PROJECT MANUAL

For

REDDING GARDENS LIGHT IMPROVEMENTS

January 11, 2010

HOUSING AUTHORITY OF THE CITY OF SANFORD

94 CASTLE BREWER COURT SANFORD, FLORIDA 32771 (407) 323-3150 (407) 324-1806 FAX

Prepared by JWA Management Services, Inc. 3159 Fieldcrest Drive Middleburg, FL. 32068 (904) 502-3226 or 282-8288

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THE ELECTRICAL SPECIFICATIONS ARE LOCATED ON THE DRAWINGS PROVIDED IN APPENDIX A.

SPECIAL NOTE/ADDENDUM/REFERENCE ON DRAWINGS: THE PLANS ARE OWNED BY THE SANFORD HOUSING AUTHORITY AND ANY REFERENCE TO AN ARCHITECT OR ENGINEER SHOULD BE REPLACED BY THE PHRASE "OWNER AND/OR OWNER REPRESENATIVE" ANY CHANGES PROPOSED BY CONTRACTOR TO THE SEALED PLANS MUST BE ACCOMPANIED BY A SEALED STATEMENT BY A LICENSED ELECTRICAL ENGINEER.

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SECTION 00020 - INVITATION TO BID

Gentlemen:

Sealed bids will be received by the Sanford Housing Authority (SHA) hereinafter called the Owner, in the Administration Building at 94 Castle Brewer Court, Sanford, Florida 32771 until February 10, 2010, 10:00 a.m. local time. All proposals received will be publicly opened and read aloud at 94 Castle Brewer Court for the demolition, design and construction of:

REDDING GARDEN LIGHT IMPROVEMENTS Sanford, Florida 32771

All work shall be done in accordance with the Contract Documents pertaining thereto, which Project Manual, instructions, form of contract and other contract documents setting forth bid and contract stipulations may be secured at the Sanford Housing Authority Office.

Contractor's bidding this work shall have an occupational license and be licensed as a General Contractor to do business in the State of Florida. A copy of each license is to be submitted with the Bid.

Bidder may obtain the bid documents from the Sanford Housing Authority by downloading the documents for free at our web site "www.sanfordha.org". Partial sets will not be issued. Reproductions of Contract Documents without written permission of SHA are strictly forbidden. All questions relative to the bidding documents shall be addressed to Mr. James W. Abernathy, JWA Management Services at jwams@clearwire.net.

Each bid must be submitted in accordance with the Proposal Form and Instructions, fully completed, on Proposal Form in the Specifications. Bids received after the time set forth above for bid opening will not be considered.

There will be a pre-bid conference consisting of review of the project, Sections 00030 and 00130 on January 27, 2010, 10:00 am at 400 South Locust Avenue, Sanford, Florida.

The Bidder may not revoke or cancel his bid or withdraw from the competition for a period of sixty (60) calendar days after the opening of bids, and that in the event the contract is awarded to the Bidder, he will, within ten (10) consecutive calendar days after the Housing Authority approval of award of bid, enter into a written contract with the Owner in accordance with the accepted bid, and give to the Owner a contract performance and payment surety bond with good and sufficient sureties satisfactory to the Owner in the amount of one hundred percent (100%) of the work ordered as needed. The Bidder's said agreement is incorporated in the Proposal form.

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 of State of Florida Law, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted

vendor list.

Angel I. Tua Executive Director Sanford Housing Authority Sanford, FL.

SECTION 00030 - ADVERTISEMENT FOR BIDS

Sealed bids will be received by the Sanford Housing Authority (SHA) hereinafter called the Owner, in the Administration Building at 94 Castle Brewer Court, Sanford, Florida 32771 until February 10, 2010, 10:00 a.m. local time. All proposals received will be publicly opened and read aloud at 94 Castle Brewer Court for the demolition, design and construction of:

REDDING GARDEN LIGHT IMPROVEMENTS Sanford, Florida 32771

Sealed bids must be accompanied by bid deposit: A Bid Bond, Cashier's Check or Certified Check for five (5%) percent of the total amount bid. The successful bidder shall furnish a Performance Bond and Labor and Material Payment Bond issued by a surety company approved by the Government, for one hundred percent (100%) of the Contract price for any contract that exceeds \$100,000.

Contractor's bidding this work shall have an occupational license and be licensed as a General Contractor to do business in the State of Florida. A copy of each license is to be submitted with the Bid.

Project Manual will be available from SHA by downloading for free at our web site "<u>www.sanfordha.org</u>". No partial sets will be issued. Reproductions of Contract Documents without written permission of SHA are strictly forbidden.

There will be a pre-bid conference held consisting of review of the project at 10:00 am January 27, 2010 at 400 South Locust Avenue, Sanford, Florida 32771 At this time the Owner's representatives will discuss the project requirements and procedures. Contractors are strongly encouraged to attend. Failure to attend does not relieve the bidder from the responsibility to carry out the work in the manner discussed at the conference. This pre-bid conference does not relieve the bidders of the on-site inspection of the project requirements.

SHA reserves the right to waive minor informalities in the bidding if said waiver is in the Housing Authority's best interest.

ADVERTISING DATES:

(To be assigned)

SECTION 00100 - INSTRUCTIONS TO BIDDERS – SUPPLEMENT TO HUD 5369

PART 1 – GENERAL

- 1.1 DOCUMENTS: Bona fide bidders may obtain sets of Project Documents from SHA by downloading the documents for free at "www.sanfordha.org". No partial sets will be issued. To ensure that any addendums are received, potential bidders must email jwamsinc@att.net and atua@sanfordha.org providing name of company, name of principal contact, mail address, email address and phone number
- 1.2 EXAMINATION: Bidders shall carefully examine the documents and the construction site to obtain firsthand knowledge of existing conditions. Contractors will not be given extra payments for conditions, which could have been determined by examining the site and documents.
- 1.3 QUESTIONS: All questions relative to the Contract Documents shall be submitted in writing to SHA by General Contractor (Bidder List) only. No questions will be answered by SHA from suppliers, subcontractors, etc. unless submitted through a General Contractor. However, all questions relative to the Contract Documents from suppliers, subcontractors, etc. shall first be reviewed/researched by the General Contractor <u>before</u> submitting a question to SHA. Requested information that is contained or can reasonably be inferred from the Contract Documents shall be considered frivolous and no response will be issued/taken by SHA. Replies will be issued to all bidders of record as Addenda to the Drawings and Project Manual and will become part of the Contract. SHA will not be responsible for oral clarification. Questions received less than ten (10) calendar days before the bid opening may not be answered.
- 1.4 SUBSTITUTIONS: To obtain approval to use unspecified products, bidders shall submit written request no less than ten (10) calendar days before the bid date and hour. Requests received after this time will not be considered. Requests shall clearly describe the product for which approval is asked, including all data necessary to demonstrate acceptability. If the product is acceptable, SHA will approve it by Addenda issued to bidders of record. See Section 00440.
- 1.5 BASIS OF BID: The bidder must provide all material and labor for the selective demolition, design changes and installation of the light improvements on the plans/drawings provided on the disk in Appendix A.
- 1.6 PREPARATION OF BIDS: Sealed bids shall be typed on the Bidders letterhead. Fill in all blank spaces. Bids shall be signed with name typed below signature. Where bidder is a corporation, bids must be signed with the legal name of the corporation followed by the name of the State of incorporation and the legal signatures of an office authorized to bind the corporation to a contract.
- 1.7 BID SECURITY: Bid Security shall be made payable to the Owner in the amount of five (5%) percent of the Bid sum. Security shall be either certified check or bid bond issued by surety licensed to conduct business in the State of Florida. The successful bidder's security will be retained until he has signed the Contract and furnished the required payment and performance bonds. The Owner reserves the right to retain the security of the next lowest bidder until the lowest bidder enters into contract or until sixty (60) calendar days after bid opening, whichever is the shorter. All other bid security will be returned as soon as practicable. If any bidder refuses to enter into a Contract, the Owner will retain his Bid

Security as liquidated damages, but not as a penalty. This Bid Security is to be submitted with the Submission of Bids.

1.8 PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND: Furnish and pay for bonds covering faithful performance of the Contract and payment of all obligations arising thereunder. Furnish bonds in such form as the Owner may prescribe and with surety company acceptable to the Owner. The bidder shall deliver said bonds to the Owner at the time established in the Notice of Intent for the execution of the Contract. Failure or neglecting to deliver said bonds, as specified, shall constitute a breach of Contract and the Bid Security will be forfeited. See also, Section 00600, 00610 and 00620.

1.9 SUBCONTRACTORS:

- A. The Bidder shall have determined to his own satisfaction that subcontractors have been successfully engaged in the particular type of business for a period of five (5) years under the same business organization and have successfully completed installations comparable to that required by this project and is qualified technically and financially to perform work for which he is listed. All subcontractors shall be capable of being bonded. The Owner reserves the right to reject any subcontractor not qualified technically or financially to perform the work for which he is listed.
- B. The Owner reserves the right to reject any subcontractor not certified and/or registered by the State of Florida to perform the work of their trade if such registration is required by Florida Law.
- 1.10 SUBMITTAL: Submit Bid and Bid Bond in an opaque, sealed envelope. Identify the envelope with: (1) project name, (2) name of bidder, Attention: Mr. Angel I. Tua, Executive Director. Submit Bids in duplicate and in accord with the Invitation to Bid. If mailed, address as follows: Sanford Housing Authority, 94 Castle Brewer Court, Sanford, Florida 32771.
- 1.11 MODIFICATION AND WITHDRAWAL: Bids may not be modified after submittal. Bidders may withdraw Bids at any time before bid opening, but may not resubmit them. No Bid may be withdrawn or modified after the bid opening except where the award of Contract' has been delayed for sixty (60) calendar days beyond the receipt of bids.
- 1.12 DISQUALIFICATION: The Owner reserves the right to disqualify Bids, before or after opening, upon evidence of collusion with intent to defraud or other illegal practices upon the part of the bidder(s).

1.13 GOVERNING LAWS AND REGULATIONS:

- A. Florida Excise Tax: Bidders should be aware of the Florida Law as it relates to tax assessments on construction equipment.
- 1.14 OPENING: Bids will be opened as announced in the Invitation to Bid

1.15 AWARD:

A. It is the Owner's intention to award a contract to the responsible bidder submitting the

lowest responsive bid consisting of the labor, material, any potential design changes and number of days to complete.

- B. Options may be accepted without accepting the previous option in order to utilize the maximum amount of funds available.
- C. The Owner reserves the right to add funds to the project in order to make an award or to accept any alternate desire.
- D. The Owner reserves the right to accept or reject any bid.
- E. Owner may request the Bidders to present evidence of experience, qualifications, and financial ability to carry out the terms of the Contract.

1.16 EXECUTION OF CONTRACT:

A. Notwithstanding any delay in the preparation and execution of the formal Contract Agreement, each Bidder shall be prepared to commence work within seven (7) calendar days following receipt of official written order of the Owner to proceed, or on date stipulated in such order.

1.17 BID PROTESTS:

- A. Any person who is adversely affected by the Sanford Housing Authority decision or intended decision concerning this bid solicitation or contact award shall file with the Owner a written notice of protest within seventy-two (72) hours after receipt of notice of the decision or intended decision.
- B. Formal Written Protest The formal written protest shall be submitted by the person within ten (10) days after filing the notice of protest as specified in Subsection (1.17A) herein. Failure to file a formal written protest shall constitute a waiver of the right to further proceedings. A protest is officially filed when it is received by the Owner. The formal written protest shall contain the following:
 - 1. Name and address of the affected party.
 - 2. A statement of the ultimate facts upon which the protest is based; and,
 - 3. Such other information as deemed relevant to the issue.
- C. Resolution Process
 - 1. The Owner may, at his sole discretion, hold an informal hearing regarding the subject of the protest. In any event, the Owner shall issue a written decision on the protest within fourteen (14) days of receipt of a formal written protest. Appeal of the Owner's decision shall be de novo to the Circuit Court of Sanford. Protestor expressly, knowingly, and voluntarily waives any right to jury trial in connection with such protest.
 - 2. A notice of formal written protest as described in Sub-section (1.17B) herein shall halt the Owner's bid solicitation, or contract award process until the subject of the protest is resolved by Owner action. Provided however, Owner may set forth in writing particular facts and circumstances which require the continuance

of the bid solicitation, or contract award process without delay to avoid an immediate and serious danger to public health, safety or welfare.

END OF SECTION 00100

SECTION 00101 - CHANGE ORDER INSTRUCTIONS AND CONDITIONS

PART 1 - GENERAL

1.1 GENERAL

A. GENERAL INFORMATION

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Constructive Change Directive must be incorporated into a subsequent Change Order if they affect Contract Price or Times.

Changes that affect contract price or contract schedule must be promptly covered by a Change Order.

B. CONDITIONS OF THE CHANGE ORDER

This Change Order includes all cost elements, delays and impacts resulting from the change, including but not limited to, labor, material, mark-ups, amounts for additional changes in the sequence of work, delays, disruptions, rescheduling, extended overhead, overtime acceleration, inefficiencies, and/or impact costs. Contractor expressly waives its right to make claim for any and all of these cost related items and/or extensions of time to the Contract other than what is expressly contained herein.

By accepting this Change Order, Contractor agrees that this Change Order constitutes a full and final settlement and full accord and satisfaction of all matters relating to the changed directly, or indirectly changed or unchanged in the Work which is the subject matter of the Change Order, including, but not limited to, all direct and indirect costs associated with such change, any cumulative impacts resulting from multiple changes or change orders, and any and all adjustments to the contract sum and construction schedule.

Notwithstanding any other provision herein or as set forth in the Contract Documents, this adjustment in the Contract Sum and Time constitutes the entire Contract adjustment due Contractor arising out of the change in the work covered by this Change Order.

CHANGE ORQER

No		
PROJECT NAME: <u>REDDIN</u>	G GARDEN LIGHT IMPROVEN	<u>MENTS</u>
Date of Notice to Proceed:		
OWNER: Sanford Housing	Authority	
Contractor:		
Consultant: JWA Manageme	ent Services, Inc.	
Description:	following changes in the Contract	
Reason for Change Order:		
	supporting change): See Change	Order Instructions and Conditions
Original Contract Price: \$		
Revised Contract Amount (fro	om Previous Change Order): \$	
Original Substantial Completi	on Date: Original Final Co	ompletion Date:
Revised Substantial Completi	on Date: Revised Final Co	ompletion Date:
Amount Associated with this	Change Order \$	
Number of Days associated w	ith previous Change Order(s):	
-	ith this Change Order:	
Revised Contract Amount \$ _		
APPROVED:	REVIEWED :	ACCEPTED:
OWNER	JWA Management Services	CONTRACTOR
(DATE)	(DATE)	(DATE)

SECTION 00130 - PRE-BID CONFERENCE

REDDING GARDEN LIGHT IMPROVEMENTS Sanford, Florida 32771

There will be a pre-bid conference held at Sanford Housing Authority, 400 South Locust Avenue, Sanford, Florida 32771, on January 27, 2010, at 10:00 a.m. consisting of review of the project. At this time the Owner's representatives will discuss the project requirements and procedures. Contractors are strongly encouraged to attend. Failure to attend does not relieve the bidder from the responsibility to carry out the work in the manner discussed at the conference. This pre-bid conference does not relieve the bidders of the on-site inspection of the project requirements.

END OF SECTION 00130

SECTION 00300 - BID FORMS

THIS DOCUMENT SHALL BE SUBMITTED WITH THE BID PROPOSAL

BID FORMS

(To be typed on the Contractor's Letterhead)

DATE:		

TIME: _____

Sanford Housing Authority 94 Castle Brewer Court Sanford, Florida 32771

Gentlemen:

The Undersigned, hereinafter called "Bidder", having visited the site of the proposed project and familiarized himself with the local conditions, nature and extent of the work, and having examined carefully the Drawings (Not Provided), Specifications, the Form of Agreement, and other Contract Documents, with the Bond requirements herein, proposes to furnish all labor, materials, equipment and other items, facilities and services for the proper execution and completion of:

REDDING GARDEN LIGHT IMPROVEMENTS Sanford, Florida 32771

In full accordance with the Project Manual prepared in accordance with your Invitation for Bids, Instruction to Bidders, Agreement and all other documents relating thereto listed in the Index in the Project Manual and if awarded the contract, to complete the said work specified for the following amounts:

BASE BID: ______Dollars (\$_____)

Base Bid includes the demolition, potential design changes and installation of light improvements on plans.

Calendar Days to Complete All Construction Work _____

There is enclosed a certified check, cashier's check, treasurer's check, bank draft, or Bid Bond in the amount of not less than five (5%) percent of the Base Bid plus all alternates payable to the Owner as a guarantee for the purpose set out in your Instruction to Bidders.

The Bidder hereby agrees that:

- a. The above proposal shall remain in full force and effect for a period of sixty (60) calendar days after the time of the opening of this proposal and that the Bidder will not revoke or cancel this proposal within the said sixty (60) calendar days after the time of the opening of this proposal.
- b. In the event the contract is awarded to this Bidder, it shall be signed within ten (10) calendar days after the Sanford Housing Authority approval of award of bid. At contract signing, Bidder will furnish to the Owner a contract Performance and Payment Bond with good and sufficient sureties, satisfactory to the Owner, in the amount of 100% of the accepted bid. The Bidder further agrees that in the event of the Bidder's default or breach of any of the agreements of this proposal, the said bid deposit shall be forfeited as liquidated damages.

Acknowledgment is hereby made of receipt of the following Addenda issued during the bidding period.

Addendum No	Dated
Addendum No	Dated
Addendum No	Dated

If awarded this construction contract, the Bidder agrees to complete the work within the time limits set forth in the "Work Sequence" requirements in Section 01005, "Administrative Provisions".

For each consecutive calendar day that the work remains incomplete after the date established for Final Completion, the Owner will retain from the compensation otherwise to be paid to the Contractor the sum of \$150.00. This amount is the minimum measure of damages the Owner will sustain by failure of the Contractor to complete all remedial work, correct deficient work, clean up the project and other miscellaneous tasks as required to complete all work specified. This amount is in addition to the liquidated damages prescribed above.

This proposal is based solely upon LEED standards for materials and equipment to meet the Renovation Concept described in the Project Manual, on the Informational Drawings or in the Addenda issued during the bidding period.

Our Proposal meets the definition of an Acceptable Proposal because it contains the following:

- 1. This Bid Form
- 2. Bid Guarantee (Bid Bond, 5% Certified Check, etc.)
- 3. HUD 5369a

- 4. Anti-Collusive Affidavit
- 5. Copy of Contractor's licenses (Occupational & Electrical)
- 6. Copy of firm's Federal Employer Identification Number (FEIN)

The Bidder hereby agrees that the Owner reserves the right to waive informalities in bidding and reject any or all bids, or to accept any bid that in it's judgment will be in the best interest of the Owner. In witness whereof, the Bidder has hereunto set his signature and affixed his seal this _____ day of ______, A.D. 2010.

Florida Construction Industries Licensing Board Certification

Name of Holder:	 	
Certificate No.:	 	
Firm:	 	
By:	 	
(SEAL)		
Title:		

END OF SECTION 00300

SECTION 00320 - LICENSURE

PART 1

GENERAL

- 1.1 LICENSE REQUIREMENTS
 - A. All contractors bidding this work shall have the appropriate occupational license.
 - B. All Contractors bidding this work shall be State certified or licensed General Contractors as required by Chapter 489 of the Florida Statutes.
 - C. Proof of these licenses shall be submitted with the Bid.
 - D. A copy of your firm's Federal Employer Identification Number (FEIN) shall be submitted with the Bid.

PART 2 - PRODUCTS

(NOT USED)

PART 3 - EXECUTION

(NOT USED)

END OF SECTION 00320

SECTION 00440 - SUBSTITUTION REQUEST FORM

SANFORD HOUSING AUTHORITY

SUBSTITUTION REQUEST FORM

Substitution Request No.: _____

Date: _____

Project: <u>REDDING GARDEN LIGHT IMPROVEMENTS</u>

Data: Section Paragraph Specified Material Proposed Substituted Material

NOTE: The Contractor by submitting this information to the SHA acknowledges the compliance of such information to the contract documents. Any revisions or modification from the contract documents are clearly denoted with all items to be utilized or deleted clearly marked. All incomplete, incorrect or variant submittals submitted by Contractor will require re-submittals. SHA shall be the sole judge of incomplete, incorrect or variant submittals. Deductions from Contractor payment will be made based upon \$80.00 per hour rate and deductive change order issued for all Contractor incomplete, incorrect or variant submittals.

Attached is complete technical data of the PRODUCT SUBSTITUTION, highlighted or underlined for easy reading, including laboratory test, as necessary, in <u>duplicate</u>, indicating modifications required/deviations from product specified.

Included is complete information on changes to the Construction Documents required by the Proposed PRODUCT SUBSTITUTION for its proper installation.

A. The Contractor, subcontractor and/or supplier under whose transmittal this information is sent, has reviewed the PRODUCT SUBSTITUTION and agrees it is applicable to this project in the location described and agrees to warrant/guarantee the use of the PRODUCT SUBSTITUTION in the same manner he would the Specified Product.

____Yes ____No If not, Explain _____

B. Does the PRODUCT SUBSTITUTION affect dimensions shown on the Drawings in ANY way? If so, how?

C. Does the undersigned have the approval of the Manufacturer/Supplier to pay for any changes to the building design, including architectural, engineering and detailing costs, caused by the requested PRODUCT SUBSTITUTION? If so, to what extent?

D. What effect does the PRODUCT SUBSTITUTION acceptance have on other trades?

None ____ Don't Know _____ As follows _____

E. Differences between proposed PRODUCT SUBSTITUTION and the Specified Product? Be Specific. (ASTM No., Size, Gage, Material, Color Availability, Construction, Etc.). Use reverse side as required.

F. Manufacturer's guarantees and warranties of the PRODUCT SUBSTITUTION and the Specified Item are:

____ Same _____ Different (Explain)

G. What is the cost difference of the PRODUCT SUBSTITUTION in comparison the Specified Product? Submit monetary documentation to warrant claim.

_____ Less Expensive by \$_____

_____ Credit to Owner \$_____

_____ More Expensive by \$_____

_____ Additional Cost to Owner \$_____

H. The PRODUCT SUBSTITUTION has been verified by the undersigned as meeting or exceeding the specifications of the Specified item.

____Yes ____No

THIS REQUEST IS ACCOMPANIED WITH A SELF-ADDRESSED, STAMPED ENVELOPE.

The undersigned states that the function, appearance, and quality of the PRODUCT SUBSTITUTION are equivalent or superior to the Specified Item. In addition, the Contractor, subcontractor or supplier assumes all responsibility for any impact and/or delay the review and evaluation of the alternate product may cause. The approval of the Product in no way relieves the Contractor, subcontractor and/or supplier of responsibility to conform with the requirements of the Contract Documents.

SECTION 00480 - FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

FLORIDA STATUES, ON PUBLIC ENTITY CRIMES

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 of State of Florida Law, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

END OF SECTION 0480

SECTION 00500 - AGREEMENT FORMS

PART 1 - GENERAL

1.1 GENERAL

- A. Agreement Form: The Form of Agreement between the Owner and Contractor shall be per the attached copy.
- B. The Contractor is hereby directed, as a condition of the Contract, to obtain the necessary copies of this Document, to acquaint himself with the Articles contained herein and to notify and apprise all Subcontractors, suppliers and any other parties to the Contract or individuals or agencies engaged on the work as to its contents.
- C. No contractual adjustments shall be due as a result of failure on the part of the Contractor to fully acquaint himself and all other parties to the contract with the conditions of this Document.

OWNER/CONTRACTOR AGREEMENT

THIS AGREEMENT MADE AS OF THE _____ DAY OF _____ AD., 2010 BY AND BETWEEN:

_____ (herein called the "Contractor"); and

SANFORD HOUSING AUTHORITY (herein called the "Owner") for

WITNESSETH THAT:

Contractor and Owner for consideration hereinafter named agree as follows:

ARTICLE 1. THE CONSTRUCTION CONTRACT DOCUMENTS

Construction Contract Documents consist of the Invitation to Bid, Instructions to Bidders, Bid Forms, Bond Forms, Form of Agreement, General Conditions of the Contract for Construction, Supplementary Conditions, Project Manual, Addenda (if used) issued prior to and modifications issued after execution of this agreement. These form the Contract, and are as fully a part of the Contract as if attached to this agreement or repeated herein. An enumeration of Contract Documents appears in Article 11. If anything in the Contract Documents is inconsistent with this agreement, agreement shall govern. The Contractor shall warrant that he has reviewed the Plans and Specifications for consistency, adequacy, and constructability.

ARTICLE 2. THE WORK

Contractor shall perform work required by Contract Documents for SANFORD HOUSING AUTHORITY as prepared by <u>JWA Management Services</u>.

ARTICLE 3. TIME OF COMPLETION AND LIQUIDATED DAMAGES

Work to be performed under this Contract shall commence within seven (7) calendar days after the signing, execution and delivery to the Contractor of this Agreement, which date is established as the Commencement Date in the Notice to Proceed, and shall be completed as quickly as reasonably possible, with Substantial Completion shown for each item within the time limit set forth in the "Work Sequence" requirements in Section 01005 "Administrative Provisions". On failure to complete said Project within the time herein fixed, liquidated damages shall be paid by the Contractor to the Owner, in the amount stipulated in the Contract Documents, Section 00300.

ARTICLE 4. CONTRACT SUM

The	Owner	shall	pay	the	Contractor	for	the	performance	of	the	Contract	the	sum	of
								Dollars \$						

Owner reserves right to make changes in Work and where quantities originally contemplated are so changed that application of agreed price to quantity of work is shown to create a hardship to Owner or Contractor, there shall be an equitable adjustment of Contract to prevent such hardship.

ARTICLE 5. ALTERNATE PROPOSALS

N/A

ARTICLE 6. ACCEPTANCE AND PAYMENTS

Progress payments shall be made once each month (as provided in the General Conditions) during the process of construction in amounts not to exceed ninety percent (90%) of the amount due on the Contract on the basis of work completed as certified by the Contractor and approved by SHA.

Upon completion of Contract, Contractor shall submit evidence satisfactory to Owner that payrolls, material bills, and other indebtedness incurred by Contractor in connection with Project have been paid in full. After such evidence has been submitted and written notice has been given Owner that work is ready for final inspection and acceptance, work shall be inspected by. or under direction of SANFORD HOUSING AUTHORITY, and when it is found work is acceptable under Contract, and Contract has been fully performed, SHA shall promptly issue final certificate stating work has been inspected under terms and conditions hereof, and consideration herein provided for is due under Contract to Contractor, and noted in such final certificate, whereupon after such inspection and acceptance, final payment, except as provided in next paragraph shall be due within thirty (30) calendar days, provided work be then fully completed 'and Contract fully performed.

Ten Percent (10%) of Contract price shall be withheld until substantial completion is certified by the JWA Management Services and approved by the Owner at which time the contractor may request and receive at the Owner's discretion reduction of the retainage to 5% until final completion is approved by the Owner.

ARTICLE 7. CONTRACT TERMINATION

In event this Contract is terminated by Owner for non-compliance or conveyance, and then in that event Contractor shall be liable to and pay Owner any damages which it may sustain by failure of Contractor to comply with terms of this Contract.

ARTICLE 8. CONTRACTOR'S LIABILITY INSURANCE

Contractor shall maintain such insurance as will protect him from claims under Workmen's' Compensation Acts, and from any other claims or damages for personal injury, including death, which may arise from operations under this Contract, whether such operations be not by himself or by any subcontractor or anyone directly or indirectly employed by either, in amounts provided in Appendix A titled Insurance Requirements. Certificate of such insurance shall be filed with Owner and Contractor shall not commence work under this Contract until he has complied with provisions of this paragraph.

ARTICLE 9. PROTECTION OF OWNER'S PROPERTY

At all times during performance of this Contract, Contractor shall protect Owner's property from damages whatsoever on account of work being carried on under this Contract.

During construction of said Project, and until final acceptance of same by Owner, Contractor shall carry at his expense, Builders Risk Insurance, to include fire, windstorm and property coverage with loss payable to Contractor or Owner as interest may appear. Such policy shall be approved by and filed with the Owner at or before the time of commencing work under this Contract Builders Risk Insurance shall allow for Owner occupancy during the entire construction.

ARTICLE 10. PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND

This Contract shall become effective and in full force upon execution of this Agreement, concurrently with delivery of a Performance Bond and Labor and Material Payment Bond issued by a surety company licensed to do Business in State of Florida, for one hundred percent (100%) of the Contract price, said bond guaranteeing the performance of this Contract and as security for payment of persons performing labor and furnishing materials in connection with this Contract.

ARTICLE 11. MISCELLANEOUS PROVISIONS

Terms used in this Agreement which are defined in Conditions of Contract shall have meanings designated in those Conditions.

The Contract Documents, which constitute the entire agreement between the Owner and the Contractor, are listed in Article 1 and except for Modifications issued after execution of this Agreement, are enumerated as follows:

- 1. Contract Forms, Agreement, Performance Bond, Payment Bond, Certificates
- 2. Conditions of the Contract, General Conditions, Supplementary Conditions
- 3. Project Manual which includes all specifications, and details for this contract.
- 4. Addenda
- 5. Contract Modifications, Change Order, Field Order, Supplemental Instructions

<u>COUNTERPARTS</u> - The parties hereto may execute this Agreement in four (4) or more counterparts, all of which taken together shall constitute one and the same instrument and each of which shall be deemed an original instrument as against any party who has signed it.

SIGNED, SEALED AND DELIVERED in our presence

Witness

Witness

By: ___

President Contractor

(Affix Seal of Contractor)

SANFORD HOUSING AUTHORITY 94 Castle Brewer Court Sanford, Florida 32771

Witness

Witness

By: _

Angel I. Tua, Executive Director

(AffIX Seal)

END OF SECTION 00500

SECTION 00600 - BOND AND CERTIFICATES

1.1 GENERAL

PART 1 - GENERAL

- A. Provide Labor and Materials Payment Bond as required by Section 255.05, Florida Statutes and for a Contractor's Performance Bond as required by Section 235.32 Florida Statues.
- B. The Contractor is hereby directed, as a condition of the contract, to acquaint himself with the Articles contained herein and to notify and apprise all Subcontractors, suppliers and any other parties to the Contract or individuals or agencies engaged on the work as to its contents.
- C. No contractual adjustments shall be due as a result of failure on the part of the Contractor to fully acquaint himself and all other parties to the contract with the conditions of this Document.
- D. Surety Company providing Contractor's Bonds shall be approved by the Government, shall be rated "B+" or better by Best Insurance Rating Guide and appear in the current list of Sureties published by the U.S. Department of Treasury.

END OF SECTION 00600

SECTION 00610 - PERFORMANCE BONDS

PERFORMANCE BONDS (FLORIDA STATUTE 235.32)

THIS AGREEMENT, made this _	day of	, 2010, between
	-	Contractor and
		,herein referred to as

Surety.

The parties recite and declare as follows:

plans, drawings and Project Manual prepared by SHA which contract includes in its terms the plans, drawings and Project Manual and all amendments, modifications and addendum thereto as prepared by SHA and which by reference are made a part hereof, and are herein referred to as the contract.

3. The condition of this obligation is such that, if contractor shall fully promptly and faithfully perform the contract and all obligations there under, including all items specified on the SHA and/or engineer's punch list for completion of the project as prepared by the SHA and/or engineer subsequent to actual date of substantial completion as determined by the SHA and/or engineer's Certificate of Substantial Completion, then this obligation shall be null and void; otherwise, it shall remain in full force and effect. The Bond shall remain in full force and effect and cover latent defects which are after the SHA has certified the construction be substantially complete and the Owner has accepted the construction.

For the reasons recited above, and in consideration of the mutual covenants of the parties set out herein, the parties agree as follows:

Whenever the Contractor shall be, and shall be declared by the Owner to be, in default A. under the contract, the Owner, having performed Owner's obligations thereunder, the Surety shall promptly remedy the default by completion of the contract in accordance with its terms and conditions by the direct employment of a contractor or contractors and/or subcontractors as same shall be necessary to complete the contract and as same shall be acceptable to the Owner. Or, by obtaining a bid or bids for the completion of the contract in accordance with its terms and conditions upon determination by the Owner and the Surety of the lowest and best bidder, authorize the Owner to enter into a contract with such bidder for the completion of the contract in accordance with the terms and conditions of the original contract together with such additional work as is necessary to remedy any damage, depreciation, waste or loss as shall have been suffered by the project as the direct or indirect result of the default required to be remedied. In the event the second option is elected by Surety, upon the execution of the contract and commencement of performance thereunder, Surety shall make available as the work progresses sufficient and necessary funds to pay the costs of remediation of the default and completion of the contract in accordance with the schedule for payment as established by the successor remediation contract. Surety shall be given credit against any sums so due for any unpaid balance of the original contract price retained by the Owner and not claimed by the original contractor. In no event, however, shall Surety, pursuant to the terms and conditions of this provision, be required to pay more than a sum equal to the original contract price as same shall be amended from time to time as set forth in this bond, together with any additional sums accruing as the result of amendments to the original contract prior to default and sums necessary to remedy any damage, depreciation, waste or loss as shall have been suffered by the project as the direct or indirect result of the default required to be remedied, with the exception that in addition hereto, Surety shall be required to pay all costs and attorney's fees incurred by Owner for the enforcement of this bond including trial and appellate proceedings. The term "balance of contract price" shall mean the difference between the sum of money set aside and possessed by Owner for the payment of any sums due from owner to contractor under the terms and conditions of the original contract as same may have been amended from time to time and any sums not so paid pursuant to the original contract as same may been

amended prior to declared default thereof to the extent that same is not claimed by or found to be due the original contractor.

- If and in the event Surety shall not have advised Owner in writing as to Surety's election B. to remedy the declared default within twenty (20) calendar days from the date of receipt of Owner's Declaration of Default, the Owner may, at its election, act to remedy the default by obtaining a bid or bids for completion of the contract, and by entry into a successor contract for completion with the lowest and best bidder. Further, in the event Surety shall fail to notify Owner of its election and if Owner should elect to proceed hereunder to remedy the default then, and in that event, Surety shall promptly pay to Owner all sums necessary to enable Owner to comply with the payment provisions of any successor completion contract less any credit due Surety. Surety shall not have the right, in that event, to object on the grounds that the successor contractor as selected by the Owner is not the lowest and best bidder on that the successor contract price is excessive unless the objection shall be based on demonstrated amendments to the plans and Project Manual made subsequent to the declared default and constituting new work other than that work contracted for prior to the date of declaration of default, except as to additional work as is necessary to remedy any damage, depreciation, waste or loss as shall have been suffered by the project as the direct or indirect result of the default required to be remedied. The Surety shall be liable to the Owner for all consequential damages which it has incurred resulting from any breach by the Surety of this performance bond. All notices to Owner shall be directed to ATTENTION: Angel I. Tua, Executive Director, Sanford Housing Authority, 94 Castle Brewer Court, Sanford, FL 32771 in the event that the money is not promptly paid.
- C. All actions brought upon this bond shall be instituted in Sanford, Florida.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

BOND PREMIUM: \$	(AMOUNT))
	(11000111)	,

Witnesses:

Contractor

As to Contractor

_____ BY:

Attorney in Fact for Surety

BY:

As to Surety

SECTION 00620 - PAYMENT BONDS

PAYMENT BONDS (Fla. Stat. 255.05)

BY THIS BOND, We,

		, as Principal and
		a corporation, as Surety, are bound to
		DRITY herein called Owner, in the sum of \$,
		urselves, our heirs, personal representatives, successors, and
assigns, jointry	and severally.	
THE C	CONDITION OF	THIS BOND is that if Principal:
1.	Florida Statutes	s payments to all claimants, as defined in Section 255.05(1), s, supplying Principal with labor, materials, or supplies, used rectly by Principal in the prosecution of the work provided for in d
2.		losses, damages, expenses, costs, and attorney's fees, including edings, that Owner sustains in enforcement of this bond.
3.	Performs the gu	arantee of all materials furnished under the contract for the time contract, then this bond is void; otherwise it remains in full force.
4.	noncompliance	or under the contract documents and compliance or with any formalities connected with the contract or the changes Surety's obligation under this bond.
5.	The provisions	of Florida Statute 255,05 are specifically adopted by reference thereof for all purposes.
DATED		, 2010
BOND PREMIUM \$		(AMOUNT)
		(PRINCIPAL)
	BY:	
		(SURETY)

SECTION 00700 - GENERAL CONDITIONS

PART 1 - GENERAL

1.1 GENERAL

- A. The General Conditions of the Contract for Construction, Public Housing Programs Table 5a and HUD Form - 5370 (SEE APPENDIX A), shall apply to and form a part of this Section.
- B. The Contractor is hereby directed, as a condition of the Contract to acquaint himself with the Articles contained herein and to notify and apprise all Subcontractors, suppliers and any other parties to the Contract or individuals or agencies engaged on the work as to its contents.
- C. No contractual adjustments shall be due as a result of failure on the part of the Contractor to fully acquaint himself and all other parties to the contract with the conditions of this Document.

SECTION 00760 – WAGE DETERMINATION

General Decision Number: FL080227 11/20/2009 FL227

State: Florida

Construction Type: Residential

County: Seminole County in Florida.

RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories).

Modification	Number	Publication	Date
0		07/10/2009	
1		07/24/2009	
2		11/20/2009	

* ENGI0673-009 05/01/2009

	Rates	Fringes
POWER EQUIPMENT OPERATOR: Crawler Crane, Hydro Crane, Locomotive Crane, Tower Crane, Truck Crane Gantry Crane, Bridge Crane Oiler	\$ 22.20	8.80 8.55 8.55
IRON0808-003 07/01/2009		
	Rates	Fringes
IRONWORKER, STRUCTURAL	\$ 23.00	9.95
* SUFL2009-124 06/08/2009		
	Rates	Fringes
BRICKLAYER	\$ 20.00	0.00
CARPENTER, Excluding Form Work.	\$ 12.09	2.95
CEMENT MASON/CONCRETE FINISHER.	\$ 12.19	0.00
ELECTRICIAN	\$ 11.98	0.00
FENCE ERECTOR	\$ 13.50	1.06
FORM WORKER	\$ 14.00	0.54
INSULATOR: Batt and Blown	\$ 12.01	0.00

IRONWORKER, ORNAMENTAL\$ 12.60	0.00
IRONWORKER, REINFORCING\$ 16.88	0.00
LABORER: Common or General\$ 9.51	0.00
LABORER: Mason Tender - Brick\$ 11.51	0.00
LABORER: Mason Tender - Cement/Concrete\$ 10.46	0.00
LABORER: Pipelayer\$ 11.79	0.00
LABORER: Roof Tearoff\$ 9.00	0.00
LABORER: Landscape and Irrigation\$ 9.15	0.00
OPERATOR: Asphalt Paver\$ 12.07	0.00
OPERATOR: Backhoe Loader Combo\$ 17.04	0.00
OPERATOR: Backhoe/Excavator\$ 12.56	0.00
OPERATOR: Bulldozer\$ 12.14	0.00
OPERATOR: Distributor\$ 11.57	0.00
OPERATOR: Forklift\$ 17.38	0.00
OPERATOR: Grader/Blade\$ 15.50	0.00
OPERATOR: Loader\$ 11.10	0.00
OPERATOR: Roller\$ 11.02	0.00
OPERATOR: Screed\$ 11.08	0.00
OPERATOR: Trackhoe\$ 15.68	0.00
OPERATOR: Tractor\$ 10.20	0.00
PAINTER: Brush, Roller and Spray\$ 13.61	0.00
PLASTERER\$ 13.59	0.00
PLUMBER\$ 15.04	0.00
ROOFER, Including Modified Bitumen, Built Up and Shake and Shingle (Excluding Metal	
Roof)\$ 13.33	0.00
ROOFER: Metal Roof\$ 16.99	0.00

SHEETMETAL WORKER, Including Hvac Installation (Excluding Metal Roofing).....\$ 9.95 0.00 TRUCK DRIVER: 4 Axle Truck.....\$ 11.78 0.00 TRUCK DRIVER: Lowboy Truck.....\$ 12.10 0.00 TRUCK DRIVER: Dump Truck.....\$ 10.22 0.00 _____ WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental. _____ 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 (29 CFR 5.5(a)(1)(ii)). _____ In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing. _____ _ _ 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 waqe determination matter * a conformance (additional classification and rate) ruling On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the

response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed. With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to: Branch of Construction Wage Determinations Wage and Hour Division U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210 2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to: Wage and Hour Administrator U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210 The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue. 3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to: Administrative Review Board U.S. Department of Labor 200 Constitution Avenue, N.W. Washington, DC 20210 4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

SECTION 00900 - ADDENDA

ADDENDUM NO.

DATE:

PROJECT NAME:

THIS ADDENDUM IS HEREBY INCORPORATED INTO THE CONTRACT DOCUMENTS OF THE ABOVE REFERENCED PROJECT. THE FOLLOWING ITEMS ARE CORRECTIONS, CLARIFICATIONS, ADDITIONS AND/OR REVISIONS TO THE SPECIFICATIONS AND DRAWINGS, AND SHALL TAKE PRECEDENCE OVER THE ORIGINAL SPECIFICATIONS AND DRAWINGS.

CHANGES TO THE PROJECT MANUAL

ITEM NO.1

CHANGES TO THE DRAWINGS

ITEM NO. (CONTINUES)

END OF SECTION 00900

SECTION 00901 - SCHEDULE OF AMOUNTS FOR CONTRACT PAYMENTS

PART 1 - GENERAL

- A. The Contractor is hereby directed, as a condition of the Contract, to obtain the necessary copies of this Document, to acquaint himself with the Articles contained herein and to notify and apprise all Subcontractors, suppliers and any other parties to the Contract or individuals or agencies engaged on the work as to its contents.
- B. No contractual adjustments shall be due as a result of failure on the part of the Contractor to fully acquaint himself and all other parties to the contract with the conditions of this Document.

SECTION 00902 - PERIODIC ESTIMATE FOR PARTIAL PAYMENT PART 1 - GENERAL

- A. The Contractor is hereby directed, as a condition of the Contract, to obtain the necessary copies of this Document, to acquaint himself with the Articles contained herein and to notify and apprise all Subcontractors, suppliers and any other parties to the Contract or individuals or agencies engaged on the work as to its contents.
- B. No contractual adjustments shall be due as a result of failure on the part of the Contractor to fully acquaint himself and all other parties to the contract with the conditions of this Document.
- C. See Appendix A for required HUD form 53001

END OF SECTION 00902

SECTION 00903 - SCHEDULE OF CHANGE ORDERS PART 1 - GENERAL

- A. The Contractor is hereby directed, as a condition of the Contract, to obtain the necessary copies of this Document, to acquaint himself with the Articles contained herein and to notify and apprise all Subcontractors, suppliers and any other parties to the Contract or individuals or agencies engaged on the work as to its contents.
- B. No contractual adjustments shall be due as a result of failure on the part of the Contractor to fully acquaint himself and all other parties to the contract with the conditions of this Document.
- C. See Appendix A for required HUD form 53002

END OF SECTION 00903

SECTION 00904 - SCHEDULE OF MATERIALS STORED PART 1 - GENERAL

- A. The Contractor is hereby directed, as a condition of the Contract, to obtain the necessary copies of this Document, to acquaint himself with the Articles contained herein and to notify and apprise all Subcontractors, suppliers and any other parties to the Contract or individuals or agencies engaged on the work as to its contents.
- B. No contractual adjustments shall be due as a result of failure on the part of the Contractor to fully acquaint himself and all other parties to the contract with the conditions of this Document.
- C. Owner shall only pay for materials stored on site per conditions of the contract. Contractor shall assume all responsibility of stored materials on site.
- D. See Appendix A for required HUD form 53003

SECTION 00905 - SUMMARY OF MATERIALS STORED

PART 1 - GENERAL

- A. The Contractor is hereby directed, as a condition of the Contract, to obtain the necessary copies of this Document, to acquaint himself with the Articles contained herein and to notify and apprise all Subcontractors, suppliers and any other parties to the Contract or individuals or agencies engaged on the work as to its contents.
- B. No contractual adjustments shall be due as a result of failure on the part of the Contractor to fully acquaint himself and all other parties to the contract with the conditions of this Document.
- C. Owner shall only pay for materials stored on site per conditions of the contract. Contractor shall assume all responsibility of stored materials on site.
- D. See Appendix A for required HUD form 53004

END OF SECTION 00905

SECTION 01005 - ADMINISTRATIVE PROVISIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes:
 - 1 Title of Work, and type of Contract.
 - 2 Work Sequence.
 - 3 Contractor Use of Premises.
 - 4 Owner Occupancy.
 - 5 Coordination.
 - 6 Reference Standards.
 - 7 Project Meetings.
- B. Related sections include the following:
 - a. Section 01030: Alternates.
 - b. Section 01270: Unit Prices.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

A. Work of this Contract comprises the selective demolition, potential design changes and installation of electrical improvements at Redding Garden a development in the

Sanford Housing Authority (SHA) and will be contracted as one contract.

1.4 CONTRACT NEEDED

A. Construct the Work under a single, lump sum contract or

1.5 WORK SEQUENCE

- A. Construct Work in stages to accommodate Owner's occupancy phase requirements during the construction period; coordinate construction schedule and operations with Owner.
- B. Work on new construction shall begin within seven (7) calendar days after receipt of Notice to Proceed, and be complete by the calendar days provided in the bid starting with the date established in the Notice to Proceed.

1.6 CONTRACTOR USE OF PREMISES

A. Limit use of premises for Work, construction operations and public use while allowing for Owner occupancy.

1.7 OWNER OCCUPANCY

A. Owner will occupy premises during entire period of construction. Cooperate with Owner to minimize conflict, and to facilitate Owner's operations.

1.8 COORDINATION

A. Coordinate work of the various sections of Specifications to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating times installed later.

1.9 REFERENCE STANDARDS

- A. For Products specified by association or trade standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. The date of the standards is that in effect as the date of contract documents, except when a specific date is specified.
- C. Obtain copies of standards when required by Contract Documents. Maintain copy at job site during progress of the specific work.
- D. Code Conformance: The following code editions are adopted by Sanford Housing Authority (SHA).

1. Florida Building Code: 2001 Edition and all codes adopted by Florida Building Code.

1.10 PROJECT MEETINGS

- A. The SHA shall schedule and administer Project meetings throughout progress of the Work: Meetings will be at bimonthly intervals.
- B. The Contractor shall schedule meetings, prepare agenda, preside at meetings, record minutes and distribute to participants, and those affected by decisions made at the meetings.
- C. Attendance shall include Contractor's Project Manager and Job Superintendent(s), Owner's Representative, and others as appropriate to agenda topics for each meeting.
- D. Agenda may include review of work progress, status of progress schedule and adjustments thereto, delivery schedules, submittals, maintenance of quality standards, pending changes and substitutions, and other items affecting progress of the work.

PART 2 - PRODUCTS

(NOT APPLICABLE)

PART 3 - EXECUTION

(NOT APPLICABLE)

END OF SECTION 01005

SECTION 01010 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Work Covered By Contract Documents
- 1. Project Description:

The Work consists of labor and material necessary for the selective demolition, potential design changes, and installation of electrical improvements at Redding Gardens development of the Sanford Housing Authority (SHA)

2. Location: Sanford Housing Authority (SHA) 400 South Locust Avenue Sanford, Florida 32771 Contact: Angel I. Tua, Executive Director Phone: (407) 323-3150

3. Contractor's Duties:

- a. Comply with listed codes, Project Manual and provide and pay for:
 - 1. Labor, Materials, Equipment and Installation of items described above.
 - 2. Tools, Construction Equipment.
 - 3. Protection of Existing Work.

1.3 CONTRACTS

A. The work will be constructed under a lump sum contract.

1.4 WORK SEQUENCE

- A. Construct work in phases to accommodate the Owner's use of the premises during the construction period; coordinate the construction schedule and operations with the Owner's Representative.
- B. Construct the work in phases to provide for public convenience. Do not close off public use of facilities until completion of one stage of construction will provide alternative usage.
- C. A progress schedule shall be made to include:
 - 1. A start date.
 - 2. A reasonable progression of work.
 - i. A start and finish date for construction materials and components listed in Divisions 2 thru 16:

1.5 OWNER'S ACCESS TO THE WORK

A. The Owner and Architect/Consultants reserves access to the work for observation during construction of the work.

1.6 OWNER FURNISHED ITEMS

A. As delineated herein.

1.7 CONTRACTOR USE OF PREMISES

- A. Contractor shall limit his use of the premises for work and for storage, to allow for: Owner occupancy, public use.
- B. Coordinate use of premises under direction of Architect and Owner's Representative.
- C. Assume full responsibility for the protection and safekeeping of products under this contract, stored on the site.
- D. Move any stored products, under Contractor's control, which interfere with operations of the Owner or separate contractor.
- E. Obtain and pay for the use of additional storage or work areas needed for operations.

1.8 OWNER OCCUPANCY

- A. Owner will occupy the premises during the entire period of construction for the conduct of his normal operations. Cooperate with Owner's Representative in all construction operations to minimize conflict and to facilitate Owner usage.
- B. Contractor shall at all times conduct his operations as to insure the least inconvenience to the administration Sanford Housing Authority.

1.9 JOB CONDITIONS

- A. Existing Conditions
 - 1. This project involves the selective demolition, design and renovation of three buildings that have suffered extensive damage from fire. The Contractor shall verify all existing effected conditions: dimensions, deterioration and alignment; soundness of perimeter conditions, and other visible conditions prior to bidding.
 - 2. Conflicts and/or problems shall be reported to SHA ten (10) days prior to bidding for resolution. Failure to report these conflicts places the responsibility on the Contractor to complete the work in accordance with the documents at no additional cost to the Owner.
- D. Coordination: Coordinate work of this section with interfacing and adjoining work for proper sequencing of each installation.

PART 2 - PRODUCTS

(NOT USED)

PART 3 - EXECUTION

(NOT USED)

END OF SECTION 01010

SECTION 01300 - SUBMITTALS

PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
 - A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Shop Drawings
 - 1. Submit all shop drawings, product data and samples required in the Technical Sections in accordance with the requirements of this Section and the General and Supplementary Conditions.
 - 2. Definitions:
 - a. Shop Drawings: Drawings, diagrams, schedules, and other data specially prepared by the Contractor or any subcontractor, manufacturer, supplier or distributor to illustrate some portion of the work.
 - b. Product (Catalog) Data: Standard illustrations, schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate a material, product or system for some portion of the work.
 - c. Samples: Physical examples furnished by the Contractor to illustrate materials, equipment or workmanship, and establish standards by which the work will be judged.
 - 3. SHA Review: Corrections or comments made on shop drawings during review do not relieve the Contractor from compliance with the 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 information given in Contract Documents. Shop drawings are <u>not</u> Contract Documents. The Contractor is responsible for confirming and correlating all guarantees, dimensions, selecting fabricating process and techniques of construction, furnishing specified finishes, and performing his work in a safe manner. If comment/changes are made on the SHA's review

which, in the Contractor's opinion, materially change the contract scope, time and/or cost, the Contractor shall so notify SHA in writing within seven (7) calendar days after receipt of the submittal clearly identifying the change and all costs incurred as a result of the change.

- 4. In addition to shop drawings, product data and samples, the procedures stated in this Section also apply to submittal of other items required in the various Technical Sections including certifications, warranties, guarantees, test data and reports, operating and, maintenance manuals and parts lists.
- 5. Schedule of Submittals:
- a. Submit Schedule of Submittals with the approved Progress Schedule.
- b. Submit schedule in two copies. Schedule shall include a list of all required submittal items with approximate date the Contractor expects to make the submittal. Submittal dates shall be consistent with the Progress Schedule and appropriate time shall be allowed for review and approval.
- c. All color samples shall be submitted to SHA within thirty (30) days after receipt of the Notice To Proceed.
- 6. Completeness of Submittal: Submittals must be submitted as a complete section and include all items listed in a technical specification Section 01301. Prior to submission for approval, each submittal shall be carefully checked by the Contractor for the complete and proper inclusion of all items stated in the technical provisions. Submittals which are incomplete, or which indicate no attempt at conformance with the Contract Documents shall not be submitted for review. Incomplete submittals will be returned to the Contractor without review unless the incompleteness is fully explained in the Contractor's letter of transmittal. The submittal must include sufficient detail to be readily understood, and shall be appropriately referenced to Drawing details and Specification paragraphs in the Contract Documents. See Section 01301.
 - a. No action will be taken on "rough-in" shop drawings for plumbing and electrical connections when the items of equipment are not included in the same submittal.
- 7. Channel of Submission: All submittals from subcontractors shall be processed through the General Contractor and submitted from the General Contractor to the SHA.
- 8. Identification of Submittal: Submittals, including resubmittals, shall be numbered consecutively starting with the number 1. In addition, resubmittals shall be noted "Resubmittal of Submittal No. _." Each subsequent item in Submittal No.1 shall be individually listed as Item 1A, 18, etc. See submittal identification form Section 01301.
- 9. Reference to Specifications: Each submittal shall, where possible, include all items required by one and only one Section of the Specifications. The submittal shall refer to the applicable Section, e.g., "Section 05120".

- 10. Contractor's Responsibility for Coordination: Where the dimension, size, shape, location, capacity or other characteristic of an item to be provided is dependent on some characteristic of another item, and where the Contractor has selection or fabrication of the actual product to be used, the Contractor shall be responsible for coordination of the related items, and shall insure that a proper exchange of information takes place prior to or during preparation of each submittal which shall reflect such coordination. The notation "verify" on the Drawings indicates the necessity for Contractor coordination in the particular instances used.
- 11. Review Time:
 - a. On a normal basis and if submittal is as specified, each submittal will be returned to the Contractor within fifteen (15) calendar days of the date it is received.
 - b. If for any reason the above schedule cannot be met, the Contractor will be so informed, and the Schedule of Submittals revised to allow for immediate processing of priority items. In the event of separate submittals of individual components of a system, these submittals may be held until all components of the system are submitted, and the Contractor will be so notified.
 - c. The Contractor will be responsible for costs incurred by Owner in reviewing resubmittals and/or variance requests.
 - d. SHA will promptly, within 72 hours after the receipt of same by SHA, respond in writing to each request for information (hereinafter "RFI" delivered by the Contractor for the PROJECT to SHA; provided, however, if the preparation of a response to any RFI requires information not readily in the possession of SHA, the time for the response of the SHA to such RFI shall be extended for a reasonable additional period not to exceed five (5) calendar days, and in such event SHA shall use diligent efforts to obtain such information as soon as is reasonably possible. All RFI shall be submitted on RFI form, Section 01302.
- 12. Number of Copies: Each submittal shall be transmitted in the following number of copies unless otherwise indicated in the Technical Provisions. Any additional copies submitted will be discarded.
 - a. In addition to quantity specified, provide <u>one</u> extra copy of each submittal for the Owner's use and file.

Item	Submit	Ret'd to Contr.
Shop Drawings	Three (3) opaque prints and (1) one reproducible transparency	One (1) opaque print

Product Data	3	1
Samples	2	1
Certifications	2	0
Warranties and	2	0
Guarantees	2	0
Test Reports	3	0
Operating & Maint.	3	0
Manuals	5	0

In the event submittal is returned marked "Revise and Resubmit", and there is a substantial number of discrepancies, marked "prints" will be returned to the Contractor.

- 13. Operating Manuals: Submit manuals in accordance with requirements of the Technical Sections involved.
- 14. Warranties and Guarantees: Warranties and guarantees, and bonds of similar intent shall be provided as required by the appropriate Technical Section of the Specificati9ns. They shall be submitted on a timely basis as the work progresses.
 - 1. Their receipt and approval by SHA shall be considered a part of the requirement for SHA to certify substantial completion.
- 15. Product Data Submittals: Manufacturer's data sheets, or reproductions thereof, shall be clearly marked in black ink to indicate the specific items proposed for use in the project. Unrelated items shall be blocked out.
- 16. Contractor Checking: In checking submittals of subcontractors and suppliers, the Contractor shall mark all sets, indicating his corrections and comments, in blue or green. The Contractor shall place his stamp of approval on each item submitted.
- 17. Transmittal Letter: Each submittal shall be accompanied by a transmittal letter which has been approved by SHA. Submit form for SHA review.
- 18. Submittal Requirements:
 - a. The transmittal letter shall clearly indicate the following:

Project name and Contractor's name Name of organization originating submittal Submittal identification (name and number)

b. Each submittal shall bear the following information:

Name or originating organization Submittal identification (name and number) Date prepared The Contractor's stamp indicating review and approval

In addition, items resubmitted shall have the following information listed in the letter of transmittal:

Dates of previous submission Revisions, other than those specifically requested shall be specifically noted.

- 19. Return of Submittals: After review, each submittal will be returned to the Contractor accompanied by a standard transmittal form. Comments will be marked red and each item (or sheet) will be stamped and marked to indicate one of the following:
 - a. Reviewed as Noted: The SHA found no discrepancies or the Contractor is required to comply with notations marked on submittal for minor corrections.
 - b. Revise and Resubmit: The submittal does not meet the requirements of the Contract Documents. The Contractor shall restudy the requirements and prepare a new submittal which meets these requirements.
- 20. Schedule of Submittal List: List all items required for submittal. Submit list seven (7) days after notice to proceed. In the event the Technical Provisions include items not covered in the list, the requirements of the Technical Provisions shall govern. Submittal data may be required on any item even though submittal requirements are not given in the Specifications.

PART 2 - PRODUCTS

(NOT APPLICABLE)

PART 3 - EXECUTION

(NOT APPLICABLE)

END OF SECTION 01300

SECTION 01350 - CONSTRUCTION PROGRESS SCHEDULE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- B. HUD Form 5372 is required. SEE (APPENDIX A)

END OF SECTION 01350

SECTION 01400 - QUALITY CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Quality assurance and control of installation
 - 2. References
 - 3. Field samples
 - 4. Mock-up
 - 5. Inspection and testing laboratory services
 - 6. Manufacturers' field services and reports
- B. Related Sections:
 - 1. Section 01300 Submittals.
 - 2. Section 01600 Material and Equipment.

1.3 QUALITY ASSURANCE/CONTROL OF INSTALLATION:

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions and workmanship to produce work of specified quality.
- B. Comply fully with manufacturer's instructions, including each step in sequence.
- C. Should manufacturer's instructions conflict with Contract Documents, request clarification from SHA before proceeding.
- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality. All subcontractors shall be capable of being bonded.
- F. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.4 REFERENCES AND INDUSTRY STANDARDS:

A. Conform to reference standard by date of issue current on date specified in product Sections. If not specified, comply with the latest edition prior to contract document date.

- B. Obtain copies of standards when required by Contract Documents.
- C. Should specified reference standards conflict with Contract Documents, and request clarification from SHA before proceeding.
- D. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.5 FIELD SAMPLES

- A. Install field samples at the site as required by individual specifications Sections for review.
- B. Acceptable samples represent a quality level for the Work.
- C. Where field sample is specified in individual Sections to be removed, clear area after field sample has been accepted by SHA.

1.6 MOCK-UP

- A. Test will be performed under provisions identified in this Section.
- B. Assemble and erect specified items, with specified attachment and anchorage

devices, flashings, seals, and finishes.

C. Where mock-up is specified in individual Sections to be removed, clear area after mockup has been accepted by SHA.

1.7 INSPECTION AND TESTING LABORATORY SERVICES

- A. The Owner shall employ and pay for the services of an Independent Testing Laboratory to perform certain tests of materials, equipment and systems required as part of the Contract.
 - 1. Where tests are required by the technical specifications for materials, methods or equipment, the Contractor shall pay the cost of initial tests to provide qualities and determine conformance with specification requirements, e.g., mill tests on cement and steel; load testing of piling; sieve analysis and colorimetric tests on sand; strength tests for determining proportions of materials or concrete, moisture content and sound transmission tests of concrete blocks, etc.
 - 2. If substitute materials or equipment are proposed by the Contractor, and issued by the SHA during the bidding period by addenda, the Contractor shall pay the cost of all tests which may be necessary to satisfy SHA that specification requirements are met.
 - 3. If materials or workmanship are used which fail to meet specification requirements the Contractor shall pay the cost of all coring or other tests deemed necessary by the SHA to determine the safety or suitability of the

material or element.

- 4. The Contractor shall pay for all testing costs, including but not limited to fuel and equipment and systems for proper operation such as plumbing, site utilities, heating ventilation, air conditioning, electrical, elevator, dumbwaiters and conveyors and so forth.
- 5. The Contractor shall pay for all manufacturer's field observations and reports where indicated and/or as required by contractors non-compliance with manufacturers written instructions and/or contract documents
- 6. Owner will pay for building permits, other permits and governmental fees. Contractor shall pay for inspections and testing by governmental agencies.
- B. The Owner may employ and pay for the services of an Independent Testing Laboratory to perform other tests, except to the extent that the costs of performing such tests are otherwise chargeable to the Contractor under provisions of the Contract Documents. The Contractor shall pay for all tests that fail.
- C. Services will be performed in accordance with requirements of governing authorities and with specified standards.
- D. Reports will be submitted to SHA in duplicate giving observations and results of test, indicating compliance or non-compliance with specified standards and with Contract Documents.
- E. Contractor coordinates manufacturer's field representative's observations and shall cooperate with Testing and Laboratory personnel; furnish tools, samples of materials, design mix, equipment, storage and assistance as required.
 - 1. Notify SHA and Testing Laboratory twenty-four (24) hours prior to expected time for operations requiring testing services.
 - 2. Make arrangements with Testing Laboratory and pay for additional samples and tests for Contractor's convenience.

PART 2 – PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01400

SECTION 01421 - REFERENCE STANDARDS AND DEFINITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 DEFINITIONS

- A. General: Basic contract definitions are included in the Conditions of the Contract.
- B. "Indicated": The term "indicated" refers to graphic representations, notes, or schedules on the Drawings; or to other paragraphs or schedules in the Specifications and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help the user locate the reference. Location is not limited.
- C. "Directed": Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by SHA, requested by SHA, and similar phrases.
- D. "Approved": The term "approved," when used in conjunction with SHA's action on the Contractor's submittals, applications, and requests, is limited to SHA's duties and responsibilities as stated in the Conditions of the Contract.
- E. "Regulations": The term "regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that controls performance of the Work.
- F. "Furnish": The term "furnish" means to supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": The term "install" describes operations at the Project site including the actual unloading, temporary storage, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": The term "provide" means to furnish and install, complete and ready for the intended use.
- I. "Installer": An installer is the Contractor or another entity engaged by the Contractor, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, or similar operations. Installers are required to be experienced in the operations they are engaged to perform.

- 1. The term "experienced," when used with the term "installer," means having successfully completed a minimum of five previous projects similar in size and scope to this Project; being familiar with the special requirements indicated; and having complied with requirements of authorities having jurisdiction.
- 2. Trades: Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.
- 3. Assigning Specialists: Certain Sections of the Specifications require that specific construction activities shall be performed by specialists who are recognized experts in those operations. The specialists must be engaged for those activities, and their assignments are requirements over which the Contractor has no option. However, the ultimate responsibility for fulfilling contract requirements remains with the Contractor.
 - a. This requirement shall not be interpreted to conflict with enforcing building codes and similar regulations governing the Work. It is also not intended to interfere with local tradeunion jurisdictional settlements and similar conventions.
- J. "Project site" is the space available to the Contractor for performing construction activities, either exclusively or in conjunction with others performing other work as part of the Project. The extent of the Project site is shown on the Drawings and mayor may not be identical with the description of the land on which the Project is to be built.
- K. "Testing Agencies": A testing agency is an independent entity engaged to perform specific inspections or tests, either at the Project site or elsewhere, or to report on and, if required, to interpret results of those inspections or tests.

1.3 SPECIFICATION FORMAT AND CONTENT EXPLANATION

A. Specification Format: These Specifications are organized into Divisions and Sections based on the 16-division format and CSIICSC's "MasterFormat" numbering system.

B. Specification Content: These Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

- 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be interpolated, as the sense requires. Singular words shall be interpreted as plural and plural words interpreted as singular where applicable as the context of the Contract Documents indicates.
- 2. Imperative mood and streamlined language are generally used in the

Specifications. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the Text, subjective language is used for clarity to describe responsibilities that must be fulfilled indirectly by the Contractor or by others when so noted.

a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

1.4 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with the standards latest edition in effect as of the date of the Contract Documents.
- C. Conflicting Requirements: Where compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different but apparently equal to SHA for a decision before proceeding.
 - 1.Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of the requirements. Refer uncertainties to SHA for a decision before proceeding.
- D. Copies of Standards: Each entity engaged in construction on the Project must be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed to perform a required construction activity, the Contractor shall obtain copies directly from the publication source and make them available on request.
- E. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where abbreviations and acronyms are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards-generating organization, authorities having jurisdiction, or other entity applicable to the context of the text provision. Refer to Gale Research's "Encyclopedia of Associations" or Columbia Books' "National Trade & Professional Associations of the U.S.," which are available in most libraries.

1.5 GOVERNING REGULATIONS AND AUTHORITIES

A. Copies of Regulations: Obtain copies of regulations as required and retain at the Project site to be available for reference by parties who have a reasonable need.

1.6 SUBMITTALS

A. Permits, Licenses, and Certificates: For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION 01421

SECTION 01600 - MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Products
 - 2. Transportation and handling
 - 3. Storage and protection
 - 4. Product options
 - 5. Substitutions
- B. Related Sections:
 - 1. Section 01400 Quality Control

1.3 PRODUCTS

A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work. All products shall be new unless noted otherwise.

- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- C. Provide interchangeable components of the same manufacturer, for similar components. All products installed shall be compatible with existing components and systems as necessary.

1.4 TRANSPORTATION AND HANDLING:

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.5 STORAGE AND PROTECTION:

- A. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate controlled enclosures.
- B. For exterior storage of fabricated products, placed on sloped supports, above ground.
- C. Provide oft-site storage and protection when site does not permit on-site storage or protections.
- D. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- E. Store loose granular materials on solid flat surface in a well-drained area. Prevent mixing with foreign matter.
- F. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- G. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

1.6 SUBSTITUTIONS

- A. Instructions to Bidders specify time restrictions for submitting requests for Substitutions during the bidding period to requirements specified in this Section. Use Substitution request form in Section 00440.
- B. No substitution will be considered prior to receipt of Bids unless written request approval has been received by SHA at least ten (10) calendar days prior to the date for receipt of Bids. Each such request shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed

substitute including drawings, cuts, performance and test data and any other information necessary for an evaluation. A statement setting forth any changes in other materials, equipment or other work that incorporation of the substitute would require shall be included. The burden of proof of the merit of the proposed substitute is upon the submitter. The SHA's review of a proposed substitution shall not relieve the Contractor from his responsibility to insure substitutes are compatible with the specified products.

- C. If SHA accepts any proposed substitution prior to receipt of Bids, such review will be set forth in an Addendum. Bidders shall not rely upon reviews made in any other manner.
- D. No substitutions will be considered after the Contract award unless the specified products are not available or as otherwise specifically provided in the Contract Documents.

PART 2 - PRODUCTS

(NOT USED)

PART 3 – EXECUTION

(NOT USED)

END OF SECTION 01600

SECTION 01700 - CONTRACT CLOSEOUT

PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
 - A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Closeout procedures
 - 2. Final cleaning
 - 3. Adjusting
 - 4. Project record documents
 - 5. Operation and maintenance data
 - 6. Warranties
 - 7. Spare parts and maintenance materials
- B. Related Sections:
 - 1. Section 01005 Administrative Provisions
 - 2. Section 1710 Final Cleaning
 - 3. Section 1720 Project Record Documents

- 4. Section 1730 Operation And Maintenance Data
- 5. Section 1740 Warranties

1.3 CLOSEOUT PROCEDURES:

- A. When Contractor is substantially complete, the Contractor shall submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for SHA's review/observation. A list of any outstanding incomplete work, submittals, etc. required at this time shall be included with contractor's certification. If upon SHAs observation, the project is declared not substantially complete, the cost of a deductive change order shall be issued deducting from Contractors payment, SHA's time, Consultants time, etc. for SHA/Consultant review.
- B. Comply with procedures stated in General Conditions of the Contract for issuance of Certificate of Substantial Completion.
- C. In addition to submittals required by the conditions of the Contract, provide submittals required by governing authorities, and submit a final statement of account giving total adjusted Contract Sum, previous payments, and sum remaining due.
- D. SHA will issue a final change order reflecting approved adjustments to Contract Sum not previously made by Change Order.
- E. Substantial completion will not be granted until <u>ALL</u> clearances are granted by the jurisdictional respective authorities.
- 1.4 FINAL CLEANING:
 - A. Execute final cleaning prior to final inspection.
 - B. Clean interior and exterior glass and surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surface, vacuum carpeted and soft surfaces.
 - C. Clean equipment and fixtures to a sanitary condition.
 - D. Replace filters and strainers of all mechanical equipment and systems.
 - E. Clean site; sweep paved areas, rake clean landscaped surfaces.
 - F. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.5 ADJUSTING:

- A. Adjust operating Products and equipment to ensure smooth and unhindered operation.
- 1.6 PROJECT RECORD DOCUMENTS:

- A. Maintain on site, one set of the following record documents; record actual revisions to the Work:
 - 1. Contract Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other Modifications to the Contract.
 - 5. Reviewed shop drawings, product data, and samples.
- B. Store Record Documents separate from documents used for construction.
- C. Record information concurrent with construction progress.
- D. Submit in compliance with Section 1720.

1.7 OPERATIONS AND MAINTENANCE DATA:

- A. Submit two (2) draft sets prior to substantial completion, bound in 8-1/2 x 11 inch text pages, three D side ring capacity expansion binders with durable covers.
- B. Prepare binder covers with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS" with name and title of project.
- C. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Submit in conformance with Section 1730 Operation and Maintenance Data.

1.8 WARRANTIES:

- A. Provide duplicate, notarized copies. Execute Contractor's submittals and assemble documents executed by subcontractors, suppliers and manufacturers. Provide table of contents and assemble in binder with durable plastic cover.
- B. Submit warranties prior to substantial completion and final application of payment. Equipment put into use during the contract, phased projects the warranties shall extend to the completion of the last phase and remain in effect as specified.
- C. Submit in compliance with Section 1740 Warranties.

1.9 SPARE PARTS AND MAINTENANCE MATERIALS:

- A. Provide products, spare parts, maintenance and extra materials in quantities specified in individual specification Sections.
- B. Deliver to project site. Obtain receipt from delivery and forward to SHA.

PART 2 - PRODUCTS

(NOT USED)

PART 3 - EXECUTION

(NOT USED)

END OF SECTION 01700

SECTION 01710 - FINAL CLEANING

PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
 - A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for final cleaning at Substantial Completion.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
- 1. Division 1 Section "Contract Closeout" specifies general contract closeout requirements. 2. Special cleaning requirements for specific construction elements are included in appropriate Sections of Divisions 2 through 16.
- C. Environmental Requirements: Conduct cleaning and waste-disposal operations in compliance with local laws and ordinances. Comply fully with federal and local environmental and antipollution regulations.
 - 1. Do not dispose of volatile wastes, such as mineral spirits, oil, or paint thinner, in storm or sanitary drains.
 - 2. Burning or burying of debris, rubbish, or other waste material on the premises is not permitted.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by the manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final-cleaning operations when indicated. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of Work to the condition expected from a commercial building cleaning and maintenance program. Comply with manufacturer's instructions.
- B. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for the entire Project or a portion of the Project.
 - 1. Clean the Project Site, yard and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and foreign substances.
 - 2. Sweep paved areas broom clean. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - 3. Remove petrochemical spills, stains, and other foreign deposits.
 - 4. Remove tools, construction equipment, machinery, and surplus material from the site. 4. 5. Remove any debris, obstacles to provide safe access to the building.
 - 5. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - 6. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - 7. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 8. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - 9. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - 10. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - 11. Clean ducts, blowers, and coils if units were operated without filters during construction. 17. Clean food-service equipment to a sanitary condition, ready and acceptable for its intended use.
 - 18. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs and defective and noisy starters in fluorescent and mercury vapor fixtures.
 - 19. Leave the Project clean and ready for occupancy.
- B. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid the Project of rodents, insects, and other pests. Comply with regulations of local authorities.

- C. Removal of Protection: Remove temporary protection and facilities installed during construction to protect previously completed installations during the remainder of the construction period.
- D. Compliances: Comply with governing regulations and safety standards for cleaning operations. Remove waste materials from the site and dispose of lawfully.
 - 1. Where extra materials of value remain after completion of associated Work, they become the Owner's property. Dispose of these materials as directed by the Owner.

END OF SECTION 01710

SECTION 01720 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for Project Record Documents.
- B. Project Record Documents required include the following:
 - 1. Marked-up copies of Contract Drawings.
 - 2. Marked-up copies of Shop Drawings.
 - 3. Newly prepared drawings (per General Conditions).
 - 4. Marked-up copies of Specifications, addenda, and Change Orders.
 - 5. Marked-up Product Data submittals.
 - 6. Record Samples.
 - 7. Field records for variable and concealed conditions.
 - 8. Record information on Work that is recorded only schematically.
- C. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. General Conditions of the Contract.
 - 2. Division 1 Section "Submittals" specifies general requirements for preparing and submitting Project Record Documents.
 - 3. Division 1 Section "Contract Closeout" specifies general closeout requirements.
 - 4. Divisions 2 through 16 Sections for specifying Project Record Document requirements for specific pieces of equipment or building operating systems.

D. Maintenance of Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition. Make documents and Samples available at all times for SHA's review.

1.3 RECORD DRAWINGS

- A. Markup Procedure: During construction, maintain a set of blue- or black-line white prints of Contract Drawings and Shop Drawings for Project Record Document purposes.
 - 1. Mark these Drawings to show the actual installation where the installation varies from the installation shown originally. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later. Items required to be marked include, but are not limited to, the following:
 - a. Dimensional changes to the Drawings.
 - b. Revisions to details shown on the Drawings.
 - c. Depths of foundations below the first floor.
 - d. Locations and depths of underground utilities.
 - e. Revisions to routing of piping and conduits.
 - f. Revisions to electrical circuitry.
 - g. Actual equipment locations.
 - h. Duct size and routing.
 - i. Locations of concealed internal utilities.
 - j. Changes made by change order or Construction Change Directive.
 - k. Changes made following the SHA's written orders.
 - 1. Details not on original Contract Drawings.
 - 2. Mark record prints of Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. Where Shop Drawings are marked, show cross-reference on Contract Drawings location.
 - 3. Mark record sets with red erasable colored pencil. Use other colors to distinguish between changes for different categories of the Work at the same location.
 - 4. Mark important additional information that was either shown schematically or omitted from original Drawings.
 - 5. Note Construction Change Directive numbers, alternate numbers, changeorder numbers, and similar identification.
- B. Responsibility for Markup: The individual or entity, who obtained record data, whether the individual or entity is the Installer, subcontractor, or similar entity, shall prepare the markup on record drawings.
 - 1. Accurately record information in an understandable drawing technique.
 - 2. Record data as soon as possible after obtaining it. Record and check the markup prior to enclosing concealed installations.

- 3. At time of Substantial Completion, submit record drawings to SHA for the Owner's records. Organize into sets and bind and label sets for the Owner's continued use.
- C. Preparation of Transparencies: Immediately prior to Certification of Substantial Completion, review completed marked-up record drawings with SHA. Prepare a full set of corrected transparencies of Contract Drawings and Shop Drawings per General Conditions.
 - 1. Incorporate changes and additional information previously marked on print sets. Erase, redraw, and add details and notations where applicable. Identify and date each drawing; include the printed designation <u>"PROJECT RECORD DRAWINGS"</u> in a prominent location on each drawing.
 - 2. Refer instances of uncertainty to SHA for resolution.
 - 3. The Contractor is responsible for one set of transparencies of original Contract Drawings for use in recording changes, additional information, and for printing original Contract Drawings and other drawings as required to produce transparencies. SHA will make original Contract Drawings available to the Contractor's print shop.
 - 4. Review of Transparencies: Before copying and distributing, submit corrected transparencies and the original marked-up prints to SHA for review.
 - a. If acceptable, SHA will return transparencies and the original marked-up prints to the Contractor for organizing into sets, printing, binding, and final submittal.
- D. Copies and Distribution: After completing the preparation of transparency record drawings, print 3 blue- or black-line prints of each drawing, whether or not changes and additional information were recorded. Organize the copies into manageable sets. Bind each set with durable-paper cover sheets. Include appropriate identification, including titles, dates, and other information on the cover sheets.
 - 1. Organize and bind original marked-up set of prints that were maintained during the construction period in the same manner.
 - 2. Organize record transparencies into sets matching the print sets. Place these sets in durable tube-type drawing containers with end caps. Mark the end cap of each container with suitable identification.
 - 3. Submit the marked-up record set, transparencies, and 3 copy sets to SHA for the Owner's records.

1.4 RECORD SPECIFICATIONS

- A. During the construction period, maintain 3 copies of the Project Specifications, including addenda and modifications issued, for Project Record Document purposes.
 - 1. Mark the Specifications to indicate the actual installation where the installation varies from that indicated in Specifications and modifications issued. Note related project record drawing information, where applicable.

Give particular attention to substitutions, selection of product options, and information on concealed installations that would be difficult to identify or measure and record later.

- a. In each Specification Section where products, materials, or units of equipment are specified or scheduled, mark the copy with the proprietary name and model number of the product furnished.
- b. Record the name of the manufacturer, supplier, installer, and other information necessary to provide a record of selections made and to document coordination with record Product Data submittals and maintenance manuals.
- b. Note related record Product Data, where applicable. For each principal product specified, indicate whether record Product Data has been submitted in maintenance manual instead of submitted as record Product Data.
- 2. Upon completion of markup, submit record Specifications to SHA for the Owner's records.

1.5 RECORD PRODUCT DATA

A. During the construction period, maintain two copies of each Product Data submittal for Project Record Document purposes prior to Substantial Completion, submit in heavy-duty, 3-ring vinyl covered binders.

- 1. Mark Product Data to indicate the actual product installation where the installation varies substantially from that indicated in Product Data submitted. Include significant changes in the product delivered to the site and changes in manufacturer's instructions and recommendations for installation.
- 2. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
- 3. Note related Change Orders and markup of record Drawings, where applicable.
- 4. Upon completion of markup, submit a complete set of record Product Data to SHA for the Owner's records.
- 5. Where record Product Data is required as part of maintenance manuals, submit marked up Product Data as an insert in the manual instead of submittal as record Product Data.

1.6 RECORD SAMPLE SUBMITTAL

A. Immediately prior to date of Substantial Completion meet with SHA and the Owner's personnel at the site to determine which of the Samples maintained during the construction period shall be transmitted to the Owner for record purposes. Comply with SHA's instructions for packaging, identification marking, and delivery to the Owner's Sample storage space. Dispose of other Samples in a manner specified for disposing surplus and waste materials.

1.7 MAINTENANCE MANUAL SUBMITTAL

A. When each construction activity that requires submittal of maintenance manuals is nominally complete, but before Substantial Completion, submit maintenance

manuals specified.

- 1. Organize operation and maintenance manuals into suitable sets of manageable size.
- 2. Bind data into individual binders for each manual, properly identified on front and spine. For large manuals, provide an index sheet and thumb tabs for separate information categories.
- 3. Provide heavy-duty, 3-ring, vinyl-covered binders, 1 to 2 inch thick as required to contain information, sized for 8-1/2-by-11-inch paper with inside pockets or pocket folders for folded sheets.
- 4. In each maintenance manual, include information specified in individual Specification Sections and the following:
 - a. Installer/Contractor; Name, Address and Phone/Fax Numbers.
 - b. Emergency instructions.
 - c. Spare parts list.
 - d. Copies of specific warranties.
 - e. Wiring diagrams.
 - f. Recommended maintenance procedures and turn-around times.
 - g. Inspection and system-test procedures.
 - h. Copies of applicable Shop Drawings and Product Data.
 - i. Listing of required maintenance materials and services.
 - j. Names and addresses of sources of maintenance materials.
 - k. Maintenance drawings and diagrams.
 - 1. Precautions against improper maintenance and exposure.

1.8 MISCELLANEOUS RECORD SUBMITTALS

- A. Refer to other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Immediately prior to Substantial Completion, complete miscellaneous records and place two (2) copys in good order, properly identified and bound in heavy-duty, 3ring, vinyl-covered binders, 1 to 2 inch thick as required to contain information, sized for 8-1/2-by-11-inch paper with inside pockets or pocket folders for folded sheets.. Submit to the SHA for the Owner's records.
 - 1. Categories of requirements resulting in miscellaneous records include, but are not limited to, the following:
 - a. Change Orders
 - b. Substitution Requests
 - c. Request for Information (RFI)
 - d. Construction Change Directive
 - e. SHA Supplemental Instructions
 - f. SHA Field Reports
 - g. Substantial Completion Report
 - h. Final Observation Report
 - i. Field records on excavations and foundations.
 - j. Field records on underground construction and similar work.
 - k. As-built survey showing locations and elevations of underground lines and establishing building lines and levels.

- 1. Invert elevations of drainage piping.
- m. Establishing building lines and levels and invert elevations of drainage piping.
- n. Authorized measurements utilizing unit prices or allowances.
- o. Records of plant treatment.
- p. Ambient and substrate condition tests.
- q. Certifications received in lieu of labels on bulk products.
- r. Batch mixing and bulk delivery records.
- s. Testing and qualification of tradesmen.
- t. Documented qualification of installation firms.
- u. Load and performance testing.
- v. Inspections and certifications by governing authorities.
- w. Leakage and water-penetration tests.
- x. Fire-resistance and flame-spread test results.
- y. Warranties.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

- 3.1 RECORDING
 - A. Post changes and modifications to the Documents as they occur. Do not wait until the end of the Project.

END OF SECTION 01720

SECTION 01730 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
 - A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for operation and maintenance manuals, including the following:
 - 1. Preparing and submitting operation and maintenance manuals for building operating systems and equipment.
 - 2. Preparing and submitting instruction manuals covering the care, preservation, and maintenance of architectural products and finishes.
 - 3. Instruction of the Owner's operating personnel in the operation and maintenance of building systems and equipment.
- B. Related Sections: The following Sections contain requirements that relate to this Section:

- 1. Division 1 Section "Submittals" specifies preparation of Shop Drawings and Product Data.
- 2. Division 1 Section "Contract Closeout" specifies general closeout requirements.
- 3. Division 1 Section "Product Record Documents" specifies general requirements for submitting project record documents.
- 4. Appropriate Sections of Divisions 2 through 16 specify special operation and maintenance data requirements for specific pieces of equipment or building operating systems.

1.3 QUALITY ASSURANCE

- A. Maintenance Manual Preparation: In preparation of maintenance manuals, use personnel thoroughly trained and experienced in operation and maintenance of equipment or system involved.
 - 1. Where maintenance manuals require written instructions, use personnel skilled in technical writing where necessary for communication of essential data.
 - 2. Where maintenance manuals require drawings or diagrams, use draftsmen capable of preparing drawings clearly in an understandable format.
 - B. Instructions for the Owner's Personnel: Use experienced instructors thoroughly trained and experienced in operation and maintenance of equipment or system involved to instruct the Owner's operation and maintenance personnel.

1.4 SUBMITTALS

- A. Submittal Schedule: Comply with the following schedule for submitting operation and maintenance manuals:
 - 1. Before Substantial Completion, when each installation that requires operation and maintenance manuals is nominally complete, submit 2 draft copies of each manual to the SHA for review. Include a complete index or table of contents of each manual.
 - a. The SHA will return 1 copy of the draft with comments within 15 days of receipt.
 - 2. Submit 1 copy of data in final form at least 15 days before final inspection. The SHA will return this copy within 15 days after final inspection, with comments.
 - 3. After final inspection, make corrections or modifications to comply with the SHA's comments. Submit the specified number of copies of each approved manual to the SHA within 15 days of receipt of the SHA's comments.

- B. Form of Submittal: Prepare operation and maintenance manuals in the form of an instructional manual for use by the Owner's operating personnel. Organize into suitable sets of manageable size. Where possible, assemble instructions for similar equipment into a single binder.
 - 1. Binders: For each manual, provide heavy-duty, commercial-quality, 3ring, vinyl covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to receive 8-1/2-by-11- inch paper. Provide a clear plastic sleeve on the spine to hold labels describing contents. Provide pockets in the covers to receive folded sheets.
 - a. Where 2 or more binders are necessary to accommodate data, correlate data in each binder into related groupings according to the Project Manual table of contents. Cross-reference other binders where necessary to provide essential information for proper operation or maintenance of the piece of equipment or system.
 - b. Identify each binder on front and spine, with the printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter covered. Indicate volume number for multiple volume sets of manuals.
 - 2. Dividers: Provide heavy paper dividers with celluloid-covered tabs for each separate Section. Mark each tab to indicate contents. Provide a typed description of the product and major parts of equipment included in the Section on each divider.
 - 3. Protective Plastic Jackets: Provide protective, transparent, plastic jackets designed to enclose diagnostic software for computerized electronic equipment.
 - 4. Text Material: Where maintenance manuals require written material, use the manufacturer's standard printed material. If manufacturer's standard printed material is not available, provide specially prepared data, neatly typewritten, on 8-1/2-by-11-inch, 20-lb/sq. ft. white bond paper.
 - 5. Drawings: Where maintenance manuals require drawings or diagrams, provide reinforced, punched binder tabs on drawings and bind in with text.
 - a. Where oversize drawings are necessary, fold drawings to the same size as, text pages and use as a foldout.
 - b. If drawings are too large to be used practically as a foldout, place the drawing, neatly folded, in front or rear pocket of binder. Insert a typewritten page indicating drawing title, description of contents, and drawing location at the appropriate location in the manual.

1.5 MANUAL CONTENT

- A. In each manual include information specified in the individual Specification Section and the following information for each major component of building equipment and its controls:
 - 1. General system or equipment description.
 - 2. Design factors and assumptions.
 - 3. Copies of applicable Shop Drawings and Product Data.
 - 4. System or equipment identification, including:
 - a. Name of manufacturer.
 - b. Model number.
 - c. Serial number of each component.
 - 5. Operating instructions.
 - 6. Emergency instructions.
 - 7. Wiring diagrams.
 - 8. Inspection and test procedures.
 - 9. Maintenance procedures and schedules.
 - 10. Precautions against improper use and maintenance.
 - 11. Copies of warranties.
 - 12. Repair instructions including spare parts listing.
 - 13. Sources of required maintenance materials and related services.
 - 14. Manual index.
- B. Organize each manual into separate Sections for each piece of related equipment. As a minimum, each manual shall contain a title page; a table of contents; copies of Product Data, supplemented by Drawings and written text; and copies of each warranty, bond, and service contract issued.
 - 1. Title Page: Provide a title page in a transparent, plastic envelope as the first sheet of each manual. Provide the following information:
 - a. Subject matter covered by the manual.
 - b. Name and address of the Project.
 - c. Date of submittal.
 - d. Name, address, and telephone number of the Contractor.
 - e. Cross-reference to related systems in other operation and maintenance manuals.
 - 2. Table of Contents: After title page, include a typewritten table of contents for each volume, arranged systematically according to the Project Manual format. Include a list of each product included, identified by product name or other appropriate identifying symbol and indexed to the content of the volume.
 - b. Where a system requires more than one volume to accommodate data, provide a comprehensive table of contents for all volumes in each volume of the set.
 - 3. General Information: Provide a general information Section immediately following table of contents, listing each product included in the manual, identified by product name. Under each product, list the name, address, and telephone number of the subcontractor or Installer and the maintenance

contractor. Clearly delineate the extent of responsibility of each of these entities. Include a local source for replacement parts and equipment.

- 4. Product Data: Where the manuals include manufacturer's standard printed data, include only sheets that are pertinent to the part or product installed. Mark each sheet to identify each part or product included in the installation. Where the Project includes more than one item in a tabular format, identify each item, using appropriate references from the Contract Documents. Identify data that is applicable to the installation, and delete references to information that is not applicable.
- 5. Written Text: Prepare written text to provide necessary information where manufacturer's standard printed data is not available, and the information is necessary for proper operation and maintenance of equipment or systems. Prepare written text where it is necessary to provide additional information or to supplement data included in the manual. Organize text in a consistent format under separate headings for different procedures. Where necessary, provide a logical sequence of instruction for each operation or maintenance procedure.
- 6. Drawings: Provide specially prepared drawings where necessary to supplement manufacturer's printed data to illustrate the relationship of component parts of equipment or systems or to provide control or flow diagrams. Coordinate these drawings with information contained in project record drawings to assure correct illustration of the completed installation.
 - a. Do not use original project record documents as part of operation and maintenance manuals.
- 7. Warranties, Bonds, and Service Contracts: Provide a copy of each warranty, bond, or service contract in the appropriate manual for the information of the Owner's operating personnel. Provide written data outlining procedures to follow in the event of product failure. List circumstances and conditions that would affect validity of warranty or bond.

1.6 MATERIAL AND FINISHES MAINTENANCE MANUAL

- A. Submit 3 copies of each manual, in final form, on material and finishes to the SHA for distribution. Provide one section for architectural products, including applied materials and finishes. Provide a second section for products designed for moisture protection and products exposed to the weather.
 - 1. Refer to individual Specification Sections for additional requirements on care and maintenance of materials and finishes.
- B. Architectural Products: Provide manufacturer's data and instructions on care and maintenance of architectural products, including applied materials and finishes.
 - 1. Manufacturer's Data: Provide complete information on architectural products, including the following, as applicable:

- a. Manufacturer's catalog number.
- b. Size.
- c. Material composition.
- d. Color.
- e. Texture.
- f. Reordering information for specially manufactured products.
- 2. Care and Maintenance Instructions: Provide information on care and maintenance, including manufacturer's recommendations for types of cleaning agents to be used and methods of cleaning. Provide information on cleaning agents and methods that could prove detrimental to the product. Include manufacturer's recommended schedule for cleaning and maintenance.
- C. Moisture Protection and Products Exposed to the Weather: Provide complete manufacturer's data with instructions on inspection, maintenance, and repair of products exposed to the weather or designed for moisture-protection purposes.
 - 1. Manufacturer's Data: Provide manufacturer's data giving detailed information, including the following, as applicable:
 - a. Applicable standards.
 - b. Chemical composition.
 - c. Installation details.
 - d. Inspection procedures.
 - e. Maintenance information.
 - f. Repair procedures.
- D. Schedule: Provide complete information in the materials and finishes manual on products as specified in the technical divisions (2-14) of these specifications. Submit schedule for SHA's review.

1.7 EQUIPMENT AND SYSTEMS MAINTENANCE MANUAL

- A. Submit 6 copies of each manual, in final form, on equipment and systems to the SHA for distribution. Provide separate manuals for each unit of equipment, each operating system, and each electric and electronic system.
 - 1. Refer to individual Specification Sections for additional requirements on operation and maintenance of the various pieces of equipment and operating systems.
- B. Equipment and Systems: Provide the following information for each piece of equipment, each building operating system, and each electric or electronic system.
 - 1. Description: Provide a complete description of each unit and related component parts, including the following:

- a. Equipment or system function.
- b. Operating characteristics.
- c. Limiting conditions.
- d. Performance curves.
- e. Engineering data and tests.
- f. Complete nomenclature and number of replacement parts.
- 2. Manufacturer's Information: For each manufacturer of a component part or piece of equipment, provide the following:
 - a. Printed operation and maintenance instructions.
 - b. Assembly drawings and diagrams required for maintenance.
 - c. List of items recommended to be stocked as spare parts.
- 3. Maintenance Procedures: Provide information detailing essential maintenance procedures, including the following:
 - a. Routine operations.
 - b. Troubleshooting guide.
 - c. Disassembly, repair, and reassembly.
 - d. Alignment, adjusting, and checking.
- 4. Operating Procedures: Provide information on equipment and system operating procedures, including the following:
 - a. Startup procedures.
 - b. Equipment or system break-in.
 - c. Routine and normal operating instructions.
 - d. Regulation and control procedures.
 - e. Instructions on stopping.
 - f. Shutdown and emergency instructions.
 - g. Summer and winter operating instructions.
 - h. Required sequences for electric or electronic systems.
 - i. Special operating instructions.
- 5. Servicing Schedule: Provide a schedule of routine servicing and lubrication requirements, including a list of required lubricants for equipment with moving parts.
- 6. Controls: Provide a description of the sequence of operation and asinstalled control diagrams by the control manufacturer for systems requiring controls.
- 7. Coordination Drawings: Provide each Contractor's Coordination Drawings.

a. Provide as-installed, color-coded, piping diagrams, where required for identification.

- 8. Valve Tags: Provide charts of valve-tag numbers, with the location and function of each valve.
- 9. Circuit Directories: For electric and electronic systems, provide complete

circuit directories of panel boards, including the following:

- a. Electric service.
- b. Controls.
- c. Communication.
- C. Schedule: Provide complete information in the equipment and systems manual on products specified in the technical divisions (15-16) of these specifications. Submit schedule for SHA's review.

1.8 INSTRUCTIONS FOR THE OWNER'S PERSONNEL

- A. Prior to final inspection, instruct the Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Provide instruction at mutually agreed upon times.
 - 1. For equipment that requires seasonal operation, provide similar instruction during other seasons.
 - 2. Use operation and maintenance manuals for each piece of equipment or system as the basis of instruction. Review contents in detail to explain all aspects of operation and maintenance.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION 01730

SECTION 01740 - WARRANTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for warranties required by the Contract Documents, including manufacturers standard warranties on products and special warranties.
 - 1. Refer to the General Conditions for terms of the Contractor's period for correction of the Work.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 Section "Submittals" specifies procedures for submitting warranties.
 - 2. Division 1 Section "Contract Closeout" specifies contract closeout procedures.
 - 3. Division 1 Section "Project Record Documents" specifies procedures for submitting final warranties.
 - 4. Divisions 2 through 16 Sections for specific requirements for warranties on products and installations specified to be warranted.
 - 5. Certifications and other commitments and agreements for continuing services to Owner are specified elsewhere in the Contract Documents.
- C. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

1.3 DEFINITIONS

- A. Standard product warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
- B. Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

1.4 WARRANTY REQUIREMENTS

- A. Related Damages and Losses: When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as a result of such failure or must be removed and replaced to provide access for correction of warranted construction.
- B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.
- D. Owner's Recourse: Expressed warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.
 - 1. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
- E. Where the Contract Documents require a special warranty, or similar commitment on the Work or part of the Work, the Owner reserves the right to refuse to accept the Work, until the Contractor presents evidence that entities required to countersign such commitments are willing to do so.

1.5 SUBMITTALS

- A. Submit Schedule of Warranties and written warranties to SHA prior to the date certified for Substantial Completion. If SHA's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of SHA.
 - 1. When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the SHA within 15 days of completion of that designated portion of the Work.
- B. When the Contract Documents require the Contractor, or the Contractor and a subcontractor, supplier or manufacturer to execute a special warranty, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner, through SHA, for approval prior to final execution.

- C. Forms for special warranties are included at the end of specific sections. Prepare a written document utilizing the appropriate form, ready for execution by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Submit a draft to the Owner, through SHA, for approval prior to final execution.
 - 1. Refer to Divisions 2 through 16 Sections for specific content requirements and particular requirements for submitting special warranties.
- D. Form of Submittal: At Final Completion compile 2 notarized copies of each required warranty properly executed by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
- E. Bind warranties bonds, etc, and include in miscellaneous project record document heavy-duty, commercial-quality, durable 3-ring, vinyl-covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 - 1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark. the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address, and telephone number of the Installer.
 - 2. When warranted construction requires operation and maintenance manuals, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 LIST OF WARRANTIES

A. Schedule: Provide warranties on products and installations as specified in specification divisions 1-16.

END OF SECTION 01740

SECTION 02070 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section requires the selective removal and subsequent offsite disposal

of the following:

- 1. Roofing components
- 2. Interior masonry wall material.
- 3. Various Components of existing unit interiors.

1.3 SUBMITTALS

- A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.
- B. Schedule indicating proposed sequence of operations for selective demolition work to Owner's Representative for review prior to start of work. Include coordination for shutoff, capping, and continuation of utility services as required, together with details for dust and noise control protection.
 - 4. Provide detailed sequence of demolition and removal work to ensure uninterrupted progress of Owner's on-site operations and occupancy.
 - 5. Coordinate with Capital Improvements Coordinator (SHA).

1.4 JOB CONDITIONS

- A. Occupancy: Owner will occupy the developments during the entire construction process which will be performed in phases. Owner will occupy portions of the building immediately adjacent to areas of selective demolition and completed phases. Conduct selective demolition work in manner that will minimize need for disruption of Owner's normal operations. Provide minimum of 72 hours advance notice to Owner of demolition activities that will affect Owner's normal operations.
- B. Existing Conditions: Contractor shall visit site to field verify all conditions relative to selective demolition. <u>No</u> additional costs will be paid by Owner/SHA to Contractor for any items required to be removed to accommodate new construction but <u>not</u> indicated on drawings. All damaged / deteriorated conditions shall be verified by SHA <u>prior</u> to Contractor removal.
- C. Condition of Structures: Owner assumes no responsibility for actual condition of items or structures to be demolished.
 - 1. Conditions existing at time of inspection for bidding purposes will be maintained by Owner insofar as practicable. However, minor variations within structure may occur by Owner's removal and salvage operations prior to start of selective demolition work.
 - 2.LEAD BASED PAINT: Sanford Housing Authority (SHA) shall approve all lead based paint (LBP) removal <u>prior</u> to any removal. Contractor shall verify with SHA existence of LBP in all areas <u>prior</u> to beginning any work.
- D. Partial Demolition and Removal: Items indicated to be removed but of salvageable value to Contractor may be removed from structure as work

progresses. Transport salvaged items from site as they are removed.

- 1. Storage or sale of removed items on site will not be permitted.
- E. Protections: Provide temporary barricades and other forms of protection to protect Owner's personnel and general public from injury due to selective demolition work.
 - 1. Provide protective measures as required to provide free and safe passage of Owner's personnel and general public to occupied portions of building.
 - 2. Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of structure or element to be demolished and adjacent facilities or work to remain.
 - 3. Protect from damage existing finish work that is to remain in place and becomes exposed during demolition operations.
 - 4. Protect floors with suitable coverings when necessary.
 - 5. Construct temporary insulated dustproof partitions where required to separate areas where noisy or extensive dirt or dust operations are performed. Equip partitions with dustproof doors and security locks.
 - 6. Provide temporary weather protection during interval between demolition and removal of existing construction on exterior surfaces and installation of new construction to ensure that no water leakage or damage occurs to structure or interior areas of existing building.
 - 7. Remove protections at completion of work.
- F. Damages: Promptly repair damages caused to adjacent facilities by demolition work.
- G. Traffic: Conduct selective demolition operations and debris removal to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities.
 - 1. Do not close, block, or otherwise obstruct streets, walks, or other occupied or used facilities without written permission from authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by governing regulations.
- H. Flame Cutting: Do not use cutting torches for removal until work area is cleared of flammable materials. At concealed spaces, such as interior of ducts and pipe spaces, verify condition of hidden space before starting flame-cutting operations. Maintain portable fire suppression devices during flame-cutting operations.
- I. Utility Services: Maintain existing utilities indicated to remain in service and protect them against damage during demolition operations.
 - 1. Do not interrupt utilities serving occupied or used facilities, except when authorized in writing by Owner. Provide temporary services during interruptions to existing utilities, as acceptable to Owner.
- J. Environmental Controls: Use water sprinkling, temporary enclosures, and other

methods to limit dust and dirt migration. Comply with governing regulations pertaining to environmental protection.

1. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, and pollution.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 PREPARATION

- A. General: Provide interior and exterior shoring, bracing, or support to prevent movement, settlement, or collapse of areas to be demolished and adjacent facilities to remain.
 - 1. Cease operations and notify Owner's Representative immediately if safety of structure appears to be endangered. Take precautions to support structure until determination is made for continuing operations.
 - 2. Cover and protect furniture, equipment, and fixtures from spoilage or damage when demolition work is performed in areas where such items have not been removed.
 - 3. Locate, identify, stub off, and disconnect utility services that are not indicated to remain.
 - a. Provide bypass connections as necessary to maintain continuity of service to occupied areas of building. Provide minimum of 72 hours advance notice to Owner if shutdown of service is necessary during changeover.

3.2 DEMOLITION

- A. General: Perform selective demolition work in a systematic manner. Use such methods as required to complete work indicated in Project Manual in accordance with demolition schedule and governing regulations.
 - 1. Cut at junctures with construction to remain using power-driven saw or hand tools; do not use power-driven impact tools.
 - 2. Locate demolition equipment throughout structure and promptly remove debris to avoid imposing excessive loads on supporting walls, floors, or framing.
 - 3. Provide services for effective air and water pollution controls as required by local authorities having jurisdiction.
- B. If unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure both nature and extent of the conflict. Submit report to Owner's Representative in written, accurate detail. Pending receipt of directive from Owner's Representative, rearrange selective demolition schedule as necessary to continue overall job progress without undue delay.

3.3 DISPOSAL OF DEMOLISHED MATERIALS

- A. Remove from building site debris, rubbish, and other materials resulting from demolition operations. Transport and legally dispose off site.
 - 1. If hazardous materials are encountered during demolition operations stop work in that area and request written instruction from Owner before proceeding. SHA to verify lead based paint (LBP) in all work areas.
 - 2. Burning of removed materials is not permitted on project site.

3.4 CLEANUP AND REPAIR

- A. General: Upon completion of demolition work, remove tools, equipment, and demolished materials from site. Remove protections and leave interior areas broom clean.
 - 1. Repair demolition performed in excess of that required. Return elements of construction and surfaces to remain to condition existing prior to start operations. Repair adjacent construction or surfaces soiled or damaged by selective demolition work. Contractor shall bear all costs for repairing damaged conditions on work damaged by Contractor.

END OF SECTION 02070

SECTION 06100 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Forming and temporary supports and structures while construction is under way.

1.3 DEFINITIONS

- A. Rough Carpentry: Carpentry work not specified in other Sections and not exposed, unless otherwise indicated.
- B. Exposed Framing: Dimension lumber not concealed by other construction.
- C. Lumber grading agencies, and the abbreviations used to reference them, include the following:

- 1. NELMA Northeastern Lumber Manufacturers Association.
- 2. NLGA National Lumber Grades Authority.
- 3. RIS Redwood Inspection Service.
- 4. SPIB Southern Pine Inspection Bureau.
- 5. WCLIB West Coast Lumber Inspection Bureau.
- 6. WWPA Western Wood Products Association.

1.4 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
 - 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used, net amount of preservative retained, and chemical treatment manufacturer's written instructions for handling, storing, installing, and finishing treated material.
 - 2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials, both before and after exposure to elevated temperatures when tested according to ASTM D 5516 and ASTM D 5664.
 - 3. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
 - 4. Include copies of warranties from chemical treatment manufacturers for each type of treatment.
- B. Material Certificates: For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the American Lumber Standards Committee Board of Review.
- C. Research/Evaluation Reports: For the following, showing compliance with Florida Building Codes, 2001:
 - 1. Preservative-treated wood.
 - 2. Fire-retardant-treated wood.
 - 3. Power-driven fasteners.
 - 4. Powder-actuated fasteners.
 - 5. Expansion anchors.
 - 6. Metal framing anchors.

1.5 JOB CONDITIONS

A. Existing Conditions: Contractor shall visit site to field verify all conditions relative to selective demolition. No additional costs will be paid by Owner / SHA to Contractor for any items required to be removed to accommodate new construction but not indicated on drawings. All damaged / deteriorated conditions

shall be verified by SHA prior to Contractor removal.

1. LEAD BASED PAINT: Sanford Housing Authority (SHA) shall approve all lead based paint (LBP) removal <u>prior</u> to any removal. Contractor shall verify with SHA existence of LBP in all areas <u>prior</u> to beginning any work.

1.6 QUALITY ASSURANCE

- A. General Contractor: Rough carpentry work shall be performed by a licensed certified General Contractor licensed in the State of Florida who has been in business under the same name for five (5) years. Submit license with bid submittal.
- B. Source Limitations for Fire-Retardant-Treated Wood: Obtain each type of fireretardant-treated wood product through one source from a single producer.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Stack lumber, plywood, and other panels; place spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber. DOC PS 20 and applicable rules of lumber grading agencies certified by the American Lumber Standards Committee Board of Review.
 - 1. Factory mark each piece of lumber with grade stamp of grading agency.
 - 2. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
 - 3. Provide dressed lumber, S4S, unless otherwise indicated.
- B. Wood Structural Panels:
 - 1. Plywood: DOC PS 1.
 - 2. Thickness: As needed to comply with requirements specified but not less than thickness indicated.
 - 3. Comply with "Code Plus" provisions in APA Form No. E30K, "APA Design/Construction Guide: Residential & Commercial"
 - 4. Factory mark panels according to indicated standard.

2.2 WOOD-PRESERVATIVE- TREATED MATERIALS

A. Preservative Treatment by Pressure Process: AWPA C2 (lumber) and AWPA C9 (plywood), except that lumber that is not in contact with the ground and is continuously protected from liquid water may be treated according to AWPA C31 with inorganic boron (SBX).

- 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and one of the following:
 - a. Chromated copper arsenate (CCA).
 - b. Ammoniacal copper zinc arsenate (ACZA).
 - c. Ammoniacal, or amine, copper quat (ACO).
 - d. Copper bis (dimethyldithiocarbamate) (CDDC).
 - e. Ammoniacal copper citrate (CC).
 - f. Copper azole, Type A (CBA-A).
 - g. Oxine copper (copper-8-quinolinolate) in a light petroleum solvent.
- B. Kiln-dry material after treatment to a maximum moisture content of 19 percent for lumber and 15 percent for plywood. Do not use material that is warped or does not comply with requirements for untreated material.
- C. Mark each treated item with the treatment quality mark of an inspection agency approved by the American Lumber Standards Committee Board of Review.
- D. Application: Treat all rough carpentry, unless otherwise indicated.
 - 1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
 - 2. Wood sills, sleepers, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete.
 - 3. Wood framing members fascia, trim, etc.

2.3 FIRE-RETARDANT - TREATED MATERIALS

- A. General: Where fire-retardant-treated materials are indicated, provide materials that comply with performance requirements in AWPA C20 (lumber) and AWPA C27 (plywood). Identify fireretardant-treated wood with appropriate classification marking of UL, U.S. Testing, Timber Products Inspection, or another testing and inspecting agency acceptable to authorities having jurisdiction.
 - 1. Use treatment for which chemical manufacturer publishes physical properties of treated wood after exposure to elevated temperatures, when tested by a qualified independent testing agency according to ASTM D 5664, for lumber and ASTM D 5516, for plywood.
 - 2. Use treatment that does not promote corrosion of metal fasteners.
 - 3. Use Exterior type for exterior locations and where indicated.

2.4 DIMENSION LUMBER

- A. General: Provide dimension lumber of grades indicated according to the American Lumber Standards Committee National Grading Rule provisions of the grading agency indicated.
- B. Exterior and Non/Load-Bearing Walls, No.2 grade and the following species:

1. Southern Pine; SPIB.

2.5 MISCELLANEOUS LUMBER

- A. General: Provide lumber for support or attachment of other construction, including the following:
 - 1. Rooftop equipment bases and support curbs.
 - 2. Blocking.
 - 3. Cants.
 - 4. Nailers.
 - 5. Furring.
 - 6. Grounds.
- B. For items of dimension lumber size, provide No.2 grade lumber with 19 percent maximum moisture content and the following species:
 - 1. Mixed southern pine; SPIB.
- C. For concealed boards, provide lumber with 19 percent maximum moisture content and any of the following species and grades:
- D. Mixed southern pine, No.2 grade; SPIB.
- E. For furring strips for installing plywood, select boards with no knots capable of producing bent over nails and damage to paneling.

2.6 SHEATHING

- A. Plywood Roof Sheathing: Exterior sheathing.
 - 1. Span Rating: Not less than 16/0.
 - 2. Thickness: Not less than 1/2 inch.

2.7 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.
 - 1. Provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Power-Driven Fasteners: CABO NER-272.
- D. Wood Screws: ASME B18.6.1.
- E. Screws for Fastening to Cold-Formed Metal Framing: ASTM C 954, except with wafer heads and reamer wings, length as recommended by screw manufacturer for material being fastened.

- F. Lag Bolts: ASME B18.2.1.
- G. Bolts: Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and, where indicated, flat washers.
- H. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below ,with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
 - 1. Material: Stainless steel with bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 or 2.

2.8 METAL FRAMING ANCHORS

- A. General: Provide framing anchors made from metal indicated, of structural capacity, type, and size indicated, and as follows:
 - 1. Research/Evaluation Reports: Provide products acceptable to authorities having jurisdiction and for which model code research/evaluation reports exist that show compliance of metal framing anchors, for application indicated, with building code in effect for Project.
 - 2. Allowable Design Loads: Provide products with allowable design loads, as published by manufacturer, that meet or exceed those indicated. Manufacturer's published values shall be determined from empirical data or by rational engineering analysis and demonstrated by comprehensive testing performed by a qualified independent testing agency.
- B. Galvanized Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A 653/A 653M, G90 coating designation.
- C. Rafter Tie-Downs (Hurricane Ties): Bent strap tie for fastening rafters or roof trusses to wall below, 0.062 inch thick. Tie tits over top of rafter or truss and fastens to both sides of rafter or truss, face of top plates, and side of wall below.

2.9 MISCELLANEOUS MATERIALS

- A. Building Paper: Asphalt-saturated organic felt complying with ASTM D 226, Type I (No. 15 asphalt felt), unperforated.
- B. Sill-Sealer Gaskets: Glass-fiber-resilient insulation, fabricated in strip form, for use as a sill sealer; 1-inch nominal thickness, compressible to 1/32 inch; selected from manufacturer's standard widths to suit width of sill members indicated.
- C. Adhesives for Field Gluing Panels to Framing: Formulation complying with APA AFG-01 that is approved for use with type of construction panel indicated by both adhesive and panel manufacturers.
- D. Water-Repellent Preservative: NWWDA-tested and -accepted formulation

containing 3-iodo-2propynyl butyl carbamate, combined with an insecticide containing chloropyrifos as its active ingredient.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate tit. Locate nailers, blocking, grounds, and similar supports to comply with requirements for attaching other construction.
- B. Do not use materials with defects that impair quality of rough carpentry or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- C. Apply field treatment complying with AWPA M4 to cut surfaces of preservative-treated lumber and plywood.
- D. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
 - 1. Published requirements of metal framing anchor manufacturer.
 - 2. "Fastening Schedule," in the latest Florida Building Code.
- E. Use annular ring hot-dipped galvanized nails, unless otherwise indicated. Select fasteners of size that will fully penetrate members. Make tight connections between members. Install fasteners without splitting wood; predrill as required.
- F. Use finishing nails for exposed work, unless otherwise indicated. Countersink nail heads and fill holes with wood filler.

3.2 WOOD GROUND, SLEEPER, BLOCKING, AND NAILER INSTALLATION

- A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
- B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces, unless otherwise indicated. Build anchor bolts into masonry during installation of masonry work. Where possible, secure anchor bolts to formwork before concrete placement.
- C. Provide wood nailers of dressed, pressure-preservative-treated, not less than 5-1/2 inches insulation wide and of thickness required to bring face of ground to exact thickness of insulation or finish material. Remove temporary grounds when no longer required.
- D. Where new members are doubled ends shall be lapped 12" min. and thoroughly spiked to each other and to bearing members.

- E. Where new members bear on concrete they shall be securely fastened to same by bolts or lag screws on centers as called for on drawings staggered. Heads of all bolts or lag screws shall be provided with large-head washers.
- F. Round comers of wood plates where flashing occurs.
- G. Holes drilled oversize or wallered out, shall be redrilled.
- H. Nailers and insulation stops shall be flush with top of new insulation and 1" wider than flange of metal flashing. Secure to substrates with mechanical fasteners in a staged pattern unless otherwise indicated.

3.3 WOOD FURRING INSTALLATION

- A. Install level and plumb with closure strips at edges and openings. Shim with wood as required for tolerance of finish work.
- B. Furring to Receive Plywood: Install 1-by-3-inch nominal size furring horizontally at 16 inches o. c.

3.4 WOOD STRUCTURAL PANEL INSTALLATION

General: Comply with applicable recommendations contained in APA Form No. E30K, "APA Design/Construction Guide: Residential & Commercial," for types of structural-use panels and applications indicated.

Comply with "Code Plus" provisions in above-referenced guide.

Fastening Methods: Fasten panels as indicated below:

- 1. Sheathing:
 - a. Nail to wood framing.
 - b. Space panels 1/8 inch apart at edges and ends.

END OF SECTION 06100

APPENDIX A

HUD - 5369 HUD - 5369A HUD - 5370 HUD - 51000 HUD - 51001 HUD - 51002 HUD - 51003 HUD - 51004 HUD - 5372 WH-347 INSURANCE REQUIREMENTS DRAWINGS E-1, E-2, E-3 & E-4