July 17, 2026

Centrix

Anchor Bay School District – Energy Savings Performance Contract
BAS/DDC Controls Upgrades - Request for Proposal

Centrix Energy
792 Lois Dr
Sun Prairie, WI 53590
(817) 506-8303

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INVITATION TO BID

PROJECT NAME: Anchor Bay Schools – 2025 Energy Services Performance Contract

PROJECT DESCRIPTION:

Facility Improvement Measures (FIM) to be implemented in Anchor Bay Schools to upgrade infrastructure and improve energy efficiency.

SCHEDULE:

RFP out for Bid:	July 17, 2026
Bid Docs Advertised:	July 17, 2026
Pre-Bid Walkthrough:	July 22, 2026 (9:00am)
Bids Due:	July 31, 2026 (1:00pm)
Notice to Proceed:	August 13, 2026
Construction Start Date:	August 31, 2026
Completion Date:	December 1, 2026

OWNER:

Anchor Bay School District

5201 County Line Rd

Casco, MI 48064

CONSTRUCTION MANAGER:

Centrix Energy Partners, LLC

792 Lois Drive

Sun Prairie, WI 53590

BID DATE:

Bids will be received at the district's Administrative Office, no later than 1:00PM **(local time)** on July 31, 2026.

Bids will be publicly opened at the Administrative Office and read aloud at this time. Bids received after this time will not be considered and will be returned to the bidder unopened.

Bids shall be properly and completely executed on the Bid Proposal Form included within the Project Manual and submitted in duplicate. Bids shall be clearly marked as **Anchor Bay Schools Energy Savings Performance Contract – DDC Temperature Controls Upgrades Bid** on the front of the submitted envelope.

PRE-BID MEETING:

A Pre-Bid Meeting will be held on July 22, 2026 at 9:00am (local time) on site, starting at the Maintenance Building (51890 Washington St., New Baltimore, MI) and proceed to schools from there. All DDC Contractors bidding on this RFP shall coordinate with Centrix to schedule follow-up school walk-throughs to provide a complete bid in response to this RFP.

DOCUMENT AVAILABILITY AND USE:

Bid Documents may be viewed at the following **Plan Rooms** on or after July 17, 2026.

BidNet www.bidnetdirect.com

Sigma www.michigan.gov/budget/budget-offices/sigma

Bidding documents are available electronically at no charge, via email. Please email your request to Todd Kananen at the email address shown below. Contact with bidding questions: todd.kananen@centrix-partners.com cc emails to greg.mizell@centrix-partners.com

BONDS:

A two and a half percent (2.5%) Bid Bond shall accompany each bid. The successful bidder will be required to provide Payment and Performance Bonds to cover the full amount of their proposal, and certificates of Liability and Worker's Compensation Insurance.

OTHER CONDITIONS AND INFORMATION:

1. The awarded contractor will be required to pay not less than the published **Michigan Prevailing Wage for State Projects Act (effective 2/13/2024)**, Michigan prevailing wage rates.

2. No bidder may withdraw their bid for a period of **thirty (30) calendar days** after the date set for bid opening.

3. Public Act 517 of 2012 (effective December 31, 2012) enacted the "Iran Economic Sanctions Act", which prevents "Iran linked businesses" from bidding on a school district or ISD's request for proposals ("RFP"). This law requires that persons submitting bids certify that they are not an "Iran linked business," which is defined as either:
   a) A person engaging in investment activities in the energy sector of Iran, including a person that provides oil or liquefied natural gas tankers or products used to construct or maintain pipelines used to transport oil or liquefied natural gas for the energy sector of Iran; or
   b) A financial institution that extends credit to another person, if that person will use the credit to engage in investment activities in the energy sector of Iran.

4. Anchor Bay Schools reserves the right to reject any or all bids, to waive any defects or irregularities in bids, and to accept any bid that is deemed most advantageous to the public interest.

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INSTRUCTIONS TO BIDDERS

A. No bid received after the specified date and time for opening, whether postdated or not, will be considered. **No electronic bids will be accepted.**

B. If any of the required bidding documents are not included, or properly executed, the contractor's bid may not be accepted.

C. The Owner reserves the right to reject each and every bid, to waive formalities or informalities in bidding, to accept or reject each and every alternate regardless of its order or sequence, unless otherwise called for on the bid Proposal Form.

D. The right is reserved to reject a Bid where an investigation of the available evidence of information does not satisfy the Owner that the Bidder is qualified to properly carry out the terms of the Contract Documents.

E. The Owner reserves the right to award contract(s) for this project to one or more bidders, in whole or in part, as determined to be in the Owner's best interest.

F. Bids which contain qualifications or conditions that are contrary to the text or intent of the Contract Documents, and which are inserted in the bid for the purpose of limiting or otherwise qualifying the responsibility of the bidder, outside of the text or intent of the Contract Documents, will be subject to disqualification.

G. Failure to submit the requested information with the Bid shall be grounds for rejecting the Bid.

H. The Owner also reserves the right to reject the bid of a Bidder who has previously failed to perform properly or to complete contracts of similar nature on time, who is not in a position to perform the Contract or who has habitually and without just cause neglected the payment of bills or otherwise disregarded his obligations to subcontractors, suppliers, or employees.

I. Payment / Performance Bonds are required for this contract.

J. The ability of the Bidder to obtain or qualify for a performance bond or payment bond shall not be regarded as a sole test of such Bidders competence or responsibility.

K. This project is tax exempt.

L. The awarded contractor will be required to pay not less than the published **Michigan Prevailing Wage for State Projects Act (effective 2/13/2024)**, Michigan prevailing wage rates.

M. Bidder must have comparable experience with the type and scale of this project; submit a list of similar projects completed within the last 5 years. Failure to submit the requested information with the Bid shall be grounds for rejecting the Bid.

N. Bidders are required to submit a list of subcontractors who will be used on this project, if any.

O. This work is scheduled to commence after the notice to proceed letter is issued after the August 12, 2026 Anchor Bay School Board Meeting.

The Bidder may**,** at his option, submit a voluntary alternate, stating the optional material and/or methods which he proposes to use, and all brochures, data manuals, etc., describing the specifics of such materials or equipment. No voluntary alternate products will be evaluated prior to bidding. The Construction Manager and Owner reserve the right to accept or reject such options.

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BID FORM

PROJECT: Anchor Bay Schools – 2025
Energy Services Performance Contract
DDC Controls Upgrade

OWNER: Anchor Bay School District

PROPOSAL FROM: _____
Company Name

_____
Address

_____
City, State, ZIP

Building Name: Lighthouse Elementary, 51880 Washington St., New Baltimore, MI 48047

$_____
Written Amount **printed figure**

Building Name: Naldrett Elementary, 47800 Sugarbush Rd., New Baltimore, MI 48047

$_____
Written Amount **printed figure**

Building Name: Lottie Schmidt Elementary, 33700 Hooker Rd., New Baltimore, MI 48047

$_____
Written Amount **printed figure**

Building Name: Maconce Elementary, 6300 Church Rd., Ira Township, MI 48023

$_____
Written Amount **printed figure**

Building Name: Transportation Building, 51880 Washington St., New Baltimore, MI 48047

$_____
Written Amount **printed figure**

Additional Alternates *(if provided)*

_____
Description

_____ $_____(Add/Deduct)
Written Amount

_____
Description

_____ $_____(Add/Deduct)
Written Amount

Additional items to be included with Bid Form:

2.5% BID BOND	YES ☐	NO ☐
List of warranted projects	YES ☐	NO ☐
List of subcontractors	YES ☐	NO ☐
Familial Disclosure Form	YES ☐	NO ☐
Iran Economic Sanctions Act Certification	YES ☐	NO ☐
Written Narrative for Inclusions / Exclusions	YES ☐	NO ☐
Summary Schedule	YES ☐	NO ☐

I, _____, am the authorized signatory for this business and have full authority to submit this bid and bind the business to all terms and conditions contained herein.

_____
Signature

_____
Title

_____
Phone Number

Date: July 31, 2026

IRAN ECONOMIC SANCTIONS ACT CERTIFICATION

I am the _____ (title) of _____ (bidder), or I am bidding in my individual capacity ("Bidder"), with authority to submit a binding bid for the provision of mechanical contracting services to Anchor Bay Schools I have personal knowledge of the matters described in this Certification, and I am familiar with the Iran Economic Sanctions Act, MCL 129.311, et seq. ("Act"). I am fully aware that the school district will rely on my representations in evaluating bids.

I certify that Bidder is not an Iran-linked business, as that term is defined in the Act. I understand that submission of a false certification may result in contract termination, ineligibility to bid for three (3) years, and a civil penalty of $250,000 or twice the bid amount, whichever is greater, plus related investigation and legal costs.

_____
(signature)

_____
(printed)

_____
(date)

FAMILIAL DISCLOSURE FORM

FAMILIAL DISCLOSURE: All bidders must provide the following familial disclosure in compliance with MCL 380.1267

Familial Relationship (complete A or B):

A. None _____

B. The following are familial relationships between the owner or any employee of the bidder and any member of the board, intermediate school board, or board of directors or the superintendent of the school district, intermediate superintendent of the intermediate school district, or chief executive officer of the public school academy. Provide employee name, associated family contact, family contact position, and familial relationship.

_____

All bidders must complete the following familial disclosure form in compliance with MCL 380.1267.

By this sworn and notarized statement we are disclosing familial relationship(s) that exists (as noted above) between the owner or any employee of the bidder and any member of the board, intermediate school board, or board of directors or the superintendent of the school district, intermediate superintendent of the intermediate school district, or chief executive officer of the public school academy. ***(Anchor Bay School District will not accept a bid that does not include this sworn and notarized disclosure statement.)***

Disclose any familial relationship and complete the form below in its entirety:

Complete this portion whether or not a familial relationship exists:

Signature(s): Title:

Title:

_____ _____

Name of firm:

_____

STATE OF MICHIGAN)
) SS

COUNTY OF)

On this _____day of _____, 20__, before me a Notary Public in and for said county, personally appeared _____, agent of the said firm _____, and who acknowledged the same to be his free act and deed as such agent.

_____
Notary Public

SUBSTITUTION REQUEST FORM

PROJECT INFORMATION

Project Name:

_____

Bid Due Date:

_____

CONTRACTOR / VENDOR INFORMATION

Contractor / Vendor Name:

_____

Contact Person:

_____

Phone: _____ Email: _____

Date of Request: _____

RFP REFERENCE

RFP (Specification) Section / Description: _____

Applicable Drawing(s) / Exhibit / Table Reference: _____

SPECIFIED PRODUCT (BASE BID)

Manufacturer:

_____

Model/Catalog Number:

_____

Product Description:

_____

_____

_____

_____

_____

PROPOSED SUBSTITUTE PRODUCT

Manufacturer:

_____

Model/Catalog Number:

_____

Product Description:

_____

_____

_____

_____

_____

_____

REASON FOR SUBSTITUTION REQUEST (Please Check All That Apply)

☐ Product availability/lead time issues
☐ Cost savings
☐ Equal or superior performance
☐ Other:

_____

COST IMPACT

Base Bid Product Cost: $

_____

Proposed Substitute Cost: $

_____

Net Cost Difference: $ _____ ☐ Credit ☐ Additional Cost

SUPPORTING DOCUMENTATION (Please Attach)

☐ Product specifications and technical data sheets
☐ Manufacturer's literature and performance data
☐ Installation instructions
☐ Warranty information
☐ Sample (if required)
☐ Test reports or certifications
☐ Comparison chart showing equivalency to specified product
☐ Reference projects where substitute product was successfully used

COMPARATIVE ANALYSIS

Provide detailed comparison of proposed substitute to specified product (please provide separate document if necessary):

Feature/Characteristic	Specified Product	Proposed Substitute
Performance:		
Dimensions:		
Materials:		
Finish:		
Warranty:		
Lead Time:		
Installation Requirements:		
Maintenance Requirements:		

ADDITIONAL INFORMATION

Describe how the proposed substitute is equal or superior to the specified basis of design product:

List any deviations from the specified product:

Anticipated Impact on project schedule (if any):

Anticipated Impact on other trades or systems (if any):

CONTRACTOR CERTIFICATION

I certify that the information provided above is accurate and complete. I understand that approval of this substitution request does not relieve the Contractor of responsibility for meeting all contract requirements and that any approved substitution must perform equal to or better than the specified product.

Contractor Signature: _____ Date: _____

Print Name/Title:

_____

FOR OWNER / OWNER'S REPRESENTATIVE USE ONLY

REVIEW AND DECISION

Reviewed by: _____

Title: _____

Date Reviewed: _____

DECISION

☐ APPROVED - Substitution accepted as equal to specified product

☐ APPROVED WITH CONDITIONS (specify below)

☐ REJECTED - Substitution does not meet requirements (reason below)

☐ INSUFFICIENT INFORMATION - Resubmit with additional documentation (specify below)

Comments/Conditions/Required Additional Information:

_____

_____

_____

Reviewer Signature: _____Date: _____

DISTRIBUTION

☐ Contractor
☐ Project File
☐ Architect/Engineer
☐ Construction Manager
☐ Owner
☐ Owner's Representative
☐ Other: _____

NOTES:

1. Substitution requests must be submitted at least _____days prior to bid date.
2. No substitutions will be considered after contract award unless specifically approved in writing by the Owner.
3. Burden of proof for equivalency rests with the Contractor/Vendor.
4. The Owner reserves the right to reject any substitution request without providing detailed explanation.
5. Approved substitutions become part of the contract documents.

SUB-CONTRACTOR AGREEMENT

A. SUB-CONTRACTOR AGREEMENT

Exhibit A - Subcontractor Master Agreement.

GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

A. GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION

- Refer to Exhibit 1 – General Terms and Conditions (within Exhibit A of the Subcontractor Master Agreement)

SECTION 011000

SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Project information.
2. Work covered by Contract Documents.
3. Phased construction.
4. Work under Owner's separate contracts.
5. Owner-furnished/Contractor-installed (OFCI) products.
6. Contractor's use of site and premises.
7. Coordination with occupants.
8. Work restrictions.
9. Specification and Drawing conventions.

1.2 PROJECT INFORMATION

A. Project: Anchor Bay Schools Energy Savings Performance Contract

1. Project Location: 5201 County Line Road, Casco, MI 48064

2. Owner: Anchor Bay School District

B. Construction Manager: Centrix Energy Partners LLC, 792 Lois Dr, Sun Prairie, WI 53590

1.3 WORK COVERED BY CONTRACT DOCUMENTS

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

Direct Digital Controls Upgrades

B. Type of Contract:

- Project will be constructed under a single prime contract awarded to one or more bidders.

1.4 CONSTRUCTION

A. The Work shall be conducted in one phase, beginning upon Notice to proceed letter issued after the August 12, 2026 Board of Education meeting.

a. Commencement of Construction:

1) Start Date: Work shall commence by August 31, 2026 or earlier as coordinated with Centrix and the District.

b. Substantial Completion:

1) Completion of the DDC Temperature Controls Upgrade scope shall be by December 1, 2026.

B. Before commencing Work, submit an updated copy of Contractor's construction schedule showing the sequence, commencement, and completion dates for each scope of the Work.

1.5 CONTRACTOR'S USE OF SITE AND PREMISES

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

1. Driveways: Keep driveways clear and available to Owner, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.

B. Condition of Existing Grounds: Maintain portions of existing grounds, landscaping, affected by construction operations throughout construction period. Repair damage caused by construction operations.

1.6 WORK RESTRICTIONS

A. On-Site Work Hours: Limit work in the existing building to normal business working hours of 6:00 a.m. to 8:00 p.m., Monday through Friday, unless otherwise indicated.

B. 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:

1. Notify Construction Manager and Owner not less than three [3] days in advance of proposed utility interruptions.
2. Obtain Construction Manager and Owner's written permission before proceeding with utility interruptions.

C. Smoking and Controlled Substance Restrictions: Use of tobacco products, alcoholic beverages, vaping and other controlled substances within the Project site or Owner's property is not permitted.

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 Requirements:

1. Section 016000 "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. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.3 ACTION SUBMITTALS

A. Substitution Requests During Bidding Process: Submit each request for consideration in PDF format via email to the following email addresses todd.kananen@centrix-partners.com and greg.mizell@centrix-partners.com. 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:
2. Substitution requests must be from the contractor, not the manufacturer.
3. All requests must be submitted to the Construction Manager's Office five (5) days prior to bid date.
4. Substitutions will be reviewed after bid opening.

B. Substitution Requests After Contract Award: Email 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. Documentation: Show compliance with requirements for substitutions and the following, as applicable:

a. Statement indicating why specified product or fabrication or installation method cannot be provided, if applicable.
b. Coordination of information, including a list of changes or revisions 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 substitutions 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. In an appropriate size to make adequate determination of comparable value.
f. Certificates and qualification data, where applicable or requested.
g. Material test reports from a qualified testing agency, indicating and interpreting test results for compliance with requirements indicated.
h. Detailed comparison of Contractor's construction schedule using proposed substitutions 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.
i. Cost information, including a proposal of change, if any, in the Contract Sum.
j. 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.
k. 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.

2. Construction Managers Action: If necessary, Construction Manager will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Construction Manager 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 Construction Manager's Supplemental Instructions for minor changes in the Work.
b. Use product specified if Construction Manager 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 a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.5 PROCEDURES

A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

1.6 SUBSTITUTIONS

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

1. Conditions: Construction Manager will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Construction Manager will return requests without action, except to record noncompliance with these requirements:

    a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
    b. Substitution request is fully documented and properly submitted.
    c. Requested substitution will not adversely affect Contractor's construction schedule.
    d. Requested substitution has received necessary approvals of authorities having jurisdiction.
    e. Requested substitution is compatible with other portions of the Work.
    f. Requested substitution has been coordinated with other portions of the Work.
    g. Requested substitution provides specified warranty.
    h. 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: Construction Manager will consider requests for substitution if received within 30 days after the Notice of Award. Requests received after that time may be considered or rejected at discretion of Construction Manager.

1. Conditions: Construction Manager will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Construction Manager will return requests without action, except to record noncompliance with these requirements:

    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 Construction Manager 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. The substitution request is fully documented and properly submitted.
    e. Requested substitution will not adversely affect Contractor's construction schedule.
    f. Requested substitution has received necessary approvals of authorities having jurisdiction.
    g. Requested substitution is compatible with other portions of the Work.
    h. Requested substitution has been coordinated with other portions of the Work.
    i. Requested substitution provides specified warranty.
    j. 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.

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. Construction Manager will issue supplemental instructions authorizing minor changes in the Work, involving minor adjustments to the Contract Sum; not affecting the Contract Time.

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

1.3 PROPOSAL REQUESTS

A. Construction Manager 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. Work Change Proposal Requests issued by Construction Manager are not instructions either to stop work in progress or to execute the proposed change.

2. Within seven (7) days 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.

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 Construction Manager.

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 Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.

1.4 CHANGE ORDER PROCEDURES

A. On approval of a Work Change Proposal Request, Construction Manager will issue a Change Order for signatures of Construction Manager and Contractor.

END OF SECTION 012600

SECTION 012900

PAYMENT PROCEDURES

PART 1 - GENERAL

- Refer to Exhibit 1, Section 17 – General Terms and Conditions (Exhibit A Subcontractor Master Agreement).

END OF SECTION 012900

SECTION 013100

PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 013100

SECTION 013200

CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 013200

SECTION 013300

SUBMITTAL PROCEDURES

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 013300

SECTION 014000

QUALITY REQUIREMENTS

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 014000

SECTION 015000

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 015000

SECTION 016000

PRODUCT REQUIREMENTS

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 016000

SECTION 017300

EXECUTION

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 017300

SECTION 017700

CLOSEOUT PROCEDURES

PART 1 - GENERAL

- Refer to General Requirements (Exhibit A Subcontractor Master Agreement)

END OF SECTION 017700

DIVISION 23 – SCOPE OF WORK

SECTION 023900

Bid Package #3 – Bid Package -- Direct Digital Control (DDC) (aka Building Management System (BMS) Upgrades

1. **General Requirements**

- The intent of this Scope of Work and any attached supporting documentation including any applicable addenda is to provide the DDC Contractor with general conformance guidelines. DDC Contractor shall be responsible for performing any/all applicable site investigation to ensure that the desired results are achieved. In this case, the desired results are:

    - DDC Contractor shall install new DDC controllers and components currently controlling existing HVAC equipment defined in the existing CTI (ControlPak) drawings by making necessary modifications and **reuse existing wiring and devices where possible** for controlling the existing HVAC equipment. **Bidding DDC Contractor to include a $30,000 allowance (contingency)** for failed valves, actuators, and sensors. Contractors are responsible to track failed valves, actuators, and sensors in a spreadsheet controlled by Centrix. See **Exhibit B. – Existing DDC Controls Drawings –** for listing of buildings and existing equipment to be upgraded from the old Legacy Controls to the existing ALC system.
    - DDC Contractor shall provide all additional materials and installation of DDC controllers, components, wiring, programming, functional system testing, and troubleshooting of new and existing DDC components for interface with the existing HVAC equipment.
    - DDC Contractor to provide all necessary DDC programming associated with the existing equipment to ensure system operation meets the Anchor Bay School District's standard sequence of operations. Reference Exhibit C for typical sequence of operations.
    - DDC Contractor shall ensure any new DDC system components are fully compatible with existing DDC infrastructure and protocols, specifically BACnet MS/TP communication protocol.
    - DDC Contractor shall perform pre-installation site investigation to verify:
        - Existing Legacy system configuration and compatibility
        - Existing DDC (BMS) system configuration and compatibility
        - Available power supply locations and capacities. DDC contractor will be responsible for extending existing power to new control devices as required.
        - Network infrastructure and communication paths
        - Equipment locations and mounting requirements

- DDC Contractor shall obtain all necessary applicable permits and approvals prior to commencement of scope of work.

- DDC Contractor shall provide all necessary labor and materials for complete implementation of DDC (BMS) system and proper disposal of removed equipment (not using owner's dumpsters and/or owner's refuse containers). DDC Contractor to remove and dispose of any and all equipment/controls that are made obsolete by this RFP.

- DDC Contractor shall provide and receive submittal approval prior to ordering any materials associated with this scope of work.

- All work shall be performed in accordance with manufacturer specifications, NFPA 70 (National Electrical Code), state and local codes, and industry best practices.

- Products shall be installed only by qualified personnel experienced in installation of DDC systems and building automation systems, with minimum five years documented HVAC control systems experience, trained, certified, and approved by the system manufacturer.

- Contractor shall verify all dimensions, site conditions, and utility connections prior to installation.

- All materials shall be stored in a clean, dry, and protected environment, per manufacturer instructions.

2. **System Description and Requirements**

- System Overview:
  - Automatic temperature control field monitoring and control system using field programmable microprocessor-based units.
  - Base system on distributed system of fully intelligent, stand-alone controllers, operating in a multi-tasking, multi-user environment on token passing network.
  - System to include central and remote hardware, software, and interconnecting wire and conduit.

- System Components:
  - Control systems consisting of thermostats, control valves, dampers and operators, indicating devices, interface equipment and other apparatus and accessories required to operate mechanical systems.
  - Installation and calibration, supervision, adjustments, and fine tuning necessary for complete and fully operational system.

3. **Acceptable Control System Contractors**

- Company specializing in installation of building control, automation and monitoring systems (a.k.a. DDC systems, Building Management Systems (BMS) or Building Automation Systems (BAS)) and HVAC control systems with minimum five years documented HVAC experience, trained, certified and approved by the system manufacturer.

- Approved (DDC) Digital Control System:
  - Basis of Design
    - Automated Logic Corporation, Inc. (ALC)
    - Others by Prior Approval before receipt of bids

4. **Submittals**

- Product Data: Provide manufacturer cut sheets, specifications, and performance data for each system component and software module.

- Shop Drawings:
  - Trunk cable schematic showing programmable control unit locations and trunk data conductors.
  - List of connected data points, including connected control unit and input device.
  - System graphics indicating monitored systems, data point addresses (connected and calculated), and operator notations.
  - System configuration with peripheral devices, batteries, power supplies, diagrams, and interconnections.
  - Description and sequence of operation of operating, user, and application software. Reference Exhibit C for typical sequence of operations.

- Manufacturer's Instructions: Indicate manufacturer's installation instructions for all manufactured components.

- Project Record Documents: Record actual locations of control components, including control units, thermostats, and sensors. Revise shop drawings to reflect actual installation and operating sequences.

- Operation and Maintenance Data:
  - Interconnection wiring diagrams complete with field installed systems with identified and numbered system components and devices.

- Keyboard illustrations and step-by-step procedures indexed for each operator function.
- Inspection period, cleaning methods, cleaning materials recommended, and calibration tolerances.

- Warranty Certificates: Submit manufacturer's warranty and ensure forms have been filled out in Owner's name and registered with manufacturer.

5. **Controllers and Equipment**

- Application Controllers:
  - Controller Requirements:
    - Provide sufficient memory to support controller's operating system, database, and programming requirements.
    - Share data between networked, microprocessor-based controllers.
    - Controller operating system manages input and output communication signals allowing distributed controllers to share real and virtual object information and allowing for central monitoring and alarms.
    - Utilize real-time clock for scheduling.
    - Continuously check processor status and memory circuits for abnormal operation.
    - Controller to assume predetermined failure mode and generate alarm notification upon detection of abnormal operation.
    - Communication with other network devices to be based on BACnet protocol.
    - Controller to reside on a BACnet network using MS/TP Data Link/Physical layer protocol.
    - Provide service communication port for connection to a portable operator's terminal or hand-held device with compatible protocol.

  - Environmental Ratings:
    - Outdoors and/or in Wet Ambient Conditions: Mount within waterproof enclosures. Rated for operation at 40 to 150 degrees F.
    - Conditioned Space: Mount within dustproof enclosures. Rated for operation at 32 to 120 degrees F.

  - Physical Features:
    - Diagnostic LEDs for power, communication, and processor.
    - All wiring connections to field removable, modular terminal strips, or to a termination card connected by a ribbon cable.

  - Memory: In the event of a power loss, maintain all BIOS and programming information for a minimum of 72 hours.
    - Maintain operation at 90 to 110 percent of nominal voltage rating.
    - Perform orderly shutdown below 80 percent of nominal voltage.
    - Operation protected against electrical noise of 5 to 120 Hz and from keyed radios up to 5 W at 3 feet.

- Application Specific Controllers:
  - Microprocessor-based controllers dedicated to control specific equipment.
  - Customized for operation within the confines of equipment served.
  - Communication with other network devices to be based on BACnet protocol.
  - Controller to reside on a BACnet network using MS/TP Data Link/Physical layer protocol.

- Power Supplies:
  - 120 VAC input, 24 VAC output, 40 VA minimum.
  - Internal over-current circuit breaker or replaceable fuse.
  - Regulation to be 1 percent combined line and load with 100 microsecond response time for 50 percent load changes.
  - Provide over-voltage and over-current protection to withstand a 150 percent current overload for 3 seconds minimum without trip-out or failure.
  - Line voltage units UL recognized and CSA approved.

- Power Line Filtering:
  - Provide external or internal transient voltage and surge suppression component for all workstations and controllers.
  - Minimum surge protection: Dielectric strength of 1000 volts minimum, response time of 10 nanoseconds or less, transverse mode noise attenuation of 65 dB or greater, common mode noise attenuation of 150 dB or greater at 40 to 100 Hz.

6. **System and Controller Software**

- BMS System Software Integration:
  - The BMS system software (head end software) is existing. The new controllers and equipment shall be connected and configured into the existing BMS system. DDC Contractor will be responsible to provide new controllers based on the additional AI/DI points that are being converted from the old Control Pak system to the existing ALC system.
  - Create custom graphics for the new equipment being connected into the existing BMS system.
  - The new equipment shall be connected via BACnet MS/TP to an existing or new BMS controller.
  - Provide for integration of data points from equipment controllers into BMS for remote monitoring and control.

- Controller Software:
  - All applications reside and operate in the system controllers and editing of all applications occurs at the operator workstation.
  - Provide standard application for equipment coordination and grouping based on function and location to be used for scheduling and other applications.

- Alarms:
  - Binary object is set to alarm based on the operator specified state.
  - Analog object to have high/low alarm limits.
  - All alarming is capable of being automatically and manually disabled.
  - Alarms to be routed to appropriate workstation.

- Maintenance Management: System monitors equipment status and generates maintenance messages based upon user-designated run-time limits.

- Anti-Short Cycling: All binary output objects protected from short-cycling. Allows minimum on-time and off-time to be selected.

- On-Off Control with Differential: Algorithm allows binary output to be cycled based on a controlled variable and set-point. Algorithm to be direct-acting or reverse-acting incorporating an adjustable differential.

- Run-Time Totalization: Totalize run-times for all binary input objects. Provides operator with capability to assign high run-time alarm.

7. **Installation Requirements**

- General Installation:
  - Verify existing conditions before starting work.
  - Install control units and other hardware in position on permanent walls where not subject to excessive vibration.
  - Install control components provided with packaged equipment, including but not limited to temperature sensors, CO2 sensors, pressure sensors.

- Power Requirements:
  - Provide 120V AC, 15 amp dedicated emergency power circuit to each programmable control unit.

- The control contractor shall be responsible to provide additional 120V power as required for temperature controls and building automation.
- The control contractor shall be responsible to provide low-voltage power supplies, wiring, conduit, etc. as necessary to power control, metering and monitoring devices.

- Electrical Wiring and Connection Installation:
  - Install signal and communication cable according to DDC system or packaged equipment manufacturer's recommendations.
  - Conceal cable, in mechanical rooms and areas where other conduit and piping are exposed.
  - Install exposed cable in raceway. Wiring and cable in mechanical rooms shall be installed in conduit.
  - Install concealed cable in raceway.
  - Bundle and harness multiconductor instrument cable in place of single cables where several cables follow a common path.
  - Number-code or color-code conductors for future identification and service of control system, except local individual room control cables.
  - Install wire and cable with sufficient slack and flexible connections to allow for vibration of piping and equipment.
  - Low voltage cabling shall be run separate from 120V control wiring.
  - Input and output wiring shall be run in separate conduit systems.
  - Analog inputs shall be run separate from digital inputs.
  - Network cabling shall be run in separate conduit systems.
  - No control wiring splices are allowed.

8. **Warranty**

- Provide manufacturer's standard warranty for each product (minimum 1-year DDC Subcontractor warranty for installation workmanship).

- Correct defective work within a one-year period after Substantial Completion.

- Any defective work as part of this scope, including improper installation or equipment failure, shall be removed and replaced by DDC Subcontractor at no cost to the Owner.

9. **Commissioning and Testing**

- Start and commission systems. DDC Contractor is to include point to point commissioning to verify physical inputs and outputs and programming of sequence of operations. Centrix will provide 3rd party commissioning to verify system operation. Allow sufficient time for start-up and commissioning prior to placing control systems in permanent operation.

- Demonstrate complete and operating system to Contractor and Owner (or Owner's Representative). As part of the commissioning and testing requirements, Subcontractor shall set up run status, space temperature and humidity points in trend mode to allow trend analysis during and after initial system commissioning.

- Control & Safety System Testing:
  - Control sequence verification and programming validation.
  - Safety device testing, recording device setpoints with actual values listed (inches WC, temperature, etc).
  - Network communication testing.

- System Integration Testing:
  - Full system startup reports for all controllers.
  - Load testing under various operating conditions.
  - Witness testing with owner's representative.
  - Test result documentation and certification.

10. Training

DDC Contractor to provide two training sessions of four hours each to the Anchor Bay School District Staff. The two training session shall be conducted in different operating seasons. (one training session for winter, and one training session in summer). Coordinate scheduling with school district staff.

11. **Maintenance**

- Provide service and maintenance of energy management and control systems for one year from Date of Substantial Completion.
- Provide two complete inspections, one in each season, to inspect, calibrate, and adjust controls as required, and submit written reports.

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