the responsibility to furnish satisfactory materials if, after tests are performed on selected samples, the material is found not to meet specified requirements.
2. Show on each certification the name and location of the work, the name and address of the Contractor, the quantity and date or dates of shipment or delivery to which the certificate applies, and the name of the manufacturing or fabricating company. Certification shall be in the form of a letter or company-standard forms containing all required data. Certificates shall be signed by an officer of the manufacturing or fabricating company.
3. In addition to the above information, all laboratory test reports submitted with certificates of compliance shall show the date or dates of testing, the specified requirements for which testing was performed, and the results of the test or tests.

1.3 SUBMITTALS

A. Deliver or mail all submittals to:

Wilbanks Architecture & Associates, LLC
5567 Commander Drive, Suite 105
Arlington, TN 38002
(901) 867-5220

B. Before beginning any on-site construction, submit insurance certificates for the General Contractor and ALL subcontractors.

C. **A comprehensive schedule of all submittals required for this contract, from bidding to project closeout is included at the end of this section. There may be additional submittal requirements during the course of the contract which are not included in the schedule.**

D. Make submittals in strict accordance with the provisions of this section.

PART 2 - PRODUCTS

2.1 SUBMITTAL SCHEDULE

- A. General: Compile a complete and comprehensive schedule of all submittals anticipated to be made during the progress of the work. Include a list of each type of item from which the Contractor's drawings, shop drawings, certificates of compliance, material samples, guarantees, or other types of submittals are required. Upon approval by the A/E, this schedule will become part of the contract, and the Contractor will be required to adhere to the schedule except when specifically, otherwise permitted.
- B. Coordination: Coordinate the schedule with all necessary subcontractors and materials suppliers to ensure their understanding of the importance of adhering to the approved schedule and their ability to so adhere. Coordinate as required to ensure the grouping of submittals as described in 3.2.
- C. Revisions: Revise and update the schedule on a monthly basis as necessary to reflect conditions and sequences. Promptly submit the revised schedules to the A/E for review and comment.

2.2 SHOP DRAWINGS AND COORDINATION OF DRAWINGS

A. Shop Drawings

- 1. Scale and Measurements: Make all shop drawings accurately to a scale large enough to show all pertinent aspects of the items and its method of connection to the work.
- 2. Type of Prints Required: Submit all shop drawings in the form of blue line or black line prints. Blueprints will not be acceptable. Refer to Paragraph 2.3.B of this section for the number of prints required.

2.3 MANUFACTURER'S LITERATURE

- A. General: Where the contents of submitted literature from the manufacturer includes data not pertinent to the submittal, clearly indicate which portion of the contents is being submitted for review.
- B. Number of Copies Required: Submit 3 copies to be retained by the A/E and PHA, unless directed otherwise.

2.4 SAMPLES

- A. Accuracy of Samples: Samples shall be of the precise article proposed to be furnished.
- B. Number of Samples Required: Unless otherwise specified, submit all samples in the quantity that is required to be returned plus one copy to be retained by the A/E.
- C. Reuse of Samples: In situations specifically so approved by the A/E, the A/E's retained sample may be used in the construction as one of the installed items.

2.5 COLORS AND PATTERNS

- A. Unless the precise color and pattern are specifically described in the contract documents, and whenever a choice of color or pattern is available in a specified product, submit accurate color and pattern charts to the Owner/Contracting Officer for review and selection. All finishes, color samples and patterns shall be submitted to the Owner/Contracting Officer within the first 30 days of the Contract. Products fabricated or installed without Owner/Contracting Officer written approval are subject to rejection by Owner/Contracting Officer. Only the Owner/Contracting Officer may approve finishes, color samples or patterns.

2.6 SUBSTITUTIONS

A. Approval Required

1. Only within 22 days after the date established in notice to proceed will the A/E consider requests from contractor for substitutions. Subsequently, substitutions will be considered only when a product becomes unavailable due to no fault of the contractor. Confirmation of unavailable products must be in writing and certified by the manufacturer that the product is no longer available.
2. The contract is based on the standards of quality established in the contract documents.
3. All products proposed for use, including those specified by required attributes and performance, shall require approval by the A/E before being incorporated into the work.
4. Do not substitute materials, equipment, or methods unless such substitution has been specifically approved for this work by the A/E.
5. Only one request for substitution will be considered for each product. When substitution is not accepted, provide specified product.

B. "Or Equal"

1. **Where the phrase "or equal" or "or approved equal" occurs in the contract documents do not assume that materials, equipment, or methods will be approved as equal unless the item has been specifically approved for this work by the A/E.**
2. The decision of the A/E shall be final.
3. See pertinent portions of the contract documents for additional information relating to substitutions.

C. Request constitutes a representation that contractor:

1. Has investigated proposed product and determined that it meets or exceeds, in all respects, specified product.
2. Will provide the same warranty for substitution as for specified product.
3. Will coordinate installation and make other changes which may be required for work to be complete in all respects.
4. Waives claims for additional costs which may be subsequently apparent.

PART 3 - EXECUTION

3.1 IDENTIFICATION OF SUBMITTALS

- A. General: Consecutively number all submittals. Each submittal shall be accompanied with a letter of transmittal that itemizes all data transmitted and that contains all pertinent information required for identification and checking of submittals.

- B. Internal Identification: On at least the first page of each copy of each submittal, and elsewhere as required for positive identification, clearly indicate the submittal number in which the item was included. Each submittal shall have the corresponding specification section and plans sheet number or numbers indicated where applicable.
- C. Resubmittals: When material is resubmitted for any reason, transmit under a new letter of transmittal utilizing the original submittal number followed by an A, B, C, etc., depending on the number of resubmittals of the original submittal required.
- D. Submittal Schedule Form: Maintain the submittal schedule form for the duration of the contract. Indicate the current status of all submittals at all times. The current submittal schedule form shall be available for the A/E's review throughout the contract. Refer to Paragraph 2.1 and 3.5 of this section for a description of the submittal schedule and an example of the Submittal Schedule form.

3.2 COORDINATION OF SUBMITTALS

- A. General: Prior to submittal for approval, use all means necessary to coordinate fully all material, including but not necessarily limited to:
 - 1. Determine and verify all interface condition, catalogue numbers, and similar data.
 - 2. Coordinate with other trades as required.
 - 3. Submittals shall contain rating data on equipment and accessories. Features shall be described as specified herein, and capacities shall be stated in the same terms as those specified.
 - 4. Note deviations from the contract documents on the submittal so that, if acceptable, suitable action may be taken for proper adjustment. **If no deviations are noted, it is assumed that the material fully meets the specified requirements; therefore, the Contractor shall not be relieved of the responsibility for executing the work in accordance with the contract.**
 - 5. Grouping of Submittals: Unless otherwise specified, make all submittals in groups containing all associated items to ensure that information is available for checking each item when it is received. Partial submittals may be rejected as not complying with the provisions of the contract documents, and the Contractor shall be strictly liable for all delays so occasioned.

3.3 TIMING OF SUBMITTALS

- A. General:
 - 1. Make all submittals far enough in advance of scheduled dates for installation to provide all time required for reviews, for securing necessary approvals, for possible revisions and resubmittals, and for placing orders and securing delivery.
 - 2. Submit shop drawings in accordance with the approved schedule of shop drawing submittals.
 - 3. Comply with the requirements of the Contractor generated and Owner, A/E approved submittals schedule form described in Paragraph 2.1 and 3.5 of this section.
- B. A/E's Review Time for submittals: In scheduling, allow at least 20 calendar days for review by the A/E following his receipt of the submittal.
- C. A/E's Review Time for proposed substitution submittals: In scheduling, allow at least 30 calendar days for review by the A/E following his receipt of the submittal.
- D. Delays: Delays caused by tardiness in receipt of submittals will not be an acceptable basis for extension of the contract completion date.

3.4 A/E'S REVIEW

A. Revisions:

1. Make all revisions required by the A/E, including those relating to artistic effort. If the Contractor considers any required revision to be a change, he shall so notify the A/E as provided for under "Changes" in the General Conditions. Show each Drawing revision by number, date, and subject in a revision block on the Drawing. Make only those revisions directed or approved by the A/E.
2. After making the corrections required by the A/E, file 3 corrected copies with the A/E, and furnish additional copies as needed.
3. **The A/E's approval of submittals does not relieve the Contractor from responsibility for their correctness.**

B. Revisions After Approval: When a submittal has been reviewed by the A/E, resubmittals for substitutions of materials or equipment will not be considered unless accompanied by an acceptable explanation as to why the substitution is necessary.

3.5 SUBMITTAL SCHEDULE

A. General:

1. The following schedule is provided as a guide to the submittals required during the course of the contract but may not be inclusive of all submittal requirements.
2. Refer to paragraph 3.6 of this section for an example submittal schedule form to be completed and updated monthly by the Contractor for submission to the Owner and A/E.

SUBMITTAL SCHEDULE

B. Submittals Required at Bidding

<u>Section No.</u>	<u>Submittal</u>
1. 00310	Representations, Certification, and Other Statements of Bidders (HUD-5369A)
2. 00320	Bid Form
3. 00420	Bid Bond
4. 00480	Noncollusion Affidavit of Prime Bidder
5. 00482	Certification of Bidder Regarding Section 3 and Segregated Facilities
6. 00483	Contractor Section 3 Plan
7. 00484	Previous Participation Certification (Only Required for Contracts over \$50,000.00) (HUD-2530)
8. 00820	Certification of Prime Bidder Regarding Equal Employment Opportunity
9. 00822	Certification by Prime Bidder Regarding Nonsegregated Facilities
10. 00851	Contractor's Certification Concerning Labor Standards and Prevailing Wage Requirements
11. 02080	Asbestos Abatement Procedures - Paragraph 1.4.A.
12. 02090	Lead Based Paint Abatement Procedures - Paragraph 1.5.A.

C. Submittals Required at Contract Award/Preconstruction Conference

<u>Section No.</u>	<u>Submittal</u>
1. 00502	Form of Contract
2. 00620	Performance Bond
3. 00621	Payment Bond
4. 00717	Certificate of Insurance, (Modifications to the General Conditions, Paragraph 29)
5. 01400	Quality Control Organization Statement (Quality Control Paragraph 3.1)
6. 02080	Asbestos Abatement Procedures - Paragraph 1.4.A.
7. 02090	Lead Based Paint Abatement Procedures - Paragraph 1.5.A.

D. Submittals Required 10 days after Contract Award/Preconstruction Conference

<u>Section No.</u>	<u>Submittal</u>
1.	List of Subcontractors and amount of each subcontract.
2. 01302	2 Copies of the Submittals Schedule Form (Paragraph 3.6)
3. 00901	Schedule of Amounts for Contract Payments (HUD 51000)
4. 00900	Construction Progress Schedule (HUD 5372)

E. Submittals Required 30 days after Contract Award/Preconstruction Conference

<u>Section No.</u>	<u>Submittal</u>
1. Division 2-16	Technical Specification Submittals; Shop Drawings, Samples, Technical Data, etc. as required by each individual Specification Section
2. Division 2-16	Comparative Literature and Samples required for any proposed product substitutions.
3. <u>Subcontract Documents:</u> Submitted and approved prior to use of Subcontractor on the project:	
a. 00481	Noncollusion Affidavit of Subcontractor
b. 00821	Certification by Subcontractor Regarding Equal Employment Opportunity
c. 00823	Certification of Subcontractor Regarding Section 3 and Segregated Facilities
d. 00824	Subcontractor's Section 3 Plan
e. 00852	Subcontractor's Certification Concerning Labor Standards and Prevailing Wage
f.	Subcontractor's Insurance Certificates

F. Submittals required during the Course of Construction

<u>Section No.</u>	<u>Submittal</u>
1.	Change Order, back-up data if applicable
2. 00908	Weekly Basis, Payroll Form (WH-347)
3.	Asbestos Abatement (Clearance Testing Reports)
4.	Lead Based Paint Abatement (Clearance Testing Reports)
5.	Concrete Testing Reports

G. Submittals Required for Monthly Pay Request

<u>Section No.</u>	<u>Submittal</u>
1. 00900	Updated Construction Progress Schedule (HUD 5372)
2. 00904	Periodic Estimate for Partial Payment, (HUD 51001)
3. 00905	Schedule of Change Orders, (HUD 51002) if applicable
4. 00914	Certificate of Progress Payment
5. 00906	Schedule of Materials Stored, (HUD 51003) if applicable
6. 00907	Summary of Materials Stored, (HUD 51004), if applicable

H. Submittals Required at Contract Closeout

See Section 01700 (Contract Closeout)

END OF SECTION

SUBMITTAL COVER SHEET

Submittal Transmittal No. _____

Job Name: _____

Date of Transmittal: _____

Job Number: _____

Number of Copies: _____

Spec Section No.: _____ - _____ (submittal number; start with 01)

Description:

Initials Verifying this Submittal has been reviewed by Contractor: _____

Subcontractor's Name: _____

Address: _____

Address: _____

Phone: _____ Fax: _____

Phone: _____ Fax: _____

Supplier's Name: _____

Manufacturer's Name: _____

Address: _____

Address: _____

Phone: _____ Fax: _____

Phone: _____ Fax: _____

- REVIEWED REVISE & RESUBMIT
 REJECTED FURNISH AS CORRECTED

- APPROVED BY HOUSING AUTHORITY
 DISAPPROVED BY HOUSING AUTHORITY

Corrections or comments made on the shop drawings during this review do not relieve contractor from compliance with requirements of the drawings and specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques of construction coordinating his work with that of all other trades and performing his work in a safe and satisfactory manner.

BY: _____
DATE: _____

Wilbanks Architecture & Associates, LLC.

A/E Comments:

BY _____ DATE: _____

Contractor's Name: _____

SECTION 01340

SUBMITTALS

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes submittals to the Architect of shop drawings, product data, samples, and other submittals required by the Contract Documents. Items, materials and equipment proposed for use on this project, as specified/scheduled, will require submittals as evidence of item, product, material, equipment being furnished.

1.02 TYPES OF SUBMITTALS

A. Shop Drawings:

1. Shop drawings include technical data prepared specifically for this project including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements, and similar information not in standard printed form which illustrates a portion of the work.
2. Drawings shall be presented on blue-line prints in a clear and complete manner in appropriate size and scale with details identified by reference to sheet and detail, schedule, or room numbers shown on Contract drawings with the name of the Preparer indicated (firm name).
3. Shall be prepared by a qualified detailer (see technical Sections).
4. Identify field dimensions; show relation to adjacent or critical features, work, or products.

B. Product Data:

1. Product data includes standard printed information on materials, products and systems not specifically prepared for this project other than the designation of selections from among available choices printed therein.
2. Preparation:
 - a. Clearly mark each copy to identify pertinent products or models.
 - b. Show performance characteristics and capacities.
 - c. Show dimensions and clearances required.
 - d. Show wiring or piping diagrams and controls.
3. Manufacturer's standard schematic drawings and diagrams:
 - a. Modify drawings and diagrams to delete information which is not applicable to the work.
 - b. Supplement standard information to provide information specifically required and applicable to the work.

C. Samples:

1. Samples are physical examples which illustrate materials, equipment, or workmanship and establish standards by which the work will be judged.
2. Office samples shall be of sufficient size and quantity to illustrate clearly:
 - a. Functional characteristics of the product with integrally related parts and attachment devices.
 - b. Full range of color, texture, and pattern.

3. Mock-ups are a special form of samples which are too large or otherwise inconvenient for handling in specified manner for transmittal of sample submittals. When required, mock-ups are specified under appropriate specification section.

D. Miscellaneous submittals related directly to the work (non-administrative) include warranties, maintenance agreements, workmanship bonds, project photographs, survey data and reports, physical work records, quality testing and certifying measurement data, operating and maintenance materials, overrun stock, and similar information, devices, and materials applicable to the work and not processed as shop drawings, product data, or samples.

1.03 CONTRACTOR RESPONSIBILITIES

A. Review and indicate approval of shop drawings, product data, samples, and miscellaneous submittals with approval stamp and signature prior to submission to Architect.

B. Determine and/or verify before submitting for approval:

1. Field measurements
2. Field construction criteria
3. Catalog numbers and similar data
4. Conformance with Contract Documents

C. Coordinate each submittal with requirements of the work. Submittal schedules shall allow not less than fourteen (14) working days for Architect's review.

D. Notify the Architect in writing, at time of submission, of any deviations in the submittals from requirements of the Contract Documents.

E. Begin no fabrication or work which requires technical review of submittal until return of submittal with Architect's acceptance and the approval of finish, color, or pattern by Contracting Officer.

F. Maintain a "Shop Drawing, Product Data, and Sample Log" identified with project name and descriptive identification. Log shall show title of each submittal, date of submittal, date returned, or status.

1.04 CONTRACTOR SUBMISSION REQUIREMENTS

A. Make submittals promptly in accordance with progress schedule and in such sequence as to cause no delay in the work or in the work of any other contractor.

B. Number of Submittals Required:

1. Shop drawings: Submit the number of copies which the Contractor requires: Three (3) copies will be retained by the Architect.
2. Product data: Submit the number of copies (three copies minimum) which the Contractor requires, plus two (2) copies which will be retained by the Architect.
3. Samples: Submit the number stated in each specification or a minimum of two (2) for each sample required.

- C. All Submittals shall contain:
1. The date of submission and the dates of any previous submissions.
 2. Project name.
 3. Contract identification.
 4. The names of:
 - a. Contractor
 - b. Supplier
 - c. Architect
 5. Identification of the product with the specification section number.
 6. Field dimensions clearly identified as such.
 7. Relationship to adjacent or critical features of the work or materials.
 8. Applicable standards such as ASTM numbers.
 9. Specific identification, in writing, of deviations if any from Contract Documents.
 10. Identification of revisions on resubmittals.
 11. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the work and of Contract Documents. Those without stamp will not be reviewed by the Architect.
- D. The Contractor shall not be relieved of responsibility for any deviation from the requirements of the Contract Documents by the Architect's approval of shop drawings, product data, or samples unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submission, and the Architect has given written approval to the specific deviation. The Contractor shall not be relieved from responsibility for errors or omissions in the shop drawings, product data, or samples by the Architect's approval thereof. The Architect's approval of a separate item shall not indicate approval of an assembly in which the item functions.
- E. In checking shop drawings, the Architect will not check dimensions, quantities, electrical characteristics, specific capacities, or coordination with the trades. These are the responsibility of the Contractor.

1.05 CONTRACTOR'S RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals required by the Architect and resubmit until approved. "Field Copy" of shop drawings without Architect's approval stamp shall not be used at the project site.
- B. Shop drawings and product data:
1. Revise initial drawings or data and resubmit as specified for the initial submittal.
 2. Clearly identify any changes which have been made other than those requested by the Architect.
- C. Samples: Submit new samples as required for initial submittal.

1.06 DISTRIBUTION

- A. Distribute, without additional cost to the Owner or Architect, reproductions/copies of product data which carry the Architect's stamp of review and/or approval to:
1. Job site file
 2. Record Documents file.
 3. Other affected contractors.

4. Subcontractors as applicable.
5. Supplier or Fabricator as applicable.

B. Distribute samples which carry the Architect's stamp of approval as directed by the Architect.

1.07 LIMITS OF APPROVAL

- A. Nothing in the approval of shop drawings and samples shall be construed as authorizing additional work or increased cost to the Owner unless a change order has been authorized as provided in Sections 00700 and 00800.

1.08 SUBSTITUTIONS

- A. Substitutions of material or equipment on an "or equal" basis shall not be proposed or requested in shop drawing or sample submittals unless submitted in accordance with Section 01600.

1.09 SHOP DRAWING RECORDS

- A. Submit to the Owner one (1) final record copy of shop drawings marked "FOR JOB USE" which reflect all changes required in previous submittals including those marked "APPROVED AS NOTED" or similarly revised by the Owner.

END OF SECTION

SECTION 01400

QUALITY CONTROL

PART 1 - GENERAL

REQUIREMENTS INCLUDED

- A. General Quality Control.
- B. Workmanship.
- C. Manufacturer' s Instructions.
- D. Manufacturer' s Certificates.
- E. Manufacturer' s Field Services.
- F. Testing Laboratory Services.

1.2 RELATED REQUIREMENTS

- A. Document - General Conditions: Inspection and testing required by governing authorities.
- B. Section 01340 - Submittals: Submittal of Manufacturer' s Instructions.
- C. Section 03302 - Concrete: Tests required for concrete.

1.3 QUALITY CONTROL, GENERAL

- A. Maintain quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

1.4 WORKMANSHIP

- A. Comply with industry standards except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.
- B. Perform work by persons properly trained and qualified to produce workmanship of specified quality.
- C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

1.5 MANUFACTURERS' INSTRUCTIONS

- A. Comply with instructions in full detail, including each step in sequence. A/E shall be notified in writing of any conflict with contract documents.

1.6 MANUFACTURERS' CERTIFICATES

A. When required by individual Specifications Section, submit manufacturers' certificate, in duplicate, that products meet or exceed specified requirements.

1.7 MANUFACTURERS' FIELD SERVICES

A. When required by Specification Section, have supplier or manufacturer to provide qualified personnel to observe field conditions, conditions of surfaces and installation, quality of workmanship; start-up of equipment; test, adjust, and balance of equipment. as applicable, and to make appropriate recommendations.

B. Representatives shall submit written report to A/E listing observations and recommendations.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

SECTION 01410

TESTING LABORATORY SERVICES

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes Contractor employment and payment of the services of an independent testing laboratory approved by the A/E to perform specified services and testing. Employment of the laboratory does not relieve Contractor's obligations to perform the Work of the Contract.
- B. Coordinate and pay for inspection required by law, ordinance, rules, regulations, orders, or approvals of public authorities as required by the Contract Documents.
 - 1. Furnish copies of Products Test Reports as required.
 - 2. Furnish incidental labor and facilities to facilitate inspections and tests and for storage and curing of test samples.
 - 3. Notify the laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
 - 4. Make arrangements with laboratory and pay for additional samples and tests required for Contractor's convenience.

1.02 TESTING LABORATORY

- A. Qualifications:
 - 1. Meet "Recommended Requirements for Independent Laboratory Qualification", published by the American Council of Independent Laboratories, and basic requirements of ASTM E 329 "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel as Used for Construction".
 - 2. Be authorized to operate in the State where the project is constructed.
 - 3. Submit copies of the report of inspection to the A/E with memorandum of remedies of any deficiencies reported by the inspection.
- B. Duties and Limitations of Authority:
 - 1. Perform specified inspections, sampling and testing of materials and methods of construction, and promptly submit two (2) copies of the written report to the A/E within one (1) day of the test(s). Immediately FAX one (1) copy to the A/E. Each report shall include:
 - a. Date issued.
 - b. Project name.
 - c. Testing laboratory name, address, and telephone number.
 - d. Name and signature of Engineer and laboratory Inspector or Technician.
 - e. Date and time of sampling or inspection or test.
 - f. Record of temperature and weather conditions.
 - g. Location in the project of sample or test.
 - h. Results of the test in compliance with Contract Documents.
 - i. Monetary accounting of tests by test type, indicating test or retest charges under this Contract.
 - 2. Laboratory is not authorized to release, revoke, alter or enlarge on requirements of the Contract Documents, approve, or accept portions of the Work, or perform duties of the Contractor.

END OF SECTION

SECTION 01500

TEMPORARY CONSTRUCTION FACILITIES

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes providing all temporary construction and facilities necessary to complete the Work.

1.02 TEMPORARY STORAGE SHEDS

- A. Material Storage: Provide and maintain adequate protection and security for materials stored on site.
 - 1. Provide suitable and sufficient enclosed and covered spaces, with raised flooring, to protect materials and equipment subject to damage by weather or construction.
 - 2. Provide sheds, as necessary, to suitable store materials and equipment needing limited protection.

1.03 SAFETY DEVICES

- A. All temporary works required to fulfill this Contract shall at all times comply with local and governing codes and laws and furnish protection to workmen and the public.
- B. Maintain areas adjacent to the construction site in manner not to hinder or endanger normal traffic flow or endanger or damage adjacent property.
- C. All streets and sidewalks; shall be kept clean and open for pedestrian and vehicular traffic. Warning lights, guards and barricades shall be utilized and maintained as required to ensure these conditions. Should it be necessary to close a sidewalk or right-of-way to pedestrian traffic, erect adequate barricades, lights, etc., as necessary. Erect warning signs directing pedestrians to safe, alternate routes.
- D. Provide cribbing and shoring for excavations which might endanger workmen, equipment or adjacent property.
- E. Erect barricades and/or fencing sufficient to prevent injury to persons or damage to property. Construct to prevent entry of unauthorized persons.
- F. Cover trenches and holes when not in use. Erect barriers as required to maintain safe conditions.
- G. Temporary stairs, ladders and ramps shall be provided to safely enable access to all parts of the work by the A/E and the Owner, or any other authorized personnel. All such equipment shall meet all governing and local safety requirements.
- H. Provide temporary lifting and hoisting devices and equipment as required to distribute materials and equipment to various locations.

1.04 AREAS AVAILABLE

- A. Actual areas in which the project is to be constructed are herein defined to exist within all boundary lines as clearly identified and delineated on the Drawings.

1.05 ACCESS

- A. Limit access to the property so as not to block any entrance to or exit from any existing facilities in use at any time.
- B. Coordinate parking area for Contractor's trucks. All damage made to parking lots, driveways and yards shall be repaired by the Contractor at no expense to the Owner. Parking of cars or other vehicles used for personal transportation shall be coordinated by the Contractor.
- C. All traffic routes shall be kept open at all times, free of all operations and storage of materials.

1.06 TEMPORARY WATER DURING CONSTRUCTION

- A. All necessary arrangements for providing all water required during the entire construction period shall be provided by the General Contractor. Where the installation of a water meter is required to obtain temporary water, the metered cost for temporary water shall be borne by the General Contractor. Provide drinking water for construction personnel.

1.07 TEMPORARY TOILET FACILITIES

- A. Provide and maintain in use an adequate number of temporary toilets with proper enclosures as necessary for use of workmen and all inspection staff during construction. Locate toilets where directed. Keep toilets clean and comply with all local and governing health requirements and sanitary regulations. Toilet facilities shall consist of the prefabricated chemical type. The plumbing fixtures within the newly constructed buildings may not be used by construction personnel.

1.08 TEMPORARY ELECTRICITY DURING CONSTRUCTION

- A. All necessary and sufficient temporary electric service and lighting required during the entire construction period shall be provided by the General Contractor. Monthly service charges shall be borne by the General Contractor.
 - 1. Power sources shall be provided at points no more than 200 feet apart on each floor.
 - 2. Power and lighting in corridors, stairways and other dark enclosed areas shall be provided as required for safety and in accordance with OSHA requirements. provide lighting levels in all areas to allow for acceptable workmanship.
 - 3. Security site lighting shall be provided as required for protection of personnel and materials.

1.09 COLD WEATHER PROTECTION AND TEMPORARY HEAT

- A. Provide all cold weather protection necessary to carry on the work expeditiously during inclement weather and protect all work and materials against injury and from environment harmful to man.

1.10 PUMPING AND DRAINAGE

- A. Keep working and storage areas free from water that could cause damage or that would interfere with work.
- B. Pump or drain water to designated points. Distribute discharge to prevent excessive erosion.

1.11 TEMPORARY FIRE PROTECTION SERVICES

- A. Provide and maintain temporary fire protection as required for construction operations. Comply with regulations of the local Fire Department.

END OF SECTION

SECTION 01546

SAFETY AND HEALTH

PART 1 - GENERAL

1.1 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.
- B. Code of Federal Regulations (CFR):
 - 1. OSHA Construction Industry Standards (29 CFR 1926).
 - 2. OSHA General Industry Standards (29 CFR 1910).
 - 3. National Emission Standards for hazardous Air Pollutants (40 CFR, Part 61).
 - 4. Environmental Protection Agency (EPA) Final Rule (40 CFR Part 761).

1.2 WORK COVERED BY THIS SECTION

- A. This section is applicable to all work covered by this contract.

1.3 DEFINITION OF HAZARDOUS MATERIALS

- A. Refer to hazardous and toxic materials/substances included in Subparts D and Z of 29 CFR 1926. Those most commonly encountered include asbestos and lead paint but may include others. The most likely products to contain asbestos are sprayed-on fireproofing, insulation, boiler lagging, pipe covering and likely products to contain lead paint are windowsills, door frames, doors, and exterior paint.

1.4 QUALITY ASSURANCE

- A. Compliance with Regulations: All work, including contact with and handling of hazardous materials, the disturbance or dismantling of structures containing hazardous materials and/or the disposal of hazardous materials shall comply with the applicable requirements of 29 CFR 1926/1910 and 40 CFRs 260-263 and 761. Work involving the disturbance, dismantling of asbestos or asbestos containing materials; the demolition of structures containing asbestos; and/or the disposal and removal of asbestos, shall also comply with the requirements of 40 CFR, Part 61, Subparts A and M. All work shall comply with applicable state and municipal safety and health requirements. Where there is a conflict between applicable regulations, the most stringent shall apply.
- B. Contractor Responsibility: The Contractor shall assume full responsibility and liability for compliance with all applicable regulations pertaining to the health and safety of personnel during the execution of work and shall hold the Owner harmless for any action on his/her part or that of his/her employees or subcontractors, which results in illness, injury or death.

1.3 SUBMITTALS

- A. Accident Reporting: A copy of each accident report, which the Contractor or subcontractors submit to their insurance carriers, shall be forwarded through the Construction Engineer to the Owner as soon as possible, but in no event later than 7 calendar days after the day the accident occurred.

- B. Permits: If hazardous materials are disposed of off site, submit copies of permits from applicable, Federal, state, or municipal authorities and necessary certificates that the material has been disposed of in accordance with regulations.
- C. Other Submittals: If agreed to in writing at the safety meeting, other submittals shall be required. One such submittal which may be included is a plan of action for handling hazardous materials, which shall contain the following:
 - 1. Number, type, and experience of employees to be used for the work.
 - 2. Description of how applicable safety and health regulations and standards are to be met.
 - 3. Type of protective equipment and work procedures to be used.
 - 4. Emergency procedures for accidental spills or exposures.
 - 5. Procedures for disposing of or storing the toxic/hazardous materials.
 - 6. Identification of possible hazards, problems, and proposed control mechanisms.
 - 7. Protection of public or others not related to the operation.
 - 8. Interfacing and control of subcontractors, if any.
 - 9. Identifications of any required analyses, test demonstrations, and validation requirements.
 - 10. Method of certification for compliance.

PART 2 - PRODUCTS

2.1 MATERIALS AND EQUIPMENT

- A. Special facilities, devices, equipment, clothing, and similar items used by the Contractor in the execution of work shall comply with the applicable regulations.

2.2 HAZARDOUS MATERIALS

- A. The Contractor shall bring to the attention of the Owner any material suspected of being hazardous which he/she encounters during execution of the work. A determination will be made by the Owner as to whether the Contractor shall perform tests to determine if the material is hazardous. If the Owner directs the Contractor to perform tests, and/or if the material is found hazardous and additional protective measures are needed, a contract change may be required, subject to applicable provisions of this contract.

PART 3 - EXECUTION

3.1 STOP WORK ORDERS

- A. When the contractor or his/her subcontractors are notified by the owner of any noncompliance with the provisions of the contract and the action(s) to be taken, the Contractor shall immediately, if so directed, or within 48 hours after receipt of a notice of violation correct the unsafe or unhealthy condition. If the Contractor fails to comply promptly, all or any part of the work being performed may be stopped by the Owner with a "Stop Work Order." When, in the opinion of the Owner, satisfactory corrective action has been taken to correct the unsafe and unhealthy condition, a start order will be given immediately. The Contractor shall not be allowed any extension of time or compensation for damages by reason of or in connection with such work stoppage.

3.2 PROTECTION

- A. The Contractor shall take all necessary precautions to prevent injury to the public, building occupants, or damage to property of others. For the purposes of this contract, the public or building occupants shall include all persons not employed by the Contractor or a subcontractor working under his/her direction.

- B. Storing, positioning or use of equipment, tools, materials, scraps, and trash in a manner likely to present a hazard to the public or building occupants by its accidental shifting, ignition, or other hazardous qualities is prohibited.
- C. Obstructions: No corridor, aisle, stairway, door, or exit shall be obstructed or use in such a manner as to encroach upon routes of ingress or egress utilized by the public or building occupant, or to present unsafe or unhealthy condition to the public or building occupant.
- D. Work shall not be performed in any area occupied by the public or Federal employees unless specifically permitted by the contract or the Owner and unless adequate steps are taken for the protection of the public or Federal employees.
- E. Wherever practicable, the work area shall be fenced, barricaded, or otherwise blocked off from the public or building occupants to prevent unauthorized entry into the work area.
- F. Alternate Precautions: When the nature of the work prevents isolation of the work area and the public or building occupants may be in or pass through, under or over the work area, alternate precautions such as the posting of signs, the use of signal persons, the erection of barricades or similar protection around particularly hazardous operations shall be used as appropriate.
- G. Public Thoroughfare: When work is to be performed over a public thoroughfare such as a sidewalk, lobby, or corridor, the thoroughfare shall be closed, if possible, or other precautions taken such as the installation of screens or barricades. When the exposure to heavy falling objects exists, as during the erection of building walls or during demolition, special protection of the type detailed in 29 CFR 1910/1926 shall be provided.
- H. Fences and barricades shall be removed upon completion of the project, in accordance with local ordinance and to the satisfaction of the Owner or his/her representative(s).

END OF SECTION

SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL (*)										CLASSIFICATION (*)	
		e	f	g	h	i	j	k	l	m	n	o	
1.5 A	Accident Report										X		X
1.5 B	Permits										X		

(*) e = Shop Drawings j = Test Report o = Approval Required
f = Sample k = Technical Data
g = Guarantee l = Software
h = Mfr's Data m = Other As Noted
I = Certification n = Information Only

SECTION 01600

MATERIALS AND EQUIPMENT

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes proper methods of shipping materials and equipment, handling, and storage of same in accordance with manufacturer's recommendations. Also includes requirements for making material and equipment substitutions.

1.02 REQUIREMENTS INCLUDED

- A. Conform to applicable specifications and standards.
- B. Comply with size, make, type and quality specified, or as specifically approved in writing by A/E.
- C. Manufactured and Fabricated Products:
 - 1. Design, fabricate and assemble in accord with the best engineering and shop practices.
 - 2. Manufacture like parts of duplicate units to standard sizes and gauges, to be interchangeable.
 - 3. Two (2) or more items of the same kind shall be by the same manufacturer and identical
 - 4. Products shall be suitable for service conditions.
 - 5. Equipment capacities, sizes and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing by the A/E.
- D. Do not use material or equipment for any purpose other than that for which it is designed or specified.

1.03 MANUFACTURER'S INSTRUCTIONS

- A. When Contract Documents require that installation of work shall comply with manufacturer's printed instructions, obtain, and distribute copies of such instructions to parties involved in installation, including copies to A/E and Contractor. Maintain one (1) set of complete instructions at the job site during installation and until completion.
- B. Handle, install, connect, clean, condition and adjust products in strict accord with such instructions and in conformance with specified requirements.
- C. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with A/E for further instructions. Do not proceed with work without clear instructions.
- D. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by Contract Documents, or A/E's written instructions.

1.04 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of Products in accordance with construction schedules, coordinate to avoid conflict with work and conditions at the site.
- B. Deliver products in undamaged condition, in manufacturer's original containers or packaging, with identifying labels intact and legible.
- C. Immediately on delivery, inspect shipments to assure compliance with Contract Documents and approved submittals, and that Products are properly protected and undamaged.
- D. Provide equipment and personnel to handle Products by methods to prevent soiling or damage to Products or packaging.

1.05 STORAGE

- A. Store Products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store products subject to damage by the elements in weathertight enclosures. Maintain temperature and humidity within ranges required by manufacturer's instructions.
- B. Exterior Storage:
 - 1. Store fabricated products above ground, on blocking or skids; prevent soiling or staining. Cover products which are subject to deterioration with impervious sheet coverings; provide adequate ventilation to avoid condensation.
 - 2. Store loose, granular materials in well-drained area on solid surfaces to prevent mixing with foreign matter.
- C. Arrange storage in a manner to provide easy access for inspection. Make periodic inspections of stored Products to assure that products are maintained under specific conditions, and free from damage or deterioration.
- D. Provide substantial coverings as required to protect installed Products from damage from traffic and subsequent construction operations. Remove when no longer needed.

1.06 SUBSTITUTIONS AND PRODUCT OPTIONS

- A. Submit to the A/E a complete list of major products proposed to be used, with the name of the manufacturer and the installing subcontractor.
- B. Contractor's Options:
 - 1. For Products specified only by reference standard, select any product meeting that standard.
 - 2. For Products specified by naming several products or manufacturers, select any one of the products or manufacturers names, which complies with the Specifications.
 - 3. For Products specified by naming one (1) or more Products or manufacturers, Contractor must submit a request for substitutions for any Product of manufacturer not specifically named.
 - 4. For products specified by naming only one (1) product or manufacturer, there is no option.
- C. Substitutions:

1. For a period of fifteen (15) days after Contract Date, the A/E will consider written requests for substitution of Products.
 2. Submit a separate request for each Product, supported with complete product data, with Drawings and samples as appropriate, in accordance with Section 01340.
- D. By making requests for substitutions, Contractor:
1. Represents that he has personally investigated the proposed substitute product and determined it is equal or superior in all respects to that specified.
 2. Represents that he will provide the same warranty for the substitute that he would for that specified.
 3. Certifies that the cost data presented is complete and includes all related costs, and excludes the A/E's redesign costs, and waives all claims for additional costs related to the substitution which subsequently becomes apparent; and
 4. Will coordinate the installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.
- E. The A/E will promptly reply in writing to the Contractor stating whether the A/E, after due investigation, has reasonable objection to any such proposal. If adequate data on any proposed manufacturer or installer is not available, the A/E may state that action will be deferred until the Contractor provides further data. Failure to object to a manufacturer shall not constitute a waiver of any of the requirements of the Contract Documents. All products furnished by the listed manufacturer must conform to such requirements.
- F. When a material, equipment or system is approved by the A/E for substitution, such material, equipment or system shall become an essential element of the Contract. The A/E will be the final judge of the acceptability of the substitution. The A/E is under no obligation to consider or accept any proposed substitution. and he may reject any requested substitution for any cause or no cause. No substitution shall be made without authority in writing from the A/E.
- 1.07 NO-ASBESTOS/NO LEAD REQUIREMENTS
- A. No asbestos-containing or lead-containing materials or products shall be incorporated into the project. All products and materials shall be 100% asbestos free and 100% lead free.
 - B. The intent of the Contract Documents is to exclude all materials and products which contain asbestos or lead in any form or amount. In studying the Contract Documents and at any time during execution of the Work, the Contractor shall at once report to the A/E any asbestos-containing materials or products that he may discover. Do not proceed with installation of asbestos-containing materials or products or lead-containing materials or products.
 - C. Where products are specified by reference standard or in a descriptive manner without manufacturer's name, model number or trade name, Contractor shall select materials or products meeting specified requirements which do not contain asbestos or lead in any form or amount.
 - D. In making requests for substitutions, Contractor shall be responsible for determining that materials and products requested for substitution are 100% free of asbestos and lead in any form.

END OF SECTION

EQUIPMENT AND MATERIAL STORAGE 01620

PART 1 - GENERAL

NOT USED

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.1 Provide a temporary clean and dry environment for all mechanical, electrical, and instrumentation equipment and architectural items that are to be incorporated into this project.

3.2 Storage of equipment shall be in strict accordance with the instruction for storage of each equipment supplier and manufacturer.

3.3 Neatly store structural steel, pipes, and fittings at a location to be designated by the A/E. Support all items stored in this area so that they are not in contact with the ground.

3.4 Replace corroded, damaged, or deteriorated items, equipment, and parts before acceptance of the project. Replace these items at no additional cost to the Owner.

END OF SECTION

SECTION 01700

CONTRACT CLOSEOUT

PART 1 – GENERAL

1.01 REQUIREMENTS

- A. Comply with the requirements stated in the General Conditions of the Contract for Construction and the Supplementary Conditions, if included, for administrative procedures, fiscal provisions, and legal submittals to close out the Work.
- B. Cleaning: Refer to Sections 01010 and 01710.

1.02 REPAIRS

- A. All structures, sidewalks, pavement, planting, and other items disturbed or damaged incident to construction work under this Contract shall be replaced by the Contractor as soon as possible in a manner satisfactory to the Owner, Architect and other governing bodies.

1.03 SUBSTANTIAL COMPLETION

- A. When the Contractor considers the Work to be substantially complete, he shall submit to the Architect:
 - 1. A written notice that the Work is sufficiently complete, that the Owner may occupy the Work for the use for which it is intended and is therefore substantially complete.
 - 2. List of items to be completed or corrected and dates scheduled for completion or correction of each item.
- B. Within a reasonable time after receipt of such notice, the Architect will schedule a date with the Owner's Representative, and the Architect and his consultants will make an inspection to determine the status of completion.
- C. Should the Architect determine that the Work is not substantially complete, he will promptly notify the Contractor in writing stating the reasons. The Contractor shall remedy the deficiencies in the Work and send a second notice of Substantial Completion to the Architect. The Architect will notify the Owner and reinspect the Work.
- D. When the Architect concurs that the Work is substantially complete, he will prepare a Certificate of Substantial Completion on AIA Document G704 accompanied by the Contractor's list of items to be completed or corrected (punch list) as verified and amended by the Architect. The Architect will submit the Certificate to the Contractor and Owner for their written acceptance.

1.04 FINAL ACCEPTANCE

- A. When the Contractor determines the Work is complete, he/she shall submit written certification that:
 - 1. Contract Documents have been reviewed.
 - 2. The Work has been inspected by a qualified person authorized by the Contractor for compliance with the Contract Documents.

3. The Work has been completed in accordance with the Contract Documents.
4. Equipment and systems have been tested and demonstrated in the presence of the Owner's Representative and are operational.
5. Inspections, inspection certificates or letters of acceptance for items requiring approval from governing authority or authorities are complete and available.
6. The Work is completed and ready for final inspection.

- B. Within a reasonable time after receipt of the certification the Architect will schedule a date with the Owner's Representatives, and the Architect and his consultants will make an inspection to verify completion.
- C. Should the Architect consider the Work incomplete or defective the Contractor will be notified in writing listing incomplete or defective Work. The Contractor shall take immediate steps to remedy the stated deficiencies and send a second written certification that the Work is complete. The Architect will notify the Owner and reinspect the Work.

1.05 REINSPECTION FEES

- A. Should the Architect perform reinspections due to failure of the Work to comply with the claims of status of completion made by the Contractor:
1. The Contractor will compensate the Architect for such additional services.
 2. Owner may deduct the amount of such compensation from the final payment due the Contractor.

1.06 UTILITY TRANSFER

A. It shall be the responsibility of the Contractor to coordinate the transfer of all utility services to the name of the Owner. This transfer shall be at the time of Substantial Completion, unless directed otherwise by the Owner.

1.07 CONTRACTOR'S CLOSEOUT SUBMITTALS TO ARCHITECT

A. The closeout submittal shall be complete and submitted to the Architect as a single package. The package shall include two (2) copies of the following- or other number as specified in the various Sections of the Project Manual. Refer to Section 01720 for specific requirements for preparation and submittal of Record Documents.

1. Operating and Maintenance Data arranged by Specification Division, bound in commercial quality, three-ring binders with durable plastic covers. For each Specification Division, give names, addresses, and telephone numbers of subcontractors and suppliers (as noted above). List:
 - a. Appropriate design criteria.
 - b. List of equipment.
 - c. Parts List.
 - d. Operating instructions.
 - e. Maintenance instructions, equipment.
 - f. Shop drawings and product data.
 - g. Warranties.
2. Shop Drawings and Product Data as required by Section 01340.
3. Written guarantees as specified, bound in with Operating and Maintenance Data.

4. Contractor's Affidavit of Payment of Debts and Claims, AIA G706.
5. Affidavit of Release of Liens, evidence of payment and release of liens (G706A) for Contractor, subcontractor, material suppliers.
6. Consent of Surety to Final Payment, AIA G707
7. Contractor's notarized letter of warranty.
8. Contractor's notarized letter certifying that no asbestos and no lead products/materials have been installed on this project.
9. Letter certifying that all materials used comply with Contract Documents.
10. Copies of all laboratory test reports.
11. Certificate and Release.

NOTE: AIA DOCUMENTS MAY BE OBTAINED AT: www.constructionbook.com or www.constructionforms.net

- B. The Contractor shall submit to the Architect the Final Application for Payment accompanied by a statement of accounting. The statement shall reflect all adjustments to the Contract Sum.
 1. The Original Contract sum
 2. Additions and Deductions resulting from:
 - a. Previous Change Orders
 - b. Allowances
 - c. Unit Prices
 - d. Deductions for non-conforming work
 - e. Deductions for Liquidated Damages
 - f. Deductions for reinspection payments
 - g. Other adjustments
 3. Total contract sum as adjusted
 4. Previous Payments,
 5. Sum Remaining Due
- C. When the Architect has determined that the Closeout submittal is complete and correct and has received the final Application for Payment with the statement of accounting, he will prepare a Change Order reflecting the approved adjustments to the Contract sum which were not previously made by Change Order.
- D. The Architect will submit to the Owner the Consent of Surety, Releases of Liens, Final Application for Payment with the Statement of Accounting, and signed Change Order, if required, and other documents related to fiscal provisions with a cover letter (from the Architect) to certify that to the best of his knowledge, completion of the Project is in compliance with the Contract documents and the balance shown is due and payable.

END OF SECTION

SECTION 01710

CONSTRUCTION AND FINAL CLEANING

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Execution of daily cleaning during progress of the Work and at completion of the Work. If the Contractor fails to keep the project clean, as herein specified, the Owner shall do the cleaning, the cost of which shall be charged to the Contractor. Refer to Section 01010 for additional requirements.
- B. Clean only areas contaminated by construction operations, building interiors, and building sites.

1.02 DISPOSAL REQUIREMENTS

- A. Conduct daily cleaning and disposal operations to comply with codes, ordinances, regulations and anti-pollution laws.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Use only those cleaning materials which will not create hazards to health or property, and which will not damage surfaces.
- B. Use only those cleaning materials and methods recommended by the manufacturer of the surface to be cleaned.
- C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.
- D. Refer to particular sections of this Project Manual for items requiring special handling and cleaning.

PART 3 – EXECUTION

3.01 DURING CONSTRUCTION

- A. Execute daily cleaning to keep the Work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations.
- B. Provide on-site containers for the collection of waste materials, debris, and rubbish.
- C. Remove waste materials, debris and rubbish from the site on a daily basis and dispose of at legal disposal areas away from the site.
- D. Before Contract Closeout, all construction tools, scaffolding, equipment, and machinery shall be removed from the site.

3.02 DUST CONTROL

- A. Clean interior spaces prior to the start of finish painting and continue on an as-needed basis until painting is finished.
- B. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly coated surfaces.
- C. "Broom-Cleaning" will not be allowed in areas where finish work is being executed; only commercial cleaning equipment will be permitted.

3.03 PESTS

- A. Remove from job site on a daily basis debris which might contribute to survival or spread of rodents, roaches and other household pests.
- B. Should pests inhabit premises, employ services of an approved pest exterminator to keep project site and building free of same at all times.

3.04 FINAL CLEANING PRIOR TO SUBSTANTIAL COMPLETION INSPECTION

- A. Site Work:
 1. Clean site of construction debris.
 2. Wash walks, steps, decks, curbs, drives and paved areas free of mud or other foreign stains.
 3. Clean finish surfaces and site improvements of dirt, stains and foreign matter.
 4. Clean storm drainage systems to provide for free flow of storm water.
- B. Building Finish Surfaces:
 1. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from sight-exposed interior and exterior surfaces.
 2. Wash and shine all glazing and mirrors. Clean all glazing on both sides.
 3. Clean electric fixture lens on both sides.
 4. Clean hard tile surfaces of all foreign matter, mortar, adhesives, etc.
 5. Clean, wax and buff to a luster all resilient floorings; comply with manufacturer's recommendations.
- C. Ventilating/Air Conditioning Systems:
 1. Clean permanent filters and replace disposable filters if units were operated during construction.
 2. Clean ducts, blowers, and coils if units were operated with out filters during construction.
- D. Inspection by Contractor: Prior to final completion, or Owner occupancy, the Contractor shall conduct an inspection of sight-exposed interior and exterior surfaces and all work areas, to verify that the entire work is clean.

END OF SECTION

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. Throughout progress of the Work, maintain an accurate record of changes in the Job Set, per Paragraph 3.01, and upon completion of the Work, transfer the recorded changes to the Final Project Record Documents, per Paragraph 3.02.
- B. Related Work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
 - 2. Other requirements affecting Final Project Record Documents may appear in other sections of these Specifications.
- C. Pay Applications: Each pay application shall include a statement signed by the Contractor stating that the "Job Set" is current with any changes: such as location, material, manufacturer, etc. This covers both the drawings and the specifications.

1.2 SUBMITTALS

- A. Comply with pertinent provisions of Section 01302.
- B. Prior to submitting each request for progress payment, secure the Architect's approval of the current status of the Job Set.
- C. Prior to submitting request for final payment, submit the Final Project Record Documents to the Architect and secure his approval.

1.3 QUALITY ASSURANCE

- A. Delegate the responsibility for maintenance of Job Set to one person on the Contractor's staff as approved by the Architect.
- B. Accuracy of records:
 - 1. Thoroughly coordinate changes within the Job Set, making adequate and proper entries on each page of Specifications and each sheet of Drawings and other Documents where such entry is required to show the change properly.
 - 2. Accuracy of records shall be such that future search for items shown in the Contract Documents may rely reasonably on information obtained from the approved Final Project Record Documents.
 - 3. Make entries within 24 hours after receipt of information that the change has occurred.

1.4 DELIVERY, STORAGE AND HANDLING

- A. Maintain the Job Set completely protected from deterioration and from loss and damage until completion of the Work and transfer of all recorded data to the Final Project Record Documents.
- B. In the event of loss of recorded data, use means necessary to again secure the data to the Architect's approval.
 - 1. Such means shall include, if necessary in the opinion of the Architect, removal and replacement of concealing materials.
 - 2. In such case, provide replacements to the standards originally required by the Contract Documents.

PART 2 PRODUCTS

2.1 RECORD DOCUMENTS

- A. Job Set: Promptly following receipt of the Owner's Notice to Proceed, secure one complete set of all Documents comprising the Contract. Place in Field Office.
- B. Final Project Record Documents: Upon project completion, contractor shall provide an accurate and complete set of As-Built Drawings with any and all changes red lined on the plans. As-Built Plans shall be submitted with Close-Out Documents.
- C. O & M Manuals: Refer to the individual sections for these requirements.

PART 3 EXECUTION

3.1 MAINTENANCE OF JOB SET

- A. Immediately upon receipt of the Job Set described in Paragraph 2.01-A above, identify each of the Documents with the title, "RECORD DOCUMENTS – JOB SET".
- B. Preservation:
 - 1. Considering the Contract completion time, the probable number of occasions upon which the Job Set must be taken out for new entries and for examination, and the conditions under which these activities will be performed, devise a suitable method for protecting the Job Set to the approval of the Architect.
 - 2. Do not use the Job Set for any purpose except entry of new data and for review by the Architect, until start of transfer of data to Final Project Record Documents.
 - 3. Maintain the Job Set at the Site Office.

- C. Making entries on Job Set:
1. Using an erasable colored pencil (not ink or indelible pencil), clearly describe the change by graphic line and note as required. This is for drawings and specifications.
 2. Date all entries.
 3. Call attention to the entry by a “cloud” drawn around the area or areas affected.
 4. In the event of overlapping changes, use different colors for the overlapping changes.
 5. Make entries in the pertinent other Documents as approved by the Architect.
 6. Mark-up new information which is recognized to be of importance to the Owner but was for some reason not shown on either contract drawings or shop drawings. Give particular attention to concealed work, which would be difficult to measure and record at a later date.
 7. Note related change order numbers where applicable.
 8. Markings shall be legible.
- D. Conversion of schematic layouts:
1. In some cases, on the Drawings, arrangements of conduits, circuits, piping, ducts, and similar items, is shown schematically and is not intended to portray precise physical layout.
 2. Final physical arrangement is determined by the Contractor, subject to the Architect’s approval.
 3. However, design of future modifications of the facility may require accurate information as to the final physical layout of items which are shown only schematically on the Drawings.
- E. Show on the Job Set, by dimension accurate to within one inch, the centerline of each run of items such as are described in subparagraph 3.1-C above.
1. Clearly identify the item by accurate note such as “cast iron drain” or “gale water” and the like.
 2. Show, by symbol or note, the vertical location of the item (“under slab”, “in ceiling plenum”, “exposed” and the like).
 3. Make all identification so descriptive that it may be related reliably to the Specifications.
- F. Give attention to substitutions, selection of options, and similar information on work where is it concealed or otherwise cannot be discerned readily at a later date by direct observation. Note related record drawing information and product, where applicable.

3.2 FINAL PROJECT RECORD DOCUMENTS

- A. The purpose of the Final Project Record Documents is to provide information regarding all aspects of the Work, both concealed and visible, to enable future modification of the Work to proceed without lengthy and expensive site measurement, investigation and examination.
- B. Review and submittal:
 - 1. Submit the completed set of Final Project Record Documents to the Architect.
 - 2. Participate in review meetings as required.
 - 3. Make required changes and promptly deliver the Final Project Record Documents to the Architect.

3.3 CHANGES SUBSEQUENT TO ACCEPTANCE

- A. The Contractor has no responsibility for recording changes in the Work after Final Completion, except for changes resulting from work performed under Warranty.

END OF SECTION

SECTION 02010

EXISTING SURFACE AND SUBSURFACE CONDITIONS

PART 1 - GENERAL

1.01 INVESTIGATION

- A. Contractor shall visit the site and become acquainted with the existing site conditions, including, but not limited to: existing surface utilities, structures, topography and visible subsurface utilities and structures.
- B. Refer to GENERAL CONDITIONS OF THE CONTRACT, for Contractor's responsibilities prior to bidding.

1.02 SUBSURFACE INVESTIGATION REPORT

- A. If prior to bidding a Geotechnical Report has been prepared for information regarding the proposed site and has been furnished to the Owner the report shall be provided for bidding purposes.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 02050

SELECTIVE DEMOLITION AND REMOVAL WORK

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes all machinery, labor and materials necessary for the demolition and removal of items required to complete the Work. Selective demolition and removal work shall include but not be limited to the items called for in the Drawings.

1.02 QUALITY ASSURANCE

- A. Personnel employed by the Contractor to survey or verify the condition of structures shall be competent to determine both the condition of the framing, floors and walls and the possibility of unplanned collapse of any portion of the structure and shall have the authority to take prompt corrective action when necessary.

1.03 REQUIREMENTS OF REGULATORY AGENCIES

- A. Proper permits shall be obtained from the building department or departments having jurisdiction over the subject removal/demolition.
- B. Obtain certificates of severance of utility services as may be required.
- C. Obtain proper permits for the transport and legal disposal of all debris.

1.04 SUBMITTALS

- A. Submit proposed schedule of demolition activities. Indicate starting and ending dates for each activity as appropriate.
- B. Submit proposed methods of operation.
- C. Before starting work, file with the Architect/Engineer photographs documenting existing conditions which could be misconstrued as damage resulting from demolition operations.

1.05 PROJECT CONDITIONS AND PROTECTION

- A. Adjacent structures will be vacated during demolition operations.
- B. Protect tenants, pedestrians and personnel during all demolition operations.
- C. Erect covered walkways, barrier fences, guard rails, enclosures, and shoring to protect personnel, structures, and utilities that are to remain intact. Construct dust curtains/walls to contain contaminants generated from demolition operations. Construct in a manner to permit full access and use to unaltered spaces/areas. Refer to Section 01500 for additional requirements.
- D. Protect surrounding structures from any possible damage.

- E. Unanticipated Conditions: If unanticipated mechanical, electrical or structural elements which conflict with intended function or design are encountered, investigate and measure both the nature and extent of the conflict. Submit report to the Architect/Engineer in written, accurate detail. Pending directive from the Architect/Engineer, rearrange demolition schedule as necessary to continue overall job progress without delay.

1.06 MAINTAINING TRAFFIC

- A. Ensure minimum interference with roads, streets, driveways, sidewalks and adjacent facilities.
- B. Do not close or obstruct streets, drives, walks, or other facilities without written permission from authorities having jurisdiction.

PART 2 – PRODUCTS

Not Applicable

PART 3 – EXECUTION

3.01 EXAMINATION AND PREPARATION

- A. Verify items to be salvaged for the Owner and establish location of storage.
- B. Survey existing conditions and correlate with drawings and specifications to determine extent of demolition required.
- C. Insofar as is practicable, arrange operations to reveal unknown or concealed conditions for examination and verification before removal or demolition.
- D. Verify actual conditions to determine in advance whether removal or demolition of any element will result in failure or unplanned collapse.
- E. Perform continuing surveys as the work progresses to detect hazards resulting from demolition or construction activities.
- F. Protection:
 - 1. Ensure safe passage of persons around areas of demolition construct covered walkways as detailed.
 - 2. Conduct operations so as to prevent damage to adjacent buildings, structures, and other facilities to remain.
 - 3. Protect existing site appurtenances and landscaping that are to remain.
- G. Damages: Promptly repair, at no cost to the Owner, damages caused to facilities to remain.

3.02 POLLUTION CONTROLS

- A. Use water sprinkling, and other suitable methods to limit the spread of dust and dirt.
- B. Comply with governing regulations pertaining to environmental protection.

- C. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, or pollution.
- D. Clean adjacent structures and improvements, removing dust, dirt, and debris caused by demolition operations. Return adjacent areas to conditions which existed prior to the start of work.

3.03 DEMOLITION - GENERAL

- A. Remove: Items indicated to be removed and not otherwise indicated to be reinstalled or salvaged shall be removed and scrapped by the Contractor.
- B. Remove and Reinstall: Remove items indicated; clean, service, and otherwise prepare for service: reinstall in the location indicated.
- C. Remove and Salvage: Items indicated to be salvaged will remain the Owner's property. Carefully remove and clean item indicated to be salvaged; pack or crate to protect against damage; identify contents of containers: deliver to the locations indicated.
- D. Remove and Scrap: Remove and dispose of items indicated.
 - 1. All demolished or removed items and materials shall be considered scrap except for those indicated to remain, those indicated to be reinstalled, and those indicated to be salvaged. Do not store removed items on site.
- E. Existing to Remain: Construction or items indicated to remain shall be protected against damage during demolition operations. Where practicable, and with the Architect/Engineer's permission, the Contractor may elect to remove items to a suitable storage location during demolition and then properly clean and reinstall the items.
- F. Detailed requirements for cutting are specified under cutting and patching in Section 01045.
- G. Perform work in a systematic manner.
- H. Demolish and remove existing construction only to the extent required by new construction and as indicated in the contract documents.
- I. Perform selective demolition using methods which are least likely to damage work to remain and which will provide proper surfaces for patching.
- J. Remove debris daily.
- K. Cut concrete at junctions and constructions to remain using power-driven concrete.
- L. Use such methods as are necessary to complete the work within the limitations of governing regulations and the requirements of the contract documents.

3.04 DISPOSAL OF DEMOLISHED MATERIALS

- A. Promptly dispose of materials resulting from demolition operations. Do not allow materials to accumulate on site.
- B. Transport materials resulting from demolition operations and legally dispose of off-site.
- C. Do not burn removed materials on project site.
- D. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.

3.05 REPAIRS AND PATCHING

- A. Perform repairs in accordance with patching requirements specified in Section 01045.

3.06 CLEANING

- A. Upon completion of demolition work, remove tools and equipment and dispose of scrap.
- B. Return structures and surfaces to remain to condition existing prior to commencement of demolition.

END OF SECTION

SECTION 02060
BUILDING DEMOLITION

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Demolish designated structures.
- B. Remove materials from site.
- C. Remove foundations and basement floor slabs.
- D. Remove underground tanks and piping.
- E. Disconnect, cap and remove and identify utilities.

1.02 RELATED WORK

- A. Section 01500 – Temporary Construction Facilities
- B. Section 01546 – Safety and Health
- C. Section 01700 – Contract Closeout: Project record documents.
- D. Section 02100 – Clearing and Grubbing
- E. Section 02221 – Trenching, Backfilling and Compacting

1.03 SUBMITTALS

- A. Submit demolition and removal procedures and schedule under provisions of Section 01300.
- B. Submit record documents under provisions of Section 01700.

1.04 EXISTING CONDITIONS

- A. Conduct demolition to minimize interference with adjacent structures.

- B. Provide, erect, and maintain temporary barriers and security devices.
- C. Conduct operations with minimum interference to public or private thoroughfares. Maintain protected egress and access at all times.
- D. Do not close or obstruct roadways or sidewalks without permits.

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 PREPARATION

- A. Prevent movement or settlement of adjacent structures. Provide bracing and shoring.
- B. Protect existing landscaping materials and appurtenances structures which are not to be demolished.
- C. Disconnect, remove, and cap all utility lines within demolition areas unless noted otherwise.
- D. Mark location of disconnected utilities. Identify utilities and indicate capping locations on Project Record Documents.

3.02 EXECUTION

- A. Demolish indicated structures and appurtenances in an orderly and careful manner.
- B. Cease operations and notify Architect/Engineer immediately if adjacent structures appear to be endangered. Do not resume operations until corrective measures have been taken.
- C. Except where noted otherwise, immediately remove demolished material from site.

- D. Relics, antiques, and similar objects remain the property of the Owner. Notify Architect/Engineer prior to removal and obtain acceptance regarding method of removal. Relics and antiques may include:
1. Civil War Relics
 2. Native American Relics
 3. _____
- E. Remove materials to be re-installed or retained in manner to prevent damage. Store and protect under provisions of Section 01600. 01620.
- F. Remove and promptly dispose of contaminated, vermin infested, or dangerous material encountered.
- G. Do not burn or bury materials on site.
- H. Remove foundation walls and footings.
- I. Remove concrete slabs on grade.
- J. Remove underground tanks, components, and piping from site.
- K. Keep work sprinkled to minimum dust. Provide hoses and water main or hydrant connections for this purpose.
- L. Backfill areas excavated, open pits and holes caused as a result of demolition.
- M. Rough grade and compact areas affected by demolition to maintain site grades and contours.
- N. Remove demolished materials from site as work progresses. Leave site in clean condition.

END OF SECTION

02060-3

SECTION 02100

CLEARING AND GRUBBING

PART 1 - GENERAL

This work consists of clearing, grubbing, removing, and disposing of all debris and of all vegetation, building, and foundations not removed by others that are within designated construction area, except for such objects that the A/E designates to remain. The work shall also include preserving and protecting from injury or defacement all vegetation and objects designated to remain

The A/E will designate all trees, shrubs, plants, and other items that are to remain. Paint required for cut or scarred surfaces of trees or shrubs selected for retention shall be an asphaltum base paint prepared especially for tree surgery and approved by the A/E.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

- 3.1 Clear and grub completely the entire construction area of all weeds, brush, briars, bushes, trees, stumps, and other protruding obstructions not designated to remain, except within any areas which the A/E may designate to remain undisturbed. Undisturbed stumps and roots which are determined to be sound and are to remain a minimum of 5 feet below finished grade may remain in place.
- 3.2 Perform all clearing and grubbing operations in accordance with the applicable provisions for erosion control as shown on the Drawings and as required by local authorities.
- 3.3 Completely dispose of all materials resulting from clearing and grubbing off the site.
- 3.4 This work shall be done in advance of any excavation of embankment.

END OF SECTION

SECTION 02120

SOIL EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Includes but is not limited to the following:
 - 1. Silt Fences
 - 2. Baled Hay Filters
 - 3. Seeding
 - 4. Mulching
 - 5. Maintenance and Removal of All Sediment and Erosion Control Measures

1.02 RELATED SECTIONS

- A. Section 02110 - Site Clearing: Maintaining of erosion control during site clearing operations.
- B. Section 02200 - Earthwork: Maintaining of erosion control during earthwork operations.

1.03 SUBMITTALS

- A. Submit the following to the A/E for review:
 - 1. Product data and descriptive literature for all pre-manufactured erosion control devices.
 - 2. Laboratory certification of materials to be used.
 - 3. Seed certifications.

1.04 OPERATIONS AND MAINTENANCE

- A. Environmental Requirements:
 - 1. Comply with all rules and regulations governing the elimination and control of pollutants in storm water discharges associated with construction activities as regulated by Tennessee Department of Environment and Conservation (TDEC) and set forth in the National Pollution Discharge Elimination System (N.P.D.E.S.) permit requirements.
 - 2. The Contractor shall become familiar with the terms and conditions of rule 1200-4-10-.05 of the N.P.D.E.S., and understand that he or his Company, as the case may be, is responsible for compliance with this rule and applicable State and Federal laws. If required, the Contractor shall become signatory to the N.O.I. which has been submitted to the State D.E.C. by the Owner. If required, the Contractor shall submit an N.O.I. to the State D.E.C., and shall submit an erosion control base plan and any additional required phasing plans to the State prior to start of construction.
 - 3. The Contractor shall maintain records of checks and repairs on site. Erosion control procedures shall provide that all erosion controls are inspected at least once every seven calendar days or more frequently as required by State Relations. Records shall be maintained on site and submitted to the State as required. A sample "Erosion and Sediment Control Activity Status Inspection Report" is attached as a guide in complying with this requirement.
- B. Operations:
 - 1. Construction period erosion control shall be provided by a coordinated program of measures in compliance with TDEC rules and regulations under the National Pollution Discharge Elimination System (N.P.D.E.S.) program. The Contractor shall provide temporary stabilization measures where areas are exposed during clearing and grubbing or earthwork.
 - 2. Permanent control measures shall eliminate or minimize soil erosion measures after construction. This shall be

accomplished by constructing the proposed site improvements, including roadways, parking areas, and buildings, and by seeding and mulching the remaining exposed soil to produce a healthy stand of grass.

3. The purpose of temporary control measures is to eliminate or minimize soil erosion during construction.
4. Temporary erosion and sedimentation controls include, but are not limited to silt fences and hay bale filters. Temporary controls shall be constructed as to ensure that sedimentation pollution will be either eliminated or maintained within acceptable limits as established by regulatory requirements or applicable permit conditions.
5. Contractor is responsible for providing effective temporary erosion and sediment control measures during construction or until final controls become effective.
6. Work shall not commence until appropriate erosion control devices are in place. All permanent erosion control features shall be incorporated into the project at the earliest practical time.

- C. Maintenance: Maintenance of the erosion and sedimentation control facilities shall be the responsibility of the Contractor. Maintenance shall include the inspection of facilities after each significant rainfall event and on a periodic basis. Immediately after a storm event, erosion and sedimentation facilities and measures shall be cleaned, repaired and replaced as needed. Silt fences shall be inspected and restored to an upright and effective position after storms or at any time they are observed to be in need of maintenance.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Seeding and mulching shall conform to landscape plans and specifications.
1. Seed: Seed shall meet the requirements of the Tennessee Department of Agriculture and no "Below Standard" seed will be accepted.
 - a. Seed shall be furnished in new bags that are sound and not mended.
 - b. Each bag of seed shall bear the growers guarantee of analysis.
 - c. Wet, moldy or otherwise contaminated seed shall be rejected.

APRIL THRU AUGUST

<u>NAME OF GRASS</u>	<u>PURITY</u>	<u>APPLICATION RATE</u>	
		<u>GERMINATION</u>	<u>PER ACRE</u>
Kentucky 31 Fescue	98%	85%	262 lbs.
Bermudagrass (11)	98%	85%	10 - 20 lbs.
Weed seed content shall not exceed 0.25%.			

- B. Silt fences, hay bale filters and other temporary erosion controls shall meet the requirement of the Tennessee Erosion and Sediment Control Handbook standard details.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Submit a schedule at the preconstruction conference for providing the soil erosion and sediment control measures required by the plans and specifications.
1. Incorporate the project's permanent erosion control features into the project at the earliest possible time. Perform and schedule clearing and grubbing and earthwork operations in ways that allow permanent erosion control features to follow as soon as possible.
 2. Seed and Mulch: Install seed and mulch as required.
 3. Maintain all sediment and erosion control facilities as required to assure their effective and continued operation.
 4. Install temporary erosion controls in accordance with Tennessee Erosion and Sediment Control Handbook.
 5. Completely remove all sediment and erosion control measures not required for subsequent construction at the completion of each phase of construction. Restore all disturbed areas to the satisfaction of the A/E.

END OF SECTION

REMOVAL OF STRUCTURES AND OBSTRUCTIONS 02151

PART 1 - GENERAL

1.1 This work consists of removing, either wholly or in part, and satisfactorily disposing of all building, fences, structures, pavements, abandoned pipelines, and any other obstructions that the A/E does not designate to remain.

1.2 Raze, remove, and dispose of all buildings and foundations, structures, fences, and other obstructions in the construction area except for (a) utilities, (b) those items for whose removal other provisions have been made, or (c) those items designated to remain. Dispose of all material off site or as approved by the A/E.

1.3 Fill cavities left by structure removal to the level of the surrounding ground with an approved fill material.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION

SECTION 02200

EARTHWORK

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes removal and disposal of unsuitable material, drainage during and after construction, supplying suitable fill material obtained from the Contractor's borrow area, the placement and compaction of the fill material into place, and the finish grading. Also, includes fine grading of areas of the site disturbed by construction operations, material storage and staging operations. Leave such areas ready to receive seed and/or sod.

1.02 QUALITY ASSURANCE

- A. Laboratory Testing:
 - 1. If required by the Owner or A/E, retain the services and pay the cost of an independent testing laboratory for soil testing. The A/E shall meet with the testing laboratory and earthwork contractor prior to commencement of earthwork operations to discuss the particulars of the testing and to review the proposed plan of operation for the earthwork.
 - 2. Field density and moisture checks shall be made in accordance with the Standard Proctor Tests Methods ASTM D 698.
 - 3. When the test indicate that the density of any layer of fill or portion thereof is below the required density, the particular layer or portions shall be reworked until the required density has been obtained.
 - 4. Laboratory testing and approval of subgrade is required.
 - 5. Laboratory service is provided as an assurance to the Owner, and in no way relieves the Contractor of his responsibility for quality materials and workmanship required to meet this specification.
- B. Retain the services and pay the cost of a licensed Geotechnical Engineer to monitor all earthwork activities, if required.
- C. Prior to performing any site clearing, excavation and /or trenching operations, call Tennessee One Call Buried Utility Location, 1-800-351-1111.

1.03 SUBMITTALS

- A. Submit copies of technical data describing the materials shall be delivered to the A/E for review. Technical data shall include proctor test of each type of material, moisture density curves, compaction test, plasticity indexes.

1.04 JOB CONDITIONS

- A. Existing Utilities: Locate existing underground utilities in areas of work. If utilities are to remain in place provide adequate means of support and protection during earthwork operations.
 - 1. Notify Owner for the purpose of making personal inspection of all records showing locations of buried and underground utilities. Conduct a walking examination to physically verify locations of existing utilities and any conflicts with the proposed construction and the location of existing utilities.

- B. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult utility owner immediately for directions.
- C. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies for shut-off or services if lines are active.
- D. Protection of Persons and Property: Barricade open excavations occurring as part of this work and post with warning lights. Operate warning lights as recommended by authorities having jurisdiction.
- E. Protect trees, structures, utilities, pavements, fencing and other appurtenances from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations. Restore damaged improvements to their original condition as acceptable to parties having jurisdiction.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Fill material (as required) shall be secured from approved borrow areas. No rocks or lumps having a diameter greater than three inches (3"), no brush, roots, sod, debris or any material subject to termite attack, rot or corrosion, or any other unsuitable materials shall be placed in the fill. Material for fill, excluding top soil shall be as approved by the Geotechnical Engineer employed by the Contractor, if required.

PART 3 – EXECUTION

3.01 INSPECTION

- A. Prior to bidding, visit the job site and determine the conditions under which the Work will be performed.
- B. Communicate with all local utilities.

3.02 PROTECTION

- A. Maintain carefully all bench marks, monuments and other reference points; if disturbed or destroyed, replace as directed.

3.03 STRIPPING FOR FILL

- A. Areas to be covered by compacted fill shall be stripped a minimum of 6" or excavated to a sufficient depth to remove all material not suitable for fill. Soft unstable earth, organic matter and other objectionable material shall be removed from the surface upon which the fill is to be placed, and the surface shall then be plowed or scarified to a depth of at least 6" until the surface is free from ruts or other uneven features which would tend to prevent uniform compaction by the equipment to be used. Stripped areas shall be recompacted before placing fill.
- B. Provide adequate drainage of the fill after stripping to prevent ponding of water. Maintain the stripped area free from objectionable materials until the fill material has been placed thereon. In

the area of fill outside the excavated area, after stripping, test for soft spots by proof rolling in the area with a 20-ton pneumatic roller or a loaded dump truck in the presence of the soils laboratory representative. Repeated passes during proof rolling should be avoided to avoid pumping the deeper soils.

3.04 UNDERCUTTING

- A. Unsuitable material shall be undercut, reworked for use as compacted fill and/or disposed of as directed by the above referenced Geotechnical Engineer. Replace unsuitable undercut material with compacted material with approved borrow and/or reworked undercut material. Extent of undercutting (where required) is to be judged by the project Geotechnical Engineer and shall be documented in their reports.

3.05 DISPOSAL OF UNSUITABLE MATERIAL

- A. All materials obtained from required excavations which is not suitable for use as fill or as topsoil shall be removed from the site.

3.06 PLACEMENT OF FILL MATERIALS

- A. Filling (where required) shall begin in the lowest section of each specified fill area. Contractor shall spread the fill soil in approximately horizontal layers over the fill areas. Each layer shall be thoroughly blade mixed during the spreading to insure uniformity of material in each layer. The loose thickness of each layer shall be 6" maximum. The surface of each layer shall be provided with sufficient longitudinal and transverse slope to provide for runoff of surface water from every point.
- B. Filling shall be conducted so that no obstruction to drainage from other sections of the fill area is created at any time. Sumps or ditches, if any, to be used for drainage control shall be continuously maintained in effective operating conditions.

3.07 MOISTURE CONTROL

- A. Immediately before placing the material for a layer, if necessary, wet the rolled surface of the preceding layer of the foundation. If water must be added on top of the lift to increase the moisture content to the appropriate value, manipulation of the fill material will be required to work the moisture into the material until a uniform distribution of moisture has been produced. The amount of water applied on the fill shall be accurately controlled and shall be sufficient to dampen the material as required. Process soils used for fill to a moisture content within 2% above and not more than 2 % below the optimum value as determined by the Proctor Test during compaction.
- B. Should the fill material be dumped, spread, or moistened, be too wet to permit the securing of the desired compaction, rolling shall be delayed until the material has dried to the required moisture content.

3.08 COMPACTION

- A. **Compaction Equipment:** Select and furnish equipment which will compact the fill, at optimum moisture, uniformly to the required density.
- B. **Compaction Procedure:** After each layer (lift) has been placed, brought to the proper moisture content, mixed, and spread evenly, it shall be thoroughly compacted to the specified density. Compaction of each layer shall be continuous over its entire area and the compaction equipment shall make sufficient trips to ensure that the required density has been obtained.
- C. **Seasonal Limits:** No fill material shall be placed or compacted while it is frozen or thawing or during unfavorable weather conditions. When the work is interrupted by heavy rain or freezing weather, fill operations shall not be resumed until the testing Lab indicates that the moisture content and density of the previously placed fill are as specified.
- D. **Amount of Compaction:**
 - 1. Each layer of cohesive fill is to be compacted in 6" loose lifts as uniformly as practicable, by suitable equipment so that the completed fill layer will have a minimum dry density as of 95 % in accordance with ASTM D 698. At the time of compaction, the material in each layer of fill is to have a moisture content sufficiently close to the optimum value for compaction, as determined by the Testing Lab. If the fill material is too wet, it shall be disced, spread and dried; if too dry, water may be applied uniformly to the borrow material as indicated above in these specifications.
 - 2. Each layer of compacted fill is to be tested by the soil testing laboratory before placement of the next lift. When a portion of the fill is found to be unsatisfactory, the A/E may instruct the Contractor to continue compaction in an attempt to attain the required density, as specified. The A/E may require removal, replacement and recompaction of the material in the unsatisfactory area, or he may require removal of the material and replacement with other compacted soil.
 - 3. Portions of the fill which cannot be reached and effectively compacted by the compaction equipment shall be placed in 4" layers and compacted with suitable mechanical hand-tamping equipment, all such backfill to be compacted to the density specified for the general area fill.

3.09 EXCAVATING

- A. Excavate where and as necessary to obtain grade elevations as shown on the drawings or hereinafter specified. Do all filling, backfilling and grading required to bring the project area to grades as shown on Drawings. Shore, sheet and/or brace excavations as required to maintain them secure; remove shoring as the backfilling progresses, but only when banks are safe against caving. Such shoring shall not constitute a condition for which any increase in the contract price may be made.
- B. Keep excavations free from water. Do not discharge water from excavation onto privately owned property. Make no excavations to the full depth indicated when freezing temperature may be expected, unless the concrete can be poured immediately after the excavation has been completed. Protect bottoms of excavations from frost if placing of concrete is delayed.

3.10 CLEANUP

- A. Complete the grading operations after buildings have been finished, utilities installed, site improvement constructed, and all materials, rubbish and debris removed from the site. Leave subgrade for lawn areas clean at required grades.

END OF SECTION

SECTION 02203

EMBANKMENT

PART 1 – GENERAL

- 1.1 This work shall consist of forming embankments, other than for building pads, with materials from excavation or other approved sources and in conformance with the lines, grades and cross-section shown on the Drawing.
- 1.2 Complete the clearing and grubbing of embankment areas in accordance with the requirements of Section 02100 before placing embankment thereon.
- 1.3 Conduct all embankment operations in accordance with the requirements of the erosion control plan approved by the A/E.
- 1.4 Embankment under building pads should be in accordance with recommendations from a Geotechnical Engineer.

PART 2 – PRODUCTS

- 2.1 Use only acceptable materials in embankment formation. Place no frozen material, stumps, logs, roots or other perishable materials in any embankment. Place no stone or masonry fragment greater than 4 inches in any dimension within 12 inches of the finished subgrade elevation.

PART 3 – TESTING

- 3.1 Contractor shall be responsible for all testing to ensure compliance with contract documents and Section 01400.

PART 4 – EXECUTION

- 4.1 Remove topsoil from all embankment areas.
- 4.2 Form soil, soft shale, soft sandstone, weathered rock, bank gravel or creek gravel embankment by distributing the material in successive uniform horizontal layers no more than 12 inches thick (loose depth) to the full width of the cross-section. However, layers less than 12 inches in loose thickness will be required whenever necessary to obtain the specified density. Compact each layer as specified below. Shape the upper surface of the embankment so as to provide complete drainage of surface water at all times. The forming of ruts will not be permitted.
- 4.3 Compact the embankment to a density of at least 95 percent of the maximum density as determined by ASTM D698 (Standard Proctor).
- 4.4 During compaction, embankment material that does not have enough moisture for proper compaction, shall have water added and thoroughly mixed as necessary to obtain proper compaction. Embankment material containing an excess of moisture shall be allowed to dry before compacting; manipulating as necessary to speed drying.
- 4.5 Perform construction operations so that simultaneous rolling and placing of material in the same lane or section is prevented. To avoid uneven compactions, see that hauling equipment traverses the full width of the cross-section as much as possible. Compact each layer as necessary before depositing material for the next layer.
- 4.6 The density requirements shall be the controlling factor in compaction. Use only such equipment as will satisfy the density requirements at all times.

- 4.7 For embankment adjacent to structures, including utility structures, first construct backfill in accordance with Section 02201, General Excavation.
- 4.8 When embankment is placed around adjoining or opposite faces of a structure, compact it to the same level on all sides before proceeding to the next layer. As precaution against wedging action, begin compaction for each layer next to the structure.
- 4.9 Construct embankments adjacent to structures as outlined to the height of the structure and slope far enough away from the structure to permit easy access of compacting equipment used in normal embankment construction.

END OF SECTION

SECTION 02260

FINISH GRADING

PART 1 - GENERAL

1.1 The work called for by this section shall include, but not necessarily be limited to, finish grading and the spreading and shaping of topsoil to the finished contour elevations indicated by the drawings or to match existing grades. In all circumstances positive drainage must be achieved on site.

1.2 Refer to other sections for work related to that specified under this heading. Coordinate this work with that specified by other sections for timely execution.

PART 2 - PRODUCTS

2.1 TOPSOIL: Use stripped topsoil that has been stockpiled as specified elsewhere. If the quantity of topsoil on the job is inadequate, furnish enough additional topsoil. Topsoil furnished shall be natural, fertile, friable soil possessing characteristics of representative productive soils in the vicinity. It shall be obtained from naturally well-drained areas. It shall not be excessively acid or alkaline nor contain toxic substances that may be harmful to plant growth. Topsoil shall be without admixture of subsoil and shall be cleaned and reasonably free from clay lumps, stones, stumps, roots, or similar substances 2 inches or more in diameter, debris, or other objects that are a hindrance to planting operations. Such material shall be subject to testing.

PART 3 - EXECUTION

3.1 Do not begin work until the earth is dry enough to be tillable.

3.2 Inspect subgrades to see that they generally conform to the standards called for elsewhere in these specifications, particularly with regard to the approximate depths required for the work. After work is completed, inspect it to ensure that all finish grading complies with design requirements.

3.3 Place finished grade stakes wherever necessary to bring the work accurately to the elevation required by the Drawings.

3.4 Finish grade all areas outside the building line to the depths required for the work as follows:

- A. Grade uniformly with rounded surfaces at the tops and bottom of abrupt changes of planes.
- B. Hand grade steep slopes and areas that are inaccessible for machine work.
- C. Protect graded areas from undue erosion, and repair and regrade areas where erosion does occur.
- D. Refill areas where noticeable settlement has occurred.
- E. Finish grade areas that are to receive topsoil up to 4 inches below the finished contour elevations called for by the drawings or, over rock, to 12 inches below these elevations.

3.5 Place topsoil uniformly over disturbed areas that do not receive other work as follows:

- A. Obtain approval of the finish grading from the A/E before starting to place topsoil.
- B. Scarify subgrade to a depth of 3 inches.
- C. Place the topsoil to a depth of 4 inches when lightly rolled or, on rock, to a depth of 12 inches.

- D. Level the topsoil so that it slopes uniformly and has no water pockets.
- E. Carefully rake the topsoil by hand to remove all clods, roots, sticks, stones over 1 inch in diameter, and other foreign materials from the surface.

3.6 Dispose of excess excavated materials and debris away from the site.

END OF SECTION

SECTION 02281

TERMITE CONTROL

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Furnishing all labor, equipment, and materials and installing the termite control system specified below.

1.02 RELATED SECTIONS

- A. Section 02200 - EARTHWORK.
- B. DIVISION 3 - CONCRETE.
- C. DIVISION 15 - MECHANICAL.
- D. DIVISION 16 - ELECTRICAL.

1.03 QUALITY ASSURANCE

A. Applicator Qualifications:

- 1. Registration or licensed where required by state, county, or city jurisdiction.
- 2. Submittals: Submit evidence that the applicator has been engaged in the successful termite control applications for at least five years.
- 3. Submittals: Submit the design application and the manufacturer's mixing and application instructions to the Architect for approval.
- 4. Records: A complete and accurate record of all applications and testing reports shall be furnished to the Architect. The records shall indicate locations, applicators name and his signature, quantities dispensed over what areas and the chemicals, and their proportions used and the chemical manufacturer.

B. Testing:

- 1. Samples shall be taken from each 1,000 square foot areas of work for solution analysis of chemical concentration by an independent testing laboratory, except that testing is not required when the applicator provides a bonded or insured contract which is non-cancelable by all parties except the Owner.
 - a. Test each sample for the proper proportion as specified herein.
 - b. All areas shall be retreated if the test results average is less than 90 percent of the listed minimum concentration.
 - c. Take one sample of each drum or truck load of each working solution for analysis of chemical concentration.

1.04 GUARANTEE

- A. Upon completion of soil treatment, and as a condition of final acceptance and payment, the contractor shall provide the owner with a written five year guarantee.

- B. The guarantee shall state that the application was made at the concentration, rates, and methods which comply with these specifications
- C. The effectiveness of the treatment is guaranteed for not less than five years, without additional cost to the Owner.
- D. At the end of the five year period the Owner shall be offered a renewable contract (guarantee) on a year-to-year basis, at the Owner's option, at an agreed upon annual fee.
- E. Damage to the building caused by termites shall be corrected without cost the Owner, up to \$10,000.00 in value.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Toxicants:
 - 1. Use only water-based emulsion soil chemicals of one of the following:
 - a. Dieldrin - 0.5 percent.
 - b. Aldrin - 0.5 percent.
 - c. Heptachlor - 0.5 percent.
 - d. Other proprietary materials if:
 - 1) They meet a five year field test conducted by the US Forest Service.
 - 2) They contain one or more of the above name chemicals if concentrations given.
 - 3) Proof shall be provided that no toxic effects to humans or beneficial plant and animal life will result from their use.
 - 4) Approved by EPA and Federal Insecticide, Fungicide and Rodenticide Act, and with the appropriate state agency (State Chemist, State Department of Agriculture and State and Local Health Department).

PART 3 – EXECUTION

3.01 SOIL TREATMENT

- A. Apply soil treatment of chemical-water emulsion, evenly distributed in the following locations and in stated dosages and manner:
 - 1. Treat fills and undisturbed earth within one foot from each side of exterior walls, interior walls, piers, columns and other similar interior construction at rate of 4 gallons per 10 cubic feet of such fills and undisturbed earth.
 - 2. Treat fills around each vertical utility pipe or conduit at rate of 1.5 gallons per 10 square feet for a minimum distance of 4 feet surrounding areas.
 - 3. Treat fills over utility pipes, conduit, and other trenches within building walls at rate of 4 gallons per 10 cubic feet of such fill.
 - 4. Treat subgrades on which concrete or masonry will be supported, except footings, at rate of 1.5 gallons per square feet.
 - 5. Miscellaneous: apply soil treatment at the rate of 2 gallons per 5 linear feet in the following areas.
 - a. Immediately below all expansion joints, control joints, and areas where slab will be penetrated by construction features.

- b. Where exterior facings or veneers extend below grade level along exterior side of foundations or where unit masonry foundation is used.

B. Application Technique:

- 1. Do not make treatments when soil is excessively wet, or immediately after rains to avoid surface flow of intoxicant from application site.
- 2. Unless treated soil is to be promptly covered with membrane vapor barrier, take adequate protection to prevent disturbance and human or animal contact with treated soil.

END OF SECTION

SECTION 02290

SELECT FOUNDATION, BEDDING, AND BACKFILL

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes furnishing and installation of select foundation, bedding and backfill material required for pipelines and utility appurtenances where the existing foundation and/or native material has been determined unsuitable for use.

1.02 QUALITY ASSURANCE

- A. Placement of this material shall conform to the requirements contained in Section 02221, Trenching, Backfilling, and Compacting, or any other Sections that, in the opinion of the Engineer, are applicable.
- B. If, in the opinion of the Engineer, the existing native material is unsuitable for use, promptly replace the material with materials contained in this Specification and as approved by the Engineer.
- C. Testing Agency:
 - 1. In-place compaction tests shall be performed by testing laboratory employed by the Contractor.
 - 2. Tests on material for controlled fill shall be performed by the testing laboratory employed by the Contractor.

1.03 SUBMITTALS

- A. Submit to the Engineer for review copies of testing laboratory reports that material for controlled fill meets the requirements of this Section.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Sand: Sand shall be clean granular material secured from an approved source. The material may be natural or artificial mixtures such as concrete sand free of organic matter and shall be graded as follows:

<u>Sieve Description</u>	<u>Per Cent By Weight Passing Square Mesh Sieve</u>
No. 10	100
No. 40	80 – 100
No. 60	30 – 100
No. 100	15 – 80
No. 200	0 – 30

- B. Sand Clay: All materials shall be secured from approved sources. Sand clay will consist of natural or artificial mixtures of clay or soil binder and gravel, sand or other aggregates. The material shall be free from organic matter and shall be graded as follows:

<u>Sieve Description</u>	<u>Per Cent By Weight Passing Square Mesh Sieve</u>
1 inch	100
No. 10	65 – 100

Soil mortar shall be that portion passing the No. 10 sieve, shall have a liquid limit of less than 25 and shall be non-plastic, and shall be graded as follows:

<u>Sieve Description</u>	<u>Per Cent By Weight Passing Square Mesh Sieve</u>
No. 10	100
No. 20	55 – 90
No. 40	35 – 70
No. 200	8 – 25

- C. Unsuitable Material: All material determined unsuitable for bedding, foundation and backfill shall be removed from the construction site.

END OF SECTION

SECTION 02374

EROSION AND SEDIMENT CONTROL

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Measures necessary to control soil erosion resulting from construction operations, prevent flow of sediment from construction site, and contain excavated or fill materials within protected working area as to prevent damage to any river, stream or wetlands.

- B. Related Sections:
 - 1. Section 02241 - Dewatering.
 - 2. Section 02311 - Rough Grading.
 - 3. Section 02315 - Excavation and Fill.
 - 4. Section 02324 - Trenching.
 - 5. Section 02923 - Landscape Grading.
 - 6. Section 02924 - Seeding.

1.2 REFERENCES

- A. City of Memphis/Shelby County Storm Water Management Manual, June, 2006.
www.cityofmemphis.org/pdf_forms/002-Volume2_DrainageManual.pdf

- B. TDEC Tennessee Erosion and Sediment Control Handbook, March, 2002.
www.state.tn.us/environment/wpc/sed_ero_controlhandbook/eschandbook.pdf

1.3 SUBMITTALS

- A. Section 01330 - Submittal Procedures: Requirements for submittals.

- B. Product Data: Submit data on geotextiles, wattles, and rolled erosion control mats.

- C. Two weeks prior to the start of the work, submit a plan with detailed sketches showing the proposed methods to be used for controlling erosion during construction.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with the applicable requirements of the following documents:
 - 1. City of Memphis/Shelby County Storm Water Management Manual.
 - 2. TDEC Erosion and Sediment Control Handbook.

- B. Use acceptable procedures, including use of water diversion structures, diversion ditches, settling basins, and sediment traps.

- C. Operations restricted to areas of work indicated on Drawings and area which must be entered for construction of temporary or permanent facilities.

- D. If excavated or fill materials are washed away during construction, remove materials from fouled areas.
- E. Engineer has authority to direct immediate temporary erosion control measures to prevent contamination of any stream or wetlands, including construction of temporary berms, dikes, dams, sediment basins, sediment traps, slope drains, and use of temporary mulches, mats, or other control devices or methods to control erosion.

1.5 PRE-INSTALLATION MEETINGS

- A. Section 01300 - Administrative Requirements: Pre-installation meeting.
- B. Convene minimum one week prior to commencing work of this Section.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Mulches:
 - 1. Hay, straw, wood chips or other suitable material acceptable to Engineer.
- B. Temporary Sediment Tubes and Straw Wattles:
 - 1. Composed of compacted geotextiles, curled excelsior wood, natural coconut fibers, hardwood mulch or a mix of these materials enclosed by a flexible netting material. Outer netting shall consist of seamless, high-density polyethylene photodegradable materials treated with ultraviolet stabilizers of a seamless, high-density polyethylene non-degradable material. Diameter shall range from 18-inches to 24-inches. Loose materials that are rolled up to create a sediment log are not allowed under this Specification.
- C. Silt Fence:
 - 1. Type: TDEC, Type C.
 - 2. Geotextile: Woven, non-biodegradable, geotextile filter fabric made specifically for sediment control. Filter fabric shall not rot when buried and shall resist attack from soil chemicals, alkalis and acids in the pH range from 2 to 13, and shall resist damage due to prolonged ultraviolet exposure.
 - 3. Manufacturers:
 - a. Carthage Mills, Type FX-11.
 - b. Propex Inc., Geotex 2130.
 - c. Substitutions: Section 01600 - Product Requirements.
 - 4. Posts: Steel. Posts shall be 4 ft. long, and installed at a spacing of 4 feet.
- D. Straw with Net Temporary Rolled Erosion Control Mat (RECM):
 - 1. The mat shall consist of clean wheat straw from agricultural crops made into a knitted straw mat that is machine assembled. The straw shall be evenly distributed throughout the mat. The mat shall be covered with a photodegradable synthetic mesh attached to the straw with degradable thread. Provide matting with a minimum bare soil shear stress value of 1.5 lb/sq. ft.
 - 2. Manufacturers:
 - a. American Excelsior Co., Curlex I CL.
 - b. North American Green, S150.

- c. Contech Construction Products Inc., SFB1.
 - d. Substitutions: Section 01600 - Product Requirements.
 - 3. Place the straw with net temporary RECM as required or where directed, immediately after the slope has been properly graded and prepared, fertilized, and seeded. If the mat is of single net construction, the netting shall be on top with the straw in contact with the soil.
 - 4. Immediately repair or replace any section of straw with net temporary RECM and slope RECM which is not functioning properly or has been damaged in any way until a stable growth of grass has been established.
- E. Curled Wood or Coconut Fiber Rolled Erosion Control Mat (RECM):
 - 1. The mat shall consist of machine-produced mat of curled wood excelsior or coconut fiber with a majority of the fibers 6 inches or longer with consistent thickness and the fibers evenly distributed over the entire area of the mat. The top of the mat shall be covered with a biodegradable synthetic mesh. The mesh shall be attached to the curled wood excelsior or coconut with photodegradable synthetic yarn. Provide matting with a minimum bare soil shear stress value of 2.0 lb/sq. ft.
 - 2. Manufacturers:
 - a. American Excelsior Co., Curlex II CL.
 - b. North American Green, C125.
 - c. Contech Construction Products Inc., EFB4.
 - d. Substitutions: Section 01600 - Product Requirements.
 - 3. Place the curled wood or coconut fiber RECM as required or where directed, immediately after the slope has been properly graded and prepared, fertilized, and seeded. If the mat is of single net construction, the mesh shall be on top with the fibers in contact with the soil.
 - 4. Repair or replace any section of curled wood or coconut fiber RECM which is not functioning properly or has been damaged in any way until a stable growth of grass has been established.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01300 - Administrative Requirements: Verification of existing conditions before starting work.

3.2 SITE STABILIZATION

- A. Incorporate erosion control devices into the Project at the earliest practicable time or concurrent with the clearing operations in a given area.
- B. Construct, stabilize and activate erosion controls at locations disturbed by construction operations and for the settling of water pumped from excavations or trenches before site disturbance within tributary areas of those controls.
- C. Discharge silt-laden water from excavations onto filter fabric mat or sediment traps to ensure that only sediment-free water is returned to watercourses.

- D. Do not place excavated soil material adjacent to water-course in manner that will cause it to wash away by high water or runoff.
- E. Do not pump silt-laden water from trenches or excavations into surface waters, streams, wetlands, or natural or man-made channels leading thereto.
- F. Stockpile and waste pile heights shall not exceed 10 ft. Slope stockpile sides at 2:1 or flatter.
- G. Stabilize any disturbed area of affected erosion control devices on which activity has ceased and which will remain exposed for more than 15 days.
 - 1. During non-germinating periods, apply mulch at recommended rates.
 - 2. Stabilize disturbed areas which are either at finished grade or will not be disturbed within one year in accordance with Section 02924 permanent seeding specifications.
- H. Stabilize diversion channels, sediment traps, and stockpiles immediately.

3.3 FIELD QUALITY CONTROL

- A. Section 01400 - Quality Requirements: Field inspecting, testing, repair, maintenance and adjusting.
- B. Inspect erosion control devices twice per calendar week at least 72 hours apart and after each rainfall event greater than 1/2 inch. Make necessary repairs to ensure erosion and sediment controls are in good working order within 7 days or before next rain event.
- C. Engineer may direct the Contractor to place RECM's to permanent channels or on slopes if erosion caused by construction operations is not properly controlled.

3.4 CLEANING

- A. Section 01700 - Execution Requirements: Requirements for cleaning.
- B. When sediment accumulation in sedimentation structures has reached a point one-half depth of sediment structure or device, remove and dispose of sediment.
- C. Do not damage structure or device during cleaning operations.
- D. Do not permit sediment to erode into construction, storm sewers or natural waterways.

END OF SECTION

SECTIN 02510
CONCRETE SIDEWALKS

PART 1 – GENERAL

1.01 REQUIREMENTS

- A. Applicable provisions of the GENERAL CONDITIONS and of DIVISION 1 – GENERAL REQUIREMENTS govern all work specified in the Section.

1.02 RELATED WORK

- A. The following related work is specified in other Sections:
 - 1. Section 02200 – Earthwork
 - 2. Section 03300 - Cast-In-Place Concrete

1.03 REFERENCES

- A. American Society of Testing and Materials (ASTM):
 - 1. ASTM D 1751-83 (1991), latest revision, Specification for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types)

1.04 SCOPE

- A. This section covers all labor, tools, equipment and materials, including minor Excavation and fine grading required to construct concrete sidewalks on previously prepared grade at the locations shown on the plans and as hereinafter specified.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Concrete:
 - 1. Proportion mix and place in accordance with the requirements of SECTION 03300: CAST-IN-PLACE CONCRETE, except as herein modified. Concrete to have limestone aggregate and 4 to 6% air entrainment. Concrete will have minimum twenty eight (28) day strength of 4,000 psi with a minimum slump of one (1) inch and a maximum slump of three (3) inches, unless otherwise Designer approved or directed.
 - 2. Reinforcing:
 - a. 6 x 6 x w1.4 x 1.4 minimum
- B. Expansion Joint Filler:
 - 1. Preformed, non-extruding and resilient, bituminous type expansion joint filler conforming to ASTM D 1751-83 (1991), latest revision. The width will be three-eighths (3/8) inch, except that, where adjoining pavements is concrete, the width will match that of the expansion joint filler in the adjoining concrete pavement.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Subgrade:
 - 1. Prepare subgrade in accordance with the requirements specified in SECTION 02200: EARTHWORK

B. Concrete Sidewalks:

1. Thickness will be four (4) inches unless otherwise shown or detailed on the plans or directed by the Designer. Cut the surface of concrete walks into flags by marking with an edging tool having a radius of one-fourth (1/4) inch. Flags will be no longer than six (6) feet.
2. Form sidewalks to "turn-down" their own thickness at terminal points or ending points. Extend the turn-down or extra thickness for the width of the sidewalk. On steep grades or at soft spots in the subgrade, pour post holes eight (8) inches in diameter and eighteen (18) inches in depth monolithically with the sidewalk slab when so directed by the Designer.
3. Slight adjustments will be made in the grades and cross-slopes of walks to connect with existing sidewalks or other work, and/or improve drainage. Introduce short vertical curves at all summits and valleys where the algebraic difference in grade slopes equals or exceeds two (2) percent.
4. Install three-eighths (3/8) inch transverse expansion joints with pre-molded filler. Maximum spacing will not exceed twenty five (25) feet. Install expansion joints where walks terminate at curbs, at both the top and bottom of steps, around utility structures and at sidewalk intersections. Such expansion joints are not required (except at curb returns) between walks and contiguous parallel curbs.

3.02 FINISH

- A. Tamp and screed sufficiently to bring the necessary mortar to the surface for finishing and give the new concrete a steel trowel finish with light brooming. Round to one-fourth (1/4) inch radius all edges, including edges at dummy joints and expansion joints.

3.03 FIELD QUALITY CONTROL

- A. Field testing will be performed under provisions of Section 01410.
- B. Three concrete test cylinders will be taken for every 100 or less cu. yds. Of concrete place each day.
- C. One additional test cylinder will be taken during cold weather and cured on site under same conditions as concrete it represents.
- D. One slump test will be taken for each set of test cylinders taken.
- E. Maintain record of places concrete items. Record date, location of pour, quality, air temperature, and test samples taken.

3.04 CURING AND PROTECTION

- A. Curing:
 1. Conform to the requirements specified under SECTION 03300: CAST-IN-PLACE CONCRETE, unless otherwise directed by the Designer.
- B. 1. Protect as specified under SECTION 03300: CAST-IN-PLACE CONCRETE. Under no circumstances allow traffic of any type on concrete sidewalks until at least seven (7) days have elapsed after placing the concrete.

3.05 CLEAN UP

- A. Refer to SECTION 01710: CLEANING.

END OF SECTION

SECTION 02513

ASPHALT PAVING

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes asphalt pavement system as detailed on the Drawings at areas indicated.
- B. The extent of these improvements are shown on the plans or indicated herein. Paving shall be so executed to provide a smooth, even surface with uniform slopes, draining properly, without pocketing water.
- C. The finish grade contours and/or spots grades indicate the finish grade on the top surface of paving, sidewalks, curbs, gutters, inlets, etc., and are designed to drain properly. The Contractor shall check the work performed under other Divisions to be sure the work is so executed to provide the proper foundation at the proper elevation for the work under this Section, finish at the elevations shown.
- D. Coordinate this work, and do not execute any of the work under section until the condition of the existing subgrade is such that it will not cause any failure of the paving or improper elevation of paving work due to improper subgrade elevations. Correct, at no cost to the Owner, any faults, errors, or failure occurring in the paving.
- E. Patching: Work under this Section shall include all patching of paving required by work of this Division or other Divisions of this Specification. This work to include but not limited to patching necessitated by utility cuts. All street patching shall be done in strict accordance with the requirements of the State of Tennessee.

1.02 RELATED SECTIONS

- A. Section 01410 – Testing Laboratory Services: Testing of prepared subgrade. Testing of asphalt materials. Testing of completed pavement installation.
- B. Section 02200 – Earthwork: Subgrade preparation for pavement system.
- C. Section 02515 – Site Concrete: Coordination of pavement operations with concrete placement.
- D. Section 02580 – Pavement Markings: Traffic lines and markings applied to the completed pavement.

1.03 QUALITY ASSURANCE

- A. Testing: Contractor shall engage and pay for the services of an independent testing laboratory for asphalt pavement design and in-place testing for Quality Control prior to production. The testing laboratory shall be required to test all materials for conformity with the Specifications. Non-conforming materials shall NOT be delivered to the job site. Samples of the completed installation shall be made in areas directed by testing laboratory. Such samples shall be delivered to the laboratory for testing. Reports of the results shall be provided to the Architect and Owner. All portions of the installation found to be not in conformity with the Specifications shall be removed and replaced. Quality Assurance Testing and Inspection during production will be performed by Owners testing lab.
- B. Standard Specifications referred to in this Section shall be taken to mean the current edition of the Standard Specifications for Road and Bridge Construction as published by the Tennessee

Department of Transportation (TDOT). Other specific requirements herein are to be considered as a minimum allowable specification.

1.04 JOB CONDITIONS

- A. Protection: After installation, pavement shall be adequately protected against damage by any workmen, vehicles, equipment, or materials. Do not store materials on pavement. Permit only rubber-wheeled vehicles on pavement.
- B. Dust Control: Use all means necessary to prevent the spread of dust during performance of the work of this Section. Thoroughly moisten all surfaces as required to prevent dust from being a nuisance to the public, neighbors and concurrent performance of other work on the job site.

1.05 GUARANTEE

- A. Guarantee in writing, all asphalt paving against defects in workmanship and materials including, but not limited to, deterioration due to weather, cracking, buckling, and sunken areas for a period of one (1) year.
- B. Condition at Expiration of Guarantee Period: In addition to the proper maintenance of the pavement during the guarantee period, at his own expense and just before expiration of the one (1) year guarantee period, the Contractor shall make such repairs as may be necessary to produce a pavement which shall:
 - 1. Have a contour substantially conforming to that of the pavement indicated on the drawings, and free from depressions of any kind exceeding 3/8" deep as measured between any points 4 feet apart on a line conforming substantially to the original contour of the paved area.
 - 2. Be free from cracks or depressions showing disintegration of the surface mixture.
 - 3. Contain no disintegrated surface mixture.
 - 4. Not have been reduced more than 3/8" in thickness in any part.
 - 5. Have a base free from such cracks or defects which will cause disintegration or settling of the pavement, or impair its usefulness as a roadway or other purpose for which it is intended.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Pavement Materials, System and Design: Refer to Drawings.

PART 3 – EXECUTION

3.01 TRANSPORTATION OF ASPHALTIC MIXTURE

- A. Haul the mixture to the pavement area in dump trucks or other suitable conveyances, which shall be suitably covered to protect the contents from excessive temperature loss. All loads failing to fall within the permissible temperature are subject to rejection at the pavement area. Temperature range shall be as called for in the Standard Specifications for Road and Bridge Construction as published by the Tennessee Department of Transportation (TDOT).

3.02 SUBGRADE PREPARATION

- A. All subgrade work shall be inspected and approved by the geotechnical engineer required by Section 02200. No pavement work shall begin until subgrades have been approved by this engineer.

- B. Prepare the subgrade to the lines and elevations indicated and as required to obtain the finished paving elevations indicated, cutting and/or filling as applicable. The Contractor shall protect the subgrade from damage and maintain it in a smooth, compact and rut-free condition until the base course has been placed.
- C. All poor material shall be removed to the depth required by the project Geotechnical Engineer; refer to Section 01410 and 02200. Fill material, as required and as approved by the geotechnical engineer, shall be placed and compacted as required by Section 02200, Earthwork. The subgrade shall be then proof-rolled, where possible, under the supervision of the project Geotechnical Engineer. If localized pumping is noted, these areas shall be excavated and replaced with well compacted material, asphaltic base material or otherwise adequately stabilized in place.

3.03 PAVEMENT INSTALLATION

- A. All paving shall be installed in strict compliance with the Standard Specifications for Road and Bridge Construction, published by the Tennessee Department of Transportation (TDOT) and with details and data provided on the Drawings.
- B. Areas which pond surface runoff of greater than 3/8" shall be repaired at Contractor's expense. No time extension shall be granted for repairs.

3.04 PROTECTION

- A. After installation, pavement shall be adequately protected against damage by any workmen, vehicles, equipment, or materials. Do not store materials on pavement. Permit only rubber-wheeled vehicles on pavement.

3.05 REPAIRING

- A. Except as otherwise specified below, make repairs by cutting out the defective asphalt surface down to the base and replacing it with new and freshly prepare asphalt surface, made and laid in strict accordance with these Specifications.
- B. Where defects are caused by the failure to the base, take up the defective asphalt surface and the base thereunder, and replace them with new and freshly prepared asphalt surface and base, made and laid in strict accordance with these Specifications.
- C. In all cases, the surface of the finished repair shall be at the grade of the adjoining paved area.
- D. The surface heater method of repairing may be used only in those cases where the repairs are not necessitated by:
 - 1. Failure of base.
 - 2. Failure caused by the disintegration of the lower portion of the asphalt surface.
 - 3. Where the surface heater method is used, remove all defective surface before replacing it with new material. In all cases, remove the old surface to at least 1/4" depth, and apply new surface at least 1/2" thick after compression. Apply the heat without injuring the remaining pavement. Immediately remove all burnt and loose materials, and lay the new surface in strict accordance with these Specifications.

END OF SECTION

SECTION 02515

SITE CONCRETE

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Includes, but not limited to:
 - 1. Curb cuts.
 - 2. Concrete walks, ramps, and pads,
 - 3. Vertical curbs and curbs and gutters.

1.02 RELATED SECTIONS

- A. Section 02200 – Earthwork: Subgrade preparation prior to placement of any concrete over grade.
- B. Section 03300 – Cast-In-Place Concrete: Comply with requirements of Section 03300 as if repeated herein.

1.03 QUALITY ASSURANCE

- A. Materials and installation shall be in accordance with the following:
 - 1. ACI 318 “Building Code Requirements for Reinforced Concrete”.
 - 2. ACI 305 “Hot-Weather Concreting”.
 - 3. ACI 306 “Cold-Weather Concreting”.
 - 4. Concrete Reinforcing Steel Institute. “Manual of Standard Practice”.

1.04 JOB CONDITIONS

- A. Protection: Protect all adjacent surfaces to avoid any damages as may be caused by the placement of concrete.
- B. Weather Conditions: Portland Cement concrete paving shall not be placed in inclement weather nor when the temperature is below 40°F.
- C. Coordinate placement of new concrete with the general construction and pavement operations.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Cement: Portland Cement – ASTM C 150, or air entraining Portland Cement ASTM C 175.
- B. Aggregate: ASTM C 33.
 - 1. Fine: Natural Sand ASTM C 144
 - 2. Coarse: Limestone (Maximum ¾”)
- C. Water: Fresh, clean and potable.
- D. Reinforcement:
 - 1. Deformed bars. ASTM A 615, Fy = 60 ksi.
 - 2. Welded wire fabric. ASTM A 185, 6 x 6 x W1.4 x W1.4, ASTM A 815.

- E. Joint Material: Preformed plastic, or as approved by the Architect.
- F. Admixtures:
 - 1. Air-entraining: In accordance with ASTM C 260
 - 2. Use admixtures, except air entraining, only when authorized by the Architect.
- G. Liquid Curing Membrane: Guardian Chemical Co. "Clear Bond", Sonneborn "Kure-N-Seal", Grace Construction Materials "Horn Clear Seal", or Euclid Chemical Company "Euco Floor Coat", or approved equal.
- H. Concrete:
 - 1. 4,000 psi, be air-entrained, 5% ± 1%.
 - 2. Aggregate: ¾" Maximum limestone, with gradation conforming to ASTM C 136.
 - 3. Slump: Not to exceed 4" if consolidation is by vibration and 5" if consolidation is by other means.
- I. Proportioning
 - 1. All concrete to in conformance with Section 03300.
 - 2. No water shall be added on the job unless authorized by the Architect.
- J. Fill: Sand, free from organic or other matter which would be injurious to the permanent stability of the fill.
- K. Forms: Wood or metal, shall conform to the lines and radii shown and be free of warps, bends, or kinks and be well anchored in place.

PART 3 - EXECUTION

3.01 SUBGRADE PREPARATION

- A. Subgrade for slabs, pads, curbs, etc., shall be prepared by excavating or filling to a depth below the top of pavement equal to the thickness of the finished walk or ramp. Vegetable matter or material that will not compact properly shall be removed and replaced with suitable material. Any and all filling required to bring the subgrade to the proper level shall be done in thin, loose layers not exceeding four (4) inches deep and shall be thoroughly rammed, tamped or rolled until it has been compacted in accordance with Section 02200, Earthwork.

3.02 FORMS

- A. Setting: The forms shall be well staked or otherwise held to the established lines and grades and their upper edges shall conform to the established grade of the finished walk.
- B. Treatment: All wood forms shall be thoroughly wetted and metal forms oiled or coated with soft soap or whitewash before depositing any material against them. All mortar and dirt shall be removed from forms that have been previously used.

3.03 SLAB CONSTRUCTION

- A. All slabs, unless noted, shall be poured monolithically on a firm sub-grade with thickness, reinforcement and surface finish as designated on the Drawings.
- B. Finishing

1. Finishing – Broom Finish: After the concrete has been brought to the established grade by means of a strike board and tamped to bring the concrete to surface, it shall be floated to a true and even surface and finished with steel trowel. After the trowel finish has taken its initial set, the surface shall be brushed lightly, in a straight line, across width of walk with a soft bristle brush.
2. Steel Trowel Finish – Equipment Pads: After the concrete has been brought to the established grade by means of a strike board and tamped to bring the concrete to surface, it shall be floated to a true and even surface and finished with steel trowel.
3. Score Joints: Provide score joints in pattern(s) indicated. Where score joints are to be sawn, sawing operations must be performed within 24 hours after placement of the concrete.

3.04 EXPANSION JOINTS

- A. An expansion joint, ½” thickness, extending full depth of the concrete and with filler as herein specified, shall be provided as indicated on Drawings. Consult with Architect prior to placement of expansion joints and score joints not indicated on the Drawings.
- B. Preparation of joints and methods to be employed in sealing joints shall be in accordance with the sealant manufacturer’s recommendations.

3.05 CURBS AND CURBS AND GUTTERS

- A. Automatic machines may be used for curb and gutter placement, at Contractor’s option. If machine placement is to be utilized, submit revised mix design and laboratory test results which meet or exceed minimums specified. Machine placement must produce curbs to required cross section, lines, grades, finish and jointing as specified for formed concrete. If results are not acceptable, remove and replace with formed concrete as specified.
- B. Forms shall be metal or 2 inch lumber straight and true to dimensions and smooth or a curb forming machine may be used. Cross-section shall conform to dimensions shown on plans. Set forms to exact grades which will be staked by Contractor at his expense. Curbs may be constructed with extruded forms.
- C. Do not place on frozen ground or during freezing temperatures.
- D. Finishing shall be carefully performed with straight edge and trowel.
- E. Expansion joints shall be made as indicated on the Drawings.

3.06 CURB CUTS

- A. Construct curb cuts in accordance with applicable authorities having jurisdiction. All materials used for the curb cut construction shall be acceptable to the authority having jurisdiction and as shown on the Plans.

3.07 CURING AND PROTECTION

- A. All exterior concrete shall be cured for at least seven (7) days. Concrete shall be protected from rains, flowing water, direct sun and drying winds during placing and finishing operations. Application liquid membrane-forming curing compound shall conform to ASTM C 309.

3.08 CORRECTIONS AND REPAIRS

- A. Where concrete is not laid to correct grade or where some has settled or are damaged, it will be removed and replaced at Contractor’s expense.

3.09 CLEANUP

- A. At all times, keep the premises free from accumulation of waste materials or rubbish caused by construction operations. At the completion of his work, remove all waste materials and rubbish from and about the project as well as all his tools, construction equipment, machinery and surplus materials, and shall leave the area broom clean.

END OF SECTION

SECTION 02580

PAVEMENT MARKINGS

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes all equipment, materials and application of pavement markings in accordance with the authority having jurisdiction.

1.02 RELATED SECTIONS

- A. Section 02513 – Asphalt Pavement: Application of pavement markings after completion of pavement operations.

1.03 SUBMITTALS

- A. Submit manufacturer's product data, application requirements and product safety data sheets to the Architect in accordance with Section 01340.
- B. Submit layout showing locations of curbs to be painted in accordance with local fire department requirements.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver, receive and store package products in original containers with seals and manufacturer's labels intact. Maintain seals until time of use.
- B. Store and mix all materials in ventilated areas as recommended by the product manufacturer.
- C. Remove all empty containers and waste from the project site on a daily basis.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Traffic Markings and Handicapped Symbol Paint: Sherwin-Williams Pro-Mar Alkyd Traffic Marking Paint, two (2) coats. Color to be white for traffic markings and red for curbs.

PART 3 – EXECUTION

3.01 INSPECTION

- A. Examine surfaces to receive traffic marking paint. Verify that all remedial work has been performed and is complete. Verify that surface is suitable to provide proper adhesion of the traffic marking paint. All unsatisfactory conditions or conditions detrimental to permit proper adhesion of the traffic marking paint to the surface must be corrected prior to application of the traffic marking paint.
- B. All surfaces to be marked shall be thoroughly cleaned before application of paint. Dust, dirt, and other granular surface deposits shall be removed by sweeping, blowing with compressed air, rinsing with water or a combination of these methods as required. The Contractor shall establish control points for marking and provide templates to control paint application by type and color, at necessary intervals. It shall be the Contractor's responsibility to preserve, and apply marking in conformance with, the control points so established.

3.02 APPLICATION

- A. Apply traffic marking paint utilizing methods and equipment recommended by the paint manufacturer.
- B. Paint stripes 4 inches wide, providing color and dense texture to completely obscure the concrete surface. Apply handicapped markings/symbols and other markings as indicated on the Drawings. Length and width with true, sharp edges and ends shall be applied on properly cured, prepared and dried surfaces in conformance with the details as show, and established control points.
- C. Paint exposed surfaces of curbs as required by local fire department.
- D. If there is a deficiency in drying of the marking, paint operations shall be discontinued until cause of the slow drying is determined and corrected. Marking applied at less than minimum material rates; deviating from true alignment; exceeding stipulated length and width tolerances; and showing light spots, faulty distribution of beads, smears, or other deficiencies or irregularities shall be removed and replaced.
 - 1. Removal methods shall be by carefully controlled sand blasting, approved grinding equipment or other approved method in such a manner that the surface to which the marking was applied will not be damaged.

3.03 PROTECTION

- A. Operations shall be conducted in such a manner that necessary traffic can move without hindrance. The newly painted markings shall be protected so that, insofar as possible, paint will not be picked up by the tires of passing vehicles. Warning signs shall be placed at the beginning of wet line, and at points well in advance of the marking equipment for alerting approaching traffic from both directions. For the benefit of the Contractor small flags or other similarly effective small objects may be placed near freshly applied markings at frequent intervals to reduce crossing by traffic. Damaged portions of markings shall be effaced and replaced by the Contractor at no additional cost to the Owner.

3.04 DETAIL PAVEMENT MARKING

- A. Detail Pavement Markings shall be that marking, exclusive of actual traffic lane marking, on curbs, at crosswalks, at parking bays and at such other locations as shown. The International Handicapped Symbol at indicated parking spaces shall be as shown. Colors shall be as shown. Apply paint for the symbol using a suitable template that will provide a pavement marking with true, sharp edges and ends. Detail pavement markings of the color(s), width(s) and length(s), shall be placed at the locations and of the design pattern shown.

3.05 COLORS FOR PAVEMENT MARKINGS

- A. The following items are to be painted with the colors noted below:
 - 1. Pedestrian crosswalks: Yellow.
 - 2. Exterior sidewalk curbs: Yellow.
 - 3. Fire Lanes: Red, or per local code.
 - 4. Lane striping: White.
 - 5. Handicap Symbols: Per local code.
 - 6. Parking Stall Striping: White, unless otherwise noted on plans.

3.06 CLEANING

- A. Upon completion of the marking applications, remove from the project site all equipment, debris and materials. Clean all spilled and spattered paint resulting from the application of the markings.

3.07 PROTECTION

- A. No wheel traffic or foot traffic shall be permitted on the parking decks until the traffic marking paint has dried/cured as recommended by the manufacturer.

END OF SECTION

SECTION 02721

SITE DRAINAGE

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes the furnishing of materials and installation of the storm sewer system, inlet structures and head/end walls to the lines and grades shown on the Drawings.

1.02 RELATED SECTIONS

- A. Section 01050 – Field Engineering: Establish inverts for storm drainage piping, inlets, and tops and inverts for manholes, etc.
- B. Section 02200 – Earthwork: Excavation and backfill requirements.
- C. Section 02221 – Trenching, Backfilling and Compacting: Trenching, backfilling and compaction for site drainage piping and appurtenances thereto.
- D. Section 02290 – Select Foundation, Bedding and Backfill: Bedding and backfill requirements for site drainage piping and appurtenances thereto.

1.03 QUALITY ASSURANCE

- A. Requirements of Regulatory Agencies: All materials, construction methods and completed installation shall conform to the City's Construction Specifications.

1.04 SUBMITTALS

- A. Submit technical data, shop drawings and installation details in accordance with Section 01340. Shop drawings shall show manhole, inlet and junction box construction, invert elevations of all piping, class of piping and pipe manufacturer's product data.
- B. Secure and forward to the Architect certification from the manufacturer that all piping to be used meets the requirements herein specified.

1.05 JOB CONDITIONS

- A. Do not expose, undermine or otherwise disturb the foundation of any existing building or structure.
- B. Existing Utilities: Make a personal inspection of all records showing locations of buried and underground utilities. Conduct a walking examination to physically verify locations of existing utilities and any conflicts with the proposed construction and the location of existing utilities.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Drainage pipes shall be concrete pipe (reinforced) conforming to the latest ASTM Designation C 76 Class III, with rubber gasket joints complying with ASTM C 443 or ADS N-12 corrugated plastic.
- B. Manhole Rims and Covers: Heavy traffic pattern cast iron of good quality and of such character that it shall make the metal of the castings strong, tough and of even grain. All castings shall be smooth, free from scale, cracks and other defects that might render them unsuitable for the use which they are intended. Rings and covers shall be of the type shown on the Drawings. The combined weights of the ring and covers shall be 365 pounds. Castings shall comply with ASTM A 48 Class 30B for Gray Iron. Surfaces shall be machined for the prevention of wobbling. Acceptable manufacturers are:
 - 1. Memphis Machine Works; Memphis, Tennessee – No. 1003.
 - 2. John Bouchard & Sons Company; Nashville, Tennessee – No. 1020.
 - 3. Harper Foundry & Machine Company; Jackson, Mississippi – No. 7.
- C. Precast Manhole Sections: Conform to ASTM C 478. Straight sections shall be of the lengths required for each manhole assembly. Top section shall be 36” high and conical, either concentric or eccentric, tapering uniformly to 24” inside diameter at the top. Each precast section shall have tongue and groove joints and lifting holes to facilitate handling and laying. Provide embedded manhole steps on 16” uniform vertical centers in the completed manhole.
- D. Manhole Steps – The following manufacturers are acceptable for use on this project:
 - 1. Memphis Machine Works; Memphis, Tennessee – “City of Memphis Standard”, cast iron.
 - 2. John Bouchard & Sons Company; Nashville, Tennessee – No. 1800, cast iron.
 - 3. Harper Foundry & Machine Company; Jackson, Mississippi – “Standard”, cast iron.
 - 4. Johnson City Foundry & Machine Works; Johnson City, Tennessee – No. M357, cast iron.
- E. Standard Curb Inlets: Cast iron, heavy traffic type inlet frame. Metal used in the manufacturer castings shall conform to minimum requirements of ASTM A 48, Class 30B for Gray Iron. Machine surfaces for the prevention of wobbling. Grate and plate cover shall non-skid design. The following are acceptable for use on this project:
 - 1. Memphis Machine Works; Memphis, Tennessee – No. 3004 frame and grate and floor plate cover No. 3005.
 - 2. John Bouchard & Sons Company; Nashville, Tennessee – No. 3062 frame, grate and floor plate diamond cover.
 - 3. Flockhart Foundry Company; Newark, New Jersey – Type 683 and Code No. 60287 Frame, grate and floor plate cover.

- F. Area Drains: Metal used in the manufacturer castings shall conform to minimum requirements of ASTM A 48 Class 30 B for Gray Iron. Machine surfaces for the prevention of wobbling.
- G. Brick for the inlets shall be clean, whole, and free from cracks or warpage. These structures may be constructed of concrete or concrete block if the Drawings do not designate the type of materials to be used. Should concrete be used, it shall conform to the requirements set forth in Section 03300.
- H. Concrete for head and end walls and all footings shall conform to the requirements set forth in Section 02515 for exposed concrete and Section 03300, Cast-In-Place Concrete, for mixing and placing requirements.

PART 3 – EXECUTION

3.01 GENERAL

- A. All equipment necessary and required for the proper construction of storm sewers shall be on the Project and in good operating condition. Provide the necessary tampers and pneumatic tampers to obtain the compaction of the pipe bed and backfill as specified.
- B. Inlets and headwalls shall be constructed as shown on the drawings and in accordance with the City requirements.
- C. Pipe outlets shall be sealed and made watertight.

3.02 EXCAVATION

- A. Where a trench is required, it shall be excavated to the line and grade shown on the Drawings, and only to a width sufficient to permit through tamping of the backfill material under the haunches and around the pipe as hereinafter specified. The width shall not exceed the external diameter by more than two (2) feet on each side, except where unsuitable material is encountered. Refer to Section 02221 for additional requirements.

3.03 PIPE BEDDING

- A. The pipe shall be bedded in an earth foundation of uniform density, carefully shaped to conform to the grade and to the camber required. When rock in either ledge or boulder formation is encountered, it shall be removed below grade and replaced with suitable materials in such a manner as to provide a compact earth cushion having a thickness under the pipe of not less than six (6) inches. When a firm foundation is not encountered at the grade established due to soft, spongy or other unstable soil, all such unstable soil under the pipe or to the side of the trench and for a maximum depth of three (3) feet or as directed by the Architect, shall be removed and replaced with well compacted granular material to provide an adequate support for the pipe. Refer to Section 02290 for additional requirements.

3.04 LINES AND GRADES FOR LAYING PIPE

- A. Provide the necessary lasers, mason's lines, supports and batter boards to ensure the pipe is laid to the lines and grades shown on the drawings or as adjusted by the Architect.
- B. Inspect all pipes before and after it is laid, and reject any pipe damaged or defective. Pipe laying shall be started at the lowest point and laid upgrade.

3.05 INSTALLATION AND ASSEMBLY OF REINFORCED CONCRETE PIPE

- A. General: All pipe shall be carefully laid, bell end upgrade, spigot end carefully entered into the bell end, and true to line and grade. The gasketed joint shall be fully rammed home. Lay pipe so that the inverts will conform accurately to the lines, grades and elevations shown.
- B. Handling: Provide and use suitable equipment for the safe and convenient handling of the piping materials. Carefully unload all piping materials and lower into trenches in a manner to prevent damage to the piping materials and trenches.
- C. Laying: Begin laying pipe in the finished trench at the lowest points, proceeding upgrade without breaks between manholes, with pipe spigots facing down grade. Lay pipe with the bedding method required to accommodate the conditions encountered, with full length support of the pipe barrel at every point between bell holes, without groove or bell ends bearing on trench bottom, and with watertight joints. Keep trenches water-free and as dry as practicable during bedding, laying and jointing and until the work will not be adversely affected by submergence.
- D. Jointing: Before jointing, all mating surfaces of each joint and all joint materials shall be clean and dry. Make up all joints in strict accordance with the pipe and gasket manufacturer's printed directions. Immediately after jointing, secure each previously laid length of pipe in place with tamped backfill on each side of the pipe.

3.06 BACKFILLING

- A. The material used for backfilling storm sewers shall be at optimum moisture, free from large lumps, clods and rocks. Refer to Section 02221 for backfilling requirements. No pipe shall be backfilled until the grade is checked and the installation approved by the Architect.

3.07 MANHOLES

- A. Assemble each manhole with one or more straight vertical wall sections and one top taper section, to provide the required manhole depth. Seal all joints between precast sections with the above specified gasket material. Plug all lifting holes with non-shrinking mortar after laying sections. Seal around all pipe entrances with non-shrinking mortar to provide watertight construction. The use of mortar to seal precast joints will not be acceptable. Provide 24" inside diameter brick, precast concrete or cast-in-place concrete spacer rings between rim and precast taper section as required to set rim to manhole structure with masonry mortar. Each finished manhole shall have permanently embedded-in manhole steps as previously specified herein.
- B. Inverts: Provide an invert in each manhole bottom as required to accommodate the inflowing and outflowing pipes, constructed with concrete or brick and mortar, with

full pipe size flow channels carefully and smoothly shaped and finished to prevent splashing and turbulent flow. Make all changes of flow directions within manholes with the maximum practical radius curves. Where possible, lay pipe through manhole, and remove upper half of pipe to form invert. Manhole floor outside of invert shall be smooth and shall slope toward invert at least one inch per foot.

- C. Set manhole tops as follows, unless otherwise indicated or authorized:
 - 1. In Streets and Other Paved Areas: Flush with finished paving grade.
 - 2. Other Areas: Flush with finished grade.
- D. Protect and maintain each manhole until it is accepted. The Architect may inspect complete manholes singularly or in groups.

3.08 MISCELLANEOUS STRUCTURES

- A. Wing and head walls and surface inlets shall be constructed as shown on the Drawings, and shall comply with the requirements of local authorities having jurisdiction.

END OF SECTION

**SECTION 02900
LANDSCAPING**

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Trees, plants, and ground cover.
- B. Topsoil bedding.
- C. Temporary supports.
- D. Maintenance service.
- E. Tree pruning and service of existing trees noted to remain.
- F. Seed and Sod shall not be included in this allowance.

1.02 RELATED SECTIONS

- A. DIVISION 2 - SITE UTILITIES AND PAVING.
- B. Section 02200 - EARTHWORK.
- C. Section 02930 - LAWNS AND GRASSES..
- D. DIVISION 15 - MECHANICAL.
- E. DIVISION 16 - ELECTRICAL.

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Deliver plant materials to site in original containers and ready for proper planting as specified herein.
- B. Move plant materials with solid balls wrapped in burlap.
- C. Deliver plant materials immediately prior to placement. Keep plant materials moist.
- D. Reject plants when ball of earth surrounding roots has been cracked or broken preparatory to or during process of planting.
- E. Reject plants when burlap, staves, and ropes required in connection with transplanting have been displaced prior to acceptance.

1.04 WARRANTY

- A. Provide two full growing seasons, warranty from date of plant material acceptance by the Architect.
- B. Replace plant materials found dead, or not in a healthy growing condition.
- C. Replacements: Plant materials of same size and species, with a new warranty commencing on date of replacement.

- D. The landscape Contractor shall inspect and make written recommendations to the Architect as to proper pruning, pavement setback, etc., for all existing trees noted to remain prior to start of site work.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Trees, Plants, and Ground Cover: Species and size shall be in accordance with an approved landscaping plan prepared by the landscaping Contractor and as approved by the Architect.
- B. Trees, Plants, and Ground Cover: Species and sizes indicated on the approved drawings shall have been growing in climatic conditions similar to those in locality of the work.
- C. Graded Topsoil: Type specified in Section 02486 - SODDING, mixed five parts topsoil, one part peatmoss, add fertilizer as required.
- D. Fertilizer: FS 0-F241.
- E. Peat Moss: Commercial grade.
- F. Mulch: Commercial grade.

2.02 ACCESSORIES

- A. Wrapping Materials: Quality burlap.
- B. Support Stakes: Wood.
- C. Cables, Wire, Eye Bolts, and Turnbuckles: Noncorrosive; of sufficient strength to withstand wind pressure.

PART 3 EXECUTION

3.01 PREPARATION

- A. Verify topsoil is ready to receive the work of this section.
- B. Prepare topsoil to receive plant materials.

3.02 INSTALLATION

- A. Place plant materials for review and final orientation by Engineer/Architect prior to installation.
- B. Excavation for plant materials.
- C. Set plant materials relative to grade as originally grown, after settlement.
- D. Set plants in pits or beds partly filled with prepared topsoil mixture, at a minimum depth of at least 6 inches (150 mm) under each plant. Pull away burlap, ropes, wires, etc. from the top of the ball.
- E. Place bare rootplant materials so roots lie in a natural position. Backfill soil mixture in 6 inch (150 mm) layers. Maintain plant materials in vertical position.

- F. Thoroughly water soil when the hole is half full, and again when full. Water plant materials as indicated.
- G. Prune and treat existing trees as approved by Architect.

3.03 PLANT SUPPORT

- A. Brace plants upright in position by guy wires or stakes to:

Tree Caliper	Tree Support Method
1 inch (25 mm)	1 stake with 1 tie
1 - 2 inches (25-50 mm)	2 stakes with 2 ties
2 - 4 inches (50-100 mm)	3 guy wires
over 4 inches (100 mm)	4 guy wires

3.04 MAINTENANCE SERVICE

- A. Begin maintenance of plant materials immediately after planting and continue until termination of warranty period.
- B. Maintenance shall include measures necessary to establish and maintain plants in a vigorous and healthy growing condition. Include the following:
 1. Cultivation and weeding plant beds and tree pits. When herbicides are used for weed control, apply in accordance with manufacturer's instructions. Remedy damage resulting from use of herbicides.
 2. Watering sufficient to saturate root system.
 3. Pruning, including removal of dead or broken branches, and treatment of prune woods.
 4. Disease and insect control.
 5. Maintenance of wrappings, guys, turnbuckles, and stakes. Adjust turnbuckles to keep guy wires tight. Repair or replace accessories when required.

END OF SECTION

SECTION 02930
LAWNS AND GRASSES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Provide all labor, materials, equipment, installation, and tests for all seeding and mulching in accordance with all applicable codes.

1.02 RELATED SECTIONS

- A. DIVISION 2 - SITE UTILITIES AND PAVING.
- B. Section 02200 - EARTHWORK.

1.03 QUALITY ASSURANCE

- A. Test top soil in accordance with the requirements of the local Agricultural Department to evaluate the required and recommended fertilizer to properly germinate the seeding process.
 - 1. Supply written analysis stating N, P, and K requirements, organic matter content, and pH value of soil.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver grass seed in original containers showing analysis of seed mixture, percentages of pure seed, year of production, net weight, date of packaging and location of packaging. Damaged packages shall NOT be acceptable to site.
- B. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.
- C. Deliver straw or mulch in original bales or bags properly stored in original bags or containers.

PART 2 PRODUCTS

2.01 GROWING MEDIA

- A. Topsoil: Natural, fertile, agricultural soil typical of the locality, capable of sustaining vigorous plant growth, from a well drained site free of flooding, not in frozen or muddy condition, not less than 6 percent organic matter, and pH value of 5.9 to 7.0. Free from subsoil, slag, clay, stones, lumps, live plants, roots, sticks, crabgrass, couch grass, noxious weeds, and foreign matter.
- B. Peatmoss: Horticultural grade Class A decomposed plant material, elastic and homogeneous. Free of decomposed colloidal residue, wood, sulphur, and iron. Peatmoss: pH value to 5.9 to 7.0, 60 percent organic matter by weight, moisture content not exceeding 15 percent and water absorption capacity of not less than 300 percent by weight on oven dry basis.
- C. Sand: Hard, granular, natural, beach sand, washed, free of impurities, chemical, or organic matter.
- D. Fertilizer: 6-12-12 grade Commercial type with 6 percent nitrogen 12 percent P₂O₅, and 12 percent K₂O or as required by the testing specified hereinbefore, Article 1.04 - QUALITY ASSURANCE.

- E. Lime: Standard agricultural type containing at least 85 percent total carbonates applied at a rate of 4000 pounds per acre (92 pounds per 1,000 square feet) or as required by the test results and recommendation as specified hereinbefore.
 - 1. Before seeding, apply lime and fertilizer and incorporate them into the soil at least 3 inches deep by discing and harrowing, at the rates recommended above or required by the above test results.

2.02 SEED

- A. Seed shall be: Cynodon Bermuda (Common Bermuda), uniform mixture, free from weeds.
- B. Sow seeds from March 1 to November 31. Do not sow seeds from December 1 to February 1.

2.03 ACCESSORIES

- A. Mulching Material: Oat or wheat straw, reasonably free from weeds, foreign matter detrimental to plant life, and in dry condition. Hay or chopped cornstalks are not acceptable.

PART 3 EXECUTION

3.01 PREPARATION

- A. Protect existing underground improvements from damage.
- B. Remove foreign materials, plants, roots, stones, and debris from site. Do not bury foreign material.
- C. Remove contaminated subsoil.
- D. Cultivate to depth of 3 inches (76 mm), area to receive topsoil. Repeat cultivation areas where equipment has compacted subgrade.

3.02 SPREADING TOPSOIL

- A. Spread topsoil to depth of 4 inches (102mm) over area to be seeded. Place during dry weather, and on dry unfrozen subgrade.
- B. Cultivate topsoil to depth of 4 inches (102 mm) with mechanical tiller. Cultivate inaccessible areas by hand. Rake until surface is smooth.
- C. Remove from site, foreign materials collected during cultivation.
- D. Grade to eliminate rough spots and low areas where ponding may occur. Maintain smooth, uniform grade as indicated.

3.03 FERTILIZING

- A. Apply fertilizer in formulation and quality required by soil analysis or to the above minimum requirements.
- B. Apply after fine grading, mix thoroughly into upper 2 inches (50 mm) of topsoil.

3.04 SEEDING

- A. Apply seed at a rate of 65 pounds per acre (73 kg per hectare) evenly in two intersecting directions. Rake in lightly.

- B. Do not sow immediately following rain, when ground is too dry, or during windy periods.
- C. Roll seeded area with roller not exceeding 112 pounds(50 kg).
- D. Apply water with fine spray immediately after each area has been sown.

3.05 MULCHING

- A. Mulching: Cover the seeded areas specified below with a one inch minimum thickness layer of weed-free straw or other approved mulch, and wet the mulch thoroughly.
- B. Watering and Maintenance: Water and maintain the seeding until satisfactory grass growth has been established, and at least until final project acceptance.
- C. Areas Requiring Seeding and Mulching:
 - 1. Seeding: all ground surfaces which have been filled, or otherwise disturbed by the work under this contract, and other areas as indicated on the drawings, except types covered by paving or structures or sodding.
 - 2. Mulching: all seeded areas.

3.06 MAINTENANCE PERIOD

- A. Maintain surfaces and supply additional topsoil where necessary, including areas affected by erosion.
- B. Water to insure uniform seed germination and to keep surface of soil damp.
- C. Apply water slowly so that surface of soil will not puddle and crust.
- D. Cut grass first time when it reaches height of 2-1/2 inches (60 mm) and maintain to minimum height of 2 inches (50 mm). Do not cut more than 1/3 of blade at any one mowing. Remove clippings.
- E. After first mowing, water grass sufficient to moisten soil from 3 to 5 inches (76 to 127 mm) deep.
- F. Apply weed killer when weeds start developing, during calm weather when air temperature is above 50 degrees Fahrenheit (10 degrees C).
- G. Replant damaged grass areas showing root growth failure, deterioration, bare or thin spots, and eroded areas.

3.07 RESTORATION

- A. Restore pavement, concrete, grassed areas, planted areas, structures damaged during execution of work, of this section.

3.08 ACCEPTANCE

- A. Seeded and mulched areas will be accepted at end of maintenance period when seeded areas are properly established and otherwise acceptable.

END OF SECTION

SECTION 04200

UNIT MASONRY

PART 1 – GENERAL

1.01 WORK INCLUDES

- A. Concrete unit masonry exterior back-up for building foundations complete with reinforcement and anchorages.
- B. Face brick complete with required anchorage.
- C. Mortar for masonry.
- D. Build-in items supplied by other trades.
- E. Cut and fit for other sections of work.

1.02 RELATED WORK

- A. Section 03300 – Concrete
- B. Section 06112 – Framing and sheathing

1.03 QUALITY ASSURANCE

- A. Perform masonry work in accordance with requirements of ANSI A41.1 unless indicated otherwise herein.
- B. Perform mortar work in accordance with requirements of ASTM C476 unless indicated otherwise herein.
- C. Allowable Tolerances:
 - 1. Unit Masonry shall be placed within 1/8 inch of dimensions indicated on drawings.
 - 2. Reinforcement shall be placed within tolerances recommended by ACI 315 unless indicated or specified otherwise.

1.04 SHOP DRAWINGS

- A. Submit shop drawings.
- B. Clearly detail shapes, general construction and installation details.

1.05 SUBMITTALS

- A. Submit manufacturer's installation instructions.
- B. Submit samples of the following for final selection:
 - 1. Face of brick to illustrate color, texture, and extremities of color.

1.06 ENVIRONMENTAL REQUIREMENTS

- A. Maintain materials and surrounding air temperature to minimum 50 degrees Fahrenheit (10 degrees C) prior to, during, and 48 hours after completion of masonry work.
- B. During freezing or near freezing weather, provide adequate equipment or cover to maintain a minimum temperature of 50 degrees Fahrenheit (10 degrees C) and to protect masonry work completed or in progress. Conform to all other requirements stated in DIVISION 1.

1.07 PROTECTION

- A. Maintain protective boards at exposed external corners which may be damaged by construction activities. Provide such protection without damaging completed work.
- B. Provide temporary bracing during masonry erection.

1.08 MOCK-UP

- A. Build for acceptance a sample brick pier including mortar and accessories specified for approval. The sample pier when accepted may be left in place if installed as part of the final fence/pier layout.

PART 2 – PRODUCTS

2.01 MASONRY MATERIALS

- A. Concrete Blocks: ASTM C90 hollow load bearing concrete masonry units, ASTM C145 solid load bearing concrete masonry units, ASTM C129. Non-load bearing grade N, standard modular and complete with corners, bases, bond beams, lintels, and filters to match and compliment block work.
- B. Concrete Brick: Non-load bearing type; ASTM C55 Type 11 Grade N Standard or light weight aggregates, modular size.
- C. Facing and Building Brick: It is the intent of this section to match the existing brick color and texture. Hollow units of burned clay or shale, ASTM C652 Grade SW with low absorption. Size shall be modular 7-5/8 by 3-5/8 by 2-1/4 inches.

2.02 MORTAR MATERIALS

- A. Portland Cement: ASTM C150 normal, Type 1, white color.
- B. Masonry Cement: ASTM C91 for general use.
- C. Aggregates: Standard masonry type, ASTM C 144 freezing and foreign matter.
- D. Hydrated Lime: ASTM C207 Type S.
- E. Quicklime: Non-hydraulic Type ASTM C5.

- F. Premix Mortar: Commercially prepared type, ASTM C387 mortar Type M, S, using gray cement. Provide additional “color” as required so that mortar matches existing.
- G. Water: Clean and free from injurious amounts of oil, alkali, organic matter or other deleterious material.

2.03 REINFORCEMENT ANCHORAGES AND ACCESSORIES

- A. Reinforcing steel for bond beams, lintels and other required deformed reinforcing steel shall be of the type specified in SECTION 03300 or as indicated on drawings.
- B. Brick veneer anchors: Hohmann and Barnard, Inc., No. HB-200 with “seismiclip” and continuous wire open or approved equal.

2.04 CONCRETE

- A. Concrete for Masonry Fill: Type and strength specified in Section 03300 or indicated on the drawings.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Supply metal anchors to Section 03300 for placement. Provide sufficient quantity, and direct their correct placement.
- B. Insure items built-in by other trades for this work are properly located and sized.
- C. Establish lines, levels, and coursing. Protect from disturbances.

3.02 WORKMANSHIP AND INSTALLATION

- A. Place masonry in accordance with lines and levels indicated on drawings.
- B. Fully bond external and internal comers and intersections.
- C. Buttering corners of joints, deep or excessive furrowing of mortar joints is not permitted.
- D. Do not shift or tap masonry after mortar has taken initial set. Where adjustment must be made, remove mortar and replace.
- E. Perform jobsite cutting of masonry with proper power tools to provide straight and true, unchipped edges.
- F. Insure masonry courses are of uniform height. Make vertical and horizontal joints equal and of uniform thickness. Lay in full bed of mortar, properly jointed with other work.
- G. Remove excess mortar and projections. Take care to prevent breaking masonry comers.

- H. Lay brick in running bond to match existing coursing unless indicated otherwise. Course three brick units and three mortar joints to equal 8 inches. Form concave mortar joints unless indicated otherwise.

3.03 TOLERANCES

- A. Maximum variation from masonry unit to adjacent masonry unit is 1/16 inch (1.6 mm).
- B. Maximum variation from vertical and horizontal building lines is 1/4 inch (6.4 mm) in 10 feet (3.048 m).
- C. Maximum variation from cross sectional thickness of cavity and composite walls is plus or minus 1/4 inch (6.4 mm).
- D. Maintain flush face on exposed masonry surfaces.

3.04 REINFORCEMENT AND ANCHORAGES

- A. Place reinforcing bars where indicated or specified in accordance with ACI 315 and do not disturb after start of masonry placement.

3.05 REINFORCED MASONRY

- A. Provide reinforced concrete masonry units as indicated. Provide temporary support until properly cured.

END OF SECTION

SECTION 05500

METAL FABRICATIONS

PART 1 – GENERAL

1.01 WORK INCLUDED

- A. Backing and mounting plates for equipment mounting studs and other equipment items.
- B. Miscellaneous metal angles and shapes for supports.

1.02 RELATED SECTIONS

- A. Section 06112 – Wood Framing and Sheathing
- B. DIVISION 15 - MECHANICAL

1.03 QUALITY ASSURANCE

- A. Welders' Qualifications: Welders shall be qualified in accordance with AWS D1. 1.
- B. Design Criteria:
 - 1. Work shall be designed to support normally imposed loads and meet requirements of AISC.
 - 2. Built-up parts shall not exhibit warp.
 - 3. Weather-exposed joints shall be formed to drain or exclude moisture and water.

1.04 SUBMITTALS

- A. Manufacturer's literature describing products including details and dimensions.
- B. Shop Drawings:
 - 1. Show at large scale construction of various parts, methods of joining, thickness of metals, profiles of surfaces, reinforcing, anchorage, and structural supports. Include information regarding concealed and exposed joints, welds, and fastenings.
 - 2. Where welded connectors, concrete, or masonry inserts are required.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Steel Sections: ASTM A36.
- B. Steel Tubing: ASTM A500, Grade B.
- C. Steel Pipe (used in structural applications: ASTM A501 or ASTM A53, Types E or S, Grade B.
- D. Bolts, Nuts, and Washers: ASTM A325.

- E. Self Welding Shear Studs: ASTM A108.
- F. Low-Alloy Steel Deformed Bars for Concrete Reinforcement: ASTM A706.
- G. Welding Materials: AWS D1.1 and AWS D12.1-1 type required for materials being welded.
- H. Primer: FS TT-P-86E, Type I alkyd modified oil base.
- I. Touch-up Primer for Galvanized Surfaces: FS TT-P-645.

2.02 FABRICATION

- A. Verify dimensions on site prior to shop fabrication.
- B. Fabricate items with joints tightly fitted and secured.
- C. Fit and shop assemble in largest practical sections, for delivery to site.
- D. Grind exposed welds flush and smooth with adjacent finished surface. Ease exposed edges to small uniform radius.
- E. Exposed Mechanical Fastenings: Flush countersunk screws or bolts-, unobtrusively located-, consistent with design of structure, except where specifically noted otherwise.
- F. Make exposed joints butt tight, flush, and hairline.
- G. Supply components required for anchorage of metal fabrications. Fabricate anchorage and related components and finish as metal fabrication, except where specifically noted otherwise.

2.03 FINISH

- A. Clean surfaces of rust, scale, grease, and foreign matter prior to finishing.
- B. Do not prime surfaces in direct contact bond with concrete or where field welding is required.
- C. Prime paint items scheduled with one coat.

PART 3 – EXECUTION

3.01 PREPARATION

- A. Obtain Architect approval prior to site cutting or making adjustments not scheduled.
- B. Clean and strip site primed steel items to bare metal where site welding is scheduled.
- C. Make provision for erection loads with temporary bracing. Keep work in alignment.

3.02 INSTALLATION

- A. Install items plumb and level, accurately fitted, free from distortion or defects.
- B. Perform field welding in accordance with AWS D1.1.
- C. After installation, touch-up field welds, scratched or damaged surfaces with primer.

3.03 CLEANING

- A. Remove protective devices only when items will be safe from other construction operations or removal is required to permit related work.
- B. Clean prime-coated items as required for finish painting.

END OF SECTION

SECTION 06100

ROUGH CARPENTRY

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes: Patching and/or replacement of damaged and/or deteriorated framing members as required to enclose the exterior porches on TN-069-001. Provide the same degree of rigidity as originally constructed.

1.02 RELATED SECTIONS

- A. Section 06112 – Framing and Sheathing.
- B. Section 06200 - Finish Carpentry: Wood blocking and nailers required for the complete and permanent repair/replacement of the damaged/deteriorated exterior wood trim.
- C. Section 07460 - Vinyl Siding and Accessories: Make required repairs to framing prior to installation of the siding system.
- D. Section 09900 - Painting: Finish painting of exposed wood members.

1.03 QUALITY ASSURANCE

- A. Grade Marks: Lumber shall be identified by official grade mark and shall comply with PS 20.
- B. Moisture Content of Lumber: Shall be 19 % or less on air dried stock and 15 % kiln dried (KD) stock at time of installation.
- C. All lumber shall be S4S (surfaced four sides) unless otherwise indicated or specified.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Immediately upon delivery to job site, place materials in area protected from weather.
- B. Store materials a minimum of 6 inches above ground on framework or blocking and cover with protective waterproof covering providing for adequate air circulation or ventilation.
- C. Do not store seasoned materials in wet or damp portions of building.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Required design value and recommended grades and species shall be as follows:
 - 1. Light Framing (plates, sills, cripples, blocking, furring, bridging, etc.)
 - Fb = 850 psi
 - C = 775 psi
 - E = 1,200,000 psi

- Species: Spruce-Pine-Fir Construction Grade or Hem-Fir Construction Grade.
2. Studs:
 Fb = 725 psi
 C = 500 psi
 E = 1,200,000 psi
- Species: Spruce-Pine-Fir Construction Grade or Hem-Fir Construction Grade.
3. Appearance Framing (exterior framing, etc.)
 Single Fb = 1,250 psi
 Fb = 1,450 psi
 C = 1, 100 psi
 E = 1, 100,000 psi
- Species: Select Structural Southern Pine.
4. Structural Joists:
 Fb = 1,200 psi
 C = 1,200 psi
 E = 1,600,000 psi
- Species: Southern Pine No. 2 KD

- B. Wood Treatment: Wood members resting on or against concrete or masonry and members used as nailers or blocking for flashings, etc., shall be pressure treated and labeled in accordance with the American Wood Preservers Institute Standard No. LP-2, pressure impregnated with chromated copper arsenate to a retention of 0.25 pounds per cubic foot.
- C. Provide all rough hardware of approved type and size and of sufficient quantity necessary for installation of work.
- D. Nails, nuts, bolts and miscellaneous connections shall meet the printed requirements of the National Design Specification for stress-grade lumber and its fastenings.
- E. Bridging and cripples, as indicated, shall be solid type of same size as joist.
- F. All nails used for exterior work shall be corrosion-resistant, hot-dipped galvanized.
- G. Other carpentry materials as indicated on the drawings or as required to provide a complete job.

PART 3 – EXECUTION

3.01 PREPARATION

- A. Remove damaged/deteriorated framing members, blocking, nailers, etc., where such members become exposed as a result of the construction operations. Replace with new wood members of the same size, using lumber materials specified herein.

3.02 INSTALLATION

- A. Layout, cut, fit and install rough carpentry items.
- B. Framing shall have joints true, tight and properly nailed or bolted.
- C. Horizontal members shall be set with crown up.
- D. No splicing of members between bearings will be permitted unless specifically detailed.

- E. Provide back blocking as necessary for proper installation and attachment of finish carpentry items.
 - F. Nailing of wood members shall be in strict accordance with applicable Building Code requirements.
 - G. When treated material is cut after treatment, dip or brush-treat exposed ends in 5" chromated copper arsenate.
- 3.02 CLEANUP
- A. Clean up and remove from the site all excess materials and debris. Leave framing ready to receive the next sequence of work.

END OF SECTION

SECTION 06112

FRAMING AND SHEATHING

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Roof Framing.
- B. Wall and Roof Sheathing.
- C. Preservative Treatment of Wood.

1.2 RELATED SECTIONS

- A. Section 03300 - CAST-IN-PLACE CONCRETE.
- B. Section 05500 - METAL FABRICATIONS.
- C. DIVISION 8 - DOORS AND WINDOWS.
- D. Section 09250 - GYPSUM WALLBOARD.

1.3 REFERENCES

- A. ALSC - American Lumber Standards Committee: Softwood Lumber Standards.
- B. ANSI A 135.4 - Basic Hardwood.
- C. ANSI A208.1 - Mat Formed Wood Particleboard.
- D. APA - American Plywood Association.
- E. AWPA - American Wood Preservers' Association: Book of Standards.
- F. FS - TT-W-571 - Wood Preservation: Treating Practices.
- G. NFPA - National Forest Products Association.
- H. RIS - Redwood Inspection Service: Standard Specifications for Grades of California Redwood Lumber.
- I. SFPA - Southern Forest Products Association.
- J. WCLIB - West Coast Lumber Inspection Bureau: Standard Grading Rules for West Coast Lumber.
- K. WWPA - Western Wood Products Association.

1.4 QUALITY ASSURANCE

A. Lumber Grading Agency: Certified by ALSC.

B. Plywood Grading Agency: Certified by APA.

1.5 REGULATORY REQUIREMENTS

A. Conform to applicable code for fire retardant requirements.

B. Conform to UL requirements to achieve rating indicated.

1.6 SUBMITTALS

A. Submit product data for approval.

B. Provide technical data on wood preservative materials and application instructions.

1.7 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle packaged materials in original containers with seals unbroken and labels intact until time of use.

B. Discharge materials carefully, do not dump onto ground.

C. Store all materials whether on or off site, above ground on platforms, skids, or (other support), store other materials in weathertight, dry place until time of use.

1.8 It is the Intent of this Section to repair existing wood structures and wood trim (fascias, soffits, etc) as indicated and as required.

1.9 After removal of existing roofing, gutter, downspout, etc. Contractor to inspect and report in writing to Architect any defective underlying materials requiring replacement.

PART 2 – PRODUCTS

2.1 LUMBER MATERIALS

A. Lumber Grading Rules: NFPA, RIS, SFPA, WCLIB, WWPA.

B. Beam Framing: any species, structural grade, 19 percent maximum moisture content.

C. Joist Framing: any species, structural grade, 19 percent maximum moisture content

D. Non-structural Light Framing: any species, construction grade, 19 percent maximum moisture content

2.2 PLYWOOD MATERIALS

A. Roof Sheathing: APA Structural 1, Grade C-D; unsanded.

2.3 PARTICLEBOARD MATERIALS

- A. Roof Sheathing: ANSI A208.1; wood chips or flakes set with waterproof resin binder; unsanded faces.
- B. Wall Sheathing: ANSI A208.1; wood chips or flakes set with waterproof resin binder; unsanded faces.
- C. Floor Sheathing: ANSI A208.1; wood chips or flakes set with waterproof resin binder; unsanded faces.
- D. Underlayment: ANSI A208.1; wood chips or flakes set with waterproof resin binder; sanded one side.

2.4 HARD BOARD MATERIALS

- A. Underlayment: ANSI A208.1; pressed wood fiber with resin binder; standard, tempered, service tempered service grade.

2.5 ACCESSORIES

- A. Fasteners: Electro or Hot-dipped galvanized steel for exterior, high humidity, and treated wood locations; plain finish elsewhere; size and type to suit condition.
- B. Connectors: As indicated and as required.
- C. Joist Hangers: Galvanized steel, sized to suit joists and framing conditions; as recommended by manufacturer or indicated.
- D. Anchors: Toggle bolt type for anchorage to hollow masonry. Expansion shield and lag bolt type for anchorage to solid masonry or concrete. Bolts or ballistic fasteners for anchorage to steel.
- E. Building Paper: No. 15 asphalt felt.

2.6 WOOD TREATMENT

- A. Fire Retardant: Chemically treated and pressure impregnated; capable of providing a maximum flame spread of 25.
- B. Wood Preservative Pressure Treatment: FS TT-W-571 or AWPA Treatment C2 using waterborne preservative with 0.30 percent retainage.
- C. Wood Preservative (Surface Application): Clear, waterborne type; as recommended by manufacturer.

PART 3 – EXECUTION

3.1 SITE APPLIED WOOD TREATMENT

- A. Brush apply two coats of preservative treatment on wood in contact with cementitious materials.
- B. Apply preservative treatment in accordance with manufacturer's instructions.
- C. Treat site-sawn ends.
- D. Allow preservative to cure prior to erecting members.

3.2 FRAMING

- A. Erect wood framing members level and plumb.
- B. Place horizontal members laid flat, crown side-up.
- C. Construct framing members full length without splices.
- D. Double members at openings over one sq. ft. (0.1 sq. m.). Space short studs over and under opening to stud spacing.
- E. Construct double joist under wall studding.
- F. Bridge joists and framing in excess of 8 feet 2.3 m span at mid-span members. Fit solid blocking at ends of members.
- G. Coordinate installation of wood decking, wood chord metal joists, prefabricated wood trusses and plywood web joists.

3.3 SHEATHING

- A. Secure roof sheathing Perpendicular to framing members with ends staggered. Secure sheet edges over firm bearing. Use sheathing clips between sheets between roof framing members.
- B. Secure wall sheathing horizontally perpendicular to wall studs, with ends staggered, over firm bearing.
- C. Place plywood sheathing at building corners where insulated sheathing is being used.
- D. Place building paper over wall sheathing; weatherlap joints.
- E. Secure subfloor perpendicular to floor framing with end joints staggered. Secure sheet edges over firm bearing. Attach sheathing with subfloor glue and drywall screws.
- F. Install plywood to two span continuous.
- G. Place building paper between underlayment and subflooring.

- H. Secure flooring underlayment after dust and dirt generating activities have ceased and prior to application of finished flooring. Apply perpendicular to subflooring. Stagger end joints of underlayment. Secure with manufacturers approved type fasteners.

3.4 TOLERANCES

- A. Framing Members: 1/4 inch 5mm maximum from true position.
- B. Surface Flatness of Floor: 1/4 inch in 10 feet (2 mm/m) maximum.

END OF SECTION

SECTION 06130

WOOD TRUSSES

PART 1 GENERAL

1.01 WORK IN OTHER SECTIONS

- A. Wood Framing, Studs, Joist, Decking,
Structural Steel
Finish Carpentry

1.02 BUILDING CODE

- A. Requirements of the local Building Code, if more rigid than those herein, govern.

1.03 ENGINEERING DRAWINGS AND SHOP DRAWINGS

- A. All truss designs shall bear the name, seal and registered number of a professional engineer licensed in the State of Tennessee. Sealed Truss shop drawings and calculations shall be submitted for approval by the Architect/Engineer prior to fabrication.
- B. Truss designs shall contain the following:
 - Metal Connectors: Nominal sizes and locations of connectors at all joints.
 - Pitch, span, and spacing of trusses.
 - Species and stress grades of lumber to be used as members.
 - Design loadings of trusses and allowable stress increase.
 - Force analysis or bar forces in each member.
 - Maximum axial compressive forces in truss member.
 - Truss bearing supports: Sizes and location. Camber.
 - Field connection requirements/details for trusses.
 - Permanent bracing and/or bridging: As required to prevent compression buckling of individual truss members. Handling and erection instructions.

PART 2 MATERIALS

2.01 DESIGN

- A. Trusses shall be designed in accordance with these specifications and where any applicable design feature is not specified, design shall be in accordance with applicable provisions of latest edition of National Design Specifications for Wood Construction (NDS), American Forest and Paper Association (AFPA), and Design Specifications for Metal Plate Connected Wood Trusses (ANSI/TPI 1), Truss Plate Institute (TPI) and code of jurisdiction.

2.02 LUMBER

- A. All lumber used for truss members shall conform to the published values for the species and grades as set out in the official grading rules of the appropriate lumber association.
- B. Moisture content shall be no less than 7 percent nor greater than 19 percent at time of fabrication.

2.03 CONNECTORS

- A. Truss connector plates shall be manufactured from only prime commercial quality galvanized sheet steel, gauge 20 thickness, minimum yield of 33,000 psi, minimum ultimate tensile strength of 48,000 psi. Corrosion resistant coating, 1.25 oz. per square foot commercial class hot dipped galvanized before stamping.

2.04 FABRICATION

- A. Trusses and other roof structural components shall be fabricated in a properly equipped manufacturing facility of a permanent nature. Experienced workmen using precision cutting and truss fabrication equipment, under strict rules of inspection and quality control, open to the inspection of the Architect at all times. Truss members shall be accurately cut to length, angle and be true to line to assure tight joints.
- B. Truss members and connector plates shall be properly placed in special jigs and the members tightly clamped in place until the connector plates have been pressed into the lumber on both sides.
- C. Camber trusses as noted on the engineering truss designs.

PART 3 INSTALLATION

3.01 HANDLING & STORING

- A. Handling during installation shall be in accordance with Building Component Safety Information (BSCSI-03), TPI, and ANSI. Installation shall be consistent with good workmanship and good building practices and shall be the responsibility of the truss installer.

3.02 ERECTION

- A. Proper erection bracing shall be installed to hold the trusses true and plumb and in safe condition until permanent truss bracing and bridging can be solidly nailed in place to form a structurally sound roof framing system. All erection and permanent bracing shall be installed and all components permanently fastened before the application of any loads.
- B. Cutting and altering of trusses is not permitted.

END OF SECTION

SECTION 06200

FINISH CARPENTRY

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A Includes:
 - 1. All labor, materials and equipment required for the replacement of all deteriorated exterior wood trim designated to remain.
 - 2. Replacement of closet shelves and rods.
 - 3. Materials and installation of new fixed shelving.
 - 4. Cabinets and millwork.

1.02 RELATED SECTIONS

- A. Section 06 100 - Rough Carpentry: Blocking, furring and nailers; required for installation of finish carpentry items.
- B. Section 07460 - Vinyl Siding and Accessories: Coordination of siding and accessory installation with wood trim replacement.
- C. Section 08100 - Hollow Metal Doors and frames: Wood blocking and nailers for anchorage of the hollow metal work.

1.03 QUALITY ASSURANCE - GRADING STANDARDS

- A. Moisture Content: The maximum moisture content of treated or untreated finish lumber, trim and millwork is not to exceed 10% at the time of delivery.
- B. Grading Standards: Softwood framing lumber shall comply with Product Standard 20 and with the specific grading association standards and specifications listed below:
 - 1. Southern Pine: Standard Grading Rules for Southern Pine Lumber, published by Southern Pine Inspection Bureau and trademarked SPEB.
- C. All board lumber shall comply with PS 20 and grademarked by either of the associations listed in paragraph above.
- D. Woodworking Standard: Comply with the specified provision of the Architectural Woodwork Institute (AWI) "Quality Standards".
 - 1. All exterior finish carpentry shall be manufactured and installed to meet the quality standards of the Architectural Woodwork Institute, AWI Section 300, Custom Grade.
 - 2. Design and Construction Features: Comply with details shown for profile and construction. Where not otherwise shown, comply with applicable AWI Quality Standards, with alternate details at fabricator's option.

1.04 PRODUCT DELIVERY, STORAGE, HANDLING, AND PROTECTION

- A. Protect materials during transit, delivery and handling to prevent damage, soiling and deterioration.
- B. Inspect all materials delivered and reject all not qualifying completely with the requirements, damaged in transit or in handling, or otherwise unsatisfactory.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Exterior Trim Materials: Vertical grain, Fir or yellow Pine, B and Better. Provide sizes and profiles to match that removed.
 - 1. Nails and Anchorages: Non-corrosive and non-staining, type and size specifically designed and suited for the material and installation involved.
- B. Closet Shelf and Rod
 - 1. Shelf: Nominal 1x material, clear fir or hemlock. Shelving shall be painted.
 - 2. Rod: 1" Diameter galvanized steel pipe. Sand to remove all mill scale. Provide with threaded end flanges for attaching to wood ledger.
- C. Fixed Wood Shelving: 3/4" Thick A-B interior APA plywood with hardwood nosing on all exposed edges. All shelving shall be painted.
- D. Interior millwork shall be custom grade birch or red oak where called for.
- E. Plastic laminate on water repellent glue plywood shall be Formica, Wilson Art or approved equal. Color/pattern as selected by owner.
- F. Wood Cabinets: Furnish and install wood cabinets as indicated.
 - 1. Tops, edges, and backsplash shall be plastic laminate or as indicated.
 - 2. Drawers and doors shall be solid core with plywood finish, hardwood edge banded.
 - 3. Provide hardware for drawers and doors as indicated and/or as required for complete installation.

PART 3 – EXECUTION

3.01 PREPARATION

- A. Inspect areas of finish carpentry for damage, deterioration and missing pieces. Remove and replace with new materials as specified herein.
- B. Where removal of the existing siding and/or trim has exposed damaged/deteriorated or missing framing members, blocking and/or nailers, remove such backup materials and replace with new materials in accordance with Section 06100, prior to installing new siding and trim.

3.02 INSTALLATION

- A. Inspect all materials delivered and reject all not qualifying completely with the requirements, damaged in transit or in handling, or otherwise unsatisfactory.
- B. All finish carpentry shall be executed by skilled mechanics in strict accordance with the details. Protect finish carpentry items against dampness during and after delivery. Store under cover in well ventilated spaces, not exposed to extreme changes in temperature and excess humidity. Make field measurements where required for close fit.
- C. Install with minimum number of joints possible, using full-length material to greatest extent possible. Stagger joints in adjacent and related members. Cope at returns; miter at comers, to produce tight fining joints with full surface contact throughout the length of the joint. Use scarf joints for end-to-end joints.
- D. Secure work to grounds, otherwise fasten in position to hold correct surfaces, lines, levels. Make finished work flat, plumb, true.
- E. Loose Joints: Use judgment in locating loose joints to render them inconspicuous as possible in finished work.
- F. Fastenings: As far as possible conceal fastenings; where not possible locate then in inconspicuous places. Where nailing is permitted through wood work face, conceal nail heads.
- G. Expansion Joints: Construct to permit sections to expand and contract without buckling, warping, causing other conditions which will detract from appearance, durability.
- H. Set all nail heads. Counter-sink all screw heads.

3.02 CLEANING

- A. At the completion of this work, remove from the job site all excess materials and debris. Leave entire work ready to receive the specified or scheduled finish.

3.03 PROTECTION

- A. Protect finished installations from damage until date of Substantial Completion. Repair or replace any damage at no additional cost to the Owner.

END OF SECTION

SECTION 07210

BUILDING INSULATION

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Blanket insulation above ceilings and exterior walls.

1.2 RELATED SECTIONS

- A. Section 06100 - ROUGH CARPENTRY.
- B. Section 09250 - GYPSUM WALLBOARD SYSTEMS.

1.3 SUBMITTALS

- A. Submit manufacturer's literature and installation instructions.

PART 2 – PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Owens-Corning Fiberglass Corporation.
- B. Forty-Eight Insulations, Inc.
- C. Schuller Sales Corporation.
- D. Atlas Insulation Company, Inc.
- E. Substitutions: Items of equivalent function and performance will be considered for acceptance.

2.2 MATERIALS

- A. Batt Insulation: FS HH-I-521, preformed glass fiber batt, roll. Type I - without membranes. Type II - with non-reflective covering one side.
- B. Foil backed batt insulation: FSHH-I-1252 preformed glass fiber batt, roll.
- C. Tape: Polyethylene or Polyester self-adhering type; translucent.

PART 3 – EXECUTION

3.1 PREPARATION

- A. Verify adjacent materials are dry and ready to receive installation.
- B. Verify mechanical and electrical services within walls have been installed and tested.

3.2 INSTALLATION

- A. Install batt insulation in accordance with manufacturer's instructions.
- B. Install batt insulation, in ceiling and wall spaces without gaps or voids.
- C. Trim insulation neatly to fit spaces. Use batts free of damage.
- D. Fit insulation tight in spaces and tight to exterior side of mechanical and electrical services within the plane of insulation. Leave no gaps or voids.
- E. Install insulation with factory applied membrane facing warm side of building spaces.

END OF SECTION

SECTION 07311

ARCHITECTURAL SHINGLES

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Architectural shingle roofing, with moisture shedding underlayment, eave, valley, and ridge protection, and associated protective flashings.

1.2 RELATED SECTIONS

- A. Section 06100 - ROUGH CARPENTRY.
- B. Section 07600 - SHEET METAL, FLASHING AND TRIM.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Submit shop drawings of metal flashings and product data.
- C. Indicate general construction, configurations, jointing methods and locations, fastening methods and locations, and installation details.
- D. Submit samples for color selection.

1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Applicator shall be an approved, certified roofing system contractor.
- B. All materials and their applications shall be UL listed and FM approved for the application included under this section.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in manufacturer's original, unopened containers and rolls with labels in tact and legible.
- B. Deliver materials requiring fire resistance classification to the job with all labels attached and packaged as required by labeling service.
- C. Deliver materials in sufficient quantity to allow continuity of work.
- D. Handle rolled goods so as to prevent damage to edges or ends and store on ends or up-right position on pallets.
- E. Storage: All materials shall be properly stored as recommended by manufacturer and kept off the ground or slabs with a minimum of 4 inch air space and with a water protective covering all

around all sides and top down to air space. The air space shall be left open for materials to breath and ventilate.

1. All wet and damaged materials shall be removed from the construction site immediately upon discovery.

1.6 JOB CONDITIONS

A. Environmental Requirements:

1. Apply roof system to dry surfaces and in dry weather conditions.
2. Do not apply roofing when ambient temperature is below 40 degrees Fahrenheit (4 degrees c).

B. Provide protection for buildings, paving and all other areas adjacent to hoist and ladder prior to starting work.

1. Lap, tie down, and properly vent protective materials so foreign materials will not penetrate and damage permanent structures.

C. This section shall conform to FM and/or UL construction in conjunction with other materials and sections.

1.7 GUARANTEE

A. Type A: Provide to the owner a thirty (30) year written guarantee for leakage and deterioration for workmanship and materials. 80 mph Limited Wind Warranty.

B. Type B: Provide to the Owner a Twenty Five (25) Year Written Guarantee for leakage and deterioration for workmanship and materials. 60 mph Limited Wind Warranty.

PART 2 – PRODUCTS

2.1 ROOFING MATERIALS

A. Architectural Shingle Materials: Timberline HD Architectural Shingles, in Weathered wood or approved equal

C. Ridge Vent: Low Profile Shingle – over ridge vent, 12” wide, 4’ 0” sections, 18 sq. in. per ft. net free area. Weather and UV resistant polypropylene with vented, integral end plugs.

D. Underlayment: ANSI/ASTM D226; No. 15 (73 kg/sq m) unperforated asphalt saturated felts as recommended for use in waterproofing and in construction of shingle roofs. Underlayment material must be compatible with and approved by the asphalt shingle manufacturer to maintain the roofing manufacturer’s guarantees.

E. Nails: Standard round wire shingle type of hot dipped zinc coated steel; minimum 13/64 inch (5 mm) head diameter and 0.080 inch (2 mm) shank diameter; minimum 1-1/4 inch (31 mm) long or of sufficient length to penetrate through roof sheathing.

F. Plastic Cement: ANSI/ASTM D2822; asphaltic type with mineral fiber components.

G. Lap Cement: Fibrated cutback asphaltic type, as recommended for use as an adhesive in the cold application of asphalt roofing or underlayment, free of toxic solvents.

- H. Water Proof Underlayment Ice and Water Shield: W. R. Grace Ice and Water Shield adhesive rubberized asphalt membrane backed by high density cross laminated polyethylene.

2.2 FLASHING MATERIALS

- A. Pipe Flashing: Shingle roof pipe flashing, size to fit plumbing vent pipes with 9" x 12 1/2" Aluminum base and EPDM collar.
- B. Sheet Flashings: ASTM A361; 24 gauge (0.60 mm) thick steel with minimum 1.25 ounces per square foot (380 g/sq m) galvanized coating.
- C. Bituminous Paint: Acid and alkali resistant type; black color.
- D. Nails: Standard round wire roofing type of hot-dipped zinc-coated steel; minimum 19/64 inch (8 mm) head diameter and 0.104 inch (3 mm) shank diameter; minimum 7/8 inch (22.2 min) long of sufficient length to penetrate through roof sheathing.

2.3 FLASHING FABRICATION

- A. Form flashings to profiles indicated on the drawings, and to protect roof assembly and shed water. Form sections square, true, and accurate to profile, in maximum possible lengths, free from distortion and other defects detrimental to appearance or performance.
- B. Hem exposed edges of flashings minimum 1/4 inch (6 mm) on underside.
- C. Apply bituminous paint on concealed surfaces of flashings.

PART 3 – EXECUTION

3.1 INSTALLATION - GENERAL

- A. Install asphalt shingle roofing over dry surfaces, free of ridges, warps, and voids.
- B. Coordinate installation of roof mounted components or work projecting through roof. Verify roof openings are framed, sized, and located prior to installing work of this section.
- C. Complete installation to provide weathertight service.

3.2 PROTECTIVE UNDERLAYMENT INSTALLATION

- A. Place one ply of underlayment over all roof areas, with ends and edges weatherlapped minimum 4 inches (100 mm). Stagger end laps of each consecutive layer. Nail protective underlayment to hold in place.
- B. Install protective underlayment perpendicular to slope of roof.
- C. Weather lap underlayment minimum 4 inches (100 mm) over cave membrane.
- D. Weather lap and seal items projecting through or mounted on roof with plastic cement.

- E. Apply Ice and Water Shield membrane as the underlayment on all roof areas where roof slope is less than 4:12.

3.3 VALLEY PROTECTION INSTALLATION

- A. Place on layer of sheet metal flashing, minimum 24 inches (600 mm) wide, centered over open valleys and crimped to guide water. Weather lap joints minimum 2 inches (50 mm). Nail in place minimum 18 inches (450 mm) oc, one inch (25 mm) from edges.

3.4 FLASHING INSTALLATION

- A. Weather lap joints minimum 2 inches (50 mm) and seal weathertight with plastic cement. Secure in place with nails at 12 inches (300 mm) oc. Conceal fastenings.
- B. Flash and seal work projecting through or mounted on roofing with plastic cement. Provide weathertight installation.

3.5 ASPHALT SHINGLES INSTALLATION

- A. Place asphalt shingles in straight coursing pattern with weather exposure according to the manufacturer's instructions to produce double thickness over entire roof area.
- B. Provide double course of shingle at eaves. Project first course of shingles 3/4 inch (19 mm) beyond face of fascia board.
- C. Extend shingles 3/4 inch (13 mm) beyond face of gable edge fascia boards.
- D. Nail shingles in place in accordance with manufacturer's instructions.
- E. Cap hips and ridges with individual shingles, maintaining 5 inch (125 mm) weather exposure. Place to avoid exposed nails.

END OF SECTION

SECTION 07461

FIBER - CEMENT SIDING AND ACCESSORIES

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes:
 - 3. Installation of new fiber-cement siding and trim indicated in drawings.

1.02 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry: Repair damaged underlayment/framing prior to siding system installation.
- B. Section 09900 – Painting.

1.03 SUBMITTALS

- A. Submit manufacturer's product data and shop drawings to the Architect/Engineer for review. Submittals shall show materials, finish, accessories and complete installation details for the project involved.

1.04 QUALITY ASSURANCE

- A. Fiber-Cement siding and accessories shall be non-combustible, termite and moisture resistant, and meet the standards described in the Standard Building Code.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Ship, receive and store the siding materials and accessories in accordance with manufacturer's recommendations to prevent damage and deterioration to the siding materials and accessories.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Fiber-Cement Siding: HardiePlank ‘Select Cedarmill’ lap siding. Nominal 5/16” thick with a nominal 6” weathered exposure. Other manufacturers providing equal products will be given equal consideration.
- B. Accessories: provide accessories required for a complete and weathertight installation. Accessories shall include, but not be limited to the following:
 - 1. Corner posts, inside and outside.
 - 2. Starter strips.
 - 3. Window trim, including drip cap, sill trim and window casing as required.

4. Finishing, trim.
 5. Fascia and soffit trim.
 6. Nails: Hot dipped galvanized, as required by the siding manufacturer for the installation involved.
 7. Building Paper: As recommended by the siding manufacturer for the substrate and installations involved.
- C. Caulking: This section shall allow 1/8" gap at trim as recommended by system manufacture, and install paintable ASTM C834 caulk.
- D. Air infiltration barrier: Tyvek 'HomeWrap' – by DuPont Tyvek Co. Other manufacturers providing equal products will be given equal consideration.

PART 3 – EXECUTION

3.01 PREPARATION

- A. Repair/replace existing substrate material in order to provide a solid and sound substrate. Install building insulation system as described over existing wood studs. Wrap exterior with Tyvek in accordance with manufacture's written instructions.
- B. Clean and repair and adjoining work on which this work is in any way dependent for its proper installation.
- C. Repair and/or replace damaged exterior trim members in accordance with Section 06100. Backprime trim members prior to installation.

3.02 SIDING INSTALLATION

- A. Install siding with all joints true and plumb, following the manufacturer's printed instructions. Coordinate installation with all carpentry work. Provide a minimum 1/4" lath strip to ensure consistent plank angle.
 1. Provide a minimum 1/4" lath strip to ensure consistent plank angle.
 2. Nail to allow for normal expansion and contraction of the siding.
 3. Cut siding back from all openings and stops to allow for expansion and contraction. Distance of cut shall be as recommended by the siding manufacturer.
 4. Form and stagger overlaps as required for a complete and weathertight installation.
- B. Accessories: Install accessories as required as the siding work progresses for a complete and weathertight installation.

3.03 CLEANUP

- A. Remove from the project site all excess materials, equipment and construction debris. Leave completed siding system ready for inspection by the Architect/Engineer

END OF SECTION

SECTION 07600

SHEET METAL FLASHING AND TRIM

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Coping, parapet, cap, sill, lintel, and flashings.
- B. Facias.
- C. Counterflashings over base flashings.
- D. Counterflashings for roof hatches, roof mounted equipment and vent stacks.
- E. Gutters and downspouts.

1.2 RELATED SECTIONS

- A. DIVISION 4 - MASONRY.
- B. Section 06100 - ROUGH CARPENTRY.
- C. DIVISION 7 - THERMAL AND MOISTURE PROTECTION.
- D. Section 07920 - SEALANTS AND CAULKING.

1.3 SUBMITTALS

- A. Submit under provisions of Section 0 1300.
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

1.4 QUALITY ASSURANCE

- A. Perform work in accordance with standard details and requirements.

1.5 QUALIFICATIONS

- A. Fabricator and Installer: Company specializing in sheet metal flashing work with 5 years experience.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Stack performed and prefinished material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- B. Prevent contact with materials which may cause discoloration or staining.

PART 2 – PRODUCTS

2.1 SHEET MATERIALS

- A. Copper: ASTM B370, cold rolled minimum 16 oz/sq. ft. natural finish.
- B. Pre-Coated Galvanized Steel: ASTM A446, Grade A, G90 zinc coating; minimum thickness 24 gage core steel, shop pre-coated with fluoropolymer coating color as selected, equal to ColorKlad by Vincent Metals.
- C. Galvanized Steel: ASTM A446, Grade A, G90, zinc coating, minimum thickness 24 gauge.

2.2 ACCESSORIES

- A. Fasteners: Same material and finish as flashing metal.
- B. Underlayment ASTM D226 or D2178, No. 15 asphalt saturated roofing felt.
- C. Slip Sheet: Rosin sized building paper.
- D. Primer: Zinc chromate type.
- E. Protective Backing Paint. Zinc chromate alkyd or bituminous.
- F. Sealant: Polyurethane ASTM C 920 type, S Grade NS Class 25.
- G. Bedding Compound: Rubber-asphalt type.
- H. Plastic Cement: ASTM D4586, Type II.
- I. Gutter and Downspout Anchorage Devices: SMACNA requirements.
- J. Gutter Supports: Brackets.
- K. Downspout Supports: Straps.
- L. Solder:
 - 1. For use with steel or copper, provide 50-50 tin/lead solder (ASTM B32), with rosin flux.

2.3 COMPONENTS

- A. Gutters: Match existing profile
- B. Downspouts: Rectangular profile.
- C. Accessories: Profiled to suit gutters and downspouts.
- D. Splash Pads: Precast concrete type, of minimum 16 x 24 inch size; minimum 3000 psi at 28 days, with minimum 5 percent air entrainment.

2.4 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Fabricate cleats of same material as sheet minimum 1.25 inches (32 mm) wide, interlockable with sheet.
- C. Form pieces in longest possible lengths.
- D. Hem exposed edges on underside 1/2 inch; miter and seam comers.
- E. Form material with standing seams.
- F. Pretin edges of sheets to be soldered. Solder shop formed metal joints. After soldering, remove flux. Wipe and wash solder joints clean. Weather seal joints.
- G. Fabricate corners from one piece with minimum 18 inch long legs; seam solder for rigidity, seal with sealant.
- H. Fabricate vertical faces with bottom edge formed outward 1/4 inch (6 mm) and hemmed to form drip.
- I. Fabricate flashings to allow toe to extend 4 inches over roofing. Return and brake edges.
- J. Form sheet metal pans (pitch pockets) 2 inches wider than item penetrating roof with 3 inch upstand, and 4 inch (100 mm) flanges.

2.5 FINISH

- A. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Verify roof openings, curbs, pipes, sleeves, ducts, or vents through roof are solidly set, reglets in place, and nailing strips located.
- B. Verify roofing termination and base flashings are in place, sealed, and secure.

3.2 PREPARATION

- A. Install starter and edge strips, and cleats before starting installation.
- B. Install surface mounted reglets true to lines and levels. Seal top of reglets with sealant.

3.3 INSTALLATION

- A. Conform to drawing the details of the SMACNA manual.
- B. Insert flashings into reglets to form tight fit. Secure in place with lead wedges. Pack remaining spaces with lead wool. Seal flashings into reglets with sealant.
- C. Apply plastic cement compound between metal flashings and felt flashings.
- D. Fit flashings tight in place. Make comers square, surfaces true and straight in planes, and lines accurate to profiles.
- E. Seal joints watertight for aluminum and prefinished galvanized metal.
- F. For copper, galvanized steel, and stainless steel solder metal joints for full metal surface contact. After soldering, wash metal clean with neutralizing solution and rinse with water.
- G. Secure gutters and downspouts in place using fasteners.
- H. Slope gutters 1/4 inch per foot minimum.
- I. On ground, set splash pads under downspouts.
- J. Seal metal joints watertight.

END OF SECTION

SECTION 07712

GUTTERS AND DOWN SPOUTS

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Gutters and Downspouts.
- B. Related Accessories.

1.2 RELATED SECTIONS

- A. Section 06100 - ROUGH CARPENTRY.
- B. DIVISION 7 - THERMAL AND MOISTURE PROTECTION.
- C. Section 07920 - SEALANTS AND CAULKING.

1.3 SUBMITTALS

- A. Submit under provisions of Section 0 1300.
- B. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

1.4 QUALITY ASSURANCE

- A. Perform work in accordance with standard details and requirements.

1.5 QUALIFICATIONS

- A. Fabricator and Installer: Company specializing in Gutters and Downspouts work with 5 years experience and certified by sheet metal manufacture.

1.6 REFERENCES

- A. ASTM B 209 Standard Specification for Aluminum and Aluminum Alloy sheet and plate.
- B. SMACNA-Architectural sheet metal manual.

1.7 DESIGN / PERFORMANCE REQUIREMENTS

- A. Conform to applicable code for size and method of rain water discharge.
- B. American Architectural Manufacturers Association (AAMA) Specification 1405.1 “Specification for Aluminum Rain carrying Systems”.
- C. HUD Minimum Property Standard 4900.1 for One and Two-Family Dwellings.
- D. HUD Minimum Property Standard 4900.1 for Multi-Family Dwellings.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Stack performed and prefinished material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.
- B. Prevent contact with materials which may cause discoloration or staining.

PART 2 – PRODUCTS

2.1 SHEET MATERIALS

- A. Aluminum : ASTM B209 Alloy 3105-H 24 minimum tensile strength 26000psi minimum yield strength 250000 psi or equivalent. Continuous and seamless sheet aluminum roll formed.

2.2 ACCESSORIES

- A. Fasteners: Same material and finish as gutters and down spouts.
- B. Protective Backing Paint. Zinc chromate alkyd or bituminous.
- C. Sealant: Polyurethane ASTM C 920 type, S Grade NS Class 25.
- D. Bedding Compound: Rubber-asphalt type.
- E. Plastic Cement: ASTM D4586, Type II.
- F. Gutter and Downspout Anchorage Devices: SMACNA requirements.
- G. Gutter Supports: Brackets (spikes and ferrules are not to be used).
- H. Downspout Supports: Straps.

2.3 COMPONENTS

- A. Gutters: Aluminum sheet, ASTM B 209, Alloy 3105-H24. Minimum tensile strength 26,000 psi, minimum yield strength 25,000 psi or equivalent. Continuous and seamless sheet aluminum, roll formed.
 - 1. Thickness: 0.027 inch (0.69 mm).
- B. Downspouts: Rectangular profile.
Aluminum sheet, ASTM B 209, Alloy 3105-H24. Minimum tensile strength 26,000 psi, minimum yield strength 25,000 psi or equivalent.
 - 1. Thickness: 0.027 inch (0.69 mm).
 - 2. Size: 3 inches by 4 inches (76 mm by 102 mm).
- C. Endcaps: Aluminum sheet, ASTM B 209, Alloy 3105-H24, thickness 0.027 inch (0.69 mm).
- D. Inside and Outside Mitres: Aluminum sheet, ASTM B 209, Alloy 3105-H24, thickness 0.027 inch (0.69 mm).

- E. Gutter Hangers and Anchors: Aluminum sheet, ASTM B 209, Alloy 3105-H24, thickness 0.063 inch (1.60 mm). Provide types required to suit project requirements.
- F. Downspout Anchors: Aluminum. Provide types required to suit project requirements.
- G. Elbows: Aluminum sheet, ASTM B 209, Alloy 3105-H24. Minimum tensile strength 26,000 psi, minimum yield strength 25,000 psi or equivalent.
 - 1. Thickness:
 - a. 0.019 inch (0.48 mm).
 - 2. Size: To match downspouts.
- H. Gutter Guard:
 - 1. Size: Aluminum mesh, 6 inch (127 mm) by 3 foot (914 mm).
- C. Accessories: Profiled to suit gutters and downspouts.
- D. Splash Pads: Precast concrete type, of minimum 16 x 24 inch size; minimum 3000 psi at 28 days, with minimum 5 percent air entrainment.

2.4 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.
- B. Continuously form seamless gutters to the profiles and sizes specified.
- C. Form downspouts of profiles and sizes specified.
- D. Hem exposed edges of metal.
- E. Form pieces in longest possible lengths.

2.5 FINISH

- A. Back paint concealed metal surfaces with protective backing paint to a minimum dry film thickness of 15 mil.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared. .
- B. Verify governing dimensions at building.
- C. Verify surfaces are ready to receive gutters and downspouts.
- D. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.

- B. Clean and repair if necessary any adjoining work on which this work is in any way dependent for its proper installation.
- C. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Conform to drawing the details of the SMACNA manual.
- B. Install in accordance with manufacturer's instructions.
- C. Install gutters using appropriate hangers to allow normal expansion and contraction.
- D. Install gutter hangers using two 1-1/4 inch (32 mm) screw shank nails and fastened into solid lumber.
- E. All gutters shall be in continuous length for each elevation (run). No end laps are allowed.
- F. Exercise care in placing aluminum in contact with other dissimilar metals or materials that are not compatible with aluminum.
- G. Providing adequate insulation/separation where ever necessary, such as by painting or otherwise protecting when they are in contact with aluminum or when drainage from them passes over aluminum surfaces.
- H. Install sealants where indicated to clean dry surfaces only without skips or voids.
- I. Seal joints watertight for aluminum and prefinished galvanized metal.
- J. Secure gutters and downspouts in place using fasteners.
- K. Slope gutters 1/4 inch per foot minimum.
- L. On ground, set splash pads under downspouts.
- M. Seal metal joints watertight.

3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 07920

SEALANTS AND CAULKING

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes materials and installation of the sealants and caulking.

1.02 RELATED SECTIONS

- A. Section 08100 - Hollow Metal Doors and Frames: Sealant installed at perimeter of door frames.
- B. Section 08520 - Aluminum Windows: Sealant installed at perimeter of window framing.
- C. Section 09300 - Tile: Sealant installed in floor control and expansion joints.
- D. Section 09900 - Painting: Installation of sealant coordinated with painting.
- E. Section 11460 - Manufactured Cabinets: Sealant installed between countertop splash and wall.

1.03 SUBMITTALS

- A. Submit copies of complete technical data and physical samples to the Architect/Engineer in accordance with Section 01340.
- B. Submit a detailed list of all locations where materials will be used, type of caulking or sealants which will be used at each location, and names of all manufacturers of compounds, primers, and fillers which will be used.

1.04 PUBLICATIONS

- A. Copies of all technical bulletins relating to the installation of the various materials shall be on the job site at all times during the installation of all caulking and sealants. Work-men will be thoroughly familiar with these and the instructions therein shall be followed exactly.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Sealants for all exterior locations, except horizontal traffic joints, and at interior locations where color coordination is required, shall be:
 1. At perimeter of Door and Window Framing: Dow-Corning 795.
 2. Provide primer and bond breaker as recommended by the sealant manufacturer for the substrates involved.
 3. Colors shall be as selected by the Architect/Engineer from the manufacturer's standard colors.

- B. Sealant for horizontal installation over the expansion joints in hard tile and concrete surfaces, interior and exterior, shall be self-leveling, Dow-Coming S-L traffic sealant. Colors as selected by the Architect/Engineer.
- C. Caulking at the interior of the building for joints where the caulking will be painted shall be Tremco Acrylic Latex #384, white in color.
- D. Sealant for installation between counter tops and splashes, between walls and splashes shall be Dow Corning 786 Mildew Resistant clear silicone sealant.
- E. Back-up materials for sealants and caulking, as required, shall be closed cell Dow Ethofoam as manufactured by Dow Chemical Company, Inc. Back-up materials shall have a diameter of approximately 25% to 50% greater than the width of the joint.
- F. Solvents, primers and cleaning agents as recommended by the caulking and sealant manufacturers.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Caulking and sealants application shall include, but is not limited to the following:
 - 1. Perimeter of door frames.
 - 2. Perimeter of aluminum windows.
 - 3. Counter tops and splashes at wall.
 - 4. Between dissimilar materials.
 - 5. Under thresholds.
 - 6. At areas to prevent the entrance of moisture.
 - 7. Other areas as detailed on the drawings.
- B. Inspect the work of other trades prior to installation of caulking and sealants. Install no caulking nor sealant in joints which are not in proper condition to receive sealant materials until defects are corrected.
- C. Apply sealants and caulking when temperatures are as recommended by the manufacturers. Storage of all material shall be at room temperature with material being used on a first in, first out basis.
- D. Prior to the installation of any caulking or sealants, completely clean all surfaces. All surfaces must be dry. Clean first with brush and dry cloth and then clean with an air brush using dry, oil-free air. Immediately after cleaning, prime, as required, the surfaces to be treated with the appropriate primer using a small clean paint brush reaching all parts of the area to be primed. Allow primer the proper drying time before applying the caulking or sealant.
- E. All caulking and sealants applied to the building will be installed with guns having the proper size nozzles. Use even pressure, sufficient to fill all voids and joints solid.
- F. A bed of sealant compound shall be spread over the entire seat of thresholds and the thresholds set on the compound.

- G. Joints to be painted shall be even and smooth. Caulking that is to be painted shall be installed before the last coat of paint is applied.
- H. Sealant to be installed over horizontal expansion joints shall be installed after area is cleaned and primed as outlined above. Pour sealant from container, fill joint to slightly below the top of the paving. Minimum depth of the joint shall be 1/2 inch.
- I. Install backer rods in joints more than 1/2 inch deep, of size and type specified. Rod shall be set for approximately 1/2 inch depth of compound.
- J. Every caulked and sealed joint shall be watertight.

3.02 CLEANUP

- A. Upon completion of the work, all excess materials shall be removed leaving joints, neat, clean and straight. material shall be removed by cutting with a sharp edged tool. Thin films may be removed by abrading, but without damaging the finish of any other materials.

END OF SECTION

SECTION 08100

HOLLOW METAL DOORS AND FRAMES

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes:
 - 1. Removal of existing door and frames, as scheduled.
 - 2. Materials and installation of new metal doors and frames.

1.02 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry: Wood blocking and nailers required for the complete and rigid installation of the hollow metal work.
- B. Section 07920 - Sealants and Caulking: Sealant installed at perimeter of door frames.
- C. Section 08710 - Finish Hardware: Preparation of hollow metal work to receive finish hardware items.
- D. Section 09900 - Painting: Finish painting of hollow metal work.

1.03 QUALITY ASSURANCE

- A. Hardware Locations: The locations of hardware on doors and frames shall be in accordance with the requirements of The National Association of Architectural Metal Manufacturers (NAAMM), The Steel Door Institute (SDI) and the Americans with Disabilities Act (ADA).
- B. Acceptable manufacturers: The following manufacturers are acceptable for use on this project subject to compliance with project requirements:
 - 1. Ceco Door Division of Oakbrook Terrace, Illinois.
 - 2. Curries Company of Mason City Iowa.
 - 3. Fenestra Corporation of Erie, Pennsylvania.
 - 4. General Products Company of Fredericksburg, Virginia.
 - 5. Steelcraft Manufacturing Corporation of Brentwood, Tennessee.

1.04 SUBMITTALS

- A. Submit copies of shop drawings and door and frame schedules to the Architect/Engineer in accordance with Section 01340.
 - 1. The Shop Drawings shall fully describe and locate all items being furnished and shall include large scale details of principal construction features.
 - 2. Door and frame schedule shall make reference to door numbers and room numbers shown and scheduled on the drawings.
 - 3. Fabrication shall not commence until the submittals have been reviewed by the Architect/Engineer.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Doors shall be received at the job site in the manufacturers original, unopened cartons. All scratches and disfigurements caused in shipping and handling shall be properly cleaned and touched up with a rust-inhibitive primer.
- B. Doors shall have all wrappings removed. Doors shall be stored in a dry location, in a vertical position, spaced by blocking to permit air circulation between them.

PART 2 – PRODUCTS

2.01 EMBOSSSED METAL DOORS AND GLAZED METAL DOORS

- A. Provide doors as manufactured by General Products Company of Fredericksburg, Virginia. Doors shall be "Williamsburg" Benchmark design. Another acceptable manufacturer is Steelcraft "Emcraft Embossed" finish.
 - 1. Provide embossed panel doors, doors glazed with view lite, as scheduled. Refer to Drawings for glazing requirements. Doors with glass are to be provided pre-glazed.
 - 2. Doors shall conform to SDI 100, Grade 11, 1-3/4" thickness with vertical edge seam.
 - 3. Interior of doors shall be filled with polyurethane foam and shall meet minimum requirements of Energy Star conformance with a composite u-value of 0.40 or lower.
 - 4. Face sheets shall be 20 gauge galvanized steel, factory primed.
 - 5. Doors to receive glazing shall have non-removable glazing stops on the exterior side of the door and removable (screw-on or snap-on) glazing stops on the interior side.
- B. Hardware preparation shall conform to SDI 100, 107, 117 and 118.
 - 1. Doors and frames shall be mortise reinforced, drilled and tapped to receive all hardware in accordance with the Finish Hardware Schedule; refer to Section 08710 and templates provided by the hardware manufacturer.
 - 2. Drill and/or tap in the field for surface applied hardware such as door guards, closers and kick plates.
 - 3. Reinforcings shall conform to SDI 100, Table IV.

2.02 HOLLOW METAL FRAMES

- A. Door frames shall have mitered and welded comers. Frames shall be drilled to receive three silencers at single door openings, two silencers at openings with pair of doors. Welds shall be ground smooth. Door frames shall be fabricated from 18 galvanized steel sheets, zinc coated carbon steel of commercial quality, complying with ASTM A 526, with ASTM A 525 A60 galvanized zinc coating, mill phosphatized for paint adhesion.
- B. Reinforcement: Proper reinforcement shall be provided for all hardware where required. Reinforcements, drilling and tapping for mortised applied hardware shall be done at the factory. Surface applied hardware reinforcements shall be installed at the factory, drilling and tapping shall be done in the field by others. Frame reinforcements for finish hardware outlined on the hardware schedule, shall be as follows:
 - a. Hinge: 10 gauge, minimum.
 - b. Lock: 14 gauge, minimum.

- C. Frame anchors at jambs shall be designed to match wall system they are joining. Anchors will be of not less than 18 gauge steel, spaced at 24" centers. Provide 18 gauge floor anchors at bottom of all door jambs.
- D. Frame Insulation: Glass fiber, 2" thickness, 3 pound density, Type 703 as manufactured by Owens-Coming Fiberglas Corporation of Toledo, Ohio.

2.03 FINISH

- A. After fabrication, all tool marks and surface imperfections shall be removed, and exposed faces of all welded joints shall be dressed smooth. Doors and frames shall then be chemically treated to insure maximum paint adhesion. Apply rust-inhibitive primer to doors and frames scheduled for interior installations.
- B. Galvanizing Repair Paint: Z.R.C. Cold Galvanizing compound, as manufactured by ZRC Products Company of Quincy, Massachusetts.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Prior to installation, all frames must be checked and corrected for rack, twist, and out-of-square.
- B. Frames shall be installed plumb, rigid and in true alignment, with all required anchors securely fastened to wall construction so that frames will retain their position and clearance during final partition work. Door silencers shall not be installed until after the frames have received their final coat of paint.
- C. All doors shall be set true and plumb, with sufficient clearance for free operation, not to exceed 1/8 inch at jambs and heads, 1/8 inch at meeting edges of pairs of doors and 1/4 inch above finish flooring material at bottom. Lock edges of doors shall be so designed to provide proper operating clearance. Finish hardware will be attached prior to any glazing work.

3.02 ADJUST AND CLEAN

- A. Prime Coat Touch-Up:
 - 1. Immediately after erection, sand smooth any rusted or damaged areas of the prime coat and apply touch-up of compatible air drying primer.
 - 2. Galvanized Door and Frames: Clean abraded areas and apply cold galvanizing compound to comply with ASTM A 780, except that the paint shall be brushed on or spray applied in multiple coats until a dry film thickness of 8 mils minimum has been achieved.

END OF SECTION

SECTION 08210

WOOD DOORS

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes materials and installation of new solid core doors.

1.02 RELATED SECTIONS

- A. Section 08710 -Finish Hardware: Preparation of doors to receive finish hardware items.
- B. Section 09250 - Gypsum Wallboard: Construction of gypsum wallboard partitions prior to prehung door installations.
- C. Section 09900 - Painting: Finishing of wood doors.

1.03 QUALITY ASSURANCE

- A. Acceptable Manufactures: Qualified to affix each door with a label with the manufacturer's name and certification of compliance with the National Wood and Window and Door Association (NWWDA).
- B. Manufacturer's Standards - Doors Shall Comply With the Following Standards:
 - 1. ANSI/NWWD LS 1, "Series for Flush Wood Doors", published by the National Wood Window and Door Association (NWWDA).
 - 2. AWI Quality Standards - Section 1300 of "Architectural Woodwork Quality Standards", published by the Architectural Woodwork Institute (AWI).
 - a. Grade: Custom.
- C. Allowable tolerances for Fabrication of Doors
 - 1. Size: plus or minus 1/16 inch overall dimensions.
 - 2. Warp: 1/4 inch maximum.
 - 3. Squareness: Length of diagonal measured on face of door from upper right comer to lower left comer between length of diagonal measured on upper left comer to lower right comer: Maximum difference of 1/4 inch.

1.04 SUBMITTALS

- A. Submit the following to the Architect/Engineer for review:
 - 1. Copies of Door schedule indicating opening mark number, sizes, door types and grade, swing, locations and undercuts.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Delivery:
 - 1. Deliver doors to site after building has reached average prevailing relative humidity of locality.

2. Deliver in manufacturer's original unopened protective material or container, clearly marked with manufacturer's name, brand name, size, thickness and identifying symbol on covering.
3. Seal all four edges of doors when delivered to project site.

B. Storage:

1. Stack flat on 2 x 4 lumber, laid 12 inches from ends and across center.
2. Under bottom door and over top of stack provide plywood or corrugated cardboard to protect door surface.
3. Store doors in area where there will be no great variations in heat, dryness, and humidity.

C. Handling: Do not drag doors across one another.

1.06 GUARANTEE

- A. Guarantee for Solid Core Doors: Provide manufacturer's standard 1-year warranty.

PART 2 – PRODUCTS

2.01 PREHUNG SOLID CORE DOORS

- A. Six panel pre-hung masonite or flush doors as indicated, manufactured by Masonite International Corporation or approved equal.
1. Top rail and bottom rail shall be minimum 2-1/2" wide.
 2. Stile width shall be minimum 2-5/8" wide.
 3. Lockblock shall be minimum 2-5/8"x20", two (2) per door.
 4. Rails and lockblock shall be manufacturer's standard softwood.
 5. Door Facings: 1/8" Tempered hardboard with factory applied prime coat of paint.
 6. Frame: Kiln dried Ponderosa Pine, finger jointed material is acceptable, profiles as detailed.
 7. Finish: Field paint.
 8. Hardware: One (1) pair of butts.
- B. Factory Preparations: All doors shall be factory machined to receive finish hardware.

PART 3 – EXECUTION

3.01 INSPECTION

- A. Do not install doors in rough openings so prepared that such installation would hinder the operation of the doors.

3.02 INSTALLATION

A. Fitting and Machining:

1. Primary fitting of doors shall be done in factory. Hardboard faced doors may not be field machined.
2. Fit doors in field for width by planing; for height by sawing.
 - a. Maximum of 1/2" from bottom.
 - b. Maximum of 1/8" maximum from top.
 - c. Bevel lock and hinge edges 1/8" in 2".

3. Machine doors for hardware to clearance tolerances specified. Perform in factory to greatest extent possible. Hardboard doors may not be machined in the field. Return to factory for any required modifications.
4. Seal all job site cut surfaces with two coats of sealer before final hanging of doors.

B. Installation of Doors

1. Follow door manufacturer's written instructions for all installation work. Installation methods shall not void the door guarantee.
2. Clearances:
 - a. Allow maximum of 1/8" at jamb and head for job fit doors and prefit doors.
 - b. Allow maximum of 1/2" over decorative floor coverings.

3.03 ADJUST AND CLEAN

- A. Replace or rehang doors which are hingebound and do not swing or operate freely.
- B. Refinish or replace job finished doors damaged during installation.

3.04 CLEANUP

- A. Upon completion of wood door installations, remove from the site all excess materials, debris and tools and leave doors ready to receive specified finish.

END OF SECTION

SECTION 08410

ALUMINUM ENTRANCE AND STOREFRONT

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Aluminum door, frames, glazed lights and storefront.
- B. Anchors, brackets, and attachments.
- C. Door hardware.
- D. Perimeter sealant.

1.02 RELATED SECTIONS

- A. Section 06100 – Rough Carpentry.
- B. Section 06200 – Finish Carpentry.
- C. Section 07920 – Sealants and Caulking.
- D. Section 08800 – Glass and Glazing.

1.03 GUARANTEE

- A. Guarantee period for this work shall be two years.

1.04 SUBMITTALS

- A. Submit under provisions of Section 01340.
- B. Shop Drawings: Show different types, framing, construction, and installation details, and locations with reference to the drawings and hardware required to meet or exceed these specifications.
- C. Samples: Only as requested.

1.05 FIELD MEASUREMENTS

- A. Verify actual measurements/opening by field measurements prior to fabrication. Show recorded measurements on Shop Drawing.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Fixed window work, curtain wall system, storefront and transom shall be Kawneer – 451 Series. All sections shall be sized as indicated on Drawings and shall be designed to accommodate 1/4” to 1” glazing thicknesses. Framing members shall be nominal 2” x 4”.

- B. All extruded aluminum shall be in accordance with ASTM B221; 6063 Alloy, T5 Temper.
- C. No exposed fastenings shall be used. Standard fastening screws shall be stainless steel.
- D. System shall be complete with all hardware, trim; copings, seals and gaskets, and accessories of any kind for complete weathertight installation.
- E. Finish:
 - 1. Entry doorway and storefront for all areas shall be Kawneer Dark Bronze
- F. Exterior Entry Doors:
 - 1. Kawneer – medium style 350 with 8” bottom rail;
 - 2. Top, bottom and intermediate pivots.
 - 3. Cylinder Lock – Furnished by Section 08711 – Door Hardware installed by this Section.
 - 4. Metal Threshold, secure with suitable anchors and machine screws.
 - 5. Surface mounted closure in masonry color.
 - 6. Push and Pulls, clear anodized finish.
 - 7. Manufacturers Standard concealed panic rod device.
 - 8. Bottom rail of framed glass door to be 8” high.
- G. Provide and coordinate break metal trim to match system, with General Contractor – verify work is in conformance with system requirements.
- H. See Section 08800 – Glass and Glazing. Provide tempered units as required by Building Codes.

PART 3 – EXECUTION

3.01 INSPECTION

- A. Verify wall openings and adjoining air and vapor seal materials are ready to receive work of this section.
- B. Beginning of installation means acceptance of existing conditions.

3.02 INSTALLATION

- A. Install doors, frames, glazing, and hardware in accordance with manufacturer’s instructions.
- B. Use anchorage devices to securely attach frame assembly to structure.
- C. Align assembly plumb and level, free of warp or twist. Maintain assembly dimensional tolerances, aligning with adjacent work.
- D. Coordinate attachment and seal of air and vapor barrier materials. Install sill weather stripping and flashings.
- E. Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.
- F. Install hardware using templates provided. Refer to Section 08711 – Door Hardware for installation requirements.

- G. Install glass in accordance with Section 08800 – Glass and Glazing, using premolded method of glazing.
 - H. Perimeter sealant, backing materials, and their installation requirements shall be in accordance with Section 07920 – Sealants and Caulking.
 - I. Adjust operating hardware.
- 3.03 CLEANING
- A. Remove protective materials from prefinished aluminum surfaces.
 - B. Wash down exposed surfaces using a solution of mild detergent in warm water, applied with soft, clean wiping cloths. Take care to remove dirt from covers. Wipe surfaces clean.
 - C. Remove excess sealant by moderate use of mineral spirits or other solvent acceptable to sealant manufacturer.

END OF SECTION

SECTION 09250

GYPSUM WALLBOARD

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Provide new wood stud and gypsum wallboard partitions as indicated on drawings.
- B. The intent of this section also includes repairs to existing surfaces and framing (wood studs) damaged by the construction process.

1.02 RELATED SECTIONS

- A. Section 06100 – Rough Carpentry.
- B. Section 09900 - Painting: Painting of gypsum wallboard.

1.03 QUALITY ASSURANCE

- A. Acceptable Manufacturers - The following manufacturers are acceptable for use on this project subject to compliance with requirements:
 - 1. U.S. Gypsum Company
 - 2. National Gypsum Company
- B. References:
 - 1. Gypsum Board Standard: Comply with applicable requirements of ANSI/ASTM C 840 for application and finishing of gypsum board, unless otherwise indicated.
 - 2. Steel Framing Standard: Comply with applicable requirements of ASTM C 754 for installation of steel framing for gypsum board.
 - 3. Gypsum Board Terminology: GA-505 by Gypsum Association.

1.04 SUBMITTALS

- A. Submit copies of technical data and laboratory test data, describing all materials, to the Architect/Engineer in accordance with Section 01340. Submit samples upon request.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. All materials shall be delivered to the job site in original unopened bundles or cartons bearing manufacturer's label. Store drywall boards on the job site above ground on level flooring in weathertight shelter and in manufacturers original unopened containers. Drywall must remain dry at all times.

PART 2 – PRODUCTS

2.01 GYPSUM WALLBOARD MATERIALS AND ASSEMBLIES

- A. Gypsum Wallboard: Match existing thickness at repaired areas. Provide and install ½ “ thick, fiber reinforced with tapered edges minimum at new construction.

- B. Fasteners: GA 203.
- C. Metal Trim Products
 - 1. Control Joint: U.S. G. No. 093 all zinc.
 - 2. Metal Trim: U.S.G. No. 200 Series, all zinc, type as recommended by manufacturer of use intended.
 - 3. Corner Bead: National Gypsum or U.S.G. No. 100 "Perf-A-Bead" and "Dur-A-Bead".
- D. Joint System:
 - 1. "Perf-A-Tape" joint system utilizing joint compound, tape and topping compound manufactured by U.S. Gypsum or National Gypsum.
 - 2. Reinforcing Tape: "Perf-A-Tape".
 - 3. Joint Compound: All purpose ready-mixed "Perf-A-Tape" cement.
- E. Provide all necessary carriers and framing to receive items built into or recessed in gypsum wallboard partitions

PART 3 – EXECUTION

3.01 PREPARATION / INSPECTION

- A. Repair gypsum wallboard systems in areas damaged by construction. Where existing framing is to be utilized, verify that framing is straight and structurally sound.
- B. Start of work under this section shall constitute acceptance of surfaces as satisfactory to receive work.

3.02 ERECTION AND INSTALLATION

- A. Gypsum drywall shall be installed in well ventilated, totally enclosed areas, with temperatures uniformly maintained within the range of 55°F to 70°F. Maintain temperature 24 hours before commencement of the gypsum wallboard work and until the building is occupied.
- B. For wood framing, use double nailing method of application with floating angle method at interior angles, or at Sub-Contractor's option, use adhesive/nail-on method. Apply all gypsum board vertically or horizontally at walls with all ends and edges occurring over nailing members.
- C. All cutting of ends and cutouts for switches or outlets, etc., within the field of the wallboard are by this Subcontractor. Locate all electrical outlets covered by this work; cutouts are not to be larger than items received and in a manner acceptable to Architect/Engineer. All cutouts must be made by knife, not by hammer.
- D. Apply comer beads to all external angles. Apply casing beads where indicated on the drawings.
- E. Supplementary Framing:
 - 1. Install framing, plates, sills, furring, blocking and bracing at openings and terminations in work-, and at locations required to support fixtures, equipment, services, heavy trim, furnishings and similar work which cannot be adequately supported directly upon the gypsum board alone.

2. Install framing / furring and gypsum wallboard assembly as required to conceal piping, conduit, etc. Finish as specified herein

F. Accessories:

1. Joint compound and perforated tape shall be used on all face joints and internal angles formed by the intersections of walls. Final application of joint compound will be sanded smooth. Apply compound in three coats at screw holes, sanding between coats.
2. Provide metal trim, comer beads and expansion joints as shown on the drawings and/or as required, in single lengths. At least two coats of joint compound shall be applied over beads and each coat feathered out onto panel faces. Control joints at shall be spaced 30 feet o.c. each way, maximum, at door frames where possible. Control joints shall be installed only in walls/partitions that exceed the 30' dimension, such as an uninterrupted, continuous wall.

3.03 FINISHING GYPSUM BOARD ASSEMBLIES

A. Levels of Gypsum Board Finish: Provide the following levels of gypsum board finish per GA-214.

1. Level 1 for ceiling plenum areas, concealed areas, and where indicated, unless a higher level of finish is required for fire-resistive-rated assemblies and sound-rated assemblies.
2. Level 2 where water-resistant gypsum backing board panels form substrates for tile, and where indicated.
3. Level 4 for gypsum board surfaces unless otherwise indicated.

- B. For level 4 gypsum board finish, embed tape in joint compound and apply three separate coats of joint compound over joints, angles, fastener heads, and accessories. Touch up and sand between coats and after last coat as needed to produce a surface free of visual defects and ready for decoration. Use one of the following joint compound combinations:

- C. Where level 2 gypsum board finish is indicated, apply joint compound specified for first coat in addition to embedding coat.

- D. Where level 1 gypsum board finish is indicated, apply joint compound specified for embedding coat.

3.04 COMPLETION

- A. Leave gypsum wallboard ready to receive finish painting, as scheduled on drawings.

3.05 CLEANUP

- A. At the completion of this work, remove from the site all excess materials and debris. Leave entire work ready for the application of scheduled finishes.

3.06 PROTECTION

- A. Installer shall advise Contractor of required procedures for protection gypsum drywall work from damage and deterioration during remainder of construction period.

- B. Touch Up: Return after application of primer but before application of top coats, to inspect surface of substrate for smoothness and damage, and repair surface or touch up joints to

satisfaction of the Architect/Engineer. Coordinate timing of touch up with work of painting to avoid delays in the work.

1. This does not exclude other repairs or touch up work that may be included or implied by these Specifications or other parts of these Contract Documents.

END OF SECTION

SECTION 09300

TILE

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes:
 - 1. Install of new ceramic tile within building

1.02 RELATED SECTIONS

- A. Section 07920 - Sealants and Caulking: Sealing expansion and control joints in floors.
- B. Section 09250 - Gypsum Wallboard: Cement board as substrate for ceramic tile base.
- C. Section 10800 - Toilet and Bath Accessories: Coordination of tile installation with the installation of the toilet and bath accessories.

1.03 QUALITY ASSURANCE

- A. Acceptable Manufacturers - The following manufacturers are acceptable for use on this project subject to compliance with project requirements:
 - 1. American Olean Tile Company
 - 2. Summitville Tiles, Inc.
 - 3. U.S. Ceramic Tile Company
 - 4. Dal-Tile Corporation
 - 5. Florida Tile Division of Sikes Corporation.
- B. Publications: A copy of the following standards shall be kept on the job by the Contractor at all times: USAS 137. 1, American National Standards institute (ANSI) Standard Specifications; Latest Edition of Handbook for Ceramic Tile Installation by the Tile Council of America. These standards shall be referred to for tile installation.

1.04 SUBMITTALS

- A. Submit the following in accordance with Section 01340:
 - 1. Copy of Master Grade Certificate bearing certification mark of Tile Council of America, signed by both tile manufacturer and tile sub-contractor.
 - 2. Adhesive manufacturer's Certification of Compliance to required standard.
 - 3. Sample panel, approximately 12", square for each color, pattern and type of tile intended to be used. Samples shall include all tile accessories. Panels shall be properly labeled on back with names of project, product and contractor. Samples shall show limit of range to be expected on the tile installation.
 - 4. Sample marble threshold showing color, markings and finish.
- B. Obtain approval of sample submittals before delivering any products to job site.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver all products to job site in manufacturer's unopened, original, standard containers with grade seals unbroken and labels intact. Keep tile cartons dry.

1.06 EXTRA STOCK

- A. Supply extra 2% replacement stock of each type tile installed. Deliver to Owner in manufacturer's original cartons with labels intact. All unused stock shall also be turned over to the Owner.

PART 2 – PRODUCTS

2.01 TILE AND SETTING MATERIALS

- A. Ceramic Tile: Colors as selected by the Architect/Engineer from manufacturer's standard selections.
 - 1. Floor Tile: 2"x2" Standard Grade ceramic mosaic, dust pressed, machine made, matte glazed, eased edges.
 - 2. Base: 4-1/4"x6" long, match wall tile.
 - 3. Wall Tile: 4-1/4"x4-1/4", smooth surface, glazed, Standard Grade, cushion edge. Provide 2"x6" bullnose trim piece at perimeter of tile tub surround installation.
- B. Provide all miscellaneous shapes, special shapes, including bullnoses, necessary for a complete installation. All external comers shall be bullnosed (unless specified/indicated otherwise), internal comers shall be square.
- C. Setting Materials for Thin-Set Installation of Ceramic Tile:
 - 1. Floor Tile:
 - a. Portland Cement: ASTM C-150 Type 1
 - b. Sand: ASTM C-144
 - c. Mortar: 1 part Portland cement, 4 parts damp sand by volume. Use an admixture to make mortar bed water resistant.
 - d. Grout: Latex Portland cement, similar to Bostik Sanded Hydroment Grout for joints wider than 1/8" and Bostik Non-Sanded Hydroment Dry tile Grout for joint width 1/8" and less, color(s) as selected by the Architect/Engineer. Each type of grout shall have Bostick Hydroment Multi-Purpose Acrylic Latex Additive #425 added to the grout mix.
 - 2. Wall Tile:
 - a. Adhesive: Water-resistant, organic complying with ANSI 136.1, type 1, similar to Bostik 500 Multi-Purpose Ceramic Tile Adhesive. Provide primer and sealer as recommended by the adhesive manufacturer.
 - b. Grout: Latex Portland cement, color(s) as selected.
- D. Sealant for application around perimeter of plumbing fixtures (waterclosets, tubs, etc.), between tile and another material, shall be white, fungicidal one-part silicone rubber sealant comparable to Dow Coming 786.
- E. Refer to Section 07920 for sealant for use in floor tile control/expansion joints.
- F. Thresholds shall be Grade A Georgia Marble, thickness required to make transition between tile and adjoining surfaces, and shall comply with ASTM C-503, for exterior use and abrasion resistance. Thresholds shall be free from cracks, chips, stains or other defects, uniform in tone and coloring. Color(s) as selected.

2.02 ACCESSORIES

- A. Ceramic Toilet and Bath Accessories - Refer to drawings for locations and quantities
 - 1. Paper Holder: Ceramic, surface (adhesive) mounted. Provide with spring-loaded stainless steel roller.
 - 2. Towel Bars: Ceramic surface (adhesive) mounted, with plastic bar, lengths as shown on Drawings.
 - 3. Tumbler/Toothbrush Holder: Ceramic, surface (adhesive) mounted.
 - 4. Soap Dish at Lavatory: Ceramic, surface (adhesive) mounted.
 - 5. Shower Curtain Rod: Refer to Drawings.

PART 3 – EXECUTION

3.01 PREPARATION

- A. All surfaces receiving tile shall be dry, clean, free from oily or waxy films. Do not start work until all grounds, anchors, hangers, electrical and mechanical work in or behind the tile have been installed. Inspect subfloors which are to receive tile covering. Correct defects or conditions that will interfere with or prevent a satisfactory tile installation. Do not proceed with installation until such defects or conditions have been corrected. The starting of installation work in a room or space shall imply acceptance of the surfaces to receive the tile in that space.
- B. Do not install any materials until temperature of materials and substructures have been maintained at or above 50°F minimum for a period of 24 hours.

3.02 TILE INSTALLATION - GENERAL

- A. Where possible, lay out work so that no tile less than half-size occurs. For heights stated in feet and inches, maintain fall courses to produce nearest attainable heights without cutting tile. Obtain exact locations of expansion joints and accessories before installing tile.
- B. Marble thresholds shall be installed at each door opening where tile begins. Install each threshold in a bed of mortar and set as indicated on the Drawings. One piece of marble will be used for each threshold. Notch thresholds at door jambs to follow profile of door frame.
- C. After tile work and grout is dry, apply continuous sealant in tile control joints, where tile butts tubs, perimeter of waterclosets, perimeter of urinals, where tile butts ceilings and where tile butts other materials.
- D. As the work progresses, all surfaces shall be cleaned with burlap. Upon completion scrub the entire installation with fiber brushes and water. Do not use acid or metal scrapers. Before traffic is permitted over finished tile work, cover the floors with untreated building paper or board walkways. Cracked, broken or damaged tiles shall be removed and replaced prior to final inspection.

3.03 CERAMIC TILE INSTALLATION

- A. Mud bed floor tile installations shall be in accordance with number F112, Handbook for Ceramic Tile Installation, Tile Council of America. Install tile using materials specified herein for the

particular tile. Comply with setting materials manufacturer's recommendations for preparation of substrate, mixing and application/installation.

- B. Walls Tile Over Cementitious Backer Board: Thin set wall tile installation shall be organic adhesive application similar to number W223, Handbook for Ceramic Tile Installation Tile Council of America.

3.04 FLOOR CONTROL/EXPANSION JOINTS

- A. Floor tile shall be aligned to show uniform joints and then allowed to set until firm. Tile shall be set with all joints in alignment and shall be uniform and true, maintained straight from wall to wall, uniform in width for entire length of wall in either direction.
- B. Provide expansion and control joints over control and expansion joints in substrate (floors). Provide expansion joint at tile perimeter abutting walls. Consult with Architect/Engineer before constructing any control and expansions joints for location verification. Expansion or control joints shall be 1/4 inch wide, through the tile and bed, shall be provided and constructed as recommended by the Tile Council of America, Inc.
 - 1. Joints shall be sealed with sealant not less than 1/4 inch deep.

3.05 ACCESSORY INSTALLATION

- A. Install accessories in locations indicated.
- B. Install using manufacturer recommended adhesive and stainless steel fasteners and anchorages.
- C. Installations shall be plumb, level and square.

3.06 REPAIR

- A. Any loose, uneven or misaligned tile and/or accessory shall be removed and reinstalled at no additional expense the Owner.

3.07 CLEANUP AND PROTECTION

- A. Remove all excess materials and debris from the job site. Leave entire work in a neat condition ready for observation by the Architect/Engineer.
- B. Protect the completed installations of the ceramic tile and accessories from damage until the date of Substantial Completion. Any tile damaged during this period of time shall be replaced at no expense to the Owner.

END OF SECTION

SECTION 09510
ACOUSTICAL CEILINGS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Acoustical ceiling tile.
- B. Acoustical ceiling tile suspension system.

1.02 RELATED SECTIONS

- A. DIVISION 15 - MECHANICAL.
- B. DIVISION 16 - ELECTRICAL.

1.03 SUBMITTALS

- A. Submit manufacturer's literature describing products.
- B. Submit samples of the following:
 - 1. Acoustical ceiling tile and framing suspension system.

PART 2 PRODUCTS

2.01 ACOUSTICAL SURFACE TYPES

- A. Lay-In Acoustical Tile (General): Rigid, noncompressible tile made of mineral fibers:
 - 1. Fire rating: noncombustible.
 - 2. Flame spread when tested in accordance with ASTM E84: 25 or less.
 - 3. Size 24 by 24 by 5/8 inch thick – Armstrong 'Fine Fissured' (1717), Angular Tegular 15/16". Color White
 - 4. Noise reduction coefficient (NRC): 0.55 minimum.
- B. Suspension Grid: Donn or equal 15/16", white grid.
- C. Hanger Wire: No 12, galvanized soft annealed steel wire.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Installation: Lay tile unit in suspension system, with all tile edges bearing on supporting grid members, and no chipped exposed edges.
 - 1. Spare Tile: furnish one full sealed box of spare tiles of each type, deliver to Owner's authorized representative, and obtain his signed receipt therefore.

END OF SECTION

SECTION 09900

PAINTING

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes furnishing and application of painting materials to surfaces, including:
 - 1. Surface preparation of surfaces to be painted.
 - 2. Touching up of prime coats and other preparation necessary prior to finish painting.
 - 3. Painting, staining and otherwise finishing of new surfaces as indicated/scheduled on the Drawings and specified in this and other Sections of this Project Manual.
- B. "Paint" as used herein means all coating systems materials including primers, emulsions, enamels, stains, sealers and fillers, and other applied materials whether used as prime, intermediate or finish coats.
- C. Surfaces to be Painted: Except where natural finish of material is specifically noted as a surface not to be painted, paint exposed surfaces whether or not colors or materials are designated in "schedules". Where items or surfaces are not specifically mentioned, paint the same as similar adjacent materials or areas. If color or finish is not designated, Architect/Engineer will select these colors from standard colors or finishes available.

1.02 RELATED SECTIONS

- A. Section 02090 - Lead Based Paint Abatement Procedures: Removal of existing lead based paints prior to application of new paint materials.
- B. Section 05520 - Metal Railings: Painting of the metal railings.
- C. Section 06200 - Finish Carpentry: Painting, staining and otherwise finishing of finish carpentry items.
- D. Section 07920 - Sealants and Caulking: Coordination of sealant and caulking installation with application of paint.
- E. Section 08100 - Hollow Metal Doors and Frames: Painting of all hollow metal work.
- F. Section 08710 -Finish Hardware: Installation of hardware items after finish painting is complete.
- G. Section 09250 - Gypsum Wallboard: Surface preparation and painting of gypsum wallboard systems.
- H. Division 15 - Mechanical: Painting of mechanical equipment exposed to view and exposed to weather.
- I. Division 16 - Electrical: Painting of electrical equipment exposed to view and exposed to the weather.

1.03 QUALITY ASSURANCE

- A. Acceptable Manufacturers - The following manufacturers are acceptable for use on this project subject to compliance with requirements:
 - 1. Sherwin-Williams Company of Cleveland, Ohio.
 - 2. Devoe & Raynolds Company of Louisville, Kentucky.
 - 3. Benjamin Moore & Company of Montvale, New Jersey.
 - 4. PPG Industries, Inc./Pittsburgh Paint Division of Pittsburgh, Pennsylvania.
 - 5. Porter Paints, Porter International of Louisville, Kentucky.

 - B. Single Source Responsibility: Provide primers and other undercoat paint produced by same manufacturer as finish coats. Use only thinners approved by paint manufacturer, and use only within recommended limits.

 - C. Coordination of Work: Review other Sections of these specifications in which prime paints are to be provided to ensure compatibility of total coatings systems for various substrates. Upon request from other trades, furnish information or characteristics of finish materials provided for use, to ensure compatible prime coats are used.

 - D. Sample Area: A sample area of block filler shall be applied on a designated interior wall of the project as well as a sample area of the "final appearance". Such sample walls must be reviewed and accepted by the Owner and the Architect/Engineer prior to proceeding with any other paint application.

 - E. Acceptable Surfaces: The paint contractor and General Contractor shall be solely responsible for determining that the wall is ready and suitable to be painted.

 - F. Acceptance of Paint Application: Each coat of paint must be reviewed and accepted by the Architect/Engineer before the succeeding coat of paint can be applied. Any coat of paint applied without this review will not be considered as painted.
- 1.04 SUBMITTALS
- A. Submit color chips and manufacturer's product data to the Architect/Engineer for color selection and product review. Submittals shall include spread and coverage rate per coat.
- 1.05 PRODUCT DELIVERY, STORAGE AND HANDLING
- A. Deliver products and materials in original unbroken containers with legible labels intact bearing manufacturer's brand and name with application instructions printed thereon. Paint shall arrive on the job ready mixed, except for tinting of undercoats and possible thinning as recommended by manufacturer.
- 1.06 JOB CONDITIONS
- A. Inspection of Surfaces: The painting contractor shall be responsible for inspecting the work of others prior to the application of any paint or finishing material. If any surface to be finished cannot be put in proper condition for finishing by customary cleaning, sanding, and puttying operations, the painting contractor shall immediately notify the General Contractor in writing or assume responsibility for and rectify any unsatisfactory finish resulting.

- B. Environmental Requirements: Comply with manufacturer's recommendations as to environmental conditions under which coatings and coating systems can be applied. Do not apply finish in areas where dust is being generated.
- C. Protection: All materials used on the job shall be stored in a single place designated by the Contractor. Such storage place shall be kept neat and clean. All damage to the storage area and its surroundings shall be repaired. Any soiled or used rags, waste and trash must be removed from the building every night, and every precaution taken to avoid the danger of fire.
- D. Protect surfaces and objects inside and outside the building, as well as the grounds, lawns, shrubbery, and adjacent properties against damage. The painting contractor shall hold himself responsible for damage to adjacent furnishings.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. All paint and primer applied in the field shall be the products of a single manufacturer. For the purpose of clarification, only the products of one manufacturer have been listed herein.
- B. Extra Stock: Supply an extra 2% of total quantity of each paint used with a minimum of three (3) gallons of each paint. Furnish in manufacturer's unopened, labeled containers for Owner's use.

2.02 PAINTING SCHEDULE

- A. Exterior Painting Schedule:
 1. Galvanized Metal, Including Weather Exposed HVAC and Electrical Equipment
 - a. First coat: SW Galvite B50W3 Series, DFT mils: 2.
Omit first coat on items where compatible factory primer has been applied.
 - b. Second and third coats: SW Industrial Enamel B54 Series, DFT mils: 2.5, each coat.
 2. Ferrous Metals. Including Weather Exposed HVAC and Electrical Equipment:
 - a. First coat: SW Kern Kromik Metal Primer B50 Series, DFT mils: 3.
Omit first coat on items where compatible factory primer has been applied.
 - b. Second and third coats: SW Industrial Enamel B54 Series, DFT mils: 2.5, each coat.
 3. Copper/Aluminum, Including Weather Exposed HVAC and Electrical Equipment:
 - a. First coat: SW Zinc Chromate Primer B50YI Series, DFT mils: 3.
 - b. Second and Third coats: SW Industrial Enamel B54 Series, DFT mils: 2.5, each coat.
 4. Weather Exposed Ferrous Piping:
 - a. First coat: SW Kern Kromik Metal Primer B50WI Series, DFT mils: 3.
 - b. Second and Third coats: SW Silver-Brite Aluminum B59S 11 Series, DFT mils: 1 per coat.
 5. Wood Siding and Trim - Satin Finish Acrylic Latex:
 - a. First coat: SW Chek-Gard Primer B42 W10 Series, DFT mils: 1.5.
 - b. Second and Third coats: SW A-100 Alkyd Exterior Latex House Paint A82 Series, DFT mils: 1.5 per coat.

- B. Interior:
1. Galvanized Metal:
 - a. First coat: SW Galvite B50W3 Series, DFT mils: 2.
Omit first coat on items where compatible factory primer has been applied.
 - b. Second and third coats: SW Industrial Enamel B54 Series, DFT mils: 2, each coat.
 2. Ferrous Metals:
 - a. First coat: SW Kem. Kromik Metal Primer B50 Series, DFT mils: 3.
Omit first coat on items where compatible factory primer has been applied.
 - b. Second and third coats: SW Industrial Enamel B54 Series, DFT mils: 2, each coat.
 3. Gypsum Drywall - Semi-Gloss Enamel Finish:
 - a. First coat - SW ProMar 200 Latex Wall Primer B28 Series, DFT mils: 1.5.
 - b. Second and Third coats - SW ProMar 200 Alkyd Semi-Gloss Enamel B34 Series, DFT mils: 2, each coat.
 4. Gypsum Wallboard - Flat Finish:
 - a. First coat - SW ProMar 400 Latex Wall Primer, B28 Series, DFT mils: 1 - 1
 - b. Second and Third coats - SW ProMar 200 Latex Flat Wall Paint, B30 Series, DFT mils: 1.4.
 5. Gypsum Wallboard - Egg-Shell Enamel Finish:
 - a. First coat - SW ProMar 200 Latex Wall Primer B28 Series, DFT mils: 1.4.
 - b. Second and Third coats - SW ProMar 200 Alkyd Egg-Shell Enamel B20 Series, DFT mils: 1.8, each coat.
 6. Wood - Semi-Gloss Enamel Finish:
 - a. First coat - SW ProMar 200 Alkyd Enamel Undercoater B49W200 Series, DFT mils: 2.
 - b. Second and Third coats - SW ProMar 200 Alkyd Semi Gloss Enamel B34 Series, DFT mils: 2, each coat.
 7. Wood - Open Grain and Close Grain - Stained - Satin Finish:
 - a. First coat - SW Interior Oil Stain
 - b. Second coat - SW Oil Base Varnish - Thin one pint mineral spirits to one gallon of varnish.
 - c. Third coat - SW Oil Base Varnish A66F90

PART 3 – EXECUTION

3.01 COOPERATION WITH OTHER TRADES

- A. This work shall be scheduled and coordinated with other trades and shall not proceed until other work and job conditions are as required to achieve satisfactory results.

3.02 GENERAL REQUIREMENTS

- A. Before starting any work, surfaces to receive paint finishes shall be examined carefully for defects which cannot be corrected by the procedures specified herein and which might prevent satisfactory painting results. Work shall not proceed until such damages are corrected.
- B. Secure approval of color samples before applying any paint or finish. All priming coats and undercoats shall be tinted to the approximate shade of the final coat.
- C. Start of painting shall be construed as acceptance of the surfaces to receive paint or other finish.

- D. Maintain temperature in building at constant 65°F, or above, and provide adequate ventilation for escape of moisture from building in order to prevent mildew, damage to other work and improper drying of paint. Once painting has commenced, provide constant temperature of 65°F, or above, and prevent wide variation in temperature which might result in condensation on freshly painted surfaces.
- E. Surfaces to receive work described in this section shall be smooth, even, sound, thoroughly clean and dry and free of defects which would adversely affect application of this work. Surfaces which do not meet the tolerances or quality requirements imposed within the specifications governing substrate construction, shall be repaired or replaced prior to initiating this work.
- F. All materials shall be mixed, thinned, modified, and applied only as specified by the manufacturer's direction on the container.
- G. Application shall be sufficiently heavy to achieve pleasingly uniform color and lucid effect; matching approved sample.
- H. All coats shall be thoroughly dry before applying succeeding coats.
- I. Inspection of Coats: Notify the Architect/Engineer for inspection between coats at least 24 hours in advance. The number of coats specified are intended to provide full coverage. Satisfactory coverage subject to the approval of the Architect/Engineer. Additional coat or coats will be required by the Architect/Engineer if these coats do not give sufficient coverage. Final coat shall match approved sample panel.

3.03 PREPARATION OF SURFACES

- A. General:
 - 1. Surfaces shall be clean, dry and adequately protected from dampness.
 - 2. Surfaces shall be smooth, even and true to plane.
 - 3. Surface shall be free of any foreign material which will adversely affect adhesion or appearance of applied coating.
 - 4. Remove all loose, spalling paint from previously painted surfaces utilizing wire brushes, pressure washing or mechanical means, as required to provide a smooth and sound substrate for the application of new paint.
 - 5. Mildew shall be removed and neutralized by scrubbing affected areas thoroughly with a solution made by adding two ounces of Tri-Sodium Phosphate and eight ounces of Sodium Hypochloride (Clorox) to one gallon warm water. Use a scouring powder if necessary to remove mildew spores. Rinse with clear water and allow to dry before painting.
- B. Gypsum Wallboard:
 - 1. Fill narrow, shallow cracks and small holes with spackling compound.
 - 2. Rake deep, wide cracks and deep holes.
 - a. Dampen with clear water.
 - b. Fill with thin layers of drywall joint cement.
 - 3. Allow to thoroughly dry.
 - 4. Sand smooth. Do not raise nap of paper on wallboard.
- C. Wood:

1. Clean soiled surfaces with alcohol wash.
2. Except where rough exterior surface is specified, sand to smooth and even surface, then dust or vacuum.
3. Apply shellac to all knots, pitch and resinous sapwood before priming coat is applied.
4. Fill nail holes, cracks, open joints and other defects with wood filler or lead putty as required after priming coat has dried. Filler material must be compatible with finish being applied. Color to match finish color.

D. Preparation of Ferrous Metal Surfaces:

1. Remove rust, mill scale and defective paint down to sound surface or bare metal, using scraper, sandpaper, or wire brush as necessary. Grind if necessary to remove shoulders at edge of sound paint to prevent flaws from photographing through finish coats.
2. Remove dirt and grease with mineral spirits and wipe dry with clean cloths.
3. Touch-up all bare metal and damaged shop coats with specified rust-inhibitive primer.
4. Necessary touching up of shop primer shall be done on ferrous metal surfaces of all items installed adjacent to concrete and /or masonry prior to any openings between metal surface and adjacent surfaces being filled in or caulked.

E. Preparation of Galvanized Metal Surfaces:

1. Remove dirt and grease with mineral spirits and wipe dry with clean cloths.
2. All galvanized steel surfaces shall be pre-treated with proprietary acid-bound resinous or crystalline zinc phosphate preparations used according to the manufacturer's directions prior to painting.

F. Preparation of Aluminum Surfaces: Remove dirt and grease with mineral spirits, and wipe dry with clean cloths.

G. Preparation of Copper Surfaces:

1. Buff or polish surfaces to bright color.
2. Remove dirt and grease from surface with a mild phosphoric acid. Wipe dry with clean cloths.
3. Apply finish while surface is clean and bright.

3.04 APPLICATION

A. General:

1. Protection of Adjacent Surfaces and Mixed Items:
 - a. The Contractor not only shall protect his work at all times, but shall also protect all adjacent work and materials by dropcloth, covering or other methods during progress of his work.
 - b. Remove and protect hardware, accessories, device plates, lighting fixtures, factory finished work, and similar items, or provide ample in-place protection. Upon completion of each space, carefully replace all removed items. This work shall be done only by skilled mechanics.
 - c. Remove electrical panel box covers and doors before painting wall. Paint separately and reinstall after paint is dry.
2. The undercoats of paint and enamel shall be of approximate shade of the final coat. All metal surfaces calling for enamel or varnished finish shall first have priming coat well sanded, and shall be sanded between coats with fine sandpaper or steel wool that will produce an even, smooth finish. Each coat shall be perfectly dry before applying succeeding coats.

3. Do not apply initial coating until moisture content of surface is within limitations recommended by paint manufacturer. Test with moisture meter. Exterior surfaces shall not be painted in damp, frosty, or cold weather. Latex paints shall not be applied when surface or air temperature is below 50°F.
4. Surfaces shall be finished the same as nearest or adjoining surfaces unless otherwise shown.
5. Exposed access doors or panels, exposed electric panelboard covers, exposed pipes, ducts and raceways shall be painted the same color as adjacent surfaces. All piping exposed in finished areas shall be painted as required for interior ferrous metal. Where galvanized pipe occurs, prime galvanized surface as specified.
6. Hardware and accessories, fixtures and similar items placed prior to painting shall be removed or protected during painting, replaced on completion of painting.
7. Remove silencers from metal door frames prior to painting. Afterwards, replace silencers.
8. The tops, bottoms and edges of all doors to be painted shall be finished to match the surface of the doors after the hardware has been attached. Any door found unpainted upon the completion of the painting work shall be taken down and painted.
9. All weather exposed HVAC and electrical equipment shall be painted.

3.05 FIELD QUALITY CONTROL

- A. The first finished area or item of each color scheme required shall be reviewed by the Architect/Engineer for color, texture, and workmanship.
- B. First acceptable area or items shall be used as project standard for each color scheme.

3.06 CLEANUP

- A. During progress of the work, keep areas free from any unnecessary accumulation of tools, equipment and surplus materials and debris.
- B. At completion of work, the painting contractor shall remove from the premises all surplus painting materials and all debris created by him; he shall remove all spatters and leave his part of the work in a clean and finished condition.

END OF SECTION

**SECTION 10426
SIGNAGE**

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Interior Signage at Toilet Rooms.
- B. Rough-in framing supports.
- C. Signage and attachment hardware.

1.02 RELATED WORK

- A. Section 06100 - ROUGH CARPENTRY

1.03 SUBMITTALS

- A. Submit under provisions of Section 01340.
- B. Data to illustrate each accessory at large scale and show installation method.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. At toilet rooms provide one each ADA approved 'Men' and 'Women' equal to Seton Model M4891 Color as selected by Owner.
- C. Substitutions: Under provisions of Section 01600.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install fixtures, accessories, and items in accordance with manufacturer's printed instructions.
- B. Install true, plumb, and level, securely, and rigidly anchored to substrate.
- C. Use tamper-proof fasteners where indicated or recommended by the manufacturer.

END OF SECTION

SECTION 10800

TOILET ACCESSORIES

PART 1 – GENERAL

1.1 SECTION INCLUDES

- A. Toilet accessories listed on drawings and specified herein.
- B. Rough-in framing supports supplied to other sections.
- C. Attachment hardware.

1.2 RELATED SECTIONS

- A. Section 06100 - ROUGH CARPENTRY.
- B. Section 09250 - Gypsum Wallboard
- C. Section 09300 – Tile
- D. DIVISION 15 – MECHANICAL

1.3 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Data to illustrate each accessory at large scale and show installation method.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver accessories to site until rooms in which they are to be installed are ready to receive them.
- B. Pack accessories individually in a manner to protect accessory and its finish.

1.5 PROTECTION

- A. Protect adjacent or adjoining finished surfaces and work from damage during installation of work of this section.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturer and Type: See drawings for type and manufacturers names and numbers.
- B. Substitutions: Under provisions of Section 01600.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Install fixtures, accessories, and items in accordance with manufacturer's printed instructions.
- B. Install true, plumb, and level, securely, and rigidly anchored to substrate.
- C. Use tamper-proof fasteners where indicated or recommended by the manufacturer.

3.2 SCHEDULE OF ACCESSORIES

- A. See drawings for schedule.

END OF SECTION

SECTION 11100

EQUIPMENT (OWNER FURNISHED AND CONTRACTOR INSTALLED)

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Receiving, uncrating, and placing.
- B. Make permanent connections as recommended by manufacturer and indicated on drawings.
- C. Assist manufacturer in final testing of equipment.

1.02 RELATED SECTIONS

- A. Division 3 – Concrete.
- B. Division 5 – Metals.
- C. Division 6 – Wood.
- D. Division 9 – Finishes.
- E. Division 15 – Mechanical.
- F. Division 16 – Electrical.

1.03 QUALITY ASSURANCE

- A. All equipment and accessories as listed below shall be received by this section and checked for damage, and report to Owner all known damage immediately.
- B. Uncrate all equipment and store in proper location under appropriate cover until permanently located and activated according to the appropriate sections of the Specifications.

PART 2 – PRODUCTS

2.01 OWNERS FURNISHED CONTRACTOR INSTALLED EQUIPMENT

- A. Owner will furnish certain equipment for installation by this section. This section shall install this equipment at locations indicated, and as directed by Owner, ready for electrical, plumbing and AC connections as indicated or required for proper operations of each equipment.
- B. Owner Furnished Equipment Includes, but is not limited to:
 - 1. Kitchen equipment as indicated on drawings.
- C. Plumbing, electrical, and AC connections to Owner-Furnished equipment shall be made by the corresponding section.

PART 3 – EXECUTION

3.01 PREPARATION

- A. Obtain dimensions affecting the work of this section from the Owner or the manufacturer.
- B. Where dimensions are not available before starting fabrication confirm rough-in dimensions required.
- C. Obtain electrical and mechanical service characteristics and rough-in as required.
- D. Insure that components and equipment can be handled to place of final installation.
- E. Insure that built-in anchorage and reinforcing required for installation are correctly installed and located.

3.02 INSTALLATION

- A. Set items plumb, square, and true, securely anchored to building structure.
- B. Install items in accordance with manufacturer's instructions and shop drawings, by workmen skilled and familiar with the installation.
- C. Cut, fit, and patch as necessary, coordinating work with other trades.
- D. Sequence installation and erection to insure that mechanical and electrical connections are effected in an orderly and expeditious manner with the trades concerned.
- E. Make electrical and mechanical connections as indicated and/or required for each piece of equipment.

END OF SECTION

SECTION 11451

APPLIANCES

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes replacement of the range hood and materials and installation of splash plate in Kitchens of Apartments.

1.02 RELATED SECTIONS

- A. Section 09250 - Gypsum Wallboard: Completion of the gypsum wallboard work prior to appliance installations.
- B. Section 09900 - Painting: Completion of painting operations prior to appliance installations.
- C. Division 15 - Mechanical: Roughins and final connections.
- D. Division 16 - Electrical: Roughins; and final connections

1.03 QUALITY ASSURANCE

- A. All electrical equipment shall have U.L. labels.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Schedule shipment of appliances so that it does not arrive at the job site before adequate storage facilities have been prepared. All items shall arrive at the job site in manufacturer's original crates. All items shall be examined for shipping damage at this time in the presence of the Architect/Engineer. Be responsible for unloading, inspecting and providing adequate storage for all appliances.

PART 2 – PRODUCTS

2.01 APPLIANCES

- A. Acceptable Manufacturers: General Electric, Whirlpool, Broan Manufacturing Company, NuTone.
- B. The following appliances shall be provided, completely installed/connected and put into operation:
 - 1. Range Hood: General Electric Model JV536HSS with JXDA22 damper, 30" wide, ducted, light and 2-speed fan. Color of the hood shall be white. This unit to have dampered roof cap.
 - 2. Range Splash Plate: 20 Gauge stainless steel with satin finish. Size shall be the width of range x 36" high. Provide side panels where ranges are adjacent to side walls and side panels where ranges are adjacent to exposed end panels of cabinets. Splash panels shall also be provide and installed on the bottom (underside) of new and existing cabinets

where no range hood is to be installed. Provide stainless steel mounting clips/screws and manufacturer's recommended mounting adhesive.

- a. At cabinet ends, install splash panels from front face to back wall.
- b. At side walls, install splash panel from face of range to back wall x 36" high.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Verify that roughin requirements have been completed and are of the correct capacity, voltage, etc. prior to installation and connection of any appliance item.
- B. Set into place each piece of equipment. Respective Sub-Contractors (Plumbing, Ventilating and Electrical). shall properly connect each item of Appliance and put same into operation. Vendor shall verify that each piece of equipment has been properly installed and connected and is ready for operation.
- C. Verify proper installation and to perform "startup" and "test" of each appliance.

3.02 CLEANING

- A. All appliances shall be thoroughly cleaned and polished, inside and outside, ready for Owner's use. Damaged or marred surfaces shall be refinished to "like new" condition. Surfaces that can not be repaired or restored shall be replaced.

3.03 PROTECTION

- A. Protect completed appliance installations from damage until date of Substantial Completion. Replace damaged items prior to this date.

END OF SECTION

SECTION 11460

MANUFACTURED CABINETRY

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Includes:
 - 1. Removal of existing cabinets and cabinets tops at rental units.
 - 2. Materials and installation of manufactured cabinetry and cabinet tops.

1.02 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry: Framing, blocking and nailers required for the cabinet installations.
- B. Section 06200 - Finish Carpentry, Cabinetry and Millwork: Applicable portions of Section 06200 apply to this Section as if repeated herein.
- C. Section 09250 - Gypsum Wallboard: Coordination of gypsum wallboard construction with the cabinetry installations.
- D. Section 09900 - Painting: Completion of painting operations prior to installing the premanufactured cabinetry.

1.03 QUALITY ASSURANCE

- A. Quality Standards:
 - 1. All cabinetry for this project shall carry the National Kitchen Cabinet Association's (NKCA) certified cabinet seal, and shall meet or exceed the "Recommended Performance Standards for Kitchen Cabinets and vanity Cabinets" outlined in the American National Standards Institute (ANSI) specification A161.1. Test for Finish (Section 9.0) will be required for all cabinets. The "Severe Use" cabinets must also comply with finish requirements of Section 2. 1. 10.
 - 2. Cabinets must be tested, certified and bear the label or seal of the Kitchen Cabinet Manufacturer's Association (KCMA) of the Southern California Association of Cabinet Manufacturer's Association in accordance with 24 CFR 200.935.
 - a. One label shall indicate that the product meets the HUD CSP "Severe Use" specifications. The other label shall indicate that the product meets the KCMA CSP specifications for "Normal/Elderly Use".
- B. Performance Specifications:
 - 1. Cabinets qualifying for bid must meet or exceed all applicable requirements for ANSI/KCMA A161.1 "Recommended Performance Standards for Kitchen Cabinets and vanity Cabinets" outlined in the American National Standards Institute (ANSI) specification A161. 1.
 - 2. All tests must be performed on standard 30 inch wall and base cabinets.
 - 3. Drawers and drawer hardware of the "Severe Use" cabinets shall be subjected to a hardware load test described herein. At the conclusion of the test, there shall be no failure

in any part of the drawer assembly or operating system. The drawer shall remain operable with no mechanical interference with any other part of the cabinet assembly.

- C. Drawer Load Test: A 75 pound point load shall be applied to the exterior edge of the drawer for a period of 15 minutes. The drawer shall be subjected to this load with the drawer extended 6 inches from its closed position.
- D. Material Specifications: Kitchen cabinets shall contain materials that comply with the following:
 - 1. Pressure treated lumber shall comply with AWPB Standard LP-2
 - 2. Plywood shall comply with ANSI/HPMA 1938 and PSI 1-83.
 - 3. Kitchen counter tops shall comply with ANSI A161.2.
 - 4. Decorative laminate shall comply with NEMA LD-3
- E. Cabinet Hardware: Cabinet Hardware shall comply with the finish requirements of ANSI/BHMA A156.9.
- F. Sample Installation: Provide complete installation of cabinets and tops in sample Apartment for Architect/Engineer's review prior to installation in any other areas- This installed cabinets and tops shall establish the standard of workmanship in all other Apartments.

1.04 SUBMITTALS

- A. Submit large scale shop drawings showing cabinet layouts, elevations, sections (base and wall cabinets) top configurations, anchorages, materials and finishes. Submittal shall show species of wood, joinery and installation details including methods of anchorage. Shop drawings shall reflect Contractor field dimensions. Dimensions for open spaces shall not be modified without Architect/Engineer's approval.
- B. Submit color chips of plastic laminate for review and color selection. Submit two (2) samples, minimum, size 3"x6" of each color and finish.
- C. Submit full-size sample cabinet if requested by the Architect/Engineer. Cabinet sample shall have finish applied, hardware and cabinet top installed. This sample shall be representative of the cabinetry to be provided and installed.

1.05 PRODUCT DELIVERY, STORAGE, HANDLING, AND PROTECTION

- A. Protect materials during transit, delivery and handling to prevent damage, soiling and deterioration.
- B. Inspect all materials delivered and reject all not qualifying completely with the requirements, damaged in transit or in handling, or otherwise unsatisfactory.
- C. Deliver, store and handle cabinets in a manner to prevent damage and deterioration. Defer delivery to job until the installation and storage areas are complete and dry of all wet-type construction. Store cabinets in a conditioned space (relative humidity shall not exceed 60 percent), weathertight, locked area to prevent damage.

1.06 JOB CONDITIONS

- A. Do not install cabinetry until required temperature and relative humidity conditions have been stabilized and will be maintained in installation areas.
- B. Maintain temperature and humidity in installation area as required to maintain moisture content of the installed cabinetry within 1.0% tolerance of optimum moisture content, from date of installation through remainder of construction period.

PART 2 – PRODUCTS

2.01 Acceptable manufacturers: The following manufacturers are acceptable for use on this project subject to compliance with project requirements:

- 1. Evans Cabinet Corporation (1-478-272-2530).
- 2. S & W Cabinets, Inc. (573-887-4292)
- 3. Substitutions: Under provisions of Section 01600.

2.02 MATERIAL

- A. The use of particleboard, flakeboard, fiberboard or hardboard in the construction of "severe use" kitchen cabinets will not be accepted in this solicitation.

2.01 WALL AND BASE CABINET CONSTRUCTION

- A. Wall and base cabinets shall be of the same construction, outside appearance must be the same and must have face frames. Cabinets and counter tops must be constructed of solid lumber or exterior grade plywood with wood veneer core. All parts touching floor must be of pressure treated solid lumber. Brace cabinets as necessary to produce sturdy and rigid construction. Provide an integral toe space of at least 3 inches by 3 inches. Only first quality methods, materials and workmanship will be used.
- B. Face Frames: Three fourths inches net thickness of kiln dried solid hardwood, free of knots and selected for light uniform color suitable for natural finish. Frames to be mortised and tenoned, dovetailed or doweled, glued and stapled under pressure and filled and sanded. Vertical end members (stiles) to be 1-1/2 inches wide. Vertical center members between doors and drawers (mulls) to be minimum 2 inches wide. Horizontal members (rails) to be 1-3/4 inches wide. Stiles and top and bosom rails to be dadoed to receive ends, bottoms and tops.
- C. End Panels: Exposed ends shall be minimum A-2 grade, 1/2 inch thick 5-ply exterior hardwood plywood, selected for light uniform color. Ends not exposed can be 1/2 inch exterior softwood plywood, grade A-D, with "A" side to inside of cabinet. Ends shall be dadoed a minimum of 1/4 inch deep to receive shelves, bottoms and tops. Ends must be let into dadoe in face frame. Base cabinet end panels shall stop 3-1/2 inches above the floor and be supported by 2x on DTL by 3-1/2 inch pressure treated solid lumber member.
- D. Backs: Required on all cabinets (optional on sink bases depending on job conditions) Minimum 1/4 inch thick 2-2 grade exterior hardwood plywood or A-D grade exterior softwood plywood. Backs shall be securely glued and stapled to ends, 3-1/2 inch cleats and shelves of cabinet. Backs may be let into dado of ends and cleats, or may be applied flush with ends and cleats.

- E. Installation Cleats: Minimum of 3/4 inch by 3-1/2 inch S4S, "C" grade, kiln dried solid lumber, dadoes to receive bottoms and tops. Two horizontal members running full length of cabinet at top and bottom required.
- F. Shelves and Wall Cabinet Bottoms: One-half inch thick A-2 grade exterior hardwood plywood or A-B grade exterior softwood plywood with wood banded front edge or 3/4 inch thick solid lumber. Shelves to be let into dadoes of end panels and braced behind mulls. Bottoms to be let into dadoes in ends, cleats and front frames. Both shall be glued and stapled.
- G. Doors: Three-fourth inch thick 7-ply A-2 grade exterior hardwood plywood, with no more than 1 veneer joint on the face. Edges shall be reversed shaped to form continuous finger grip around the sides. Edges shall be filled and sanded smooth prior to finish. Edges can be treated with hot foil transfer. Acceptable hardwoods shall be beech, birch, maple or oak.
- H. Base Bottoms: One-half inch thick 1-2 grade exterior hardwood plywood or A-C grade exterior softwood plywood. Bottoms shall be let into end panels, front rails and installation cleats. Bottom shall be supported by 3 /4 inch thick pressure treated solid lumber braces, 24 inches on center running front to rear of cabinet and resting on floor.
- I. Toe Kicks: Three-fourth inch thick pressure treated solid lumber.
- J. Drawers: Drawer fronts shall be the same specification (A) as the doors. Sides and backs shall be a minimum of 11/16 inch thick, "C" grade, solid lumber with sides dovetailed or mortised and tenoned into fronts. Backs shall be dadoed into sides. Drawer bottoms shall be a minimum of 1/4 inch softwood or hardwood exterior plywood let into front, sides and back. All drawer parts shall be glued and nailed or stapled together. Mount drawers on pair of 75 lb. capacity, side mounted metal guides. Base cabinet with drawers must have 3/4 inch solid lumber or plywood drawer bracket(s) side mounted to receive guide rails. Mount brackets at rear to 3/4 inch solid lumber hanging rail and face frame by use of metal rear mounted brackets or by the continuous wraparound method.

2.03 CABINET FINISH

- A. Exposed surfaces and interior of cabinet shall be factory finished, consisting of stain, sealer and polyurethane coats or an equivalent coating system, lightly sanded between applications. Sealer and top coats must be oven dried. The exterior finish shall meet the performance requirements of Article 1.03. Color shall be selected by the Architect/Engineer from manufacturer's standard colors. Toe kick shall be painted with color selected by Architect/Engineer.

2.04 CABINET HARDWARE

- A. Hardware: Provide corrosion resisting hardware. Hinges Shall be manufacturers standard heavy duty with self-closing feature and shall be the face mount or the semi-concealed type. Cabinet drawers shall be mounted on metal side rails with 75 lb. loading capacity – Washington Manufacturing Model B2310, Knap and Vogt Manufacturing Model KY 1300, or Grant Manufacturing Model 336.

2.05 CABINET TOPS

- A. Counter tops shall be fully post formed type of high pressure plastic laminated to ¾ inch thick exterior plywood with a minimum 4 inch back splash. The bottom front edge and ends of counter tops shall have a solid wood mold. The perimeter of the bottom of counter tops and sink cut outs shall be sealed with varnish. The counter top shall include a drip edge.
- B. Pre-Molded Made Marble Vanity Tops with interregnal lavatory and backsplash: Homogeneous, molded reconstituted marble. Material shall not be laminated or of composite construction. Finish for all exposed surfaces and edges shall be "satin". Color(s) shall be as selected by the Architect/Engineer from manufacturer's standard selection.

2.06 MISCELLANEOUS

- A. Fillers and Moulding: Scribe mould and fillers shall be utilized to assure accurate job fit. Contractor shall supply cabinet manufacturer with adequate field dimensions.
- B. Removable Sections: Provide at handicapped unit removable slide-in sections of base cabinets. Refer to Drawings for locations and sizing. Furnish each removable cabinet section with 4 teenut fasteners, ¼ inch diameter by 2 inch long bolt by ¾ inch diameter mounted nut. Mount nut with prongs pointed to bolt head.
- C. Valance: Provide (when detailed) valance of same wood species as cabinet in shape and size indicated.

2.07 PLASTIC LAMINATE

- A. Plastic Laminate: Plastic laminate shall comply with NEMA LD-3. Provide the following:
 1. GP 50: Horizontal Grade.
 2. GP28- Vertical Grade.
 3. CL 20: Cabinet Liner.
 4. BK 20: Backing Sheet.
 5. V-32: For bending radius condition.
- B. Adhesive for Application of Plastic Laminate: Thermosetting resin type for shop application and/or contact type for on-site installations. Adhesive shall be specifically designed for use with high-pressure plastic laminates.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Inspect all materials delivered and reject all not qualifying completely with the requirements, damaged in transit or in handling, or otherwise unsatisfactory.
- B. Cabinetry installation shall be executed by skilled mechanics in strict accordance with the manufacturer's details, instructions and shop drawings.
- C. Cabinetry shall be mounted and set into place in accordance with the approved shop drawings. Cabinet work shall be straight, plumb, level and in true alignment. Fit all joints closely and fasten all pieces rigidly in place. Wall cabinets shall be securely anchored through the gypsum

wallboard to solid wood blocking. provide wood blocking at a minimum of three (3) locations. Attach to blocking/framing using 3 #10x2" long screws per bearing point. Attach tops to base units using fasteners and methods indicated on the shop drawings.

- D. Attach tops to base units using fasteners and methods indicated on the approved shop drawings.
- E. All cabinet hardware shall be demonstrated to operate properly. Drawer units shall slide freely without bind. Doors shall remain open in any position beyond the closing mechanism of the hinges.

3.02 CLEANING

- A. At the completion of this work, remove from the job site all excess materials and debris. Leave entire work ready to for Architect/Engineer's review.

3.03 PROTECTION

- A. Protect finished installations from damage until date of Substantial Completion. Repair or replace any damage at no additional cost to the Owner.

END OF SECTION