Due date: 6/17/2026 by 2:00 pm

Irvington Housing Authority

Project Manual and Specifications
for
Elevator Upgrades to 81 Union Ave.
in
Irvington, NJ
RFP #2026-23

Contracting Officer:
Corey Franklin, Chief Executive Officer/Executive Director
Irvington Housing Authority
50 Union Avenue, Suite 702
Irvington, New Jersey 07111

Project Architect:
Clarke Caton Hintz
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REQUEST FOR PROPOSALS

PUBLIC NOTICE

Irvington Housing Authority

NOTICE IS HEREBY GIVEN that proposals will be received by the Irvington Housing Authority, County of Essex, State of New Jersey until June 17, 2026 at 2:00 pm prevailing time at the Authority offices, 50 Union Avenue, Suite 702, Irvington, NJ 07111 for:

RFP #2026-23 Elevator Upgrades at 81 Union Avenue

The scope of work includes, but may not be limited to, elevator upgrades as per the technical specifications and drawings outlined in Section II of this Request for Proposals (RFP). Project location: 81 Union Avenue, Irvington, NJ.

Proposals will not be publicly opened. All proposals received by the deadline will be evaluated by the Authority in accordance with the evaluation criteria and scoring set forth in Section 00 22 13 of the Project Manual. Award will be made to the responsible proposer whose proposal represents the best overall value to the Authority, considering price and the other factors identified in Section 00 22 13, and not solely on the basis of the lowest price.

A pre-proposal site visit is scheduled for May 20, 2026 at 10:00 am at 81 Union Avenue, Community Room, Irvington, NJ. Attendance at the pre-proposal site visit is not mandatory. Proposers shall submit questions no later than June 3, 2026 at 5:00 pm.

Specifications and other proposal documents may be obtained at the following link: **https://clarkecatonhintz.sharefile.com/d-s6d817a31df4e44c09f01b341bafa4c5d**

Or by sending a request to Mr. Doug Helmann at **dhelmann@ihanj.org**.

A proposal guarantee in the form of a proposal bond executed by the proposer and acceptable sureties, certified check, or bank draft, payable to the Irvington Housing Authority shall be submitted with each proposal. The proposal guarantee shall be in an amount equal to but not less than ten percent (10%) of the total proposed amount (not to exceed $20,000). Proposal bonds must be obtained from a New Jersey licensed company that appears on the latest edition of the US Treasury Circular Number 570, List of Approved Sureties. The requirement for a proposal guarantee is imposed pursuant to N.J.S.A. 40A:11-21 and 2 CFR 200.326.

Proposers must be registered with the New Jersey Department of Treasury, Division of Revenue, and with the New Jersey Department of Labor as a Public Works contractor at the time proposals are received.

The Authority does not discriminate on the basis of race, religion, sex, national origin, creed, color, ancestry, age, marital status, affectional or sexual orientation, familial status, liability for service in the Armed Forces of the United States, or nationality.

The Authority invites the participation of Minority-Owned Business Enterprises in this solicitation and reserves the right to reject any or all proposals or to waive any informality in the proposal process. Proposers must also make positive efforts to offer employment, training, and contracting opportunities in accordance with Section 3 of the Housing and Urban Development

Act of 1968. Attention of proposers is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under the contract.

Proposers are required to comply with the requirements of N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27-1 et seq.

BY ORDER OF THE IRVINGTON HOUSING AUTHORITY

Corey Franklin
Chief Executive Officer / Executive Director

Publication Date: April 30, 2026

II. SCOPE OF SERVICES

The scope of services, including warranty information and drawings for this contract, is outlined in Section II of these specifications.

III. AWARD OF CONTRACT

One contract for all the work referenced herein shall be awarded to the responsible proposer whose proposal represents the best overall value to the Irvington Housing Authority, considering price and the other evaluation factors identified in Section 00 22 13 of the Project Manual. Award will not be made solely on the basis of the lowest proposed price. Please refer to HUD Form 5370, a copy of which can be obtained here: https://www.hud.gov/sites/dfiles/OCHCO/documents/5370.pdf, for general conditions of the contract, as these will be made part of the final contract as well as the Supplementary Conditions included herein.

After the contract has been awarded, but before any work is started against the contract, the Contract Administrator shall conduct an orientation conference with the Contractor and appropriate representatives of the Authority. The purpose of the orientation conference is to aid both Authority and Contractor personnel to achieve a clear and mutual understanding of general contract requirements. This conference shall not relieve the Contractor of responsibility for complying with any of the terms and conditions of the contract.

If the post-award orientation is held, the Contract Administrator will provide specific details regarding the date, time, and location of the conference, and information regarding the items and topics to be discussed.

IV. CHANGE ORDERS

If, during the course of work, the Contractor encounters unforeseen conditions which impact the work and which could not initially be evaluated, the Contractor shall not proceed without written authorization from an authorized Authority representative. If price is affected, the Contractor and the Authority must agree upon a change order which states an agreement between the Contractor and the Authority for:

- A change in work
- The amount of the adjustment in Contract Sum
- The amount of the adjustment in Contract Time

Once the change order has been approved and properly procured, Contractor will receive written authorization to continue.

V. COMPENSATION

A. The Proposal Form included herein shall be completed in its entirety and submitted by the Proposer. The Proposal Form consists of two components: a Technical Proposal and a Price Proposal. Both components must be submitted as part of a complete proposal.

B. Requests for periodic payments shall be discussed prior to the award of the contract and shall be set forth in the Agreement. The basis for payment shall be the Contract Price established in the Price Proposal Form.

VI. INSTRUCTIONS TO PROPOSERS

A. General. These Instructions to Proposers govern the submission and evaluation of proposals for this procurement. Proposers shall comply with all requirements set forth herein and in the Project Manual. Where the Instructions to Proposers and any other RFP document conflict, the stricter requirement shall govern.

1. **Submission of Proposals.** All proposals must be delivered by mail or in person to the Irvington Housing Authority, 50 Union Avenue, Suite 702, Irvington, NJ 07111, no later than June 17, 2026 at 2:00 PM. Proposals received after the deadline will be returned unopened. There will be no public opening of proposals.
2. **Ex Parte Communications Prohibited.** To ensure the integrity of the evaluation process, all communications regarding this RFP must be in writing and directed exclusively to the contact identified in Section A.4 below. No Proposer, nor any officer, employee, agent, or representative of a Proposer, shall initiate communication with any officer, employee, evaluator, or official of the Irvington Housing Authority regarding this procurement between the date of issuance of this RFP and the date of award. Communications initiated by a Proposer in violation of this provision may result in disqualification of the Proposer from further consideration. The Authority reserves the right to initiate communications with Proposers as necessary to clarify or supplement information submitted.
3. **Proposal Submission Format.** Proposals shall be submitted in a sealed outer envelope and two sealed inner envelopes as follows:
   (a) **Outer envelope:** Clearly marked on the outside "Proposal: RFP #2026-23 Elevator Upgrades to 81 Union Avenue," together with the name and address of the Proposer.
   (b) **Inner envelope 1 – Technical Proposal:** Clearly marked "Technical Proposal – Do Not Open with Price." The Technical Proposal envelope shall contain the Technical Proposal Form and all technical submission requirements set forth in Section B below and Section 00 22 13 of the Project Manual.
   (c) **Inner envelope 2 – Price Proposal:** Clearly marked "Price Proposal – Do Not Open with Technical." The Price Proposal envelope shall contain the Price Proposal Form completed in its entirety.

   The Authority will evaluate Technical Proposals before opening Price Proposals. Proposals not submitted in this format may be deemed non-responsive.
4. **Questions and Addenda.** All questions regarding this RFP must be submitted in writing to Doug Helmann at dhelmann@ihanj.org no later than June 3, 2026 at 5:00 PM. Oral questions will not be accepted. The Authority will not be bound by any oral response to any question at any time. Responses to written questions will be issued as addenda to all registered Proposers and will constitute part of the RFP. Proposers may not rely on any response to a question that was not issued in the form of a written addendum.
5. **Sample Contract.** A sample copy of the contract to be entered into with the successful Proposer is included herein.

B. Submission Requirements. The following items must be submitted with the proposal. Failure to submit any required item may result in rejection of the proposal as non-responsive.

1. One original and one copy of the complete proposal. Failure to submit one copy in addition to the original shall result in rejection of the proposal.
2. A signed and notarized Stockholder Disclosure Certification (included herein). Pursuant to N.J.S.A. 52:25-24.2, every corporation and partnership shall submit a statement setting forth the names and addresses of all stockholders in the corporation or partnership who own 10% or more of its stock of any class, or of all individual partners in the partnership who own a 10% or greater interest therein. If a corporation or partnership owns 10% or more of the stock of a proposing corporation, or a 10% or greater interest in a proposing partnership, that corporation or partnership shall provide a certification disclosing the names and addresses of its stockholders holding 10% or more of its stock or the individual partners owning a 10% or greater interest, and this requirement shall be followed for every tier of corporate or partnership ownership disclosing a 10% or greater interest, until the names and addresses of the non-corporate stockholders or individual partners have been disclosed. Failure to submit this certification shall result in rejection of the proposal.
3. A signed and notarized Non-Collusion Affidavit (included herein).
4. A copy of the Proposer's Business Registration Certificate issued by the New Jersey Division of Revenue. Pursuant to N.J.S.A. 52:32-44, a contractor, as well as all listed subcontractors, must have a valid Business Registration Certificate on file with the Division of Revenue prior to the award of a contract. Failure to submit the Business Registration Certificate shall result in rejection of the proposal.
5. The Proposal Form (Technical and Price components, included herein). Failure to submit the completed Proposal Form, in both its Technical and Price components, shall result in rejection of the proposal.
6. A Proposal Guarantee in the form of a certified check, cashier's check, or proposal bond with corporate surety satisfactory to the Authority. The Proposal Guarantee shall be in an amount equal to ten percent (10%) of the total proposed price, but shall not exceed Twenty Thousand Dollars ($20,000.00). The Proposal Guarantee shall be submitted as surety that the Proposer, if awarded the contract, will execute the Agreement within the time required. If the successful Proposer fails to execute the Agreement within the time required, the Proposal Guarantee shall be forfeited to the Authority as liquidated damages, not as a penalty. The requirement for a Proposal Guarantee is imposed pursuant to N.J.S.A. 40A:11-21 and 2 CFR 200.326. Certified checks and cashier's checks shall be made payable to the Irvington Housing Authority. Proposal bonds shall be executed by a corporate surety licensed to do business in the State of New Jersey and shall be in a form satisfactory to the Authority.
7. Consent of Surety. A letter from the Proposer's surety company indicating that, if the contract is awarded to the Proposer, the surety will provide Performance and Payment Bonds in the required amounts.
8. A signed Acknowledgement of Receipt of Addenda (included herein).
9. Public Works Contractor Registration Certificate. Pursuant to N.J.S.A. 34:11-56.48 et seq., no contractor or subcontractor shall bid on or engage in any public works project in New Jersey without registration with the New Jersey Department of Labor and Workforce Development as a public works contractor. The Proposer shall submit a copy of its current Public Works Contractor Registration Certificate.
10. Affirmative Action Compliance Notice (included herein), completed and signed.

11. References. The Proposer shall submit at least three (3) references for comparable elevator modernization projects completed within the past five (5) years. References shall include project name, owner, contact name and telephone number, contract value, and date of completion.
12. Equipment Certification (included herein), completed and signed.
13. Listing of Subcontractors and Subcontractor Certification Form (included herein). The Proposer shall identify all subcontractors proposed for use on the project and submit the completed Subcontractor Certification Form for each.
14. Proposer's or Subcontractor's Qualifications (included herein). The Proposer shall provide qualifications information demonstrating the firm's experience and capacity to perform the Work.
15. Form HUD-2530, Previous Participation Certificate (included herein), completed and signed by all required parties.
16. Form HUD-5369-A, Representations and Certifications of Proposers for Construction Contracts (included herein), completed and signed. This form is required for all HUD-assisted construction procurements regardless of procurement method.
17. Section 3 Requirements Documents (included herein), completed and signed.
18. **Acknowledgment of Evaluation Criteria.** The evaluation criteria governing the technical and price evaluation of proposals are set forth in Section 00 22 13 of the Project Manual, which is incorporated herein by reference. By submitting a proposal, the Proposer acknowledges that it has read Section 00 22 13 and understands that award will be made on the basis of best overall value to the Authority as determined in accordance with those criteria.

C. BONDING REQUIREMENTS.

1. **Performance Bond:** The successful Proposer shall provide a Performance Bond in the amount of one hundred percent (100%) of the Contract Price, executed by a corporate surety licensed to do business in the State of New Jersey, in a form satisfactory to the Authority.
2. **Labor and Material Payment Bond:** The successful Proposer shall provide a Labor and Material Payment Bond in the amount of one hundred percent (100%) of the Contract Price, executed by a corporate surety licensed to do business in the State of New Jersey, in a form satisfactory to the Authority.

Performance and Payment Bonds shall be delivered to the Authority within the time required by the Agreement.

VII. INSURANCE REQUIREMENTS

A. REQUIRED INSURANCE

1. **Worker's Compensation Insurance.** Workers Compensation insurance shall be maintained in full force during the life of the contract, covering all employees engaged in performance of the contract pursuant to N.J.S.A. 34:15-12(a) and N.J.A.C. 12:235-1.6.
2. **General Liability Insurance.** General liability insurance shall be provided with limits of not less than $1,000,000.00 any one person for bodily injury and $1,000,000.00

aggregate for property damage, and shall be maintained in full force during the life of the contract.

3. **Automobile Liability Insurance.** Liability shall be carried on all owned and non-owned motor vehicles used on the site(s) or in connection therewith for combined single limit for bodily injury and property damage of not less than $500,000.00 per occurrence.

B. CERTIFICATES OF THE REQUIRED INSURANCE

Certificates of Insurance for those policies required above shall be submitted with the contract. Such coverage shall be with an insurance company authorized to do business in the State of New Jersey and shall name the owner as an additional insured.

Self-insured contractors shall submit an affidavit attesting to their self-insured coverage and shall name the owner as an additional insured.

VIII. PREVAILING WAGE ACT INFORMATION

A. THE PUBLIC WORKS CONTRACTOR REGISTRATION ACT

The Public Works Contractor Registration Act (PWCRA) requires that all contractors, including named subcontractors, to register with the Department of Labor prior to submitting price proposals or engaging on certain public works contracts that exceed the prevailing wage threshold. The prevailing wage rate is $2,000 for all non-municipal entities, such as boards of education, authorities, fire districts, counties, etc.

All named contractors in a bid proposal (including out-of-state contractors) must be registered with the Department of Labor's Division of Wage and Hour Compliance at the time proposals are received by the public entity.

The law requires contractors to submit certificates after a bid proposal is received and prior to awarding the contract. (N.J.S.A. 34:11-56.55). The contracting agent must review the certificates to be sure they were in effect at the time the bid proposals were received.

Non-listed subcontractors do not have to be registered until they physically start the public work assigned to them.

Emergency work is covered under the provisions of the Prevailing Wage Act and the PWCRA.

Additional information on the PWCRA can be obtained by contacting the Division of Local Government Services at (609) 292-7842 or by fax at (609) 633-6243 for assistance in the application of the Local Public Contracts Law or related PWCRA issues. As specific situations are presented to the contracting unit, local legal advisors should review this guidance as to its applicability.

B. PAYROLL SUBMISSION

Pursuant to N.J.S.A. 34:11-56.25 et seq., contractors on projects where public monies are spent shall adhere to all requirements of the New Jersey Prevailing Wage Act. The contractor shall be required to submit a certified payroll record to the owner within ten (10) days of the payment of the wages. The contractor is also responsible for obtaining and submitting all subcontractors' certified payroll records within the aforementioned time period. The contractor shall submit said certified payrolls in the form set forth in N.J.A.C. 12:60-6.1(c). It is the contractor's responsibility to obtain any additional copies of the certified payroll form to be submitted by contacting the

New Jersey Department of Labor and Workforce Development, Division of Workplace Standards.

C. PREVAILING WAGE DETERMINATION

The New Jersey Prevailing Wage Act, N.J.S.A. 34:11-56.25 et seq., requires that the Department of Labor and Workforce Development establish and enforce a prevailing wage level for workers in order to safeguard their efficiency and general well being and to protect them as well as their employers from the effects of serious and unfair competition.

Proposers are responsible for checking for updates to the rates, if any, to properly bid this contract, and in no way are to assume that the rates listed herein are current.

The Contractor shall be responsible for maintaining payroll records and must make such records available to the HHA and/or to HUD, on request. The Contractor may use form WH-347 available online or by request to the Authority.

IX. CAUSES FOR REJECTING PROPOSALS

The Authority reserves the right to reject any or all proposals on any of the following grounds:

A. All proposals, pursuant to N.J.S.A. 40A:11-13.2, for any of the reasons enumerated in that section, including but not limited to: the lowest or best proposal substantially exceeds the Authority's cost estimate or appropriation; the Authority decides to abandon or substantially revise the scope of the project; or the purposes or provisions of the Local Public Contracts Law are being violated.

B. More than one proposal is received from the same individual, firm, partnership, corporation, or association under the same name, or where a Proposer is found to have a direct or indirect interest in more than one proposal submitted for the same procurement.

C. A single agent or representative submitted proposals on behalf of competing Proposers for the same procurement.

D. The Price Proposal is materially unbalanced. A Price Proposal is materially unbalanced when it is based on prices that are significantly overstated or understated for some elements of the Work and understated or overstated for others, such that acceptance of the Price Proposal would pose an unreasonable risk to the Authority, even if the total proposed price appears arithmetically acceptable.

E. The Proposer is determined to have Prior Negative Experience as that term is defined in N.J.S.A. 40A:11-4b, to the extent applicable to this procurement.

F. If the highest-ranked responsive and responsible Proposer, following notification of award, fails to execute the Agreement within the time required by the RFP or as otherwise agreed upon by the parties, the Authority may, at its option, withdraw the award and make an award to the next highest-ranked responsive and responsible Proposer, or reject all proposals and re-solicit.

X. TERMINATION OF CONTRACT

A. If, through any cause, the contractor shall fail to fulfill in a timely and proper manner obligations under the contract or if the contractor shall violate any of the requirements of the contract, the owner shall thereupon have the right to terminate the contract by giving written notice to the contractor of such termination and specifying the effective date of termination.

Such termination shall relieve the owner of any obligation for balances to the contractor of any sum or sums set forth in the contract. Owner will pay only for goods and services accepted prior to termination.

B. Notwithstanding the above, the contractor shall not be relieved of liability to the owner for damages sustained by the owner by virtue of any breach of the contract by the contractor and the owner may withhold any payments to the contractor for the purpose of compensation until such time as the exact amount of the damage due the owner from the contractor is determined.

C. The contractor agrees to indemnify and hold the owner harmless from any liability to subcontractors/suppliers concerning payment for work performed or goods supplied arising out of the lawful termination of the contract by the owner under this provision.

D. In case of default by the contractor, the owner may procure the goods or services from other sources and hold the contractor responsible for any excess cost.

E. Continuation of the terms of the contract beyond the fiscal year is contingent on availability of funds in the following year's budget. In the event of unavailability of such funds, the owner reserves the right to cancel the contract.

XI. QUALIFICATIONS

Prospective proposers and all subcontractors shall complete the Proposer's or Sub-Contractor's Qualifications questionnaire attached herein. Steps shall be taken as deemed necessary to determine the ability of the proposers to perform the obligations under the Contract and the proposer shall furnish to the Authority with such information and data for this purpose as the Authority may request. The right is reserved to reject any proposal where the investigation of the evidence does not satisfy the Authority that the proposer is qualified to properly carry out the terms of the Contract.

General Contractor must list (where applicable) with their bid all subcontractors who will actually be used for:

1. The plumbing and gas fitting and all kindred work;
2. Steam power plants, steam and hot water heating and ventilating and refrigeration apparatus and all kindred work;
3. Electrical work, including any electrical power plants, tele-data, fire alarm, or security system;
4. Structural steel and ornamental iron work.

In addition to the requirements stated above, the General Contractor:

- Must be prepared to demonstrate that each of the listed subcontractors is qualified to perform the specific work for which they are listed in the bid. Each subcontractor must submit with the bid the attached Proposer's or Sub-Contractor's Qualifications questionnaire.
- Must provide evidence of performance security for each subcontractor with the bid. The evidence or performance security shall, for the purpose of statutory and administrative compliance, consist of documents (such as a consent of surety) issued by a qualified surety company. Evidence of performance security may be supplied by the General Contractor on its own behalf and on behalf of any or all of its listed subcontractors, or by the respective listed subcontractors themselves, or by any combination thereof which results in evidence of performance security equaling the total amount of bid.

- May not substitute unlisted subcontractors, or use subcontractors if they are not identified in bid, following award of the contract.
- Will be held strictly accountable for proper and timely performance of work by their designated subcontractors. In the event of award, such General Contractor shall furnish the Authority with a true copy of a performance bond contract.

The attention of all proposers is directed to the provisions of New Jersey Statutes 40A:11-16.

All Proposers who intend to use 'in house plumbers' to perform the plumbing work on the contract, are directed to the provisions of New Jersey Statutes 45:14C-21 and New Jersey Administrative Code 13:32-1.5(A)(2). These provisions limit and restrict the ability of a licensed master plumber to be utilized as a company employee and apply for a plumbing permit, unless that plumber holds not less than 10% of the issued corporate stock, or 10% of the partnership capital of a partnership. You are advised that the Authority is required to insist upon full compliance with these State regulations.

In the event the General Contractor will perform work specified in paragraph B (a)(b)(c)(d)(e) (Plumbing/Gas; HVAC; Electrical; roofing; elevator) with its own salaried non-subcontracted work force, then the General Contractor must so designate itself on bidding documents, and furnish the Authority prior to award of the contract with required information establishing qualifications in such trade(s).

The General Contractor is advised that once they advise the Authority in their bid documents, they will perform the designated trade(s) with their own salaried force, they will not later be permitted to perform same by subcontractor or otherwise.

XII. SUPPLEMENTARY CONDITIONS

Contract:

Project Sites: 81 Union Avenue

Schedule:

- All work must be completed 37 weeks from date of contract signing. Liquidated Damages apply in the amount of $500.00 per calendar day. See General Conditions for Construction Contracts HUD Form 5370.
- Contractor shall submit a schedule of the product data, shop drawings and other required submittals within 7 days of contract signing.
- Contractor shall submit the Schedule of Values within 7 days of contract signing.
- Contractor shall begin field surveys of all work areas to take dimensions and other information within 2 weeks of contract signing.
- Contractor shall have 30 days from signing of the contract to provide all required product and shop drawing submittals for A/E review.
- It will be the responsibility of the contractor to identify any products that have long fabrication or delivery times and request expedited review by the project engineer/architect within 30 days of contract signing.
- Contractor shall mobilize construction activities no later than 30 days after contract signing.

Progress Schedule: Work shall be scheduled to complete typical installations at all Developments concurrently.

Contractor Management Responsibilities:

- A Project Manager shall be specifically assigned to this contract.
- **Site Superintendent:** A superintendent shall be assigned to each Development and be available on-site on a day-to-day basis while any work is in progress.
- Within 30 days of contract signing, Contractor shall submit a detailed management plan.
- Temporary facilities shall be provided as necessary at each development.

Permit fees:

- Any permits taken out under the Uniform Construction Code of the State of NJ are fee exempt (i.e., Building, Fire, Electric, Plumbing).
- Other permit fees, if any, are the responsibility of the Contractor.

END OF SECTION I

N.J.S.A. 10:5-31 and N.J.A.C. 17:27

(MANDATORY AFFIRMATIVE ACTION LANGUAGE)
(MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE)
Goods, Professional Service and General Service Contracts

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

The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation or sex. Except with respect to affectional or sexual orientation, the contractor will take affirmative action to ensure that such applicants are recruited and employed, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation or sex. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the public agency compliance officer setting for the provisions of this nondiscrimination clause.

The contractor or subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation or sex.

The contractor or subcontractor, where applicable, will send to each labor union or representative or workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.

The contractor or subcontractor agrees to make good faith efforts to employ minority and women workers consistent with the applicable county employment goals established in accordance with N.J.A.C. 17:27-5.2 or a binding determination of the applicable county employment goals determined by the Division, pursuant to N.J.A.C. 17:27-5.2.

The contractor or subcontractor agrees to inform in writing its appropriate recruitment agencies including, but not limited to, employment agencies, placement bureaus, colleges, universities, labor unions, that it does not discriminate on the basis of age,, creed, color, national origin, ancestry, marital status, affectional or sexual orientation or sex, and that it will discontinue the use of any recruitment agency which engages in direct or indirect discriminatory practices.

The contractor or subcontractor agrees to revise any of its testing procedures, if necessary, to assure that all personnel testing conforms with the principles of job-related testing, as established by the statutes and court decisions of the State of New Jersey and as established by applicable Federal law and applicable Federal court decisions.

In conforming with the applicable employment goals, the contractor or subcontractor agrees to review all procedures relating to transfer, upgrading, downgrading and layoff to ensure that all such actions are taken without regard to age, creed, color, national origin, ancestry, marital status, affectional or sexual orientation or sex, consistent with the statutes and court decisions of the State of New Jersey, and applicable Federal law and applicable Federal court decisions.

The contractor and its subcontractors shall furnish such reports or other documents to the Division of Contract Compliance and EEO as may be requested by the office from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Division of Contract Compliance & EEO for conducting a compliance investigation pursuant to **Subchapter 10 of the Administrative Code at N.J.A.C. 17:27.**

AMERICANS WITH DISABILITIES ACT OF 1990
Equal Opportunity for Individuals with Disability

The contractor and the Irvington Housing Authority, (hereafter “owner”) do hereby agree that the provisions of Title 11 of the Americans With Disabilities Act of 1990 (the "Act") *(42 U.S.C. S121 01* et seq.), which prohibits discrimination on the basis of disability by public entities in all services, programs, and activities provided or made available by public entities, and the rules and regulations promulgated pursuant there unto, are made a part of this contract. In providing any aid, benefit, or service on behalf of the owner pursuant to this contract, the contractor agrees that the performance shall be in strict compliance with the Act. In the event that the contractor, its agents, servants, employees, or subcontractors violate or are alleged to have violated the Act during the performance of this contract, the contractor shall defend the owner in any action or administrative proceeding commenced pursuant to this Act. The contractor shall indemnify, protect, and save harmless the owner, its agents, servants, and employees from and against any and all suits, claims, losses, demands, or damages, of whatever kind or nature arising out of or claimed to arise out of the alleged violation. The contractor shall, at its own expense, appear, defend, and pay any and all charges for legal services and any and all costs and other expenses arising from such action or administrative proceeding or incurred in connection therewith. In any and all complaints brought pursuant to the owner’s grievance procedure, the contractor agrees to abide by any decision of the owner which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the owner, or if the owner incurs any expense to cure a violation of the ADA which has been brought pursuant to its grievance procedure, the contractor shall satisfy and discharge the same at its own expense.

The owner shall, as soon as practicable after a claim has been made against it, give written notice thereof to the contractor along with full and complete particulars of the claim, If any action or administrative proceeding is brought against the owner or any of its agents, servants, and employees, the *owner shall* expeditiously forward or have forwarded to the contractor every demand, complaint, notice, summons, pleading, or other process received by the owner or its representatives.

It is expressly agreed and understood that any approval by the owner of the services provided by the contractor pursuant to this contract will not relieve the contractor of the obligation to comply with the Act and to defend, indemnify, protect, and save harmless the owner pursuant to this paragraph.

It is further agreed and understood that the owner assumes no obligation to indemnify or save harmless the contractor, its agents, servants, employees and subcontractors for any claim which may arise out of their performance of this Agreement. Furthermore, the contractor expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the contractor’s obligations assumed in this Agreement, nor shall they be construed to relieve the contractor from any liability, nor preclude the owner from taking any other actions available to it under any other provisions of the Agreement or otherwise at law.

BUSINESS REGISTRATION CERTIFICATE

Contractor must provide State Division of Revenue issued Business Registration Certificate before contract award but must be registered at the time bids are received.

ACCORDING TO STATE LAW, FAILURE TO SUBMIT YOUR BUSINESS REGISTRATION CERTIFICATE BEFORE CONTRACT AWARD *WILL* RESULT IN THE DISQUALIFICATION OF YOUR BID!

Model Public Works Bid Specification Language
Withdrawal of Bid
(N.J.S.A. 40A:11-23.3)

Permission for Proposer to Withdraw a Bid Due to a Mistake in Certain Circumstances

N.J.S.A. 40A:11-23.3 authorizes a proposer to request withdrawal of a public works bid due to a mistake on the part of the proposer. A mistake is defined by N.J.S.A. 40A:11-2(42) as a clerical error that is an unintentional and substantial computational error or an unintentional omission of a substantial quantity of labor, material, or both, from the final bid computation.

A proposer claiming a mistake under N.J.S.A. 40A:11-23.3 must submit a request for withdrawal, in writing, by certified or registered mail to:

Corey Franklin, Chief Executive Officer/Executive Director
Irvington Housing Authority
50 Union Avenue, Suite 702
Irvington, NJ 07111

The proposer must request withdrawal of a bid due to a mistake, as defined by the law, within five business days after the receipt and opening of the bids. Since the bid withdrawal request shall be effective as of the postmark of the certified or registered mailing, the Purchasing Agent may contact all proposers, after bids are opened, to ascertain if any proposers wish to, or already have exercised a request to withdraw their bid pursuant to N.J.S.A. 40A:11-23.3.

A proposer's request to withdraw the bid shall contain evidence, including any pertinent documents, demonstrating that a mistake was made. Such documents and relevant written information shall be reviewed and evaluated by the public owner's designated staff pursuant to the statutory criteria of N.J.S.A. 40A:11-23.3.

The public owner will not consider any written request for a bid withdrawal for a mistake, as defined by N.J.S.A. 40A:11-2(42), by a proposer in the preparation of a bid proposal unless the postmark of the certified or registered mailing is within the five business days following the opening of bids.

CONTRACTOR'S PROPOSAL FORM

ELEVATOR UPGRADES TO 81 UNION AVENUE

IRVINGTON HOUSING AUTHORITY

RFP #2026-23

PART 1 – TECHNICAL PROPOSAL FORM

The Undersigned hereby declares that they have carefully examined the Request for Proposals, including the Project Manual and Drawings therein referenced, and will provide all labor, materials, tools, equipment, supervision, and incidentals necessary to perform the Work described in RFP #2026-23, Elevator Upgrades at 81 Union Avenue, in accordance with the Contract Documents.

The Proposer acknowledges receipt of all addenda issued in connection with this RFP.

Addenda received (list by number): _____

The Technical Proposal is organized and submitted in accordance with the Evaluation Criteria and Scoring set forth in Section 00 22 13 of the Project Manual.

Technical Proposal Contents Submitted

Check each item enclosed:

- ☐ Firm qualifications and relevant project experience
- ☐ Proposed project team, key personnel, and resumes
- ☐ Project approach, means and methods, and schedule
- ☐ References (minimum three comparable projects, per Section VI.B.11)
- ☐ Additional technical information required by Section 00 22 13

Proposer Information

Firm Name: _____

Address: _____

_____

City, State, Zip: _____

Primary Contact: _____

Telephone: _____

Email: _____

NJ Contractor License No.: _____

Certification and Signature

The Proposer certifies that it has read and accepts all terms and conditions of RFP #2026-23 and will perform the Work in accordance with the Contract Documents if awarded the contract.

Signature: _____

Printed Name: _____

Title: _____

Date: _____

PART 2 – PRICE PROPOSAL FORM

The Undersigned hereby offers the following prices for the Work described in RFP #2026-23, Elevator Upgrades at 81 Union Avenue, in accordance with the Contract Documents.

The Proposer acknowledges that price is one of several evaluation factors and that award will be made based on the best overall value to the Authority, as determined in accordance with the evaluation criteria set forth in Section 00 22 13 of the Project Manual.

ITEM 1: Total Base Price – Elevator Modernization (Lump Sum)

Complete modernization of elevators at 81 Union Avenue as described in the Project Manual and Drawings, excluding ongoing maintenance addressed in Item 2.

Total Base Price (Lump Sum): $ _____

Amount in words: _____

ITEM 2: Total Annual Maintenance Price – Five-Year Term

Comprehensive elevator maintenance services for a five-year term following Substantial Completion, as described in Section 14 40 00 of the Project Manual.

Annual Maintenance Price (per year): $ _____

Amount in words: _____

Five-Year Maintenance Total (Item 2 × 5): $ _____

ITEM 3: Optional – Evaluation Committee Meeting, B Squared Engineering

Price for attendance at one Evaluation Committee meeting with B Squared Engineering, as described in the Project Manual. This item is optional and shall not be included in the Base Price unless directed by the Authority.

Total Price (Optional Item 3): $ _____

Amount in words: _____

GRAND TOTAL PROPOSED PRICE

(Item 1 + Five-Year Maintenance Total from Item 2 + Item 3)

Grand Total: $ _____

Amount in words: _____

Note: The Grand Total Proposed Price is used for evaluation purposes. Award will not be made solely on the basis of the lowest price; the Authority will evaluate proposals in accordance with the criteria set forth in Section 00 22 13 of the Project Manual.

Proposer Information

Firm Name: _____

Address: _____

_____

City, State, Zip: _____

Federal Employer Identification Number (FEIN): _____

NJ Contractor License No.: _____

Certification and Signature

Signature: _____

Printed Name: _____

Title: _____

Date: _____

END OF CONTRACTOR'S PROPOSAL FORM

AFFIRMATIVE ACTION COMPLIANCE NOTICE

N.J.S.A. 10:5-31 and N.J.A.C. 17:27

GOODS AND SERVICES CONTRACTS (INCLUDING PROFESSIONAL SERVICES)

This form is a summary of the successful proposer's requirement to comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17:27.

The successful proposer shall submit to the public agency, after notification of award but prior to execution of this contract, one of the following three documents as forms of evidence:

a. A photocopy of a valid letter that the contractor is operating under an existing Federally approved or sanctioned affirmative action program (good for one year from the date of the letter);

OR

b. A photocopy of a Certificate of Employee Information Report approval, issued in accordance with N.J.A.C. 17:27-4;

OR

c. A photocopy of an Employee Information Report (Form AA302) provided by the Division and distributed to the public agency to be completed by the contractor in accordance with N.J.A.C. 17:27-4.

The successful vendor may obtain the Affirmative Action Employee Information Report (AA302) from the contracting unit during normal business hours.

The successful vendor(s) must submit the copies of the AA302 Report to the Division of Contract Compliance and Equal Employment Opportunity in Public Contracts (Division). The Public Agency copy is submitted to the public agency, and the vendor copy is retained by the vendor.

The undersigned vendor certifies that he/she is aware of the commitment to comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17:27 and agrees to furnish the required forms of evidence.

The undersigned vendor further understands that his/her bid shall be rejected as non-responsive if said contractor fails to comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17:27.

COMPANY: _____ SIGNATURE: _____

PRINT NAME:_____TITLE: _____DATE: _____

STOCKHOLDER DISCLOSURE CERTIFICATION

This Statement Shall Be Included with Bid Submission

Name of Business _____

☐ I certify that the list below contains the names and home addresses of all stockholders holding 10% or more of the issued and outstanding stock of the undersigned.

OR

☐ I certify that no one stockholder owns 10% or more of the issued and outstanding stock of the undersigned.

Check the box that represents the type of business organization:

☐ Partnership ☐ Limited Liability Corporation ☐ Corporation ☐ Sole Proprietorship

☐ Limited Partnership ☐ Limited Liability Partnership ☐ Subchapter S Corporation

Sign and notarize the form below, and, if necessary, complete the stockholder list below.

Stockholders:

Name: _____ Name: _____

Home Address: _____ Home Address: _____

_____ _____

Name: _____ Name: _____

Home Address: _____ Home Address: _____

_____ _____

Subscribed and sworn before me this ___ day of _____ , 2 __.

_____
(Affiant)

(Notary Public)

My Commission expires:

_____
(Print name & title of affiant)

(Corporate Seal)

NON-COLLUSION AFFIDAVIT

State of New Jersey
County of Essex

I, _____ residing in _____
(name of affiant) (name of municipality)
in the County of _____ and State of _____of full age, being duly sworn according to law on my oath depose and say that:

I am _____ of the firm of _____
(title or position) (name of firm)

_____ the proposer making this Proposal for the bid

entitled _____, and that I executed the said proposal with
(title of bid proposal)
full authority to do so that said proposer has not, directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free, competitive bidding in connection with the above named project; and that all statements contained in said proposal and in this affidavit are true and correct, and made with full knowledge that the _____relies upon the truth of the statements contained in said Proposal
(name of contracting unit)
and in the statements contained in this affidavit in awarding the contract for the said project.

I further warrant that no person or selling agency has been employed or retained to solicit or secure such contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except bona fide employees or bona fide established commercial or selling agencies maintained by _____.

Subscribed and sworn to before me this day _____
Date

Signature

_____
(Type or print name of affiant under signature)

Notary public of _____

My Commission expires _____

(Seal)

Irvington Housing Authority

ACKNOWLEDGMENT OF RECEIPT OF ADDENDA

The undersigned Proposer hereby acknowledges receipt of the following Addenda:

Addendum Number	Dated	Acknowledge Receipt (initial)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

☐ **No addenda were received**:

Acknowledged for: _____
(Name of Proposer)

By: _____
(Signature of Authorized Representative)

Name: _____
(Print or Type)

Title: _____

Date: _____

Irvington Housing Authority

EQUIPMENT CERTIFICATION

The undersigned Proposer hereby certifies as follows:

The proposer owns or controls all the necessary equipment required to accomplish the work described in the specifications.

Name of Proposer: _____

By: _____
(Signature)

Name of above: _____
(Print)

Title: _____

Date:_____

Irvington Housing Authority

REFERENCES

List at least 3 references. Please fill completely.

REFERENCE #1

Company Name _____

Contact Name/Title _____

Phone Number/Fax Number _____

REFERENCE #2

Company Name _____

Contact Name/Title _____

Phone Number/Fax Number _____

Reference #3

Company Name _____

Contact Name/Title _____

Phone Number/Fax Number _____

Irvington Housing Authority

SUBCONTRACTOR LISTING

Please list the names of all subcontractors and/or sub-consultants to be used on this project (add additional sheets if necessary). The subcontractor certification form must be completed for each firm listed.

All subcontractors designated by the bidding company shall be capable of doing the work and must have adequate financial resources and experience to perform the work specified. Information regarding the work experience of the designated subcontractor shall also be provided in the bid. Specifically, the bidding company shall include a listing of all relevant jobs performed by the subcontractor within the past two (2) years.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

___ Check here if the bidding company will not be using any subcontractors.

THIS FORM IS TO BE SIGNED, NOTARIZED AND SUBMITTED BY THE BIDDING COMPANY WITH THE BID.

_____ _____
Name of bidding company Signature of authorized representative

_____ _____
Printed name of authorized representative Title

Sworn and subscribed to me this _____ day of _____, 2026

_____ (SEAL)
Notary Public

Irvington Housing Authority

SUBCONTRACTOR CERTIFICATION FORM pg 1

All subcontractors/consultants designated by the bidding company shall be capable of doing the work and must have adequate financial resources and experience to perform the work specified. Information regarding the work experience of the designated subcontractor shall also be provided in the bid. Specifically, the bidding company shall include a listing of all relevant jobs performed by the subcontractor within the past two (2) years.

Please print the following information legibly. NOTE: Provide this information on additional sheets, as required, in accordance with the following format.

How many years has the subcontractor been engaged in this particular field? ____ years.

Subcontractor/consultant
Firm Name _____

Address _____

_____

Contact Person _____

Telephone # _____

Fax # _____

Trade _____

State License # _____

THIS FORM IS TO BE SIGNED, NOTARIZED AND SUBMITTED BY THE SUBCONTRACTOR WITH THE BID.

_____ _____
Name of company Signature of authorized representative

_____ _____
Printed name of authorized representative Title

Sworn and subscribed to me this _____ day of _____, 2026

_____ (SEAL)
Notary Public

SUBCONTRACTOR CERTIFICATION FORM pg 2

Provide a list of relevant contracts (company/firm) completed by proposed subcontractors/consultants within the last two (2) years.

DO NOT INCLUDE WORK FOR THE IRVINGTON HOUSING AUTHORITY
(This form may be duplicated to include additional relevant contracts)

1. _____ _____ _____
   Company Name | Telephone # | Complete Date

   _____ _____
   Address | Contact Person

   _____ _____
   City/State/Zip | Contract Amount

2. _____ _____ _____
   Company Name | Telephone # | Complete Date

   _____ _____
   Address | Contact Person

   _____ _____
   City/State/Zip | Contract Amount

3. _____ _____ _____
   Company Name | Telephone # | Complete Date

   _____ _____
   Address | Contact Person

   _____ _____
   City/State/Zip | Contract Amount

4. _____ _____ _____
   Company Name | Telephone # | Complete Date

   _____ _____
   Address | Contact Person

   _____ _____
   City/State/Zip | Contract Amount

5. _____ _____ _____
   Company Name | Telephone # | Complete Date

   _____ _____
   Address | Contact Person

   _____ _____
   City/State/Zip | Contract Amount

PROPOSER'S OR SUB-CONTRACTOR'S QUALIFICATIONS

Complete sets of qualification section must be submitted for each proposer and each sub-contractor. Photocopy this section as needed, and check the appropriate box to indicate proposer/subcontractor.

Proposal for: Improvements to Various Sites

PROPOSER □ **SUBCONTRACTOR** □

Name of Proposer or Subcontractor:_____

Address: _____

_____

It shall be necessary for the proposer to present evidence that he is the general contractor and that he has been in business for at least 3 years in this particular field and can submit a suitable record of satisfactorily completing similar projects. In addition, he shall submit evidence that his company has the necessary equipment to carry out this type of operation.

How many years have you been or engage in construction under your present firm or trade name?

_____ Years.

How many years has your organization been performing the work required under this contract?

_____ Years.

If a corporation, answer the following:

Date of incorporation: _____

State of Incorporation: _____

President's Name: _____

Vice President's Name(s): _____

If a partnership, answer the following:

Date of Organization: _____

We normally perform _____ % of the work with our own forces. Describe the general character of work performed by your company.

_____

_____

_____

What equipment do you own that is available and intended to be used on this project? Provide a description as to the quantity, size, type and capacity of this equipment along with its present condition.

_____

_____

_____

What equipment to you intend to lease or purchase for use on this project should the contract be awarded to you? Provide a description of the quantity, size, type and capacity of the equipment you intend to lease or purchase.

_____

_____

_____

Have you ever failed to complete any work awarded to you? If so, state the circumstances.

_____

_____

_____

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

_____

_____

_____

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

_____

_____

_____

Are there any liens of any character filed against your company at this time? If so, specify the nature and amount of the lien.

_____

_____

_____

In what manner have you inspected the proposed project?

_____

_____

_____

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

_____

Do you intend to subcontract any portion of the work? If so, state which portion is to be subcontracted and complete the Subcontractor Certification Form.

_____

_____

_____

Have you made contracts or received firm offers for all materials within price use regarding your proposal? Do not give names of dealers or manufacturers.

_____

_____

_____

Give Trade references.

_____

_____

_____

Give bank references.

_____

_____

_____

Give full information concerning all of your contracts in progress, whether private or government contracts, whether prime or sub-contracts, whether in construction or awarded but not yet begun, or whether you are the low proposer pending formal award of contract.

Owner - Location - Description - Contract Amount - % Completed - Estimated Completion Date

_____

_____

_____

_____

List the most important contracts completed by your company in the last five years, stating the gross cost for each and the month and year started and completed.

Owner - Location - Description Contract Amount - Start Date - Completion Date

_____

_____

_____

_____

_____

_____

AFFIDAVIT

State of _____

SS.

County of _____

_____ being first duly sworn deposes and says:
(Individual's name)

THAT he is _____,
(Owner, Officer or Partner of the firm of etc.)

the party making the foregoing proposal or bid for the Improvements to Various Sites in Irvington, New Jersey; that all answers to the foregoing questions and all statements contained in this questionnaire are true and correct, and that he hereby authorizes and requests any person, firm or corporation to furnish any information requested by the Irvington Housing Authority in verification of the recitals contained in this questionnaire.

_____
(Signature of Proposer)

Subscribed and sworn to before me, this ___ day of _____, 2026.

_____
Notary Public

My Commission expires _____

DISCLOSURE OF INVESTMENT ACTIVITIES IN IRAN
Irvington Housing Authority

PART 1: CERTIFICATION PROPOSERS MUST COMPLETE PART 1 BY CHECKING EITHER BOX.

FAILURE TO CHECK EITHER BOX WILL RENDER THE PROPOSAL NON-RESPONSIVE.

Pursuant to Public Law 2012, c. 25, any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of Treasury's Chapter 25 list as a person or entity engaging in investment activities in Iran. The Chapter 25 list is found on the Division's website at . Proposers must review this list prior to completing the below certification. Failure to complete the certification will render a proposer's proposal non-responsive. If the Director finds a person or entity to be in violation of law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.http://www.state.ni.us/treasury/purchase/pdfyChapter25List.pdf

PLEASE CHECK EITHER BOX:

☐ **I certify, pursuant to Public Law 2012, c. 25, that neither the person/entity listed above nor any of the entity's parents, subsidiaries, or affiliates is listed on the N.J. Department of the Treasury's list of entities determined to be engaged in prohibited activities in Iran pursuant to P.L. 2012, c. 25 ("Chapter 25 List"). I further certify that I am the person listed above, or I am an officer or representative of the entity listed above and am authorized to make this certification on its behalf. I will skip Part 2 and sign and complete the Certification**

OR

I I am unable to certify as above because I or the bidding entity and/or one or more of its parents, subsidiaries, or affiliates is

on the Department's Chapter 25 list I will provide a detailed, accurate and precise description of the activities in Part 2 below and sign and complete the Certification below. Failure to provide such will result in the proposal being rendered as non-responsive and appropriate penalties, fines and/or sanctions will be assessed as provided by law.

Part 2

PLEASE PROVIDE FURTHER INFORMATION RELATED TO INVESTMENT ACTIVITIES IN *IRAN*
You must provide a detailed, accurate and precise description of the activities of the bidding person/entity, or one of its parents, subsidiaries or affiliates, engaging in the investment activities in Iran outlined above by completing the boxes below.
PROVIDE INFORMATION RELATIVE TO THE ABOVE QUESTIONS. PLEASE PROVIDE THOROUGH ANSWERS TO EACH QUESTION. IF YOU NEED TO MAKE ADDITIONAL ENTRIES, USE ADDITIONAL PAGES

Name: _____ **Relationship to Proposer/Vendon_** _____

Description of Activities:

Duration of Engagement: _____**Anticipated Cessation Date_**

Proposer/Vendor _____

Contact Name: _____ **Contact Phone Number**

Certification: I, being duly sworn upon my oath, hereby represent and state that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I attest that I am authorized to execute this certification on behalf of the below-referenced person or entity. I acknowledge that the Irvington Housing Authority is relying on the information contained herein and thereby acknowledge that I am under a continuing obligation from the date of this certification through the completion of contracts with the Irvington Housing Authority to notify the Irvington Housing Authority in writing of any changes to the answers of information contained herein. I acknowledge that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I recognize that I am subject to criminal prosecution under the law and that it will also constitute a material breach of my agreements(s) with the Irvington Housing Authority and that the Irvington Housing Authority at its option may declare any contracts) resulting from this certification void and unenforceable.

Full Name (Print): _____. **Signature:**

Title:_____ **Date:** _____ _ _____

Proposer/Vendor:_____

Proposal Guarantee pursuant to N.J.S.A. 40A:11-21

A person bidding on a contract for the erection, alteration or repair of a public building, structure, facility or other improvement to real property, the total price of which exceeds $100,000, shall furnish a guarantee as provided for herein. A contracting unit may provide that a person bidding on any other contract, advertised in accordance with law, shall furnish a guarantee as provided for herein. The guarantee shall be payable to the contracting unit so that if the contract is awarded to the proposer, the proposer will enter into a contract therefor and will furnish any performance bond or other security required as a guarantee or indemnification. The guarantee shall be in the amount of 10% of the bid, but not in excess of $20,000.00, except as otherwise provided herein, and may be given, at the option of the proposer, by certified check, cashier's check or proposal bond. In the event that any law or regulation of the United States imposes any condition upon the awarding of a monetary grant to any contracting unit, which condition requires the depositing of a guarantee in an amount other than 10% of the bid or in excess of $20,000.00 the provisions of this section shall not apply and the requirements of the law or regulation of the United States shall govern.

CONSENT OF SURETY

A performance bond will be required from the successful contractor on this project, and consequently, all proposers shall submit, with their bid, a consent of surety in substantially the following form:

To: _____ (Owner)

Re: _____

(Contractor)

_____ (Project Description)

This is to certify that the _____

(Surety Company)

will provide to _____ a performance bond in (Owner)

the full amount of awarded contract in the event that said contractor is awarded a contract for the above project.

_____

(CONTRACTOR)

_____

(Authorized Agent of Surety Company)

Date:_____

CONSENT OF SURETY MUST BE SIGNED BY AN AUTHORIZED AGENT

OR REPRESENTATIVE OF A SURETY COMPANY AND NOT BY THE

INDIVIDUAL OR COMPANY REPRESENTATIVE SUBMITTING THE BID.

Public Works Contractor Certificate (Prevailing Wage) for Proposer and Each Sub-Contractor

The Public Works Contractor Registration Act (PWCRA) requires that all contractors, including named subcontractors, to register with the Department of Labor prior to submitting price proposals or engaging on certain public works contracts that exceed the prevailing wage threshold. The prevailing wage threshold is $11,892 for municipalities and $2,000 for all non-municipal entities, such as boards of education, authorities, fire districts, counties, etc.

Because the PWCRA uses the definition of public works contracts under the prevailing wage law, where the law uses the term “bidding”, contracting units are advised to read that as meaning to “submit” a price proposal.” Thus, the law applies to the formal bidding process where the contract is awarded to the lowest responsible proposer, and the receipt of informal quotations awarded to the vendor whose proposal is the “most advantageous, price and other factors considered.”

Under the law a contractor is a “person, partnership, association, joint stock company, trust, corporation, or other legal business entity or successor thereof who enters into a contract” which is subject to the provisions of the New Jersey Prevailing Wage Act [N.J.S.A. 34:11-56.25 et seq.]. It applies to contractors based in New Jersey or in another state.

The PWCRA defines “public works projects” as contracts for "public work" as defined in the Prevailing Wage Act [N.J.S.A. 34:11-56.26(5)]. The term means:

· “Construction, reconstruction, demolition, alteration, or repair work, or maintenance work, including painting and decorating, done under contract and paid for in whole or in part out of the funds of a public body, except work performed under a rehabilitation program.

· "Public work" shall also mean construction, reconstruction, demolition, alteration, or repair work, done on any property or premises, whether or not the work is paid for from public funds,…”

· “Maintenance work" means the repair of existing facilities when the size, type or extent of such facilities is not thereby changed or increased. While “maintenance” includes painting and decorating and is covered under the law, it does not include work such as routine landscape maintenance or janitorial services.

In order to provide guidance to contracting officials on implementing the law, nine key principles have been identified in the law. The nine items follow:

1. The law applies to all “public works contracts” that exceed the contracting unit’s prevailing wage threshold, as set by N.J.S.A 34:11-56.26 (a) and (b).

2. The law applies to contracts for which public bidding is required, as well as those for which quotations are received.

3. All named contractors in a bid proposal (including out-of-state contractors) must be registered with the Department of Labor's Division of Wage and Hour Compliance at the time proposals are received by the public entity.

For clarity, Local Finance Notice 2004-9 dated 4/28/04 uses the following term: "Received," in context of when "proposals are received," means the deadline or moment in time when proposals are formally opened and no other proposals are accepted.

4. The law requires contractors to submit certificates after a bid proposal is received and prior to awarding the contract. (N.J.S.A. 34:11-56.55)

5. After bid proposals are received, and prior to contract award, the contractor most likely to receive the contract award must submit to the public entity copies of certifications of all listed sub-contractors.

6. The contracting agent must review the certificates to be sure they were in effect at the time the bid proposals were received.

7. Non-listed subcontractors do not have to be registered until they physically start the public work assigned to them.

8. Bid proposal documents need to inform those submitting proposals of these requirements.

9. Emergency work is covered under the provisions of the Prevailing Wage Act and the PWCRA.

It is specifically recommended that language be included in specifications especially those sections regarding "Instructions to Proposers" advising potential proposers that:

1. All named sub-contractors must be registered with the Department of Labor pursuant to the PWCRA at the time the proposal is received, or the proposal will be determined to be non-responsive.

2. Any non-listed sub-contractor must be registered with the Department of Labor prior to physically starting work. A contractor's certification can be confirmed by contacting the Department of Labor's Division of Wage and Hour Compliance website (www.nj.gov/labor/lsse/lspubcon.html). This site only shows approved contractors; there is no "pending" approval or a "grace" period. If a contracting unit encounters a problem in its review of certifications, or difficulty in making an award because of a non-registered contractor, they should contact the Contractor Registration Unit as soon as possible.

N.J.S.A. 34:11-56.56 provides several methods for the Department of Labor to enforce the law. The Department can deny renewal, revoke or suspend the registration of a contractor for a period of not more than five years, or, as a condition of initial or continued registration, require a surety bond payable to the State of New Jersey.

Additional information on the PWCRA can be obtained from the:

Contractor Registration Unit Telephone: 609-292-9464

Division of Wage and Hour Compliance Fax: 609-633-8591

New Jersey Department of Labor E-mail: contreg@dol.state.nj.us

PO Box 389 Web site: www.nj.gov/labor/lsse/lspubcon.html

Trenton, New Jersey 08625-0389

The web site has links to the PWCRA Registration Form, Listing of Contractors, Prevailing Wages and other useful information.

Contact the Division of Local Government Services at (609) 292-7842, by fax at (609) 633-6243 or by e-mail at lpcl@dca.state.nj.us for assistance in the application of the Local Public Contracts Law or related PWCRA issues. As specific situations are presented to the contracting unit, local legal advisors should review this guidance as to its applicability.

CERTIFICATION OF NON-INVOLVEMENT IN PROHIBITED ACTIVITIES IN RUSSIA OR BELARUS PURSUANT TO P.L.2022, c.3

CONTRACT / BID SOLICITATION TITLE

CONTRACT / BID SOLICITATION No.

CHECK THE APPROPRIATE BOX

I, the undersigned , am authorized by the person or entity seeking to enter into or renew the contract identified above, to certify that the Vendor/Proposer is not engaged in prohibited activities in Russia or Belarus as such term is defined in P.L.2022, c.3,1 section 1.e, except as permitted by federal law.

I understand that if this statement is willfully false, I may be subject to penalty, as set forth in P.L.2022, c.3, section 1.d.

OR

☐ I, the undersigned am unable to certify above because the person or entity seeking to enter into or renew the contract identified above, or one of its parents, subsidiaries, or affiliates may have engaged in prohibited activities in Russia or Belarus. A detailed, accurate and precise description of the activities is provided below.

Failure to provide such description will result in the Quote being rendered as non-responsive, and the Department/Division will not be permitted to contract with such person or entity, and if a Quote is accepted or contract is entered into without delivery of the certification, appropriate penalties, fines and/or sanctions will be assessed as provided by law.

Description of Prohibited Activity

Attach Additional Sheets If Necessary.

If you certify that the proposer is engaged in activities prohibited by P.L. 2022, c. 3, the proposer shall have 90 days to cease engaging in any prohibited activities and on or before the 90th day after this certification, shall provide an updated certification. If the proposer does not provide the updated certification or at that time cannot certify on behalf of the entity that it is not engaged in prohibited activities, the State shall not award the business entity any contracts, renew any contracts, and shall

be required to terminate any contract(s) the business entity holds with the State that were issued on or after the effective date of P.L. 2022, c. 3.

Signature of Authorized Representative	Date
Print Name and Title of Authorized Representative	
Vendor Name	

[1] Engaged in prohibited activities in Russia or Belarus" means (1) companies in which the Government of Russia or Belarus has any direct equity share; (2) having any business operations commencing after the effective date of this act that involve contracts with or the provision of goods or services to the Government of Russia or Belarus; (3) being headquartered in Russia or having its principal place of business in Russia or Belarus, or (4) supporting, assisting or facilitating the Government of Russia or Belarus in their campaigns to invade the sovereign country of Ukraine, either through in-kind support or for profit.

NJ Rev. 3.29.2022

PROPOSAL DOCUMENT CHECKLIST

Irvington Housing Authority

PROPOSAL DOCUMENT CHECKLIST*

Required by owner	Submission Requirement	Initial each required entry and if required submit the item
X	Business Registration Certificate Pursuant to N.J.S.A. 40A:11-16 and 52:32-44 for both the Proposer and all Subcontractors required to be listed in this Proposal.	
X	Contractor's Proposal Form	
X	Affirmative Action Compliance Certification	
X	Stockholder Disclosure Certification	
X	Non-Collusion Affidavit	
X	Acknowledgement of Receipt of Addenda (regardless of issuance of addenda)	
X	Equipment Certification	
X	References	
X	Subcontractor Listing/Certification Form(s) pursuant to N.J.S.A. 40A:11-16	
X	Statements and Qualifications of Proposers and Subcontractors (one for each proposer and subcontractor)	
X	Form HUD 5369 - Certification of Proposers	
X	Previous Participation Certificate (HUD-2530)	
X	Disclosure of Investment Activities in Iran Form	
X	Proposal Guarantee pursuant to N.J.S.A. 40A:11-21	
X	Consent of Surety pursuant to N.J.S.A 40A:11-22 (with Power of Attorney for full amount of Proposed Price)	
X	Public Works Contractor Certificate (Prevailing Wage) for Proposer and Each Sub-Contractor	
X	Certification of non-involvement in prohibited activities in Russia or Belarus pursuant to p.l.2022, c.3	

***Please submit this form as the first page of your proposal and the**

Proposal Form as the second page.

IRVINGTON HOUSING AUTHORITY

POST-AWARD DOCUMENT REQUIREMENTS

If awarded the contract, the Contractor shall provide the following to the Authority before commencing work:

- ☐ Trade Payment Breakdown on HUD Schedule of Amounts for Contract Payments (HUD Form 51000)

- ☐ Executed Construction Contract with Davis Bacon Rates Attached

- ☐ Corporate Certification Questionnaire (Must be Signed and Notarized)

- ☐ Personal Certification and Questionnaire for Officers, Directors of Contractor and Individuals with Management Control, and Individuals Owning 10% or Greater Interest in Contracting Entity. (Must be Signed and Notarized)

- ☐ Criminal Background Check for Officers, Directors and Individuals with Management Control, and Individuals Owning 10% or Greater Interest in Contracting Entity.

- ☐ Contractor's Liability Insurance (Naming Irvington Housing Authority as Additional Insureds)

- ☐ Certificate of Formation

- ☐ Certificate of Good Standing from State of Formation

- ☐ New Jersey Secretary of State Authorization to do Business in New Jersey for Out-of-State Contractor, if applicable

- ☐ Building Permits

- ☐ Termite Certification, if applicable (Must be Signed and Notarized)

- ☐ Performance and Payment Bonds (Naming Irvington Housing Authority as Additional Insureds)

CONTRACT FOR
Elevator Upgrades to 81 Union Avenue
RFP #2026-23

THIS AGREEMENT made this __ day of ____, 2026, by and between _____, hereinafter called the "Contractor", and the Housing Authority of the Township of Irvington, hereinafter called the "Authority".

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

ARTICLE 1: STATEMENT OF WORK. The Contractor shall furnish all labor, materials, tools and equipment and shall perform and complete all work required to Elevator Upgrades to 81 Union Avenue as per the technical specifications and drawings prepared by Clarke Caton Hintz which are incorporated by reference and made a part hereof.

ARTICLE 2: TIME OF COMPLETION. The Contractor shall complete work under this Contract within 37 weeks of receipt of a written Notice to Proceed or receipt of applicable permits. The Contractor remains liable for damages caused other than by delay.

ARTICLE 3: THE CONTRACT PRICE. The Authority shall pay the Contractor for the performance of the Contract, in current funds, subject to additions and deductions and as provided in the Contract Documents, in particular the fee negotiated between the parties or the fee as specified in the proposal submitted.

ARTICLE 4. PERFORMANCE OF WORK, WORK REQUIREMENTS AND CONTRACTOR'S RESPONSIBILITY. The Contractor shall be responsible for furnishing all materials, equipment, labor and transportation necessary to perform the work.

The Contractor shall not sub-contract any work under this contract without express prior written approval of the Authority or as listed in the subcontractor certificate.

Contractor will schedule and perform the work between the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday. The Contractor shall coordinate all his activities with the Authority. The Authority may charge to the contractor any additional costs for inspections or testing.

The Contractor shall at all times keep the work area orderly and free from accumulations of waste materials. After completing the work, the Contractor shall remove all equipment materials and tools that are not the property of the Authority and leave the work area in a neat, clean and orderly condition. The Contractor shall dispose of all debris off-site in accordance with all applicable Federal, State and local statutes, ordinances and regulations.

The Contractor shall be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence, and shall take all necessary health and safety precautions to protect the work, the workers, the public, and the property of others. The Contractor shall hold and save the Authority, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.

The Contractor shall apply and pay for any applicable permits related to the work. Fees for Building permits issued through the City Code Enforcement office are waived. No final payments shall be processed without furnishing written documentation the work has been inspected and the City of Irvington Code Enforcement Department has closed out the permit.

ARTICLE 5. RATES AND PAYMENTS. The Authority shall pay the contractor a lump sum fee of _____ ($_____) after all (or periodic) work has been satisfactorily completed and tested. The Authority shall make payments not more frequently than monthly upon the completion of work by the Contractor and the presentation of an invoice. The invoice must be accompanied by certified payrolls for the period that is invoiced. Payment shall be due within 30 days of receipt of the invoice by the Authority. No payments shall be processed without attached certified payrolls covering payment period.

ARTICLE 6: NEW JERSEY BUSINESS REGISTRATION.

A. The Contractor has provided a copy of its New Jersey Business Registration Certificate prior to the execution of this Contract.

B. The Authority shall not be responsible for the Contractor's failure to comply with any of the requirements of the applicable New Jersey law on this issue.

C. The Contractor shall maintain and submit to the Authority a list of subcontractors, if such are approved by the Authority, and their addresses that may be updated from time to time during the course of the contract performance. A complete and accurate list shall be submitted before final payment is made for goods provided or services rendered or for the construction of a construction project under the contract.

D. The Contractor must notify subcontractors by written notice to comply with the following:

(i) A subcontractor who is listed on the Subcontractor Certificate, which if part of this Contract, shall provide a copy of its business registration to the Contractor who shall forward it to the Authority prior to the execution of this Contract.

(ii) For any other subcontractor (other than those listed in the above paragraph), that subcontractor shall provide a copy of its business registration to the Contractor who shall forward it to the Authority before the subcontractor begins work.

(iii) No contract with a subcontractor shall be entered into by any Contractor under this contract with the Authority unless the subcontractor first provides proof of valid business registration.

(iv) The Authority shall file all business registrations received by it with other procurement documents related to this contract.

E. The Contractor, or the Contractor with a subcontractor and each of their affiliates, shall collect and remit to the Director of the Division of Taxation in the Department of the Treasury the use tax due pursuant to the "Sales and Use Tax Act", P.L. 1966, c.30 (N.J.S.A. 54:32B-1 et seq.) on all their sales or tangible personal property delivered into this State. For this purpose, an "affiliate" means any entity that: (a) directly, indirectly, or constructively controls another entity; (b) is directly, indirectly, or constructively controlled by another entity; or (c) is subject to the control of a common entity. An entity controls another entity if it owns, directly or individually, more than 50% of the ownership interest in that entity.

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

A. This Instrument
B. General Contract Conditions – Construction form HUD-5370
C. Request for Proposals dated 04/30/26
D. Scope of Work dated 03/19/26
E. Contractor's Proposal as accepted by the Authority, including all required forms
F. Addendum (if any)

This instrument, together with the documents enumerated in this Article, form the Contract as if hereto attached or herein repeated. In the event that any provision in one of the component parts of the contract conflicts with any provision of any other component part, the provision in the component part first enumerated in this Article shall govern, except as otherwise specifically stated. The various provisions in Addenda shall be construed in the order of preference of the component part of the Contract which each modifies. The Authority shall not alter any such post orders without the prior written authorization of the Contractor. If the Authority alters such post orders without the Contractor's prior written authorization, the Authority shall be solely liable for any and all consequences.

ARTICLE 8. INSURANCE. Before performing any work, the Contractor shall furnish the Authority with certificates of insurance showing the following insurance is in force and will insure all operations under the Contract:

A. Workers' Compensation, in accordance with New Jersey Workers' Compensation laws.
B. Commercial General Liability with a combined single limit for bodily injury and property damage as outlined in HUD-5370 per occurrence to protect the Contractor and the Authority against claims for bodily injury or death and damage to the property of others. This shall cover the use of all equipment, hoists, and vehicles on the site(s) not covered by Automobile Liability under (3) below. If the Contractor has a "claims-made" policy, then the following additional requirements apply: the policy must provide a "retroactive date" which must be on or before the execution date of the Contract, and the extended reporting period may not be less than five years following the completion date of the Contract.

All Insurance shall be carried with companies, which are financially responsible and admitted to do business in the State of New Jersey. If any such insurance is due to expire during the construction period, the Contractor shall not permit the coverage to lapse and shall furnish evidence of coverage to the Authority. All certificates of insurance, as evidence of coverage, shall provide that no coverage maybe canceled or non-renewed by the insurance company until at least 30 days prior written notice has been given to the Authority.

The Housing Authority of the Township of Irvington shall be listed as Additional Insured on General Contractor and all Sub-Contractor's Insurance Certificates. IHA shall also be a Certificate Holder for all Insurance Certificates.

ARTICLE 9: CONTRACT ADMINISTRATION. Contractor is to provide a contact person during the period of performance of the contract. Authority's designated representative during the period of performance of this contract is Corey Franklin, Chief Executive Officer/Executive Director.

Authority shall retain all ownership rights in all Contact data and all electronic data Authority transmits to Contractor to or through the Services. Authority represents that it has the right to authorize and hereby does

authorize Contractor to collect, store and process Authority Data subject to the terms of this Agreement. Authority shall maintain a copy of all Contact data it provides to Contractor.

ARTICLE 10: CONFIDENTIAL INFORMATION. Confidential Information means all information of a Party ("Disclosing Party") disclosed to the other Party ("Receiving Party"), whether orally, electronically, in writing, or by inspection of tangible objects (including, without limitation, documents or prototypes), that is designated as confidential or that reasonably should be understood to be confidential given the nature of the information and the circumstances of disclosure. Confidential Information includes without limitation, all Authority Data, the Solutions, and either Party's business and marketing plans, technology and technical information, product designs, reports and business processes. Confidential Information shall not include any information that: (i) is or becomes generally known to the public without breach of any obligation owed to Disclosing Party; (ii) was known to Receiving Party prior to its disclosure by Disclosing Party without breach of any obligation owed to Disclosing Party; (iii) was independently developed by Receiving Party without breach of any obligation owed to Disclosing Party; or (iv) is received from a third party without breach of any obligation owed to Disclosing Party. Receiving Party shall not disclose or use any Confidential Information of Disclosing Party for any purpose other than performance or enforcement of this Agreement without Disclosing Party's prior written consent. If Receiving Party is compelled by law to disclose Confidential Information of Disclosing Party, including under the Freedom of Information Act or other public information request (i.e., "state sunshine" laws) it shall provide Disclosing Party with prior notice of such compelled disclosure (to the extent legally permitted) and reasonable assistance, at Disclosing Party's cost, if Disclosing Party wishes to contest the disclosure. Receiving Party shall protect the confidentiality of Disclosing Party's Confidential Information in the same manner that it protects the confidentiality of its own confidential information of like kind (but in no event using less than reasonable care). Receiving Party shall promptly notify Disclosing Party if it becomes aware of any breach of confidentiality of Disclosing Party's Confidential Information.

Upon any termination of this Agreement, the Receiving Party shall continue to maintain the confidentiality of the Disclosing Party's Confidential Information and, upon request and to the extent practicable, destroy all materials containing such Confidential Information. Notwithstanding the foregoing, either Party may retain a copy of any Confidential Information if required by applicable law or regulation, in accordance with internal compliance policy, or pursuant to automatic computer archiving and back-up procedures, subject at all times to the continuing applicability of the provisions of this Agreement.

ARTICLE 11: TERMINATION FOR CAUSE/DEFAULT.

(a) Authority may terminate this contract in whole, or from time to time in part, for Authority's convenience or the failure of the Contractor to fulfill the contract obligations (default). Authority shall terminate by delivering to the Contractor a written Notice of Termination specifying the nature, extent, and effective date of the termination. Upon receipt of the notice, the Contractor shall: (i) immediately discontinue all services affected (unless the notice directs otherwise); and (ii) deliver to Authority all information, reports, papers, and other materials accumulated or generated in performing this contract, whether completed or in process.

(b) If the termination is for the convenience of Authority, Authority shall be liable only for payment for services rendered before the effective date of the termination.

(c) If the termination is due to the failure of the Contractor to fulfill its obligations under the contract (default), Authority may (i) require the Contractor to deliver to it, in the manner and to the extent directed by Authority, any work as described in the Contract documents, and compensation be determined in accordance with the Change Clause within HUD 5370-C; (ii) take over the work and prosecute the same to completion by contract or otherwise, and the Contractor shall be liable for any additional cost incurred by Authority; (iii) withhold any

payments to the Contractor, for the purpose of off-set or partial payment, as the case may be, of amounts owed to Authority by the Contractor.

(d) If, after termination for failure to fulfill contract obligations (default), it is determined that the Contractor had not failed, the termination shall be deemed to have been effected for the convenience of Authority, and the Contractor shall be entitled to payment as described in paragraph (b) above and to reimbursement of any additional costs incurred in paragraph (c) above.

ARTICLE 12: INDEMNIFICATION. To the extent authorized by law, the Contractor shall, indemnify and hold Authority officers, employees, agents and other retained consultants harmless from and against any and all claims, damages, losses, suits, actions, decrees, judgments, reasonable attorney's fees, court costs and other expenses of any kind or character (the "Losses") which Authority officers, employees, agents or other retained consultants may suffer, or which may be sought against, recovered from or obtainable against Authority officers, employees, agents, or other retained consultants (the "Indemnified Parties") as a result of, or by reason of, or arising out of, or on account of, or in consequences of any negligent act or negligent failure to act on the part of the Contractor, its subcontractors or agents, or anyone directly or indirectly employed by any subcontractor or agent, in the fulfillment or performance of the terms, conditions or covenants that are contained in the agreement, regardless of whether or not the occurrence which gave rise to such claim, damage, loss, suit, action, judgment or expense was caused, in whole or in part, by any party indemnified hereunder, in each case except to such extent that such Losses arise out of the negligent acts of negligent failure to act by any of the Indemnified Parties.

The Contractor expressly agrees, at its own expense, to defend Authority officers, employees, agents and other retained consultants, against any and all claims, suits or actions which may be brought against them or any of them, as a result of, or by reason of, or arising out of, or on account of, or in consequences of any negligent act or negligent failure to act which the Contractor has indemnified Authority officers, employees, agents and other retained consultants against, and if the Contractor shall fail to do so, Authority shall have the right, but not the obligation, to defend the same and to charge all direct and incidental costs of such defense to the Contractor, including reasonable attorney's fees and court costs; provided that, the forum in which such claim, suit or action is heard determines that the occurrence that gave rise to the same was caused, in whole or in part, by any party who is indemnified hereunder. Authority shall reimburse the Contractor for, in whole or in part, if a determination is made that Authority shall indemnify the Contractor for the costs of such determination.

NOTWITHSTANDING ANYTHING IN THIS AGREEMENT TO THE CONTRARY, THE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR ANY PUNITIVE, EXEMPLARY, UNFORESEEABLE, INDIRECT, CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF USE OR LOSS OF ANTICIPATED PROFITS, WHETHER OR NOT THE CONTRACTOR HAD BEEN ADVISED OR PUT ON NOTICE OF THE POSSIBILITY OF ANY OF THE FOREGOING. IN ADDITION, THE CONTRACTOR'S LIABILITY UNDER THIS AGREEMENT SHALL NOT EXCEED THE FEES PAID TO THE CONTRACTOR FOR THE SIX (6) MONTHS IMMEDIATELY PRECEDING THE CLAIM GIVING RISE TO SUCH LIABILITY.

ARTICLE 13: RIGHT TO AUDIT. Contractor shall make available for audits its books, ledgers, records and other pertinent documentation showing the basis for the costs claimed under the contract. These books and records shall be made available to the Authority's internal and external auditors upon reasonable advance written notice, and during normal business hours, provided that any such audit shall not disrupt the Contractor's normal business operations. Rights in Data (Ownership and Proprietary Interest) Authority shall have exclusive ownership of all proprietary interest in, and the right to full and exclusive possession of all information, materials

and documents discovered or produced by Contractor pursuant to the terms of this Contract, including but not limited to reports, memoranda or letters concerning the research and reporting tasks of this Contract.

ARTICLE 14: RETENTION OF RECORDS. Contractor shall maintain the records pertaining to billings for a period of three years after the contract is terminated and audited by the Authority.

ARTICLE 15: ASSIGNMENT. This Contract shall not be assigned or transferred by the Contractor without the prior, written consent of the Authority. Such consent may be withheld by the Authority for any reason.

ARTICLE 16: INDEPENDENT CONTRACTORS. Notwithstanding anything to the contrary herein, the parties specifically agree that this Contract shall not be deemed to create the relationship of employer-employee between the Authority and the Contractor, and no rights or privileges of an employee of the Authority shall inure to the Contractor hereunder.

ARTICLE 17: SUBCONTRACTORS. The Contractor shall remain responsible for the work of any subcontractor or subconsultants, who must be approved by the Authority in advance, including for any liability to the Authority resulting from the actions of any subcontractor or subconsultant, to the same extent as if the Contractor would be liable to the Authority under the Contract. There shall be no contractual obligation of the Authority to any subcontractor or subconsultant, and all payments for their work shall be made to the Contractor.

ARTICLE 18: APPLICABLE LAW AND VENUE. This Contract shall be deemed to be an agreement under the laws of the State of New Jersey and for all purposes, including interpretation hereof and performance hereunder, shall be governed in accordance with the laws of the State of New Jersey. Each of the parties hereby expressly submits and consents in advance to the fact that any action or proceeding commenced by the other shall be within the jurisdiction and venue of the Superior Court of New Jersey, Essex County.

ARTICLE 19: CONFLICT OF INTEREST. No member of the Authority's Board or employee of the Authority, during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in this Contract or the proceeds hereof. Moreover, no member of or delegate of the Congress of the United States of America or Commissioner shall be admitted to any share or part of this Contract or to any benefits which may arise herefrom.

ARTICLE 20: ENTIRE UNDERSTANDING. This Contract fully and completely expresses the parties' understandings and agreements and supersedes any understandings or agreements previously made between the parties. Moreover, this Contract may not be changed or orally terminated by either party. It may be amended only by a written agreement, executed by both parties hereto.

ARTICLE 21: EXECUTION BY COUNTERPARTS. This Contract may be executed in one or more counterparts, each of which, when executed, shall be deemed to be an original, but all of which, taken together, shall constitute one and the same instrument.

ARTICLE 22: CONTRACT DOCUMENTS. If any part of this Contract shall be held to be unenforceable, the rest of the Contract shall nevertheless remain in full force and effect.

ARTICLE 23: MISCELLANEOUS PROVISIONS.

(a) The Contractor shall not be liable for and shall be excused from performance for any delay in providing or failure to provide services where such failure or delay is occasioned by actions of a government or public agency, failure or interruption of power, transportation or other utilities, labor dispute, strike, war, nuclear disaster, epidemic, pandemic, road closures, states of emergency, quarantine, communicable and/or virulent disease outbreak, riot, public health emergency, insurrection, terrorist act, fire, flood, accident, storm, acts of nature or any other cause beyond the Contractor's control.

(b) All notices, requests, demands, claims and other communications hereunder shall be in writing be deemed duly given (a) if by personal delivery, when so delivered, (b) if sent through an overnight delivery service in circumstances to which such service guarantees next day delivery or by certified mail (return receipt requested), upon actual receipt as recorded in the overnight courier's or the U.S. Postal Services' records, as the case may be, in each case to the addresses set herein.

(c) The Contractor is an equal opportunity employer. The Authority agrees not to request or demand that the Contractor take any action contrary to any applicable law, rule, regulation or order prohibiting discrimination against employees or applicants for employment on the basis of race, sex, age, national origin, handicap, disability, veteran status, or religion or contrary to any other provision of law, rule, regulation, or order, or of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed on the date and year first written above.

HOUSING AUTHORITY OF THE TOWNSHIP OF IRVINGTON

By: _____
Corey Franklin
Chief Executive Officer/Executive Director

By: _____

TITLE_____

Business Address:

_____

_____

General Conditions for Construction Contracts - Public Housing Programs

U.S. Department of Housing and Urban Development
Office of Public and Indian Housing
OMB Approval No. 2577-0157 (exp. 1/31/2017)

Applicability. This form is applicable to any construction/development contract greater than $100,000.

This form includes those clauses required by OMB's common rule on grantee procurement, implemented at HUD in 24 CFR 85.36, and those requirements set forth in Section 3 of the Housing and Urban Development Act of 1968 and its amendment by the Housing and Community Development Act of 1992, implemented by HUD at 24 CFR Part 135. The form is required for construction contracts awarded by Public Housing Agencies (PHAs).
The form is used by Housing Authorities in solicitations to provide necessary contract clauses. If the form were not used, HAs would be unable to enforce their contracts.
Public reporting burden for this collection of information is estimated to average 1.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Responses to the collection of information are required to obtain a benefit or to retain a benefit.
The information requested does not lend itself to confidentiality.
HUD may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB number.

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1. Definitions

(a) "Architect" means the person or other entity engaged by the PHA to perform architectural, engineering, design, and other services related to the work as provided for in the contract. When a PHA uses an engineer to act in this capacity, the terms "architect" and "engineer" shall be synonymous. The Architect shall serve as a technical representative of the Contracting Officer. The Architect's authority is as set forth elsewhere in this contract.

(b) "Contract" means the contract entered into between the PHA and the Contractor. It includes the forms of Bid, the Bid Bond, the Performance and Payment Bond or Bonds or other assurance of completion, the Certifications, Representations, and Other Statements of Bidders (form HUD-5370), these General Conditions of the Contract for Construction (form HUD-5370), the applicable wage rate determinations from the U.S. Department of Labor, any special conditions included elsewhere in the contract, the specifications, and drawings. It includes all formal changes to any of those documents by addendum, change order, or other modification.

(c) "Contracting Officer" means the person delegated the authority by the PHA to enter into, administer, and/or terminate this contract and designated as such in writing to the Contractor. The term includes any successor Contracting Officer and any duly authorized representative of the Contracting Officer also designated in writing. The Contracting Officer shall be deemed the authorized agent of the PHA in all dealings with the Contractor.

(d) "Contractor" means the person or other entity entering into the contract with the PHA to perform all of the work required under the contract.

(e) "Drawings" means the drawings enumerated in the schedule of drawings contained in the Specifications and as described in the contract clause entitled Specifications and Drawings for Construction herein.

(f) "HUD" means the United States of America acting through the Department of Housing and Urban Development including the Secretary, or any other person designated to act on its behalf. HUD has agreed, subject to the provisions of an Annual Contributions Contract (ACC), to provide financial assistance to the PHA, which includes assistance in financing the work to be performed under this contract. As defined elsewhere in these General Conditions or the contract documents, the determination of HUD may be required to authorize changes in the work or for release of funds to the PHA for payment to the Contractor. Notwithstanding HUD's role, nothing in this contract shall be construed to create any contractual relationship between the Contractor and HUD.

(g) "Project" means the entire project, whether construction or rehabilitation, the work for which is provided for in whole or in part under this contract.

(h) "PHA" means the Public Housing Agency organized under applicable state laws which is a party to this contract.

(j) "Specifications" means the written description of the technical requirements for construction and includes the criteria and tests for determining whether the requirements are met.

(l) "Work" means materials, workmanship, and manufacture and fabrication of components.

2. Contractor's Responsibility for Work

(a) The Contractor shall furnish all necessary labor, materials, tools, equipment, and transportation necessary for performance of the work. The Contractor shall also furnish all necessary water, heat, light, and power not made available to the Contractor by the PHA pursuant to the clause entitled Availability and Use of Utility Services herein.

(b) The Contractor shall perform on the site, and with its own organization, work equivalent to at least [ ] (12 percent unless otherwise indicated) of the total amount of work to be performed under the order. This percentage may be reduced by a supplemental agreement to this order if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the PHA.

(c) At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the work site a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.

(d) The Contractor shall be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence, and shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. The Contractor shall hold and save the PHA, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.

(e) The Contractor shall lay out the work from base lines and bench marks indicated on the drawings and be responsible for all lines, levels, and measurements of all work executed under the contract. The Contractor shall verify the figures before laying out the work and will be held responsible for any error resulting from its failure to do so.

(f) The Contractor shall confine all operations (including storage of materials) on PHA premises to areas authorized or approved by the Contracting Officer.

(g) The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. After completing the work and before final inspection, the Contractor shall (1) remove from the premises all scaffolding, equipment, tools, and materials (including rejected materials) that are not the property of the PHA and all rubbish caused by its work; (2) leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer; (3) perform all specified tests; and, (4) deliver the installation in complete and operating condition.

(h) The Contractor's responsibility will terminate when all work has been completed, the final inspection made, and the work accepted by the Contracting Officer. The Contractor will then be released from further obligation except as required by the warranties specified elsewhere in the contract.

3. Architect's Duties, Responsibilities, and Authority

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

(b) The Architect shall serve as the Contracting Officer's technical representative with respect to architectural, engineering, and design matters related to the work performed under the contract. The Architect may provide direction on contract performance. Such direction shall be within the scope of the contract and may not be of a nature which: (1) institutes additional work outside the scope of the contract; (2) constitutes a change as defined in the Changes clause herein; (3) causes an increase or decrease in the cost of the contract; (4) alters the Construction Progress Schedule; or (5) changes any of the other express terms or conditions of the contract.

(c) The Architect's duties and responsibilities may include but shall not be limited to:

(1) Making periodic visits to the work site, and on the basis of his/her on-site inspections, issuing written reports to the PHA which shall include all observed deficiencies. The Architect shall file a copy of the report with the Contractor's designated representative at the site;

(2) Making modifications in drawings and technical specifications and assisting the Contracting Officer in the preparation of change orders and other contract modifications for issuance by the Contracting Officer;

(3) Reviewing and making recommendations with respect to - (i) the Contractor's construction progress schedules; (ii) the Contractor's shop and detailed drawings; (iii) the machinery, mechanical and other equipment and materials or other articles proposed for use by the Contractor; and, (iv) the Contractor's price breakdown and progress payment estimates; and,

(4) Assisting in inspections, signing Certificates of Completion, and making recommendations with respect to acceptance of work completed under the contract.

4. Other Contracts

The PHA may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with PHA employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by PHA employees

Construction Requirements

5. Pre-construction Conference and Notice to Proceed

(a) Within ten calendar days of contract execution, and prior to the commencement of work, the Contractor shall attend a preconstruction conference with representatives of the PHA, its Architect, and other interested parties convened by the PHA. The conference will serve to acquaint the participants with the general plan of the construction operation and all other requirements of the contract. The PHA will provide the Contractor with the date, time, and place of the conference.

(b) The contractor shall begin work upon receipt of a written Notice to Proceed from the Contracting Officer or designee. The Contractor shall not begin work prior to receiving such notice.

6. Construction Progress Schedule

(a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring labor, materials, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments or take other remedies under the contract until the Contractor submits the required schedule.

(b) The Contractor shall enter the actual progress on the chart as required by the Contracting Officer, and immediately deliver three copies of the annotated schedule to the Contracting Officer. If the Contracting Officer determines, upon the basis of inspection conducted pursuant to the clause entitled Inspection and Acceptance of Construction, herein that the Contractor is not meeting the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the PHA. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the Contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the Default clause of this contract.

7. Site Investigation and Conditions Affecting the Work

(a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to, (1) conditions bearing upon transportation, disposal, handling, and storage of materials; (2) the availability of labor, water, electric power, and roads;(3) uncertainties of weather, river stages, tides, or similar physical conditions at the site; (4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is

reasonably ascertainable from an inspection of the site, including all exploratory work done by the PHA, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the PHA.

(b) The PHA assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the PHA. Nor does the PHA assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

8. Differing Site Conditions

(a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of (1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or (2) unknown physical conditions at the site(s), of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

(b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. Work shall not proceed at the affected site, except at the Contractor's risk, until the Contracting Officer has provided written instructions to the Contractor. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, the Contractor shall file a claim in writing to the PHA within ten days after receipt of such instructions and, in any event, before proceeding with the work. An equitable adjustment in the contract price, the delivery schedule, or both shall be made under this clause and the contract modified in writing accordingly.

(c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.

(d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

9. Specifications and Drawings for Construction

(a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

(b) Wherever in the specifications or upon the drawings the words "directed", "required", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription", of the Contracting Officer is intended and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by", or "acceptable to", or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.

(c) Where " shown" " indicated", " detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place" that is "furnished and installed".

(d) "Shop drawings" means drawings, submitted to the PHA by the Contractor, subcontractor, or any lower tier subcontractor, showing in detail (1) the proposed fabrication and assembly of structural elements and (2) the installation (i.e., form, fit, and attachment details) of materials of equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the work required by the contract. The PHA may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with other contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the PHA's reasons therefore. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) below.

(f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Architect approves any such variation and the Contracting Officer concurs, the Contracting Officer shall issue an appropriate modification to the contract, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

(g) It shall be the responsibility of the Contractor to make timely requests of the PHA for such large scale and full size drawings, color schemes, and other additional information, not already in his possession, which shall be

required in the planning and production of the work. Such requests may be submitted as the need arises, but each such request shall be filed in ample time to permit appropriate action to be taken by all parties involved so as to avoid delay.

(h) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the PHA and one set will be returned to the Contractor. As required by the Contracting Officer, the Contractor, upon completing the work under this contract, shall furnish a complete set of all shop drawings as finally approved. These drawings shall show all changes and revisions made up to the time the work is completed and accepted.

(i) This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all shop drawings prepared by subcontractors are submitted to the Contracting Officer.

10. As-Built Drawings

(a) "As-built drawings," as used in this clause, means drawings submitted by the Contractor or subcontractor at any tier to show the construction of a particular structure or work as actually completed under the contract. "As-built drawings" shall be synonymous with "Record drawings."

(b) As required by the Contracting Officer, the Contractor shall provide the Contracting Officer accurate information to be used in the preparation of permanent as-built drawings. For this purpose, the Contractor shall record on one set of contract drawings all changes from the installations originally indicated, and record final locations of underground lines by depth from finish grade and by accurate horizontal offset distances to permanent surface improvements such as buildings, curbs, or edges of walks.

(c) This clause shall be included in all subcontracts at any tier. It shall be the responsibility of the Contractor to ensure that all as-built drawings prepared by subcontractors are submitted to the Contracting Officer.

11. Material and Workmanship

(a) All equipment, material, and articles furnished under this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the contract to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of, and as approved by the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.

(b) Approval of equipment and materials.

(1) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

(2) When required by the specifications or the Contracting Officer, the Contractor shall submit appropriately marked samples (and certificates related to them) for approval at the Contractor's expense, with all shipping charges prepaid. The Contractor shall label, or otherwise properly mark on the container, the material or product represented, its place of origin, the name of the producer, the Contractor's name, and the identification of the construction project for which the material or product is intended to be used.

(3) Certificates shall be submitted in triplicate, describing each sample submitted for approval and certifying that the material, equipment or accessory complies with contract requirements. The certificates shall include the name and brand of the product, name of manufacturer, and the location where produced.

(4) Approval of a sample shall not constitute a waiver of the PHA right to demand full compliance with contract requirements. Materials, equipment and accessories may be rejected for cause even though samples have been approved.

(5) Wherever materials are required to comply with recognized standards or specifications, such specifications shall be accepted as establishing the technical qualities and testing methods, but shall not govern the number of tests required to be made nor modify other contract requirements. The Contracting Officer may require laboratory test reports on items submitted for approval or may approve materials on the basis of data submitted in certificates with samples. Check tests will be made on materials delivered for use only as frequently as the Contracting Officer determines necessary to insure compliance of materials with the specifications. The Contractor will assume all costs of retesting materials which fail to meet contract requirements and/or testing materials offered in substitution for those found deficient.

(6) After approval, samples will be kept in the Project office until completion of work. They may be built into the work after a substantial quantity of the materials they represent has been built in and accepted.

(c) Requirements concerning lead-based paint. The Contractor shall comply with the requirements concerning lead-based paint contained in the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. 4821-4846) as implemented by 24 CFR Part 35.

12. Permits and Codes

(a) The Contractor shall give all notices and comply with all applicable laws, ordinances, codes, rules and regulations. Notwithstanding the requirement of the Contractor to comply with the drawings and specifications in the contract, all work installed shall comply with all applicable codes and regulations as amended by any

waivers. Before installing the work, the Contractor shall examine the drawings and the specifications for compliance with applicable codes and regulations bearing on the work and shall immediately report any discrepancy it may discover to the Contracting Officer. Where the requirements of the drawings and specifications fail to comply with the applicable code or regulation, the Contracting Officer shall modify the contract by change order pursuant to the clause entitled Changes herein to conform to the code or regulation.

(b) The Contractor shall secure and pay for all permits, fees, and licenses necessary for the proper execution and completion of the work. Where the PHA can arrange for the issuance of all or part of these permits, fees and licenses, without cost to the Contractor, the contract amount shall be reduced accordingly.

13. Health, Safety, and Accident Prevention

(a) In performing this contract, the Contractor shall:
(1) Ensure that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his/her health and/or safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation;
(2) Protect the lives, health, and safety of other persons;
(3) Prevent damage to property, materials, supplies, and equipment; and,
(4) Avoid work interruptions.

(b) For these purposes, the Contractor shall:
(1) Comply with regulations and standards issued by the Secretary of Labor at 29 CFR Part 1926. Failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54, 83 Stat. 96), 40 U.S.C. 3701 et seq.; and
(2) Include the terms of this clause in every subcontract so that such terms will be binding on each subcontractor.

(c) The Contractor shall maintain an accurate record of exposure data on all accidents incident to work performed under this contract resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment, and shall report this data in the manner prescribed by 29 CFR Part 1904.

(d) The Contracting Officer shall notify the Contractor of any noncompliance with these requirements and of the corrective action required. This notice, when delivered to the Contractor or the Contractor's representative at the site of the work, shall be deemed sufficient notice of the noncompliance and corrective action required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to take corrective action promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not base any claim or request for equitable adjustment for additional time or money on any stop order issued under these circumstances.

(e) The Contractor shall be responsible for its subcontractors' compliance with the provisions of this clause. The Contractor shall take such action with respect to any subcontract as the PHA, the Secretary of Housing and Urban Development, or the Secretary of Labor shall direct as a means of enforcing such provisions.

14. Temporary Heating

The Contractor shall provide and pay for temporary heating, covering, and enclosures necessary to properly protect all work and materials against damage by dampness and cold, to dry out the work, and to facilitate the completion of the work. Any permanent heating equipment used shall be turned over to the PHA in the condition and at the time required by the specifications.

15. Availability and Use of Utility Services

(a) The PHA shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract. Unless otherwise provided in the contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the PHA or, where the utility is produced by the PHA, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.

(b) The Contractor, at its expense and in a manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of each utility used for the purpose of determining charges. Before final acceptance of the work by the PHA, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.

16. Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed under this contract, and which do not unreasonably interfere with the work required under this contract.

(b) The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during performance of this contract, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

(c) The Contractor shall protect from damage all existing improvements and utilities (1) at or near the work site and (2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. Prior to disturbing the ground at the construction site, the Contractor shall ensure that all underground utility lines are clearly marked.

(d) The Contractor shall shore up, brace, underpin, secure, and protect as necessary all foundations and other parts of existing structures adjacent to, adjoining, and in the vicinity of the site, which may be affected by the excavations or other operations connected with the construction of the project.

(e) Any equipment temporarily removed as a result of work under this contract shall be protected, cleaned, and replaced in the same condition as at the time of award of this contract.

(f) New work which connects to existing work shall correspond in all respects with that to which it connects and/or be similar to existing work unless otherwise required by the specifications.
(g) No structural members shall be altered or in any way weakened without the written authorization of the Contracting Officer, unless such work is clearly specified in the plans or specifications.
(h) If the removal of the existing work exposes discolored or unfinished surfaces, or work out of alignment, such surfaces shall be refinished, or the material replaced as necessary to make the continuous work uniform and harmonious. This, however, shall not be construed to require the refinishing or reconstruction of dissimilar finishes previously exposed, or finished surfaces in good condition, but in different planes or on different levels when brought together by the removal of intervening work, unless such refinishing or reconstruction is specified in the plans or specifications.
(i) The Contractor shall give all required notices to any adjoining or adjacent property owner or other party before the commencement of any work.
(j) The Contractor shall indemnify and save harmless the PHA from any damages on account of settlement or the loss of lateral support of adjoining property, any damages from changes in topography affecting drainage, and from all loss or expense and all damages for which the PHA may become liable in consequence of such injury or damage to adjoining and adjacent structures and their premises.
(k) The Contractor shall repair any damage to vegetation, structures, equipment, utilities, or improvements, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

17. Temporary Buildings and Transportation of Materials

(a) Temporary buildings (e.g., storage sheds, shops, offices, sanitary facilities) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the PHA. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.
(b) The Contractor shall, as directed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any federal, state, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

18. Clean Air and Water

The contactor shall comply with the Clean Air Act, as amended, 42 USC 7401 et seq., the Federal Water Pollution Control Water Act, as amended, 33 U.S.C. 1251 et seq., and standards issued pursuant thereto in the facilities in which this contract is to be performed.

19. Energy Efficiency

The Contractor shall comply with mandatory standards and policies relating to energy efficiency which are contained in the energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub.L. 94-163) for the State in which the work under the contract is performed.

20. Inspection and Acceptance of Construction

(a) Definitions. As used in this clause -
(1) "Acceptance" means the act of an authorized representative of the PHA by which the PHA approves and assumes ownership of the work performed under this contract. Acceptance may be partial or complete.
(2) "Inspection" means examining and testing the work performed under the contract (including, when appropriate, raw materials, equipment, components, and intermediate assemblies) to determine whether it conforms to contract requirements.
(3) "Testing" means that element of inspection that determines the properties or elements, including functional operation of materials, equipment, or their components, by the application of established scientific principles and procedures.
(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. All work is subject to PHA inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.
(c) PHA inspections and tests are for the sole benefit of the PHA and do not: (1) relieve the Contractor of responsibility for providing adequate quality control measures; (2) relieve the Contractor of responsibility for loss or damage of the material before acceptance; (3) constitute or imply acceptance; or, (4) affect the continuing rights of the PHA after acceptance of the completed work under paragraph (j) below.
(d) The presence or absence of the PHA inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specifications without the Contracting Officer's written authorization. All instructions and approvals with respect to the work shall be given to the Contractor by the Contracting Officer.
(e) The Contractor shall promptly furnish, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The PHA may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The PHA shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

(f) The PHA may conduct routine inspections of the construction site on a daily basis.
(g) The Contractor shall, without charge, replace or correct work found by the PHA not to conform to contract requirements, unless the PHA decides that it is in its interest to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.
(h) If the Contractor does not promptly replace or correct rejected work, the PHA may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor, or (2) terminate for default the Contractor's right to proceed.
(i) If any work requiring inspection is covered up without approval of the PHA, it must, if requested by the Contracting Officer, be uncovered at the expense of the Contractor. If at any time before final acceptance of the entire work, the PHA considers it necessary or advisable, to examine work already completed by removing or tearing it out, the Contractor, shall on request, promptly furnish all necessary facilities, labor, and material. If such work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray all the expenses of the examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, the Contracting Officer shall make an equitable adjustment to cover the cost of the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.
(j) The Contractor shall notify the Contracting Officer, in writing, as to the date when in its opinion all or a designated portion of the work will be substantially completed and ready for inspection. If the Architect determines that the state of preparedness is as represented, the PHA will promptly arrange for the inspection. Unless otherwise specified in the contract, the PHA shall accept, as soon as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines and designates can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the PHA's right under any warranty or guarantee.

21. Use and Possession Prior to Completion

(a) The PHA shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the PHA intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The PHA's possession or use shall not be deemed an acceptance of any work under the contract.
(b) While the PHA has such possession or use, the Contractor shall be relieved of the responsibility for (1) the loss of or damage to the work resulting from the PHA's possession or use, notwithstanding the terms of the clause entitled Permits and Codes herein; (2) all maintenance costs on the areas occupied; and, (3) furnishing heat, light, power, and water used in the areas occupied without proper remuneration therefore. If prior possession or use by the PHA delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.

22. Warranty of Title

The Contractor warrants good title to all materials, supplies, and equipment incorporated in the work and agrees to deliver the premises together with all improvements thereon free from any claims, liens or charges, and agrees further that neither it nor any other person, firm or corporation shall have any right to a lien upon the premises or anything appurtenant thereto.

23. Warranty of Construction

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (j) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or workmanship performed by the Contractor or any subcontractor or supplier at any tier. This warranty shall continue for a period of _____ (one year unless otherwise indicated) from the date of final acceptance of the work. If the PHA takes possession of any part of the work before final acceptance, this warranty shall continue for a period of (one year unless otherwise indicated) from the date that the PHA takes possession.
(b) The Contractor shall remedy, at the Contractor's expense, any failure to conform, or any defect. In addition, the Contractor shall remedy, at the Contractor's expense, any damage to PHA-owned or controlled real or personal property when the damage is the result of—
(1) The Contractor's failure to conform to contract requirements; or
(2) Any defects of equipment, material, workmanship or design furnished by the Contractor.
(c) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for (one year unless otherwise indicated) from the date of repair or replacement.
(d) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect or damage.
(e) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the PHA shall have the right to replace, repair or otherwise remedy the failure, defect, or damage at the Contractor's expense.
(f) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall:
(1) Obtain all warranties that would be given in normal commercial practice;
(2) Require all warranties to be executed in writing, for the benefit of the PHA; and,
(3) Enforce all warranties for the benefit of the PHA.
(g) In the event the Contractor's warranty under paragraph (a) of this clause has expired, the PHA may bring suit at its own expense to enforce a subcontractor's, manufacturer's or supplier's warranty.

(h) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defect of material or design furnished by the PHA nor for the repair of any damage that results from any defect in PHA furnished material or design.

(i) Notwithstanding any provisions herein to the contrary, the establishment of the time periods in paragraphs (a) and (c) above relate only to the specific obligation of the Contractor to correct the work, and have no relationship to the time within which its obligation to comply with the contract may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to its obligation other than specifically to correct the work.

(j) This warranty shall not limit the PHA's rights under the Inspection and Acceptance of Construction clause of this contract with respect to latent defects, gross mistakes or fraud.

24. Prohibition Against Liens

The Contractor is prohibited from placing a lien on the PHA's property. This prohibition shall apply to all subcontractors at any tier and all materials suppliers.

Administrative Requirements

25. Contract Period

The Contractor shall complete all work required on this contract within calendar days of the effective date of the contract, or within the time schedule established in the notice to proceed issued by the Contracting Officer.

26. Order of Provisions

In the event of a conflict between these General Conditions and the Specifications, the General Conditions shall prevail. In the event of a conflict between the contract and any applicable state or local law or regulation, the state or local law or regulation shall prevail; provided that such state or local law or regulation does not conflict with, or is less restrictive than applicable federal law, regulation, or Executive Order. In the event of such a conflict, applicable federal law, regulation, and Executive Order shall prevail.

27. Payments

(a) The PHA shall pay the Contractor the price as provided in this contract.

(b) The PHA shall make progress payments approximately every 30 days as the work proceeds, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer. The PHA may, subject to written determination and approval of the Contracting Officer, make more frequent payments to contractors which are qualified small businesses.

(c) Before the first progress payment under this contract, the Contractor shall furnish, in such detail as requested by the Contracting Officer, a breakdown of the total contract price showing the amount included therein for each principal category of the work, which shall substantiate the payment amount requested in order to provide a basis for determining progress payments. The breakdown shall be approved by the Contracting Officer and must be acceptable to HUD. If the contract covers more than one project, the Contractor shall furnish a separate breakdown for each. The values and quantities employed in making up this breakdown are for determining the amount of progress payments and shall not be construed as a basis for additions to or deductions from the contract price. The Contractor shall prorate its overhead and profit over the construction period of the contract.

(d) The Contractor shall submit, on forms provided by the PHA, periodic estimates showing the value of the work performed during each period based upon the approved breakdown of the contract price. Such estimates shall be submitted not later than _____ days in advance of the date set for payment and are subject to correction and revision as required. The estimates must be approved by the Contracting Officer with the concurrence of the Architect prior to payment. If the contract covers more than one project, the Contractor shall furnish a separate progress payment estimate for each.

(e) Along with each request for progress payments and the required estimates, the Contractor shall furnish the following certification, or payment shall not be made: I hereby certify, to the best of my knowledge and belief, that:

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

(2) Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements; and,

(3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract.

_____
Name:

_____
Title:

_____
Date:

(f) Except as otherwise provided in State law, the PHA shall retain ten (10) percent of the amount of progress payments until completion and acceptance of all work under the contract; except, that if upon completion of 50 percent of the work, the Contracting Officer, after consulting with the Architect, determines that the Contractor's performance and progress are satisfactory, the PHA may make the remaining payments in full for the work subsequently completed. If the Contracting Officer subsequently determines that the Contractor's performance and progress are unsatisfactory, the PHA shall reinstate the ten (10) percent (or other percentage as provided in State law) retainage until such time as the Contracting Officer determines that performance and progress are satisfactory.

(g) The Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration when computing progress payments.

Material delivered to the Contractor at locations other than the site may also be taken into consideration if the Contractor furnishes satisfactory evidence that (1) it has acquired title to such material; (2) the material is properly stored in a bonded warehouse, storage yard, or similar suitable place as may be approved by the Contracting Officer; (3) the material is insured to cover its full value; and (4) the material will be used to perform this contract. Before any progress payment which includes delivered material is made, the Contractor shall furnish such documentation as the Contracting Officer may require to assure the protection of the PHA's interest in such materials. The Contractor shall remain responsible for such stored material notwithstanding the transfer of title to the PHA.

(h) All material and work covered by progress payments made shall, at the time of payment become the sole property of the PHA, but this shall not be construed as (1) relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or, (2) waiving the right of the PHA to require the fulfillment of all of the terms of the contract. In the event the work of the Contractor has been damaged by other contractors or persons other than employees of the PHA in the course of their employment, the Contractor shall restore such damaged work without cost to the PHA and to seek redress for its damage only from those who directly caused it.

(i) The PHA shall make the final payment due the Contractor under this contract after (1) completion and final acceptance of all work; and (2) presentation of release of all claims against the PHA arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. Each such exception shall embrace no more than one claim, the basis and scope of which shall be clearly defined. The amounts for such excepted claims shall not be included in the request for final payment. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned.

(j) Prior to making any payment, the Contracting Officer may require the Contractor to furnish receipts or other evidence of payment from all persons performing work and supplying material to the Contractor, if the Contracting Officer determines such evidence is necessary to substantiate claimed costs.

(k) The PHA shall not; (1) determine or adjust any claims for payment or disputes arising there under between the Contractor and its subcontractors or material suppliers; or, (2) withhold any moneys for the protection of the subcontractors or material suppliers. The failure or refusal of the PHA to withhold moneys from the Contractor shall in nowise impair the obligations of any surety or sureties under any bonds furnished under this contract.

28. Contract Modifications

(a) Only the Contracting Officer has authority to modify any term or condition of this contract. Any contract modification shall be authorized in writing.

(b) The Contracting Officer may modify the contract unilaterally (1) pursuant to a specific authorization stated in a contract clause (e.g., Changes); or (2) for administrative matters which do not change the rights or responsibilities of the parties (e.g., change in the PHA address). All other contract modifications shall be in the form of supplemental agreements signed by the Contractor and the Contracting Officer.

(c) When a proposed modification requires the approval of HUD prior to its issuance (e.g., a change order that exceeds the PHA's approved threshold), such modification shall not be effective until the required approval is received by the PHA.

29. Changes

(a) The Contracting Officer may, at any time, without notice to the sureties, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract including changes:
(1) In the specifications (including drawings and designs);
(2) In the method or manner of performance of the work;
(3) PHA-furnished facilities, equipment, materials, services, or site; or,
(4) Directing the acceleration in the performance of the work.

(b) Any other written order or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating (1) the date, circumstances and source of the order and (2) that the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for a adjustment based on defective specifications, no proposal for any change under paragraph (b) above shall be allowed for any costs incurred more than 20 days (5 days for oral orders) before the Contractor gives written notice as required. In the case of defective specifications for which the PHA is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after (1) receipt of a written change order under paragraph (a) of this clause, or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting a written statement describing the general nature and the amount of the proposal. If the facts justify it, the Contracting Officer may extend the period for submission. The proposal may be included in the notice required under paragraph (b) above. No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

(f) The Contractor's written proposal for equitable adjustment shall be submitted in the form of a lump sum proposal supported with an itemized breakdown of all increases and decreases in the contract in at least the following details:

(1) Direct Costs. Materials (list individual items, the quantity and unit cost of each, and the aggregate cost); Transportation and delivery costs associated with materials; Labor breakdowns by hours or unit costs (identified with specific work to be performed); Construction equipment exclusively necessary for the change; Costs of preparation and/ or revision to shop drawings resulting from the change; Worker's Compensation and Public Liability Insurance; Employment taxes under FICA and FUTA; and, Bond Costs when size of change warrants revision.

(2)Indirect Costs. Indirect costs may include overhead, general and administrative expenses, and fringe benefits not normally treated as direct costs.

(3)Profit. The amount of profit shall be negotiated and may vary according to the nature, extent, and complexity of the work required by the change. The allowability of the direct and indirect costs shall be determined in accordance with the Contract Cost Principles and Procedures for Commercial Firms in Part 31 of the Federal Acquisition Regulation (48 CFR 1-31), as implemented by HUD Handbook 2210.18, in effect on the date of this contract. The Contractor shall not be allowed a profit on the profit received by any subcontractor. Equitable adjustments for deleted work shall include a credit for profit and may include a credit for indirect costs. On proposals covering both increases and decreases in the amount of the contract, the application of indirect costs and profit shall be on the net-change in direct costs for the Contractor or subcontractor performing the work.

(g) The Contractor shall include in the proposal its request for time extension (if any), and shall include sufficient information and dates to demonstrate whether and to what extent the change will delay the completion of the contract in its entirety.

(h) The Contracting Officer shall act on proposals within 30 days after their receipt, or notify the Contractor of the date when such action will be taken.

(i) Failure to reach an agreement on any proposal shall be a dispute under the clause entitled Disputes herein. Nothing in this clause, however, shall excuse the Contractor from proceeding with the contract as changed.

(j) Except in an emergency endangering life or property, no change shall be made by the Contractor without a prior order from the Contracting Officer.

30. Suspension of Work

(a) The Contracting Officer may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the PHA.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer's failure to act within the time specified (or within a reasonable time if not specified) in this contract an adjustment shall be made for any increase in the cost of performance of the contract (excluding profit) necessarily caused by such unreasonable suspension, delay, or interruption and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor or for which any equitable adjustment is provided for or excluded under any other provision of this contract.

(c) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order); and, (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

31. Disputes

(a) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract. A claim arising under the contract, unlike a claim relating to the contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim. The submission may be converted to a claim by complying with the requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(b) Except for disputes arising under the clauses entitled Labor Standards - Davis Bacon and Related Acts, herein, all disputes arising under or relating to this contract, including any claims for damages for the alleged breach thereof which are not disposed of by agreement, shall be resolved under this clause.

(c) All claims by the Contractor shall be made in writing and submitted to the Contracting Officer for a written decision. A claim by the PHA against the Contractor shall be subject to a written decision by the Contracting Officer.

(d) The Contracting Officer shall, within 60 (unless otherwise indicated) days after receipt of the request, decide the claim or notify the Contractor of the date by which the decision will be made.

(e) The Contracting Officer's decision shall be final unless the Contractor (1) appeals in writing to a higher level in the PHA in accordance with the PHA's policy and procedures, (2) refers the appeal to an independent mediator or arbitrator, or (3) files suit in a court of competent jurisdiction. Such appeal must be made within (30 unless otherwise indicated) days after receipt of the Contracting Officer's decision.

(f) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.

32. Default

(a) If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with the diligence that will insure its completion within the time specified in this contract, or any extension thereof, or fails to complete said work within this time, the Contracting Officer may, by written notice to the Contractor, terminate the right to

proceed with the work (or separable part of the work) that has been delayed. In this event, the PHA may take over the work and complete it, by contract or otherwise, and may take possession of and use any materials, equipment, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the PHA resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the PHA in completing the work.

(b) The Contractor's right to proceed shall not be terminated or the Contractor charged with damages under this clause if—

(1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include (i) acts of God, or of the public enemy, (ii) acts of the PHA or other governmental entity in either its sovereign or contractual capacity, (iii) acts of another contractor in the performance of a contract with the PHA, (iv) fires, (v) floods, (vi) epidemics, (vii) quarantine restrictions, (viii) strikes, (ix) freight embargoes, (x) unusually severe weather, or (xi) delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and

(2) The Contractor, within days (10 days unless otherwise indicated) from the beginning of such delay (unless extended by the Contracting Officer) notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of the delay. If, in the judgment of the Contracting Officer, the findings of fact warrant such action, time for completing the work shall be extended by written modification to the contract. The findings of the Contracting Officer shall be reduced to a written decision which shall be subject to the provisions of the Disputes clause of this contract.

(c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been for convenience of the PHA.

33. Liquidated Damages

(a) If the Contractor fails to complete the work within the time specified in the contract, or any extension, as specified in the clause entitled Default of this contract, the Contractor shall pay to the PHA as liquidated damages, the sum of $_____Contracting Officer insert amount] for each day of delay. If different completion dates are specified in the contract for separate parts or stages of the work, the amount of liquidated damages shall be assessed on those parts or stages which are delayed. To the extent that the Contractor's delay or nonperformance is excused under another clause in this contract, liquidated damages shall not be due the PHA. The Contractor remains liable for damages caused other than by delay.

(b) If the PHA terminates the Contractor's right to proceed, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the PHA in completing the work.

(c) If the PHA does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted.

34. Termination for Convenience

(a) The Contracting Officer may terminate this contract in whole, or in part, whenever the Contracting Officer determines that such termination is in the best interest of the PHA. Any such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which the performance of the work under the contract is terminated, and the date upon which such termination becomes effective.

(b) If the performance of the work is terminated, either in whole or in part, the PHA shall be liable to the Contractor for reasonable and proper costs resulting from such termination upon the receipt by the PHA of a properly presented claim setting out in detail: (1) the total cost of the work performed to date of termination less the total amount of contract payments made to the Contractor; (2) the cost (including reasonable profit) of settling and paying claims under subcontracts and material orders for work performed and materials and supplies delivered to the site, payment for which has not been made by the PHA to the Contractor or by the Contractor to the subcontractor or supplier; (3) the cost of preserving and protecting the work already performed until the PHA or assignee takes possession thereof or assumes responsibility therefore; (4) the actual or estimated cost of legal and accounting services reasonably necessary to prepare and present the termination claim to the PHA; and (5) an amount constituting a reasonable profit on the value of the work performed by the Contractor.

(c) The Contracting Officer will act on the Contractor's claim within days (60 days unless otherwise indicated) of receipt of the Contractor's claim.

(d) Any disputes with regard to this clause are expressly made subject to the provisions of the Disputes clause of this contract.

35. Assignment of Contract

The Contractor shall not assign or transfer any interest in this contract; except that claims for monies due or to become due from the PHA under the contract may be assigned to a bank, trust company, or other financial institution. Such assignments of claims shall only be made with the written concurrence of the Contracting Officer. If the Contractor is a partnership, this contract shall inure to the benefit of the surviving or remaining member(s) of such partnership as approved by the Contracting Officer.

36. Insurance

(a) Before commencing work, the Contractor and each subcontractor shall furnish the PHA with certificates of insurance showing the following insurance is in force and will insure all operations under the Contract:

(1) Workers' Compensation, in accordance with state or Territorial Workers' Compensation laws.

(2) Commercial General Liability with a combined single limit for bodily injury and property damage of not less than $ _____ [Contracting Officer insert amount]

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

(3) Automobile Liability on owned and non -owned motor vehicles used on the site(s) or in connection therewith for a combined single limit for bodily injury and property damage of not less than $ _____ [Contracting Officer insert amount] per occurrence.

(b) Before commencing work, the Contractor shall furnish the PHA with a certificate of insurance evidencing that Builder's Risk (fire and extended coverage) Insurance on all work in place and/or materials stored at the building site(s), including foundations and building equipment, is in force. The Builder's Risk Insurance shall be for the benefit of the Contractor and the PHA as their interests may appear and each shall be named in the policy or policies as an insured. The Contractor in installing equipment supplied by the PHA shall carry insurance on such equipment from the time the Contractor takes possession thereof until the Contract work is accepted by the PHA. The Builder's Risk Insurance need not be carried on excavations, piers, footings, or foundations until such time as work on the superstructure is started. It need not be carried on landscape work. Policies shall furnish coverage at all times for the full cash value of all completed construction, as well as materials in place and/or stored at the site(s), whether or not partial payment has been made by the PHA. The Contractor may terminate this insurance on buildings as of the date taken over for occupancy by the PHA. The Contractor is not required to carry Builder's Risk Insurance for modernization work which does not involve structural alterations or additions and where the PHA's existing fire and extended coverage policy can be endorsed to include such work.

(c) All insurance shall be carried with companies which are financially responsible and admitted to do business in the State in which the project is located. If any such insurance is due to expire during the construction period, the Contractor (including subcontractors, as applicable) shall not permit the coverage to lapse and shall furnish evidence of coverage to the Contracting Officer. All certificates of insurance, as evidence of coverage, shall provide that no coverage may be canceled or non-renewed by the insurance company until at least 30 days prior written notice has been given to the Contracting Officer.

37. Subcontracts

(a) Definitions. As used in this contract -

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

(2) "Subcontractor" means any supplier, vendor, or firm that furnishes supplies, materials, equipment, or services to or for the Contractor or another subcontractor.

(b) The Contractor shall not enter into any subcontract with any subcontractor who has been temporarily denied participation in a HUD program or who has been suspended or debarred from participating in contracting programs by any agency of the United States Government or of the state in which the work under this contract is to be performed.

(c) The Contractor shall be as fully responsible for the acts or omissions of its subcontractors, and of persons either directly or indirectly employed by them as for the acts or omissions of persons directly employed by the Contractor.

(d) The Contractor shall insert appropriate clauses in all subcontracts to bind subcontractors to the terms and conditions of this contract insofar as they are applicable to the work of subcontractors.

(e) Nothing contained in this contract shall create any contractual relationship between any subcontractor and the PHA or between the subcontractor and HUD.

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

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

(a) Placing qualified small and minority businesses and women's business enterprises on solicitation lists;

(b) Ensuring that small and minority businesses and women's business enterprises are solicited whenever they are potential sources;

(c) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women's business enterprises;

(d) Establishing delivery schedules, where the requirements of the contract permit, which encourage participation by small and minority businesses and women's business enterprises; and

(e) Using the services and assistance of the U.S. Small Business Administration, the Minority Business Development Agency of the U.S. Department of Commerce, and State and local governmental small business agencies.

39. Equal Employment Opportunity

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

(a) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, or handicap.

(b) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, national origin, or handicap. Such action shall include, but not be limited to, (1) employment, (2) upgrading, (3) demotion, (4) transfer, (5) recruitment or recruitment advertising, (6) layoff or termination, (7) rates of pay or other forms of compensation, and (8) selection for training, including apprenticeship.

(c) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.
(d) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, or handicap.
(e) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.
(f) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.
(g) The Contractor shall furnish all information and reports required by Executive Order 11246, as amended, Section 503 of the Rehabilitation Act of 1973, as amended, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto. The Contractor shall permit access to its books, records, and accounts by the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
(h) In the event of a determination that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part, and the Contractor may be declared ineligible for further Government contracts, or Federally assisted construction contracts under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended, the rules, regulations, and orders of the Secretary of Labor, or as otherwise provided by law.
(i) The Contractor shall include the terms and conditions of this clause in every subcontract or purchase order unless exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor. The Contractor shall take such action with respect to any subcontract or purchase order as the Secretary of Housing and Urban Development or the Secretary of Labor may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.
(j) Compliance with the requirements of this clause shall be to the maximum extent consistent with, but not in derogation of, compliance with section 7(b) of the Indian Self-Determination and Education Assistance Act and the Indian Preference clause of this contract.

40. Employment, Training, and Contracting Opportunities for Low-Income Persons, Section 3 of the Housing and Urban Development Act of 1968.

(a) The work to be performed under this contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
(b) The parties to this contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the Part 135 regulations.
(c) The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
(d) The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR Part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR Part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR Part 135.
(e) The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR Part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR Part 135.
(f) Noncompliance with HUD's regulations in 24 CFR Part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.
(g) With respect to work performed in connection with section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of section 3 and section 7(b)agree to comply with section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

41. Interest of Members of Congress

No member of or delegate to the Congress of the United States of America shall be admitted to any share or part of this contract or to any benefit that may arise therefrom.

42. Interest of Members, Officers, or Employees and Former Members, Officers, or Employees

No member, officer, or employee of the PHA, no member of the governing body of the locality in which the project is situated, no member of the governing body of the locality in which the PHA was activated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the project, shall, during his or her tenure, or for one year thereafter, have any interest, direct or indirect, in this contract or the proceeds thereof.

43. Limitations on Payments made to Influence Certain Federal Financial Transactions

(a) The Contractor agrees to comply with Section 1352 of Title 31, United States Code which prohibits the use of Federal appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.

(b) The Contractor further agrees to comply with the requirement of the Act to furnish a disclosure (OMB Standard Form LLL, Disclosure of Lobbying Activities) if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

44. Royalties and Patents

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringement of any patent rights and shall save the PHA harmless from loss on account thereof; except that the PHA shall be responsible for all such loss when a particular design, process or the product of a particular manufacturer or manufacturers is specified and the Contractor has no reason to believe that the specified design, process, or product is an infringement. If, however, the Contractor has reason to believe that any design, process or product specified is an infringement of a patent, the Contractor shall promptly notify the Contracting Officer. Failure to give such notice shall make the Contractor responsible for resultant loss.

45. Examination and Retention of Contractor's Records

(a) The PHA, HUD, or Comptroller General of the United States, or any of their duly authorized representatives shall, until 3 years after final payment under this contract, have access to and the right to examine any of the Contractor's directly pertinent books, documents, papers, or other records involving transactions related to this contract for the purpose of making audit, examination, excerpts, and transcriptions.

(b) The Contractor agrees to include in first-tier subcontracts under this contract a clause substantially the same as paragraph (a) above. "Subcontract," as used in this clause, excludes purchase orders not exceeding $10,000.

(c) The periods of access and examination in paragraphs (a) and (b) above for records relating to (1) appeals under the Disputes clause of this contract, (2) litigation or settlement of claims arising from the performance of this contract, or (3) costs and expenses of this contract to which the PHA, HUD, or Comptroller General or any of their duly authorized representatives has taken exception shall continue until disposition of such appeals, litigation, claims, or exceptions.

46. Labor Standards - Davis-Bacon and Related Acts

If the total amount of this contract exceeds $2,000, the Federal labor standards set forth in the clause below shall apply to the development or construction work to be performed under the contract.

(a) Minimum Wages.

(1) All laborers and mechanics employed under this contract in the development or construction of the project(s) involved will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the regular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall

be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(2) (i) Any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met: (A) The work to be performed by the classification requested is not performed by a classification in the wage determination; and (B) The classification is utilized in the area by the construction industry; and (C) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(ii) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employee Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary.

(iii) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary.

(iv) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (a)(2)(ii) or (iii) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in classification.

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

(4) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(b) Withholding of funds. HUD or its designee shall, upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working in the construction or development of the project, all or part of the wages required by the contract, HUD or its designee may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the Contractor, disburse such amounts withheld for and on account of the Contractor or subcontractor to the respective employees to whom they are due.

(c) Payrolls and basic records.

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

(2) (i) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under subparagraph (c)(1) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The Contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1214-0149.)

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

(A) That the payroll for the payroll period contains the information required to be maintained under paragraph (c) (1) of this clause and that such information is correct and complete;

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

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

(iii) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirements for submission of the "Statement of Compliance" required by subparagraph (c)(2)(ii) of this clause.

(iv) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(3) The Contractor or subcontractor shall make the records required under subparagraph (c)(1) available for inspection, copying, or transcription by authorized representatives of HUD or its designee, the Contracting Officer, or the Department of Labor and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(d) (1) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship and Training, Employer and Labor Services (OATELS), or with a State Apprenticeship Agency recognized by OATELS, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by OATELS or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event OATELS, or a State Apprenticeship Agency recognized by OATELS, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under

the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

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

(e) Compliance with Copeland Act requirements. The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.

(f) Contract termination; debarment. A breach of this contract clause may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in 29 CFR 5.12.

(g) Compliance with Davis-Bacon and related Act requirements. All rulings and interpretations of the Davis-Bacon and related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

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

(i) Certification of eligibility.

(1) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded contracts by the United States Government by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(2) No part of this contract shall be subcontracted to any person or firm ineligible for award of a United States Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(3) The penalty for making false statements is prescribed in the U. S. Criminal Code, 18 U.S.C. 1001.

(j) Contract Work Hours and Safety Standards Act. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

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

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

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

(k) Subcontracts. The Contractor or subcontractor shall insert in any subcontracts all the provisions contained in this clause, and such other clauses as HUD or its designee may by appropriate instructions require, and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all these provisions.

47. Non-Federal Prevailing Wage Rates

(a) Any prevailing wage rate (including basic hourly rate and any fringe benefits), determined under State or tribal law to be prevailing, with respect to any employee in any trade or position employed under the contract, is inapplicable to the contract and shall not be enforced against the Contractor or any subcontractor, with respect to employees engaged under the contract whenever such non-Federal prevailing wage rate exceeds:
(1) The applicable wage rate determined by the Secretary of Labor pursuant to the Davis-Bacon Act (40 U.S.C. 3141 et seq.) to be prevailing in the locality with respect to such trade;
(b) An applicable apprentice wage rate based thereon specified in an apprenticeship program registered with the U.S. Department of Labor (DOL) or a DOL-recognized State Apprenticeship Agency; or
(c) An applicable trainee wage rate based thereon specified in a DOL-certified trainee program.

48. Procurement of Recovered Materials.

(a) In accordance with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, the Contractor shall procure items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition. The Contractor shall procure items designated in the EPA guidelines that contain the highest percentage of recovered materials practicable unless the Contractor determines that such items: (1) are not reasonably available in a reasonable period of time; (2) fail to meet reasonable performance standards, which shall be determined on the basis of the guidelines of the National Institute of Standards and Technology, if applicable to the item; or (3) are only available at an unreasonable price.
(b) Paragraph (a) of this clause shall apply to items purchased under this contract where: (1) the Contractor purchases in excess of $10,000 of the item under this contract; or (2) during the preceding Federal fiscal year, the Contractor: (i) purchased any amount of the items for use under a contract that was funded with Federal appropriations and was with a Federal agency or a State agency or agency of a political subdivision of a State; and (ii) purchased a total of in excess of $10,000 of the item both under and outside that contract.

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

Instructions to Bidders for Contracts Public and Indian Housing Programs

Instructions to Bidders for Contracts

Public and Indian Housing Programs

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1. Bid Preparation and Submission

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

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

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

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

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

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

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

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

2. Explanations and Interpretations to Prospective Bidders

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

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

3. Amendments to Invitations for Bids

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

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

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

4. Responsibility of Prospective Contractor

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

(1) Integrity;

(2) Compliance with public policy;

(3) Record of past performance; and

(4) Financial and technical resources (including construction and technical equipment).

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

5. Late Submissions, Modifications, and Withdrawal of Bids

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

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

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

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

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

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

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

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

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

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

6. Bid Opening

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

7. Service of Protest

(a) Definitions. As used in this provision:

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

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

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

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

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

8. Contract Award

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

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

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

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

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

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

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

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

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

10. Assurance of Completion

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

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

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

[ ] (3) a 20 percent cash escrow;

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

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

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

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

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

11. Preconstruction Conference (applicable to construction contracts)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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DOCUMENT 000115 - LIST OF DRAWING SHEETS

List of Drawings: Drawings consist of the following Contract Drawings and other drawings of type indicated:

ARCHITECTURAL

CS COVER SHEET

MECHANICAL

H1 PARTIAL FLOOR PLANS - HVAC

ELECTRICAL

E1 PARTIAL FLOOR PLANS & DIAGRAM – ELECTRICAL

E2 SINGLE LINE DIAGRAM, FIRE ALARM RISER DIAGRAM & SCHEDULES – ELECTRICAL

E3 SPECIFICATIONS – ELECTRICAL

PLUMBING

P1 PARTIAL FLOOR PLAN, SYMBOLS LIST, SCHEDULE, DETAILS AND SPECIFICATION - PLUMBING

SECTION 00 22 13 - EVALUATION CRITERIA AND SCORING

Irvington Housing Authority

Elevator Upgrades at 81 Union Avenue

PART 1 - GENERAL

1.1 SUMMARY

A. This section establishes the technical proposal submission requirements and evaluation criteria for the Request for Proposals for Elevator Modernization at 81 Union Avenue, Irvington, NJ.

B. This section is issued as a draft for review and confirmation by B Squared Engineering, LLC, Elevator Consultant, prior to incorporation into the RFP front-end documents.

1.2 DEFINITIONS

A. Owner: Irvington Housing Authority.

B. Architect: Clarke Caton Hintz.

C. Elevator Consultant: B Squared Engineering, LLC.

D. Proposer: A firm submitting a proposal in response to this Request for Proposals.

PART 2 - TECHNICAL PROPOSAL SUBMISSION REQUIREMENTS

2.1 GENERAL

A. The following items shall be included in the Technical Proposal. Proposals that do not include all required items may be deemed non-responsive at the Owner's discretion.

2.2 FIRM QUALIFICATIONS

A. Copy of current, valid New Jersey Elevator Contractor Registration.

B. Statement of years in business as an elevator contractor corporation, including date of establishment.

C. List of all elevator units currently under maintenance contract by the firm, with a count of total units maintained and a count of units maintained within a 10-mile radius of 81 Union Avenue, Irvington, NJ. The scope of maintenance and service contracts included in this count shall be similar to the scope required under this contract.

D. Evidence of required insurance coverage as defined by the Owner.

E. Name and address of the firm's shop or service facility located within a reasonable distance of the project site, with a statement that the facility carries all spare parts subject to periodic failure.

2.3 KEY PERSONNEL QUALIFICATIONS

A. Resume and credentials for the proposed Maintenance Supervisor, including:

1. Total years of supervisory experience on similar elevator projects.
2. Statement of engineering knowledge related to repair and maintenance of elevator systems.

B. Resume and credentials for the proposed Project Manager, including:

1. List of at least ten (10) projects performed in a supervisory Project Manager role within the last two calendar years, with project name, owner, location, and type of elevator work performed.
2. Total years of experience in the elevator industry.
3. Copy of current Qualified Elevator Inspector (QEI) qualification certificate.

C. List of all elevator mechanics proposed for this project, with the following for each:

1. Number of prior similar installations completed.
2. Copy of current New Jersey Elevator, Escalator, and Moving Walkway Mechanics license.

2.4 PROPOSED EQUIPMENT AND TECHNICAL APPROACH

A. Identification of the proposed controller manufacturer (MCE, Smartrise, Alpha Controls, or approved equal). Include manufacturer product data and confirmation that the controller is non-proprietary, open-source equipment. Confirm that no Otis, ThyssenKrupp, Vertical Express, Kone, Schindler, or Fujitec branded equipment is proposed.

B. Identification of the proposed hoisting machine manufacturer (Imperial Electric, Hollister-Whitney, or Torin Drive).

C. Identification of the proposed door equipment manufacturer. Confirm that GAL Manufacturing is proposed for tracks, hangers, interlocks, door operators, and clutch devices.

D. Identification of the proposed fixture manufacturer (Innovation, MAD, Monitor, or approved equal).

E. Identification of the proposed cab manufacturer (A&D Entrances, Premier Elevator Cabs, National Cab and Door, or approved equal). Include photographic quality renderings of proposed cab interior selections and confirm that no manufacturer logos will be visible and no applied plates will be used.

F. Identification of the proposed VVVF-AC regenerative drive manufacturer (Mitsubishi, G.E., or approved equal).

G. Identification of the proposed door protective device manufacturer (Janus Panachrome 3D or approved equal). Include confirmation that the device meets the non-reflective through-beam, 3D sensing, and microprocessor fail-safe requirements of the specification.

H. Written narrative describing the proposer's technical approach to the modernization, including:

1. Proposed construction sequencing to maintain one elevator in service at all times throughout the modernization.
2. Proposed phasing schedule identifying the order in which the two elevators (PE-1 and PE-2) will be taken out of service, with estimated durations.
3. Approach to reactivating the unused first-floor rear entrance at Car PE-2.
4. Approach to hoistway inspection and written reporting of locations where hoistway wall repairs are needed.

I. Confirmation that all equipment manufacturers and components will be identical for both elevators covered under the contract.

J. Statement of the name and qualifications of the proposed elevator engineering firm or individual who will produce the required detailed engineering drawings, subject to review and approval by the Elevator Consultant prior to engagement.

K. Identification and qualifications of the proposed ESCO to perform energy savings measurement, verification, and utility rebate services, subject to review and approval by the Elevator Consultant prior to engagement.

2.5 MAINTENANCE PROGRAM

A. Written description of the proposer's Maintenance Control Program (MCP) for the five-year post-modernization comprehensive maintenance contract, including:

1. Planned preventive maintenance schedule (weekly, bi-weekly, monthly, quarterly, semi-annual, and annual procedures).
2. Response time commitments for standard callback (within 75 minutes during regular hours), passenger entrapment callback (within 30 minutes during regular hours), and after-hours callback (within 120 minutes).
3. Description of the online service reporting system and 24-hour update protocol.
4. Description of recordkeeping approach, including maintenance of as-built wiring diagrams and monthly reporting format.

B. Identification of the Maintenance Supervisor who will have ongoing supervisory responsibility for the five-year maintenance contract term.

PART 3 - EVALUATION AND SCORING

3.1 EVALUATION CRITERIA AND SCORING MATRIX

A. Proposals will be evaluated on the criteria and weights established in Table 1 below.

B. Price will be scored separately under the procurement process. This matrix covers technical evaluation only.

C. Table 1: Technical Evaluation Scoring Matrix

Category	Weight	Sub-Criteria
1. Contractor Qualifications and Firm Experience	**25%**	1a. Years in business as an elevator contractor (beyond 15-year minimum)
		1b. Total elevator units currently maintained (beyond 500-unit minimum)
		1c. Units maintained within 10-mile radius of site (beyond 200-unit minimum)
		1d. Demonstrated experience on comparable traction elevator modernization projects in occupied residential or multifamily buildings
		1e. Current NJ Elevator Contractor Registration confirmed and in good standing
2. Key Personnel Qualifications	**25%**	2a. Project Manager: years of industry experience; supervisory projects in last 2 years; QEI certification current
		2b. Maintenance Supervisor: years of supervisory experience; demonstrated engineering knowledge
		2c. Elevator Mechanics: prior similar installations per mechanic; current NJ license confirmed
3. Proposed Equipment	**20%**	3a. Controller: non-proprietary open-source compliance; manufacturer from approved list; features and diagnostics
		3b. Hoisting machine: manufacturer from approved list; gearless AC traction design
		3c. Door equipment: GAL Manufacturing confirmed; VVVF drive manufacturer from approved list
		3d. Cab and fixtures: compliance with material and finish requirements; manufacturers from approved lists; rendering quality
		3e. Equipment uniformity: identical manufacturers and components confirmed for PE-1 and PE-2
4. Technical Approach and Construction Sequencing	**20%**	4a. Clarity of proposed construction sequence; demonstrated plan to keep one elevator operational at all times
		4b. Quality and specificity of the phasing schedule, including estimated durations for each car
		4c. Coordination approach with other trades (Divisions 02, 05, 22, 23, 26) and Owner's security vendor
		4d. Approach to hoistway inspection and written reporting
		4e. Approach to reactivating the first-floor rear entrance at PE-2
5. Maintenance Program	**10%**	5a. Completeness of the proposed Maintenance Control Program
		5b. Callback response time commitments relative to specified minimums
		5c. Recordkeeping, reporting, and online system update approach
		5d. Availability and qualifications of maintenance personnel dedicated to this site
TOTAL	**100%**	

3.2 CONTRACTOR QUALIFICATION GRADUATED SCORING

A. Proposers who do not meet the pass/fail minimums established in Section 142120 of the Project Manual are non-responsive and will not be scored.

B. Points are awarded above the minimums only, as established in Tables 3A through 3H below.
C. Graduated Scoring Tables:

Table 3A: Firm - Years in Business

Pass/fail minimum: 15 years

Years in Business	Points
Fewer than 15	Non-responsive
15 to 19	1
20 to 24	2
25 to 29	3
30 or more	4

Table 3B: Firm - Total Elevators Currently Under Maintenance Contract

Pass/fail minimum: 500 elevators, including at least 200 within 10 miles of site

Total Units Maintained	Points
Fewer than 500	Non-responsive
500 to 699	1
700 to 999	2
1,000 to 1,499	3
1,500 or more	4

Table 3C: Firm - Units Within 10-Mile Radius of Site

Pass/fail minimum: 200 units

Units Within 10 Miles	Points
Fewer than 200	Non-responsive
200 to 299	1
300 to 399	2
400 to 499	3
500 or more	4

Table 3D: Project Manager - Projects in Last Two Calendar Years

Pass/fail minimum: 10 projects in a supervisory PM role within the last 2 years

Projects as PM in Last 2 Years	Points
Fewer than 10	Non-responsive
10 to 12	1
13 to 15	2
16 to 19	3
20 or more	4

Table 3E: Project Manager - Years of Industry Experience

Pass/fail minimum: 20 years

Years of Industry Experience	Points
Fewer than 20	Non-responsive
20 to 24	1
25 to 29	2

30 to 34	3
35 or more	4

Table 3F: Project Manager - QEI Qualification

Pass/fail minimum: current QEI required

QEI Status	Points
Not current	Non-responsive
Current, expiring within 12 months of proposal due date	1
Current, more than 12 months remaining	2

Table 3G: Maintenance Supervisor - Years of Supervisory Experience

Pass/fail minimum: 20 years

Years of Supervisory Experience	Points
Fewer than 20	Non-responsive
20 to 24	1
25 to 29	2
30 or more	3

Table 3H: Elevator Mechanics - Prior Similar Installations

Pass/fail minimum: each mechanic must have completed at least 10 prior similar installations and hold a current NJ Elevator, Escalator, and Moving Walkway Mechanics license

Average Prior Installations per Mechanic	Points
Any mechanic below 10	Non-responsive
All mechanics at 10 to 14	1
All mechanics at 15 to 19	2
All mechanics at 20 to 24	3
All mechanics at 25 or more	4

SECTION 011000 - SUMMARY

GENERAL

SUMMARY

Section includes:

Project information.

Work covered by Contract Documents.

Work under separate contracts.

Access to site.

Coordination with occupants.

Work restrictions.

Specification and drawing conventions.

Related Section:

Division 01 Section "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

PROJECT INFORMATION

Project Identification: Irvington Housing Authority.

Project Location:

81 Union Avenue

Irvington, NJ 07111

Owner: Housing Authority of the City of Irvington, 50 Union Avenue, Suite 702, Irvington, NJ 07111

Owner's Representative: Doug Helmann dhelmann@ihanj.org).

Architect: Clarke Caton Hintz, 100 Barrack Street, Trenton, NJ 08608.

Architect's Representative: Mr. Patrick Orem, AIA (HYPERLINK "mailto:porem@cchnj.com"porem@cchnj.com).

WORK COVERED BY CONTRACT DOCUMENTS

The Work of the Project is defined by the Contract Documents and consists of the following:

Provide comprehensive modernization of the two existing overhead traction passenger elevators, as follows:

1. Quantity: Two (2)
2. Type: Overhead AC Gearless Traction Type
3. Capacity: 2,000 lbs.
4. Speed: 200 FPM
5. Travel: Existing
6. Number of Landings: 11 @ 1 - 11
7. Number of Openings: PE-1: 11
PE-2: 12
8. Door Openings: PE-1: All Front
PE-2: F: 1-11, R: 1
9. Operation: Duplex
10. Control: Microprocessor with VVVF-AC Regen Drive
11. Number of Push Button Risers: Two (2)
12. Guide Rails: Retain and Refurbish Existing
13. Buffers: Retain and Refurbish Existing
14. Cab Included: New Shell and Finishes
15. Door Operation: Single Speed Side Opening
16. Fixture and Signals: New for Car and Hall
17. Machine Type: Gearless Traction 1:1 Roping
18. Machine Location: Overhead
19. Power: New
20. Deflector Sheave: New in Elevator Machine Room
21. Machine Manufacturer: Imperial Electric, Hollister-Whitney, Torin
25. Door Equipment Manufacturer: GAL Manufacturing

26. Fixture Manufacturer: Innovation, MAD, Monitor, CE Fixtures

27. Ropes: Minimum ½" or 10mm

28. Car Frame Construction: Refurbish and Retain Existing

29. Platform Construction: Refurbish and Retain Existing with New Marine Grade Plywood Sub-Floor

30. Entrances: Retain, Refurbish and Reuse Existing

31. Counterweight Frames: Retain and Reuse Existing or New if King Weights or if there is insufficient room for 50% counterbalance. Add weights as needed for 50% counterbalance.

32. Hoistway Doors: Retain, Refurbish and Reuse Existing

33. Door Equipment: New Tracks, Hangers, Interlocks, Closers, Door Headers, Pickup Rollers, Gibs, Bumpers, Emergency Release Assemblies, Linear Door Operator

34. Guide Shoes: New Roller Guide Assemblies for the Car and Counterweights

35. Special Features: New Rope Gripper, Per Code
Reactivate Unused 1st Floor Rear Entrance at Car PE-2

Security camera wiring

Other work includes Mechanical, Electrical and Plumbing as indicated in the contract drawings.

Type of Contract.

Project will be constructed under a single prime contract.

WORK UNDER SEPARATE CONTRACTS

General: Cooperate fully with any other contractors the authority may have on site so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.

ACCESS TO SITE

Use of Site: Limit use of Project site to areas within the Contract limits. Do not disturb portions of Project site beyond areas in which the Work is indicated.

Limits: Confine construction operations to elevator machine room, elevator shaft and lobby at each floor and elevator pit.

Driveways, Walkways and Entrances: Keep driveways loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.

Schedule deliveries to minimize use of driveways and entrances by construction operations.

Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

Condition of Existing Building: Maintain portions of existing building affected by construction operations throughout construction period. Repair damage caused by construction operations.

COORDINATION WITH OCCUPANTS

Full Owner Occupancy: Owner will occupy site and existing building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.

Maintain access to existing walkways, corridors, and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors, or other occupied or used facilities without written permission from Owner and approval of authorities having jurisdiction.

Notify the Owner not less than 72 hours in advance of activities that will affect Owner's operations.

WORK RESTRICTIONS

Work Restrictions, General: Comply with restrictions on construction operations.

Comply with limitations on use of public streets and other requirements of authorities having jurisdiction. The contractor will not be able to use existing elevators or existing building stairs. The contractor’s bid is to account for all cost associated with temporary vertical access (lifts, stairs, etc.), associated delegated engineering for temporary structures, utility connections and permitting.

On-Site Work Hours: Limit work in the existing building to normal business working hours of 8:00 a.m. to 4:00 p.m., Monday through Friday, except as otherwise indicated.

Contractor must comply with all local ordinances restricting work hours and noise levels.

Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:

Notify Architect and Owner not less than two days in advance of proposed utility interruptions.

Obtain Architect's and Owner's written permission before proceeding with utility interruptions.

Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.

Notify Architect and Owner not less than two days in advance of proposed disruptive operations.

Obtain Architect's and Owner's written permission before proceeding with disruptive operations

Contractor must comply with all local ordinances restricting noise levels.

Controlled Substances: Use of tobacco products and other controlled substances within the existing building on the Project site is not permitted.

SPECIFICATION AND DRAWING CONVENTIONS

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

Imperative mood and streamlined language are generally used in the Specifications. 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.

Specification requirements are to be performed by Contractor unless specifically stated otherwise.

Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

Drawing Coordination: Requirements for materials and products identified on the Drawings are described in detail in the Specifications. One or more of the following are used on the Drawings to identify materials and products:

Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.

Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard and scheduled on Drawings].

Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PRODUCTS (Not Used)

EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for substitutions.

B. Related Section:

1. Division 01 Section "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

1.2 DEFINITIONS

A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.

1.3 SUBMITTALS

A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.

1. Substitution Request Form: Use CSI Form 13.1A.
2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:

a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
e. Samples, where applicable or requested.
f. Certificates and qualification data, where applicable or requested.
g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.

i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
k. Cost information, including a proposal of change, if any, in the Contract Sum.
l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.

3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.

a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.4 QUALITY ASSURANCE

A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturers.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

A. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied:

a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
b. Requested substitution will not adversely affect Contractor's construction schedule.

c. Requested substitution has received necessary approvals of authorities having jurisdiction.
d. Requested substitution is compatible with other portions of the Work.
e. Requested substitution has been coordinated with other portions of the Work.
f. Requested substitution provides specified warranty.
g. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

B. Substitutions for Convenience: Architect will consider requests for substitution if received within 10 days the Notice to Proceed.

1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied:

a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
b. Requested substitution does not require extensive revisions to the Contract Documents.
c. Requested substitution is consistent with the Contract Documents and will produce indicated results.
d. Requested substitution will not adversely affect Contractor's construction schedule.
e. Requested substitution has received necessary approvals of authorities having jurisdiction.
f. Requested substitution is compatible with other portions of the Work.
g. Requested substitution has been coordinated with other portions of the Work.
h. Requested substitution provides specified warranty.
i. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for handling and processing Contract modifications.

1.2 MINOR CHANGES IN THE WORK

A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions".

1.3 PROPOSAL REQUESTS

A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.

1. Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.

2. Within 14 days, when not otherwise specified after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.

    a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
    b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
    c. Include costs of labor and supervision directly attributable to the change.
    d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
    e. Quotation Form: Use CSI Form 13.6B "Proposal Worksheet Summary" and 13.6C "Proposal Worksheet Detail".

B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.

1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.

2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
4. Include costs of labor and supervision directly attributable to the change.
5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
6. Comply with requirements in Division 01 Section "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
7. Proposal Request Form: Use CSI Form 13.6A "Change Order Request (Proposal)" with attachments CSI Form 13.6B "Proposal Worksheet Summary" and 13.6C "Proposal Worksheet Detail".

1.4 ADMINISTRATIVE CHANGE ORDERS

A. Unit Price Adjustment: Refer to Division 01 Section "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit price work.

1.5 CHANGE ORDER PROCEDURES

A. On Owner's approval of a Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on AIA Document G701.

1.6 CONSTRUCTION CHANGE DIRECTIVE

A. Construction Change Directive: Architect may issue a Construction Change Directive on AIA Document G714. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Construction Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.

1.2 SCHEDULE OF VALUES

A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.

1. Correlate line items in the schedule of values with other required administrative forms and schedules, including the following:

a. Application for Payment forms with continuation sheets.
b. Submittal schedule.
c. Items required to be indicated as separate activities in Contractor's construction schedule.

2. Submit the schedule of values to Architect at earliest possible date but no later than seven days after the notice to proceed.
3. Schedules for Separate Project Sites and Phased Work: Submit schedules showing the total value of work for each project site. Where the Work is separated into phases requiring separately phased payments, provide sub-schedules showing values correlated with each phase of payment.

B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one line item for each Specification Section.

1. Identification: Include the following Project identification on the schedule of values:

a. Project name and location.
b. Name of Architect.
c. Architect's project number.
d. Contractor's name and address.
e. Date of submittal.

2. Arrange schedule of values consistent with format of HUD Document 51000.

3. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five percent of Contract Sum.

4. Round amounts to nearest whole dollar; total shall equal the Contract Sum.

5. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
6. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.

7. Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.

8. Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.

    a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.

9. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.3 APPLICATIONS FOR PAYMENT

A. Each Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.

    1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.

B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.

C. Payment Application Times: Progress payments shall be submitted to Architect by the 21st of the month. The period covered by each Application for Payment is one month, ending on the last day of the month.

D. Application for Payment Forms: HUD Document 51000, and HUD document 51001 as form for Applications for Payment.

E. Application for Payment Forms: Use forms provided by Owner for Applications for Payment. Sample copies are included in the Project Manual.

F. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.

1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.

G. Transmittal: Submit three signed and notarized original copies of each Application for Payment to Architect by a method ensuring receipt within 24 hours. One copy shall include waivers of lien and similar attachments if required.

1. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.

H. Waivers of Mechanic's Lien: With each Application for Payment, submit waivers of mechanic's lien from entities lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.

1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
2. When an application shows completion of an item, submit conditional final or full waivers.
3. Owner reserves the right to designate which entities involved in the Work must submit waivers.

4. Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.

I. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:

1. List of subcontractors.
2. Schedule of values.
3. Contractor's construction schedule (preliminary if not final).
4. Schedule of unit prices.
5. Submittal schedule (preliminary if not final).
6. List of Contractor's staff assignments.
7. List of Contractor's principal consultants.
8. Copies of building permits.
9. Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
10. Initial progress report.
11. Report of preconstruction conference.

12. Certificates of insurance and insurance policies.

J. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.

1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.

2. This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

K. Final Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:

1. Evidence of completion of Project closeout requirements.
2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
3. Updated final statement, accounting for final changes to the Contract Sum.
4. AIA Document G706-1994, "Contractor's Affidavit of Payment of Debts and Claims."
5. AIA Document G706A-1994, "Contractor's Affidavit of Release of Liens."

6. AIA Document G707-1994, "Consent of Surety to Final Payment."
7. Evidence that claims have been settled.
8. Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
9. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:

1. Coordination drawings.
2. Requests for Information (RFIs).
3. Project meetings.

B. Related Sections:
1. Division 01 Section "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.

1.2 DEFINITIONS

A. RFI: Request from Owner, Architect, or Contractor seeking information from each other during construction.

1.3 COORDINATION

A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
3. Make adequate provisions to accommodate items scheduled for later installation.

B. Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.

C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of Contractor's construction schedule.
2. Preparation of the schedule of values.
3. Installation and removal of temporary facilities and controls.
4. Delivery and processing of submittals.
5. Progress meetings.
6. Preinstallation conferences.
7. Project closeout activities.
8. Startup and adjustment of systems.
9. Project closeout activities.

1.4 REQUESTS FOR INFORMATION (RFIs)

A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.

1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:

1. Project name.
2. Project Site.
3. Project number.
4. Date.
5. Name of Contractor.
6. Name of Architect.
7. RFI number, numbered sequentially.
8. RFI subject.
9. Specification Section number and title and related paragraphs, as appropriate.
10. Drawing number and detail references, as appropriate.
11. Field dimensions and conditions, as appropriate.
12. Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
13. Contractor's signature.
14. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.

C. RFI Forms: AIA Document G716 or software-generated form with substantially the same content as indicated above, acceptable to Architect].

D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.

1. The following RFIs will be returned without action:

a. Requests for approval of submittals.
b. Requests for approval of substitutions.
c. Requests for coordination information already indicated in the Contract Documents.
d. Requests for adjustments in the Contract Time or the Contract Sum.
e. Requests for interpretation of Architect's actions on submittals.
f. Incomplete RFIs or inaccurately prepared RFIs.

2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 01 Section "Contract Modification Procedures."

a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within seven days of receipt of the RFI response.

E. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.

F. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log bi-weekly. Use CSI Log Form 13.2B or software log with not less than the following:

1. Project name.
2. Name and address of Contractor.
3. Name and address of Architect.
4. RFI number including RFIs that were dropped and not submitted.
5. RFI description.
6. Date the RFI was submitted.
7. Date Architect's response was received.

8. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
9. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

1.5 PROJECT MEETINGS

A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.

1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.

3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and Architect, within seven days of the meeting.

B. Preconstruction Conference: Architect will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.

1. Attendees: Authorized representatives of Owner Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
2. Agenda: Discuss items of significance that could affect progress, including the following:

a. Tentative construction schedule.
b. Phasing.
c. Critical work sequencing and long-lead items.
d. Designation of key personnel and their duties.
e. Procedures for processing field decisions and Change Orders.
f. Procedures for RFIs.
g. Procedures for testing and inspecting.
h. Procedures for processing Applications for Payment.
i. Distribution of the Contract Documents.
j. Submittal procedures.
k. Preparation of record documents.
l. Use of the premises and existing building.
m. Work restrictions.
n. Working hours.
o. Owner's occupancy requirements.
p. Responsibility for temporary facilities and controls.
q. Procedures for moisture and mold control.
r. Procedures for disruptions and shutdowns.
s. Construction waste management and recycling.
t. Parking availability.
u. Office, work, and storage areas.
v. Equipment deliveries and priorities.
w. First aid.
x. Security.
y. Progress cleaning.

3. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.

C. Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.

1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect of scheduled meeting dates.

2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:

    a. Contract Documents.
    b. Options.
    c. Related RFIs.
    d. Related Change Orders.
    e. Purchases.
    f. Deliveries.
    g. Submittals.
    h. Review of mockups.
    i. Possible conflicts.
    j. Compatibility problems.
    k. Time schedules.
    l. Weather limitations.
    m. Manufacturer's written recommendations.
    n. Warranty requirements.
    o. Compatibility of materials.
    p. Acceptability of substrates.
    q. Temporary facilities and controls.
    r. Space and access limitations.
    s. Regulations of authorities having jurisdiction.
    t. Testing and inspecting requirements.
    u. Installation procedures.
    v. Coordination with other work.
    w. Required performance results.
    x. Protection of adjacent work.
    y. Protection of construction and personnel.

3. Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
4. Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
5. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

D. Progress Meetings: Conduct progress meetings at weekly intervals.

1. Attendees: In addition to representatives of Owner and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.

2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

    a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule,

in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

1) Review schedule for next period.

b. Review present and future needs of each entity present, including the following:

1) Interface requirements.
2) Sequence of operations.
3) Status of submittals.
4) Deliveries.
5) Off-site fabrication.
6) Access.
7) Site utilization.
8) Temporary facilities and controls.
9) Progress cleaning.
10) Quality and work standards.
11) Status of correction of deficient items.
12) Field observations.
13) Status of RFIs.
14) Status of proposal requests.
15) Pending changes.
16) Status of Change Orders.
17) Pending claims and disputes.
18) Documentation of information for payment requests.

3. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.

a. Schedule Updating: Revise Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:

1. Contractor's construction schedule.
2. Daily construction reports.
3. Field condition reports.

B. Related Section:

1. Division 01 Section "Multiple Contract Summary" for preparing a combined Contractor's Construction Schedule.

1.2 DEFINITIONS

A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.

1. Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
2. Predecessor Activity: An activity that precedes another activity in the network.
3. Successor Activity: An activity that follows another activity in the network.

B. CPM: Critical path method, which is a method of planning and scheduling a construction project where activities are arranged based on activity relationships. Network calculations determine when activities can be performed and the critical path of the Project.

C. Critical Path: The longest connected chain of interdependent activities through the network schedule that establishes the minimum overall Project duration and contains no float.

D. Float: The measure of leeway in starting and completing an activity.

1. Float time belongs to Owner.

1.3 INFORMATIONAL SUBMITTALS

A. Format for Submittals: Submit required submittals in the following format:

1. PDF electronic file.
2. Two paper copies.

B. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.

1. Submit a working electronic copy of schedule, using software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.

C. Daily Construction Reports: Submit at weekly intervals.

D. Field Condition Reports: Submit at time of discovery of differing conditions.

1.4 COORDINATION

A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.

B. Coordinate Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.

1. Secure time commitments for performing critical elements of the Work from entities involved.
2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of final completion.

1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.

B. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:

1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Architect.
2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.

a. Procurement of elevator modernization equipment for each project site.

3. Submittal Review Time: Include review and resubmittal times indicated in Division 01 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
4. Startup and Testing Time: Include not less than 7 days for startup and testing.
5. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
6. Punch List and Final Completion: Include not more than 30 days for punch list and final completion.

C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.

1. Site: Arrange list of activities on schedule by project site.
2. Phasing: Arrange list of activities on schedule by phase.
3. Work Restrictions: Show the effect of the following items on the schedule:

    a. Coordination with existing construction.
    b. Limitations of continued occupancies.
    c. Uninterruptible services.
    d. Partial occupancy before Substantial Completion.
    e. Use of premises restrictions.
    f. Provisions for future construction.
    g. Seasonal variations.
    h. Environmental control.

4. Work Stages: Indicate important stages of construction for each major portion of the Work.

D. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and final completion.

E. Upcoming Work Summary: Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:

1. Unresolved issues.
2. Unanswered RFIs.
3. Rejected or unreturned submittals.
4. Notations on returned submittals.

F. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule.

G. Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules.

1. Utilize Microsoft Project, Primavera, or Prolog.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's construction schedule within 30 days of date established for the Notice to Proceed.

B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.

1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments within time bar.

2.3 REPORTS

A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:

1. List of subcontractors at Project site.
2. List of separate contractors at Project site.
3. Approximate count of personnel at Project site.
4. Equipment at Project site.
5. Material deliveries.
6. High and low temperatures and general weather conditions, including presence of rain or snow.
7. Accidents.
8. Meetings and significant decisions.
9. Unusual events.
10. Stoppages, delays, shortages, and losses.
11. Meter readings and similar recordings.
12. Emergency procedures.
13. Orders and requests of authorities having jurisdiction.
14. Change Orders received and implemented.

15. Construction Change Directives received and implemented.
16. Services connected and disconnected.
17. Equipment or system tests and startups.
18. Partial completions and occupancies.
19. Substantial Completions authorized.

B. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.

1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
3. As the Work progresses, indicate final completion percentage for each activity.

B. Distribution: Distribute copies of approved schedule to Architect Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.

1. Post copies in Project meeting rooms and temporary field offices.
2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 013200

SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for the following:

1. Preconstruction photographs.
2. Periodic construction photographs.

B. Related Sections:

1. Division 01 Section "Closeout Procedures" for submitting photographic documentation as Project Record Documents at Project closeout.

1.2 INFORMATIONAL SUBMITTALS

A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same information as corresponding photographic documentation.

B. Digital Photographs: Submit image files within three days of taking photographs.

1. Digital Camera: Minimum sensor resolution of 8 megapixels.
2. Identification: Provide the following information with each image description in file metadata tag:

a. Name of Project.
b. Name and contact information for photographer.
c. Date photograph was taken.
d. Description of vantage point, indicating location, direction (by compass point), and elevation or story of construction.

1.3 QUALITY ASSURANCE

A. Photographer Qualifications: An individual who has been regularly engaged as a professional photographer of construction projects for not less than three years.

1.4 COORDINATION

A. Auxiliary Services: Cooperate with photographer and provide auxiliary services requested, including access to Project site and use of temporary facilities, including temporary lighting required to produce clear, well-lit photographs.

1.5 USAGE RIGHTS

A. Obtain and transfer copyright usage rights from photographer to Owner for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC MEDIA

A. Digital Images: Provide images in JPG format, with minimum size of 8 megapixels.

PART 3 - EXECUTION

3.1 CONSTRUCTION PHOTOGRAPHS

A. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.

1. Maintain key plan with each set of construction photographs that identifies each photographic location.

B. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.

1. Date and Time: Include date and time in file name for each image.
2. Field Office Images: Maintain one set of images accessible in the field office at Project site, available at all times for reference. Identify images in the same manner as those submitted to Architect.

C. Preconstruction Photographs: Before commencement of demolition, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points.

1. Flag excavation areas before taking construction photographs.
2. Take at least 20 photographs to show existing conditions adjacent to each building before starting the Work.
3. Take at least 20 photographs of existing building conditions within the proposed area of work to accurately record physical conditions prior to the start of construction.

D. Periodic Construction Photographs: Take 20 photographs monthly, coinciding with the cutoff date associated with each Application for Payment. Select vantage points to show status of construction and progress since last photographs were taken.

E. Final Completion Construction Photographs: Take 20 color photographs after date of Substantial Completion for submission as Project Record Documents.

F. Additional Photographs: Architect may request photographs in addition to periodic photographs specified.

1. Three days' notice will be given, where feasible.
2. In emergency situations, take additional photographs within 24 hours of request.
3. Circumstances that could require additional photographs include, but are not limited to, the following:

    a. Special events planned at Project site.
    b. Immediate follow-up when on-site events result in construction damage or losses.
    c. Photographs to be taken at fabrication locations away from Project site. These photographs are not subject to unit prices or unit-cost allowances.
    d. Substantial Completion of a major phase or component of the Work.
    e. Extra record photographs at time of final acceptance.
    f. Owner's request for special publicity photographs.

END OF SECTION 013233

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

B. Related Sections:

1. Division 01 Section "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
2. Division 01 Section "Operation and Maintenance Data" for submitting operation and maintenance manuals.
3. Division 01 Section "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
4. Division 01 Section "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.

1.2 DEFINITIONS

A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action.

B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

1.3 ACTION SUBMITTALS

A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted by the Architect and additional time for handling and reviewing submittals required by those corrections.

1.4 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

A. Architect's Digital Data Files: Electronic copies of CAD Drawings of the Contract Drawings will not be provided by Architect for Contractor's use in preparing submittals.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.

2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

    a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
3. Resubmittal Review: Allow 15 days for review of each resubmittal.

D. Identification and Information: Place a permanent label or title block on each paper copy submittal item for identification.

1. Indicate name of firm or entity that prepared each submittal on label or title block.
2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
3. Include the following information for processing and recording action taken:

    a. Project name.
    b. Project Site.
    c. Date.
    d. Name of Architect.
    e. Name of Construction Manager.
    f. Name of Contractor.
    g. Name of subcontractor.
    h. Name of supplier.
    i. Name of manufacturer.

    j. Submittal number or other unique identifier, including revision identifier.

        1) Submittal number shall use Specification Section number followed by a hyphen then a sequential number then a hyphen and the number representing the submission number of the submittal (e.g., 061000-001-000). The last three digits of the first submission for any submittal shall be 000. Resubmittals shall increase the last set of three numbers by one digit (e.g., 061000-001-001).

    k. Number and title of appropriate Specification Section.
    l. Drawing number and detail references, as appropriate.
    m. Location(s) where product is to be installed, as appropriate.
    n. Other necessary identification.

E. Identification and Information: Identify and incorporate information in each electronic submittal file as follows:

1. Assemble complete submittal package into a single indexed file with links enabling navigation to each item.
2. Name file with submittal number or other unique identifier, including revision identifier.

    a. File name shall be the same as the submittal number with a text description (e.g., 061000-001-000 Rough Carpentry Product Data). Resubmittals file name shall be treated the same as submittal numbers (e.g., 061000-001-001 Rough Carpentry Product Data).

3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
4. Include the following information on an inserted cover sheet:

    a. Project name.
    b. Date.
    c. Name and address of Architect.
    d. Name of Construction Manager.
    e. Name of Contractor.
    f. Name of firm or entity that prepared submittal.
    g. Name of subcontractor.
    h. Name of supplier.
    i. Name of manufacturer.
    j. Number and title of appropriate Specification Section.
    k. Drawing number and detail references, as appropriate.
    l. Location(s) where product is to be installed, as appropriate.
    m. Related physical samples submitted directly.
    n. Other necessary identification.

F. Options: Identify options requiring selection by the Architect.

G. Deviations: Identify deviations from the Contract Documents on submittals.

H. Additional Paper Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.

I. Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return submittals, without review, received from sources other than Contractor.

1. Transmittal Form: Use AIA Document G810.
2. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.

J. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

1. Note date and content of previous submittal.
2. Note date and content of revision in label or title block and clearly indicate extent of revision.
3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.

K. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

L. Use for Construction: Use only final submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

A. General Submittal Procedure Requirements:

1. Submit electronic submittals via email as PDF electronic files.

    a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.

2. Action Submittals: Submit three paper copies of each submittal, unless otherwise indicated. Architect will return two copies.
3. Informational Submittals: Submit two paper copies of each submittal, unless otherwise indicated. Architect will not return copies.
4. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Division 01 Section "Closeout Procedures."
5. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

    a. Provide a digital signature with digital certificate on electronically-submitted certificates and certifications where indicated.

    b. Provide a notarized statement on original paper copy certificates and certifications where indicated.

6. Test and Inspection Reports Submittals: Comply with requirements specified in Division 01 Section "Quality Requirements."

B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.

2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:

    a. Manufacturer's catalog cuts.
    b. Manufacturer's product specifications.
    c. Standard color charts.
    d. Statement of compliance with specified referenced standards.
    e. Testing by recognized testing agency.
    f. Application of testing agency labels and seals.
    g. Notation of coordination requirements.
    h. Availability and delivery time information.

4. For equipment, include the following in addition to the above, as applicable:

    a. Wiring diagrams showing factory-installed wiring.
    b. Printed performance curves.
    c. Operational range diagrams.
    d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.

5. Submit Product Data before or concurrent with Samples.

6. Submit Product Data in the following format:

    a. PDF electronic file.
    b. Three paper copies of Product Data, unless otherwise indicated. Architect will return two copies.

C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:

    a. Identification of products.
    b. Schedules.
    c. Compliance with specified standards.
    d. Notation of coordination requirements.
    e. Notation of dimensions established by field measurement.
    f. Relationship and attachment to adjoining construction clearly indicated.
    g. Seal and signature of professional engineer if specified.

2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 42 inches.

3. Submit Shop Drawings in the following format:

    a. PDF electronic file.

    b. Three opaque copies of each submittal. Architect will retain two copies; remainder will be returned.

D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.

1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
2. Identification: Attach label on unexposed side of Samples that includes the following:

    a. Generic description of Sample.
    b. Product name and name of manufacturer.
    c. Sample source.
    d. Number and title of applicable Specification Section.

3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

    a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
    b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.

4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.

    a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.

5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.

    a. Number of Samples: Submit three sets of Samples. Architect will retain two Sample sets; remainder will be returned.

        1) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.

E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

1. Submit product schedule in the following format:

a. PDF electronic file.
b. Three paper copies of product schedule or list, unless otherwise indicated. Architect will return two copies.

F. Contractor's Construction Schedule: Comply with requirements specified in Division 01 Section "Construction Progress Documentation."

G. Application for Payment: Comply with requirements specified in Division 01 Section "Payment Procedures."

H. Schedule of Values: Comply with requirements specified in Division 01 Section "Payment Procedures."

I. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Use CSI Form 1.5A.

1. Submit subcontract list in the following format:

a. PDF electronic file.
b. Number of Copies: Three paper copies of subcontractor list, unless otherwise indicated. Architect will return two copies.

J. Coordination Drawings: Comply with requirements specified in Division 01 Section "Project Management and Coordination."

K. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.

L. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on American Welding Society (AWS) forms. Include names of firms and personnel certified.

M. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.

N. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.

O. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

P. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.

Q. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.

R. Product Test Reports: Submit written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

S. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project.

T. Schedule of Tests and Inspections: Comply with requirements specified in Division 01 Section "Quality Requirements."

U. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

V. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

W. Field Test Reports: Submit reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.

X. Maintenance Data: Comply with requirements specified in Division 01 Section "Operation and Maintenance Data."

Y. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

2.2 DELEGATED-DESIGN SERVICES

A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.

B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally-signed PDF electronic file and three paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.

1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.

B. Project Closeout and Maintenance/Material Submittals: Refer to requirements in Division 01 Section "Closeout Procedures."

C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.

B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.

C. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.

D. Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.

E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 013300

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for quality assurance and quality control.

B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.

1. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
2. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

C. Related Sections:

1. Divisions 02 through 49 Sections for specific test and inspection requirements.

1.2 DEFINITIONS

A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.

B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.

C. Mockups: Full size physical assemblies that are constructed on-site. Mockups are constructed to verify selections made under sample submittals; to demonstrate aesthetic effects and, where indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.

1. Laboratory Mockups: Full-size, physical assemblies constructed at testing facility to verify performance characteristics.

D. Preconstruction Testing: Tests and inspections performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.

E. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.

F. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.

G. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

H. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

I. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.

1. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade or trades.

J. Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.3 CONFLICTING REQUIREMENTS

A. Referenced Standards: If 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 conflicting requirements that are different, but apparently equal, to Architect for a decision before proceeding.

B. 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 requirements. Refer uncertainties to Architect for a decision before proceeding.

1.4 INFORMATIONAL SUBMITTALS

A. Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility sent to authorities having jurisdiction before starting work on the following systems.

1. Seismic-force resisting system, designated seismic system, or component listed in the designated seismic system quality assurance plan prepared by the Architect.
2. Main wind-force resisting system or a wind-resisting component listed in the wind-force-resisting system quality assurance plan prepared by the Architect.

B. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

1.5 REPORTS AND DOCUMENTS

A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and reinspecting.

B. Manufacturer's Field Reports: Prepare written information documenting tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of representative making report.
2. Statement on condition of substrates and their acceptability for installation of product.
3. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
4. Results of operational and other tests and a statement of whether observed performance complies with requirements.
5. Other required items indicated in individual Specification Sections.

C. Permits, Licenses, and Certificates: For 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.

1.6 QUALITY ASSURANCE

A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.

B. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

C. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.

F. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.

1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.

G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.

1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.

H. Manufacturer's Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

I. Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:

1. Contractor responsibilities include the following:

a. Provide test specimens representative of proposed products and construction.
b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
c. Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
d. When testing is complete, remove test specimens, assemblies, mockups; do not reuse products on Project.

2. Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Architect, with copy to Contractor.

Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

J. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:

1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect.
2. Notify Architect seven days in advance of dates and times when mockups will be constructed.
3. Demonstrate the proposed range of aesthetic effects and workmanship.
4. Obtain Architect's approval of mockups before starting work, fabrication, or construction.

    a. Allow seven days for initial review and each re-review of each mockup.

5. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.

6. Demolish and remove mockups when directed, unless otherwise indicated.

K. Laboratory Mockups: Comply with requirements of preconstruction testing and those specified in individual Specification Sections in Divisions 02 through 49.

1.7 QUALITY CONTROL

A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.

1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
2. Costs for retesting and reinspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.

B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.

1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.

    a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.

2. Notify testing agencies at least 48 hours in advance of time when Work that requires testing or inspecting will be performed.
3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.

4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

C. Manufacturer's Field Services: Where indicated, engage a manufacturer's representative to observe and inspect the Work. Manufacturer's representative's services include examination of substrates and conditions, verification of materials, inspection of completed portions of the Work, and submittal of written reports.

D. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.

E. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
6. Do not perform any duties of Contractor.

F. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
4. Facilities for storage and field curing of test samples.

5. Delivery of samples to testing agencies.
6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
7. Security and protection for samples and for testing and inspecting equipment at Project site.

G. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

1.8 SPECIAL TESTS AND INSPECTIONS

A. Special Tests and Inspections: Owner will engage engage a qualified special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner.

B. Special Tests and Inspections: Conducted by a qualified special inspector as required by authorities having jurisdiction, as indicated in individual Specification Sections and as follows:

1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
6. Retesting and reinspecting corrected work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Division 01 Section "Execution."

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.

B. Related Section:

1. Division 01 Section "Summary" for work restrictions and limitations on utility interruptions.

1.2 USE CHARGES

A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Architect, testing agencies, and authorities having jurisdiction.

B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

C. Electric Power Service from Existing System: Electric power from Owner's existing system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

1.3 INFORMATIONAL SUBMITTALS

A. Site Plan: Contractor shall submit a staging plan for approval. Phasing plan must show temporary facilities, utility hookups, staging areas, and parking areas for construction personnel.

B. Erosion- and Sedimentation-Control Plan: Show compliance with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.

1.4 QUALITY ASSURANCE

A. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

C. Accessible Temporary Egress: Comply with applicable provisions in ICC/ANSI A117.1.

1.5 PROJECT CONDITIONS

A. Temporary Use of Permanent Facilities: Engage installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Portable Chain-Link Fencing: Minimum 2-inch, 0.148-inch-thick, galvanized steel, chain-link fabric fencing; minimum 6 feet high with galvanized steel pipe posts; minimum 2-3/8-inch-OD line posts and 2-7/8-inch-OD corner and pull posts, with 1-5/8-inch- OD top and bottom rails. Provide concrete bases for supporting posts.

2.2 TEMPORARY FACILITIES

A. Field Offices, General: Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.

B. Common-Use Field Office: Of sufficient size to accommodate needs of Owner, Architect, and construction personnel office activities and to accommodate project meetings specified in other Division 01 Sections. Keep office clean and orderly.

C. Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.

2.3 EQUIPMENT

A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

B. HVAC Equipment: Unless Owner authorizes use of permanent HVAC system, provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control.

1. Use of gasoline-burning space heaters, open-flame heaters, or salamander-type heating units is prohibited.
2. Heating Units: Listed and labeled for type of fuel being consumed, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

3. Permanent HVAC System: If Owner authorizes use of permanent HVAC system for temporary use during construction, provide filter with MERV of 8 at each return air grille in system and remove at end of construction and clean HVAC system as required in Division 01 Section "Closeout Procedures."

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.

1. Locate facilities to limit site disturbance as specified in Division 01 Section "Summary."

B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

A. General: Install temporary service or connect to existing service.

1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

B. Sewers and Drainage: Provide temporary utilities to remove effluent lawfully as required for all sanitary service modifications.

1. Connect temporary sewers to municipal system as directed by authorities having jurisdiction.

C. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.

D. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

1. Toilets: Use of Owner's existing toilet facilities will not be permitted.

E. Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.

F. Ventilation and Humidity Control: Provide temporary ventilation required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation requirements to produce ambient condition required and minimize energy consumption.

G. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.

H. Electric Power Service: Provide electric power service and distribution system for temporary offices of sufficient size, capacity, and power characteristics required.

1. Install electric power service per utility company.
2. Install electric power service per authority having jurisdiction.

I. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.

1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

J. Telephone Service: Provide temporary telephone service in common-use facilities for use by all construction personnel. Install one telephone line(s) for each field office.

1. At each telephone, post a list of important telephone numbers.

a. Police and fire departments.
b. Ambulance service.
c. Contractor's home office.
d. Architect's office.
e. Engineers' offices.
f. Owner's office.
g. Principal subcontractors' field and home offices.

2. Provide superintendent with cellular telephone or portable two-way radio for use when away from field office.

3.3 SUPPORT FACILITIES INSTALLATION

A. General: Comply with the following:

1. Provide construction for temporary offices, shops, and sheds located within construction area or within 30 feet of building lines that is noncombustible according to ASTM E 136. Comply with NFPA 241.
2. Maintain support facilities until Final Completion inspection.

B. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.

C. Parking: Use designated areas of Owner's existing parking for construction personnel.

D. Dewatering Facilities and Drains: Comply with requirements of authorities having jurisdiction. Maintain Project site, excavations, and construction free of water.

1. Dispose of rainwater in a lawful manner that will not result in flooding Project or adjoining properties nor endanger permanent Work or temporary facilities.
2. Remove snow and ice as required to minimize accumulations.

E. Project Signs: Provide Project signs as indicated. Unauthorized signs are not permitted.

1. Identification Signs: Provide Project identification.
2. Temporary Signs: Provide other signs as indicated and as required to inform public and individuals seeking entrance to Project.

    a. Provide temporary, directional signs for construction personnel and visitors.

3. Maintain and touchup signs so they are legible at all times.

F. Waste Disposal Facilities: Comply with requirements specified in Division 01 Section "Construction Waste Management and Disposal."

G. Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

1. Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

H. Existing Elevator and Stair Usage:
1. Elevators and Egress Stairs: No material, equipment, demolition or installation items shall be transported through these spaces.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

B. Temporary Erosion and Sedimentation Control: Comply with requirements of 2003 EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent and requirements specified in Division 31 Section "Site Clearing."

C. Temporary Erosion and Sedimentation Control: Provide measures to prevent soil erosion and discharge of soil-bearing water runoff and airborne dust to undisturbed areas and to adjacent properties and walkways, according to requirements of 2003 EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.

D. Stormwater Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.

E. Tree and Plant Protection: Comply with requirements specified in Division 01 Section "Temporary Tree and Plant Protection."

F. Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Obtain extended warranty for Owner. Perform control operations lawfully, using environmentally safe materials.

G. Site Enclosure Fence: Prior to commencing earthwork, furnish and install site enclosure fence in a manner that will prevent people and animals from easily entering site except by entrance gates.

1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.

2. Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner.

H. Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.

I. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

J. Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.

K. Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary weathertight enclosure for building exterior.

1. Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.

L. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner and tenants from fumes and noise.

1. Construct dustproof partitions with gypsum wallboard with joints taped on occupied side, and fire-retardant plywood on construction operations side.

2. Construct dustproof partitions with two layers of 6-mil (0.14-mm) polyethylene sheet on each side. Cover floor with two layers of 6-mil (0.14-mm) polyethylene sheet, extending sheets 18 inches (460 mm) up the sidewalls. Overlap and tape full length of joints. Cover floor with fire-retardant treated plywood.
3. Insulate partitions to control noise transmission to occupied areas.
4. Seal joints and perimeter. Equip partitions with gasketed dustproof doors and security locks where openings are required.
5. Protect air-handling equipment.
6. Provide walk-off mats at each entrance through temporary partition.

M. Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.

1. Prohibit smoking in construction areas.
2. Supervise welding operations, combustion-type temporary heating units, and similar sources of fire ignition according to requirements of authorities having jurisdiction.
3. Develop and supervise an overall fire-prevention and -protection program for personnel at Project site. Review needs with local fire department and establish procedures to be followed. Instruct personnel in methods and procedures. Post warnings and information.

4. Provide temporary standpipes and hoses for fire protection. Hang hoses with a warning sign stating that hoses are for fire-protection purposes only and are not to be removed. Match hose size with outlet size and equip with suitable nozzles.

3.5 MOISTURE AND MOLD CONTROL

A. Contractor's Moisture Protection Plan: Avoid trapping water in finished work. Document visible signs of mold that may appear during construction.

B. Exposed Construction Phase: Before installation of weather barriers, when materials are subject to wetting and exposure and to airborne mold spores, protect materials from water damage and keep porous and organic materials from coming into prolonged contact with concrete.

C. Partially Enclosed Construction Phase: After installation of weather barriers but before full enclosure and conditioning of building, when installed materials are still subject to infiltration of moisture and ambient mold spores, protect as follows:

1. Do not load or install drywall or other porous materials or components, or items with high organic content, into partially enclosed building.
2. Keep interior spaces reasonably clean and protected from water damage.
3. Discard or replace water-damaged and wet material.
4. Discard, replace or clean stored or installed material that begins to grow mold.
5. Perform work in a sequence that allows any wet materials adequate time to dry before enclosing the material in drywall or other interior finishes.

D. Controlled Construction Phase of Construction: After completing and sealing of the building enclosure but prior to the full operation of permanent HVAC systems, maintain as follows:

1. Control moisture and humidity inside building by maintaining effective dry-in conditions.
2. Remove materials that can not be completely restored to their manufactured moisture level within 48 hours.

3.6 OPERATION, TERMINATION, AND REMOVAL

A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

B. Maintenance: Maintain facilities in good operating condition until removal.

1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.

C. Temporary Facility Changeover: Do not change over from using temporary security and protection facilities to permanent facilities until Substantial Completion.

D. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion unless otherwise noted. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility.

Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Division 01 Section "Closeout Procedures."

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

B. Related Section:

1. Division 01 Section "Substitution Procedures" for requests for substitutions.

1.2 DEFINITIONS

A. Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.

B. Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.3 ACTION SUBMITTALS

A. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 01 Section "Submittal Procedures." Show compliance with requirements.

1.4 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

B. Delivery and Handling:

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
5. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
6. Protect stored products from damage and liquids from freezing.

1.6 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
2. Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.

B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
2. Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.

3. Refer to Divisions 02 through 49. Sections for specific content requirements and particular requirements for submitting special warranties.

C. Submittal Time: Comply with requirements in Division 01 Section "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Architect will make selection.
5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.

B. Product Selection Procedures:

1. Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
3. Products:

    a. Nonrestricted List: Where Specifications include a list of names of both available manufacturers and products, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with requirements in Division 01 Section "Substitution Procedures" for an unnamed product.

4. Manufacturers:

    a. Nonrestricted List: Where Specifications include a list of available manufacturers, provide a product by one of the manufacturers listed, or a product by an unnamed manufacturer, that complies with requirements. Comply with requirements in Division 01 Section "Substitution Procedures" for an unnamed product.

5. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers.

Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in Division 01 Section "Substitution Procedures" for an unnamed product.

C. Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.

1. If no product available within specified category matches and complies with other specified requirements, comply with requirements in Division 01 Section "Substitution Procedures" for proposal of product.

D. Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017300 - Execution

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

1. Construction layout.
2. Field engineering and surveying.
3. Installation of the Work.
4. Cutting and patching.
5. Progress cleaning.
6. Starting and adjusting.
7. Protection of installed construction.
8. Correction of the Work.

B. Related Sections:

1. Division 01 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
2. Division 07 Section "Penetration Firestopping" for patching penetrations in fire-rated construction.

1.2 INFORMATIONAL SUBMITTALS

A. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.

B. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.

C. Certified Surveys: Submit two copies signed by land surveyor.

1.3 QUALITY ASSURANCE

A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

B. Cutting and Patching: Comply with requirements for and limitations on cutting and patching of construction elements.

1. Structural Elements: When cutting and patching structural elements, notify Architect of locations and details of cutting and await directions from the Architect before proceeding. Shore, brace, and support structural element during cutting and patching. Do not cut and

patch structural elements in a manner that could change their load-carrying capacity or increase deflection

2. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.

3. Other Construction Elements: Do not cut and patch other construction elements or components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.

4. Visual Elements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch exposed construction in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

1.4 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Comply with requirements specified in other Sections.

B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to the Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.

1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; underground electrical services, and other utilities.
2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
2. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Existing Utility Information: Furnish information to local utility that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.

B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of the Contractor, submit a request for information to Architect according to requirements in Division 01 Section "Project Management and Coordination."

3.3 CONSTRUCTION LAYOUT

A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.

B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.

1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
2. Establish benchmarks and control points to set termination of flood protection.
3. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
4. Inform installers of lines and levels to which they must comply.
5. Check the location, level and plumb, of every major element as the Work progresses.
6. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
7. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.

C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and rim and invert elevations.

D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, termination of flood protection, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.

E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

3.4 FIELD ENGINEERING

A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.

B. Benchmarks: Establish and maintain a minimum of permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.

1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.

C. Certified Survey: On completion of foundation walls, major site improvements, and other work requiring field-engineering services, prepare a certified survey showing dimensions, locations, angles, and elevations of construction and sitework.

3.5 INSTALLATION

A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb and make horizontal work level.
2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.

B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.

D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.

E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.

F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

G. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions.

1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
2. Allow for building movement, including thermal expansion and contraction.
3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.

I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

3.6 CUTTING AND PATCHING

A. Cutting and Patching, General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Temporary Support: Provide temporary support of work to be cut.

C. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

D. Adjacent Occupied Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

E. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.

F. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots neatly to minimum size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
4. Excavating and Backfilling: Comply with requirements in applicable Division 31 Sections where required by cutting and patching operations.

5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.

6. Proceed with patching after construction operations requiring cutting are complete.

G. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other work. Patch with durable seams that are as invisible as practicable. Provide materials and comply with installation requirements specified in other Sections, where applicable.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate physical integrity of installation.
2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will minimize evidence of patching and refinishing.

3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.

4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

H. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

3.7 PROGRESS CLEANING

A. General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.

1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
2. Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 deg F.
3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.

B. Site: Maintain Project site free of waste materials and debris.

C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.

1. Remove liquid spills promptly.
2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.

D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

G. Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways.

H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.

I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.8 STARTING AND ADJUSTING

A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.

B. Adjust equipment for proper operation. Adjust operating components for proper operation without binding.

C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

D. Manufacturer's Field Service: Comply with qualification requirements in Division 01 Section "Quality Requirements."

3.9 PROTECTION OF INSTALLED CONSTRUCTION

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

B. Comply with manufacturer's written instructions for temperature and relative humidity.

3.10 CORRECTION OF THE WORK

A. Repair or remove and replace defective construction. Restore damaged substrates and finishes.

1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

B. Restore permanent facilities used during construction to their specified condition.

C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300

SECTION 017419 - CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for the following:
   1. Disposing of nonhazardous demolition and construction waste.

1.2 DEFINITIONS

A. Construction Waste: Building materials and other solid waste resulting from construction or repair operations. Construction waste includes packaging.

B. Demolition Waste: Building materials resulting from demolition operations.

C. Disposal: Removal of demolition or construction waste and subsequent salvage, sale, recycling, or deposit in landfill, incinerator acceptable to authorities having jurisdiction, or designated spoil areas on Owner’s property.

D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.

E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.

F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.3 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition and construction waste becomes property of Contractor.

1.4 ACTION SUBMITTALS

A. Waste Management Plan: Submit plan within 14 days of date established for the Notice to Proceed.

PART 2 - EXECUTION

2.1 DISPOSAL OF WASTE

A. General: Except for items or materials to be salvaged, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
   1. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. General: Except for items or materials to be salvaged or recycled, remove waste materials and legally dispose of at designated spoil areas on Owner's property.

C. Burning: Do not burn waste materials.

END OF SECTION 017419

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

1. Substantial Completion procedures.
2. Final completion procedures.
3. Warranties.
4. Final cleaning.

B. Related Sections:

1. Division 01 Section "Photographic Documentation" for submitting final completion construction photographic documentation.
2. Division 01 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
3. Division 01 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
4. Division 01 Section "Demonstration and Training" for requirements for instructing Owner's personnel.
5. Divisions 02 through 49 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.2 SUBSTANTIAL COMPLETION

A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete with request.

1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.

2. Advise Owner of pending insurance changeover requirements.
3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

5. Prepare and submit Project Record Documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.

7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
8. Complete startup testing of systems.
9. Submit test/adjust/balance records.
10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
11. Advise Owner of changeover in heat and other utilities.
12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.

13. Complete final cleaning requirements, including touchup painting.
14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for final completion.

1.3 FINAL COMPLETION

A. Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:

1. Submit a final Application for Payment according to Division 01 Section "Payment Procedures."
2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Submit pest-control final inspection report and warranty.
5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.

B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.4 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction. Use CSI Form 14.1A.

1. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
2. Submit list of incomplete items in the following format:

a. PDF electronic file.

1.5 WARRANTIES

A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.

1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark 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 Installer.
3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.

4. Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide table of contents at beginning of document.

C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by 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.

1. Use cleaning products that meet Green Seal GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

PART 3 - EXECUTION

3.1 FINAL CLEANING

A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:

a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
d. Remove tools, construction equipment, machinery, and surplus material from Project site.
e. Remove snow and ice to provide safe access to building.
f. 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.
g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
h. Sweep concrete floors broom clean in unoccupied spaces.
i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
k. Remove labels that are not permanent.
l. 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.

1) Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates.

m. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.

n. Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
o. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
p. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
q. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
r. Leave Project clean and ready for occupancy.

C. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid Project of rodents, insects, and other pests. Prepare a report.

END OF SECTION 017700

SECTION 017823 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:

1. Operation and maintenance documentation directory.
2. Emergency manuals.
3. Operation manuals for systems, subsystems, and equipment.
4. Product maintenance manuals.
5. Systems and equipment maintenance manuals.

B. Related Sections:

1. Divisions 02 through 49 Sections for specific operation and maintenance manual requirements for the Work in those Sections.

1.2 CLOSEOUT SUBMITTALS

A. Format: Submit operations and maintenance manuals in the following format:

1. PDF electronic file. Assemble each manual into a composite electronically-indexed file. Submit on digital media acceptable to Architect.

a. Name each indexed document file in composite electronic index with applicable item name. Include a complete electronically-linked operation and maintenance directory.
b. Enable inserted reviewer comments on draft submittals.

2. Three paper copies. Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves.

B. Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Architect will return copy with comments.

1. Correct or modify each manual to comply with Architect's comments. Submit three copies of each corrected manual within 15 days of receipt of Architect's comments and prior to commencing demonstration and training.

PART 2 - PRODUCTS

2.1 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

A. Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:

1. Title page.
2. Table of contents.
3. Manual contents.

B. Title Page: Include the following information:

1. Subject matter included in manual.
2. Name and address of Project.
3. Name and address of Owner.
4. Date of submittal.
5. Name and contact information for Contractor.
6. Name and contact information for Construction Manager.
7. Name and contact information for Architect.
8. Name and contact information for Commissioning Agent.
9. Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
10. Cross-reference to related systems in other operation and maintenance manuals.

C. Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.

D. Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.

E. Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.

1. Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
2. File Names and Bookmarks: Enable bookmarking of individual documents based upon file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel upon opening file.

F. Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.

1. Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.

    a. Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents, and indicate Specification Section number on bottom of spine. Indicate volume number for multiple-volume sets.

2. Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.

3. Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
4. Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.

    a. If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.

    b. If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.2 EMERGENCY MANUALS

A. Content: Organize manual into a separate section for each of the following:

1. Type of emergency.
2. Emergency instructions.
3. Emergency procedures.

B. Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:

1. Fire.
2. Flood.
3. Gas leak.
4. Water leak.
5. Power failure.
6. Water outage.
7. System, subsystem, or equipment failure.
8. Chemical release or spill.

C. Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.

D. Emergency Procedures: Include the following, as applicable:

1. Instructions on stopping.
2. Shutdown instructions for each type of emergency.
3. Operating instructions for conditions outside normal operating limits.
4. Required sequences for electric or electronic systems.
5. Special operating instructions and procedures.

2.3 OPERATION MANUALS

A. Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:

1. System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
2. Performance and design criteria if Contractor is delegated design responsibility.
3. Operating standards.
4. Operating procedures.
5. Operating logs.
6. Wiring diagrams.
7. Control diagrams.
8. Piped system diagrams.
9. Precautions against improper use.
10. License requirements including inspection and renewal dates.

B. Descriptions: Include the following:

1. Product name and model number. Use designations for products indicated on Contract Documents.
2. Manufacturer's name.
3. Equipment identification with serial number of each component.
4. Equipment function.
5. Operating characteristics.
6. Limiting conditions.
7. Performance curves.
8. Engineering data and tests.
9. Complete nomenclature and number of replacement parts.

C. Operating Procedures: Include the following, as applicable:

1. Startup procedures.
2. Equipment or system break-in procedures.
3. Routine and normal operating instructions.
4. Regulation and control procedures.
5. Instructions on stopping.
6. Normal shutdown instructions.
7. Seasonal and weekend operating instructions.
8. Required sequences for electric or electronic systems.
9. Special operating instructions and procedures.

D. Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.

E. Piped Systems: Diagram piping as installed, and identify color-coding where required for identification.

2.4 PRODUCT MAINTENANCE MANUALS

A. Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.

B. Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.

C. Product Information: Include the following, as applicable:

1. Product name and model number.
2. Manufacturer's name.
3. Color, pattern, and texture.
4. Material and chemical composition.
5. Reordering information for specially manufactured products.

D. Maintenance Procedures: Include manufacturer's written recommendations and the following:

1. Inspection procedures.
2. Types of cleaning agents to be used and methods of cleaning.
3. List of cleaning agents and methods of cleaning detrimental to product.
4. Schedule for routine cleaning and maintenance.
5. Repair instructions.

E. Repair Materials and Sources: Include lists of materials and local sources of materials and related services.

F. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

2.5 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

A. Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.

B. Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product,

list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual.

C. Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:

1. Standard maintenance instructions and bulletins.
2. Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
3. Identification and nomenclature of parts and components.
4. List of items recommended to be stocked as spare parts.

D. Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:

1. Test and inspection instructions.
2. Troubleshooting guide.
3. Precautions against improper maintenance.
4. Disassembly; component removal, repair, and replacement; and reassembly instructions.
5. Aligning, adjusting, and checking instructions.
6. Demonstration and training video recording, if available.

E. Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.

F. Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.

G. Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.

H. Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

PART 3 - EXECUTION

3.1 MANUAL PREPARATION

A. Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.

B. Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.

C. Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.

D. Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.

E. Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.

1. Do not use original project record documents as part of operation and maintenance manuals.

F. Comply with Division 01 Section "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 017823

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes administrative and procedural requirements for project record documents, including the following:

1. Record Drawings.
2. Record Specifications.
3. Record Product Data.

B. Related Sections:

1. Division 01 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
2. Divisions 02 through 49 Sections for specific requirements for project record documents of the Work in those Sections.

1.2 CLOSEOUT SUBMITTALS

A. Record Drawings: Comply with the following:

1. Number of Copies: Submit one set(s) of marked-up record prints.

2. Number of Copies: Submit copies of record Drawings as follows:

a. Initial Submittal: Submit one PDF electronic files of marked-up record prints. Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.

b. Final Submittal: Submit Three paper copies and PDF electronic files of marked-up record prints. Print each Drawing, whether or not changes and additional information were recorded.

B. Record Specifications: Submit three paper copies and annotated PDF electronic files of Project's Specifications, including addenda and contract modifications.

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings.

1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.

    a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
    b. Record data as soon as possible after obtaining it.
    c. Record and check the markup before enclosing concealed installations.

2. Mark the Contract Drawings and Shop Drawings completely and accurately. Utilize personnel proficient at recording graphic information in production of marked-up record prints.
3. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
4. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.

B. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.

1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
2. Electronic File Format: Annotated PDF electronic file.
3. Record Digital Data Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
4. Identification: As follows:

    a. Project name.
    b. Date.
    c. Designation "PROJECT RECORD DRAWINGS."
    d. Name of Architect.
    e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.

2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
4. Note related Change Orders, record Product Data, and record Drawings where applicable.

B. Format: Submit three paper copies of record Specifications and scanned PDF electronic file(s) of marked up paper copy of Specifications.

2.3 RECORD PRODUCT DATA

A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.

3. Note related Change Orders, record Specifications, and record Drawings where applicable.

B. Format: Submit three paper copies of record Product Data and scanned PDF electronic file(s) of marked up paper copy of Product Data.

2.4 MISCELLANEOUS RECORD SUBMITTALS

A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

B. Format: Submit three paper copies of miscellaneous record submittals and scanned PDF electronic file(s) of marked up miscellaneous record submittals.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and modifications to project record documents as they occur; do not wait until the end of Project.

B. Maintenance of Record 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, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

END OF SECTION 017839

SECTION 024119 - SELECTIVE STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Demolition and removal of selected portions of building or structure.

B. See Division 01 Section "Construction Waste Management and Disposal" for disposal of demolished materials.

1.2 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.

B. Remove and Salvage: Detach items from existing construction and deliver them to Owner ready for reuse.

C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.

D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.3 SUBMITTALS

A. Schedule of Selective Demolition Activities: Indicate detailed sequence of selective demolition and removal work, with starting and ending dates for each activity, interruption of utility services, use of elevator and stairs, and locations of temporary partitions and means of egress.

B. Predemolition Photographs: Show existing conditions of adjoining construction and site improvements, including finish surfaces, that might be misconstrued as damage caused by selective demolition operations. Comply with Division 01 Section "Photographic Documentation." Submit before Work begins.

C. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1. Comply with submittal requirements in Division 01 Section "Construction Waste Management and Disposal."

1.4 QUALITY ASSURANCE

A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.

B. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.

C. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

D. Standards: Comply with ANSI A10.6 and NFPA 241.

E. Predemolition Conference: Conduct conference at Project site.

1.5 PROJECT CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Hazardous Materials: Hazardous materials are present in construction to be selectively demolished. A report on the presence of hazardous materials is on file for review and use. See Appendix B for coordination. Examine report to become aware of locations where hazardous materials are present.

1. Hazardous material remediation is specified elsewhere in the Contract Documents.
2. Do not disturb hazardous materials or items suspected of containing hazardous materials except under procedures specified elsewhere in the Contract Documents.

E. Storage or sale of removed items or materials on-site is not permitted.

F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1. Maintain fire-protection facilities in service during selective demolition operations.

1.6 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped.

B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.

D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.

1. Comply with requirements specified in Division 01 Section "Photographic Documentation."

F. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations. See Appendix A for coordination.

B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.

1. Arrange to shut off indicated utilities with utility companies.
2. If services/systems are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
3. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.

3.3 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1. Comply with requirements for access and protection specified in Division 01 Section "Temporary Facilities and Controls."

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

3.4 SELECTIVE DEMOLITION

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
4. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
5. Dispose of demolished items and materials promptly. Comply with requirements in Division 01 Section "Construction Waste Management and Disposal."

B. Removed and Salvaged Items:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area designated by Owner.
5. Protect items from damage during transport and storage.

C. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse. Paint equipment to match new equipment.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

1. Comply with requirements specified in Division 01 Section "Construction Waste Management and Disposal."

2. Comply with requirements specified in Division 02 for disposal of Hazardous Materials.

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.6 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 142120 – OVERHEAD TRACTION PASSENGER ELEVATOR MODERNIZATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. These specifications are intended to cover the complete modernization of two overhead traction passenger elevators operating as a duplex pair.

B. Items specified are new for all elevators unless specifically identified otherwise. Refer to all contract documents for additional details and requirements.

C. The Contractor is responsible for all items required by Code for final acceptance, whether specified or not.

D. Schedule the work such that one elevator remains operational at all times and to minimize downtime of the elevator. Refer to project schedule and phasing requirements in Division 0, Division 1 and Phasing Plan the Contract Documents.

1.2 RELATED WORK

A. Refer to the balance of the Contract Documents for work related to and associated with the elevator scope of work.

B. The following specification sections define work being performed by other trades relative to the elevator modernization. The Elevator Contractor shall not include costs for any of this scope in his bid but shall maintain responsibility for interfacing and coordinating with contractors performing the relevant work to make sure all work is acceptable as it relates to the elevator modernization work.

a. Division 02 - Existing Conditions (for lead paint and asbestos removal)
b. Division 05 - Metals (for elevator sill support angles and hoist beam)
c. Division 22 - Plumbing (for elevator sump pumps)
d. Division 23 - Mechanical (for HVAC in elevator machine rooms)
e. Division 26 - Electrical (for fire alarms, mainline disconnects, etc.)

1.3 GENERAL

A. The building shall be occupied while the elevators are being modernized.

B. Bidders are hereby instructed to bid these documents exactly as written. No value engineering alternates or substitutions shall be made without the prior express written consent of the Elevator Consultant.

C. <u>All equipment provided shall be open-source non-proprietary equipment. No Otis, ThyssenKrupp, Vertical Express, Kone, Schindler or Fujitec branded equipment shall be accepted unless specifically otherwise noted.</u>

1.4 QUALITY ASSURANCE

A. Approved equipment and component manufacturers:

1. Controller – MCE, Smartrise, Alpha Controls or Approved Equal.

2. Tracks, hangers, interlocks and door operators – GAL (no alternates)

3. Fixtures – Innovation, MAD, Monitor, or Approved Equal

4. Door Protective Device – Janus Panachrome 3D, or Approved Equal

5. Cabs – A&D Entrances, Premier Elevator Cabs, National Cab & Door

7. Machine - Imperial Electric, Hollister-Whitney, Torin Drive

B. Equipment manufacturers and components must identical for all elevators covered under this contract.

C. Minimum Contractor qualifications:

1. Contractor and/or Subcontractors performing the work must meet minimum qualification requirements as specified herein.

2. By submitting a Bid, Bidder represents that minimum qualifications have been satisfied. The Owner and/or their representative reserves the right to verify any and all information required herein. Information relating to contractor qualifications that cannot be verified may serve as sufficient cause for bidder disqualification.

3. Although Contractor's and Subcontractors' personnel qualifications are important, qualifications required within this section shall be qualifications of the Contractor, not specific Contractor personnel unless requested.

4. Minimum Contractor and/or Subcontractors Qualification Requirements:

a. Must have a valid New Jersey Elevator Contractor Registration

b. Prior Experience

i. Elevator Contractor Corporation performing work shall have been in business for a minimum of fifteen (15) years.

ii. Shall currently maintain a minimum of 500 elevators including at least 200 within a 10-mile radius of the project site. Scope of maintenance and service contracts should be similar to and encompass those needed for the present project and shall carry all required insurance as defined by Owner.

5. Minimum Maintenance Supervisor and Project Manager Qualifications

a. Maintenance Supervisor shall have a minimum of twenty (20) years of supervisory experience on similar projects and should have some demonstrable engineering knowledge related to the repair and maintenance of elevator systems.

b. Project Manager shall have performed in supervisory role as Project Manager on at least ten (10) projects within the last two calendar years and have worked in the elevator industry for a minimum of twenty (20) years and shall possess a current QEI qualification.

c. Mechanic Qualification

i. All elevator mechanics working on the project shall have installed similar equipment on at least ten (10) previous projects and must have a current and valid New Jersey Elevator, Escalator, and Moving Walkway Mechanics license.

1.5 STANDARDS

A. Except as modified by governing Codes and by this Division, the work shall comply with provisions of the latest adopted editions of the following, and in the event of conflict between these standards, the Elevator Consultant's determination shall be final:

1. Safety Code for Elevators and Escalators, ASME A17.1, and all supplements
2. NFPA Life Safety Code
3. Title III of the Americans with Disabilities Act (ADAAG)
4. International Building Code
5. NJAC 5:23-12 Elevator Safety Subcode
6. UCC-F150 Elevator Subcode Technical Section
7. City of Irvington, NJ Rules, Regulations and Ordinances
8. Guide for Inspections of Elevators, Escalators, and Moving Walks, ASME A17.2, latest adopted edition
9. Safety Code for Existing Elevators and Escalators, ASME A17.3
10. Guide for emergency evacuation of passengers from elevators, ASME A17.4
11. National Electrical Code (ANSI/NFPA 70)
12. ASME A17.5/CSA-B44.1 - Elevator and escalator electrical equipment.
13. NEMA: National Electrical Manufacturers Association.
14. NFPA: National Fire Protection Association
15. OSHA: Occupational Safety & Health Administration.
16. UL: Underwriter Laboratories.
17. IEEE: Institute of Electronic & Electrical Engineers.
18. AIA: American Institute of Architects.
19. ADA: Americans with Disabilities Act.

B. The Contractor shall advise the Elevator Consultant of pending code changes that could be applicable to this project or property.

C. The Contractor is responsible for all items required by Code for final acceptance, whether specified or not. Bidders shall review all project drawings and include a list of any Code required base building items related to elevator installation not shown on the project drawings that are required. Bidder assumes liability for providing any missing Code required base building items not identified in their bid at no additional cost to Owner.

1.6 ENGINEERING DRAWINGS, SUBMISSION, SAMPLES, CUTS AND DRAWINGS

A. Elevator contractor shall be responsible for contracting an elevator engineering firm to produce detailed engineering drawings for the alteration. Any design drawings provided with bid package are hereby deemed to be conceptual and for general layout purposes only.

B. Name of proposed engineering firm and/or individual performing the work along with a statement of their qualifications and relevant references must be submitted to the Elevator Consultant for review and approval prior to any such engineering firm or individual being engaged for use on the project.

C. Within twenty-one (21) days of the Notice to Proceed, the Contractor shall provide three (3) sets of submissions. Partial submissions are not acceptable. All submissions shall be made at one time, complete, in a single package. Transmittal letter shall be marked with Contractor's name, project name and contract number.

B. The Contractor shall survey the shaft, machine room and pit and obtain all measurements and conditions which are related to his work. The Contract Documents are for reference only and shall not be considered sufficiently accurate for the proper engineering of the system(s).

C. The Shop Drawings shall show material type and gauge, general dimensions, methods of attachment, location and size of reinforcements and openings, and a general arrangement of components. Approval thereof shall not relieve the Contractor of compliance with the specification, unless the attention of the Elevator Consultant is called to the non-complying features in writing.

D. The Drawings submitted shall be as follows:

1. Elevator section showing overhead, pit and floor to floor dimensions. The drawing shall be scaled and shall show all concrete structure and divider beam locations and details. Details shall include the height of the cab, door operator and crosshead, including details of rope shackle.

2. Hoistway plan shall clearly show all typical dimensions to scale. In addition, plan shall identify all structural beam and divider beam locations and sizes; widths and depth of beams as they relate to the clear hoistway and hoistway walls; column pads in the pit and all column intrusions into the shaft. Provide large scale drawings and details of sill support condition and any column encroachments.

3. Provide machine room plan showing all typical dimensions and equipment layout. Show clearly all electrical disconnects or switchgear in the code compliant location and to scale. Provide location and size of the machine support including the attachment of the machine beams to the building structure.

4. Provide large scale drawings for the car enclosure showing cab plan, reflective ceiling, wall elevations, front returns and car station integration. Detail section through wall panel from canopy to platform. Detail section through suspended ceiling including attachment to canopy. Detail typical joints, reveals and panel edging, panel attachments, handrail fastening and pad button attachment to shell. Include all gauges of steel components. Provide thickness and type of materials used for wall panels and ceiling along with lamination details.

5. Entrance details with the same specifics and quality of information provided for the cab details.

6. Provide fixture drawings job specific in large scale. Identify all engraving including font, depth of engravings and infill color material. (No applied or recessed plates shall be acceptable except for Braille plates.) Provide gauges of all material used for car stations. Provide faceplate fastener and hinging method and type.

7. Provide cut section through emergency light, position indicator, intercom/telephone, buttons, Braille plates and service cabinet, if request.

8. Fixture, cab and entrances shall each be provided from a single source manufacturer/supplier for all elevators. Drawings shall be submitted for all elevators at the same time.

9. Car frame and car platform construction details and layout complete.

10. Machine isolation foundation fastening details and hydraulic oil line isolation fastening details (as applicable). Include manufacturer's data of all isolation equipment used.

11. Provide any and all sketches, clarifications and drawing modifications requested by the Elevator Consultant. All ancillary sketches requested shall be scaled and adequately detailed for review.

E. Sample submissions (as requested by the Elevator Consultant or Architect) may include:

1. Cab or fixture material and finishes.

2. Braille plates and jamb designation.

3. Push-buttons and position indicators.

F. Sixty (60) days prior to the completion of the work of the contract, the Contractor shall submit to the Construction Manager six (6) copies of an Operation Maintenance and Parts Manual and six (6) complete sets of as-built. These shall be reviewed, and if approved, shall become the property of the Owner.

1.7 TERMS

A. The terms used herein are defined as follows:

1. “Owner” shall mean the Irvington Housing Authority.
2. "Architect" shall mean the firm of Clarke Caton Hintz.
3. “Elevator Consultant” shall mean the firm of B Squared Engineering, LLC.
4. “Contractor” shall mean the person, firm or corporation named in the Contract Documents who will execute the Work. It shall include all his employees, subcontractors and suppliers.

1.8 MAINTENANCE

A. Furnish full protective maintenance and service on the equipment as described in Section 144000 of this Project Manual on an interim basis during the modernization for a period of five (5) years from the date of final acceptance of the entire installation of the entire project.

1.9 GUARANTEE

A. After award, furnish a written guarantee from the equipment manufacturer which states that replacement parts and/or major components for the equipment installed will be available for a period of fifteen (15) years after final acceptance.

B. Guarantee in writing that any defects not due to ordinary wear and tear or improper use which may develop within two (2) years from the date of final acceptance of each elevator installation will be made good at no additional cost. In the event that contractor performing post-modernization full-service maintenance is other than contractor who performed modernization work, contractor performing modernization work shall transfer all equipment warranties for parts to the company performing maintenance.

C. Repairs or replacements made under the guarantee shall bear an additional one (1) year guarantee dated from final acceptance of repair or replacement, or through the end of the original two (2) year guarantee period, whichever is longer.

D. During the guarantee period, replace or repair any piece of equipment that is found to be defective. The replacement or repair shall be done as soon as notified. Repair all damage to surrounding work caused by defective equipment.

1.10 DEFINITIONS

A. All terms in the specifications shall be as defined in ASME A17.1.

B. The term "Provide" or “New” shall mean furnish and install.

C. The words "or equal", "or approved equal", "equal to", refer to substitution of a manufacturer not specified; and shall require approval in writing from the Elevator Consultant prior to bid or prior to installation, if substitution is requested after award.

D. The terms "Adequate" or "Sufficient" means adequate or sufficient in the opinion of the Elevator Consultant.

E. “Reuse” refers to salvageable components to be cleaned and utilized in the completion of the work specified herein.

1.11 CONDITIONS

A. The Contractor shall examine all drawings relating to this work and become fully informed as to the extent and character of the work required. All measurements, layouts and the exact conditions of the work shall be verified by the bidder. If any of the conditions conflict with or affect the proposed work, the Contractor shall notify the Elevator Consultant, in writing before the bid date. No allowances will be made for failure to avail himself of such information.

B. All equipment and shop work area shall be provided by the Elevator Contractor and shall be in an area approved by the Owner.

C. Any work that is disturbed by this work, shall be restored to a "like New" condition by the Contractor.

D. The Contractor shall take measurements at the project site so that all of his work will properly fit together and conform to and join the work installed under other sections of this Contract. The Contractor, before commencing work, shall make certain that all adjoining work on which this work is in any way dependent for perfect workmanship, shall be properly in place and in proper order to receive all elevator work.

1.12 ENERGY MONITORING, SAVINGS VERIFICATION AND ESCO SERVICES

A. As part of the base scope of work, and not separately billable by Contractor to Owner, Contractor shall retain the services of a qualified ESCO, who specializes in elevator type projects, to perform all services required related to measurement and verification of energy savings and to prepare and submit all required forms to the relevant utility and/or government authorities necessary to secure any and all rebates for Owner. ESCO may also be required to provide documentation and certifications for ESCO type financing solutions with various financial institutions and prepare EPACT §179(d) calculations, statements and certifications.

B. Name of ESCO along with a statement of their qualifications and relevant references must be submitted to Elevator Consultant for review and approval prior to any such ESCO being engaged for use on the project.

1.13 EXISTING VIOLATIONS

A. The Elevator Contractor is responsible for having all existing or pending City or State Violations, regardless of age, on the newly modernized elevator(s) removed once modernization work on that elevator is complete. Any paperwork, expediting, hearings and/or any other means necessary to clear all violations shall be the sole responsibility of the Elevator Contractor. If there is work that needs to be performed by someone other than the elevator contractor, or work that was not included in the modernization scope of work, the contractor MUST inform the Owner’s representative and the Elevator Consultant in writing. The contractor, however, is not responsible for fines incurred up to the point of the elevator being returned to normal service.

1.14 ACCEPTANCE AND CAT 1 AND CAT 5 TESTING OF ELEVATORS

A. A Category One and Category Five test shall be performed at the time of the final acceptance test. It is the sole responsibility of the contractor to ensure that all necessary paperwork has been submitted, in a timely manner to the relevant authorities having juristiction and all weights, staffing and any other items needed for the test be available. The contractor is to perform and file such test the same day as the acceptance test providing the inspector has passed the newly modernized elevator. All test witnessing shall be performed by the Elevator Consultant.

B. Should the Elevator Contractor fail to notify the Elevator Consultant of the acceptance test at least five days in advance and the Elevator Consultant is not able to attend the test, it will be the elevator contractor's responsibility to perform the test again in the presence of the consultant at no additional charge to the client.

1.15 ELECTRICAL FILING

A. When filing the proper elevator and electrical permits with the relevant authorities having jurisdiction, the contractor shall also file the proper electrical permits. It is the sole responsibility of the elevator contractor to file and have all permits signed off, as well as all and any filing fees.

1.16 PERMITS AND EXPEDITING SERVICES

A. All City and State permits are the Contractor's responsibility. The Elevator Contractor shall secure any necessary building permits required for performance of work to be done by other trades. The Elevator Contractor shall obtain and pay for all municipal and state permits necessary for execution of the elevator work, including all fees associated with expediting. The Elevator Consultant will be providing all expediting services on the project. The contractor is responsible for signing off all elevators.

1.17 RUNNING OF THE CARS FOR OTHER TRADES

A. Contractor shall include in his bid sixteen (16) hours of running of the car for other construction trades prior to the car being inspected, at no additional charge to the Owner. If the elevator has not yet been tested and accepted by the relevant authority having jurisdiction, then at all times relevant, it shall be run by an individual possessing an active New Jersey Elevator Mechanic License. This sixteen (16) hour requirement is in addition to any other requirements listed herein related to running of the cars for any other purposes. Owner shall receive a credit for any hours not used at the contractor's standard team billing rate.

B. As part of engineering, submittals and drawing phase of work, Contractor shall thoroughly inspect the hoistways and provide a written report to Owner documenting locations where any hoistway wall repairs are needed. Owner shall provide masonry contractor to make the repairs as the work proceeds on each car.

1.18 CCTV CAMERA SYSTEM

A. Provisions shall be made for a CCTV camera to be mounted in the ceiling of each cab. Contractor shall include any cutouts, brackets, 14-gauge tamperproof housing and GFCI outlet dedicated for the CCTV camera installation and hook-up. Contractor shall bear full responsibility for working with Owner's security vendor for installation of cameras in the elevators including providing all required wiring and hookups within the elevator hoistway, machine room and car. New cameras installed shall be as small as practical and cover as wide a viewing range as possible to provide coverage as much of the elevator cab interior as possible, with a minimum of the elevator entrance and car operating panel. Provide an additional GFCI duplex receptacle on the car top for the camera power supply, as required.

PART 2 – PRODUCTS

2.1 DESCRIPTION OF ELEVATOR UNITS

A. Overhead Traction Passenger Elevators:

1.	Quantity:	Two (2)
2.	Type:	Overhead AC Gearless Traction Type
3.	Capacity:	2,000 lbs.
4.	Speed:	200 FPM
5.	Travel:	Existing
6.	Number of Landings:	11 @ 1 - 11
7.	Number of Openings:	PE-1: 11 PE-2: 12
8.	Door Openings:	PE-1: All Front PE-2: F: 1-11, R: 1
9.	Operation:	Duplex
10.	Control:	Microprocessor with VVVF-AC Regen Drive
11.	Number of Push Button Risers:	Two (2)
12.	Guide Rails:	Retain and Refurbish Existing
13.	Buffers:	Retain and Refurbish Existing
14.	Cab Included:	New Shell and Finishes
15.	Door Operation:	Single Speed Side Opening
16.	Fixture and Signals:	New for Car and Hall
17.	Machine Type:	Gearless Traction 1:1 Roping
18.	Machine Location:	Overhead
19.	Power:	New
20.	Deflector Sheave:	New in Elevator Machine Room
21.	Machine Manufacturer:	Imperial Electric, Hollister-Whitney, Torin
25.	Door Equipment Manufacturer:	GAL Manufacturing
26.	Fixture Manufacturer:	Innovation, MAD, Monitor
27.	Ropes:	Minimum ½" or 10mm
28.	Car Frame Construction:	Refurbish and Retain Existing
29.	Platform Construction:	Refurbish and Retain Existing with New Marine Grade Plywood Sub-Floor
30.	Entrances:	Retain, Refurbish and Reuse Existing
31.	Counterweight Frames:	Retain and Reuse Existing or New if King Weights or if there is insufficient room for 50% counterbalance. Add weights as needed for 50% counterbalance.

32.	Hoistway Doors:	Retain, Refurbish and Reuse Existing
33.	Door Equipment:	New Tracks, Hangers, Interlocks, Closers, Door Headers, Pickup Rollers, Gibs, Bumpers, Emergency Release Assemblies, Linear Door Operator
34.	Guide Shoes:	New Roller Guide Assemblies for the Car and Counterweights
35.	Special Features:	New Rope Gripper, Per Code
		Reactivate Unused 1st Floor Rear Entrance at Car PE-2
		Emergency Power / Generator Operations
		Security camera wiring

2.2 MACHINE ROOM LOCATION

A. The elevator machine shall be placed directly over the hoistway, mounted on steel beams or channels, furnished in place, with any necessary bearing plates. These beams or channels shall be securely fastened to building structural supports which will be provided under another section of the specifications. Any required slab demolition necessary for installation of new machine shall be included. All slab repair around machine after installation shall be included.

B. Furnish and install any additional structural members required for the installation of the equipment, such as supports for governors. Provide rope guards for machines as required.

C. All required forms, templates and sleeves shall be furnished and set by the Contractor.

D. Mount the machine and unitize deflector sheave assembly above the machine room slab, if possible. Deflector sheave may remain within the elevator hoistway only if good reason exists and only with the express authorization of the Elevator Consultant.

E. Vibration isolating machine foundation shall effectively prevent transmission of machine vibration to the building structure. Location and deflection characteristics of the vibration isolation units used shall be such as to produce an approximately uniform and non-excessive loading on the units under all operating conditions from minimum to maximum rated elevator load lifting capacity. The foundation shall incorporate positive means to prevent lateral displacement of the machine. Provide bearing pads to provide a minimum of 0.35-in. of static deflection when loaded for vibration isolation.

F. Deflector Sheaves shall be of hard alloy cast iron, semi-steel or cast steel of approved composition, with proper grooves for deflection. Surface of sheave shall have hardness between 220 and 240 Brinell and shall be plainly stamped. The diameter of each deflector sheave shall not be less than 40 times the diameter of the hoisting rope. Provide standard ball bearing sheaves on steel shaft. Provide four bolt type support blocks for deflector sheave. Provide guard around deflector sheave.

2.3 GEARLESS ELEVATOR HOISTING MACHINE MOTOR

A. The elevator machine shall be of the single-wrap gearless traction type designed for elevator service with a slow speed, direct current motor directly connected to a driving sheave and brake pulley. The elevator machine and related accessories shall be rigidly mounted on a fabricated steel bedplate.

B. The bedplate of the machine shall be isolated from the building structure by means of elastomer pads properly loaded for the static and dynamic forces developed by the machine. The type and number of pads shall be as required to limit objectionable structure borne noise transmission into occupied spaces. Adjustable mechanical stops shall be incorporated in the bedplate design to prevent excessive rocking that would cause the elevator to attempt to re-level.

C. A new electromechanical disc brake shall be provided on the machines. The new brake shall be spring applied and electrically activated. Brake shoes shall be applied to the braking areas simultaneously and with even pressure by means of helical compression springs. An electro magnet shall be used for fast release and for gradual smooth operation of shoes. The brake shall be able to hold 125% of the elevator capacity. The contractor shall provide all necessary machine supports and anchoring. Brake switches are required to monitor brake activation.

D. The secondary sheave shall have grease lubricated antifriction bearings and shall be mounted above the machine room floor.

2.4 SOLID STATE CONTROLLER

A. Provide the elevator installation with controllers to fit within the space conditions.

B. The Controller shall be non-proprietary and equipped with solid state components and printed circuit boards to control the hoisting machine and signal functions in accordance with this specification.

1. Approved manufacturers: Subject to compliance with the requirements of this Section, provide controller equipment of one of the following manufacturers, or approved equal: MCE, Smartrise, or Approved Equal.

2. The controller shall include, but not be limited to the following features.

1) Password accessible.
2) Inspection control.
3) Fireman’s service.
4) Independent service.
5) Diagnostics.
6) Built-in remote monitoring, control and programming via on-board TCP/IP interface.
7) On-board color display and keyboard which can be used for monitoring and viewing all controller parameters, including acceleration and deceleration speed curves. Minimum monitor size shall be 12-in.
8) Realtime on-board clock for fault-log.

C. The controller assembly shall provide efficient, smooth, step-less acceleration and deceleration of the elevator hoisting machine, automatically and irrespective of the load in the car. All control equipment shall be enclosed in a metal cabinet with lockable, hinged door(s), and shall be provided with a means of forced ventilation. All non-conducting metal parts in the machine room shall be grounded in accordance with controller manufacturers’ specifications and the latest International Electrical Code. Cabinet shall be securely attached to the building structure. All Controllers shall be identified with 4 inch letters.

D. Modules or Solid State boards for the control of the elevator system, including dispatching, signals, door operation, etc. shall be installed in a NEMA Type I, General Purpose Enclosure. All similar modules or solid state boards shall be interchangeable between controllers of a particular development and interchangeable with other controllers built to the same specifications.

E. Modules or solid state boards shall be fuse protected. Each module or solid state board and fuse (with ampere rating) shall be identified by name, letter or standard symbol in an approved, indelible and legible manner on the device or panel. Coordinate identification markings with identical markings on wiring diagrams.

F. The electrical connections between the printed circuit boards (modules) and the circuit connectors incorporated in the mounting racks shall be made through individual tabs which shall be an integral part of each module. The tabs shall be nickel-gold plated (or of other approved metal of equal electrical characteristics). Modules shall be keyed or notched so as to prevent insertion of the modules in the inverted position.

G. Light emitting diodes (LEDS) shall be used for visual monitoring of individual modules and marked with familiar terminology.

H. Components shall have interlocking circuits to assure fail-safe operation, and to prevent unwarranted elevator movement, should any component fail to function properly.

I. Wiring shall be arranged so that similar voltages are grouped together.

J. If modules are used, they shall be of the type that plug into pre-wired mounting racks. Field wiring or alteration shall not be necessary in order to replace defective modules.

K. Field wiring changes shall be made only to the mounting rack connection points and not to the individual module circuitry or components. Individual modules, requiring design changes shall be returned to the factory where changes shall be made and module design records updated so that correct replacement units shall be available.

1. All shaft and traveling cable wires shall be able to withstand accidental connection to any other shaft or traveling cable connection without causing permanent damage to the equipment. Replacement of fuses or other “low cost” protection devices is acceptable. All outputs shall withstand the application of a short circuit across the output terminals without causing permanent damage to the equipment.

L. Module boards shall be moisture resistant, fabricated from non-conductive, non-corrosive material, and shall be of sufficient strength so as to support all components mounted thereon without warping. Mounting racks shall be spaced sufficiently apart to prevent accidental contact between individual modules.

1. All logic symbols and circuitry designations shall be in accordance with ASME Standards.

M. Solid state components shall be designed to operate normally within a temperature range of 20° F, and 120° F.

N. Wiring connections for operating circuits and for external control circuits shall be brought to terminal blocks mounted in an accessible location within the controller cabinet. Terminal blocks using pierce-through serrated washers are not permitted. Clearly mark and color code the voltages on the terminal strips.

O. A diagnostic testing device shall be permanently installed on each controller, for all trouble-shooting procedures related to the specific type controls installed on this Contract.

1. Diagnostics shall include but not be limited to the following control circuits:
   a) Interlocks.
   b) Car door gate switch.
   c) Up and down slowdown limits.
   d) Up and down normal limits.
   e) Up and down final limits.
   f) Emergency stop switch in car.
   g) Emergency stop switch on top of car.
   h) Safety plank switch.
   i) Governor overspeed switch(es).
   j) Top and or side emergency exit switch.
   k) Comp sheave switch.
   l) Hoist motor overloads.
   m) Pit stop switch.
   n) Tape switch.
   o) Oil Buffer switch.
   p) Door Operator overload switch.
   q) Generator overload switch.

2. The Fault Monitoring System shall record and report faults in a sequential fashion. When more than one (1) contact is open, the contact with the highest priority will be displayed first. After this one is satisfied any additional open contacts will be displayed in the same sequential fashion.

3. Error messages are to be stored in a non-volatile memory for future recall.

4. If repairs or replacement of the testing devices become necessary prior to the end of the one (1) year Warranty period, the repairs or replacement shall be provided at no additional cost to the Owner.

P. Controller shall be provided with the capability of having qualified elevator personnel move elevator at inspection speed with safety circuit open. This operation is to be available by operating selective relays on the controller.

Q. In addition to printed hard copies, all documentation for wiring diagrams shall be provided in electronic format:

1. All documentation for wiring diagrams shall be provided on a USB memory key, in an Acrobat™ Portable Document Format (PDF).

2. All job parameters, both for the controller and motion control equipment, shall be provided.

R. The use of standard issue communication devices, such as walkie-talkies or call phones, from in front of the controllers, with the doors open, should not cause intermittent or permanent problems with the proper operation of the controller equipment

S. The Contractor shall provide electrical (over-current) protection for each elevator hoist motor. When activated, it shall disconnect power from the elevator hoist motor and hoist machine brake. Activation of the motor protection device shall require a "Manual Reset". The motor protection device shall be clearly labeled and identified at the terminals and a cover plate shall be provided with a light illumination indicating that this device has been tripped with a reset button provided to restore normal operation. The motor protection equipment and its method of connection to the elevator system must be shown on the wiring diagram.

T. In the event of a power outage, the equipment shall be arranged, so that once the normal power supply has been re-established, each elevator will automatically return to service.

U. The Safety circuits shall be designed to individually fuse the following:
1. Gate switch & secondary gate switch.
2. Interlocks
3. Normal limits (up & down)
4 Final limits (up & down)
5. Slowdown limits (up & down)
6. Pit switch, governor switch, buffer switch, comp switch & pit door switch.
7. Top emergency exit switch, Car safety switch, top of car inspection stop switch, side exit switch, stop switch in car, safety edge & electric eyes.

V. The control system for the elevators shall be arranged to maintain consistent acceleration and deceleration rate changes and floor leveling accuracy regardless of load.

W. Controller shall incorporate direction switches, reverse phase protection, over current protection, single-phase protection in each phase, and switching to provide smooth acceleration and deceleration.

X. Controller shall be provisioned with all required hardware and software to accommodate all required functionality, including sequential lowering operations and selective car operation, should emergency an power generator be added to the building in the future.

Y. Provide a three-phase voltage monitor (RPR), model PLR240A, as manufactured by SSAC inc., or approved equal.

Z. Provide rubber mats in front of all controllers and group supervisory panels.

2.5 VARIABLE VOLTAGE VARIABLE FREQUENCY - AC CONTROL SYSTEM (REGEN)

A. The elevator hoist machine shall be gearless traction having an AC motor. The control of the hoisting motor shall be by means of a solid state drive system. The speed, acceleration and deceleration shall be automatically and continuously controlled by varying the frequency and voltage of the motor. A closed loop system shall be provided.

B. The drive shall utilize a 3 phase, full wave rectifier and capacitor bank to provide direct current for the solid state inverter. The control principle shall be based on constant flux control utilizing pulse width modulation. The drive shall be capable of providing not less than 200% of the motor name plate rated current for not less than 60 seconds.

C. A means shall be provided for removing regenerated power and return it to the 3 phase AC power line.

D. The final stopping shall be performed independent of the machine brake which shall be applied to hold the car at a floor only after the car has stopped.

E. The drive shall not create excessive audible noise in the elevator motor and control system.

F. The drive system shall include but not necessarily be limited to the following features:
   1. Maintain a car speed within +/- 5% of the rated speed.
   2. Protection against excessive motor current in addition to normal overload relays.
   3. Maintain operation within 90 to 110% of nominal line voltage.
   4. Line fault protection to prevent operation under:
      1) Loss of phase.
      2) Low line voltage.
      3) High line voltage.
   5. The transistor protection shall ensure 100% protection of the transistors and prevent fuse blowout.
   6. Continuous supervision of the braking resistors shall be provided.
   7. Motor contacts shall disconnect the motor stator winding during each stop. In normal operation, the contactors shall operate only under zero current conditions, but must be capable of interrupting the line current should an emergency stop be required.
   8. The drive system shall continuously monitor the hoisting motor operation and motor torque in order to ensure 100% safe elevator operation at all times.
   9. The AC variable frequency drive system shall be by Mitsubishi, G.E. or approved equal.

2.6 SELECTORS

A. Provide an absolute position selector electronically and optically operated and located on Car Top. The operation of the selector shall be to govern functions such as direction of travel, automatic stopping and leveling at landings.

2.7 SPEED REGULATION

A. Speed regulation shall be such that the maximum velocity attained with any load up to full load in the car on either "Up or "Down" motion shall not vary more than 5% plus or minus from normal operation velocity.

B. The acceleration and deceleration of the cars under any condition of load shall be as nearly constant as is possible with the method of control specified and employed, and shall be independent of the operating devices in the car.

C. Entire elevator equipment including hoisting machines and controllers shall operate without noticeable irregularities and as quietly as can be obtained by use of high grade materials, first class workmanship, and adjustment.

2.8 SPEED GOVERNOR AND TENSION SHEAVE

A. Provide centrifugal type speed governor with an overspeed switch for each direction of travel. Safety rope grip shall lock in position when governor trips and shall be held in contact with the rope both by springs, and by sliding action and pull of the rope in the grip. The rope grip jaws shall be of the parallel jaw or equivalent type, of such shape and length that the pull-through action of the governor rope as required by the ASME Code will result in a minimum amount of abrasion. Governor jaws shall be machined and so arranged that if worn, they can be replaced. Speed governors shall be located in the overhead.

B. Provide tension frame and sheave. Proper tension in governor rope shall be maintained by a weighted tension sheave located in the pit. This sheave shall be protected with a 16 USSG sheet metal guard to prevent foreign objects from being caught between the governor rope and sheave. Tension sheave shall be provided with a grease gun fitting to receive grease lubrication.

2.9 ASCENDING CAR OVERSPEED PROTECTION DEVICE

A. Provide a device designed to prevent an ascending elevator from striking the hoistway overhead structure. The device shall decelerate the car with any load up to the rated capacity by applying an emergency brake.

1. The device shall detect an ascending car overspeed condition of not greater than 10% higher than the speed that the car governor is set to trip.

2. The device, when activated, shall prevent operation of the car until the device is manually set.

3. The device shall meet the requirements of Section 2.19 of the ASME A17.1 – 2016 Safety Code.

4. A secondary brake on a gearless traction machine shall not qualify as meeting these requirements.

2.10 UNINTENDED CAR MOVEMENT PROTECTION DEVICE

A. Provide a device to prevent unintended car movement away from the landing when the hoistway doors are not in the closed and locked position and the car doors are not in the closed position.

1. The device shall prevent such movement in the event of failure of the electric driving machine motor, brake, coupling, shaft or gearing, control system, and any other component upon which the speed of the car depends, except the suspension ropes and the drive sheave of the traction machine.

2. The device, when activated, shall prevent operation of the car until the device is manually reset.
3. The device shall meet the requirements of Section 2.19 of the ASME A17.1 – 2016 Safety Code.

4. A secondary brake on a gearless traction machine shall not qualify as meeting these requirements.

2.11 OPERATIONS

A Group Operation

1. A microprocessor based group system shall be provided which will evaluate real time data and selects the best car to serve any given hall call demand. The group system assignment of cars shall provide efficient handling of varying traffic demands in terms of passenger waiting time and passenger transit time.

2. The group system shall analyze building traffic conditions including, but not limited to the following: hall call demand, number of assigned hall calls, number of cars in operation, number of car calls, number of car stops, car position, car direction, car's anticipated direction of travel, car loading, car status, car motion status, car door status, call waiting time, door opening time, door closing time, coincidence calls, and estimated time of car arrival.

3. The dispatching algorithm shall use mathematical modeling and queuing theory to optimize elevator service to the building. The dispatching algorithm shall minimize the mean waiting time, the maximum waiting time and the number of late calls.

4. This algorithm shall cover all two-way traffic demands such as light, medium, and heavy traffic situations. The algorithm shall compile the required physical and statistical data and parameters that are necessary to perform the above minimization tasks.

B. Fireman Service Phase I and II

1. Provide Fireman Service Phase I (Emergency Recall Operation) and Phase II (Emergency In-Car Operation) for the elevator as required by the latest adopted edition of ASME A17.1.

C. Inspection operation

1. Provide key-operated hoistway access device and car top operating device. Key switches shall be mounted in existing locations at terminal landings.

D. Independent service

1. Independent service operation shall be provided so that, by means of a switch located in the car service cabinet, the car can be removed from automatic operation and be operated by an attendant. The attendant shall have full control of the starting, stopping and direction of car travel.

2. The car shall respond to car buttons only. The hall signals for the car on independent service shall not operate.

E. Anti-nuisance

1. Provide "anti-nuisance service" whereby all car calls will be cancelled if the load-weighing device detects that an abnormal number of calls are registered given the number of passengers in the car.

2. System using false call answering to accomplish this is not acceptable.

F. Operation under fire or other emergency conditions

1. Provide special emergency service to comply with ASME A17.1, CCR Title 8, IBC and local codes having jurisdiction.

2. Provide Phase 1 recall switch at main floor elevator lobby and fire control life safety room. Interlock recall switches to prevent simultaneous activation.

3. Key switches at main floor shall be integrated in hall button station with engraved instructions.

2.12 LOAD WEIGHING DEVICE

A. The elevator platform shall be equipped with a proximity sensor which senses the amount of deflection in the platform. The device shall be equipped with the ability to have three separate settings. Each setting shall be adjustable. The device shall be able to identify specific loads in the cab so as to aid the dispatcher in correctly identifying the cab load and either by-pass hall calls or zone the elevators. Also included shall be additional inputs for adjustable torque compensation if required for smooth operation.

2.13 HOISTWAY EQUIPMENT

A. Hoistway Entrances

1. Retain, refurbish and reuse all existing hoistway entrances and doors. Reactivate rear entrance of Car PE-2, currently landed and pinned.

2. Provide floor number designations, at least 4" high, on each hoistway entrance door (hoistway side).

3. Hangers and Tracks: All doors shall be hung on new heavy duty ball bearing, sheave type hangers, sheaves not less than 3-1/8" riding surface diameter with adjustable upthrust rollers of metal design, running on a polished stainless-steel track. Sheave rollers shall be of nylon or equal, with no flat spots. Hangers that are not mounted flush with the top of the door shall be provided with new metal stiffeners and shall be installed to eliminate excessive movement. An upthrust safety retainer shall be installed on the door hanger to prevent the door from coming off the track due to vandalism or impact.

4. Removable Guides: Each door panel shall be guided at the bottom by two (2) removable guides, of solid nylon or solid Teflon, mounted in galvanized steel brackets, and fastened with stainless steel machine screws, sliding in the hoistway slide door sill groove.

5. Rubber Bumpers: Provide rubber bumpers on the hoistway slide door hanger tracks, (both front and rear) instead of the hoistway door frame. After their final adjustment, permanently pin so that they cannot be removed.

6. Hoistway Slide Door Sill Mounted Spring Closers: Provide sill mounted Hoistway side slide door spring closers for all hoistway entrances.

7. Hoistway Door Safety "Z" Bar Guide: Provide one stainless steel safety "Z" bar guide on the underside of all doors and securely fasten to the underside of the door with stainless steel countersunk machine screws. Mount the safety "Z" guide adjacent to and in between the removable guides.

8. Install any missing fascias: Fascia shall be #14 USSG galvanized steel reinforced to ensure a flat even surface. Securely fasten to the header and sill above.

9. Install any missing toe guards at the lowest landing. The toe guards shall be No. 14 USSG galvanized sheet steel, secured to the lowest sill and gradually beveled to the wall.

10. Fascias, cover plates, enclosures, dust covers and toe guards shall be of galvanized steel.

B. Hoistway Door Interlock

1. Provide each front and rear hoistway entrance with new electro-mechanical interlocks as manufactured by G.A.L. Manufacturing Corporation. Interlock shall prevent the operation of elevator unless all doors are closed and positively locked. Interlock shall be of a type that shall satisfy the requirements of the ASME Code. (Provide at ALL entrances)

2. Provide all wiring from shaft riser to the new interlock. The wiring shall be type SF-2 Silicon insulated fixture wire with Silicon rubber insulation. Conductors shall have insulation with an operating temperature of 392ºF (200º centigrade). Flexible steel conduit running to shaft conduit boxes shall be properly supported with approved straps.

3. Car and Hoistway Door Clutch Device: Provide each car with a car and hoistway door clutch device. The clutch shall be of a type and design that shall function with the hoistway slide door interlocks to be installed as hereinbefore specified above. The car doors shall be reinforced for mounting of the car door clutches. All hoistway door interlock release rollers shall be properly adjusted so that at no time will the car door clutch device strike the release roller and thus cause the elevator to stop between floors. Provide equipment manufactured by GAL.

C. Terminal Stopping Devices

1. Provide upper and lower normal terminal stopping devices arranged to automatically stop the car from any speed attained in normal operation within the top and bottom over-travel, independent of the operating devices, final terminal stopping device and buffer devices.
2. Final terminal stopping devices shall be arranged to automatically stop the car and counterweight from speed specified within the top clearance and bottom over travel independent of the operation of the normal terminal stopping device with the buffers operative.

3. Provide top and bottom slowdown devices as required to accommodate the available top and bottom runbys.

4. Final terminal stopping devices shall be through bolted to the rails.

5. Opening on limit switches shall face down.

D. Counterweights

1. If existing counterweights are king weights, provide all new counterweight sling, frame, and filler weights. Otherwise, counterweight frame, sling and weights shall be completely refurbished. The elevator shall be completely balanced, as per elevator machine manufacturer's requirements, upon the completion of all work. Counterweight guards shall be furnished. Any changes in the elevator cab weight, as a result of the cab modifications will be included. A counterweight Runby data plate shall permanently and securely provided in the pit, in the vicinity of the counterweight buffer, indicating the maximum designed counterweight runby. The data plate shall conform to A17.1 rule 2.16.3.3, except that the letters shall be not less than 25 mm (1 in.) in height. Provide counterweight to equal 50% counterbalance per machine manufacturer's instructions. As part of the base scope of work, if existing counterweight frame cannot accommodate additional weights needed to provide 50% counterbalance, replace existing steel weights with lead, as needed, and/or replace frame and sling as needed.

E. Compensation

1. Provide encapsulated chain compensation (Whisperflex or equal) including all manufacturer's recommended suspension and guidance assemblies.

F. Spring Buffers

1. Existing spring buffers shall be refurbished and painted.

2. Provide #12 gauge stainless steel elevator identification plates. Identify each elevator with 1 inch high black paint-filled numbers. Permanently secure to all spring buffers and pit access doors.

3. Load test and properly tag the equipment after testing.

4. Properly align all buffers.

G. Alarm Bells

1. An electric signal bell shall be provided in or adjacent to the elevator hoistway and on the car top, as directed. This bell shall be connected to the alarm button in the car operating panel.

   a. Provide 110 volt alarm bells. One weatherproof bell located in hoistway on the back wall and 8' - 0" from the pit floor; and one bell located underneath the platform. Hoistway bells shall be located so that they are accessible and not obscured by the counterweight frame.
   b. Bells shall have a minimum of 90 db at 10 feet.
   c. Bells shall be operated from buttons inside the car marked "ALARM".
   d. Bells shall be operated by the opening of the car emergency switch.
   e. All required bells shall ring whenever either the alarm button inside the car is operated or when the car emergency stop switch is opened.

H. Pit Stop Switch, Pit Lighting Fixture & Switch

1. The Elevator Contractor shall provide a watertight emergency stop switch for each elevator at the point of access to the pit. The switch shall have a metal guard to prevent accidental operation. Plastic or fiberglass material of box and faceplate shall not be permitted. When opened, the switch shall cause the electric power to be removed from the driving machine and brake. Final location shall be coordinated in the field.

2. The electrical contractor, as directed by the Elevator Contractor, shall provide new pit lighting. Provide two (2) LED strip light fixtures per pit, mounted on opposite walls to provide a minimum of 10 foot-candles everywhere on the pit floor. The light fixtures shall be designed for exterior use with weather tight gaskets between the lenses and the back box.

I. Hoisting Wire Ropes

1. The hoisting ropes shall be 8 x 19 pre-formed wire rope of traction steel, uncoated, fiber core. The hoisting ropes shall be especially designed for elevator service, compatible with the hoist machine.

2. Attach a metal tag to one of the car wire rope fastenings, in compliance with the ASME Code.

3. Hoist ropes shall be shackled by the following method:

a. Provide wedge clamp type shackles. The shackle rods shall be provided with threads and compression springs at the crosshead hitch and counterweight header, so that the shackle rod assemblies will permit the tension in all ropes to readily equalize. The installation shall be in accordance with manufacturer’s directions.

J. Governor Wire Ropes

1. During normal operation of each elevator, the governor rope shall run free and clear of the governor gripping jaws, rope guards and all other stationary parts.

K. Traveling Cables

1. Traveling cables shall conform to the following:

a. All traveling cables shall be hung in self-locking loops (in an approved manner) on porcelain hanger and bracket or Kellems cable grips. The hanger and bracket shall be provided under the car platform and hoistway junction box, and shall be so located as to make traveling cables inaccessible from any door opening. The hanger and bracket shall be through-bolted to the cab floor.

b. Provide a junction box with terminal blocks at each end of the cable; properly terminate all conductor wires, including spare wires to provide complete circuit continuity. Provide all traveling cables to junction boxes with proper size connectors and properly secure to junction boxes.

c. Locate car junction box on the underside of each platform as close to the safety plank as possible. Locate hoistway junction boxes at mid-shaft in "High Rise" buildings and at top of shaft in buildings 8 stories or less. All terminal blocks shall have indelible identification numbers for each terminal connection and shall match the car junction box, hoistway junction box and controllers. Provide junction box covers with a watertight neoprene gasket. Cover plate screws shall be of the "captive type", stainless steel spanner head.

d. Separate alternating current and direct current conductors into individual travelers.

e. The cable shall be flexible, Type "ETT", with a steel hanger wire or type “ETP” flat elevator traveling cable. The minimum size of the D.C. copper conductors shall be No. 18 AWG. The minimum size of the AC copper conductors shall be No. 14 AWG. Each cable shall have 20 percent spare conductor wires (minimum of six (6) wires) and shall be UL listed. Provide metal eyelet’s, or other approved fasteners for each end of conductor wires.

f. Provide beam padding that is waterproof, oil proof, fireproof, and similar to the material insulating the traveling cable. Beam pads shall be properly secured.

g. Provide a traveling cable with integrated shielded and insulated wiring capable of providing signal to and from a camera device mounted in the elevator cab. Such cable shall be capable of operating with either a digital or analog camera system. Minimum required cabling standard for camera shall be two (2) CAT-6. If integrated CAT-6 type data cables cannot be provided inside of travelling cable, separate traveling cables may be provided by affixing the cables to the main elevator traveling cable. Elevator Contractor is responsible for terminating the CAT-6 cables on the first floor, directly adjacent to the elevator hoistway and shall coordinate with Owner on specific location(s).

h. Provide a minimum of 20% spare conductors, with a minimum of six (6) shielded pairs suitable for data or security use.

M. Landing Control System Device

1. The landing control system for each elevator shall be as previously specified. The system shall also include the following:

a. A separately fused A.C. Electric Feed & Circuitry for Deactivating the System and shall be independent of the A.C. feed to cab enclosure (i.e. Blower, lights, alarm, etc.).

b. The fuse and fuse clip shall be mounted at the front of the controller in convenient location. The fuse shall be properly identified in a permanent legible manner and labeled, "Landing Control System Fuse".

c. All terminal blocks on controller, hoistway junction box and car junction box shall be labeled in a permanent manner to match.

d. Wiring from landing control system device to car junction box shall have a minimum of four (4) spare conductor wires and connected with liquid-tight connectors having nylon insulated throat.

e. Two additional tape guides (one for the top and one for the bottom).

f. Stainless Steel Tape / Steel Tape Coated with Polyester.

g. Mount LCS device and tape on rear half portion of elevator away from hoistway doors.

N. Electric Wiring

1. It shall be the responsibility of the Elevator Contractor to furnish and install complete, necessary, insulated wiring to connect all parts of the equipment. Wiring, conduit, fittings and installation shall be in accordance with Division 16 and comply with the requirements of the National Electric Code.

2. Insulated wiring shall have a flame retarding and moisture resisting outer cover and shall run in concealed galvanized metal conduit, metallic tubing or wire ducts.

   a. Flexible metal conduit shall be permitted for short runs only (less than 36”).

3. Traveling cables between car and hoistway shall have a flame retarding and moisture resisting outer cover. They shall be flexible and suitably suspended to relieve strains in the individual conductors. The traveling cable shall also include:

   a. A minimum of 20% spare conductors (ends to be left accessible to facilitate connections at a later date).

   b. Wiring as required for the intercom/telephone and firemen’s communication (as required per local code).

   c. Six (6) pairs of 18 gauge shielded cables, (terminating on terminal strips in the controller and in the car operating station).

O. Pit Ladders

1. The Elevator Contractor shall provide and install a new pit ladder, as needed. The pit ladder shall extend 48 inches above the lowest landing and the nearest point of the ladder must be within 39 inches (measured horizontally) from the means to unlock the egress door of the pit. The pit ladder shall be secured so work persons can ascend and descend safely.

   If necessary due to hoistway dimensional constraints, a retractable ladder shall be installed. The safety switch on the retractable ladder shall be wired in series with the pit stop switch circuit to prevent elevator operation when the ladder is in the extended position. All wiring and conduit shall be provided for a complete installation.

P. Car-Top Railing

1. Provide a standard railing conforming to ASME A17.1 (2.10.2) on the outside perimeter of the car top on all sides where the distance from the edge of the car top to the hoistway wall exceeds 12 inches. The standard railing shall consist of a 42-inch-high top rail, intermediate rail, 4 inch toe board and posts.

Q. Guide Rails and Brackets

1. Car and counterweight rails must be thoroughly cleaned and smoothed before car is put into operation.
2. All existing guide rails may be reused but shall be realigned to a ±⅛” plumb for the full travel distance.
3. All fishplates and bracket fastenings shall be solidly tightened.
4. Sand all three (3) running surfaces to remove roughened areas that may cause damage to the roller guides.

2.14 CAR EQUIPMENT

A. Car Sling

1. The car frame shall be retained and reused.

B. Platform

1. The car platform shall be retained and reused. Provide new marine grade plywood subfloor.

C Car Safety

1. The car safety mechanism shall be completely refurbished and shall gradually and smoothly bring the car to a stop from governor tripping speed.

2. The operation of the governor on overspeed shall open a switch disconnecting the power from the elevator, and shall trip the safety mechanism. The safety mechanism when tripped shall engage the rails with sufficient force to stop the car from governor tripping speed with full load in the car. Equalize the pressure of the two pairs of jaws on the rails.

D. Inspector’s Operating Station

1. An inspector's operating station shall be provided on top of the elevator car consisting of "Up" and “Down” constant pressure buttons, incandescent light with guard, 110 Volt G.F.I. work outlet and an emergency stop switch.

a. Provide an additional light with guard and G.F.I. work outlet mounted to the bottom of the car and located towards the front for easy access.

b. Provide audible and visual indicators to identify activation of Phase 1 Firemen’s Service.

E. Car Door Operator

1. Provide a D.C. motor driven door operator, install and connect in place, all complete as hereinafter specified. Provide MOVFE-2500 HL linear door operator with 1/2 HP motor as manufactured by GAL for each front and rear car opening.

a. Each door operator control circuit must be complete with accelerating circuits and door motor overload protection (circuit breaker type) in the event of a stall condition. Control circuits shall be protected with properly sized fuses.

b. Provide fuse clips, fuses, and overload protection for door operator units and all necessary additional terminals on control panel.

c. Provide a steel support for the door operator. The support shall be designed so that no part of door operator rests directly on the cab or is supported by car door header.

d. Provide one gate switch of the shielded type, connected in series to a gate contact to prevent operation of the elevator, unless the car door is in the closed position and both devices are activated. The gate contact shall be located in the door operator limit switch mechanism and be an integral part of this mechanism. Cover plate shall have "CAPTIVE" type tamperproof stainless steel machine screws.

e. Provide door operator motors, which shall be D.C., 1140 rpm developing 1/2 HP, and shall be rated for not more than 50˚C. temperature rise when operating for a minimum of five minutes.

f. Provide a recycling device for each car door which will cause car door to open and reclose at approximately 10 second intervals whenever car door is prevented from closing fully by any obstruction. A second timer shall reopen cab door, if for any reason car does not operate after cab door has fully closed.

g. Car door operator shall be mechanically connected to car door. Friction drives will not be permitted.

h. All control relays furnished under this Contract shall be designed to operate quietly and conform to NEMA Standards with respect to size, spacing, voltage, carrying capacity for the contact leads and coils. Control relays shall have fine silver overlay contacts.

i. All gate switches shall be shielded type manufactured by GAL Manufacturing Corp.

j. Door operator shall be wired in such a manner that when the stop switch is applied and elevator is out of the landing zone, car doors shall not open and door operator shall remain energized. When the stop switch is activated in the landing zone, the cab door shall open and power will be removed by door open limit; and if the door is closed by hand, it shall reopen.

k. The car entrance door shall be arranged so that it can be opened manually in case of emergency only when the car is within the landing zone.

l. Provide wiring and conduit complete.

m. Mount car door header angle in such a way so that if a car door of a down traveling elevator engages a fixed obstruction in the hoistway, the car canopy will not be damaged.

n. Provide car door clutches and all related equipment.

F. Door Edge Protective Device:

1. Provided with a reopening device that will stop and reopen the car door and hoistway door automatically if the door becomes obstructed by an object or person. The device shall be capable of completing these operations without required contact for an obstruction passing through the opening. The device shall be a non-reflective through beam system with a minimum of forty sensors per edge. It shall have a maximum sensor spacing of 1.8" or less. It shall incorporate a microprocessor controlled fail-safe system.

   a. It shall be capable of self-adjustment to compensate for varying environmental conditions.

   b. It shall incorporate 3D sensing technologies.

   c. It shall contain integrated LED illumination to indicate opening, closing, obstruction and other functions.

G. LED Light Fixture with Convenience Outlet (Top and Bottom of Car):

1. Provide LED light fixtures with convenience outlet. Fixture to be mounted above each car roof and under each car platform and shall be wired to the lighting circuit. The light fixtures shall be designed for exterior use with weather tight gaskets between the lenses and the backboxes.

H. Car and Counterweight Guide Shoes:

1. Roller guide shoes. All guide shoes shall be securely fastened to the car and counterweight at the top and bottom of the stiles and/or frame. Provide new 6” rollers for the car and 3” rollers for the counterweight, as manufactured by ELSCO.

I. Emergency Exit Contacts:

1. All top emergency exits shall be provided with electric contacts to prevent the operation of the car and sound an alarm when the exit door is opened.

J. Emergency Lighting System:

1. Provide an emergency car lighting system as manufactured by EPCO, Flexi-lite or approved equal which shall provide LED emergency lighting using the normal elevator cab lighting and emergency power to the two (2) alarm bells as specified hereinafter.

2. The battery pack shall consist of a minimum of two (2) rechargeable batteries which shall be housed in an 18 USSG galvanized steel box with removable cover. The charger unit shall consist of a charger and inverter, which shall be housed in a separate 18 USSG galvanized steel box with removable cover. Provide a testing circuit and pilot light on the exterior of the charger unit box for testing the batteries, alarm bells and cab lights.

3. Upon interruption of normal power, the LED lights located in the cab lighting fixture shall automatically illuminate within one (1) second and permit operation of the alarm bells, subject to the activation of the emergency alarm button. The battery pack shall be capable of providing a minimum of one hour alarm operation (for three alarm bells working simultaneously) and four hours of continuous illumination. Charger shall be capable of restoring the batteries to full charge automatically within 16 hours after resumption of normal power.

4. The power pack and charger unit shall be located in the elevator machine room. Provide steel shelf/shelves of proper adequacy to support the power pack and charger unit and properly secure shelf/shelves to the machine room wall. Properly secure boxes to the steel shelve/shelves.

5. Amount and size of wires and method of connections to be in accordance with manufacturer's instructions.

2.15 FIXTURES

A. Car Operating Panel:

1. A car operating panel shall be furnished in the car containing illuminating buttons for each landing, flush-mounted Braille tags, door open and close buttons, L.E.D. digital position indicators, intercom/telephone, emergency stop switch, F.E.R. Phase II keyswitch and indicator lights, indicator lights, alarm button and keyswitches for light, fan and independent service.

a. All fixture components shall be mounted to a backplate and incorporated into the Car Operating Panel

1) The intercom/telephone unit shall be backplate mounted and concealed behind the panel. Provide a perforated hold pattern in the swing return for speakers and microphone voice transmission.

2) The light, fan an independent service keyswitch along with a 110 Volt G.F.I. outlet, shall be located in a key-locked service cabinet below the body of the car station. The service cabinet door shall be flush with the swing front return with concealed hinges.

3) An L.E.D. position indicator shall be provided in the car above the body of the main car station. The position of the car in the hoistway shall be indicated by illumination of the numeral corresponding to the floor at which the elevator is stopped or passing. Provide 2" (nominal) illuminating numbers or indicators. The lens shall be flush with the front of the panel.

2. Provide main car operating panel only.

3. Provide back plated mounted fixtures for incorporation into the panel.

4. Provide key lockouts as requested by the Owner adjacent to the pushbuttons.

5. COP shall be equipped with voice enunciation system capable of audibly indicating car location, direction of travel, and other commands as may be requested by Owner such as door closing warnings, etc. Voice enunciation must be fully programmable to meet Owner's desired phraseology, volume level, etc.

B. Illuminated Call and Car Button:

1. Call registration lights shall be provided in each push-button unit. When a button is pressed, it shall illuminate, signaling to the waiting passenger that the call has been registered. Each button shall remain illuminated until the call has been answered.

2. Buttons shall be vandal resistant stainless steel as approved by the Elevator Consultant.

C. Car Lanterns:

1. Car lanterns with one stroke up, two strokes down gongs shall be provided for the Elevators.

2. As soon as the car has reached a predetermined distance from a landing and is set to stop at that landing, the corresponding lantern shall be illuminated and the gong shall sound whether the hall button has been pressed or not and the lantern shall remain illuminated until the car has left that lending. All visual and audible signal timing shall be in accordance with A.D.A. requirements.

3. Provide faceplates with beveled edges and tamper proof fasteners in a material and finish as selected by the Elevator Consultant. Submit samples and/or brochures from the pre-approved fixture supplier for review and selection by the Elevator Consultant. Lenses shall be sandblasted Plexiglas.

D. Hall Call Stations:

1. Provide new flush-mounted hall stations at all levels, including faceplates with beveled edges and tamper proof fasteners in a material and finish as selected by the Elevator Consultant. Surface mounted stations are unacceptable and will be rejected.

2. Include F.E.R. Phase I keyswitch with engraved instructions at the main egress level or as directed by the local authorities.

3. Provide 1" LED position and directional indicators in each hall station showing location and direction of travel for each car in the group.

4. Provide each hall station with an engraved "Appendix H" diagram or other diagram approved by local codes.

5. Include provisions and jewel indicator for emergency power generator operation in the main lobby fixture, as applicable.

E. Hoistway Access Switches:

1. Provide a jamb mounted hoistway access keyswitch at the top and bottom terminal floors for each elevator.

2. Provide Stainless Steel No. 4 finish faceplate.

2.16 CAR ENCLOSURE

A. Provide a new cab shell and interior as follows:

1. Shell - 14 gauge steel for walls and 12 gauge steel for canopy. Individual panels shall not exceed 18" in width and shall be reinforced to provide for a flat, rigid surface. Apply spray on sound deadening on rear of shell. Sound deadening material shall be non-combustible and applied in accordance with manufacturer's recommendation. Provide a minimum 1/8" consistent thickness on all surfaces. Provide welded reinforcement grounds (minimum 1/4" thick with weld nut) on the rear of the shell for handrail mounting. Provide all cutouts in the shell as required for ventilation and fixture installation. Cab height shall be maximized under existing crosshead.

2. Interior Panels - Interior panel assembly shall be a 3/4" thick MDF (Class "A" substrate) backer boards with all exposed surfaces covered in textured stainless steel as selected by Owner. All concealed surfaces to be covered with textured stainless steel to match panel. All panels shall have the appropriate UL rating.

3. Transom - 14 gauge satin stainless steel suitably re-enforced. Apply sound deadening to the back of the transom as specified above.

4. Front Return Panels - Provide 14 gauge, brushed stainless steel full front swing return panels for both the main and auxiliary car station locations. The swing return panels shall have a concealed continuous hinge and a substantial locking system. Provide no more than a 1/4" clearance between the swing return panel and the finish floor and a 1/16" between the swing return panel and transom.

a. The swing return panels and hinging system shall be suitably re-enforced to prevent appreciable or permanent sagging or deflection when opened for maintenance.

5. Doors - 16-gauge satin stainless steel with full height rubber astegral at the leading edge of each door panel. Provide the same construction as for the hoistway doors.

6. Sills - Stainless Steel or Nickel Silver

7. Ceiling - 22 Gauge satin stainless steel on ¾" MDF backer board. All edges to be stainless steel.

   a. Provide LED downlighting to be integral with the suspended ceiling. One ceiling panel shall be removable for top emergency egress. A substantial, positive locking mechanism shall be utilized to hold the removable panel in place, flush with the adjoining panels and flat throughout. Show all details on the shop drawings.

8. Handrails - Provide a handrail along the side and back wall. Design the handrail to withstand a minimum 500 lb. vertical point load at the center between handrail supports.

   a. Handrail mounting equipment shall be solid satin stainless steel and spaced no more than 24" apart.

9. Exhaust Fan - Two-speed Nylube fan, mounted on vibration isolation pads.

10. Protection Pads - Provide one (1) set of protection pads for each typical elevator (cost is included in the base bid). Provide heavy-duty vinyl impregnated nylon with 1/4" thick padding. Pads are to be fire retardant and treated to be self-extinguishing. Include a metal stiffening bar on top of pads and include retaining clips to hold the pads in place. Provide pads in a color as selected by the Elevator Consultant.

11. Pad Buttons - Provide extended type stainless steel pad buttons bolted through the shell. Provide weld nuts on rear of shell to accept the pad buttons.

12. Base - 12-gauge satin stainless steel.

13. Concealed Vent Slots - Design the cab interior to provide for ventilation openings above the base behind the wall panels.

14. Flooring - Flexco Flooring, Radial High profile, color to be selected by architect from manufacturer's full range.

15. Engraving - No applied plates will be accepted. No manufacturer's logos shall be visible.

16. Lighting - Provide LED cab lighting as detailed by Architect with selectable color temperature.

17. Camera - Provisions shall be made for a CCTV camera to be mounted in the ceiling of each cab. Contractor shall include any cutouts, brackets, 14 gauge tamperproof housing and GFI outlet dedicated for the CCTV camera installation and hook-up. Contractor shall bear full responsibility for providing and installing new CCTV cameras in the elevator including all required wiring and hookups, within the elevator hoistway, machine room and car, to make work with existing CCTV monitoring system. New cameras installed shall be as small as practical and cover as wide a viewing range as possible to provide coverage as much of the elevator cab interior as possible, with a minimum of the elevator entrance and car operating panel. Provide an additional GFCI duplex receptacle on the car top for the camera power supply, as required.

B. Elevator Contractor Scope of Work

1. Cab design shall be as per specifications above and architectural design provided. The Contractor must liaise with the Owner, Architect, Engineer, or Consultant regarding selection regarding selection of cab subcontractor. Contractor shall provide photographic quality renderings of cab interior selections for review by design team, and, if requested, a full-scale mock-up of a typical panel.

2. The Contractor must provide all information necessary to the Cab Company and Cab Designer to ensure that the equipment to be installed by the Contractor is accommodated in the design and manufacture of the cab.

3. Provide all labor and material needed to install the new cab supplied by the cab company.

4. Provide all necessary coordination to ensure efficient and timely installation of the cab.

5. Contractor is to include in the base bid price any work and cab-related equipment specified elsewhere in this specification, as well as the following:

    a. Suitably designed Ventilation Fan including Emergency Power for the Fan
    b. Car Door Hangers
    c. Gate Switches
    d. Emergency Exit Switches
    e. All other Code related items
    f. GFI outlet in the cab

g. One set of hanging cab wall pads per elevator. The pads shall be appropriate for protection of the cab interior if the elevator is used as a service car. Each set must contain all accessories required for building personnel to hang pads.

6. Elevator Contractor is responsible to include in their base bid all permits, tests, fees, and all other costs required by the authorities having jurisdiction to complete the installation according to Code. It is the responsibility of the Contractor to ensure that all alterations not increase the original building design reactions by more than 5%.

7. A balanced load test will be conducted when all work including door equipment, wiring, cab, etc. has been completed.

8. Contractor shall statically balance the cab after the installation is completed.

2.17 INTERCOM

A. A new multi-path two-way audio-visual communications system with in-car camera shall be provided. This system shall be comprised of a microprocessor based central control unit, a self-contained standby power supply, master communication station at each elevator machine room, the buildings management office and a hands-free communication station inside each elevator car.

B. The central control unit shall be fully enclosed by a metal cabinet and wall mounted inside a centrally located machine room so as to be easily accessible for maintenance.

C. Accompanying the central control unit shall be a self-contained emergency standby power supply consisting of a nickel-cadmium or gel-cell battery pack with self-regulating battery charger. Whenever a disruption in normal power supply occurs, the standby power supply shall be automatically activated and shall be capable of sustaining communications for a continuous period of time not less than four (4) hours.

D. Each master communications station shall be equipped with a loudspeaker, microphone, volume control, annunciator, function/car/master station selector buttons and indicator lights. Those master stations which are located inside the elevator machine rooms shall be surface-mounted and may use handsets in lieu of hands free operation, otherwise, the remaining master stations provided shall be flush mounted with hands free operation only. In addition to being arranged so that by pressing the appropriate selector button, communications can be initiated with other master stations, individual elevator cars, or entire elevator groups, each master station shall be configured so that responding to a registered call for assistance from any given elevator shall cause an indicator light designated “EMERGENCY CALL ACKNOWLEDGED” in the affected car operating station to become illuminated and to remain so until canceled.

E. Each elevator car shall be provided with a 4" loudspeaker and a microphone with pre-amplifier mounted behind perforations in the car operating station faceplate. Microphone sensitivity and loudspeaker volume shall be individually adjustable. Activation of the communications system shall be accomplished from inside the elevator by pressing a button in the car operating station designated “EMERGENCY CALL”. This action shall cause a corresponding indicator light on each master station to become illuminated and for an annunciator therein to sound. A master station may respond to any such call for assistance by pressing the illuminated button.

F. ADA Autodial Telephone Features:

1. The system shall provide the facilities to connect elevator car stations to the telephone network should the car alarm fail to be answered by a master after a preset time clock (after hours).

2. The car alarm button, when pressed, shall automatically initiate a voice announcement in the car, “emergency call has been activated” and the car station LED shall flash every 3 seconds. If a master station fails to answer a call after a preset time, the system shall automatically dial out. The car passenger shall hear a voice announcement “your call will be redirected”. When activated, the system shall automatically dial the first programmed telephone number. If that number is busy, the system shall continue to call each programmed number until answered. The system shall allow for up to five (5) outgoing numbers.

3. When the remote telephone is answered, the operator shall hear a voice message, “press the “star” (*) button to answer the call”. When answered, a voice message will be heard indicating building name, location and car number, plus instructions.

4. When the “star” (*) button is pressed, the car station (LED) shall turn on steady and the passenger shall communicate hands free.
5. If additional car alarms occur while a call is in progress, a voice announcement indicating another car alarm shall be heard at the remote telephone.

6. Calls from a remote telephone to any elevator car station shall be completed by dialing the system telephone number, entering a pre-programmed PIN number followed by a station number.

2.18 POWER CONDITIONING

The elevator contractor is responsible for providing and installing power isolation transformers dedicated to the elevator equipment as detailed herein, as required and as directed by the elevator consultant based on the power quality measurements made during energy studies, done in the presence of the Elevator Consultant.

A. The power conditioner/regulator shall be designed in accordance with applicable portions of the following standards:

1. American National Standards Institute (ANSI)
2. Institute of Electrical and Electronic Engineers (IEEE)
3. National Electric Code (NEC)
4. National Fire Protection Association (NFPA Article 70)
5. FCC Article 15, Section J, Class A
6. ANSI C62.41 Category B-3
7. UL Listed to Standard 1012
8. C-UL listed to CSA Standard C22.2, No. 107.1-01

B. Manufacturer Requirements: The manufacturer shall be ISO 9001:2008 “Quality Assurance Certified” and shall upon request furnish certification documents. The manufacturer shall be a United States based manufacturer with 10 years experience or greater in design and fabrication of three phase power conditioning and line voltage regulation equipment. The equipment shall be the Power Processor, Series 700F Front Access Power Conditioning Voltage Regulator, manufactured by Controlled Power Company, or approved equal.

C. Product Data: The manufacturer shall supply documentation for the installation of the system, including wiring diagrams and cabinet outlines showing dimensions, weights, BTUs, input/output connection locations and required clearances. Factory test results shall be provided to show compliance with the requirements. The manufacturer shall include test documentation which demonstrates compliance with the specified requirements at the continuous rated kVA load. The supplier shall furnish equipment submittal copies. Submittals shall be specific for the equipment furnished and shall include as-built information.

D. Performance and Construction Requirements:

1. The nominal AC input voltage rating of the power conditioner/regulator shall be 208VAC 3 Phase. The nominal AC output voltage shall be (208/120VAC) wye derived.
2. The nominal operating frequency shall be 60 hertz, +/- 3 hertz.
3. The output impedance shall be 3-4% typical.
4. The power conditioning transformer shall include seven (7) full capacity taps per phase, allowing for the tight output voltage regulation specified.
5. The power conditioning transformer shall provide a continuous duty, full load output power of 75 kVA.
6. Input voltage range shall be +10 / -20% with the output voltage regulated to +/- 3% typical.
7. Response time shall be less than ½ cycle. Correction time shall be within 1 cycle.
8. The output voltage of the power conditioning transformer shall drop no more than 2.5%, when stepping from no load to full load.
9. Less than 1% THD shall be added to the output waveform under any dynamic linear loading conditions presented to the system.
10. Input power factor shall be greater than .99 with a resistive load and not reflect any triplen harmonics to the utility under non-linear loads.
11. The overload rating for the power conditioner/regulator shall be 200% continuous load rating for 30 seconds, 1,000% for 1 cycle.
12. Common mode noise attenuation shall be 146 dB minimum. Transverse mode noise attenuation shall be 3 dB down at 1,000 hertz, 40 dB down per decade below 50 dB with a resistive load.
13. Efficiency shall be 96-97% typical, excitation losses shall be less than 1.5% of the kVA.
14. The power conditioner/regulator system shall exhibit a MTBF greater than 100,000 hours.
15. A main input molded case, thermal magnetic circuit breaker, rated at 125% of the full continuous load input current at the nominal input voltage, shall be furnished as an integral part of the unit.

16. Output ON indicating lamps shall be provided for each phase. An indicator light shall show if the output has been disabled by one of the following conditions:
    a. Transformer over-temperature
    b. SCR thermal over-temperature
17. The transformer windings shall be of all copper conductor construction with separate primary and secondary isolated windings. Fully processed, low carbon, silicon-iron transformer steel shall be utilized to minimize losses and provide maximum efficiency. Flux density shall not exceed 14k gauss. Class N (200° C) insulation shall be utilized throughout with 115° C temperature rise. The transformer shall have multiple (three) copper shields to minimize inner winding capacitance, transient and noise coupling between primary and secondary windings. Inner winding capacitance shall be limited to .001 pF or less.
18. Design shall allow for front access to the status lights, input circuit breaker, serviceable parts. No side or rear access required for system installation, operation or service. Input and output terminations shall be front access. Input terminations shall be made directly to the main input circuit breaker and the input ground terminal provided. Output terminations shall be made to the (copper bus connections provided, 3-phase, neutral and ground). Conduit landing plates shall be provided to permit top and/or bottom entry for input and output power connections.
19. Ventilation shall originate from the front of the cabinet and exhaust through the top of the cabinet. Electronic control section shall be isolated from transformer section and power terminations. Transformer section shall be designed for natural convection cooling. Cabinet shall be NEMA 1 rated and constructed using a 12-gauge steel frame with 10 gauge steel floor mounting channels. Exterior panels shall be pre-treated, and powder-coat painted with manufacturer’s standard color.
20. The power conditioner/regulator system shall be required to operate without overheating in an ambient temperature range of -20°C to +40°C. The power conditioner/regulator system shall operate in a relative humidity of 0-95% non-condensing. The power conditioner/regulator system shall operate up to 5,000 feet above sea level without de-rating.
21. Maximum allowable noise shall not exceed 50 dba at 1-meter distance.
22. Contractor shall submit to the Consultant the power requirements of actual equipment being installed during submittal and drawing phase of project. Power conditioning requirements may be modified to suit actual equipment being installed, however Contractor’s base bid shall include the necessary allowance for providing power isolation transformers as specified by this Section.

2.19 ELEVATOR MACHINE ROOM

A. Machine Room Lighting

1. The electrical contractor, as directed by the Elevator Contractor, shall furnish and install four (4) foot LED fixtures with two (2) bulbs each. The new light fixture should be wired to an illuminated light switch at the machine room entrance. Fixtures shall be placed above each machine and above each control panel to achieve equal illumination for all equipment. A Minimum of 19 foot-candles measured at the floor is required by Code.

B. Mainline Switches

1. The electrical contractor, as directed by the Elevator Contractor, shall furnish and install new main line disconnect switches and wiring in the machine room. The main line disconnect switch shall be visible from the elevator controller. The main line disconnect switch shall conform to all authorities having jurisdiction. Contractor is to verify all power characteristics for proper sizing of the equipment.

   Contractor to verify that adequate power supply is available for the new system which includes, but is not limited to DC to AC conversion. Any discrepancies must be reported to the Elevator Consultant prior to bid.

C. Cab Lighting Disconnect Switch

1. The electrical contractor, as directed by the Elevator Contractor, shall provide a fused and lockable disconnect switch for the cab lighting circuit, approved by the applicable Electrical Code, for each elevator. The contractor shall provide fuses, wiring, and conduit for a complete installation. All work shall comply with the Electrical Code. The disconnect switch shall be properly labeled with the elevator designation.

2.20 FIRE COMMAND CENTER

Provide any and all required elevator annunciation and control features and two-way communication as required by relevant NYC DOB and Code requirements within the existing or new fire command room or fire command station in the building. Elevator contractor shall be responsible for all wiring necessary between elevator control equipment and remote panels.

A new enunciator panel, along with any Code required control features, shall be located in the building fire control room, or adjacent to lobby fire command panel. Additionally, a two-way communication system between the fire command station and elevators shall be installed which shall enable emergency personnel within the fire command room to establish two-way voice communication to each car individually. Two-way voice communications shall be established without any intentional delay and shall not require intervention by a person within the car. Two-way voice communications, once established, shall be disconnected only when emergency personnel outside the car terminate the call.

As part of the base scope of services, Elevator Contractor shall provide any required standby time and support needed to fire alarm contractor relative to their work in making required modifications to the fire alarm systems in support of the elevator project work.

2.21 ELEVATOR MACHINE ROOM HVAC

The Mechanical Contractor, as directed by the Elevator Conttractor, will be upgrading and/or replacing HVAC in the elevator machine room as part of this project. Elevator Contractor will provide any assistance needed to mechanical contractor, including providing heat loads for elevator equipment being installed, identifying appropriate mounting locations for the HVAC equipment, and coordinating schedule and access to the elevator machine room while the HVAC upgrade work is taking place.

PART 3 - EXECUTION

3.1 DESIGN REQUIREMENTS

A. Electrical Design and Wiring:

1. All wiring shall be Underwriters approved stranded type in accordance with the latest International Electrical Code. Minimum size permitted shall be No. 18 AWG. These wires shall be installed in conduit with steel outlet boxes. All electrical boxes (Hall pushbutton boxes, Car Stations, Terminal boxes, pull boxes, etc.) and other similar items shall be of approved construction, hot-dip galvanized or electroplated with Zinc Dichromate. All electrical boxes exceeding 150 cubic inches shall be supported independently of the conduits.

2. All raceway shall be galvanized EMT and/or trough.

3. Furnish all materials and completely wire all parts of the electrical equipment of the elevator, including electrical devices on hatch doors.

4. Switches, relays, etc. on controller, starter, and signal panels and similar items on other parts of the equipment, shall be the latest model. Any parts showing wear or damage during the guarantee period to the extent that abnormal maintenance is required or indicated shall be replaced by the Contractor as part of his Contract obligations.

5. Contacts in elevator motor circuits, which are intended to be opened by the governors or other safety devices, shall be copper to carbon, or other approved non-fusing type. Relays shall be designed for visual inspection and easy replacement of contacts with minimal disassembly, and keyed parts for ease in reassembly. They shall be equipped with suitable blowout coils, vanes, barriers, etc., to prevent undue arcing and heating. Current ratings for silver-to-silver contacts on relays used in motor circuit applications shall be at least three times the current draw of the running ratings of the motor. Contacts on control and signal relays and switches shall generally be of silver alloy.

6. Conduits shall be run and connected to suitable approved connection boxes at all outlets, apparatus and panels.

7. The conduits shall be of such size that the wires or cables can be readily installed and replaced, if necessary. No conduit or raceway shall be less than 3/4 inch trade size, except that for small devices such as door switches, interlocks, etc. for which, 1/2 inch conduit may be used. The total overall cross-sectional area of the wires contained in any conduit shall not exceed 40 percent of the internal area of the conduit. Approved strain boxes shall be installed for all vertical runs in accordance with Code.

8. Conduits shall be neatly and systematically run. All exposed conduit and boxes shall be supported by straps (wire or plastic ties are not acceptable), hangers, or clamps to the structural steel, reinforced concrete, or other approved supports. Riser conduits and/or trough in hoistway shall be supported at each floor level.

9. Connections of all wires larger than No. 8 AWG shall be made with copper connectors except for Mainline Disconnect switches where UL approved aluminum lugs/connectors may be used. Metal eyelets pressed around the strands shall be used for all connections of smaller stranded conductors.

10. All terminals shall be tagged or identified in a permanent legible manner to match car and hoistway junction boxes and controllers.

11. In all machine rooms, hoistways, etc., install the equipment to allow easy access for maintenance.

12. All screws used for terminal connections of all wiring (machine room, hoistway and pit) shall be of proper size and type as approved.

13. All connections of wires to controller and motor lead terminals from external circuits shall be made with "copper" soldered lugs or "copper" eyelet compression type lugs.

14. All elevator lights (top and bottom of car and pit) and A.C. alarm bells shall be fused and located in the elevator machine room in a separate approved box, or on the controller. The fuses shall be identified (permanent label) “lights and alarm bells”.

15. All receptacles in elevator machine room, pits, and car shall be Ground-Fault Circuit-Interrupter type (GFCI).

16. All grounding shall be done in accordance with the latest International Electrical Code as adopted by local jurisdiction. Grounding of machine to bedplate is not permitted.

B. Mechanical Design Requirements:

1. All bearings, pivots, guides, guide shoes, gearing, door hanger sheaves, door hanger tracks, and elements subject to friction or rolling wear shall be accurately finished and arranged for convenient lubrication. Provide means for flushing and draining the larger bearings and gear cases. All oiling holes shall have dustproof, self-closing caps.

2. All bearings shall be sized for heavy-duty commercial elevator usage.

3. Ball and roller bearings shall be fully enclosed. Loading, lubrication, support and all other conditions of use shall be in accordance with the recommendations of the bearing manufacturer. Bearings for motors shall be of the open (non-sealed) type with approved fittings for grease lubrication or approved sealed bearings. The bearings shall not be part of the end bell housing, but shall be separate for easy removal and replacement.

4. All bolts used to connect moving parts, bolts carrying hoisting stresses, and all other bolts except guide rail bolts, subject to vibration or shock, shall be designed to prevent loosening of the nuts and bolts. Bolts transmitting shearing stresses between machine parts shall have tight body fit in drilled and reamed holes. All bolts subject to vibration shall be provided with split ring lock washers. All guide rail vane brackets shall be through bolted and provided with proper bolts, nuts and lock washers.

5. All parts shall be manufactured to high precision standards so that wearing parts will be readily interchangeable with stock repair parts with a minimum of field fittings.

6. All bearing and sliding surfaces of shafts, pins, bearings, bushings, guides, etc., shall be smoothly and accurately finished. During the maintenance period, all bearings shall be regularly checked for any tendency to run hot and any defects corrected.

7. Protection for moving parts: Belts, pulleys, chains, gears, couplings, projecting set screws, keys, and other rotating parts located so that any person can come in close proximity thereto, shall be fully enclosed or properly guarded.

8. All exposed hardware on public hall side shall be of tamperproof design constructed of stainless steel with No. 4 satin finish.

9. Tamperproof stainless steel spanner head screws shall be used for all exposed locations, for all landing button panels, certificate frames, interlocks and car lighting fixtures. Supply one Spanner head wrench for each size screw. Tamperproof screws shall be of the "captive type". Self-tapping screws or self-tapping machine screws shall not be permitted.

10. All locks and key operated switches shall be five (5) pin tumbler type. All keys where permitted shall be of the captive type. Furnish two (2) keys for each lock and/or switch for each elevator. All locks shall be mastered to one master key. Furnish four (4) master keys. Firemen's Service keys shall meet Local Code requirements.

3.2 WORKMANSHIP AND INSTALLATION

A. Inspection and Tests:

1. Failure to keep the shutdown time within the specified limit may result in liquidated damages and/or cancellation of the contract by the Owner. Any delays in the approved schedule shall be brought immediately to the attention of the Owner, in writing, along with the proposed revised schedule.

2. Arrange and schedule final inspection of all work and notify the Elevator Consultant in writing that the work has been thoroughly checked and is ready for final inspection. Testing shall be performed under the direction of authorized Inspectors.

3. When the elevator work is completed, conduct operating tests to the satisfaction of the Owner and the appropriate City Agencies having jurisdiction. The inspection procedure outlined in the ASME A17.2 for the Inspection of Elevators, Escalators and Moving Walks, Inspector's Manual will form a part of the final inspection.

4. Furnish all test instruments, labor and materials, required at the time of final inspection. They shall include, but not necessarily be limited to, standard 500 pound test weights.

5. Certificates: Before final acceptance, furnish all certificates required by all Public Agencies having jurisdiction. All certificates shall be turned over to the Owner with copies to the Elevator Consultant.

6. If requested by the Elevator Consultant, the following tests shall be made by the Field Engineer or Adjuster of the Elevator Company in the company of the Elevator Consultant or the Elevator Consultant's Representative, at the time of final inspection:

   a. FULL LOAD-RUN TEST: Shall be for one hour continuous run, with full specified rated load in the car. During the test run, the car shall be stopped at all floors in both directions of travel for a standing period of ten (10) seconds per floor.

   b. SPEED TEST: The actual speed of the elevator car shall be determined in both directions of travel and with full contract load and no load in the elevator car. Speed tests shall be made before and also after the full load run test. Speed shall be determined by applying a tachometer to the car hoisting cables. The actual measured speed of elevator car with full load in "UP" direction shall be within 5 percent of specified rated speed.

   c. TEMPERATURE RISE TEST: The temperature rise of the hoisting motor shall be determined during the full load test run. Temperatures shall be measured by the use of thermometer on top of windings and shielded by cotton waste or putty. Temperature rise of the equipment shall not exceed the temperature rise for the class of insulation used in the motor tests, shall be started only when all parts of the equipment are within 5˚ centigrade of the ambient temperature at time of starting test.

   d. CAR STOPPING ACCURACY: Elevator stopping shall be tested for accuracy of landing within 1/2 inch plus or minus (from finished floor) at all floors with no load in car, balanced load in car and full load, in both directions of travel. Accuracy of floor landing shall be determined both before and after the full load run test.

   e. INSULATION RESISTANCE TEST: The complete wiring systems of elevator shall be free from short circuits and grounds, and the insulation resistance of systems determined by use of a "Megger", shall be not less than one megohm. (Solid State Controllers are excluded from this test).

   f. CAR SAFETY AND GOVERNOR TESTS: The car safety and governor shall be tested as outlined in Section 1003 ASME A17.1 Code.

   g. STATIC CAR BALANCING: The car shall be statically balanced in its sling so that the total lateral force on top car guide assemblies shall be a maximum of forty pounds (40 lbs.) for all positions of the car in the shaftway.

   h. DYNAMIC SYSTEM BALANCING: Car and counterweight suspension system shall be dynamically balanced so that total weight of counterweight and its frame shall be equal to total weight of unloaded car and its sling, plus forty percent (40%) of contract load with an accuracy of plus or minus fifty pounds (50 lbs).

   i. ELECTRICAL PROTECTIVE DEVICES: All electrical protective devices in the wiring system (Fuses, Overloads, etc.) shall be tested for proper operation.

   j. The FIREMAN'S SERVICE SYSTEM shall be tested for proper operation.

k. PASSENGER OVERLOAD TEST: The car shall be tested with 125% of rated load and shall conform to all passenger overload regulations in ASME A17.1. In addition, the car shall be subjected to the Acceptance and 5 Year Tests for Drive Machine Brakes in ASME A17.2.1, Inspectors' Manual for Electric Elevators.

l. BUFFER TEST: Car and Counterweight Oil Buffers shall be tested in accordance with the requirements for Acceptance and 5 Year Tests for Oil Buffers, as described in ASME A17.2.1, Inspectors' Manual for Electric Elevators.

B. Cleaning, Adjustment, and Final Acceptance:

1. At the end of each day, remove and legally dispose of all refuse and dirt resulting from work of this contract. All work areas shall be left "broom clean". After completion of work, thoroughly clean and adjust elevators so that they are in proper operating condition. Remove from site, all materials which are not required as part of finished work.

C. Safety of Persons and Property:

1. Plan the work and execute in an organized and orderly manner. Danger and warning signs shall be prominently displayed, and exercise every precaution to protect pedestrians.

2. Erect construction barriers around the work area. Keep dust and noise at a minimum. Barricades shall not have protruding nails or sharp jagged edges.

3. If there are two (2) or more cars in a common shaft, furnish and install temporary wire screening between elevator hoistways. The screening shall be full depth and height of the elevator hoistways and shall be fastened to wood blocking which, in turn, is securely fastened to the Building structure. Wire screening shall be ½ " x ½ " #19 (.041 dia) galvanized wire mesh. All wire screening, wood blocking, protruding nails, etc. shall be removed after completion of work. Damaged concrete shall be repaired.

D. Protection:

1. Protect all items against dirt and damage. The Contractor shall be held fully responsible for all damage until final acceptance. Any equipment or property of the Owner damaged by this Contractor or his employees shall be restored to its original condition or replaced without cost to the Owner.

E. Contractor's Shop:

1. The successful bidder, shall, before being awarded this Contract, prove to the Consultant to his satisfaction that he maintains or has access to an adequate shop within a reasonable distance of the project, carry in stock, all spare parts furnished under this Contract which are subject to periodic failure.

F. Storage:

1. The Owner will designate a suitable area where the Contractor may store equipment until the work is completed. All equipment shall be stored at the sole risk of the Contractor. Refer to General Conditions for storage requirements on site.

2. The Contractor shall provide his own lock and key. The assigned storage area shall be left clear and unencumbered of material or debris and shall be left in a broom-clean condition at the completion of the work. An approved Type "C" fire extinguisher shall be provided and installed on a wall, for each storage area assigned to the Contractor.

G. Access to Elevator Equipment:

1. The Contractor shall provide keys for access to all the elevator equipment.

H. Punch List Items:

1. All punch list items shall be completed within thirty (30) consecutive calendar days of receipt of Punch List items.

3.3 SHAFT CLEANING

A. The entire shaft, from the pit floor to the underside of the machine room slab, shall be thoroughly cleaned of all debris, lint, grease, dust, etc.

3.4 HOISTWAY PROJECTIONS

A. Provide seventy-five (75˚) degree concrete bevels on all ledge projections in excess of two inches of all elevator hoistways on all floors.

3.5 PAINTING

A. Summary of Work Included:

1. Clean all ironwork and paint with one shop coat of primer coating. Do not paint galvanized steel with enamel coating. After erection, touch up bare spots on iron work. Apply final field coat of paint similar to shop coat.

2. Touch up any wall and ceiling surfaces damaged by work of this project with at least two coats of paint to match finish.

3. Paint metal with one coat of an oil based rust inhibitive primer and one coat of an enamel alkyd paint.

B. Samples:

1. Before placing orders for materials, submit the name or names of manufacturers for approval.

2. Upon approval of the manufacturer, submit samples of all materials. Approval of the samples will be based upon manufacturers certifying that the products proposed are the standard best or top brands produced by them and are readily obtainable as such in "over the counter" sales. Do not proceed until all samples are approved.

3. All materials shall be further subject to field tests from time to time as the work progresses.

C. General Painting Requirements

1. Delivery: Deliver all material in their original containers with seals unbroken. Order in advance, in large enough quantities and in ample time to facilitate the work.

2. Storage of Materials: Store materials where directed. Keep storage space clean and accessible at all times. Remove paint or oil-soaked rags, waste, etc. from the premises at the close of each day's work. Absolutely no flammable or combustible materials are to be stored on the Owner’s property.

3. Protection: Provide suitable coverings to protect all work and all adjacent surfaces and objects.

4. Cleaning Up: Upon completion of the work, remove all surplus materials, empty containers, rags, and other debris from the premises. Touch up finished work where directed. Remove daubs or spatters of paint from all surfaces.

D. Workmanship:

1. Carefully prepare all surfaces to be painted. Do not apply paint until the surfaces are absolutely dry and clean.

2. Shop or priming coats shall be put in good condition; touch up any bare or abraded spots.

3. Wire brush all metal surfaces. Remove all abrasions in the prime coat, rust, scale, etc. Clean and touch up damaged areas to match prime coat. Clean metal work with solvent to remove all dirt and grease.

4. Clean concrete and masonry surfaces to be painted of all grit, dirt and loose material. Patch scratches, cracks, holes and similar defects in wall and ceiling surfaces to provide a smooth flush surface. Patched portions shall be given a coat of primer sealer in addition to all other specified coats.

5. Allow each coat of paint to dry before subsequent coat is applied. The finished work shall be free from runs or sags, defective brushing or brush marks, and clogging of lines and angles. Exposed surfaces shall be left clean.

END OF SECTION

SECTION 144000 - COMPREHENSIVE ELEVATOR MAINTENANCE AND REPAIR

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

B. Examine all other Sections of the Specifications for requirements that affect work of this Section whether or not such work is specifically mentioned in this Section.

C. Coordinate work with that of all other trades affecting, or affected by, work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

1.2 RELATED DOCUMENTS

A. Except as modified by governing Codes and by this Division, the work shall comply with provisions of the latest editions of the following, and in the event of conflict between these standards, the Elevator Consultant's determination shall be final:

1. Safety Code for Elevators and Escalators, ASME A17.1, and all supplements
2. NFPA Life Safety Code
3. Title III of the Americans with Disabilities Act (ADAAG)
4. International Building Code
5. NJAC 5:23-12 Elevator Safety Subcode
6. UCC-F150 Elevator Subcode Technical Section
7. City of Irvington, NJ, Regulations and Ordinances
8. Guide for Inspections of Elevators, Escalators, and Moving Walks, ASME A17.2, latest adopted edition
9. Safety Code for Existing Elevators and Escalators, ASME A17.3
10. Guide for emergency evacuation of passengers from elevators, ASME A17.4
11. NFPA Life Safety Code, Latest Edition
12. National Electrical Code (ANSI/NFPA 70)
13. Title III of the Americans with Disabilities Act (ADAAG)\
14. ASME A17.5/CSA-B44.1 - Elevator and escalator electrical equipment.
15. NEMA: National Electrical Manufacturers Association.
16. NFPA: National Fire Protection Association
17. OSHA: Occupational Safety & Health Administration.
18. UL: Underwriter Laboratories.
19. IEEE: Institute of Electronic & Electrical Engineers.
20. AIA: American Institute of Architects.
21. ADA: Americans with Disabilities Act.

The Contractor shall advise the Owner of pending code changes that could be applicable to this property.

1.3 SUMMARY

A. This Section details the requirements of the full comprehensive maintenance and repair contract to service, repair, and maintain all elevator equipment identified in this specification and other elevator related equipment if not listed, accompanying accessories, and related equipment, and thereof, in a manner that ensures all requirements, procedures, tests, inspections, filing procedures and recording documentation as referenced, mandated or implied herein are all inclusive.

B. Furnish full protective maintenance on the equipment described herein for a period of five (5) years from the date of substantial completion of the entire installation. Maintenance coverage shall include, but is not limited to, preventive services and emergency callback services. The costs of any and all maintenance and service specified herein shall be separately billable to the Owner on a monthly basis. All service requests and callbacks, other than for vandalism, misuse or acts of god, shall be covered without additional billing.

C. Contractor shall service and maintain, in full accordance with the terms of these specifications, the building elevators at the locations specified herein. The scope of work shall include, but not be limited to:

1. Keeping the elevators in safe operating condition 24 hours per day, 7 days per week, including Holidays.
2. Providing maintenance and replacement of parts and equipment as hereinafter specified.
3. Maintaining and submitting to the Owner a monthly elevator service report. This report shall be included with monthly or quarterly invoice.
   Note: invoice will not be processed for payment without monthly service report.
4. Providing inspection and testing service for any insurance company, city, state or government agencies, which have jurisdiction over the elevators.

D. The Owner's entire vertical transportation systems located at:

Camptown Gardens Apartments
81 Union Avenue
Irvington, NJ 07111

shall be maintained as described in this Specification. Trained employees of the Contractor shall use all reasonable care to keep the systems in proper adjustment and in safe operating condition, in accordance with the applicable codes, ordinances, and regulations. The requirements are specified in their singular with the understanding that all provisions shall be provide for all vertical transportation systems indicated unless otherwise specified.

E. Equipment:

The Contractor shall provide full comprehensive elevator maintenance as described herein on the following equipment:

Elevator PE-1 2,000 LB. Capacity, OHT, 200 fpm, Front Entrances, 11-Stop
Elevator PE-2 2,000 LB. Capacity, OHT, 200 fpm, Front/Rear Entrances, 11-Stop

F. Exceptions

1. The work to be performed by the said Contractor under these specifications shall be done to and for each elevator and everything which was furnished with each of them.
2. The Contractor shall be required to restore to satisfactory operating condition any item of the elevator or parts thereof damaged by negligence, abuse, or misuse thereby caused by persons other than the Contractor, his agents, or employees as further defined herein.

1.4 DEFINITIONS

A. Words in the singular shall mean the plural whenever applicable or as to the context so indicates.

B. The specifications are written in the singular with the understanding identical work, materials and equipment shall be provided for all elevators identified unless otherwise specified.

C. All terms in these specifications have the definition given in the latest edition of the American Society of Mechanical Engineers, ASME A. 17.1, Safety Code for Elevators and Escalators.

D. Abbreviations for associations, institutions, societies, reference documents and/or governing agencies, which may appear in the Contract Document, shall mean the following:

AIA	American Institute of Architects
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
BOCA	Building Officials and Code Administrators International, Inc.
A.H.J.	Authority Having Jurisdiction
G.A.	Governing Agency
NEC	National Electrical Code
OSHA	Occupational Safety and Health Administration

E. Owner shall mean either the owner of the building and/or their managing agent.

1.5 FIRM AND PERSONNEL QUALIFICATIONS

A. If required by law, Contractor certifies that it is licensed in the state, municipality and/or local jurisdiction where the property is located to perform the elevator services pursuant to this specification, and that license will be maintained current and valid for the term of the Contract.

B. Work shall be performed only by Licensed Qualified Technicians and Mechanics directly employed and supervised by the Contractor, who are experienced and skilled in maintaining vertical transportation units similar to be maintained under this Work and shall not be assigned or transferred to any agent or subcontractor without the express written consent of the Owner.

1.6 NOTICE BY OWNER TO REPAIR OR REPLACE

A. The Contractor shall comply with all written recommendations of the governing authority or independent inspectors, consultants and insurance carriers employed by the Owner. However, Contractor is not required under this Contract to install new attachments different from those now constituting the equipment, as recommended or directed by insurance companies, Government Authorities, or otherwise.

1.7 SUBSEQUENT EQUIPMENT MODERNIZATION, ALTERATIONS, AND UPGRADES

A. Full comprehensive service and repair coverage shall be included under the terms of this agreement when equipment and/or component systems represented herein are modified or upgraded.

B. Such changes in equipment necessitating continuing full maintenance coverage may be initiated by the Owner under a separate voluntary extra cost upgrading agreement with or without this Contractor's permission or direct authorization and involvement before the work is performed.

C. Modernized or otherwise upgraded systems and parts thereof shall automatically be included under the terms of this full comprehensive agreement whether such components are specifically identified or not without extra cost to the Owner.

D. Owner shall have the option of severing the elevator comprehensive maintenance and repair service contract with no penalty at any time if any of the units covered under the agreement undergo modernization, whether with the service provider or a different company.

1.8 PAYMENT FOR MAINTENANCE SERVICE

A. This Section supplements the requirements of the General Conditions and is specific to this the Maintenance and Service Repair of the Work.

B. As relevant to the scope of work defined for each elevator, all interim and contract maintenance, as specified herein, shall be provided at no additional cost to the Owner from the start of the building construction project through date of final completion of all work under the Contract.

C. The Owner will only pay the Contractor for extraordinary work and/or other work not covered under the full maintenance contract as approved by Owner, such as elective upgrading of components and accessories, modernization of equipment and invoiced separately upon completion and acceptance of the work or other service performed. Such invoicing shall include mechanic's time ticket with description of work, hours spent, materials, date, and other pertinent information.

D. The owner, in no instance, will process and/or pay an invoice unless it includes a clear, typed comprehensive monthly report of all activities at each site and car. It is incumbent on the service contractor to clearly itemize all charges by building name and address, and specific elevator. Elevators be identified by numbers defined above; PE #1 or PE #2, etc., numbering from left to right.

E. Elevator contractor shall submit with invoices all state non-compliance reports and subsequent work slips for corrective actions to comply with state elevator inspections.

1.9 RECORD KEEPING AND REPORTS

A. Record Drawings: The contractor shall provide and maintain two (2) complete sets of updated electrical wiring Diagrams and control schematic drawing on file within the building and they are to become the Property of the Owner for each group and/or individual system.

B. Permanent Records: A complete permanent record of inspections, maintenance, lubrication and call-back service shall be kept in the machine room or other designated location at the site of work. These records are to available to Owner designee at all times. The records shall indicate the reason the mechanic was in the building, arrival and departure time, the work

performed, etc., and these records will be the property of the Owner. Record keeping requirements shall include Contractor assigned maintenance personnel and scheduled preventive maintenance procedures, inspections, tests and third party assisted examinations. The Contractor shall be required to maintain and submit to the Owner's elevator service records, permits, certificates, inspection reports, etc. It shall be the Contractor's responsibility to provide sufficient documentation to allow the Owner to adequately monitor the performance of this contract.

C. Annually the records specified in paragraph B. above shall be submitted to the Owner and become the property of the Owner. If electronic tracking is utilized to comply with paragraph B of this section, a complete printout will be submitted to the Owner for their records.

D. Reports: The Contractor shall, at any time during the term of this Contract, upon written request of the Owner, render a report of inspections, repairs or replacements made by the Contractor at the premises herein, itemized as to parts installed or services performed and supply samples of lubricants, compounds, or other materials employed.

1. Contractor shall prepare and issue all required forms and/or reports relative to examinations, tests and inspections as specified herein.

2. Contractor shall provide a typed monthly report of all activities at each site, as part of the invoice process.

1.10 PERFORMANCE

A. The Owner may have the Contractor's work and systems' performance operations checked monthly to ensure the Contractor is performing in accordance with this Contract. If the work requirements are not maintained, the Owner will retain the monthly payment to the Contractor until the Consultant verifies that the work and/or operating performance is back to standard. If three (3) consecutive months of substandard maintenance is noted, the Owner has the right to immediately cancel the Contract without notice to the Contractor.

B. The Consultant and/or Owner's Designee may withhold approval for payment on any request to such extent as may be necessary to protect the Owner from loss on account of:

1. Negligence on the part of the Contractor to execute the work properly or failure to perform any provisions of the contract. The Owner, after three (3) days written notice to the Contractor, may, without prejudice to any other remedy, make good such deficiencies and may deduct the cost of the contract.

2. Claims filed or reasonable evidence indicating probable filing of claims due to the Contractor's failure to perform.

3. Failure of Contractor to make payments properly to subcontractors for material and labor used to fulfill contractual requirements.

4. Damage to the building as a result of work performed or another subcontractor's failure to perform.

1.11 OWNERSHIP OF EQUIPMENT

The Contractor does not assume possession or control of any part of the equipment but such remains Irvington Housing Authority's exclusively as the owner thereof.

1.12 NOTICES

All notices to be given under the contract shall be in writing and addressed to the party to be notified, postage prepaid, by registered or certified mail, return receipt requested, or by delivering the same in person to such party. All notices shall be deemed to have been given as of the date of delivery indicated on the return receipt or date of failure to deliver by reason of changed address of which no notice was given or refusal to accept delivery, or when personally delivered. Any party or person to whom notices are to be sent or given pursuant to the Contract may, by notice to all such other parties or persons mentioned herein, change its address for the giving of notices, provided, however, that a notice addressee.

1.13 AGREEMENT INTENT

A. Provide proactive preventive maintenance for the equipment covered by this Agreement to facilitate the following:

    i. Consistent safe operation of equipment
    ii. Maximum operational performance of equipment
    iii. Maximum beneficial usage of equipment
    iv. Maximum life cycle of equipment

B. Contractor expressly acknowledges that Owner is relying on Contractor's professional expertise in performance of Services to achieve and maintain Agreement intent.

C. For clarification elevators, escalators, moving walks, etc. may be referred to as "units" or "equipment" in this Agreement.

1.14 CONTRACTOR SERVICES

A. Services shall include all labor, transportation, supplies, materials, parts, tools, scaffolding, machinery, hoists, employee safety equipment, equipment, lubricants, supervision, applicable taxes, and all other work and materials expressly required under this Agreement or reasonably inferred whether or not expressly stated herein.

B. Contractor shall submit a written Maintenance Control Program (MCP) specifically designed for the properties included in this agreement defining the planned preventive maintenance procedures to facilitate Agreement intent and "Services" for all equipment included under this Agreement. Routine maintenance procedures shall include any unique or product specific procedures or methods required for inspecting or testing the equipment. MCP shall identify weekly, bi-weekly, monthly, quarterly, and annual maintenance procedures, including statutory and other required equipment tests.

C. Coordinate and follow the directives of Owner with respect to scheduling Services and any deliveries hereunder or at time or times further specified in other provisions of this Agreement.

D. Services shall be performed as follows:

a. In conformance with all provisions of this Agreement.

b. In conformance with all applicable original equipment manufacturer's specifications.

c. In conformance with the written Maintenance Control Program (MCP).

d. In conformance with Owner's requirements for cleanup using containers supplied by Contractor.

e. To Owner's satisfaction.

f. By qualified, careful, and efficient employees in conformity with best industry practices.

g. Diligently and in a first class, complete, and workmanlike manner, free of defect or deficiency.

h. In such manner as to minimize any annoyance, interference, or disruption to occupants of Property and their invitees.

E. Materials: The term "materials" shall include all tangible property, whether designated as materials, goods, parts, or otherwise. All such materials shall be:

a. New.

b. Best quality and suitable for their intended uses.

c. Obtained from or recommended by original manufacturer(s) of equipment for replacement or repair, including parts redesigned by and recommended as replacement parts by the original equipment manufacturer(s). Equivalent parts may be used if approved by Owner in writing.

d. Parts requiring repair shall be rebuilt to "like new" condition.

e. All lubricants shall be suitable for purpose intended and shall meet or exceed minimum requirements specified by original manufacturer of equipment to which the lubricant is applied.

f. All materials delivered and stored at the Property which are intended to become part of the completed Services shall pass to Owner upon installation.

g. Lubricants, cleaning fluids, and all combustible liquids shall be stored in a metal cabinet in machine room and shall be disposed of in accordance with Federal or local jurisdiction guidelines. A metal can with lid shall be provided in each machine room for temporary storage of oily rags.

h. Proration of equipment or materials shall not be allowed.
Consideration shall be given in regard to obsolescence of systems, materials, or parts only when both the original equipment manufacturer(s) and after-market elevator industry suppliers no longer manufacture or rebuild required parts or assemblies. Rebuilt parts and/or assemblies are acceptable when documentation is provided indicating parts and/or assembly meets all design requirements of the original part and/or assembly.

F. No parts or equipment required by Services may be removed from the Property without written approval of Owner. This does not include renewal parts stocked on site by Contractor, which shall remain Contractor's sole property until installed on the equipment. Expeditiously replenish parts/materials as utilized.

G. Initiate, maintain, and supervise all safety precautions and programs in connection with Services and comply with all applicable safety laws. Take all reasonable precautions for safety of building occupants and visitors, Contractor's employees, and other persons on or about Property.

H. Repair, to satisfaction of Owner, any damage to the Property and adjacent areas caused by performance of Services.

1.15 CONTRACTOR'S EMPLOYEES

A. Contractor shall be responsible for the supervision and execution of Services by its employees. An onsite condition review shall be conducted by a designated Supervisor of Contractor on an annual basis to ensure all Services hereunder are properly performed. Contractor shall inform Owner of the name of its Supervisor responsible for execution of Services and Supervisor shall have the authority to act as Contractor's agent. Supervisor shall notify Owner of site inspection and provide Owner's property management team, Engineer and Elevator Consultant with written summary of findings within ten (10) working days after completion of site review.

1.16 CONTRACTOR'S HOURS AND MANNER OF WORK

A. Services, except as otherwise noted under this Agreement, including unlimited emergency callback service, shall be performed during regular hours of regular working days of the Elevator Trade Monday through Friday 8:00am to 4:30pm.

    a. Provide 24-hour callback service for all units.

B. Response time for callback service:

    a. During the hours identified above, Contractor shall arrive at Property within 75 minutes from time of notification of equipment problem or failure by Owner.

    b. During the hours identified above, Contractor shall arrive at Property in response to passenger entrapment calls within thirty (30) minutes from time of notification by Owner.

    c. After hours, Contractor shall respond to callback service within 120 minutes from the time of notification by Owner.

C. Callback is defined as any request for service or assistance by Owner, Owner or Owner's representative when any unit is not available for beneficial usage due to equipment shutdown or malfunction.

D. All callbacks placed before 1:30pm on regular working days Monday through Friday shall be answered on the same day. If Contractor cannot respond within times prescribed herein, the call shall be answered on overtime with no overtime billing to Owner.

E. Any callback where Contractor arrives during regular working hours shall not be eligible for overtime billing irrespective of how long Contractor is on-site addressing the issue.

F. Entrapment calls shall be answered 24 hours per day, every day of the year, without any billing whatsoever, unless the entrapment is caused by misuse, vandalism or other causes outside of the elevator contractor's control.

G. Removal of units from beneficial usage to facilitate Services shall be coordinated with and approved by Owner and identified in the MCP unless removal is necessitated for emergency repair or adjustment. Owner agrees to permit Contractor to remove units from service for a reasonable time during hours identified above, to perform Services.

H. If Owner requests service on overtime, Owner will be charged only for the difference between Contractor's regular hourly billing rate and overtime rate for each overtime hour.

I. If both elevators are out-of-service, Contractor shall provide emergency call back service at all times of the day and night, including weekends and holidays, within one hour and restore it back to service. Such emergency call back service shall be performed as part of this contract without additional charges.

1.17 SPECIAL CONDITIONS

A. Contractor will update its online system within twenty-four (24) hours of servicing or repairing an elevator. Detail shall include a description of the work performed and the name of Contractor's employees who performed such work.

B. Conspicuously post written Maintenance Control Program (MCP) and work log in each machine room or instructions for locating the MCP in or on the car controller(s). Maintain preventive maintenance history and testing logs in accordance with the MCP either in the machine room, building management office, or electronically within unit computer control system. Data shall be accessible by Owner via manual log or web access and hard copy printout at all times. Log or electronic printout shall include all entries for routine preventive maintenance, repairs, tests, callbacks, and Supervisor's inspection. Entries shall include date work is completed, Mechanic's or Supervisor's name, brief description of work completed, including unit number and number of units serviced, repaired or inspected, and the approximate time required for work excluding travel time to and from property. Owner shall be allowed to inspect and copy log or electronic printout and maintenance history and schedule at any time.

C. Maintain property's complete set of straight line wiring diagrams in good condition. Drawings shall be consistently updated and properly noted with "as built" conditions with any changes or modifications to circuits resulting from control modifications, parts replacement, or equipment upgrades made by Contractor during Agreement term. Owner shall be allowed to reproduce these "as built" drawings and retain sole possession of these drawings in event Agreement is cancelled. If Agreement is cancelled, Owner will withhold final payment due Contractor until all as built/as modified set(s) of wiring diagrams are delivered to Owner.

D. Equipment manufacturer's electronic diagnostic devices required to facilitate services, including fixed and hand-held devices, shall be maintained and upgraded by Contractor during the term of this Agreement. If requested by Owner or Owner's Elevator Consultant, any such handheld or other electronic devices shall be left on-site at all times.

E. Local or National inspection fees in regard to operation of equipment covered by this Agreement shall be paid by Owner. Fees for re-inspection due to Contractor's failure to expeditiously eliminate deficiencies covered by Services shall be paid by Contractor.

1.18 CONTRACTOR'S REPORTING REQUIREMENTS

The Contractor shall provide a monthly report showing all elevators maintained by them no later than the 5th of each month. The report shall be in excel format and include a column for the number of callbacks that occurred in that quarter, a cumulative total of callbacks since contract inception, the length of the callback (time for response, correcting problem and returning unit to service), time for all monthly maintenance performed, time for all monthly repairs performed, time for testing and all other occurrences where unit was out of service.

1.19 OWNER'S RIGHT TO AUDIT SERVICES

A. Owner reserves the right to make, or cause to be made, such audits and tests whenever necessary to ascertain that Services are being fulfilled. Deficiencies noted shall be submitted, in writing, to the Contractor. Contractor shall expeditiously correct deficiencies within thirty (30) working days at its expense.

B. A qualified vertical transportation Consultant acceptable to both parties may be retained by Owner to perform audit of Services and mediate disputes. Reinspection deficiencies and associated fees will be at Contractor's expense.

1.20 NOTICES

A. Each party will notify the other when they become aware of the death or injury to any person or damage to property arising from the use of the Equipment

1.21 OWNER'S RESPONSIBILITIES

A. Provide clear, safe, and convenient access to Property and equipment rooms.

B. Maintain car lighting, telephone lines to controller terminal(s), equipment room electrical switch gear, and electrical feeders to unit controllers.

C. Maintain equipment room heating and air conditioning systems.

D. Maintain fire alarm initiating devices in elevator lobbies, machine rooms, hoistways, etc.

E. Prevent storage of Property or other Contractors' equipment or supplies in unit equipment rooms and obstruction of equipment room access corridors and doors.

F. Maintain standby power generator systems and related switch gear and feeders.

G. Maintain equipment rooms, hoistways, wellways, and pits in code compliant dry condition.

H. Coordinate with Contractor in regard to equipment retrofits such as security systems, new car interior finishes, car interior TV systems, etc.

I. During Property construction and/or modernization, make provisions to limit infiltration of dust and debris into equipment and equipment spaces.

PART 2 - PRODUCTS AND SERVICES

2.1 MATERIALS AND WORKMANSHIP

All materials are to be new and of the best quality of the kind specified. Installation of such materials shall be accomplished in a neat and workmanlike manner. In case the Contractor should receive written notification from the Owner stating the presence of inferior, improper, or unsound materials or workmanship, the Contractor shall, within twenty-four (24) hours proceed to remove such work or materials and make good all other work or materials damaged thereby. If the Owner permits said work or materials to remain, the Owner shall be allowed the difference in value or shall, at its election, have the right to have said work or materials repaired or replaced as well as the damage caused thereby, at the expense of the Contractor, at any time within one (1) year after completion of the work; and neither payments made to the Contractor, nor any other acts of the Owner shall be construed as evidence of acceptance and waiver.

2.2 SCHEDULED PREVENTATIVE MAINTENANCE LABOR

A. Contractor shall provide scheduled monthly examinations, adjustments, cleaning and lubrication of all machinery, machinery spaces, hoistways and pits. The Contractor shall include a minimum of 90 minutes per month per unit that is to be dedicated to routine preventive maintenance.

B. Where there is no specific requirement for a preventive maintenance procedure, the original equipment manufacturer (O.E.M) standard shall be employed unless there is no relative documentation available. The absence of both contract requirement herein and the O.E.M. design standard shall cause the contractor to engage the services of a qualified engineer to formulate the relative standards and incorporate same as an addendum to this agreement with the Professionals' Seal and Stamp.

2.3 FULL PROTECTIVE MAINTENANCE REQUIREMENTS

Regularly and systematically examine, adjust, lubricate, clean and when conditions warrant repair or replace the following items, as applicable, and all other mechanical or electrical equipment.

A. Machine, drive and deflector sheave, sheave shaft bearings, brake pulley, brake coil, brake contact, shoes and linings, and component parts.

B. Motor, motor drives, motor windings, rotating element, commutator, field coil, brushes, brush holders and bearings, rotors, stators, slip rings.

C. Governor, governors sheave and shaft assembly, bearings, contacts and governor jaws.

D. Deflector or secondary sheave, bearings, car and counterweight buffers, car and counterweight guide rails, top and bottom limit switches, governor tension sheave assembly, compensating assembly, counterweight and counterweight guide shoes, including rollers or gibs.

E. Controller, Selector and Dispatching Equipment: all components including all relays, solid state components, resistors, condensers, transformers, contacts, leads, dashpots, computer devices, selector switches, mechanical or electrical driving equipment, coils, magnet frames, contact switch assemblies, springs, solenoids, resistance grids, hoistway vanes, magnets and inductors.

F. Hoistway door interlocks or locks and contacts, hoistway door hangers and tracks, bottom door gibs, cams, rollers, and auxiliary door closing devices for power operated doors. Chains, tracks, cams, interlocks, sheaves for vertical bi-folding doors.

G. Hoistway limit switches, slowdown switches, leveling switches and associated cams, vanes, and electronic components.

H. Guide shoes including rollers or replaceable gibs.

I. Automatic power operated door operators, door protective devices, car door hangers, tracks and car door contacts for both side slide and vertical bi-folding doors.

J. Traveling cables.

K. Elevator control wiring in hoistway and machine room.

L. Car safety mechanism and Load weighing equipment.

M. Hoist ropes and compensating chains, compensating ropes, suspension belt media, and all associated shackles or other means of attachment, deflector sheaves on the car, counterweight frames, overhead and pit. Hoist ropes displaying rouge with or without cross section loss shall be replaced.

N. Buffers.

O. All car and hoistway operating fixtures including hall lanterns, main Lobby fixtures, car operating panels, car position indicator, car fans, electric door operators, proximity devices, safety edge, photo eyes, door reflectors and starters' panels.

P. All batteries in the controllers, emergency lowering units, uninterruptible power supplies (UPS) units, car station and cab backup lighting systems.

Q. The guide rails shall be kept free of rust. Where roller guides are used, rails shall be kept dry and properly lubricated when sliding guides are used. Renew guide shoe rollers and gibs as required to insure smooth and satisfactory operation.

R. Furnish lubricants compounded specifically for elevator usage.

S. After substantial completeness or acceptance, the Contractor shall be required to make renewals or repairs necessitated by reason of negligence or misuse of the equipment or by reason of any other cause beyond the Contractor's control except ordinary wear and tear unless the Contractor receives just compensation. Negligence, misuse and vandalism shall not be excluded from the Contractor's maintenance responsibilities prior to substantial completeness or acceptance. Misuse by any of the subcontractors during construction shall be the Contractor's responsibility to repair or replace damaged equipment.

T. The Contractor shall check the group dispatching systems (if applicable) and make necessary tests to insure that all circuits and time settings are properly adjusted, and that the system performs as designed and installed.

U. Contractor shall perform the required mandated State and/or Local inspections and tests during the full term of the maintenance contract. All such testing services shall be included as part of the base scope of services without additional billing to the Owner, including, as needed, full load tests or any other special tests required or requested by the Authority Having Jurisdiction.

V. The Contractor shall keep each elevator maintained to operate at the original contract speed, keeping the original performance time, including acceleration and retardation as designed and installed by the manufacturer. The door operation shall be adjusted as required to maintain the original door opening and door closing times, within legal limits.

W. The Owner reserves the right to make inspections and tests as and when deemed advisable. If it is found that the elevators and associated equipment are deficient either electrically or mechanically, the Contractor shall be notified of these deficiencies in writing, and it shall be his responsibility to make the necessary corrections within 30 days after his receipt of such notice. In the event that the deficiencies have not been corrected within 30 days, the Owner may terminate the Contract and employ a Contractor to make the corrections at the original bidder's expense.

X. Approximately six months prior to the end of the contract term, the Owner may make a thorough maintenance inspection of all elevators covered under the contract. At the conclusion of this inspection, the Owner may give the Contractor written notice of any deficiencies found. The Contractor shall be responsible for correction of these deficiencies within 30 days after receipt of such notice.

Y. Spare Parts

1. Provide a list of minor spare parts for the Elevator Consultant's review and approval.

2. In addition to the minor spare parts, the Contractor shall have available at all times, for immediate delivery and installation, sufficient supply of emergency spare parts for the repair of each elevator concerned.

3. Contractor shall provide at the building a spare parts metal; lockable storage cabinet and metal safety containers for storage of waste and other flammable materials.

Z. Items of Preventive Maintenance Work

1. The preventive maintenance specified herein is considered the minimum for all equipment. If specific equipment covered by this contract required additional preventive maintenance for safe, reliable operation as specified by the manufacturer, the Contractor shall perform the required additional preventive maintenance without added cost to the Owner. If specific equipment covered by this contract required additional preventative maintenance for safe, reliable operation as specified by the manufacturer, the Contractor shall perform the required additional preventative maintenance without added cost to the Owner.

2. Monthly

a. Perform general inspection of machinery, sheaves, worm and gear motor, brake, selector or floor controllers. Lubricate as required.
b. Empty drain pans, discard oil, in an approved manner. Check and maintain oil level.

c. Replace all burned out lamps in elevator machine room, pit, hall lanterns, etc.

d. Remove litter, dust, oil, etc. from all machine room equipment.

e. Clean trash from pit and empty drip pans.

f. Check governor and tape tension sheave lubrication.

g Burned out lamps in hall lanterns, pushbuttons, and corridor position indicators, remote arrival signals, remote dispatch panels, and other signal fixtures shall be supplied and installed by the Contractor. Burned out lamps in elevator, machine rooms and pit shall be supplied by the Owner and installed by the Contractor.

h. Observe operation of elevator throughout its full range and at all floors it serves to test controls, safety devices, leveling and re-leveling and other devices.

i. Check door operation, clean, lubricate and adjust brakes, checks, linkages, gears, wiring motors, check keys, set screws, contacts, chains, cams and door closer.

j. Check selector. Clean, adjust and lubricate bushings, dashpots, travel cables, chain, pawl magnets, wiring, contacts, relays, tape drive and broken type switch.

k. Check car. Clean, adjust and lubricate car door and gate tracks, pivots, hangers, ventilation grilles, side and top exits.

l. Inspect interior of elevator cab. Test intercom/telephone or intercommunication system, normal and emergency lights, fan, emergency call system or alarm. Make needed repairs.

m. Visually inspect controller, contacts and relays. Check adjustment and replace contacts as required.

n. Observe operation of signal and dispatching system. Inspect compensating hitches, buffers, rope clamps, slack cable switch, couplings, keyways, and pulleys. Check load weighing device and dispatching time settings. Clean, adjust and lubricate as necessary.

o. Check oil level in car and counterweight oil buffers and add oil as required.

p. Check brushes and commutators. Inspect commutators for finish, grooving, eccentricity and mica level. If required, clean, turn or refinish commutator to provide proper commutation. Inspect brushes for tension seal and wear, replace or adjust as required.

q. Perform fire service test, per Code.

r. Check and adjust:
    1) Car ventilation system.
    2) Car position indicators.
    3) Hall and car call buttons.
    4) Hall lanterns.
    5) Main dispatch panels/remote monitoring panel

3. Quarterly

a. Check leveling operation. Clean and adjust leveling switches, hoistway vanes, magnets, and inductors. Repair and/or adjust for proper leveling.

b. Check hoistway doors. Clean, lubricate and adjust tracks, hangers and upthrust eccentrics, linkage gibs and interlocks.

c. Clean, adjust, and lubricate car door or gate tracks, pivots and hangers.

d. On hoistway doors, clean, lubricate and adjust tracks, hangers and eccentrics, linkage gibs and interlocks.
e. Inspect all fastenings and ropes for wear and lubrication. Clean both governor and hoist ropes and lubricate hoist ropes if needed.
f. Inspect all rope hitches and shackles and equalize rope tension.
g. Inspect hoist reduction gear brake and brake drum, drive sheave and motor, and any bearing wear.
h. In the car, test alarm bell system. Clean light fixtures. Inspect, clean and adjust retiring can device, chain, dashpots, commutators, brushes, cam pivots, and fastenings. Test emergency switch (ground case if necessary). Inspect safety parts, pivots, set screws, switches, etc. Check adjustment of car and counterweight gibs, shoes or roller guides. Lubricate and adjust, if necessary.
i. In the pit, lubricate compensating sheave and inspect hitches. Inspect governor and tape tension sheave fastenings. Empty and clean oil drip pans.
j. Clean all parts of safeties and lubricate moving parts to assure their proper operation. Check and adjust clearance between safety jamb and guide rails. Visually inspect all safety parts.
k. Clean and examine governor ropes, replacing if needed. (Do not lubricate governor rope.)

4. Semi-Annually

a. Check controllers. Clean with blower, check alignment of switches, relays, timers, contacts, hinge pins, etc., adjust and lubricate. Check oil in overload relays, settings and operation of overloads. Clean and inspect fuses and holders and all controller connections.
b. In hoistway examine guide rails, cams and fastenings. Inspect and test limit and terminal switches. Check and adjust car shoes, gibs or roller guides. Adjust or replace as required.
c. Clean all overhead cams, sheaves, sills, bottom of platform, car tops, counterweights and hoistway walls.
d. Inspect sheaves to ensure they are tight on shafts. Sound spokes and rim with hammer for cracks.
e. Examine all hoist ropes for wear, lubrication, length and tension. Replace, lubricate and adjust as required to meet code requirements.
f. On tape drive, check hitches and broken tape switch.
g. Check car stile channels for bends or cracks, also car frame, cams, supports and car steadying plates.
h. Lubricate moving parts of vertical rising or collapsible car gates.
i. Check pivot points, sheaves, guides and track for wear.
j. Lubricate guide shoe stems.
k. Check governor and tape tension sheave fastenings.
l. For bi-parting doors, clean chains, tracks and sheaves, lubricate as required. Check door contacts.
m. Check fastenings and operation of door checks, interlocks, clean and lubricate pivot points as required.

5. Annually

   a. Thoroughly clean car and counterweight guide rails using a nonflammable or high flash point solvent to remove lint, dust and excess lubricant.
   b. Remove, clean and lubricate brake cores on brakes, clean linings, if necessary and inspect for wear. Correct excess wear and adjust.
   c. Inspect motor generator and hoist motor armatures and rotor clearance. Check motor and MG set connection and lubricate in accordance with manufacturer's instructions.
   d. Drain, flush and refill oil reservoirs of each hoisting motor and motor generator.
   e. Check and reset, if necessary, all brushes for neutral settings, proper quartering and spacing on commutators.
   f. Group supervisory control systems where installed shall be checked out. The system's dispatching, scheduling and emergency service features shall be tested and adjusted in accordance with manufacturer's literature.

AC. The Contractor shall during the course of all examinations remove and discard immediately all accumulated dirt and debris from the car top(s) and pit area(s). Prior to each annual anniversary

2.4 INSPECTION / TESTS

A. The Contractor shall conduct Safety, Efficiency and Maintained Conditions surveys, inspections and tests as follows:

1. Semi-Annual quality control evaluations by a qualified supervisor to ensure and confirm the services and procedures as specified herein are properly executed relative to maintenance and performance standards for the systems serviced.

2. Mandated inspections and testing in accordance with ASME A17.1 Standards applicable per local law; filing of all procedures per the Authority Having Jurisdiction (AHJ) and preparation of reports within the required time periods for the examination(s) rendered.

   a. The Owner retains the right to have these tests performed on a not-to-interfere basis at any hour of the day and any day of the week; and the cost for overtime work shall be quoted at Contractor’s then current billing rates and require approval from Purchaser before work commences. Owner shall only be billed for the difference between contractor’s normal and overtime hourly billing rate for each overtime hour.

   b. The Owner retains the right to engage the services of a third-party qualified and certified agency for the sole purpose of witnessing mandated inspections and tests performed by the Contractor. Should the Owner elect to utilize this provision, the contractor shall provide Owner with a quote at Contractor’s then current billing rates for approval before work commences.

3. If applicable, independent testing of Fire Emergency Operating Systems and/or Emergency Power System tests in accordance with local law requirements and ASME standards.

   a. The Owner retains the right to have these tests performed on a not-to-interfere basis at any hour of the day and any day of the week; and the cost for overtime work shall be quoted at Contractor’s then current billing rates and require approval from Purchaser before work commences. Owner shall only be billed for the difference between Contractor’s normal and overtime hourly billing rate for each overtime hour

4. Once a year the Contractor shall test all safety devices, governor and associated equipment on each elevator, in accordance with the latest edition of the American Standard Safety Code for Elevators and Dumbwaiters. Such test shall be made by running each car in the down direction at the design speed without load and by setting the safety device by tripping the governor by hand. The Contractor shall promptly correct any defect that may become apparent during the test of the safety devices and equipment.

5. Whenever necessary for the safe and/or satisfactory operation of the elevator equipment, the Contractor shall examine and equalize the tension of all hoistway ropes and shall re-socket the hoist at the car crosshead. Whenever necessary to ensure the maintenance of an adequate safety factor or when required by the elevator inspection or companies insuring the elevators in question against accident, the Contractor shall replace any and all ropes, including but not limited to hoist ropes and governor ropes.

6. Whenever necessary for the safe and satisfactory operation of the elevator equipment, the Contractor shall repair and/or replace any or all the electrical equipment from the load side of each elevator disconnect switch.

7. Whenever necessary for the safe and/or satisfactory operation of the elevator equipment, the Contractor shall repair and/or replace any and all mechanical parts of each elevator.

8. Owner’s Inspections: Two inspections per year shall be scheduled at the convenience of both the Contractor and the Owner to jointly inspect all work included in this contract. Contractor shall provide a senior service elevator technician and a management representative to demonstrate that all work has been or in the process of being completed. One working day per inspection should be allowed to complete tour. Owner will be provided with a quote at Contractor’s then current billing rates for approval before work commences.

9. The Owner shall reserve the right, from time to time to employ others to test the condition, speed and safety of the elevators as it may be deemed advisable. If it is found that the elevators do not conform to the required standards as set forth under the terms of this contract, the Owner will immediately demand that the elevators be placed in satisfactory condition, and if the work has not commenced within twenty-four (24) hours, the Owner can enter into agreement with others to perform such work and deduct the total cost of said work from the Contractor's monthly charge for the services specified. If the above happens repeatedly, the Owner may void this contract and not allow this Contractor to bid on future work.

2.5 PAINTING

A. The Contractor shall keep the exterior of the machinery and any other parts of the equipment subject to rust properly painted, identified and presentable at all times. Motor windings and controller coils shall be periodically treated with proper insulating compound. The machine room floor and all storage areas shall be painted annually with a good quality deck enamel as typically used and accepted in the elevator industry.

2.6 VIOLATIONS

A. Contractor agrees that he/she and his/her agents shall comply with any violation issued by the any agency or authority having jurisdiction, assuming all repairs are covered under the scope of work outlined in this agreement. The contractor shall provide a separate proposal for any repairs not covered by this agreement. Any affirmations of correction and/or other paperwork, expediting, hearings and or any other means necessary to clear all violations shall be the sole responsibility of the elevator contractor. The Owner and/or Owner's representative shall forward any violation issued to the elevator contractor within five (5) business days. All fines related to violations on covered items shall be the responsibility of the elevator contractor. Any fines which have accrued prior to the date the elevator contractor was given the violation shall be the responsibility of the Owner, however, after twenty (20) calendar days, if left uncured, the contractor will be responsible for fines incurred afterward.

B. If there is work that needs to be performed by someone other than the elevator contractor, or work that is not included in this contract, the contractor MUST inform the Owner/Management and the Owner's elevator consultant in writing. In either case, clearing of the violation shall be the responsibility of the Elevator Contractor, once the Owner or Owners Representative has stated completion.

2.7 OBSOLESCENCE OF PARTS

A. Definition of Obsolescence:

1. A system, component, or part that is no longer repairable, re-buildable, supported, manufactured, available in-stock or supplied by the OEM, Non-OEM Elevator/Escalator systems parts supplier or other 3rd party parts supplier or fabricator in the same form, fit and function.

B. During the term of this agreement, any system, component or part not meeting the Definition of Obsolescence in 1.4.A.1 above shall be covered as prescribed in this document. Systems, Components or Parts which are repairable or re-buildable as noted above shall be covered under the following conditions:

a. Part is repairable, either through the manufacturer or through any 3rd party provider, up to the cost that the original part would have been at its latest available date.

b. Part is custom makeable up to the cost that the original part would have been at its latest available date.

c. Additionally, should the cost of the part repair or fabrication is greater than the original part, Contractor shall submit documentation to substantiate the original part cost and the current repair/fabrication cost. Purchaser shall not be responsible for additional labor cost associated with this repair or fabrication.

C. Should a part become obsolete meeting the definition in 1.4.A.1, the Contractor shall submit the following:

1. A separate quotation to the Purchaser stating:

a. The cost of the obsolete part and the cost of the replacement part. Purchaser shall only be responsible for the cost difference in parts.

b. The cost of labor to replace the obsolete part and the cost of labor to install the replacement part. Purchaser shall only be responsible for the cost difference in labor.

2. Documentation to substantiate the part is obsolete and attempts to locate 3rd party providers has occurred for any material cost associated with the part.

3. Documentation as to equipment changes required to replace the obsolete part with that of the new part for any labor costs associated with the part replacement.

D. If contractor, third party consultant or Purchaser receive a notice of ·component or part obsolescence· from a third party non-OEM elevator system parts supplier, not owned by or in any way affiliated with the contractor, during the course of this agreement then Purchaser will consider a claim of obsolescence. Claim may include only the necessary retro-fit material and only the additional portion of labor above and beyond what would have been required to replace the obsolete component or part with an OEM original component or part.

F. No other claim for obsolescence of any kind will be considered by the Purchaser during the course of this agreement.

2.8 OCCUPANCY

A. A credit will be allowed from the contract price based on the occupancy of the building during each three months (quarter annual) installment) of the contract. The credit shall be toward the entire fixed monthly cost, inclusive of labor and materials. This credit shall be adjusted in accordance with the following schedule:

Occupancy	Credit
Below 50%	40%
50% - 70%	25%
70% - 90%	15%
Above 90%	0%

B. If any elevator is removed from service, full credit will be granted to the owner. Current occupancy data to be furnished to contractor on a quarterly basis.

2.9 DATE OCCUPANCY RATE

A. Occupancy will be reviewed quarterly for the prior quarter to determine reduction in price that will be applied over the following three months. At Owner's option, occupancy discounts may be applied based on total building occupancy or zone occupancy or may be based on total building population or zone population, at the Owner's discretion.

B. Occupancy rate shall be determined based on the actual rented square feet divided by the total available rented area. The elevator company will be permitted at his/her own expense to verify.

2.10 DAMAGE CAUSED BY BUILDING OR UTILITY POWER IRREGULARITIES

A. No claim for elevator equipment damage caused by a building or utility power irregularity shall be entertained or accepted unless documentation can be provided from the utility or affirmed by building management or maintenance staff confirming the irregularity.

2.11 RECOVERY OF PERSONAL ITEMS FROM ELEVATOR PITS

A. If the Contractor is at the property performing preventative maintenance or a service call and Owner or Property Management requests an item be retrieved from an elevator pit in any of the buildings at the property, such service shall be non-billable. Standard billing rates shall apply if a dedicated service call is made to retrieve to retrieve an item from a pit.

2.12 ESCALATION

A. For all lump-sum costs not included on the bid form, year price escalation is permitted. The escalation shall be calculated based upon two components on the following basis:

Material (20%)
Pre-variance (increase or decrease) shall be defined based upon the metals index published by the appropriate authorities.

Labor (80%)
Pre-variance (increase or decrease) shall be based upon negotiated increases by applicable IUEC union labor authorities and personnel. These shall be quantified and qualified by the Contractor as required by Owner and Consultant and supported by official documents as requested.

B. In either event, the Contractor agrees not to increase the maintenance for a Five-Year period by more than three (3%) percent each year with a cap of 9% (calculated from year one) for the life of this contract.

C. This price escalation shall apply to Contractor’s hourly billing rates as well.

PART 3 - EXECUTION AND SUPPLEMENTAL REQUIREMENTS

3.1 PERFORMANCE TIMES, LEVELING AND CONTRACT SPEED

A. The control system shall be maintained to provide smooth acceleration and retardation. Contractor must maintain elevators in accordance with the original equipment manufacturer design performance specifications (including floor-to-floor times door timing, rated speed, group supervisory system, etc.). The door close pressure must never exceed 30 pounds. The following performance schedule shall be adhered to:

1. Contract Speed: The contract speed shall be provided for up direction travel with full-capacity load in the elevator car. The speed in either direction under any loading condition shall not vary more than 5% of the contract speed.

2. In accordance with the ASME A17.1 Code, the elevators shall be maintained and adjusted to safely lower, stop and hold the car with a load of 125% of the rated capacity.

3. Leveling Accuracy: The elevator shall be adjusted to provide accurate leveling within ±1/4" of the floor level without releveling regardless of load. This is MANDATORY.

4. Door Operating Times:
    a. Door Open 2.5 to 3.0 Seconds
    b. Door Close 4.8 to 5.75 Seconds

5. Non-interference Door Dwell Times:
    a. Car Calls 3.0 Minimum
    b. Hall Calls 5.0 Minimum

6. Floor to Floor Time (Flight Time):
    a. Optimized based on Contract Speed of Elevator

7. Measured noise levels in a moving car outside the leveling zone shall not exceed 55 dBA under any condition including car ventilation blower or fan on highest speed. Measured noise levels in car within the leveling zone or when car is stopped shall not exceed 60 dBA. There shall be no discernible sound in the elevator car from hoist machine, suspension means, sheaves, counterweight, pump unit, electrical power conversion unit(s), platform(s), car enclosure walls, or car and counterweight guide assemblies unless it is mutually determined by Contractor and Owner that such sounds are attributable to the design of the equipment, provided such design exception shall not apply to the extent that Contractor has provided design or redesign Services under this Agreement or related Agreement.

8. Contractor shall maintain a quiet and comfortable car ride with smooth acceleration, deceleration, and accurate stop. Door operation shall be smooth and quiet.

3.2 PARTS INVENTORY AND WIRING DIAGRAMS

A. The Contractor shall maintain an inventory of spare parts at the site of the work for scheduled preventive maintenance procedures and common emergency call-back service repairs. Such parts shall include but are not limited to contacts, coils, solid-state boards, relays, resistors, timing devices, computer devices, interlock safety switch and linkage parts, bottom guides, door closers, fuses, bulbs, car guides and an assortment of hardware.

B. The Contractor shall maintain and continually update wiring diagrams and control schematics to ensure "as built" documents remain on site and the property of the Purchaser per the maintenance agreement.

3.3 PROTECTION OF WORK AND PROPERTY

The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect the Owner's property from injury or loss arising out of this contract. The Contractor shall make good any such damages, injury or loss, except such as may be directly caused by agents or employees of the Owner. The Contractor shall provide all barricades required to protect open hoistways or shafts per OSHA regulations. Such protection shall include any necessary guards or other barricades for employee protections during and after the maintenance procedure.

3.4 REPRESENTATION

Contractor represents that it will (i) perform elevator maintenance services under this Agreement in accordance with acceptable industry professional and ethical standards, (ii) not proceed with performance of various aspects of the Services, unless pre-authorized ("Pre-approved Services") by the Owner, (iii) conduct any handling of Owner's Confidential Information in accordance with acceptable industry professional and ethical standards, (iv) not represent to any third party that it has authority to sign, endorse or represent a contractual relationship with or in Owner's name, or enter into any agreement on behalf of Owner in connection herewith (unless expressly pre-authorized in writing by Owner), (v) safeguard the physical security of Owner's Confidential Information if it has access to or possession of such information, (vi) ensure that only "Authorized Representatives" of this Agreement, will have access to any of Owner's Confidential Information while rendering the Services, and that it will not be copied, or disseminated to anyone other than the Authorized Representative, and (vii) ensure that all of its employees, representatives, agents or assigns will not solicit any of Owner's employees for any purpose. The Parties agree that any alteration to any of the Addenda or Exhibits hereto shall be null and void, unless made in writing by mutual consent of the Parties. The obligations of Contractor set forth herein shall remain in full force and effect for the later of a period of one (1) year from the date of termination or expiration of this Agreement, or the date the Confidential Information is returned to whomever disclosed such information, after the date of termination or expiration of this Agreement.

3.5 TERMINATION

A. Either party may terminate this Agreement at the end of the initial three (2) year term or subsequent term by giving the other party not less than sixty (60) days written notice.

B. The Owner may also terminate this Agreement at any time upon thirty (30) days written notice to the Contractor due to the following reasons:

a) Unacceptable performance by the Contractor

b) Contractor's failure to comply with all of its duties and obligations under this Contract

c) If the Owner chooses to modernize vertical transportation equipment, during any term of this Agreement, provided the modernization work is a major modernization as defined by ASME/ANSI A17.1, Safety Code for Elevators and Escalators, latest adopted edition.

d) Permanent removal of equipment from service

e) Owner’s Convenience

END OF SECTION