

CONSTRUCTION REQUEST FOR PROPOSAL

IFB # AAHC-25-3

GREEN BAXTER COURT SOLAR INSTALLATION

ANN ARBOR HOUSING COMMISSION



Issue Date: Friday, September 12, 2025
Due Date: Wednesday, October 29, 2025, by 2:00 p.m. (EST)

Issued By:

Ann Arbor Housing Commission
2000 S. Industrial Hwy
Ann Arbor, MI 48104

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SECTION I - GENERAL INFORMATION

A. OBJECTIVE

This IFB is being issued by the Ann Arbor Housing Commission (AAHC), a Michigan Public Body Corporate, with funding from the U.S. EPA's Environmental Justice Government to Government grant, entitled *A Model Regional Resilience Network and Resilience Infrastructure*, awarded to the City of Ann Arbor in Spring 2024. This IFB is issued by the Ann Arbor Housing Commission, and a contract will ultimately be signed with a wholly-owned subsidiary organization of the AAHC, called the Ann Arbor Housing Development Corporation (AAHDC). The purpose of this Invitation for Bid (IFB) is to select a firm for the design, engineering, procurement of materials, installation, commissioning, and all associated documentation (including warranties) and project interconnection of a Solar PV System to be located at our Green Baxter property.

B. QUESTIONS AND CLARIFICATIONS / DESIGNATED CONTACTS

All questions regarding this Invitation for Bid (IFB) shall be submitted via e- mail. Questions will be accepted and answered in accordance with the terms and conditions of this IFB.

All questions shall be submitted on or before October 21, 2025, at 2:00 p.m. (EST), and should be addressed as follows:

Scope of Work/Proposal Content questions shall be e-mailed to **Tom Pierce, Construction Project Manager, tpierce@a2gov.org**

Should any prospective bidder be in doubt as to the true meaning of any portion of this IFB, or should the prospective bidder find any ambiguity, inconsistency, or omission therein, the prospective bidder shall make a written request for an official interpretation or correction by the due date for questions above.

All interpretations, corrections, or additions to this IFB will be made only as an official addendum that will be posted to a2gov.org and it shall be the prospective bidder's responsibility to ensure they have received all addenda before submitting a proposal. Any addendum issued by the AAHC shall become part of the IFB and must be incorporated in the proposal where applicable.

C. PRE-PROPOSAL MEETING

A pre-proposal conference for this project will be held **at Green Baxter Court (meeting will begin at the Community Center, 1747 Green, Ann Arbor, MI 48105)**. During the meeting prospective bidders will have the opportunity to walk the property and ask questions. Administrative and technical questions regarding this project will

be answered at this time. The pre- proposal meeting is for information only. Any answers furnished will not be official until verified in writing by the Ann Arbor Housing Commission. Answers that change or substantially clarify the proposal will be affirmed in an addendum.

Where: Green Baxter Court
Date: Wednesday, October 1, 2025
Time: 10:00 a.m.
Address: 1747 Green Rd.
Ann Arbor, MI 48105

D. PROPOSAL FORMAT

To be considered, each firm must submit a response to this IFB using the format provided in Section III. No other distribution of proposals is to be made by the prospective bidder. An official authorized to bind the bidder to its provisions must sign the proposal. Each proposal must remain valid for at least one hundred and twenty (120) days from the due date of this IFB.

Proposals should be prepared simply and economically providing a straightforward, concise description of the bidder's ability to meet the requirements of the IFB. Mistakes may be crossed out and corrected and must be initialed in ink by the person signing the proposal.

E. SELECTION CRITERIA

The contract will be awarded to the lowest responsive bidder. The AAHC reserves the right to contact the bidder to ask questions to clarify information in the bid.

F. SEALED PROPOSAL SUBMISSION

All proposals are due and must be delivered via email to Tom Pierce, Construction Project Manager, tpierce@a2gov.org on or before, October 29, 2025, at 2:00 p.m. (EST). Proposals submitted late or via facsimile will not be considered or accepted.

Each respondent must submit:

- **One (1) digital copy of the proposal as one file in PDF format**

Proposals submitted should be clearly marked: **"IFB No. AAHC 25-3 – Green Baxter Court Solar Installation"** and list the bidder's name and address.

All proposals received on or before the due date will be recorded on the due date. No immediate decisions will be rendered.

Bidders are responsible for submission of their proposal. Additional time will not be granted to a single prospective bidder. However, additional time may be granted to all prospective bidders at the discretion of the Ann Arbor Housing Commission.

Each person signing the proposal certifies that they are a person in the bidder's firm/organization responsible for the decisions regarding the fees being offered in the Proposal and has not and will not participate in any action contrary to the terms of this provision.

G. DISCLOSURES

Under the Freedom of Information Act (Public Act 442), the AAHC is obligated to permit review of its files, if requested by others. All information in a proposal is subject to disclosure under this provision. This act also provides for a complete disclosure of contracts and attachments thereto.

H. TYPE OF CONTRACT

A sample of the Contract is included as Attachment B. Those who wish to submit a proposal to the Ann Arbor Housing Commission should review this sample agreement carefully. The Ann Arbor Housing Commission will not entertain changes to its Contract.

The Ann Arbor Housing Commission reserves the right to award the total proposal, to reject any or all proposals in whole or in part, and to waive any informality or technical defects if, in the Ann Arbor Housing Commission's sole judgment, the best interests of the Ann Arbor Housing Commission will be so served.

This IFB and the selected bidder's response thereto, shall constitute the basis of the scope of services in the contract by reference.

I. COST LIABILITY

The AAHC assumes no responsibility or liability for costs incurred by the bidder prior to the execution of an Agreement. The liability of the AAHC is limited to the terms and conditions outlined in the Agreement. By submitting a proposal, bidder agrees to bear all costs incurred or related to the preparation, submission, and selection process for the proposal.

J. DEBARMENT

Submission of a proposal in response to this IFB is certification that the Respondent is not currently debarred, suspended, proposed for debarment, and declared ineligible

or voluntarily excluded from participation in this transaction by any State or Federal departments or agency. Submission is also agreement that the AAHC will be notified of any changes in this status.

N. PROPOSAL PROTEST

All proposal protests must be in writing and filed with the AAHC Executive Director within five (5) business days of the award action (Jennifer Hall, jhall@a2gov.org). The bidder must clearly state the reasons for the protest.

Any inquiries or requests regarding this procurement should be only submitted in writing to the Designated Contacts provided herein. Attempts by the bidder to initiate contact with anyone other than the Designated Contact provided herein that the bidder believes can influence the procurement decision, e.g., Elected Officials, City Administrator, Selection Committee Members, Appointed Committee Members, etc., may lead to immediate elimination from further consideration.

O. SCHEDULE

The following is the schedule for this IFB process (subject to change).

Activity/Event	Anticipated Date
Pre-Proposal Meeting	October 1, 2025, at 10:00 AM (EST)
Written Question Deadline	October 21, 2025, at 2:00 PM (EST)
Addenda Published (if needed)	October 24, 2025
Proposal Due Date	October 29, 2025, at 2:00 PM (EST)
Selection	Week of November 3, 2025
Expected AAHC Authorizations	Week of November 17, 2025

The above schedule is for information purposes only and is subject to change at the AAHC's discretion.

P. IRS FORM W-9

The selected bidder will be required to provide the Ann Arbor Housing Commission with an IRS form W-9.

Q. RESERVATION OF RIGHTS

1. The Ann Arbor Housing Commission reserves the right in its sole and absolute discretion to accept or reject any or all proposals, or alternative proposals, in whole or in part, with or without cause.
2. The Ann Arbor Housing Commission reserves the right to waive, or not waive,

informalities or irregularities in terms or conditions of any proposal if determined by the Ann Arbor Housing Commission to be in its best interest.

3. The Ann Arbor Housing Commission reserves the right to request additional information from any or all bidders.
4. The Ann Arbor Housing Commission reserves the right to reject any proposal that it determines to be unresponsive and deficient in any of the information requested within IFB.
5. The Ann Arbor Housing Commission reserves the right to determine whether the scope of the project will be entirely as described in the IFB, a portion of the scope, or a revised scope be implemented.
6. The Ann Arbor Housing Commission reserves the right to select one or more contractors or service providers to perform services.
7. The Ann Arbor Housing Commission reserves the right to retain all proposals submitted and to use any ideas in a proposal regardless of whether that proposal is selected. Submission of a proposal indicates acceptance by the firm of the conditions contained in this IFB, unless clearly and specifically noted in the proposal submitted.
8. The Ann Arbor Housing Commission reserves the right to disqualify proposals that fail to respond to any requirements outlined in the IFB, or failure to enclose copies of the required documents outlined within the IFB.

R. ENVIRONMENTAL COMMITMENT

The Ann Arbor Housing Commission recognizes its responsibility to minimize negative impacts on human health and the environment while supporting a vibrant community and economy. The Ann Arbor Housing Commission further recognizes that the products and services the Ann Arbor Housing Commission buys have inherent environmental and economic impacts and that the Ann Arbor Housing Commission should make procurement decisions that embody, promote, and encourage the City of Ann Arbor's commitment to the environment.

The Ann Arbor Housing Commission encourages potential vendors to bring forward emerging and progressive products and services that are best suited to the City of Ann Arbor's environmental principles.

S. MAJOR SUBCONTRACTORS

The Bidder shall identify each major subcontractor it expects to engage for this Contract if the work to be subcontracted is 15% or more of the bid sum or over \$50,000, whichever is less. The Bidder shall not change or replace a major subcontractor without approval by the Ann Arbor Housing Commission.

SECTION II - SCOPE OF WORK

Project design specifications and drawings are attached as Attachment A.

A. SCOPE OF WORK

The project involves the design and installation of a complete Solar PV System at Building 4 which contains the addresses 1737-1747 Green Rd. Modifications included as part of this project include but are not limited to:

1. See plans prepared by IMEG showing anticipated PV array layouts on each building (Attachment K) and electrical connections and specifications listing acceptable product manufacturers (Attachment A). Please note that only the buildings listed in this IFB (above) are to be included in the proposal.
2. Maintain and provide documentation demonstrating that the Contractor and all sub-contractors have the required licensing and registration requirements to perform the work outlined in this IFB.
3. Provide supervision and other personnel necessary for the preparation of design specifications required for the project.
4. Create detailed shop drawings for approval, in partnership with Housing Commission staff, for solar installations at Building 4 of Green Baxter Court. Submittals shall include all necessary structural details for racking design and connections to the existing buildings as well as electrical details for connecting the PV arrays to the buildings electrical service including wire pathways, conduit types, etc. The AAHC reserves the right to require additional information as part of the submittal process.
5. Secure building permits and all other paperwork necessary to move forward with the solar installation.
6. Procure and supply all materials and supplies necessary to complete the solar installation.
7. Direct the work of all personnel necessary on-site for the installation or construction of the solarsystem.
8. Install fully functional solar systems with Solar Edge inverters. Integrate the work into the AAHC's existing Solar Edge dashboard to allow for remote access of real time PV performance.
9. Install a 30-kWh battery in a separate custom-built structure.

10. Work with DTE to ensure proper interconnection of the building to the electrical grid. This includes submitting all necessary applications to the DTE interconnection department and working with the AAHC to execute the interconnection agreements with DTE. Verify that all DTE installed meters are working correctly and properly identified in the DTE billing system.
11. Procure and provide to the Housing Commission all the associated documentation, such as warranties and equipment specifications, for the solar installation.
12. Comply with the Technical Specifications as described in Attachment A.

B. POST AWARD NEXT STEPS WITH SELECTED BIDDER

1. Visit the project site in December 2025 with AAHC staff and agree on a preliminary scope of construction.
2. Review any drawings, specifications, reports, etc. provided by AAHC staff on the proposed project.
3. Develop and agree on a final scope of construction together with the AAHC and the AAHC's engineer.
4. Apply for and obtain all necessary permits.
5. Perform all work necessary.
6. Ann Arbor Housing Commission staff will review all work prior to final approval invoices. Contractor to address all identified deficiencies in the work.
7. Ann Arbor Housing Commission will not release any retainage held until the work is completed, inspections are completed, and permits are closed.

C. REQUIREMENTS

1. Ability to work effectively with the AAHC's staff with respect to any of the construction services required by the Ann Arbor Housing Commission.
2. Ability to work effectively with other City of Ann Arbor units and regulatory agencies.
3. The ability to function in a support role to the Ann Arbor Housing Commission.

4. Compliance with the Davis Bacon Act is necessary. All labor is required to be paid prevailing wage.
5. Performance Bond is required.

D. STANDARD SPECIFICATIONS

As of the date of this IFB, all work performed under this Contract shall be performed in accordance with all applicable codes. These are subject to change and the codes enforced at the time of construction by the City of Ann Arbor will govern.

SECTION III - MINIMUM INFORMATION REQUIRED

PROPOSAL FORMAT

The following describes the elements that should be included in each of the proposal sections that will be used for evaluation of the proposals.

Bidders should organize Proposals into the following Sections:

- A. Bid Form (Attachment C)
- B. Legal Status of Bidder (Attachment B)
- C. Other Attachments (Any Additional Documents if Applicable)

A. Bid Form (Attachment C)

The proposal price shall include materials and equipment selected from the designated items and manufacturers listed in the bidding documents. This is done to establish uniformity in bidding and to establish standards of quality for the items named.

If the bidder wishes to quote alternate items for consideration by the Ann Arbor Affordable Housing Corporation, it may do so under this Section. A complete description of the item and the proposed price differential must be provided. Unless approved at the time of the award, substitutions where items are specifically named will be considered only as a negotiated change in the Contract Sum.

Consideration of any proposed alternative items or time may be negotiated at the discretion of the Ann Arbor Affordable Housing Corporation.

B. Attachments

Legal Status of Bidder and any additional attachments should be completed and included as attachments to the proposal submission.

ADDENDA

If it becomes necessary to revise any part of the RFP, notice of the addendum will be posted to the [Ann Arbor Housing Commission's website](#) for all parties to download.

Each bidder should acknowledge in its proposal all addenda it has received. The failure of a bidder to receive or acknowledge receipt of any addenda shall not relieve the bidder of the responsibility for complying with the terms thereof. The Ann Arbor Housing Development Corporation will not be bound by oral responses to inquiries or written responses other than official written addenda.

PROPOSAL EVALUATION

1. The Ann Arbor Housing Commission reserves the right to reject any proposal that it determines to be unresponsive and deficient in any of the information requested for evaluation.
2. The responsible bidder whose bid, conforming with all the material terms and conditions of the IFB, and has the lowest price, will be considered the successful offeror. Should there be a tie in price, success will be determined randomly by drawing lots.
3. The Ann Arbor Housing Commission will not award any contract until the prospective contractor has been determined to be responsible. This determination shall be based on the following criteria:
 - Having adequate financial resources to fulfil the contract, or the ability to obtain them.
 - Being able to comply with the proposed performance schedule considering the bidder's current commitments.
 - Having a satisfactory performance record.
 - Having a satisfactory record of integrity and business ethics.
 - Having the necessary organization, experience, accounting and operational controls, and technical skills, or the ability to obtain them.
 - Having the necessary production, construction, and technical equipment and facilities, or the ability to obtain them.
 - Being otherwise qualified and eligible to receive an award under applicable laws and regulations, including not being suspended, debarred or under a HUD-imposed Limited Denial of Participation.
4. If a bidder has not executed and satisfactorily completed a contract with the Ann Arbor Housing Commission or any of its affiliates in the last 5 years, then the Responsible Bidder Questionnaire, Attachment J, must be completed and submitted with the bidder's proposal. If deemed necessary, the committee will schedule an interview with the successful offeror for the purpose of determining if the successful offeror is responsible as described in paragraph 3 of this section.
5. The interview should include project team members expected to work on the project, but no more than six members total. The interview may consist of a presentation of up to thirty minutes (or the length provided by the committee) by the bidder, including the person who will be the project manager on this contract, followed by questions and answers. The committee may record the oral interviews.
6. If a prospective contractor is found to be non-responsible, a written determination of non-responsibility shall be prepared and included in the official contract file, and the

prospective contractor shall be advised of the reasons for the determination.

7. Upon being determined responsible and upon the approval of the AAHC Board, the successful offeror will be awarded a fixed-rate lump sum contract. The successful bidder will be required to provide all insurance listed in the contract as well as a Performance Bond.

SECTION IV - ATTACHMENTS

Attachment A – Technical Specifications

Attachment B – Sample Standard Contract

Attachment C – Legal Status of Bidder

Attachment D – Bid Form

Attachment E – City of Ann Arbor Non-Discrimination Ordinance Poster

Attachment F – Non-Discrimination Ordinance Compliance Form

Attachment G – Living Wage Poster

Attachment H – Living Wage Declaration of Compliance Form

Attachment I – Vendor Conflict of Interest Disclosure Form

Attachment J– Responsible Bidder Questionnaire

Attachment K – Building Inventory

Attachment L– IMEG Drawing of PV Lay-out

ATTACHMENT A
Technical Specifications

SECTION 26 31 00 - SOLAR PHOTOVOLTAIC SYSTEMS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Photovoltaic Panels and Arrays
- B. Power Optimizers
- C. String Inverters
- D. Combiner/Disconnect
- E. Photovoltaic Monitoring Equipment and Accessories
- F. Photovoltaic Mounting Systems

1.2 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in photovoltaic panel or inverter systems with five years documented experience.
- B. Installer: Equipment installer shall be NABCEP certified or be certified by photovoltaic inverter and panel manufacturers. Licensed electrical contractors with electrical apprenticeship documentation shall also be acceptable.
- C. Operate, commission, and demonstrate seven (7) days of complete photovoltaic system operation prior to turnover to the Owner.
 - 1. Refer to the Part 3 for system commissioning requirements.

1.3 REFERENCES

- A. ANSI C62.41 - IEEE Recommended Practice for Surge Voltages in Low-Voltage AC Power Circuits
- B. IEEE 519 - Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems.
- C. IEEE 929 - Recommended Practices for Utility Interface of Photovoltaic Systems.
- D. IEEE 1547 - Standard for Interconnecting Distributed Resources with Electronic Power Systems.
- E. IEEE 1547.1 - Standard for Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems.

- F. NFPA 70 - National Electrical Code (NEC) Article 690 - Solar Photovoltaic (PV) Systems
- G. UL 1703 - Standard for Flat-Plate Photovoltaic Modules and Panels
- H. UL 1741 - Standard for Inverters, Converters, Controllers and Interconnection System Equipment for Use with Distributed Energy Resources
- I. UL 1998 - Standard for Software in Programmable Components

1.4 SUBMITTALS

- A. Submit product data for review and approval by engineer and owner.
- B. Photovoltaic Panels: Include unit dimensions, weight, material construction, wattage, voltage, current, open circuit voltage, short circuit current, installation and maintenance information, and manufacturer voltage correction factor in information.
- C. Photovoltaic Inverter: Include unit dimensions, weight, installation and maintenance information. Also include the following:
 - 1. Input: DC voltage range, max current input.
 - 2. Output: AC voltage range, total harmonic distortion, power factor, efficiency, maximum current output.
 - 3. General: Power consumption, enclosure type, compliance with references.
 - 4. Environment: Ambient temperature rating, cooling requirements.
- D. Array Mounting Frame:
 - 1. Calculations, drawings and installation details shall be designed and sealed by a Professional Engineer licensed in the state where the project is located experienced in solar mounting frame design and installation.
 - 2. Design of support shall be performed for loading indicated in this specification and structural general notes.
 - 3. Coordination drawing drawn to scale and coordinating the photovoltaic array with other systems and equipment in the vicinity for use in the development and layout of the mounting frame.
 - 4. Clear indication of design forces and maximum potential component forces at attachment points to building structure for confirmation of acceptability by the Structural Engineer of Record.
 - 5. Plan drawings and details shall be cross-referenced. Details provided are to clearly indicate attachment to structure, correctly representing the fastening requirements.
- E. Roof mounted system certification letter, signed by contractor, that the roof adhesives, fasteners, hardware, and accessories are approved by manufacturers of both the roofing system and the photovoltaic system.
- F. Provide list of certified installers with proof of certification.
- G. Provide calculation of expected annual total kilowatt hours for proposed equipment and installation.

1.5 SPARE PARTS

- A. Provide three (3) additional fuses of each type and size installed.
- B. Provide one (1) additional inverter convection cooling fan for each inverter module.
- C. Provide two (2) spare photovoltaic panels. Coordinate with owner to for delivery and storage
- D. Provide one (1) spare microinverters.

1.6 DELIVERY, STORAGE, HANDLING

- A. Store and protect products.
- B. Store in warm and dry location or per manufacturer's requirements.
- C. Handle per manufacturer's requirements.

1.7 OPERATION AND MAINTENANCE DATA

- A. Submit data.
- B. Include description of operation and servicing procedures, list of major components, recommended remedial and preventative maintenance procedures, and list of spare parts.

1.8 WARRANTY

- A. Photovoltaic Panels and Array: Provide 20-year warranty for power production. Equipment shall maintain minimum 80% of the manufacturer-published wattage output rating for 20 years. Provide 5-year workmanship warranty.
- B. Photovoltaic Inverter: Provide **20-year** warranty of equipment and installation.
- C. Include coverage for travel, parts, and service.

1.9 PRE-INSTALLATION CONFERENCE

- A. Roof Mounted System: Conduct a pre-installation conference prior to commencing roof mounted system work. Minimum participants to include general contractor, roofing contractor, electrical contractor, and photovoltaic system installer. Minimum agenda items shall include:
 - 1. Installation schedule.
 - 2. Protocols to protect roof system and roof warranty.
 - 3. Adhesive, fastener, accessories, and hardware approved to maintain roof system and photovoltaic system warranties.

4. Adhesive, fastener, accessories and hardware required to support photovoltaics systems on surfaces installed by others.

1.10 SYSTEM DESCRIPTION

- A. Complete photovoltaic system rated 400 volt DC at STC including photovoltaic panels, inverter system, combiner/disconnects, metering, and reporting equipment. Systems shall be configured to produce 240/120 single phase 3 wire 60 Hz power. Refer to drawings for expected solar
- B. The photovoltaic system shall include a metering system for total system power production and a reporting system to monitor individual components.
- C. The photovoltaic system and inverter shall be configured as a grid inter-tie solar photovoltaic system. The individual inverters shall automatically de-energize their output to the building electrical system and disconnect from the photovoltaic panels upon loss of the utility electrical service. The photovoltaic inverter system shall remain disconnected until the electrical utility voltage has been restored.
- D. Equipment shall be identified for use in solar photovoltaic systems.
- E. Equipment, including wiring, fuses, circuit breakers, etc., used in any DC portion of the photovoltaic power system shall be listed for use 400 volt DC circuits.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. VSun
- B. Kyocera series
- C. Mission Solar series
- D. Or pre-approved equals

2.2 PHOTOVOLTAIC PANELS AND ARRAYS

- A. Equipment Ratings: Submit product data for review and approval by engineer and owner including the following equipment ratings:
 1. Maximum Rated Power (STC) Pmax (watts)
 2. Operating Power Point Voltage Vmp (VDC)
 3. Maximum Power Point Current Impp (A)
 4. Maximum Open Circuit Voltage Voc (VDC)
 5. Maximum Short Circuit Current Isc (A)
 6. Nominal Operating Cell Temperature Conditions (NOCT) Pmax (watts)

- B. Operating Environment Conditions:
 - 1. Operating Temperature: -40 to 90°C
 - 2. Wet location listed
- C. Cell Material: Silicon-based solar cell construction with UV stabilized polymer. Provide with bypass diode technology for partial shading operation.
- D. Panel Construction: Anodized aluminum frame with ground point and tempered glass cover.
- E. Dimensions: Submit product data for review and approval by engineer and owner including panel dimensions (width depth, length) and maximum panel weight.
- F. Panel Connections and Terminations:
 - 1. Provide manufacturer's wiring and quick-connect terminations for series creation of module-strings installation of panels.
 - 2. Provide manufacturer wiring to combiner boxes for parallel grouping of module-strings.
 - 3. All exterior wire and terminations shall be listed sunlight resistant.

2.3 POWER OPTIMIZERS

- A. Provide power optimizer modules mounted to back of panels to track MPPT and minimize losses from shading and uneven string lengths.
- B. Minimum Efficiency: 98%
- C. Maximum System Voltage: 1000 VDC
- D. Operating Temperatures: -40 to 85°C
- E. Protection Rating: IP68 / NEMA 6P
- F. Power optimizer must have been tested with submitted photovoltaic panel.

2.4 COMBINER/DISCONNECT

- A. Combination of combiner box and solar array disconnect in a single enclosure.
- B. Load break switch rated 1000 VDC maximum with lockout provisions.
- C. Fuse holders rated 30 amp maximum. Terminal blocks for each PV string.
- D. Provide fused surge protective device (SPD) with visual status indicator series or approved equal.
- E. Enclosure: NEMA 4X.

2.5 PHOTOVOLTAIC GRID TIE STRING INVERTERS

- A. Inverter Manufacturers: Manufacturer and model must have been tested and be compatible with photovoltaic panel model. Model capacities may change number of inverters required and shall be agreed to during submittals.
 - 1. Solar Edge
 - 2. Or pre-approved equals
- B. Equipment Ratings:
 - 1. AC Output Power Rating for Inverter: See Site Estimates watt
 - 2. Output Voltage: 240V 1 phase
 - 3. Power Factor: 1.0
 - 4. Minimum CEC Efficiency: 97.5%
 - 5. MPPT Operating Voltage Range: 150 to 600 VDC
 - 6. Minimum number of MPPT tracker inputs: 2
 - 7. Total Harmonic Distortion: Less than 5%
 - 8. DC Voltage Ripple: Less than 5%
 - 9. Enclosure: NEMA 3R
- C. Operating Environment Condition:
 - 1. Maximum ambient temperature: 113°F
 - 2. Wet location listed
- D. Inverter Technology: Transformerless Full DC/AC rectification, real sine-wave output with high frequency pulse width modulation PWM.
- E. Internal Protection: Inverter shall measure utility voltage, current, and impedance. Loss of utility power shall cause inverter to shut down and disconnect its output to the AC bus and input from the DC bus. Inverter shall automatically reconnect to AC output bus and DC input bus upon return of utility source.
- F. The inverter shall be constructed to not allow backfeeding from the electrical utility to the photovoltaic panels or DC input bus.
- G. The inverter shall be cooled via a forced air cooling fan.
- H. Inverters shall be provided with Ethernet connection for metering and recording system outputs.

2.6 METERING AND REPORT

- A. Personal Computer Software: Provide manufacturer's software for metering and reporting on personal computer. The Electrical Contractor shall install and provide provision for custom initialization of the photovoltaic system software package.
- B. Displayed and Recorded Data:
 - 1. The following data shall be provided for each photovoltaic inverter and updated every 10 seconds.
 - a. Power

- b. kWh today
 - c. Total kWh
 - d. Date
 - e. Time
- 2. The following data shall be provided for the entire photovoltaic system:
 - a. Power
 - b. kWh today
 - c. Total kWh
 - d. Date
 - e. Time
 - f. kWh to utility today
 - g. Total kWh to utility
- 3. The above information shall be recorded, logged, and compiled by the personal computer software for production and performance evaluation purposes.
- 4. Provide data reporting and recording of all manufacturers' standard reporting functions and data acquisition reporting.
- 5. Central inverter communications and monitoring for performance, trouble, and diagnostics. Input and output voltages, amperages, and power and fault alarms shall communicate to the gateway and designated users.

2.7 ARRAY MOUNTING

- A. Basis of design is given so integrator can provide design and installation of an equivalent system that is compatible with the provided modules and structure. Subject to compliance with requirements, provide the named product or a comparable product by one of the following:
 - 1. UNIRAC Large Array (U-LA) (Basis of Design)
 - 2. DPW Direct Power and Water
 - 3. PROSOLAR
- B. Mounting system requirements Roof mounting system:
 - 1. 35-degree tilt angle.
 - 2. Wind load requirements: 120 mph and class for the application.
 - 3. 30 pounds per square foot snow load.
 - 4. Total System Weight: 5 lbs/sf
 - 5. Provides four mounting supports for each panel in accordance with manufacturer's requirements.
 - 6. Coordinate final dimensions with architectural drawings and existing conditions.
 - 7. Provisions for mounting microinverters or power optimizers.
 - 8. Structural aluminum members to be mill finish. All brackets and connections to be stainless steel.
 - 9. Connect mounting system to electrode grounding system.
- C. Provide complete solar array mounting system including rails, splices, fasteners, legs, clamps, standoffs, feet, and anchors.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Photovoltaic cabling shall be installed in raceways separate from other building system cabling. Photovoltaic cabling shall be installed in conduit when located interior to the building.
- B. The photovoltaic panels and arrays shall be configured in an open circuit, short circuit, or provided with an opaque covering to disable the array from producing electrical power during installation. Refer to the manufacturer's information for additional disabling requirements during installation.
- C. Install fuses in all fuse holders and disconnects. Provide a label on the inside of each disconnect identifying the size, type, and model of each fuse installed.
- D. Provide provisions to seal all exterior penetrations. All photovoltaic system roof penetrations shall be sealed by the roofing contractor at the expense of the photovoltaic system contractor.
- E. DC Arc-Fault Circuit Protection: Provide PVAFCI arc-fault circuit interruption protection for DC branch circuits.
- F. DC Shock Hazard Protection: Provide PVHCS hazard control system to limit electric shock potential to 80 volts or less post rapid shutdown initiation or per code.
- G. Roof Mounted Systems:
 - 1. Provide photograph and report documentation of the roof system condition prior to installing any roof mounted photovoltaic systems. Provide a copy of the report to the general contractor and roofing contractor.
 - 2. Provide protective roof mats during the fabrication and installation of roof mounted photovoltaic systems to protect the roofing system.
 - 3. Provide provisions for roofing contractor to seal roof penetrations, provide roof protection at ballasted rack and raceway supports, and other points of interface between the roof and photovoltaic system at the expense of the photovoltaic installer.
 - 4. Provide provisions for the roofing contractor to repair any penetrations, wear, or general damage caused by installation of the photovoltaic system at the expense of the photovoltaic system installer.
- H. Wire and Cable Schedule:
 - 1. DC Distribution System:
 - a. Exterior: Photovoltaic panel manufacturer-supplied cabling with quick connects.
 - b. Interior: Copper, stranded conductor, 600 volt insulation, XLPE or EPR.
 - c. Underground or Wet Locations: Copper, stranded conductor, 600 volt insulation, XLPE or EPR.
 - d. Conductors shall be color coded as follows:
 - 1) PV-: Black
 - 2) PV+: Red
 - 3) Ground Bond: Green
 - 2. Use no wire smaller than 10 AWG for DC wiring of the photovoltaic system.
 - 3. Use 8 AWG for DC wiring of photovoltaic systems with distances between the photovoltaic panel and photovoltaic inverter greater than 100 feet.
- I. Provide provisions for programming and initializing the system metering and reporting software per the Owner's requirements. The Contractor shall organize a meeting with the Owner to finalize the programming and user interfaces of the program software.

- J. Install equipment per the manufacturer's recommendations.

3.2 LABELING

- A. Label all photovoltaic system equipment as required by code.
- B. Label ground fault indicators:
 - 1. "IN THE EVENT OF A GROUND FAULT INDICATION - THE NORMALLY GROUNDED CONDUCTORS MAY BE ENERGIZED AND UNDERGROUNDED"
- C. Label all AC-alternating current and DC-direct current disconnects of the photovoltaic power system.
 - 1. "---PHOTOVOLTAIC SYSTEM DISCONNECT---WARNING. ELECTRIC SHOCK HAZARD. DO NOT TOUCH TERMINALS. TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION"
- D. The AC disconnecting means for each photovoltaic inverter shall be labeled with the following:
 - 1. Operating Current:
 - 2. Operating Voltage:
 - 3. Maximum System Voltage:
- E. Label DC raceways, cabling, junction boxes, and conduit bodies with adhesive markings and labels suitable for the environment:
 - 1. Color: White capital letters on red background.
 - 2. Label Text: PHOTOVOLTAIC POWER SOURCE.
 - 3. Label intervals: Maximum 10 intervals or as required by code to identify all conduits run exposed or located above accessible ceilings. Conduits located above non-accessible ceiling or in floors and walls shall be labeled within 3 feet of becoming accessible, or separated by enclosures, walls, partitions, ceilings, and floors. Labels for multiple conduits shall be aligned.
- F. Label DC system disconnect and power conversion equipment with the following:
 - 1. Equipment type and contract documents designation of equipment.
 - 2. Name of upstream equipment and location of the upstream equipment if it is not located within sight.
 - 3. Nominal equipment voltage and rating.
 - 4. Max DC Voltage.
 - 5. Available fault current (from batteries if applicable).
 - 6. Date of fault current study; refer to one-line diagram.
- G. Label each electrical service location with rapid shutdown feature:
 - 1. Label text: "SOLAR PV SYSTEM WITH RAPID SHUTDOWN. TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN ARRAY."
- H. Short Circuit Current: The interactive system point of interconnection shall be labeled at the disconnecting means with the following:
 - 1. Maximum AC Output Operating Current:
 - 2. Operating AC Voltage:

- I. The building service entrance disconnect shall be clearly labeled to identify there is a photovoltaic system interconnection. The location of the interactive system disconnect shall be identified with a plaque reading: "WARNING - PHOTOVOLTAIC SYSTEM DISCONNECT LOCATED AT <Insert>."
- J. Conductor Identification:
 - 1. PV System DC circuit conductors shall be identified at all termination connections.
 - 2. Identification shall include color coded shrink tube tagging, conductor colored insulation, or marking tape. Include +, POSITIVE, or POS identification style labeling in addition to color identification.

3.3 FIELD QUALITY CONTROL

- A. Perform field inspection and testing.
- B. Check for damage and tight connections prior to allowing the photovoltaic panels to begin power generation.
- C. Check for damage and proper operation of the photovoltaic inverters.
- D. Verify operation of the metering and reporting system components. Adjust and update the graphical user interface for project specific conditions.

3.4 SYSTEM COMMISSIONING

- A. Provide system commissioning report.
- B. Notify Architect/Engineer seven days prior to beginning final witness testing of the photovoltaic system.
 - 1. The Electrical Contractor shall fully test the complete photovoltaic system prior to notifying the Architect/Engineer for final witness testing.
- C. Test, measure, and record the following system values:
 - 1. Date:
 - 2. Time of test:
 - 3. Testers:
 - 4. Sun overcast conditions (full sun) (scattered clouds) (full cloud coverage).
 - 5. Inverter:
 - a. DC input current:
 - b. DC input voltage:
 - c. AC output current:
 - d. AC output voltage:
 - e. Output power:
- D. Performance Test of Interactive Inverter System:
 - 1. Verify proper operation of the photovoltaic system. Verify the photovoltaic system is producing power and delivering it to the building electrical distribution system.
 - 2. Simulate power outage of electrical utility by switching the main electrical service disconnect from "closed" to "open".
 - 3. Verify that each individual photovoltaic inverter has stopped producing electrical energy and has disconnected itself from the photovoltaic panels and building electrical distribution system.

4. Simulate return of utility electrical power by switching the main electrical service disconnect from "open" to "closed".
5. Verify each photovoltaic inverter has reconnected to the photovoltaic panels and building electrical distribution system. Verify power delivery from the photovoltaic inverters to the building electrical distribution system.
6. Document any test failure, including reason for failure and corrective actions. Retest the photovoltaic system to complete satisfactory operation.

3.5 OWNER TRAINING

- A. Provide Owner training.
- B. Provide complete overview of the photovoltaic system to the Owner including:
 1. System overview
 2. System operation
 3. Manufacturer maintenance instructions
 4. System component locations
 5. Operation of the metering and reporting components and software
- C. Minimum Training Time:
 1. Eight hours includes:
 - a. Four hours system components.
 - b. Four hours computer software operation.

Attachment B

CONTRACT

BETWEEN

THE ANN ARBOR HOUSING DEVELOPMENT CORPORATION

AND

CONTRACTOR NAME

INTRODUCTION

This contract by and between the Ann Arbor Housing Development Corporation (hereinafter "AAHDC" or "the HC"), located at 2000 S. Industrial Highway, Ann Arbor MI 48104 and **CONTRACTOR NAME** (hereinafter **ABREVIATED CONTRACTOR NAME IF APPLICABLE** or "the Contractor"), located at address, is hereby entered into this MONTH DAY, 20__.

Services pursuant to this contract **shall begin MONTH DAY, 20__, and shall end no later than MONTH DAY, 20__** unless otherwise extended, modified, terminated or renewed by the parties as provided for within this contract. Unless otherwise detailed herein, all references to "days" shall be calendar days (in the case that the last day referenced falls on a Saturday, Sunday or legal holiday, then the period of time shall be automatically extended to include the next workday). Also, whenever the term "herein" is referred to, such refers to this contract form, the appendices, and all listed attachments.

1.0 Definitions:

- 1.1 Housing Commission (HC):** Any reference herein or within any appendix to the "Housing Commission" shall be interpreted to mean the same as the AAHC or its affiliated legal entity, the Ann Arbor Affordable Housing Corporation.
- 1.2 Purchasing Manager (PM):** The HC purchasing manager, acting on behalf of the HC.

2.0 Services and Payment:

- 2.1 Scope of Services: [full, detailed scope of work placed in Appendix No. 1].** Said services shall be provided on the dates and times determined by the HC at the designated HC community and facilities.

2.3 Cost/Value of Services:

- 2.3.1 Contract Value: The current total Not-To-Exceed (NTE) value of this contract is: \$_____.** Any other services provided related to this contract must be as negotiated between Contractor and the AAHC.

Contractor exceeds the NTE amount at the Contractor's own risk. The Contractor is under no obligation to provide additional services that would cause the Contractor's fees to exceed the NTE amount without prior revision of this amount by written change order.

2.4 Renewal Options: There are no renewal options with this contract.

2.5 Time Performance: The Contractor will complete each assigned task as detailed within the executed Scope of Services.

2.6 Billing Method:

2.6.1 To receive payment for services rendered pursuant to this contract the Contractor shall submit a fully completed invoice for work previously performed to:

**Ann Arbor Housing Development Corporation
HCaccountspayable@a2gov.org
Attn. Accounts Payable
2000 S. Industrial Hwy
Ann Arbor, MI 48104**

2.6.2 At a minimum, the invoice shall detail the following information:

2.6.2.1 Unique invoice number;

2.6.2.2 Contractor's name, address and telephone number;

2.6.2.3 Date of invoice and/or billing period;

2.6.2.4 Applicable Purchase Order No.;

2.6.2.5 Brief description of services rendered, including applicable time frame, total hours being billed for each service at each detailed site, and at the approved rate (may be submitted in the form of a report or invoice);

2.6.2.6 If applicable, Task Order, approved by the HC Executive Director; and

2.6.2.7 Total dollar amount being billed.

2.6.3 The HC will pay each such properly completed invoice received on a **Net/30 basis**. Any invoice received not properly completed will not be paid unless and/or until Contractor complies with the applicable provisions of this contract.

3.0 HC's Obligations: The HC agrees to purchase the specific services detailed herein and:

1.1 Agrees to not assign work to the Contractor outside the scope of services without the prior written approval of the HC's Executive Director and the Contractor.

4.0 Contractor's Obligations: Contractor agrees to provide the specific services detailed herein:

4.1 Supervision and Oversight: Contractor shall be solely responsible for providing supervision and oversight to all of the Contractor's personnel that are assigned to the HC properties pursuant to this contract.

4.2 Qualified Personnel: Contractor warrants and represents that it will assign only qualified personnel to perform the services outlined herein and within the appendices. For the purposes of this contract, the term "qualified personnel" shall mean those

personnel that have been investigated, tested and trained in the manner described within this contract and, as proposed by the Contractor within its proposal or as provided by the Contractor during the Contractor's normal conduct of business. "Qualified Personnel" includes Contractor's employees, subcontractors, and agents.

4.2.1 The AAHC will have the right to require the Contractor to remove any personnel deemed incompetent, careless or otherwise objectionable, or any personnel whose actions or appearance are deemed inconsistent with the best interests of the AAHC. The decision of the HC will be final as to what constitutes incompetent or objectionable behavior.

4.2.2 All personnel employed by the Contractor will have the requisite skills to perform their designated tasks. Necessary training shall be performed at the Contractor's expense and untrained individuals will not be brought into the premises for so-called "ON THE JOB" training.

4.3 Compliance with Federal and State Laws: All work performed by the Contractor, pursuant to this contract, shall be done in accordance with applicable all Federal, State and local laws, regulations, codes and ordinances.

4.3.1 Iran Economic Sanctions Act: The Contractor certifies that it is not an Iran linked business as defined by the Michigan Iran Economic Sanctions Act (Michigan Compiled Laws §129.311-16).

4.4 Insurance Requirements:

4.4.1 The Contractor will secure and maintain during the term of the contract insurance from an insurance company authorized to do business in the State of Michigan that will protect Contractors and sub-contractors and the HC from all liability (public liability, personal injury and property damage) claims which may arise from operations under the contract.

4.4.1.1 The Contractor will furnish insurance certificates within seven (7) days of being notified of acceptance of his/her bid. Execution of this contract will not occur until evidence of all required insurance has been submitted and approved by the HCy.

4.4.1.2 Failure to maintain the above-reference insurance coverage, including naming the HC as an additional insured (where appropriate) during the term(s) of this contract shall constitute a material breach thereof. The Contractor must cease work if any of the required insurance is canceled or expires.

4.4.2 The Certificate shall specifically name the ANN ARBOR AFFORDABLE HOUSING CORPORATION and the Ann Arbor Housing Commission as additional insured parties. **In the area for the listing of additional insured on the binder it must read: "The Ann Arbor Housing Commission, and Ann Arbor Housing Development Corporation, acting by and through the Ann Arbor Housing Commission."**

4.4.3 The Contractor shall not allow any work under the contract to be performed by a subcontractor unless evidence of similar insurance covering the activities of the subcontractor is submitted to and approved by the HC.

4.4.4 The limits of insurance shall not be less than the following:

- 4.4.4.1** Policy of General Liability Insurance, \$1,000,000 per occurrence, \$2,000,000 aggregate together with damage to premises and fire damage of \$300,000 and medical expenses for any one person of \$5,000 with a deductible not greater than \$1,000.
- 4.4.4.2** Policy of Professional Liability Insurance or Errors & Omissions coverage, minimum of \$1,000,000 each occurrence, general aggregate minimum limit of \$2,000,000 with a deductible of not greater than \$1,000, when applicable;
- 4.4.4.3** Automobile Liability coverage in a combined single limit of \$1,000,000. For every vehicle utilized during the term of this contract, when not owned by the entity, each vehicle must have evidence of automobile insurance coverage with limits of no less than \$50,000/\$100,000 and medical pay of \$5,000 with a deductible not greater than \$1,000.
- 4.4.4.4** Worker's compensation coverage evidencing carrier and coverage amount required by the State of Michigan.
- 4.4.4.5** Insurance certificate(s)/endorsement(s) shall be delivered to the following person representing the HC:

ANN ARBOR HOUSING DEVELOPMENT CORPORATION
FINANCIAL DEPARTMENT
HCAccountspayable@a2gov.org
734 794-6720
2000 S. Industrial Hwy
ANN ARBOR, MI 48104

- 4.5 Licensing:** The Contractor shall also provide to the HC a copy of the required State of Michigan Business License. Failure to maintain this license in a current status during the term(s) of this contract shall constitute a material breach thereof.

4.6 Financial Viability and Regulatory Compliance:

- 4.6.1** If other than an individual/sole proprietor, Contractor warrants and represents that its corporate entity is in good standing with all applicable federal, state and local licensing authorities and that it possesses all requisite licenses to perform the services required by this contract.
- 4.6.2** Contractor agrees to promptly disclose to the HC any licensure suspension or revocation that adversely affect its capacity to perform this contract. Contractor's failure to immediately disclose such issue to the HC will constitute a material breach of this contract.
- 4.6.3** Contractor agrees to promptly disclose to the HC any change of more than 50% of its ownership and/or any declaration of bankruptcy that the Contractor undergoes during the term(s) of this contract. Contractor's failure to immediately disclose any change of more than 50% of its ownership and/or its declaration of bankruptcy shall constitute a material breach of this contract.
- 4.6.4** All disclosures made pursuant to this section of the contract shall be made in writing.

5.0 Modification: This contract shall not be modified, revised, amended or extended except by written addendum, executed by both parties.

6.0 Severability: If any provision of this agreement or any portion or provision hereof applicable to any particular situation or circumstance is held invalid, the remainder of this agreement or the remainder of such provision (as the case may be), and the application thereof to other situations or circumstances shall not be affected thereby.

7.0 Applicable Laws:

7.1 Jurisdiction and Venue: The laws of the State of Michigan shall govern the validity, construction and effect of this contract, unless said laws are superseded by, or conflict with, applicable federal laws and/or federal regulations. This contract will be binding upon the parties, their heirs, beneficiaries, and devisees of the parties hereto. The parties agree that Washtenaw County, Michigan is the appropriate forum for any action relating to this contract. This agreement may be executed in multiple counterparts which shall be considered binding.

7.2 Interest of Contractor and the Housing Commission: The Contractor promises that it has no interest which would conflict with the performance of services required by this contract. The Contractor also promises that, in the performance of this contract, no officer, agent, employee of the Commission, or member of its governing bodies, may participate in any decision relating to this contract which affects his/her personal interest or the interest of any corporation, partnership or association in which he/she is directly or indirectly interested or has any personal or pecuniary interest. This paragraph does not apply if all parties are in compliance with the provisions of Michigan Compiled Laws §15.323 and 24 CFR PART 85.36(b), as applicable.

8.0 Notices:

8.1 All legal notices submitted to the HC by the Contractor pursuant to this contract shall be in writing via email, facsimile or other electronic means and delivered to the attention of the following person representing the HC:

**ANN ARBOR HOUSING COMMISSION
ATTN: EXECUTIVE DIRECTOR
JHALL@A2GOV.ORG
2000 S. INDUSTRIAL HWY
ANN ARBOR, MI 48104
Ph. 734-794-6720
Fax 734-996-3018**

8.2 All legal notices submitted to the Contractor pursuant to this contract shall be in writing via email, facsimile or other electronic means and delivered to the attention of:

**ENTITY NAME
EMAIL
ADDRESS LINE 1
ADDRESS LINE 2
Ph. xxx-xxx-xxxx**

9.0 Breach and Retention of Records: The HC and the Contractor each agree to comply with the following provisions:

9.1 Remedies for Contractor Breach: Pertaining to contract-related issues, it is the responsibility of both the HC and the Contractor to communicate with each in as clear and complete a manner as possible. If at any time during the term of this contract the HC or the Contractor is not satisfied with any issue, it is the responsibility of that party to deliver to the other party communication, in writing, fully detailing the issue and corrective action the HC has the right to issue unilateral addendums to this contract, but the Contractor does not have the same right). The other party shall, within 30 days, respond in writing (the HC reserves the right, if conditions warrant, to require the Contractor to respond in a shorter period of time). HC shall, at a minimum, employ the following steps in dealing with the Contractor as to any performance issues:

9.1.1 If the Contractor is in material breach of the contract, the HC may terminate the contract for cause. Such termination must be delivered to the Contractor in writing and shall fully detail the cause of and justification for the termination.

9.1.2 Prior to termination, the HC may choose to warn the Contractor, orally or in writing, of any non-compliant or unsatisfactory performance. Such written warning may include giving the Contractor a certain period of time to correct the deficiencies or potentially suffer termination. If the Contractor does not agree with such action, the Contractor shall have ten 10 days to dispute or protest, in writing, such action; if the Contractor does not do so within the 10-day period, it be deemed to accept and agree with the HC's position on the issue. The written protest must detail all pertinent information pertaining to the dispute, including justification detailing the HC's alleged incorrect action(s).

9.1.3 After termination, if the Contractor does not agree with the HC's justification for the termination, the Contractor shall have 10 days to dispute, in writing, such action; if the Contractor does not do so within the 10-day period, it shall be deemed to accept and agree with the HC's position on the issue. The written protest must detail all pertinent information pertaining to the dispute, including justification detailing the HC's alleged incorrect action(s).

9.1.4 The response to any protest received shall be conducted in accordance with Section No. 4.0 of this document.

9.2 Reporting: The parties hereby agree to comply with any reporting requirements that may be detailed herein.

9.3 Copyrights/Rights in Data: The HC has unlimited rights to any data, including computer software, developed by the Contractor in the performance of the contract.

9.4 Access to Records: Access to any books, documents, papers, and records of the contractor which are directly pertinent to that specific contract for the purpose of making audit, examination, excerpts, and transcriptions.

9.5 Retention of Records: Retention of all required records for three years after HC make final payments and all other pending matters are closed.

9.6 Contractor Certification: The Contractor hereby assures and certifies that it will comply with all of the applicable requirements of the foregoing sections 10.0-10.6, as the same may be amended from time to time.

10.0 Additional Considerations:

10.1 Non-Escalation: Unless otherwise specified within a Request for Proposal or Quote document, the unit prices reflected on the contract shall remain firm with no provision for price increases during the term of the contract.

10.2 Funding Restrictions and Order Quantities: The HC reserves the right to reduce or increase estimated or actual quantities in whatever amount necessary without prejudice or liability to the HC, if:

10.2.1 Funding is not available;

10.2.2 Legal restrictions are placed upon the expenditure of monies for this category of service or supplies; or

10.2.3 The HC's requirements in good faith change after award of the contract.

10.3 Unless otherwise stated in a Request for Proposal or Quote document, all local, State or Federal permits which may be required to provide the services ensuing from award of this contract, regardless of whether they are known to HC or Contractor at the time of the proposal submittal deadline or the award, shall be the sole responsibility of the Contractor and any costs submitted by the Contractor in response to a Request for Proposal or Quote shall reflect all costs required by the Contractor to procure and provide such necessary permits.

10.5 Taxes: The Housing Commission is exempt from paying Michigan State Sales and Use Taxes and Federal Excise Taxes. A letter of Tax Exemption will be provided upon request. MI

10.6 Government Standards: It is the responsibility of the proposer to ensure that all items and services proposed conform to all local, State and Federal law concerning safety (OSHA and MIOSHA) and environmental control (EPA and City of Ann Arbor Pollution Regulations) and any other ordinance, code, law or regulation. Contractor shall be responsible for all costs incurred for compliance with any such possible ordinance, code, law or regulation. No time extensions shall be granted or financial consideration given to the Contractor for time or monies lost due to violations of any ordinance, code, law or regulations that may occur.

10.7 Freight on Bill and Delivery: All costs submitted by the proposer shall reflect the cost of delivering the proposed items and/or services to the locations(s) specified within the proposal.

10.7.1 Contractor agrees to deliver to the designated location(s) on or before the date as specified in the finalized contract. Failure to deliver on or before the specified date constitutes an event of default by Contractor. Upon default, Contractor agrees that the HC may, at its option, rescind this contract under the default clause herein and seek compensatory damages as provided by law.

10.8 Backorders:

- 10.8.1** The HC PM must be notified in writing by the Contractor within 10 days of any and all backordered materials and/or any incomplete services; and the estimated delivery date.
- 10.8.2** Unless otherwise stipulated in the contract, if any order will be delayed more than 10 days past the original agreed upon delivery date, the HC may at its option cancel the order, if, in the opinion of the HC PM, it is in the best interests of the HC to do so.
- 10.9 Work on HC Property:** If the Contractor's work under the contract involves operations by the Contractor on HC premises, the Contractor shall take all necessary precautions to prevent the occurrence of any injury to persons or property during the progress of such work and, except to the extent that any such injury is caused solely and directly by the HC's negligence, shall indemnify the HC, and its officers, agents, servants and employees against all loss which may result in any way from any act or omission of the Contractor, its agents, employees, or subcontractors.
- 10.9.1** The Contractor shall be responsible for repairing any unintentional damage that the Contractor causes during the course of the Contractor's work. Such damages include, but are not limited to, ruts caused by machinery or breaking paving materials not included in this contract.
- 10.10 Official, Agent and Employees of the HC Not Personally Liable:** No official, officer, employee, or agent of the HC in any way be personally liable or responsible for any covenant or agreement herein contained whether expressed or implied, or for any statement, representation or warranty made herein or in any connection with this agreement.
- 10.11 Sub-Contractors:** Unless otherwise stated, the Contractor may not use any sub-contractors to accomplish any portion of the services described within the documents or the contract without the prior written permission of the HC PM.
- 10.12 Salaries and Expenses Relating to the Contractors Employees:** Unless otherwise stated within the procurement documents, the Contractor shall pay all salaries and expenses of, and all Federal, Social Security taxes, Federal and State Unemployment taxes, and any similar taxes relating to its employees used in the performance of the contract. The Contractor shall comply with all Federal, State and local wage and hour laws and all licensing laws applicable to its employees or **other** personnel furnished under this agreement.
- 10.13 Attorney Fees:** In the event that litigation is commenced by one party against the other in connection with the enforcement of any provision of this agreement, and the Contractor is the losing party, Contractor shall pay all of HC's court costs and other expenses of such litigation, including reasonable attorney fees. The attorney fees shall be taxed to the Contractor as costs of the suit, unless prohibited by law.
- 10.14 Independent Contractor:** Contractor is an independent Contractor. Nothing herein shall create any association, agency, partnership or joint venture between the parties hereto and neither shall have any authority to bind the other in any way.

10.15 Waiver of Breach: A waiver of either party of any terms or condition of this agreement in any instance shall not be deemed or construed as a waiver of such term or condition for the future, or of any subsequent breach thereof. All remedies, rights, undertakings, obligations, and agreements contained in this agreement shall be cumulative and none of them shall be in limitation of any other remedy, right, obligation or agreement of either party.

10.16 Time of the Essence: Time is of the essence under this agreement as to each provision in which time of performance is a factor.

10.17 Limitation of Liability: In no event shall the HC be liable to the Contractor for any indirect, incidental, consequential or exemplary damages.

10.18 Indemnification:

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

10.18.2 The Contractor shall, at its own expense, defend the HC, its officers, employees, and agents, 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 consequence of any act or failure to act the consequences of which the Contractor has indemnified the HC. If the Contractor shall fail to do so, the HC 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 attorney fees and court costs.

10.18.3 Any money due to the Contractor under and by virtue of this contract, which the HC believes must be withheld from the Contractor to protect the HC, may be retained by the HC so long as it is reasonably necessary to ensure the HC's protection; or in case no money is due, its surety may be held until all applicable claims have been settled and suitable evidence to that effect furnished to the HC provided, however, neither the Corporation's payments shall not be withheld, and its surety shall be released, if the Contractor is able to demonstrate that it has adequate liability and property damage insurance to protect the HC from any potential claims.

10.18.4 The Contractor shall provide that any contractual arrangement with a sub-contractor shall be in conformance with the terms of this Contract including the terms of this indemnity provision. The Contractor guarantees that it will promptly handle and rectify any and all claims for materials, supplies and

labor, or any other claims that may be made against it or any of its sub-contractors in connection with the contract.

11.0 Appendices:

11.1 The following noted documents are placed under each of the noted appendix and are a part of this contract:

Appendix No. 1: Scope of Work

Appendix No. 2: Contractor Certification of Asbestos-Free Product Installation

11.2 In the case of any discrepancy between this contract and any of the above noted documents, the requirement(s) listed within the body of this contract shall take precedence, then the requirement(s) listed within each appendix shall take precedence in the order they are listed above (i.e. the requirement(s) listed the lower listed item may not supercede any requirement(s) within a higher listed item), except as otherwise required by law.

11.3 Any document referenced herein that has not been attached is hereby incorporated herein by reference, and a copy of each such document is available from the HC upon written request.

12.0 CERTIFICATIONS:

The undersigned representatives of each party acknowledge by signature below that they have reviewed the foregoing and understand and agree to abide by their respective obligations as detailed herein:

By: _____ **DATE:** _____

FIRST LAST

TITLE

ENTITY

ADDRESS LINE 1

ADDRESS LINE 2

EMAIL

PHONE

By: _____ **DATE:** _____

**Jennifer Hall, Secretary-Treasurer
Ann Arbor Housing Development Corporation
2000 S. Industrial Hwy
Ann Arbor, MI 48104
734-794-6721**

Appendix No. 1: Full Scope of Work

Appendix No 2:

Employer/Employee/Tenant Notification

As required by the OSHA Regulation building and/or facility owners shall notify the following persons of the presence, location and quantity of ACM or PACM, at the work sites in their buildings and facilities. Notification either shall be in writing or shall consist of a personal communication between the owner and the person to whom notification must be given or their authorized representative:

- A. Prospective employers applying or bidding for work whose employees reasonably can be expected to work in adjacent to areas containing such material;
- B. Employees of the owner who will work in or adjacent to areas containing such materials;
- C. On Multi-employer worksites, all employers of employees who will be performing work within or adjacent to areas containing such material;
- D. Tenants who will occupy areas containing such materials.

Please complete this form and return it to:

I _____, representing and having authority for _____ (company), hereby indicate and agree that a representative of the building/facility, _____ (name), (title) has provided me information regarding the specific locations and materials that are asbestos-containing and which may be encountered or have the potential of being encountered during the course of activities involving _____ (project name and/or number) in the above-mentioned building.

I expressly agree that neither I, nor any of my employees, agents, sub-contractors or other individuals or entities over whom I have any responsibility or control, will disturb asbestos-containing materials for the above-mentioned building. I further understand and agree that should I, my employees, agents, sub-contractors or other individuals or entities over whom I have control, encounter any material(s) suspected of containing asbestos, said material(s) shall not be disturbed without first notifying the office of the building/facility owner, and receiving written approval that such material(s) may be disturbed.

Print Name

Signature

Company

Position

Date

Contractor Certification of Asbestos-Free Product Installation

Name of building: _____

1. Contractor name and address:

Name

Street

City

State

Zip

2. Brief scope of contracted activities:

3. Certification statement:

I _____, representing and having authority for _____
_____(company), hereby certify that any and all products/materials which will be and/or have been
installed or introduced into the above-mentioned building, _____ (project name and/or number)
are asbestos free (or less than 1% asbestos by weight).

Print Name

Signature

Company

Position

Date

ATTACHMENT C
LEGAL STATUS OF BIDDER

(The bidder shall fill out the appropriate form and strike out the other three.)

Bidder declares that it is:

* A corporation organized and doing business under the laws of the State of _____, for whom _____, bearing the office title of _____, whose signature is affixed to this Bid, is authorized to execute contracts.

NOTE: If not incorporated in Michigan, please attach the corporation's Certificate of Authority

• A limited liability company doing business under the laws of the State of _____, whom _____ bearing the title of _____ whose signature is affixed to this proposal, is authorized to execute contract on behalf of the LLC.

* A partnership, organized under the laws of the state of _____ and filed in the county of _____, whose members are (list all members and the street and mailing address of each) (attach separate sheet if necessary):

* An individual, whose signature with address, is affixed to this Bid:

(initial here)

Authorized Official

_____ **Date** _____, 202__

(Print) Name _____ Title _____

Company: _____

Address: _____

Contact Phone () _____ Fax () _____

Email _____

ATTACHMENT D

BID FORM

Company: _____

Schedule of Pricing/Cost –

No.	Item Description	Price
1	Material	\$
2	Labor	\$
3	Permits	\$
4	General Conditions/Other	\$
5	Contractor's Fee	\$

Base Bid \$ _____

Voluntary Alternate # _____

Description:

Add/(Deduct) \$ _____

Name

Title

Date

ATTACHMENT E

Non-Discrimination Ordinance Poster

CITY OF ANN ARBOR NON-DISCRIMINATION ORDINANCE

Relevant provisions of Chapter 112, Nondiscrimination, of the Ann Arbor City Code are included below.
You can review the entire ordinance at www.a2gov.org/humanrights.

Intent: It is the intent of the city that no individual be denied equal protection of the laws; nor shall any individual be denied the enjoyment of his or her civil or political rights or be discriminated against because of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight.

Discriminatory Employment Practices: No person shall discriminate in the hire, employment, compensation, work classifications, conditions or terms, promotion or demotion, or termination of employment of any individual. No person shall discriminate in limiting membership, conditions of membership or termination of membership in any labor union or apprenticeship program.

Discriminatory Effects: No person shall adopt, enforce or employ any policy or requirement which has the effect of creating unequal opportunities according to actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight for an individual to obtain housing, employment or public accommodation, except for a bona fide business necessity. Such a necessity does not arise due to a mere inconvenience or because of suspected objection to such a person by neighbors, customers or other persons.

Nondiscrimination by City Contractors: All contractors proposing to do business with the City of Ann Arbor shall satisfy the contract compliance administrative policy adopted by the City Administrator in accordance with the guidelines of this section. All city contractors shall ensure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity and tends to eliminate inequality based upon any classification protected by this chapter. All contractors shall agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of any applicable protected classification. All contractors shall be required to post a copy of Ann Arbor's Non- Discrimination Ordinance at all work locations where its employees provide services under a contract with the city.

Complaint Procedure: If any individual believes there has been a violation of this chapter, he/she may file a complaint with the City's Human Rights Commission. The complaint must be filed within 180 calendar days from the date of the individual's knowledge of the allegedly discriminatory action or 180 calendar days from the date when the individual should have known of the allegedly discriminatory action. A complaint that is not filed within this timeframe cannot be considered by the Human Rights Commission. To file a complaint, first complete the complaint form, which is available at www.a2gov.org/humanrights. Then submit it to the Human Rights Commission by e- mail (hrc@a2gov.org), by mail (Ann Arbor Human Rights Commission, PO Box 8647, Ann Arbor, MI 48107), or in person (City Clerk's Office). For further information, please call the commission at 734-794-6141 or e-mail the commission at hrc@a2gov.org.

Private Actions For Damages or Injunctive Relief: To the extent allowed by law, an individual who is the victim of discriminatory action in violation of this chapter may bring a civil action for appropriate injunctive relief or damages or both against the person(s) who acted in violation of this chapter.

THIS IS AN OFFICIAL GOVERNMENT NOTICE AND
MUST BE DISPLAYED WHERE EMPLOYEES CAN READILY SEE IT.

ATTACHMENT F

Non-Discrimination Ordinance Compliance Form

CITY OF ANN ARBOR DECLARATION OF COMPLIANCE

Non-Discrimination Ordinance

The "non discrimination by city contractors" provision of the City of Ann Arbor Non-Discrimination Ordinance (Ann Arbor City Code Chapter 112, Section 9:158) requires all contractors proposing to do business with the City to treat employees in a manner which provides equal employment opportunity and does not discriminate against any of their employees, any City employee working with them, or any applicant for employment on the basis of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight. It also requires that the contractors include a similar provision in all subcontracts that they execute for City work or programs.

In addition the City Non-Discrimination Ordinance requires that all contractors proposing to do business with the City of Ann Arbor must satisfy the contract compliance administrative policy adopted by the City Administrator. A copy of that policy may be obtained from the Purchasing Manager

The Contractor agrees:

- (a) To comply with the terms of the City of Ann Arbor's Non-Discrimination Ordinance and contract compliance administrative policy, including but not limited to an acceptable affirmative action program if applicable.
- (b) To post the City of Ann Arbor's Non-Discrimination Ordinance Notice in every work place or other location in which employees or other persons are contracted to provide services under a contract with the City.
- (c) To provide documentation within the specified time frame in connection with any workforce verification, compliance review or complaint investigation.
- (d) To permit access to employees and work sites to City representatives for the purposes of monitoring compliance, or investigating complaints of non-compliance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services in accordance with the terms of the Ann Arbor Non-Discrimination Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Non-Discrimination Ordinance, obligates the Contractor to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract.

Company Name

Signature of Authorized Representative

Date

Print Name and Title

Address, City, State, Zip

Phone/Email Address

Questions about the Notice or the City Administrative Policy, Please contact:

Procurement Office of the City of Ann Arbor (734)
794-6500

ATTACHMENT G

City of Ann Arbor Living Wage Ordinance

CITY OF ANN ARBOR LIVING WAGE ORDINANCE

RATE EFFECTIVE APRIL 30, 2025 - ENDING APRIL 29, 2026

\$17.08 per hour

If the employer provides health care benefits*

\$19.04 per hour

If the employer does **NOT** provide health care benefits*

Employers providing services to or for the City of Ann Arbor or recipients of grants or financial assistance from the City of Ann Arbor for a value of more than \$10,000 in a twelve-month period of time must pay those employees performing work on a City of Ann Arbor contract or grant, the above living wage.

ENFORCEMENT

The City of Ann Arbor may recover back wages either administratively or through court action for the employees that have been underpaid in violation of the law. Persons denied payment of the living wage have the right to bring a civil action for damages in addition to any action taken by the City.

Violation of this Ordinance is punishable by fines of not more than \$500/violation plus costs, with each day being considered a separate violation. Additionally, the City of Ann Arbor has the right to modify, terminate, cancel or suspend a contract in the event of a violation of the Ordinance.

* Health Care benefits include those paid for by the employer or making an employer contribution toward the purchase of health care. The employee contribution must not exceed \$.50 an hour for an average work week; and the employer cost or contribution must equal no less than \$1/hr for the average work week.

The Law Requires Employers to Display This Poster Where Employees Can Readily See It.

**For Additional Information or to File a Complaint contact Colin Spencer
at 734/794-6500 or cspencer@a2gov.org**

ATTACHMENT H
LIVING WAGE DECLARATION OF COMPLIANCE FORM

**CITY OF ANN ARBOR
LIVING WAGE ORDINANCE DECLARATION OF COMPLIANCE**

The Ann Arbor Living Wage Ordinance (Section 1:811-1:821 of Chapter 23 of Title I of the Code) requires that an employer who is (a) a contractor providing services to or for the City for a value greater than \$10,000 for any twelve- month contract term, or (b) a recipient of federal, state, or local grant funding administered by the City for a value greater than \$10,000, or (c) a recipient of financial assistance awarded by the City for a value greater than \$10,000, shall pay its employees a prescribed minimum level of compensation (i.e., Living Wage) for the time those employees perform work on the contract or in connection with the grant or financial assistance. The Living Wage must be paid to these employees for the length of the contract/program.

Companies employing fewer than 5 persons and non-profits employing fewer than 10 persons are exempt from compliance with the Living Wage Ordinance. If this exemption applies to your company/non-profit agency please check here ☐ No. of employees

The Contractor or Grantee agrees:

- (a) To pay each of its employees whose wage level is not required to comply with federal, state or local prevailing wage law, for work covered or funded by a contract with or grant from the City, no less than the Living Wage. The current Living Wage is defined as \$17.08/hour for those employers that provide employee health care (as defined in the Ordinance at Section 1:815 Sec. 1 (a)), or no less than \$19.04/hour for those employers that do not provide health care. The Contractor or Grantor understands that the Living Wage is adjusted and established annually on April 30 in accordance with the Ordinance and covered employers shall be required to pay the adjusted amount thereafter to be in compliance with Section 1:815(3).

Check the applicable box below which applies to your workforce

- ☐ Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage without health benefits
- ☐ Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage with health benefits

- (b) To post a notice approved by the City regarding the applicability of the Living Wage Ordinance in every work place or other location in which employees or other persons contracting for employment are working.
- (c) To provide to the City payroll records or other documentation within ten (10) business days from the receipt of a request by the City.
- (d) To permit access to work sites to City representatives for the purposes of monitoring compliance, and investigating complaints or non-compliance.
- (e) To take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee covered by the Living Wage Ordinance or any person contracted for employment and covered by the Living Wage Ordinance in order to pay the living wage required by the Living Wage Ordinance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services or agrees to accept financial assistance in accordance with the terms of the Living Wage Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Living Wage Ordinance, obligates the Employer/Grantee to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract or grant of financial assistance.

Company Name

Street Address

Signature of Authorized Representative

Date

City, State, Zip

Print Name and Title

Phone/Email address

ATTACHMENT I
VENDOR CONFLICT OF INTEREST DISCLOSURE FORM



Vendor Conflict of Interest Disclosure Form

All vendors interested in conducting business with the City of Ann Arbor must complete and return the Vendor Conflict of Interest Disclosure Form in order to be eligible to be awarded a contract. Please note that all vendors are subject to comply with the City of Ann Arbor's conflict of interest policies as stated within the certification section below.

If a vendor has a relationship with a City of Ann Arbor official or employee, an immediate family member of a City of Ann Arbor official or employee, the vendor shall disclose the information required below.

1. No City official or employee or City employee's immediate family member has an ownership interest in vendor's company or is deriving personal financial gain from this contract.
2. No retired or separated City official or employee who has been retired or separated from the City for less than one (1) year has an ownership interest in vendor's Company.
3. No City employee is contemporaneously employed or prospectively to be employed with the vendor.
4. Vendor hereby declares it has not and will not provide gifts or hospitality of any dollar value or any other gratuities to any City employee or elected official to obtain or maintain a contract.
5. Please note any exceptions below:

Conflict of Interest Disclosure*	
Name of City of Ann Arbor employees, elected officials or immediate family members with whom there may be a potential conflict of interest.	☐ Relationship to employee ☐ Interest in vendor's company ☐ Other (please describe in box below)

*Disclosing a potential conflict of interest does not disqualify vendors. In the event vendors do not disclose potential conflicts of interest and they are detected by the City, vendor will be exempt from doing business with the City.

I certify that this Conflict of Interest Disclosure has been examined by me and that its contents are true and correct to my knowledge and belief and I have the authority to so certify on behalf of the Vendor by my signature below:		
Vendor Name		Vendor Phone Number
Signature of Vendor Authorized Representative	Date	Printed Name of Vendor Authorized Representative

Questions about this form? Contact Procurement Office City of Ann Arbor Phone: 734/794-6500, procurement@a2gov.org

ATTACHMENT J

Responsible Bidder Questionnaire

How long have you been in business?

What level of experience does your key staff have?

Has your company been profitable for at least the last 3 out of 5 years? _____

Please list 3 vendors with whom you have an active line of credit.

How many jobs do you plan to have running concurrently with this one? _____

How many full-time staff do you have?

Who is the contact at your company for billing questions?

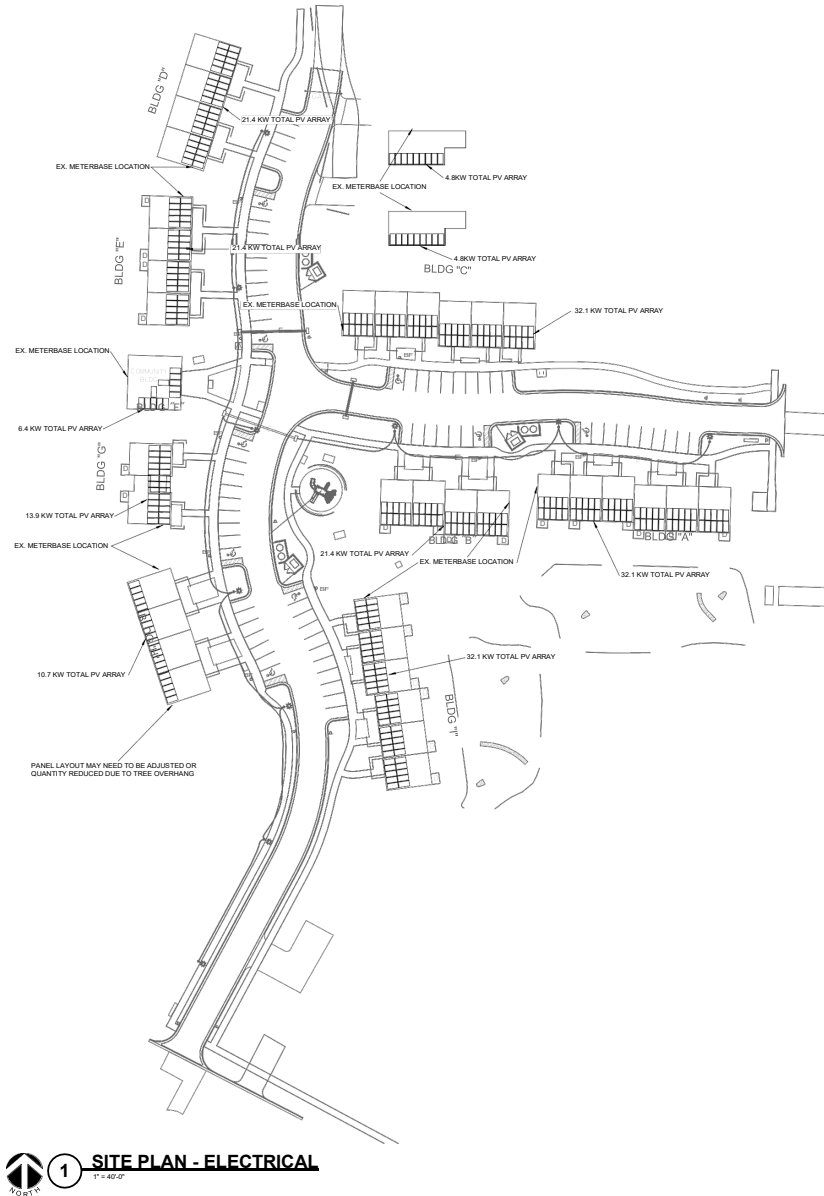
Have you ever been sued? What was it over and what was the result? Do you have any pending claims or active litigation involving performance under a contract?

Are you qualified and eligible to receive an award under applicable laws and regulations, including not being suspended, debarred or under a HUD-imposed LDP? _____

Attachment K
Building Inventory



Attachment L
IMEG Drawing of PV Lay-out



GENERAL NOTES: TYPICAL FOR EACH BUILDING

1. PROVIDE PV SOLAR ARRAYS AS NOTED. COORDINATE FINAL LAYOUT WITH ROOF PENETRATIONS AND SUPPORTS. PROVIDE ALL ATTACHMENTS, CABLING, INTERCONNECTIONS BETWEEN PV ARRAYS, INVERTERS, ETC.
2. DETERMINE SIZE AND QUANTITY FOR INVERTERS AS REQUIRED FOR PV ARRAY AT EACH LOCATION.
3. SIZE AND PROVIDE AC COMBINER PANEL AS REQUIRED.
4. SIZE AND PROVIDE PV DISCONNECT.
5. **FOR ALL BUILDINGS EXCEPT CLUBHOUSE:** PROVIDE FINAL CONNECTION FROM PV DISCONNECT TO TWO WAY FEEDER BREAKER IN BUILDING DISTRIBUTION PANEL. ALL EQUIPMENT TO BE INSTALLED ON RACK ADJACENT TO METER CENTER. (REFER TO METER CONSOLIDATION DRAWINGS FOR MORE INFORMATION). COORDINATE SPACE REQUIREMENTS ON RACK WITH ELECTRICAL CONTRACTOR FOR METER CONSOLIDATION PROJECT.
6. **FOR CLUBHOUSE:** PROVIDE GENERATION METER BETWEEN PV DISCONNECT AND BUILDING PANEL. REFER TO E&S FOR CLUBHOUSE RISER.
7. FOR ADDITIONAL INFORMATION, REFER TO SPECIFICATION SECTION 28 51 00 - SOLAR PHOTOVOLTAIC SYSTEMS.
8. DRAWINGS DIAGRAMMATICALLY INDICATE THE GENERAL SCOPE OF WORK TO INDICATE DESIGN INTENT, BUT DO NOT PROVIDE EXACT SCALE OR LOCATIONS. CONTRACTOR SHALL PROVIDE DETAILED WORKING DRAWINGS FOR REVIEW AND APPROVAL TO OWNER AND ENGINEER PRIOR TO EQUIPMENT PURCHASE OR INSTALLATION. PROPER INSTALLATION OF ALL SYSTEMS, AFTER COORDINATION WITH OTHER TRADES, IS THE CONTRACTOR'S RESPONSIBILITY.



**ANN ARBOR HOUSING
WEST ARBOR**
657 - 740 N. MAPLE RD, ANN ARBOR, MI



710 HERRICK ST. #200
201 S. ANN ARBOR STREET
SALINE, MI 48176
P: 734-428-8800

PROFESSIONAL SEAL

**FOR
BIDS ONLY**
DATE: 08/01/2024

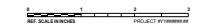
CONSULTANT

KEY PLAN

AGENCY APPROVAL

DISCLAIMER

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NO.	DATE	REVISION/ISSUE

SHEET INFORMATION	
NAME	REVISED BIDS/PERMITS
DATE	05/22/2024
PROJECT	23004726.00
DRAWN	J. WRIGHT
CHECKED	L. WOODS
APPROVED	D. NIETHAMMER

ELECTRICAL PROPOSED PV PLAN

SCALE
1" = 40'-0"