

MIDDLETON ASSOCIATES INCORPORATED
ARCHITECTURAL SERVICES
1702 W. COLLEGE AVE., SUITE E, NORMAL, IL 61761-2793
309/452-1271 FAX 309/454-8049
E-MAIL: rand@miltonassociates.net
Website: www.miltonassociates.net

SPECIFICATIONS FOR LABOR AND MATERIALS

FOR

**UNIT 5 INDOOR AIR QUALITY (IAQ) IMPROVEMENT
28 BUILDINGS**

FOR

McLEAN COUNTY UNIT DISTRICT NO. 5
MAINTENANCE OFFICE: 1999 EAGLE RD., NORMAL, IL 61761
DISTRICT OFFICE: 1809 W. HOVEY, NORMAL, IL 61761

PROJECT NUMBER: 25492321

ISSUE DATE: MARCH 17, 2021

PRE-BID: A Pre-Bid Meeting is not being scheduled due to the number of buildings in this project. See floor plan of each building.

SITE VISITS: Arrange ahead with Architect if necessary

BID DATE: Thursday, April 8, 2021 – 9:00 a.m. prevailing time
Maintenance Office
1999 Eagle Road
Normal, Illinois 61761

PRE-CONSTRUCTION: Tuesday, April 22, 2021 – 9:00 a.m. prevailing time.
Maintenance Office
1999 Eagle Road
Normal, Illinois 61761

SPECIFICATION BOOKLET NO. _____



Expiration Date
11/30/22


[Seal and Signature]

DIVISION 00 – BIDDING & CONTRACT REQUIREMENTS
Section 00 01 10 – Table of Contents

PROJECT: Unit 5 Indoor Air Quality (IAQ) Improvement – 28 Buildings

FOR: McLean County Unit District No. 5
1809 W. Hovey
Normal, IL 61761

SUPERINTENDENT OF SCHOOLS: Dr. Kristen Weikle

ARCHITECT: Middleton Associates Incorporated
1702 W. College Avenue, Suite E
Normal, IL 61761-3028
309/452-1271 FAX 309/454-8049
e-mail: rand@middletonassociates.net
website: www.middletonassociates.net

A/E PROJECT NO: 25492321

ISSUE DATE: March 17, 2021

DIVISION	SECTION	TITLE	PAGES
0		PROCUREMENT REQUIREMENTS	
	00 01 10	Table of Contents.....	00 01 10-1- 3
	00 11 16	Invitation for Bids	00 11 16-1- 1
	00 21 13	Instructions to Bidders	00 21 13-1- 16
	00 22 13	Supplementary Instructions	00 22 13-1- 5
	00 24 13	Scope of Bid.....	00 24 13-1- 2
	00 30 00	Project Schedule and Terms.....	00 30 00-1- 2
	00 40 00	Bid Form.....	00 40 00-1- 2
	00 40 10	Voluntary Alternate & Substitution Form	00 40 00-1- 1
	00 41 13	Award & Contract Form	00 41 13-1- 1
	00 70 00	General & Supplementary Conditions	00 70 00-1- 8
1		GENERAL REQUIREMENTS	
	01 01 00	Summary of Work	01 01 00-1- 5
	01 01 00	Attachment: Unit 5 School Calendar	01 01 00-1- 2
	01 04 00	Field Engineering	01 04 00-1- 6
	01 04 50	Cutting & Patching	01 04 50-1- 3
	01 05 50	Anchorage & Fastenings	01 05 50-1- 4
	01 25 00	Substitutions & Product Options	01 25 00-1- 3
	01 30 00	Project Management.....	01 30 00-1- 4
	01 33 00	Submittal Procedures	01 33 00-1- 3
	01 35 16	Alteration Project Procedures.....	01 35 16-1- 4
	01 42 16	Definitions	01 42 16-1- 2
	01 50 00	Temporary Facilities & Controls	01 50 00-1- 4
	01 78 00	Project Closeout.....	01 78 00-1- 2

	HEATING, VENTILATING AND AIR-CONDITIONING (HVAC)	
23 0920	Instrumentation/Devices for HVAC	23 0920-1- 7
23 4133	High Efficiency Particulate Filtration	23 4133-1- 1

DRAWINGS:

T1.0	Title Sheet – Job Information – Job Location
G1.0	Sheet Index
G1.1	General Project Notes
G1.2	Facility Directory
G1.3	Facility General Location Map
A1.0	Benjamin Elementary School First Floor Plan
A1.1	Benjamin Elementary School Second Floor Plan
A2.0	Brigham Elementary School – Early Learning Center Floor Plan
A3.0	Carlock Elementary School First/Basement Floor Plan
A4.0	Cedar Ridge Elementary School First Floor Plan
A4.1	Cedar Ridge Elementary School Second Floor Plan
A5.0	Colene Hoose Elementary School Floor Plan
A6.0	Fairview Elementary School Floor Plan
A7.0	Fox Creek Elementary School Floor Plan
A8.0	Glenn Elementary School Floor Plan
A9.0	Grove Elementary School Floor Plan
A10.0	Hudson Elementary School Basement/First/Upper Stage Floor Plan
A11.0	Northpoint Elementary School Floor Plan
A12.0	Oakdale Elementary School Floor Plan
A13.0	Parkside Elementary School Floor Plan
A14.0	Pepper Ridge Elementary School Floor Plan
A15.0	Prairieland Elementary School Floor Plan
A16.0	Sugar Creek Elementary School First Floor Plan
A16.1	Sugar Creek Elementary School Second Floor Plan
A17.0	Towanda Elementary School
A18.0	Evans Junior High School First Floor Plan
A18.1	Evans Junior High School Second Floor Plan
A19.0	Kingsley Junior High School Floor Plan
A20.0	Parkside Junior High School South Floor Plan
A20.1	Parkside Junior High School 1999 Addition Plan
A21.0	Normal Community High School First Floor Plan (West)
A21.1	Normal Community High School First Floor Plan (East)
A21.2	Normal Community High School First Floor Plan (South)
A21.3	Normal Community High School Second Floor Plan (West)
A21.4	Normal Community High School Second Floor Plan (East)
A21.5	Normal Community High School Second Floor Plan (South)
A22.0	Normal Community West High School First Floor Plan (South)
A22.1	Normal Community West High School First Floor Plan (North)
A22.2	Normal Community West High School First Floor Plan (East)
A22.3	Normal Community West High School Second Floor Plan (South)
A22.4	Normal Community West High School Second Floor Plan (North)
A22.5	Normal Community West High School Second Floor Plan (East)
A23.0	Central Warehouse Floor Plan
A24.0	District Office Floor Plan
A25.0	Eagle Road Resource Center Floor Plan
A26.0	Eugene Field Special Service Center Floor Plan
A27.0	Transportation Facility – Kern Street Floor Plan
A28.0	Transportation Facility – Eagle Road Floor Plan

DOCUMENT LIABILITY

Middleton Associates Incorporated, expressly retains the copyright dated 2021 pursuant to adaptation and reuse, of any material, information, ideas, procedures, details, instructions and design configurations set forth in these project documents, for other than the limits and scope of this project, with or without the knowledge of Middleton Associates Incorporated. Any party or person violating this copyright shall bear all liability that may occur from use or misuse of such information. Permission is granted to copy and distribute these documents only for preparation of proposals and/or execution of a contract for this Project No. 25492321

END 00 01 10

DIVISION 00 – PROCUREMENT REQUIREMENTS
Section 00 11 16 – Invitation for Bids

Sealed proposals will be received by: McLean County Unit District No. 5

For Project: **Unit 5 Indoor Air Quality (IAQ) Improvement – 28 Buildings**

Proposals to be submitted prior to **9:00 a.m., prevailing time, Thursday, April 8, 2021**

Submit to: Maintenance Office
1999 Eagle Road
Normal, IL 61761

Pre-Bid Meeting: **A Pre-Bid meeting is not scheduled due to the number of buildings in this project. See floor plan of each building.**

Proposals shall be delivered to the above McLean County Unit District No. 5 Office prior to the time of opening. Proposals shall be clearly identified on the outside of the envelope as "Sealed Proposal" and list the project title as shown above. Immediately following the stated time, proposals will be opened and publicly read.

Terms of the proposal:

- Bid Security is required, 5% Bid Bond payable to McLean County Unit District No. 5
- Owner protective bonds are required in the amount of 100% of the Contract value.
- Illinois Prevailing Wage Act P.A. 86-799 and Illinois Certified payroll reporting P.A. 094-0515 apply to this contract.
- Revised Statutes of the Illinois Criminal Code, apply, including the School code.
- E-mail proposals received prior to bid due date and time will be read at bid opening. See specification section 002113 Paragraph 2.6.A.5.

The Board of Education has the right to reject or accept any or all parts of all bids submitted and to waive any irregularities in the bidding and to accept the lowest responsible bid.

Plans and specifications prepared by the Architect, Middleton Associates Incorporated, 1702 W. College Avenue, Suite E, Normal, Illinois 61761-2793, Phone 309/452-1271, FAX 309/454-8049. Plans and specifications may be reviewed without deposit at the office of the Architect or McLean CUSD No. 5, Maintenance Office, 1999 Eagle Road, Normal, IL 61761. Sets may be purchased directly from The Copy Shop in Bloomington, phone 309/827-5466.

END 00 11 16

DIVISION 00 – PROCUREMENT REQUIREMENTS

Section 00 21 13 – Instructions to Bidders

1. GENERAL

1.1. QUALIFICATION

- A. Competency and responsibility of the Bidder, and of their proposed subcontractors, may be considered in making awards. Determination of responsibility prior to award may include:
1. A detailed statement regarding the business, technical organization, crew availability and evidence of capability for the work that is contemplated.
 2. Evidence of successful experience of personnel and previously completed construction projects
 - a. Contractor and personnel, five years or more commercial construction experience, including recent projects of similar or greater value, similarity of types of work, technical content, and complexity
 - b. Evidence that recent projects as described above have been scheduled and delivered on time, aggressively pursued to conclusion without delay.
 - c. Experience does not include frivolous claims for additional costs, or work requiring abnormal or extensive corrections.
 - d. Evidence that equipment was properly installed and started and functioned without abnormal warranty calls for installation related problems.
 - e. Evidence that the contractor coordinated with the Owner, scheduled work in a progressive manner to allow Owner reasonable access to get facilities ready for occupancy in a timely manner.
 - f. Evidence that phased projects have been completed without loss of services between phases.
 3. Information pertaining to the financial resources of the contractor to pursue the work may be considered prior to making the award:
 - a. Evidence of financial resources to cover retainage, meet payrolls, contract for and acquire or pre-pay materials. Resources and Contractor net worth available to this project less than 35% of the contract award may be grounds to disqualify the bid.
 - b. Evidence of unpaid bills, unresolved liens, outstanding claims by the Department of labor for wage, benefits or workman compensation violations or failure to provide accurate payroll information.

2. PROJECT SUMMARY

2.1. EXAMINATION OF DOCUMENTS, SITE AND WORK INCLUDED

- A. LOCATION OF THE PROJECT: McLean County Unit District No. 5
1. 28 buildings district inclusive
- B. PRE BID MEETINGS
1. **A Pre-Bid Meeting is not scheduled due to the number of buildings in this project. See floor plan of each building.**
 2. Buildings may be available for inspection after 4:00 p.m. on school days, or all day on no school days when staff is available.
 - a. Call ahead to schedule. Maintenance Office, phone 309/530-1283, Thomas Rockwell or call Architect
- C. EXAMINATION OF SITE AND CONTRACT DOCUMENTS
1. Bidder shall carefully examine bidding documents and inspect the site to obtain first-hand knowledge of existing conditions.
 2. Access may not be available on short notice.
 3. Do not ask for directions or interpretations of the work during these visits unless in combination with a pre-bid meeting, you may discuss the work but if any clarifications or questions become evident these must be handled through the A/E and no change to the project requirements will result from verbal clarifications of the work during a visit.
 4. Each Bidder, by submitting his bid, represents that he has examined the bidding documents, inspected the site and premises, compared task requirements and time constraints to installation conditions and that he understands the obligations of the bidding documents. By providing a proposal he is certifying that he has familiarized himself with the local conditions under which the work is to be performed. Bidders will not be given extra payment or contract time for conditions that could have been determined by on site examination.
- D. INTERPRETATION OF DOCUMENTS
1. Anyone having a doubt concerning the meaning of the Contract Documents, or any other questions, may submit a request for interpretation from the Architect/Engineer. All pre-bid interpretation shall be requested not later than FIVE (5) DAYS prior to the bid due date. Response, other than minor clarification, will be in the form of Addenda and will be mailed to each Bidder.
 2. It shall be the Architect/Engineer's responsibility to clarify conflicts in requirements as may be reported to the Architect/Engineer. After bid due date, the Architect/Engineer shall determine the course to be followed for said clarification with no cost change to the Owner.
- E. ADDENDA
1. Addenda may be issued before the bid opening date to clarify or modify the Contract Documents. Addenda are posted at

www.middletonassociates.net

2. Addenda will be issued electronically. Email address is required to receive addenda.
3. If you have not registered your interest in the bid with the Architect, and do not receive or seek out the addendums then failure to recognize any Addendum may disqualify the bid.
4. Said addenda shall become a part of the Contract documents and supersede any conflicting specifications and/or clarify intent of same.

F. INTENT, ERRORS AND OMISSIONS

1. Any known conflict between requirements of various portions of the Contract Documents shall be reported to the Architect/Engineer prior bid due date and shall fall under the authority of Interpretation of Documents.
2. The Drawings are descriptive and directive in concept and are not intended to exhaust all detail situations required to complete the work. The procedures detailed shall establish the general character of solutions needed for typical, non-typical, and peculiar situations at the job site.
3. It is the intent of the documents that specified work and equipment be installed in a proper and finished manner, fully operational, at a minimum of generally accepted standards for good quality commercial construction. All necessary materials, labor, controls, accessories, brackets, fasteners, sealants, etc., to properly install and complete the work shall be provided unless specifically noted otherwise.
4. Each Contractor and Subcontractor shall coordinate and cooperate with the other Contractors to provide proper installation. Verify dimensions, services, installation conditions, obstacles to the work and modifications necessary to complete the work and coordinate the fit, finish and scheduling of the work.

G. DOCUMENT INTENT, PROJECT COMPLETION, FITTING AND FINISHING FULLY FUNCTIONAL, USER READY

1. It is the intent that all items of work included in the project are to be completely finished and all necessary associated components and accessories for proper completion are to be included in the work.
2. Drawings are schematic in nature; every single element needed is not necessarily labeled, dimensioned or positioned. Unless specifically exempted, the Contractor shall provide as follows:
3. Good quality fit, finish and workmanship at a level of competency and quality equal to or exceeding commercial construction in the area.
 - a. Sealants, caulks, flashings, transitions, closures and components to assure infiltration and weather tight result and finished appearance inside and out.
 - b. Sealants, flashings, closures at building connections.
 - c. Upper and lower flashings, in new construction and

whenever possible, to shed water outward.

4. All components and assemblies to assure proper installation and performance of manufactured equipment, per manufacturer's or industry association standards as a minimum.
 - a. Mechanical equipment, plumbing, piping, ventilation, valves back checks, connections etc.
 - b. Mechanical and electrical coordination, coordination of installation locations, hidden where possible, routed through the construction in the most expedient but concealed manner,
 - 1) Minor relocation of piping, equipment, installations shall be provided without cost change within 10' either way or reasonable pathways of similar distance.
 - c. All other equipment, kitchen, doors, hardware, windows and any other operable equipment
 - d. Service access, filters, repairs always allow for reasonable repair and maintenance access.
5. Proper protection of dissimilar materials or components for bond problems, galvanic action, movement, moisture, and/or chemical reaction.
6. New finished appearance for all new work and work abutting existing where applicable.
7. Code compliance:
 - a. All equipment and installations.
 - b. Electrical NEC, circuit protection, grounding, disconnecting means, GFI, and installation practices
 - c. Water, back checks, vacuum breakers, back flow preventers, service valves, hammer arrestors, expansion tanks.
8. Construction assembly details, setting forth special requirements, keyed to a specific section, detail or I.D. number, shall be considered applicable to similar assemblies throughout the contracted work unless specifically designated otherwise.

2.2. DRAWINGS & SPECIFICATIONS

A. OBTAINING INFORMATION

1. Drawings and Specifications may be reviewed at the office of the Architect, Middleton Associates Incorporated, 1702 W. College Ave., Suite E, Normal, IL 61761-2793, Telephone 309/452-1271, Fax 309/454-8049.
2. Contractor may purchase documents directly from The Copy Shop in Bloomington, or print on-line.

3. To obtain documents provide the A/E all contact information as well as an email address for delivery of addendums and bidding information during the bid period.
4. Method of document distribution is at the option of the Owner and the Architect whether it is paper, or digital.

B. RETURNING DOCUMENTS

1. All documents remain the property of the Architect and shall be promptly returned after the bidding. The low bidder may keep documents and sub bidders may retain same until awards have been made.
2. Failure to return documents within 20 days after bidding will result in loss of deposit or compensation will be required for the replacement cost in the event there was not a plan deposit.

2.3. ALTERNATES

- A. The Bidder shall submit a proposal for every alternate listed in the Contract Documents. Failure to provide alternate prices may disqualify the bid.
1. No alternates unless added by Addendum

2.4. BID SECURITY

- A. The Bidder shall furnish bid security, along with his proposal:
1. Form of security to be bid bond or certified check payable to the Owner.
 2. Amount 5% of the base bid proposal
 3. Said security shall serve as a guarantee that the Contractor will enter into the Contract with the Owner as per his bid and the contract terms should the job be awarded to him.
- B. Should said Contractor refuse or fail to enter into a Contract with Owner per his bid for the work included in these Contract Documents within fifteen days following notification of award and/or receipt of a contract for signature, said bid security shall become collectible, in full, by the Owner in payment for damages.
1. Failure to enter into an agreement shall mean failure to return or submit:
 - a. A signed agreement.
 - b. Owner's protective bond(s) for Labor, materials and performance.
 - c. Approved subcontractor/supplier lists.
 - d. Certificates of insurance within stated time period.
 - e. Evidence that this contractor intends to pursue this contract in a timely and deliberate manner, including ordering of

materials and committing or arranging for necessary manpower to accomplish the work.

2.5. WITHDRAWAL OF BIDS

- A. Bids may be withdrawn by an authorized person prior to the bid due date and time, after which time no bids may be withdrawn for a period of forty-five (45) days unless a Bidder has been released by the Owner's action.
- B. Authorized person shall mean an Owner or Officer of the Contractor offering the proposal or other evidence of authority.

2.6. PROPOSAL (BID) FORMS

- A. Each bidder shall submit his proposal, on proposal form provided.
 - 1. Submitted bid forms may be copied
 - 2. All applicable blank spaces on forms shall be filled out fully.
 - 3. Numbers shall be stated in writing where noted and in figures.
 - 4. Signatures shall be live in longhand by person authorized to sign bids as Owner or corporate officer or shall include Power of Attorney to sign the bid.
 - 5. **Proposals may be emailed to Joe Adelman (adelmanj@unit5.org) and copy sent to Martin Hickman (hickmanms@unit5.org). BIDS RECEIVED PRIOR TO THE BID DUE DATE AND TIME will be read at the Bid Opening. Bids sent by email prior to Bid Opening will be retained on the respective computer until Bid due time.**
- B. Completed forms shall be without delineation, clarification, alteration or modification.
 - 1. Correction of contractor inserted is acceptable if clearly identified and initialed by the signatory to the bid. Irregularities of such corrections may be grounds to disqualify the bid.
 - 2. Offers to clarify or modify may be made on voluntary alternates and substitution forms if provided in the bid package, but in no case should the base bid or requested alternate bids offered be based on anything but the document requirements.
- C. Voluntary alternates or offers for substitutions may be attached on forms provided or on the bidder's letterhead. These will be considered at the Owners option. Additional information may be requested prior to consideration.
 - 1. Voluntary alternates or substitutions cannot and will not affect or change the Base Bid Proposal. Voluntary alternates and/or substitutions will be implemented after the low bid proposal is accepted if the voluntary alternate and/or substitutions is beneficial to the owner.

2.7. AWARD OR REJECTION OF BIDS

- A. Although it is the intention of the Owner to accept the lowest qualified bid the Owner specifically reserves the right to waive all formalities and/or informalities, to reject any and all bids and/or accept the bid that, in the Owner's judgment is the lowest responsible bid.
- B. Contractor will note all alternates that are applicable, or as may become applicable by addendum, should be bid. Failure to bid an alternate may be grounds to disqualify the proposal, at the Owners discretion.
- C. Should the time for award exceed the time stated for the proposal's expiration period, the Owner reserves the right to continue to negotiate with bidders in the line of award succession as a prior option rather than re-bid.

2.8. RETURN OF BID SECURITY

- A. After bids have been read along with alternates as applicable and a successful Bidder has been approved by Owner, a Letter of Intent will be sent to the successful bidder and bid security may be returned to the unsuccessful bidders except the deposits of the two (2) most advantageous bidders will be retained until Owner/Contractor agreements have been consummated.
- B. Following the signing of the Contracts and receipt of bonds, remaining bid security will be returned. If the successful Bidder fails to accept the Contract and submit acceptable bonds, same will be grounds for forfeiture of his bid security.

2.9. OWNER'S PROTECTIVE BONDS: A 100% of value Labor and Material Payment Bond and Performance Bond including all alternates accepted is required in the Contract and shall be included in the Contractor's Proposal

- A. Periodic Change Orders that may occur to the Contract shall be included in each respective bond.
- B. Bonds shall cover the entire Contract without regard to the Contractor's assignment of work of Subcontractors or Suppliers.
- C. Inclusive of all awarded Alternates accepted.

2.10. CONTRACT AWARD

- A. The Owner will make an award based on the selection of the lowest cost responsible bidder. After award is approved by the Board of Education, the contract timeline is as follows:
 - 1. The Architect will fill in the Contract Form of Agreement (specification section 00 41 13). The Architect will obtain the signature of the person designated by the Board of Education.
 - 2. The Architect will send three (3) Forms of Agreement, and the

Contractor shall sign all, keep one (1) for their file, send two (2) back to Architect. This shall happen within seven (7) calendar days of the date of award.

3. When the Contractor has signed both copies of the Form of Agreement, the project starts.
4. The Contractor shall immediately obtain Proof of Insurance, Labor and Materials, Payment and Performance Bonds. All of the above to be completed fifteen (15) days after award.
5. Master Cost Breakdown (CVS), thirty (30) days after award.
6. Proposed Schedule and timeline: Contractor to present at Pre-Construction meeting, fifteen (15) days after award.
7. Contractor to send Shop Drawings and Catalog Cuts/Samples or bring same to Pre-Construction meeting.

- B. Failure or refusal to provide the preceding Contract information in a timely manner may be cause for cancellation of the award or termination of the agreement if signed and the Owner will be entitled to compensation under the terms of the Bid Security for failure to execute contract terms in good faith.

2.11 SCHEDULING

A. Contractors' Master Schedule

1. The Contractor shall prepare and maintain a Master Schedule, including the work of all sub contractors.
2. Upon preparation of a detailed schedule, same shall be reviewed by the Architect and the Owner. Once accepted, it shall become the basis for determining the on time progress of the work.
 - a. Provide manpower crews, overtime double shift, and equipment as needed to maintain the schedule. The Owner will not authorize additional payment for overtime or additional manpower needed to maintain, achieve, or make up time to meet the schedule. The General Contractor shall notify the Architect and the Owner promptly of any deficiency in performance, which is unacceptably impacting the schedule or delaying progress, and provide a plan of action to regain performance to meet the schedule.
 - b. The Subcontractor(s) shall immediately notify the General Contractor, in the event any trade area Contractor's progress is impeding their ability to maintain the schedule.
 - c. The Prime Contractor shall immediately provide notification of this report to the Architect and the Owner and shall include a plan of action to regain schedule.

B. Construction Schedule

1. Material acquisition may begin immediately following Award.
2. Schedule material and equipment for timely delivery.
3. Material delivery to site and beginning of on-site construction will be

discussed at the Pre-Construction meeting scheduled for April 22, 2021 at 9:00 a.m. at the Unit 5 Maintenance Office.

C. Manning the work

1. Contractors shall work full crews or partial crews as indicated in the schedule developed for paragraph 2.11. A.

2.12. COMMENCEMENT OF CONSTRUCTION

A. Contractor shall not commence work until the agreement has been executed by both Owner and Contractor and Insurance Certificate and Owner's Protective Bonds have been accepted by the Owner and the Architect.

1. **All insurance certificates shall specifically list McLean County Unit District No. 5 and the Architect, Middleton Associates Incorporated and their consultants and sub-consultants to the work, as added insureds or named insureds.**
2. **Work can begin on non-Geothermal buildings when material is available (approximately May 1). Start date for Geothermal buildings will be approximately June 1, 2021.**
3. The start date of the project will be confirmed at the Pre-Construction Meeting. Substantial completion date will be August 16, 2021.
4. Work can be done at all times when students are not in the building during regular class attendance times. This would be from 8:15 a.m. to 4:15 p.m. during the regular school attendance days.

2.13. ALLOWANCE

A. **The Contractor shall include in his bid an allowance of \$5,000 for additional time and material due to unforeseen conditions or as directed and approved IN WRITING by the Owner and A/E. \$5,000 to be added to the bid.**

B. This is not for assignment or use by the Contractor or Subcontractors for any work that either perceives as additional effort unless the Owner is in concurrence IN WRITING.

1.14. PROGRESS PAYMENTS

A Pay Requests must be approved by the Architect / Engineer and the District Executive Director of Operations, Joe Adelman. Submit all Pay Requests to the Architect, five (5) business days before the end of each month. Pay Requests will be accepted once per month.

1. There are 28 buildings in this project. Do not invoice owner for partially completed work or separate. Payments may be submitted for buildings where labor work is completed. Partial material bills may be submitted.

B. Payment will be made within thirty (30) days following approval.

- C. In accordance with the terms of the Contract periodic partial progress payments may be made monthly to the Contractor for: 90% of the value of the labor, materials, and/or equipment incorporated in the construction. Payment will be for installed materials only.
- D. After Contract award and before commencement of work, the Contractor shall submit a complete master cost breakdown. Said cost breakdown shall be used by the Owner only for the purpose of checking and certifying requests for payment.
- E. Pay requests shall indicate amounts completed of all items listed from the master breakdown.
- F. Submit notarized Contractor's affidavits with each pay request showing that total owed on Contract by Owner (after subject request has been paid to Contractor) is more than the amount to become due the Contractor for material, subcontractors and labor.
 - 1. 10% of each request will be retained by Owner until work has been satisfactorily completed. After 75% of the Contract has been satisfactorily completed retainage reduction will be considered.
- G. All the applications for payment shall be made in two (2) copies with all copies bearing live seals and signatures, notarized and complete and accurately filled in.
 - 1. See AIA General Conditions, Paragraph 9.3.1, 9.3.2 and 9.3.3.
 - 2. Applications for payment shall be submitted to Architect/Engineer on AIA G-702A Forms.
 - 3. EACH SUCCESSIVE PAY REQUEST SHALL BE ACCOMPANIED BY PARTIAL WAIVERS OF LIEN, DOLLAR FOR DOLLAR MATCHING THE PRECEDING PAY REQUEST.
 - 4. Attach one (1) copy of Contractor's Payroll with Pay Request in accord with Dept. of Labor requirements. Include Payroll for the major Subcontractors and upon request any minor or intermittent on-site Subcontractor.

1.15. CHANGE ORDERS

- A. Changes to the scope of work may occur after Contract Award. Contractor may initiate a Change Order by send an RFI to the Architect. The Architect and Owner may initiate a Change Order by verbal or written inquiry to the Contractor.
- B. When a change to the scope must occur the following procedure shall apply:
 - 1. The Change Order may be indicated as a fixed price or time and material. In all cases a written summation of work to be done shall be submitted to the Architect or written by the Architect. In all case the Contractor shall be provided a signed Letter to Proceed before

- accruing any expenses toward the Change Order.
2. The Architect will try to provide the Letter to Proceed within twenty-four (24) hours of the time of origination of the request.

C. Cost of Change Orders

1. Cost of Change Orders shall be broken down into Labor, Material and Mark-up.
2. The Mark-up will include a percentage of the cost of Labor and Material and shall include everything (bonds, insurance, project management, overhead and profit, etc.). Mark-up allowed is:
 - a. Prime Contractor on own labor and materials – maximum 15%.
 - b. Subcontractor on own labor and material – maximum 15%.
 - c. Prime Contractor on labor and material of Subcontractor – maximum 7.5%.
 - d. Change Orders may be by T & M with above add-on.

2.16. LIST OF SUBCONTRACTORS AND SUPPLIERS

- A. Within seven (7) business days after notification of intent to award, and prior to the Contract being signed, the Contractor shall submit to the Architect/Engineer, a list of proposed subcontractors and major equipment suppliers and other persons or organizations to be assigned part(s) of the contract.
- B. This list is subject to the review and approval of the Owner. Basis for this review may include supporting evidence the proposed Subcontractor or Supplier has experience and adequate resources to accomplish the assigned responsibilities on time and in compliance with the requirements.
 1. The Owner reserves the right to request justifiable changes in the list.
 2. The changes requested are intended to be made at no additional cost to the Owner.
 3. If it is not possible to make requested changes at no additional cost, the Owner reserves the right to terminate the award and negotiate with the next successive bidder based on his original proposal.

2.17. MATERIALS SPECIFIED AND QUALITY OF WORK

- A. Materials shall be as specified or approved equal.
 1. Approved equal" and "or equal" shall mean that the Contractor shall be required to receive the approval (via the Architect) on any substitute materials.
 2. Requests for substitution approval shall be submitted to the Architect/Engineer, seven (7) days prior to the bid due date.
 3. Prior to considering substitutions, the Owner and/or the Architect/Engineer may require submission of samples, descriptive,

technical and catalog data and lab reports of tests for verification of equivalency.

4. If approved and selected, all adaptations to fit and accommodate the substitute or equal equipment including coordinating other trades is the responsibility of the Contractor requesting the change.

2.18 PROJECT ACCESS: The Contractor shall be aware that the Town/City, Township, County or State has authority over various approach roads for site access and the Contractor is responsible to:

- A. Observe load limits and arrange for any exceptions to load restrictions that may be required for this project.
- B. Make arrangements for road cleanup, barricades and surface patches and repairs shall comply with applicable regulations and be subject to the governing authority approval.

2.19. EQUAL OPPORTUNITY EMPLOYMENT: The following clause is applicable unless this Contract is exempt under the rules and regulations of the Secretary of Labor of the State of Illinois.

- A. During the Performance of this Contract, the Contractor agrees as follows:
 1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age or national origin. The Contractor will take affirmative action to ensure that all applicants are considered and that employees are treated, during employment, without regard to their race, color, religion, sex, age or national origin."

2.20. ILLINOIS DEPARTMENT OF LABOR AND LABOR RELATED REQUIREMENTS

- A. IDLR regulations apply to all work on site without exception.
- B. Publicly funded projects or projects managed by Public Bodies require the following:
 1. PREVAILING WAGE 820 ILCS 130/4: The Contractor shall pay and shall require his subcontractors to pay the prevailing hourly wages as is determined by the Illinois Department of Labor pursuant to the Illinois Prevailing Wage (820 ILCS 130/1 et. seq.) included at the end of this section.
 2. CERTIFIED PAYROLL REPORTS: Will be required with each successive pay application for payroll periods preceding the application date.
 3. SUBSTANCE ABUSE PREVENTION ON PUBLIC WORKS 820 ILCS 265: All Contractors must be prepared to certify upon request that they have complied with the Illinois Substance Abuse Act,

including a written program that meets or exceeds the requirements of this act for the prevention of substance abuse among its employees.

2.21. SALES TAX

A. Materials supplied to a public school district are exempt from state sales taxes. The Contractor shall determine the extent of exemption and shall comply with the regulations established by the Illinois Department of Revenue.

1. Sales tax exemption number for Unit District No. 5 is: E99949091

2.22. TOBACCO AND ALCOHOL FOR CONSUMPTION PRODUCTS

A. Smoking, chewing, tobacco use; shall not be permitted anywhere on public school property by State Statute.

B. Alcoholic beverages, controlled substances, unauthorized prescription medication are not allowed on school property.

1. Working under the influence of any of the above and/or a legal prescription that causes impairment is not allowed.

C. Violators may be removed from the job sites subject to conditional return privileges in the future.

D. The Contractor shall comply with 820 ILCS 265/. The Contractor shall have a place in a written program that meets the requirements of the ACT.

2.23. SUBSTANCE ABUSE PREVENTION ON PUBLIC WORKS PROJECTS

A. The Contractor shall comply with 820 ILCS 265/ which establishes a process for Drug Abuse on Public Projects. The Contractor shall have in place a written program that meets the requirement of this Act.

1. Should evidence that a Contractor, or a Contractor's employee, has harassed staff, student or other individuals, that employee shall be removed from the job site permanently or until such time that the circumstances have been determined to have been resolved satisfactorily.

2.24. SEXUAL HARASSMENT POLICY

A. The Owner will not tolerate sexual harassment in any form. Sexual harassment is defined, for the purpose of this policy, as "unsolicited, deliberate or repeated sexually derogatory statements, gestures or physical or implied physical contact that cause discomfort or humiliation. Sexual harassment may involve pressure from a person of either sex against a person of the opposite sex or same sex . . ."

1. Should evidence that a Contractor, or a Contractor's employee, has harassed staff, student or other individuals, that employee shall be removed from the job site permanently or until such time that the circumstances have been determined to have been resolved satisfactorily.

2.25. BACKGROUND INVESTIGATION AND SEX OFFENDERS ON SCHOOL GROUNDS

- A. Illinois Criminal Background checks are applicable to this Contract. The Contractor or subcontractor shall only send construction workers to the site that have successfully passed an Illinois Criminal Background check, per 105 ILCS 5/10-21.9 and 105 ILCS 5/14-7.02
- B. The Contractor shall provide:
 1. Prior to start of work; maintain a list available to the Owner of all the employees who will be or are anticipated will be employed on site. This list shall be updated when new persons not originally listed will be working on site. This list shall also include names of personnel employed by subcontractors.
 2. Persons temporarily on site such as truck drivers or employees making deliveries do not need to be listed, but the Owner reserves the right to request a background check.
 3. Provide an affidavit to the Owner that the Contractor or his subcontractor has performed an ISP approved background check by name on all personnel on site.
 4. Copies of employee lists and affidavits shall be promptly provided to the owner upon request.
- C. The Contractor shall not knowingly employ on school grounds any person who has not signed or will not sign an authorization for a criminal background check.
- D. The Owner or Regional Office of Education, reserves the right to run fingerprint background checks on any or all employees on site, randomly or specifically, and the cost of this check will be borne by the Owner. Upon request, provide information, which will not be shared, as needed to complete checks. This may include SSN, home addresses, fingerprint, address, etc. and any alias or former names used.
- E. The Contractor shall assume the responsibility to notify all on site employees or potential employees of this provision, and of the consequences of this provision.

2.26. BUILDING PERMITS

- A. This project is exempt from local permit fees associated with the construction.
 1. This Contractor shall fully cooperate with the local authorities and

shall apply for and obtain all required permits and comply with local regulations and requirements. Only the fee is exempt.

2. Provide necessary permit related information to local city authorities.
3. Architect will provide Drawings and Specifications to Town of Normal Building Safety Dept.
4. Architect will assist Owner in obtaining a Building Permit from the Regional Office of Education, DeWitt, Livingston, and McLean Counties.

2.27. CONTRACT DOCUMENTS CHECK LIST

A. Proposal

1. Proposal Form properly filled out and signed, (live signatures)
2. Bid Bond/Bid Security for 5% of base bid amount (live signatures)
3. Low bidders exempt, return of documents within fifteen (15) working days after bid due date

B. Letter of Intent

1. Supplier - Subcontractors List, (10 days after Award)
2. Employee list and criminal background affidavit, (prior to start on site.)
3. Proposal & Contract Form prepared by the Architect, (signed and returned 10 days after receipt).
4. Labor and Material Payment Bond, two copies (10 days after award)
5. Performance Bond, two copies (10 days after Award)
6. Insurance Certificates, liability and hold harmless, three copies (10 days after award)
7. CSV - Master Cost Breakdown (Preconstruction meeting)
8. Bar Graph/Progress Schedule, copies as required (Preconstruction meeting)

C. Periodically as needed

1. Update employee list and criminal background affidavit as needed.

D. Periodic Application for Payment

1. Submit per the monthly scheduling, to be determined
2. Application and Certificate for Payment, 2 copies (AIA G702A)
3. Contractor's Affidavit, 2 copies (AIA G706)
4. Breakdown Estimate, 3 copies
5. Partial Waivers of Lien, 2 copies
 - a. Partial Waiver of Lien from Subcontractors/Suppliers for previous payment, 2 copies.
 - b. Updated Progress Schedule, submit with each pay request
6. Certified Payroll for all trades employed on site. Certified Payrolls may be e-mailed to our office manager at:

jhickman@middletonassociates.net

E. Substantial Completion

1. Notification work is ready for inspection.
2. List of deficiencies or incomplete work.

F. Final Application for Payment:

1. Letter to Architect that deficiency work is complete
2. Final Lien Waiver from the Contractor, 2 copies
3. Final Lien Waivers from Subcontractors/Suppliers, 2 copies
4. Final Affidavit showing \$0.00 due to Subcontractors and \$0.00 due to Suppliers, 2 copies
5. Final Payment Approval Letter from Bonding Co., 2 copies
6. Certification of all guarantees, warranties and service contracts, O & M Manual
7. Final Application & Certificate for Payment, 3 copies (AIA G702A)
8. Additional certifications as may be requested, 2 copies
9. Operating manuals & instructions, 3 copies-indexed and bound
10. Figure Bonus / Penalty and Liquidated Damages if applicable.

2.28. PREVAILING WAGE: The Contractor shall pay and shall require his subcontractors to pay the prevailing hourly wages for the type of work performed in the job locality as is determined by the Illinois Department of Labor pursuant to the Illinois Prevailing Wage (820 ILCS 130/.01 et.seq.) see section 00045. **Provide Certified Payroll data per Dept. of Labor and HB 188.**

2.29. FINAL PAYMENT: The final application for payment shall not be made until all work and deficiency (punch list) items have been satisfactorily completed and approved by the Architect/Engineer for documents compliance.

- A. Contractor to submit Operation Manuals and As-Built Drawings to Architect, prior to Final Payment.

END 00 21 13

DIVISION 00 – PROCUREMENT REQUIREMENTS

Section 00 22 13 – Supplementary Instructions

1. GENERAL

1.1. DESCRIPTION OF DRAWINGS AND LAYOUT

- A. Drawing data is intended to be reasonably accurate, however, strict accuracy in detail is not guaranteed.
1. Drawings, particularly Mechanical and Electrical drawings are schematic in nature.
 2. The Contractor must verify all of the actual conditions, measurements, dimensions, rough-in requirements; fitting of piping, conduit, wiring, and duct work and coordination necessary for each item, system or piece of equipment in the Contract Documents.
 3. Verification is the Contractor's responsibility and shall be completed prior to the fabrication or installation processes.
 4. Coordination of all elements of the work must be allowed for with cooperation between the trades particularly for conflicts of limited flexibility of installation. The general priority unless fixed conditions conflict is as follows: structure, placement of equipment, service access, mechanical piping, plumbing piping, and electrical piping. Trade priority in the preceding list does not supersede field cooperation to collectively and most expediently install the work.
 5. All corrections necessary to provide properly installed, finished and operable system, in accordance with the intent of the Documents, shall be made at no additional cost.
- B. All measurements and conditions must be verified by actual observation at the site.
1. The Contractor shall be responsible for all of his work fitting into place in a satisfactory and workmanlike manner in every aspect and detail subject to the approval of the Architect. The Contractor shall provide layout work and verification measurement at his own cost.
 2. The Contractor shall perform all layout work pursuant to site, building, grades and levels, and furnish such engineering services as he may require executing the intent of the work included.
- C. Before starting his work, the Contractor shall examine all Contract Area Drawings and Specifications and if discrepancies or conflicts are apparent or occur during the progress of the work:
1. Work first with the conflicting trades or installations to fit and coordinate the work.
 2. If there appear to be no practical or agreeable way to coordinate the fitting of the work report same to the Architect as a Request for Instruction, RFI, and obtain direction or interpretation to proceed.
- D. The Drawings are instructive and diagrammatic and shall be followed as closely as actual construction will permit. All changes from Drawings necessary to complete the work shall be done at no added cost charge to

the Owner above the amount shown on the Owner/Contractor Agreement.

1.2. OVERLOADING OF BUILDING

- A. Care shall be taken that completed structures are not overloaded during Contractor operations. It shall not be the Owner's, or Architect/Engineer's responsibility to observe and check construction processes and temporary loading conditions that may temporarily occur in the pursuit of the completed installations.
 - 1. Structural design, unless noted otherwise, is designed to accommodate design loads, per code, after completion.
 - 2. Bracing and shoring for loading or stability prior to the installation of lateral support elements and diaphragm assemblies is the responsibility of the Contractor.
 - 3. All structural damage done by overloading the system shall be repaired by the Contractor or Subcontractor overloading the system.

1.3. MEANS AND METHODS

- A. The Architect/Engineer and Owner shall have no authority over the means, methods and procedures of the work and shall make no determination pursuant thereto nor render opinions concerning same.
 - 1. The Architect's Field Representative does not have authority to render opinions on structural questions.
 - 2. If questions arise submit a Request for Information, RFI, for direction.
- B. The Architect/Engineer and Owner and representatives of same shall have no authority over methods employed or safety conditions related to:
 - 1. Erection loads and as they relate to the Contractor's interest and shall provide no observation of same.
 - 2. Upon request the Architect can provide the design loads employed for the final installation.
 - 3. The contractor shall designate an employee of the contractor as the person in charge of and responsible for directing the work and safety procedures on site.

1.4. PROTECTION OF WORK AND BUILDING

- A. The Contractor shall protect all work and stored materials from injury or loss caused by or resulting from operations under this Contract.

1.5. MATERIALS, WORKMANSHIP, AND LABOR

- A. All installed materials and equipment shall be new and shall be installed and completed in a first class, workmanlike manner.
- B. The Architect reserves the right to direct the removal and the replacement of any item which, in his opinion, does not present a proper, orderly or reasonably neat installation. Such removal and replacement shall be done

promptly when directed by the Architect or the Owner. All installations will be subject to the Architect's and Owner's inspections, tests, and approval at all times from commencement of the work to Final Acceptance of the completed Contract.

- C. Work needing correction or replacement that is not corrected with reasonable promptness shall be subject to written notice thereof by the Architect. The Contractor by virtue of having tendered his bid for the work, agrees that progress payments by the Owner may be held (no payment made) until said faults have been corrected.

1.6. ALIGNMENT BALANCING

- A. The Contractor shall be responsible for supervision of the installation of equipment.
 - 1. Level, adjust, balance and align new equipment and reinstalled or relocated equipment.
 - 2. Provide all alignment per manufacturer set up recommendations, align and balance pumps, belts and pulleys and adjust equipment to work properly.

1.7. CLEANING UP

- A. Work areas shall be maintained reasonably clear of accumulated debris, cartons and unused equipment to allow orderly pursuit of the Work.
- B. All surfaces shall be cleaned of any paint, plaster, mortar, gook and other stains.
 - 1. Care shall be taken that no surface is scratched, marred or damaged by the cleaning process.
 - 2. Damaged, marred or scratched surfaces of any type shall be repaired to new or original condition or replaced if necessary to provide a final installation acceptable to the Architect.

1.8. OPENINGS IN CONSTRUCTION

- A. Openings required for construction work shall be provided by the Contractor, complete with all necessary reinforcing, lintels, trim, finishing, etc. as shall be needed to complete the Work including openings required for electrical and mechanical work.
 - 1. Openings to be provided for other trades must be laid out and noted by the trade needing same prior to construction of the surface through which the opening is needed.
 - 2. Untimely note of required openings shall be the responsibility of the Contractor or Subcontractor not requesting same.
 - 3. All sleeves, flanges and forms, etc., shall be furnished by the Contractor requiring the opening.
- B. Concrete slabs, joists, concrete floors, finished floors, walls and structural elements, and other structural items shall not be cut or disturbed, except as

approved by the Architect IN WRITING.

- C. Pipes or elements passing through floors or partitions shall have sufficient clearance around pipes to prevent damage to the adjacent finish from expansion and contraction.

1.9. FIRE SEALS

- A. All penetrations of fire walls, smoke barriers and floors shall be properly fire sealed to prevent the passage of smoke and maintain the integrity of fire barriers.
 - 1. Such seals are the responsibility of the contractor for whom the penetration is provided.

1.10. PROTECTION OF WORK

- A. The Contractor shall protect his work and adjacent existing work from injury by keeping all piping, ductwork, etc. capped, plugged, drained, or otherwise protected from injury including damage done by freezing and damage from building materials, cement and/or dirt, concrete traffic or exposure.

1.11. ELECTRICAL SERVICES TO EQUIPMENT

- A. Unless otherwise specified the Contractor shall furnish and install electrical feeders of proper size, and furnish, install and complete all power wiring and the control wiring for each motor, electrified signage and/or piece of equipment affected by the Contract.
 - 1. Equipment in this contract is low voltage.
 - 2. Contractors providing equipment shall verify the circuits and protection level and need for safety switches matches what they are providing.
- B. All electrical procedures shall comply with the National Electric Code, whether temporary or permanent.

1.12. SEALANTS

- A. Provide sealants in all locations where shown on the Drawings or called for in the Specifications and as necessary for infiltration tight and weather tight building envelope and finished visual appearance.
- B. Sealants shall be provided in locations as directed by the Architect, where equipment components or fixtures fit to surrounds, and when cracks between equipment and surrounds are undesirable or excessive. Provide sealants in all interior locations, as necessary to properly trim out.
- C. Sealants shall be installed and tooled in strict accordance with the Sealant Manufacturer's recommendations for joint preparation, using foam rope backer bars, etc. Sealant shall be installed by the respective Contractor providing the item requiring sealant installation.

1.13. PAINTING

- A. All exposed surfaces or equipment reworked and installations leaving damaged or unfinished surfaces shall be painted or have a corrosion resistant or factory applied finish.
 - 1. Unfinished non ferrous metals such as aluminum and stainless steel do not require painting.
 - 2. Field paint unfinished equipment and surfaces for corrosion protection and visual appearance, except where clearly stated to the contrary on the Drawings.
 - 3. It may be assumed there is no field painting in this contract.

END 00 22 13

DIVISION 00 – PROCUREMENT REQUIREMENTS
Section 00 24 13 – Scope of Bid

1. BASE BID

1.1. DESCRIPTION

- A. The Base Bid is to provide the Owner with all materials equipment and labor to complete the specified contract work in a single contract.

- B. Bid packages
 - 1. Base bid proposals will be received as follows:
 - a. Base bid proposal for Unit 5 Indoor Air Quality (IAQ) Improvement – 28 Buildings.
 - b. Deliver Bids to Joe Adelman, Executive Director of Operations, Unit 5 Maintenance Office, 1999 Eagle Road, Normal, IL prior to 9:00 a.m. prevailing time on April 8, 2021.
 - c. The Owner will review the proposals and retain the right to accept or reject any and all proposals, waive minor irregularities in the bidding and award the work as deemed to be in the best interest of the District.
 - d. Bids may be submitted electronically. See specification 00 21 13, paragraph 2.6.A.5.

 - 2. The Base Bid proposal must be for the specified work as may be modified prior to the bid time and date by addendum.
 - a. Do not add any additional description of what is included or excluded from the bid on the proposal form, this may disqualify the bid.
 - b. Fully fill out the proposal/bid form, omissions and failure to sign will disqualify the bid.
 - 1) Minor irregularities in filling out the bid form may be considered by the Owner as inconsequential to the intended bid and may be declared as such and the bid be considered valid.

 - 3. Voluntary Alternates or Substitutions may be offered on the Voluntary alternate and substitution form if provided or on the Contractor's letterhead if desired. Such options should not materially change the intent of the proposal. These may be considered or disregarded at the Owner's discretion without explanation.
 - a. See 00 21 13 paragraph 2.6.C

1.2. ALLOWANCES

- A. Include the following allowances for use by the A/E or Owner for work determined to be unexpected or additional work needed to accommodate

unexpected conditions.

1. Project Number: 25492321, \$5,000
2. Authorized use will be by approved change order only, and is not to be assigned at the discretion of the contractor in any case.
3. Unexpected or additional work needed to accommodate unexpected conditions. The determination of unforeseen conditions will be determined by the Owner, and the Architect.

1.4 ALTERNATE BIDS

- A. Alternates will not be taken on this project.

END 00 24 13

DIVISION 00 – PROCUREMENT REQUIREMENTS
Section 00 30 00 – Project Schedule and Terms

1. GENERAL

1.1. SCHEDULING

A. Master Schedule

1. The Electrical Contractor will be the General Contractor and the Coordinating Pacesetter Contractor and shall maintain a Master Schedule.
2. Prior to preparation of the Master Schedule, all Subcontractors shall coordinate scheduling needs with the General Contractor.
3. Upon preparation of a detailed schedule, same shall be reviewed by the Architect, the Assigned Contractors, and the Owner. Once accepted, it shall become the basis for determining the on time progress of the work.
 - a. Provide manpower, overtime, and equipment as needed to maintain the schedule. The Owner will not authorize additional payment for overtime or additional manpower needed to maintain, achieve, or make up time to meet the schedule.
 - b. The General Contractor shall notify the Architect and the Owner promptly of any deficiency in performance, which is unacceptably impacting the schedule or delaying progress.
 - c. The Subcontractor(s) shall immediately notify the General Contractor, in the event any trade area Contractor's progress is impeding their ability to maintain the schedule.
 - d. The General Contractor shall immediately provide notification of this report to the Architect and the Owner and shall include a plan of action to regain schedule.

B. Schedule

1. Contractors proposed schedule and timeline shall be delivered for review within seven (7) days or at the Pre-construction meeting.
 - a. Schedule will be subject to review and negotiated revision after Owner and Architect input are considered.
 - b. Schedule should be available for the Preconstruction meeting.
 - c. **Pre Construction meeting will be April 22, 2021 at 9:00 a.m. at Unit 5 Maintenance Office.**
2. Submittals shall be delivered as soon as possible following the award.
 - a. This schedule is adjustable shorter or longer depending on the size and content of the project
3. Upon receipt of review submittals, schedule material and equipment

for delivery as soon as possible.

4. Confirm that manpower is available and Contractor has adequate capacity to complete the work on a timely basis.
 - a. Materials and equipment may be stored on site in trailers.
 - b. Materials and equipment delivered on site or suitably stored with proof of insurance may be submitted for payment, subject to inspection.
 - c. The Owner requests that equipment and materials to do the work be on site or readily available for delivery prior to the start of operations.

5. Schedule
 - a. Project is planned for execution over the Summer of 2021.
 - b. Cooperation, always include in your schedule for manning the work and planning completion, not less than five days of flex time in the event the coordination, delivery issues or unusual weather impact on the work or unexpected Owner occupancy issues occur which will impact access (See Section 01 01 00). This is over and above the allowances you might include for your own operations such as weather, vacations, delays in delivery materials or equipment and illness. There is no intent or expectation of the Owner to abuse this allowance and every intent to cooperate to get the work complete.
 - c. **Work to be substantially completed by 08/16/2021. Final completion on 08/23/2021.**
 - d. It is intended all work to be complete and fully operational 5 days after receipt of punch list.
 - e. See requirements for Manning the work described hereafter.

C. Manning the work

1. Contractors shall work overtime, Saturdays and/or double shifts if work falls one (1) week behind prepared schedule or agreed to revision and shall continue to work Saturdays and double shifts, full crews or with additional crews until lost time is recovered.
2. Prepare a plan of action to recoup lost time for the A/E and Owner.

End 00 30 00

00 40 00 PROCUREMENT FORMS

Section 00 40 00 - Bid Form

Bid forms may be copied, original signatures are required

PROJECT TITLE: Unit 5 Indoor Air Quality (IAQ) Improvement – 28 Buildings

BID DATE: Thursday, April 8, 2021

TIME: 9:00 a.m. Prevailing Time

LOCATION OF BID: MAINTENANCE OFFICE
McLean County Unit District No. 5
1999 Eagle Rd.
Normal, IL 61761

NAME OF FIRM _____

PROPOSAL FOR: All work single contract

A/E PROJECT NO. 25492321

THE BID ACKNOWLEDGES THE FOLLOWING ADDENDA:

Failure to acknowledge may cause bid rejection

NO. 1 _____, NO. 2 _____, NO. 3 _____, NO. 4 _____ NO 5 _____

EACH BID SHALL INCLUDE:

- A. THE BID FORMS AND CERTIFICATIONS COMPLETED AND SIGNED, (*this form may be copied.*)
- B. BID SECURITY (*standard industry forms may be employed*)
- C. BIDS SHALL INCLUDE ALLOWANCE – SEE 00 24 13

BASE BID – Unit 5 Indoor Air Quality (IAQ) Improvement – 28 Buildings. **THE BIDDER AGREES TO PERFORM ALL BASE BID WORK, INCLUSIVE OF ALL TRADES AND INCLUSIVE OF THE \$5,000.00 ALLOWANCE (PER SPECIFICATION 00 24 13) FOR THE SUM OF:**

_____ Dollars \$ _____
written amount

ALTERNATES There are no alternates unless added by addendum, these blanks provided for that occurrence.

_____ **ADD/DEDUCT \$** _____

_____ **ADD/DEDUCT \$** _____

VOLUNTARY ALTERNATES OR SUBSTITUTIONS

Did you include voluntary alternates or product substitution offers on form provided.

YES _____ **NO** _____

SEE PRODUCT SUBSTITUTION OR VOLUNTARY ALTERNATES FORM, ATTACH IF ANY ARE OFFERED. Voluntary alternates or substitutions may or may not be considered in making the award and are not required.

THE BIDDER AGREES TO:

1. Hold this bid open for forty (40) calendar days after bid opening date.
2. Enter into and execute a contract with McLean County Unit District No. 5 if awarded this contract.
3. Comply with the contract and bidding documents with respect to bid security, all bonds, insurance, work requirements, and schedule.
4. Comply with the Contract Documents with respect to Contract Time as specified in Scope of Bid Section 00 24 13.

THE BIDDER MAKES THE FOLLOWING REPRESENTATIONS AND CERTIFICATIONS:

- A. A surety company has agreed to issue payment and performance bonds to fulfill the contracting requirements.
- B. The Bidder is not barred from contracting with any unit of state or local government as a result of violating the bid rigging or bid rotating provisions contained in 720 ILCS 5/33E.
- C. The Bidder is not barred from contracting with the State of Illinois as a result of a bribery conviction per 30 ILCS 505/10.2.
- D. All on site labor and wage compensation provided by this contractor or his subcontractors will comply with the Illinois Prevailing Wage Act (820 ILCS 130E).
- E. This proposal is made without any connection with any person making another bid for the same contract, that the bid is in all respects fair and without collusion or fraud, that no member of the McLean County Unit District No. 5 School Board, other officer or any person in the employment of McLean County Unit District No. 5 is directly or indirectly interested in the bid or any portion of the profit there from, except as allowed by the Illinois Law or the Illinois School Code.
- F. I agree to provide a drug-free workplace as required by the Illinois Drug-free Workplace Act.
- H. I do hereby certify that I am either the bidder or duly authorized agent of the referenced bidder, and I am authorized to execute the certifications hereon.
- G. I certify that by submission of this proposal the bidder confirms that he is familiar with the site, existing conditions, the Bid Documents, requirements and the project schedule.

CONTRACTOR:

Firm Name: _____

Address: _____

FEIN: _____

Telephone: _____

Email: _____

FAX: _____

LIST OF SUBCONTRACTORS

SIGNATURE:

TITLE: _____

For Corporations only.

Date: _____

END 00 40 00

DIVISION 00 – PROCUREMENT REQUIREMENTS
Section 00 40 10 - Voluntary Alternate and Substitution Form

The Bidder should include this form with the Bid Forms if a material substitution is offered at that time.

The Base Bid and Alternate Bids include only those products specified in the bidding documents. Following is a list of substitute products which bidder proposes to furnish on this project, with the difference in price being added to or deducted from the Base Bid or Alternate Bids.

Bidder understands that acceptance of any proposed substitution is at Owner's option. Approval or rejection of any substitutions listed below will be subject to review after Contract award. Hold open for thirty-five (35) days from Bid Date.

SUBSTITUTIONS

MANUFACTURER'S NAME AND PRODUCT	ADD OR (DEDUCT)
_____	_____
_____	_____
_____	_____
_____	_____

VOLUNTARY ALTERNATE
DESCRIPTION

ADD OR (DEDUCT)

_____	_____
_____	_____
_____	_____
_____	_____

EVALUATION. Contract award will be made in accord with Instructions To Bidders. Only the lowest responsible bidder's Proposed Product Substitution Voluntary Alternates Form will be evaluated.

Attach with herewith or submit on day of bid a general description of the proposed option being offered.

Provide detailed information promptly upon request.

END 00 40 10

DIVISION 00 – PROCUREMENT REQUIREMENTS
 Section 00 41 13 – Award & Contract Form

OWNER - CONTRACTOR AGREEMENT
 To be filled out upon award

Between:

The Owner: McLean County Unit District No. 5
 1809 W. Hovey
 Normal, Illinois 61761

And the General Contractor: _____

For the Project:

**UNIT 5 INDOOR AIR QUALITY (IAQ) IMPROVEMENT – 28 BUILDINGS
 FOR McLEAN COUNTY UNIT DISTRICT NO. 5**

The Owner and Contractor agree to enter into a contract in accordance with the terms and conditions of the Documents (Plans & Specifications), A/E Project Number 25492321 and the Contractor's Bid Proposal dated April 8, 2021 which become the Contract for completion of the project as follows:

Base Bid Substantial Completion Date: August 16, 2021

Additional Terms & Conditions: Total contract includes 28 buildings listed on Drawing Sheet G1.2

Addenda: #1 _____ #2 _____ #3 _____ #4 _____ (list as applicable)

Contract Amount: (to be listed as appropriate)

Base Bid Proposal	\$	
Alternate Bids as awarded to be listed	\$	
Total Contract Amount	\$	

(Written) _____ Dollars

Date of Agreement: _____

Signatures:

Owner: **McLean County Unit District No. 5**

Contractor:

Contractor's Seal
 (Corporation Only)

This Agreement must be signed and returned with the Contractor's Performance Labor and Materials Payment Bonds within fifteen (15) days of notice or the Contractor will be considered in default on acceptance of the award.

DIVISION 00 – PROCUREMENT REQUIREMENTS
Section 00 70 00 – General and Supplementary Conditions

1. GENERAL

1.1. GENERAL CONDITIONS

- A. The conditions outlined in this and following paragraphs are to supplement and complement the conditions found in the articles of the AIA Document A201, 2007 Edition.
 - 1. Included in these Specifications by reference is AIA Document A201 General Conditions.
- B. AIA Document A201, 2007 Edition, can be purchased directly on line from a variety of vendors including the AIA and are available in electronic format as well as printed.
 - 1. AIA A201 2007 version can be reviewed at the Architects office without charge.
- C. To the page one of the AIA A201 General conditions Document:
 - 1. Project: Unit 5 Indoor Air Quality (IAQ) Improvement – 28 Buildings
 - 2. The Owner: McLean County Unit School District No.5, 1809 W. Hovey, Normal, IL 61761
 - 3. The Architect: Middleton Associates Incorporated, 1702 W. College Ave., Suite E, Normal, IL 61761

1.2. SIGNING OF DOCUMENTS AND INSTRUMENTS OF THE CONTRACT

- A. All documents shall be signed by persons fully and duly authorized to so sign. Any documents signed by a person other than person prescribed by the Contractor's legal organization shall enclose with his signature the evidence of "Power of Attorney."

2. SUPPLEMENTARY GENERAL CONDITIONS

2.1. SUPPLEMENTS TO AIA DOCUMENT A201 (2007 EDITION) THE GENERAL CONDITIONS OF THE CONTRACT.

- A. The following sections represent modifications or additions to the AIA A201 - 2007 Document.
- B. TO ARTICLE 3 CONTRACTOR
 - 1. To Subparagraph 3.3.1, delete the last two (2) sentences listed under 3.3.1 in their entirety.
 - 2. To Subparagraph 3.3.1 insert: If the Contractor determines that such means, methods, techniques, sequences or proceedings may not be safe, or may not be appropriate to the equipment and task as becomes apparent, then said Contractor shall have included in his

proposal amount allowance to complete this work per a revised plan for which he can assume responsibility and shall notify the Owner and Architect before proceeding. In no case do the Owner and Architect take responsibility for directing Contractor Operations.

3. To Subparagraph 3.12
 - a. Add 3.12.6.1 Submittals unmarked will not be reviewed at the Architect's option. Said unmarked submittals may be returned to the Contractor for re-submittal and the time loss shall not extend the time of completion of the project.
 - b. Add 3.12.6.2 Submittals reviewed by the A/E and returned or held as a record copy presume the Contractor responsibilities in paragraph 3.12.6 have been included whether noted or not.

C. TO ARTICLE 5 SUBCONTRACTORS

1. To Subparagraph 5.2
 - a. Add 5.2.5 The assignment of work or a portion of the work by the Contractor to Subcontractor(s) is the election of the Contractor and in no way changes or reduces the Contractor's obligations under the Contract to properly complete the work and/or provide clear title to the work, including the work by said Subcontractor(s).

D. TO ARTICLE 7 CHANGES IN THE WORK

1. To Subparagraph 7.1.2
 - a. Add 7.1.2.1 The Contractor and/or his Subcontractor shall not proceed with any work, directive or change for which he intends to claim extra cost without providing written notice to the Architect.
 - b. Add 7.1.2.2 The Architect and Owner shall provide response to claims for additional cost within a reasonable time period upon receipt of notice or quote.
 - c. Add 7.1.2.3 Work for which an agreement cannot be reached prior to implementation can proceed as time and material work with all parties to agree on what is additional work over that which should have been included to complete the work as originally intended.
2. To Subparagraph 7.2.2
 - a. Add 7.2.2.1 Change Order quotes shall be based on an approved quote or estimate which shall be based on labor and material cost, actual or estimated as prior agreed upon, and:
 - b. Add 7.2.2.2 Overhead and profit may be charged

proportional to this category of work on the Contractor's CSV or not to exceed the greater of:

- 1) Fifteen percent (15%) for the Contractor's own work forces
- 2) Ten percent (10%) Subcontractor plus seven percent (7%) Contractor, for seventeen percent (17%) total for work completed under a Subcontractor arrangement.
- 3) These allowances shall include all off site and indirect costs, including insurance, project management, bonds and profit.

E. TO ARTICLE 9 PAYMENT AND COMPLETION

1. To Subparagraph 9.6.1

- a. Add 9.6.1.1 Wherein the Owner is governed by a public Board, payment requests must be received by the A/E 5 days prior to the established time for entering into agenda prior to the next regular Board Meeting. Payments will be made within twenty-five (25) days following Board approval. Failure to make agenda dates will result in a minimum one (1) month delay in payment.

F. TO ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

1. To Subparagraph 10.2.1

- a. Add 10.2.1.4 The Contractor shall be responsible to provide and maintain on site MSDS Sheets for all required materials to be brought on site.
 - 1) These sheets shall be readily available upon request to the owner on remodeling renovation projects which are Owner occupied.
 - 2) Comply with VOC regulations.
 - 3) Comply with IEPA regulations.

2. To Subparagraph 10.2.3

- a. Add 10.2.3.1 Provide for the general safety of public and Owners employees, such safety provision shall be adjusted as appropriate to the age and volume of public anticipated in the project vicinity.
- b. Add 10.2.3.1 Provide for traffic safety as appropriate to the operations; cooperate with the governing authorities on road activities, lane closures, excavations, surface cleaning etc.

G. TO ARTICLE 11 INSURANCE & BONDS

1. To Subparagraph 11.1.2

a. Add 11.1.2.1 Minimum Limits of Liability for preceding coverage are:

- 1) Workers Compensation - Statutory Limit
- 2) Applicable Federal (*such as Longshoreman's*) Statutory limits.
- 3) Liability Insurance may be written as Comprehensive General Liability policy form or Commercial General Liability policy form with the following coverages:
 - a) Bodily Injury - \$1,000,000 each occurrence, \$2,000,000 aggregate
 - b) Property Damage - \$1,000,000 each occurrence, \$5,000,000 aggregate.
 - c) Property Damage – Broad Form - \$1,000,000 each occurrence, \$2,000,000 aggregate.
 - d) Personal injury (*with employment clause deleted*) \$1,000,000 aggregate.
 - e) Products and completed operations \$1,000,000 to be maintained one year following final completion.
 - f) Business Automobile Liability, (*including owned and non-owned and hired vehicles*)
 - g) Bodily Injury and Property damage \$1,000,000 each person, \$1,000,000 each occurrence.
- 4) Umbrella Insurance \$5,000,000 over primary insurance limits.
- 5) \$10,000 Retention for self insured hazards each occurrence
- 6) In the event that a claim is filed or a settlement reached whether related to this project or not which compromises the aggregate limits of liability then the Owner and Architect shall be notified and arrangements shall be made to provide additional insurance as needed to keep aggregate limits in force for the remainder of the Contract.

2. To Subparagraph 11.1.4

a. Add 11.1.4.1 The Owner, Architect, and Consulting Engineers including their employees and representatives shall be included as Additional Insureds or Named Insureds on the insurance and shall be shown as such on the Certificate.

3. To Article 11
 - a. Add 11.1.5 Contractor's insurance shall be maintained in force through basic warranty and guarantee periods, not less than one (1) year following Final Completion.

4. To 11.3. Property Insurance
 - a. Add 11.3.1.1 The Owner's property and vandalism insurance has \$1,000 deductible. The Contractor shall insure and thus pay the costs not covered by the Owner's deductibles.
 - b. Add 11.3.1.2 The Owner's Builder's Risk will cover only normally included Owner risks, on site, Owner's interest only, excluding tools and property of the Contractor and improperly stored or unsecured materials.

5. To Paragraph 11.4.1 add the following Subparagraphs:
 - a. Add 11.4.1.1 The Contractor shall furnish Performance and Labor and Material Payment Bonds covering the faithful performance by the Contractor of the work specified in accordance with the plans and specifications and according to the time and terms and Conditions of the Contract, and also that the Contractor shall properly pay all debts incurred in the prosecution of the work, including those for labor and materials furnished and including labor obligations as interpreted by the Illinois Department of Labor and/or the courts.
 - b. Add 11.4.1.2 The cost of each bond shall be included in the Contract Sum plus any changes to the Contract Sum. The Contractor shall include in all bonds provisions as will guarantee faithful performance of the prevailing wage provisions of the Contract if applicable.
 - c. Add 11.4.1.3 Bonds shall be written by surety, approved by Owner, with a minimum rating of B or better, Financial Class V, or higher, in A.M. Best's Insurance Guide, current edition. The company must also be licensed in the State of Illinois.
 - d. Add 11.4.1.4 The Contractor shall require the attorney-in-fact who executes the bonds on behalf of the surety to affix thereto a certified and current copy of power-of-attorney.
 - e. Add 11.4.1.5 The Contractor shall deliver the required bonds to the Owner not later than fifteen (15) days following the date the agreement is executed.

H. TO ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

1. To Subparagraph 12.2.2.1 After Substantial Completion:
 - a. Add 12.2.2.1.1 Latent Defects, for a period of 10 years after Substantial Completion, upon demand by the Owner, the

- Contractor shall promptly repair or replace, including associated work repairs and cleanup necessary, defective or non-conforming work resulting from or constituting latent defects, fraud, fraudulent concealment or gross negligence.
- b. Add 12.2.2.1.2 Seasonal equipment such as temperature controls and building systems subject to seasonal loads such as heating equipment and air conditioning, shall be warranted to perform as intended for two years. Exception would be equipment damaged by incorrect operation or maintenance procedures, specifically covered in training, but improperly implemented by the Owner.
 - a. Add 12.2.2.1.3 Prompt Repair. Upon notice from the Owner or Architect of defects or nonconforming work, the Contractor shall promptly visit the site in the company of the Owner's representative to determine the extent of all defects or nonconforming work. The Contractor shall provide all labor, material and equipment to promptly repair or replace the defective or nonconforming work. The repair shall include all adjacent work not necessarily provided by the Contractor, but damaged as a result of correcting or remedying such defects or non-conforming work. If the Contractor does not promptly pursue correction, the Owner may repair or replace such work and charge the cost to the Contractor. Work which is repaired or replaced by the Contractor shall be inspected and shall be warranted by the Contractor in accordance with this Article.
 - b. Add 12.2.2.1.4 The warranties set forth herein are in addition to all warranties or guarantees expressed or implied by operation of law, statute or ordinance.
2. To Subparagraph 12.2.2.3, Delete the word 'not'. Clarification; all materials and equipment are expected to perform satisfactorily for one year, items or equipment needing periodic attention during the first year of use, shall continue to be serviced by the Contractor until such time that the material, item or equipment is deemed to be doing its intended purpose without repeated service.
3. To Subparagraph 12.2.5
- a. Add 12.2.5.1 Extended Warranties and Commercial Warranties. The Contractor shall deliver all commercial and extended warranties received from manufacturers to the A/E prior to Final Payment. Extended warranties and guarantees will be as described under the various trade work sections of these documents, and may be the responsibility of third parties to the contract such as dealers or manufacturer's from whom such extended coverage is specified or as advertised such as a commercial limited warranty of performance or service. Such extended warranties may or may not include labor unless specified, or in the case of commercially advertised warranties as offered by the party

- selling the product or equipment.
- b. 12.2.5.2 Prompt Repair. Upon notice from the Owner or Architect of such defects or nonconforming work, the Contractor shall promptly visit the site in the company of the Owner's representative to determine the extent of all defects or nonconforming work. The Contractor shall provide all labor, material and equipment to promptly repair or replace the defective or nonconforming work. The repair shall include all adjacent work not necessarily provided by the Contractor, but damaged as a result of such defects or nonconforming work or as a result of remedying them. If the Contractor does not promptly repair or replace defective or non-conforming work, the Owner may repair or replace such work and charge the cost thereof to the Contractor. Work which is repaired or replaced by the Contractor shall be inspected and shall be warranted by the Contractor in accordance with this Article. The warranties set forth herein are in addition to all warranties or guarantees expressed or implied by operation of law, statute or ordinance.

B. TO ARTICLE 13 MISCELLANEOUS PROVISIONS

1. To Subparagraph 13.1

- a. Add 13.1.1 Location of the project is Illinois.
- b. Add 13.1.2 The Contractor shall, to the best of his knowledge and capability, perform all work encompassed by the documents, in compliance with the Environmental Barriers Act (Ill. Rev. Stat. 1985, ch. 111-1/2, pars. 3711 et seq. as amended), the Illinois Accessibility Code, 71 Illinois Administrative Code 400; The Uniform Federal Accessibilities Standards (UFAS); Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990 (effective January 26, 1992) known as ADA requirements. This obligation shall apply to the contractual work described as the project and the conduct of work processes initiated to accomplish the work.
- c. Add 13.1.3 All parties to this Contract are subject to the rules and regulations of the Illinois Department of Human Rights and the statutory requirements thereof, including the requirement that every party to a public contract shall have adopted written sexual harassment policies (PA 87-1257).
- d. Add 13.1.4 It shall be mandatory that the Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or ancestry, age, marital status, physical or mental disabilities.
- e. Add 13.1.5 Illinois Department of Labor requirements. It shall be mandatory upon the Contractor to whom the Contract is awarded and upon any Subcontractors thereof to be in compliance with applicable wage and reporting regulations.

This project is a Prevailing Wage Public Works contract.

2. To Subparagraph 13.3.
 - a. Add 13.3.1 Notice served by facsimile (fax) to facsimile number used during bidding and construction shall be official written notice.
 - b. Add 13.3.2 Notice served by electronic means (email) to the electronic address used during bidding and construction shall be official written notice.
 - c. Add 13.3.3 The Bidder shall notify the Architect and/or the Owner at anytime of changes in the facsimile or electronic contact addresses that will reach the contractor. Failure to so notify is the Contractors responsibility.

C. TO ARTICLE 15 CLAIMS AND DISPUTES

1. To Subparagraph 15.3.1 Delete the word 'SHALL' and Insert the word 'MAY'.
 - a. Add 15.3.1.1 Mediation may be employed to resolve disputes if agreed to by both parties to the Contract.
2. To Subparagraph 15.4.1 Delete the word Shall and insert the word 'MAY'.
 - a. Add 15.4.1.1 Arbitration may be employed to resolve disputes if agreed to by both parties to the Contract.

End 00 70 00

1. GENERAL

1.1. REQUIREMENTS INCLUDE

- A. Base Bid: This project will provide for the installation of 807 ionization devices in all HVAC equipment that moves air and has a filter rack, in 28 buildings owned by McLean County Unit District No. 5.
1. All building fans, AHU's, ERU's, heat pumps, fan coils, and unit ventilators will receive one device or multiple devices depending on the CFM of the unit. See schedule on Title Sheet.
 2. The ionization devices are low voltage and will be powered by the existing controls in the unit.
 3. No demolition will be required for this project. No new 100v or greater electrical work will be required.
 4. Connect ionization devices to low voltage sensor for district-wide BAS display.
 5. Material and installation directions will be provided by Alpha Controls.

1.2. PRODUCTS FURNISHED BY OTHERS: All products, components, spaces, and equipment furnished by the Owner are currently in place and are to be relocated, disconnected and reconnected as set forth in these Documents (Specifications and Drawings) and/or required to accomplish these Documents. All added components shall be new and furnished by the Contractor.

- A. Contractor's Incidental Duties
1. Designate specific delivery date for each product in approved construction schedule.
 2. Promptly inspect delivered products, report damaged or defective items.
 3. Handle material at site, including unloading, uncrating, and storage.
 4. Protect from exposure to elements, and from damage.
 5. Repair or replace items damaged as result of Contractor's operations.
 6. Install, connect and finish products in assembled functional, operational ready condition including incidental related work.

1.3. WORK SEQUENCE

- A. The Owner will occupy the school facilities at varied occupation levels (full occupation during school year 7:30 a.m. to 4:00 p.m.; random occupation after 4:00 p.m., and minimal occupation during summer and holiday breaks).
1. Check with the Principal of each school building to obtain permission to work during school occupancy and to receive any COVID-19 requirements.

- B. This work may be done during the school year. The contractor will perform work while the building is occupied. Work done in Fan Rooms and Mechanical Rooms can be done anytime during the regular working day. Work done in Corridors, Classrooms and other Activity spaces must be done when the respective space is unoccupied.
- C. Coordinate the work schedule with the Owner and building administrator (Principal).
 - 1. Director of Facilities & Grounds: Thomas Rockwell: Cell Phone: 309-530-1283

1.4. SCHEDULE

- A. Work may commence: After Pre-Construction Meeting
- B. Project Schedule: See Specification Section 00 21 13 paragraph 2.12 and Section 00 30 00.
 - 1. Substantially Complete: **August 16, 2021**
Final Completion: **August 23, 2021**

1.5. CONTRACTOR USE OF PREMISES

- A. Attached to this specification section are the following documents:
 - 1. 2020-2021 Unit No. 5 School Calendar (Attachment 1)
- B. To determine what days and times that various rooms and corridors will be available, take the Fall 2020 and Spring 2021 Classroom Occupancy Schedule.
 - 1. Regular school day for Elementary Schools is 7:45 a.m. to 2:10 p.m.
 - 2. Regular school day for Junior High Schools is 8:45 a.m. to 3:45 p.m.
 - 3. Regular school day for High Schools is 8:30 a.m. to 3:30 p.m. (some classes begin at 7:30 a.m.)
- C. The Building Fan Room and Mechanical Room are available for work any time during the school day.
- D. Assume full responsibility for protection and safekeeping of products stored on premises.
- E. Move and relocate as necessary all stored products or equipment that interferes with operations of the Owner.
- F. All of Contractor employees must have passed ISP Finger print background check.
- G. Parking for contractor employees as directed by School Principal. All vehicular on-site activity shall have been prearranged and approved by the Owner.

- H. Cooperate with the Owner's use of the premises and other Contractors providing work on site under separate Contracts with the Owner.

1.6. CONTINUOUS OCCUPANCY BY OWNER

- A. Owner will occupy areas for purposes of conducting educational, athletic, physical education, and general maintenance during construction.
- B. Contractors shall provide
 - 1. Access by Owner's personnel.
 - 2. Operation of Mechanical and Electrical systems with a minimum of down time.
 - 3. Operation of exhaust systems with a minimum of down time.
 - 4. Adequate security of the premises in which work is in progress.

1.7. ASBESTOS

- A. The contractor shall perform his own examination of the buildings of concern on the project prior to bidding and be responsible for the determination of the existence or nonexistence of suspect asbestos in a state that is likely to be interrupted or become hazardous to the health of the Contractor, his employees, his subcontractors and their employees.
 - 1. District school buildings are primarily ACM free buildings.
- B. The Contractor may deem it advisable to contact the Office of Superintendent of Schools and request access to the Asbestos Management Survey applicable to the building pursuant to Section 855.30 (including updated amendments thereto) of AN ACT KNOWN AS THE ASBESTOS ABATEMENT ACT: P.A. 83-1325, approved and eff. Sept. 5, 1984, amended by P.A. 84-0951, approved and eff. Sept. 20, 1985, and amended by P.A. 84-1096, approved eff. Dec. 9, 1985, amended by P.A. 84-1245, approved and eff. July 29, 1986, amended by P.A. 84-1346, and approved and eff. Sept. 10, 1986, inclusive of such amendments and regulations applicable since 1986.
 - 1. Upon determination prior to bidding, or after bidding discovery by the Contractor that an asbestos hazardous condition does exist in the path of execution of the work of his Contract, he shall so notify the Owner IN WRITING.
 - 2. Wherein concealed asbestos is discovered, the Contractor shall notify the Owner of the existence of said apparent asbestos which may require analysis for hazardous determination. This notification shall be IN WRITING at no cost to the Owner. Should analysis indicate that hazardous substance does prevail the procedure shall be set forth under Item 1.6.B.2. above.
 - a. It can reasonably be assumed that this building is ACM free.

1.8. COORDINATION AND COOPERATION

- A. It is the intent and purpose of the Owner to cooperate with the Contractor to the extent feasible under existing applicable laws and regulations. The Contractor shall not construe this portion of the documents, that is, Section Paragraph 1.6.A, and B to the disadvantage of the Owner.
- B. The Owner has the right to employ other contractors or his own forces to be working on site in concurrence with this Contractor's work. Coordinate and cooperate to the extent reasonable under the contract so all parties can collectively accomplish the work scheduled.

1.9. FITTING AND FINISHING THE WORK

- A. Contractor shall verify all field conditions, dimensions, elevations that relate to the work and properly accommodate these in the work as appropriate to the intended result within the Contract amount.
 - 1. In place construction, obstacles and site conditions and elements which can be seen and reasonably inferred.
 - 2. New construction, obstacles and conditions that can be seen or are to occur in the completion of the work.
 - 3. Allow to fit structural elements and all equipment as occur or will occur during the implementation of the Contract.
 - 4. Make adjustments as needed to fit and properly complete the work. This includes coordination of work by all trades.
- B. Contractor and his Subcontractors shall coordinate, accommodate, adjust and fit as appropriate all work to achieve the intended finished intent to normal commercial industry standards.
 - 1. Provide finishing elements, trim, sealants, scribes, receivers and accessories necessary and normal to the installations proposed and as recommended by manufacturers for proper use of products.
 - 2. All construction (all trades) to be weather and infiltration tight. Include appropriate weather seals, infiltration barriers, sealants, non-corrosive flashings and sealants to properly complete the intent of the project.
 - 3. Provide all necessary work to complete all installations, equipment and parts of the work to be complete and properly operable, under control for motorized equipment, in a finished appearance and condition, unless specifically noted otherwise.
 - a. Conceal piping and conduit to the extent possible
 - b. Run piping and conduit and supports parallel and/or perpendicular to main structural elements when possible.
 - c. Avoid creating trip hazards or low headroom hazards when possible
 - d. Always allow for service access.

4. Always comply with the Illinois Energy Code
 - a. Infiltration tight
 - b. Watertight
 - c. Insulation and continuous insulation, types and assembly U or R values as well as component ratings.
 - d. Air barriers continuous to the extent possible at assembly junctures, windows to walls, walls to roof assembly, walls floor to floor.
 - e. Lighting requirements (watts / sq. ft.)

END 01 01 10



2020-2021

SCHOOL CALENDAR

Dates within unshadowed boxes are days when school is closed.

Dates within grey shadowed boxes are non-attendance days for students, but are work days for Unit 5 staff.

Dates within yellow shadowed boxes are the first full day and last day of school. Last day is subject to change.

Dates within orange shadowed boxes are one hour late-start days for students.

Dates within blue shadowed boxes are for Parent-Teacher Conferences (no student attendance).

AUGUST 2020						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SEPTEMBER 2020						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

OCTOBER 2020						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

NOVEMBER 2020						
S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

DECEMBER 2020						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

JANUARY 2021						
S	M	T	W	T	F	S
						1
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

FEBRUARY 2021						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28						

MARCH 2021						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

APRIL 2021						
S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

MAY 2021						
S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

JUNE 2021						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

2020-2021 School Calendar

- July 5 Holiday - District Office Closed
 - Aug. 17, 18 Teacher Institute Days
 - Aug. 19, 20, 21 Remote Planning Days
 - Aug. 24 First Full Day of School
 - Sept. 7 Labor Day
 - Sept. 18 & Sept. 25 NCHS & NCWHS Homecoming
 - Sept. 25 Teacher Institute Day
 - Oct. 12 Columbus Day
 - Nov. 3 Election Day
 - Nov. 25-27 Thanksgiving Vacation
 - Dec. 21 - Jan 1 Winter Break
 - Jan. 4 Teacher Institute Day
 - Jan. 18 Dr. Martin Luther King's Birthday
 - Jan. 22 Parent-Teacher Conferences (No School)
 - Feb. 15 President's Day
 - Feb. 16 School Improvement Day (SIP)
 - Mar. 22-26 Spring Break
 - April 2 Board Holiday
 - April 23 School Improvement Day (SIP)
 - May 29 Graduation NCHS 2 p.m. / NCWHS 6 p.m.
 - May 31 Memorial Day
 - June 4 Last Day—Students half day, SIP half day.
- Total Calendar Days 185 (Includes 5 Emergency Days)

2020-2021 UNIT 5 SCHOOL CALENDAR

JULY 2020

3 Holiday - District Office Closed

REGISTRATION Information at www.unit5.org

Early Learning August 4; 3:00—6:00 p.m.
 Elementary August 4; 3:00—6:00 p.m.
 Middle August 6; 3:00—6:00 p.m.
 High August 10, 11, and 12;
 11:00 a.m.—1:00 p.m. and 3:00-5:00 p.m.

AUGUST 2020

17, 18 Teacher Institute Days - No School
 19-21 Remote Planning Days
 24 First Full Day of School

SEPTEMBER 2020

7 Labor Day - No School
 16 One Hour Late Start Day
 18 NCHS Homecoming
 25 Teacher Institute Day
 25 NCWHS Homecoming
 28 Indigenous Peoples' Day—School IN SESSION
 30 One Hour Late Start Day

OCTOBER 2020

12 Columbus Day - No School
 14 One Hour Late Start Day
 16 End of 1st Grading Period (6 - 12)
 23 Progress Reports (K-5)
 28 One Hour Late Start Day

NOVEMBER 2020

3 Election Day - No School
 18 One Hour Late Start Day
 25-27 Thanksgiving Vacation - No School

DECEMBER 2020

9 One Hour Late Start Day
 18 End of 2nd Grading Period and 1st Semester (6 - 12)
 18 Last Day Before Winter Break

JANUARY 2021

4 Teacher Institute - No School
 5 School Resumes From Winter Break
 13 One Hour Late Start Day
 18 Dr. Martin Luther King's Birthday - No School
 22 Parent-Teacher Conferences (No School)
 27 One Hour Late Start Day

FEBRUARY 2021

10 One Hour Late Start Day
 15 President's Day - No School
 16 School Improvement Day (SIP) - No School
 26 Progress Reports (K - 5)

MARCH 2021

3 Kindergarten Registration
 10 One Hour Late Start Day
 12 End of 3rd Grading Period (6 - 12)
 19 Last Day Before Spring Break
 29 School resumes From Spring Break

APRIL 2021

2 Board Holiday
 7 One Hour Late Start Day
 23 School Improvement Day (SIP) - No School

MAY 2021

5 One Hour Late Start Day
 29 Graduation NCHS 2:00 p.m. - NCWHS 6:00 p.m.
 31 Memorial Day - No School

JUNE 2021

4 Last Day - Students half day. SIP half day.*

*The closing date may be earlier if all emergency days are not used.

BOARD OF EDUCATION

Barry Hitchins
hitchinsb@unit5.org - (309) 242-5942
 Alan Kalitzky
kalitzkya@unit5.org - (309) 838-0828
 Tania Leffler
lefflet@unit5.org - (309) 287-9263
 Meta Mickens-Baker
mickensm@unit5.org - (309) 662-4010
 Kelly Pyle
pylek@unit5.org - (309) 251-9655
 Amy Roser
rosera@unit5.org - (309) 660-1024
 Mike Trask
traskm@unit5.org - (309) 451-9557

UNIT 5 DISTRICT OFFICE

1809 West Hovey Avenue, Normal, IL 61761
 Ph.: (309) 557-4000 ~ Fax: (309) 557-4501
 Website: www.unit5.org ~ Email: district@unit5.org

Dr. Kristen Kendrick-Weikle, Superintendent
 Michelle Lamboley, Assistant Superintendent
 Martin Hickman, Chief Financial Officer
 M. Curt Richardson, Attorney for District
 Roger Baldwin, Director of Human Resources
 Dayna Brown, Director, Communications/Community Relations
 Carrie Chapman, Director, Special Education
 Maureen Backe, Director, Elementary Education
 Dan Lamboley Director, Secondary Education
 Darrin Cooper, Director of Teaching and Learning

EAGLE ROAD RESOURCE CENTER

2022 Eagle Road, Normal, IL 61761

David Schumer, Director of Technology
 Ph.: (309) 557-4015 Fax: (309) 557-4696

WAREHOUSE OFFICES

1999 Eagle Road, Normal, IL 61761

Joe Adelman, Exec. Director of Operations
 Ph.: (309) 557-4436 Fax: (309) 557-4537

JoAnna Rewerts, Director of Food Service
 Ph.: (309) 557-4437 Fax: (309) 557-4538

TRANSPORTATION OFFICE

Management by First Student Inc.
 2000 Eagle Road, Normal, IL 61761
 Ph.: (309) 557-4068 Fax: (309) 557-4530

Benjamin Elementary 557-4410
Marlys Bennington
 Brigham Early Learning Center..... 557-4411
Erin O'Grady
 Carlock Elementary 557-4412
Laura Delgado
 Cedar Ridge Elementary 557-4413
Karah Jensen
 Eugene Field Vocational Training.... 557-4440
Jane Collins
 Fairview Elementary 557-4415
Gina Tenuta
 Fox Creek Elementary 557-4416
Leslie Davenport
 Glenn Elementary 557-4418
Cari Roop

Grove Elementary 557-4417
Sarah Edwards
 Hoose Elementary 557-4414
Adam Zbrozek
 Hudson Elementary 557-4419
Julia Knepler
 Northpoint Elementary 557-4420
Matt Harr
 Oakdale Elementary 557-4421
Elizabeth Holtz
 Parkside Elementary 557-4422
Christine Ellis
 Pepper Ridge Elementary 557-4423
Tina Fogal
 Prairieland Elementary 557-4424
Scott Peters

Sugar Creek Elementary 557-4425
Kristina Peifer
 Towanda Elementary 557-4426
Scott Vogel
 Chiddix Jr. High 557-4454
Jim Allen
 Evans Jr. High 557-4406
Chris McGraw
 Kingsley Jr. High 557-4407
Stacie France
 Parkside Jr. High 557-4408
Suzi Hesser
 Normal Community High 557-4401
Trevor Chapman
 Normal Community West High 557-4402
Dave Johnson

1. GENERAL

1.1. SUPERINTENDENT OF THE PROJECT WORK

- A. The Contract shall designate a person who shall be the General Superintendent of on site construction work encompassed by the Contract Documents.
 - 1. Said designated superintendent shall have prior served as project superintendent of construction of similar nature and size. Qualifications shall be subject to the Owner's and Architect's review.
 - 2. Superintendent shall remain superintendent for the duration of the project unless said persons shall become disabled, no longer employed and/or the Contractor provides notice to the Architect and the Architect approves the change.
 - 3. Owner can request superintendent replacement for cause at any time

1.2. DESCRIPTION OF DRAWINGS AND LAYOUT

- A. Drawing data is intended to be reasonably accurate, however, strict accuracy in detail is not guaranteed. The Contractor must verify all of the conditions, measurements, dimensions, rough-in requirements, piping, conduit, wiring, duct work requirements and coordination necessary for each item or piece of equipment in the Contract Documents. Verification is the Contractor's responsibility and shall be completed prior to the fabrication or installation processes. All corrections necessary to provide properly installed, finished and operable system, in accordance with the intent of the Documents, shall be made at no cost beyond the contract agreement.
- B. All measurements and conditions must be verified by actual observation at the building and the Contractor shall be responsible for all of his work fitting into place in a satisfactory and workmanlike manner in every aspect and detail subject to the approval of the Architect. The Contractor shall provide layout work and verification measurement at his own cost.
- C. Before starting his work, the Contractor shall examine all Contract Area Drawings and Specifications and if any discrepancies occur, he shall report same to the Architect IN WRITING and obtain WRITTEN INSTRUCTIONS for interpretation of the work. The Contractor shall perform all layout work pursuant to site, building, grades and levels, and furnish such engineering services as he may require to execute the intent of the work included.
- D. The Drawings are instructive and diagrammatic and shall be followed as closely as actual construction will permit. All changes from Drawings necessary to make the work of the Contractor conform to the documents shall be done at no added cost charge to the Owner above the amount shown on the Owner/Contractor Agreement.

- 1.3. PROJECT ACCESS: The Contractor shall be aware that the Town/City, Township, County or State has authority over various approach roads for site access and the Contractor is responsible to:
- A. Observe load limits and arrange for any exceptions to load restrictions that may be required for this project.
 - B. Make arrangements for road cleanup, barricades and surface patches and repairs shall comply with applicable regulations and be subject to the governing authority approval.
- 1.4. OVERLOADING OF BUILDING
- A. Care shall be taken that completed structures are not overloaded during Contractor operations and the Contractor shall promptly remove all materials, which, in his opinion, may overload any part of the work. It shall not be the Owner's, or Architect/Engineer's responsibility to observe and check construction processes and temporary loading conditions that this Contractor may implement as director of his operations.
 - B. Structural design, unless noted otherwise, is designed to accommodate design loads, per code, after all bracing and construction is in place.
 - 1. Temporary bracing and shoring for erection loads is the responsibility of the Contractor.
 - 2. Bracing and shoring for loading prior to the installation of lateral support and diaphragm assemblies is the responsibility of the Contractor.
 - C. All structural damage done by overloading the system shall be repaired by the Contractor overloading the system.
 - D. The Architect/Engineer shall have no authority over the means, methods and procedures of the work and shall make no determination pursuant thereto nor render opinions concerning same.
 - 1. The Architect's Field Representative does not have authority to render opinions on structural questions, HVAC questions, or electrical questions.+
 - E. The Architect/Engineer and members of his staff shall have no authority over safety conditions related to erection loads and as they relate to the Contractor's interest, shall provide no observation of same, and make no comment regarding same.
 - 1. The contractor shall designate an employee of the contractor as the person in charge of and responsible for safety procedures on site.

1.5. PROTECTION OF WORK AND BUILDING

- A. The Contractor shall protect all work and stored materials from injury caused by or resulting from operations under this Contract, including physical damage or weather-caused damage through the opened up areas.

1.6. MOVING OF MATERIAL

- A. Contractor materials that are temporarily located or stored shall be relocated as needed to allow access by the Contractor, other Contractors and the Owner's personnel in and around the construction area. Such moving of any material shall be at no additional cost to the Owner.
- B. At no time shall tools, materials or workmen be allowed to block an exit.

1.7. SHORING, BRACING, AND BARRICADES

- A. The Contractor shall provide, construct and finally remove all temporary shoring, bracing, underpinning, scaffolding, needling, barricades, etc. as required by local restrictions and as necessary for general safety to protect all property and persons from damage or injury. The Contractor shall determine the need for these items and shall be fully responsible for the performance or failure of them and shall make good damages caused by failure or absence of same.
- B. Specific temporary shoring, supports, etc., called for elsewhere in the Documents shall be considered a minimum but shall not override Contractor's responsibility to provide adequate shoring, if actual construction conditions and processes so dictate.

1.8. MATERIALS, WORKMANSHIP, AND LABOR

- A. All installed materials and equipment shall be new and shall be installed and completed in a first class, workmanlike manner.
- B. The Architect reserves the right to direct the removal and the replacement of any item which, in his opinion, does not present a proper, orderly or reasonably neat installation. Such removal and replacement shall be done promptly when directed by the Architect or the Owner. All installations will be subject to the Architect and Owner's inspections, tests, and approval at all times from commencement of the work to Final Acceptance of the completed Contract.
- C. Work needing correction or replacement that is not corrected with reasonable promptness shall be subject to written notice thereof by the Architect. The Contractor by virtue of having tendered his bid for the work, agrees that progress payments by the Owner may be held (no payment made) until said faults have been corrected.

1.9. CLEANING UP

- A. All surfaces shall be cleaned of any paint, plaster, mortar, gook and other stains. Care shall be taken that no surface is scratched, marred or damaged in cleaning.
- B. Damaged, marred or scratched surfaces of any type shall be made right, sanded smooth (to bright metal for metal surfaces) and primed and painted as directed or replaced if necessary to provide a final installation acceptable to the Architect.

1.10. OPENINGS IN CONSTRUCTION

- A. Openings required for construction work shall be provided by the Rehab Contractor, complete with all necessary reinforcing, lintels, trim, finishing, etc. as shall become applicable including openings required for electrical and mechanical work.
- B. Concrete slabs, joists, concrete floors, finished floors, walls and structural elements, and other structural items shall not be cut or disturbed, except as approved by the Architect IN WRITING. The Contractor shall be held responsible for and correct any such damage that he may cause.
- C. Pipes passing through floors or partitions shall have sufficient clearance around pipes to prevent damage to the adjacent finish from expansion and contraction. All sleeves, flanges and forms, etc., shall be furnished by the Contractor requiring the opening.
 - 1. A Contractor or Subcontractor penetrating a wall, floor or ceiling surface shall provide sleeves, flanges and trim to provide a finished installation.

1.11. SUPPORTS

- A. The Contractor shall provide all concrete, steel bases and anchorage except as herein specified otherwise: vibration-absorbing foundation bases, hangers, platforms, anchor bolts, etc. for all equipment which he furnishes. These foundations shall be as specified under their respective headings or shown on the drawings and/or as recommended by Equipment Manufacturer.
 - 1. All such supports which penetrate the roof shall be flashed in to meet roof material warranty requirements.
- B. Materials and installation requirements for curbs and pads shall be commensurate with the need. Concrete shall be 4,000 PSI minimum strength, installed at a slump not exceeding six inches (6"). Concrete shall not be retempered sixty (60) minutes after that time at which water was first added to the mix. Air entrainment additives shall be employed to provide a seven percent (7%) by volume air content at time of placement.

1.12. PROTECTION OF WORK

- A. The Contractor shall protect his work and adjacent existing work from injury by keeping all piping, ductwork, etc. capped, plugged, drained, or otherwise protected from injury including damage done by freezing and damage from building materials, cement and/or dirt and concrete.

1.13. MOVING OF MATERIALS

- A. Moving of in-place materials that are located or stored in the path of construction shall be relocated as needed to allow construction and construction access in and around the construction area. Relocation of said materials shall be subject to Owner approval and whereby relocation is Owner designated as temporary, a post construction final location shall be determined by the Owner. Such moving of material shall be at no additional cost to the Owner.

1.14. ELECTRICAL SERVICES TO EQUIPMENT

- A. Unless otherwise specified (see 01 01 00 Summary of Work) the Contractor shall furnish and install electrical feeders of proper size, and furnish, install and complete all power wiring and the control wiring for each motor, electrified signage and/or piece of equipment affected by the Contract.
 - 1. This work all low voltage
- B. All such electrical procedures (temporary and permanent) shall comply with the National Electric Code, whether temporary or permanent.
- C. The Contractor shall extend or install temporary electrical service for his use during construction or he shall provide his own portable generator at his own expense. Wherein the Owner's electrical services are used, extended or tapped, the current consumed shall be at the Owner's expense provided same is metered through the Owner's meter.

1.15. SEALANTS

- A. Provide sealants in all locations where shown on the Drawings or called for in the Specifications and as necessary for infiltration-tight/weathertight building envelope and good visual appearance.
- B. Sealants shall be provided in locations as directed by the Architect, where equipment components or fixtures fit to surrounds, and when cracks between equipment and surrounds are undesirable or excessive. Provide sealants in all interior locations, as necessary to properly trim out.
- C. Sealants shall be installed and tooled in strict accordance with the Sealant Manufacturer's recommendations for joint preparation, using foam rope backer bars, etc. Sealant shall be installed by the respective Contractor

providing the item requiring sealant installation.

- D. See the Sealant Specification Section or consult the Architect for the type of sealant materials to be employed.

1.16. PAINTING

- A. All exposed surfaces or equipment reworked and installations leaving damaged or unfinished surfaces shall be painted or have a corrosion resistant factory-applied coating or finish.

- 1. Aluminum and stainless steel shall not require painting.

- B. Field paint unfinished equipment and surfaces for corrosion protection and visual appearance, except where clearly stated to the contrary on the Drawings.

- C. The Contractor shall paint specific components indicated in the contract documents.

- 1. No painting is anticipated in this contract.

1.17. ALIGNMENT

- A. The Contractor shall be responsible for supervision of the reinstallation of equipment, as applicable to these Documents.

END 01 04 00

1. GENERAL

1.1. DESCRIPTION

A. Related work specified elsewhere

1. Always verify existing conditions prior to start of work.

1.2. WORK INCLUDED

A. Execute cutting (including excavating), filling or patching of work, required to:

1. Make several parts fit properly.
2. Uncover work to provide for installation of ill-timed work.
3. Remove and replace defective work.
4. Remove and replace work not conforming to Contract requirements.
5. Remove existing construction as needed.
6. Install specified work in existing construction.
7. Install lintels in masonry opening cut by mechanical trades including masonry work.

B. In addition to Contract requirements, upon written instruction of Architect/Engineer:

1. Uncover work to provide for observation of covered work.
2. Remove samples of installed materials for testing when required.
3. Remove work to provide for alteration of existing work.

C. Do not endanger structural work by cutting or altering steel members unless indicated on Drawings.

D. Do not cut or alter work of another contractor without WRITTEN CONSENT of the Architect/Engineer.

E. Where the Contractor hauls material or drives trucks or equipment over sidewalks, pavement, streets or curbs, he shall protect same from damage and where such surfaces have been damaged, he shall neatly cut out, remove and replace same. Where the Contractor damages or defaces streets, sidewalks or curbs, he shall, as a part of his Contract, re-lay all such surfaces at the same thickness and manner as the original pavement, sidewalk or curb and in a manner that will be approved and accepted by the Owner, Architect/Engineer and governing authority.

F. The Contractor shall provide such cutting and patching as shall be needed to complete the Contract to make the various and several parts and/or components fit together.

1.3. SUBMITTALS

- A. Prior to cutting which affects structural safety to project submit WRITTEN NOTICE to the Architect/Engineer requesting consent to proceed with cutting, including:
 - 1. Project identification.
 - 2. Description of affected work.
 - 3. Necessity for cutting.
 - 4. Effect on other work and structural integrity of project.
 - 5. Description of proposed work. Designate:
 - a. Scope of cutting and patching.
 - b. Contractor and trades to execute the work.
 - c. Products proposed to be used.
 - d. Extent of refinishing.
 - 6. Alternatives to cutting and patching.
 - 7. Designation of party responsible for cost of cutting and patching.
- B. Prior to cutting and patching to implement change order work in contract scope, done on instruction of Architect/Engineer, submit cost estimate to the Architect/Engineer.
- C. Should conditions of work or schedule indicate change in materials or methods, submit recommendation to Architect/Engineer including:
 - 1. Condition indicating change.
 - 2. Recommendation for alternative materials or methods.
 - 3. Submittals as required for substitutions.
- D. Submit WRITTEN NOTICE to Architect/Engineer designating time work will be uncovered to provide for observation.

1.4. PAYMENT OF EXTRA EXPENSE

- A. Costs caused by ill-timed work, defective work or work not conforming to Contract Documents, including costs for additional services of the Architect/Engineer, shall be borne by the Contractor.
- B. Work done on instruction of the Architect/Engineer (by change order) other than defective or nonconforming work shall be paid for by Owner pursuant to prior written agreement via change order.

2. PRODUCTS

- 2.1. MATERIALS: Materials for replacement of work removed shall be equal to original and to match surrounds or shall comply with specifications for the type of work being replaced, whichever is the most stringent requirement.

3. EXECUTION

3.1. PREPARATION PRIOR TO CUTTING

- A. Prior to cutting
 - 1. Provide shoring, bracing, and support as required to maintain structural integrity of project or surrounds.
 - 2. Provide protection for other portions of the project.
 - 3. Provide protection from elements, if applicable.

3.2. PERFORMANCE

- A. Execute fitting and adjustment of products to provide finished installation to comply with specified tolerances, finishes, etc.
- B. Execute cutting and demolition by methods which will prevent damage to other work, and will provide proper surfaces to receive installation of repairs and new work.
- C. Execute excavating and backfilling by methods that will prevent damage to other work and will prevent settlement.
- D. Restore work that has been cut or removed; install new products to provide completed work in accord with Contract Documents.
- E. Refinish entire surfaces as necessary to provide an even finish.
 - 1. Continuous surfaces: To nearest intersection(s).
 - 2. Assembly: Entire refinishing.
- F. Refinish entire surfaces as necessary to provide an even finish.
 - 1. Continuous surfaces: To nearest intersection.
 - 2. Assembly: Entire refinishing.

END 01 04 50

1. GENERAL

1.1. DESCRIPTION

- A. Provide adequate anchorage and fastenings throughout the work commensurate with the installation conditions, and manufacturer warranties.
- B. Anchorage systems shown on the Drawings or specified herein shall be considered a minimum based on theoretical design conditions. The actual field conditions may require additional fastenings to properly accomplish the work.
- C. NOTICE:
 - 1. THESE DOCUMENTS DO NOT PERMIT THE INSTALLATION OF PLASTIC ANCHORS UNLESS SPECIFICALLY ASSIGNED.
 - 2. THE DOCUMENTS REQUIRE THAT IMPACT ANCHORAGE (DRIVEN NAILS AND PNEUMATICALLY DRIVEN ANCHORS) ARE TO BE NON-CORROSIVE TYPE, STAINLESS STEEL AND ¼" DIAMETER MINIMUM.

1.2. SUBMITTALS

- A. The Contractor shall identify all fastening systems he intends to employ, and provide specification sheets on the fasteners upon request.

1.3. QUALITY CONTROL

- A. All anchorage, fastenings and support systems are the Contractor's responsibility.
- B. All devices, components and associated parts shall be made secure against in-service failure. In no installation shall the fastenings, anchorage and support system be less than what is specifically called for on the Drawings or set forth in the Specifications.
- C. In no case, however, shall the fastenings, anchorage and support systems be less than the Product Manufacturer's recommendations pursuant to the stability of finished assembly or component thereof.
 - 1. Securing of wood framework shall be in accordance with the carpentry trade industry practice, Drawings or the recommendations of the Manufacturer, whichever is the more demanding.
 - 2. Securing of the structural steel systems, steel joists, and the decking shall be performed in accordance with industry practice, standards set forth in the specific Specifications section, the Drawings, and the recommendations of the Manufacturer, whichever is the more

demanding.

- D. The Contractor shall replace, rework, or reinforce or otherwise correct the fastenings which do not perform adequately.
- E. In general, fastening sizes and spaces are set forth on the Drawings. Wherein same are not, the Architect shall make a determination.

2. PRODUCTS

2.1. MATERIALS

- A. Generally, nails shall be appropriately selected for the service condition.
 - 1. Interior or protected framing: cement-coated box nails.
 - 2. Exterior framing: galvanized box nails.
 - 3. Interior finish work: finish nails.
 - 4. Exterior finish work: painted galvanized box nails for wood and aluminum nails for securing aluminum to wood such as cladding.
 - 5. Interior construction subject to corrosion: nails for exterior work.
 - 6. See Drawings for specific overriding designations materials and spacing limitations.
- B. Generally, screws shall be appropriately selected for the service condition to minimize corrosion, galvanic action or loosening. This includes wood screws, sheet metal screws and machine screws.
 - 1. Interior or exterior protected areas: cadmium plated screws.
 - 2. Exterior weathering conditions: stainless steel, aluminum, or brass screws. See specific designation on Drawings.
 - 3. Head type shall typically be flat head except as detailed, for conditions such as sheet metal or for equipment mounting.
 - 4. Stop bead washers, surface and/or countersunk, shall be provided wherever practical and as specifically called out.
 - 5. See Drawings for specific overriding designations materials and spacing limitations.
- C. Bolts shall be selected for the applicable service condition. In general, bolts shall be cadmium or galvanized A 307 NC thread, except as specified otherwise. Structural bolts shall be as specified. Provide washers for all bolts, and provide lock washers where appropriate. Embedded anchor bolts may be unplated, except where specified otherwise.
- D. Pop rivets may be employed only as specifically approved by the Architect. In general, pop rivets shall be aluminum alloy. Use the largest size pop rivets which can be adapted to the work.
- E. Pneumatic driven hardened steel anchors may be used where specifically approved. Provide washers.

2.2. ASSOCIATED MATERIAL REQUIREMENTS

- A. Washers shall be provided at all locations where practical.
- B. Washers shall be of like material to the fasteners selected.
- C. Use self-sealing neoprene washers at all applications required to be environment-proof.
- D. Use self-sealing neoprene washers wherever galvanic action is possible under normal circumstances. Isolate between unlike fastened material with minimum 20 mil duct tape material or similar.
- E. Select appropriately pre-finished, plated, or use base material for the visual exposure condition where fasteners are exposed to view.
- F. All exposed screws and bolts shall be coordinated with the hardware finish. In place field finish to achieve coordination with the hardware finish where necessary.

2.3. PRODUCT SELECTION

- A. Fastener materials shall be as specified previously. The most appropriate selection shall be made from the table below. The fasteners listed are not interchangeable, unless so approved by the Architect/Engineer.
 - 1. FASTENER RECEIVING MATERIAL: APPROPRIATE FASTENER
 - 2. Wood framing: cement coated nails, galvanized nails, screws, lag bolts, thru bolts.
 - 3. Steel: thru bolts, pneumatic driven fasteners, where detailed or where prior approval is made.
 - 4. Sheet metal: sheet metal screws, thru bolts.
 - 5. Masonry: embedded anchor bolts, pneumatic driven fasteners where approved, metallic expansion anchors, metallic wedge anchors, or toggle bolts.
 - 6. Concrete: embedded anchor bolts, pneumatic driven fasteners where approved, metallic expansion anchors, or metallic wedge anchors.
 - 7. Drive-pins (**NOT USED**); only detail specific if used at all.

2.4. SPECIAL ANCHORAGE & FASTENERS

- A. Self Tapping Cap Screw - Pre-Tap Drill.
 - 1. CF #14 X required length, "B" carbon structural tap seal screws.
 - 2. Counter bore wood to receive head and washer to flush.
 - 3. Tap-cons as listed on Drawings (stainless steel or high carbon).

3. EXECUTION

3.1. INSTALLATION

- A. The anchor receiving construction material shall be substantial and have the capability to withstand the in-service stress demand placed upon it.
- B. Fastener size shall be appropriate for the intended service. Verify all conditions in the field and increase the anchorage as needed.
- C. Anchorage patterns shall be appropriate to resist wiggling or prying loose during service. Use a uniform anchorage pattern for all exposed-to-view conditions; offset from centers as needed for maximum strength. A minimum of two (2) anchors shall be provided in each segment length or piece of material.
- D. Replace any fasteners which are crooked or do not properly engage the base material.
- E. Provide isolators between adjacent materials or fasteners and materials where electrolytic action is possible.

END 01 05 50

DIVISION 1 – GENERAL REQUIREMENTS
Section 01 25 00 – Substitutions & Product Options

1. GENERAL

1.1. SPECIFIED PRODUCTS

- A. All bids shall be based on providing products exactly as specified or equal as prior approved. See specification section 23 0920.
- B. Products specified only by reference or performance standards, shall be met or exceeded by the standards of any manufacturer's material and subject to the Architect/Engineer's approval.
- C. Products specified by naming several products or manufacturers shall be selected from any product and manufacturer named.

1.2. SUBSTITUTIONS, BIDDER/CONTRACTOR OPTIONS

- A. PRIOR TO BID OPENING - The Architect/Engineer will consider requests to amend the bidding documents to add products not specified, provided such requests are received in adequate time prior to bid opening date.
 - 1. Requests received after ten (10) days before bid due date will not be considered.
 - 2. If a request is approved, the Architect/Engineer will endeavor to issue an appropriate addendum not less than seven (7) calendar days prior to bid opening date.
 - 3. Ten (10) days is based on the start bid date, and will not be extended by bid extension unless same is extended more than ten (10) days.
- B. WITH BID - Substitutions will not be considered with the bids.
- C. AFTER AWARD OF CONTRACT - No substitutions will be considered after Notice of Award, except under one or more of the following conditions:
 - 1. Substitution is required for compliance with final interpretations of code requirements or insurance regulations.
 - 2. Unavailability of specified products, through no fault of the Contractor.
 - 3. Subsequent information discloses inability of specified product to perform properly or to fit in designated space.
 - 4. Manufacturer/fabricator refusal to certify or guarantee performance of specified product as required. This does not alter the requirement.
 - 5. When a substitution would be substantially to the Owner's best interest.

1.3. SUBSTITUTION REQUIREMENTS

- A. Submit four (4) copies of each request for substitution. Include in each request for substitution:

1. Complete data substantiating compliance of proposed substitution with Contract Documents.
2. For products:
 - a. Product identification, including Manufacturer's name and address.
 - b. Manufacturer's literature.
 - 1) Product description.
 - 2) Performance and test data.
 - 3) Reference standards.
 - c. Samples, if applicable.
 - d. Name and address of similar projects on which product was used and date of installation.
3. For construction methods substitution:
 - a. Detailed description of proposed methods.
4. Itemized comparison of proposed substitution with product or method specified, including accurate and true cost data on proposed substitution in comparison with product or methods specified.
5. Data relating to changes in construction schedule.
6. Identify:
 - a. List other contracts affected, if applicable.
 - b. List changes or coordination required.

B. In making requests for substitution, bidder/contractor represents:

1. He has personally investigated proposed product or method and determined that it is equal or superior in all respects to that specified.
2. He will provide the same guarantee for substitutions as for product or method specified.
3. He will coordinate installation of accepted substitutions into work, making all such changes as may be required for work to be complete in all respects.
4. He will provide complete cost data including all related costs under his contract (and other Prime Contract's, as applicable) whose work may also be affected by the substitution in product or method.
5. He will assume full responsibility for all additional costs and expenses to the Owner, Architect/Engineer (and other contractors employed on the same project, as applicable).
6. The Contractor agrees that it is the Contractor's sole responsibility to stand any costs that may be attributable to an allowed substitution that may surface as construction proceeds toward finalization.

C. Substitution will not be considered if:

1. It is indicated or implied on shop drawings or product data submittals

without formal request submitted in accordance with Paragraph 1.4 above.

2. Acceptance will require substantial revision of Contract Documents.

END 01 25 00

1. GENERAL

1.1. MANAGEMENT OF THE CONTRACT

A. The contractor shall provide necessary project support to manage necessary support documentation in an accurate and timely fashion.

1. Following award, ten (10) calendar days, submit two (2) copies:

- a. Signed contracts
- b. Insurance
- c. Bonds, Labor and Material payment and Performance or approved Owner protective bond.
- d. Subcontractor/supplier List – provide promptly prior to signing the of contract
- e. Contractor Schedule of Values, labor and materials and by trade and task breakdown.

2. Preconstruction meeting:

- a. Provide proposed schedules
- b. Project access for remodel/renovation projects
- c. Project security plans, fences, storage facilities, public access control.
- d. Proposed schedule
- e. Contact information
- f. Identify Project management team, Superintendent of the work,

3. Prior to start of the work on site:

- a. NOI permit from IEPA as applicable on projects excavating over 1 acre or more.
- b. Background check information as applicable to this project.
- c. Permits
- d. Have in place the safety plan and assigned safety person on the site. Safety is the responsibility of the contractor, and is not monitored or directed by the Owner or the A/E except in apparent emergency situations where the Owner or the A/E might assist in determination of safety accommodations as identified by the contractor.
- e. Have in place the fences and barricades to control public or non-contractor access to the site.

1.2. SUPERINTENDENT OF WORK

A. The Contract shall designate a person who shall be General Superintendent of on site construction work encompassed by the Contract Documents.

1. Said designated superintendent shall have prior served as project

superintendent of construction of similar nature and size. Qualifications shall be subject to the Owner's and Architect's review.

2. Superintendent shall remain superintendent for the duration of the project unless said person shall become disabled, no longer employed by the Contractor. The Contractor shall provide notice to the Architect and the Architect and Owner shall approve the personnel change.
3. Owner can request superintendent replacement for cause at any time.

1.3. AWARD AND LETTER OF INTENT

- A. The Owner will make an award based on the selection of the lowest cost responsible bidder that has demonstrated past experience and evidence of adequate resources to accomplish the work. After the award, and the issuance of a Letter of Intent, the contract timeline is as follows:
 1. Return signed agreement seven (7) days
 2. Sub Contractor, Supplier, or any entity to be assigned a part of the work, provide list, addresses and contact information. Seven (7) days. Provide references upon request. Seven (7) days:
 3. Labor and Materials, Payment, and Performance bonds, 15 days
 4. Insurance, 15 days
 5. Master Cost Breakdown (CSV), 15 days
 6. Proposed Schedule and time line, 15 days
- B. Failure or refusal to provide the preceding Contract information in a timely manner may be cause for cancellation of the award or termination of the agreement if signed and the Owner will be entitled to compensation under the terms of the bid security for failure to execute contract terms in good faith.

1.4. MATERIALS SPECIFIED AND QUALITY OF WORK

- A. Materials shall be as specified or approved equal.
- B. "Approved equal" and "or equal" shall mean that the Contractor shall be required to receive the Owner's approval (via the Architect) on any substitute materials seven (7) days prior to the bid due date.
- C. Requests for substitution approval shall be submitted to the Architect/Engineer.
 1. Prior to considering substitutions, the Owner and/or the Architect/Engineer may require submission of samples, descriptive, technical and catalog data and lab reports of tests for verification of equivalency.
 2. Said submittals shall be presented to Architect/ Engineer.

1.5. PROGRESS PAYMENTS

- A. All payments by the Board of Education require Board approval.
 - 1. Payment requests must be submitted prior to the first Monday of the month for consideration and entry into the agenda.
 - 2. Untimely submission of payment request will result in a one (1) month delay for consideration.
 - 3. The Contractor will be notified of the regular Board meeting schedule upon request.
 - 4. Payment will be made within twenty (20) days following board approval, or a notice of board concerns will be provided.

- B. In accordance with the terms of the Contract periodic partial progress payments may be made monthly to the Contractor for: 90% of the value of the labor, materials, and/or equipment incorporated in the construction.
 - 1. Payment will be for completed progress materials only.
 - 2. Materials properly stored and protected on site may be billed
 - 3. Payment for Materials off site may be considered if properly warehoused, dedicated to this project and insured, Submit all information and same will be reviewed and may be approved or denied for payment.
 - 4. Progress pay requests shall indicate amounts completed of all items listed from the master breakdown.
 - 5. 10% of each request will be retained by Owner until work has been satisfactorily completed.
 - 6. Submit lien waivers for preceding payments made.
 - 7. Submit lien waivers from subcontractors and suppliers.
 - 8. Submit notarized Contractor's affidavits with each pay request showing that total owed on Contract by Owner (after subject request has been paid to Contractor) is more than the amount to become due the Contractor for material, subcontractors and labor.

- C. All the applications for payment shall be made in three (3) copies with all copies bearing live seals and signatures, notarized and complete and accurately filled in.
 - 1. Applications for payment shall be submitted to Architect/Engineer on AIA G-702A Forms or other standard formats containing similar information.

- D. Public Projects only: Attach one (1) copy of Contractor's Certified Prevailing Payroll with Pay Request in accord with Dept. of Labor requirements. Include Payroll for the major Subcontractors and upon request any minor or intermittent on-site Subcontractor.
 - 1. Submit beginning with the first application for payment for all workers employed on site
 - 2. Submit for each successive month with each pay request.

1.6. FINAL PAYMENT: The final application for payment shall not be made until all work and deficiency (punch list) items have been satisfactorily completed and approved by the Architect/Engineer for documents compliance.

1.7. EMPLOYEE-STUDENT RELATIONSHIPS

A. Except in an emergency situation involving safety, there is to be no intermingling of the Contractors' employees and the school faculty, staff and students violating this requirement shall be removed from employment at this site. Contractor employees experiencing problems with students or faculty shall report same to their project superintendent, who shall promptly report the problem to an authorized representative of the Owner and the Architect/Engineer.

1. Avoid profanity and inappropriate subject matter in conversation as students and staff may be within audible range and walls or ceiling spaces may allow sound transmission.
2. Verbal or physical action interpreted as sexual or sexually suggestive in nature or as sexual harassment will be grounds for removal of the employee from the site. Further legal action remains the option of the persons affected.
3. In all aspects of this provision, the Contractor's employees as adults have the greater responsibility and should not respond to inappropriate student behavior.

B. Authorized agents of the Owner include the District Superintendent, District Building and Grounds Supervisor, the District Financial Services Director and the Architect/Engineer. The School Principal is authorized to discuss concerns regarding operations on site, but is not authorized to order changes in the work.

End 01 30 00

1. GENERAL

1.1. DESCRIPTION

- A. Prior to commencing the work, the Contractor shall provide submittals on all materials and equipment proposed for the work, except material provided by Alpha Controls.

1.2. Shop Drawings, Submittals, and Submittal Brochures

- A. Submit four (4) copies minimum unless notes otherwise in a particular section.
- B. Architect and/or Owner will retain two (2) copies.
- C. Contractor will receive remaining copies for his use.
- D. Shop drawings and material schedules shall be accompanied by catalog cuts or literature providing all data, description, function, and capacity of item or component submitted.
- E. Catalogs and fliers with multiple component descriptions shall be clearly and precisely marked as to submittal item. The Architect/Engineer's office will provide no sorting to assure the submittals match with documents requirements.

1.3. Samples

- A. When samples are requested submit two (2), minimum.
- B. All samples will be retained unless otherwise noted in the documents or requested by the vendor. Samples for return may be held until the material is installed on site.

1.4. Project record information

- A. The Contractor shall, within seven (7) days of Notice of Award, submit to the Architect the following:
 - 1. Name of person under Contractor employment at the job site in charge of the work and safety.
 - 2. Provide a contact list including emergency contact information for all relative parties to the work, including the superintendent, the project manager, subcontractors, and major vendors.

1.5. Project Record Documents

- 1. Operating and Maintenance Manuals.
 - a. Submit three (3) bound, indexed copies minimum.

- b. These manuals shall include all Shop Drawings and all Submittals, all Equipment Brochures, Operating Manuals, Operating Instructions, names, addresses, and telephone numbers for guarantee work, all bound into a good quality binder or loose-leaf notebook, clearly labeled.
 - c. THE SHOP DRAWINGS RETAINED BY THE OWNER AND ARCHITECT ARE NOT AVAILABLE FOR PREPARING THESE MANUALS. If additional copies are required for this, the Contractor shall make allowance and copy additional sets.
 - d. Include warranty information and warranty contact information.
2. Record drawings: Maintain as work proceeds record drawings marked to show any variances in installations, particularly underground and concealed services.

1.6. AS-BUILT DRAWINGS

- A. The Contractor shall provide the Architect/Engineer's Office with one marked set of drawings showing changes from the original drawings. Marked As-Built Drawings shall be submitted upon progress having Substantial Completion progress.
- 1. Preferably markings should be in red, clearly legible and easily understood.
 - 2. Clearly and boldly label the set As Built or Record Drawings.
- B. The Contractor shall mark all locations where ionization devices were located in the buildings. These "As Built" drawings will be turned over to the Owner for the record.**

1.7. IDENTIFICATION OF SUBMITTALS

- A. The Contractor shall clearly mark each submittal of the Shop Drawings, Catalog Cuts, Pamphlet, or Specification Sheet for identification and record, for example:
- a. DATE: As submitted
 - b. BUILDING: Project Name
 - c. LOCATION: City
 - d. TYPE OF EQUIPMENT: (Example – AHU 1)
 - e. SUBMITTED BY: Contractor's Name and contact information for questions.
2. Data shall also indicate model number selected for furnishing and indicate capacities or conditions or operation.
- a. Catalog data of general advertising nature, without specific outline or rating for equipment, will be rejected.
 - b. Marked product manufacturer's catalogs and engineering data shall accompany the submittal.

1.8. REVIEW OF SUBMITTALS

1. Submittals will be reviewed by the Architect and/or the Owner and will be checked for Contract compliance and the basic fabrication methods.
2. The Contractor must verify all the dimensions, field conditions, field clearances, and rough-in requirements with adaptations as necessary.
3. Submittals are to be reviewed and corrected first by the Contractor. If submittals contain obvious oversights or conditions that make it apparent they have not been checked, they will be returned for re-submittal.
4. Architect/Engineer review of a submittal shall not relieve the Contractor of contract compliance unless any variance is specifically brought to the attention of the Architect and/or Owner IN A LETTER FORM attached to the submittal data and subsequently approved by the Architect/Engineer IN WRITING.
5. An omission on the shop drawings or a review oversight by the Architect/Engineer shall not be construed as the calling of specific attention thereto.
6. It is not the responsibility of the Architect Engineer to request submittals, failure to submit presumes contract compliance is understood.
7. It is not the responsibility of the Architect Engineer to provide rapid review turnaround on a delayed submittal to maintain schedule. The Contractor shall make submittals in a timely manner generally allowing at least ten (10) days for review.

END 01 33 00

1. GENERAL

1.1. REQUIREMENTS INCLUDE

A. Contractor:

1. Coordinate work of all crafts including that of subcontractors and his crafts as applicable.
2. Schedule elements of remodeling and renovation work to expedite completion.
3. Schedule noisy or hazardous work to avoid problems with the Owner's day-to-day building functions and general maintenance operations.
4. In addition to required incidental demolition specified in various sections, and that shown on Drawings, cut, move or remove existing construction to provide access or to allow remodeling and new work to proceed. Include:
 - a. No demolition is required except as noted in following paragraph.
 - b. Removal of unsuitable or extraneous materials and non-functioning components not marked for salvage, such as abandoned furnishings and equipment, and debris such as rotted wood, rusted metals, abandoned electrical and mechanical components, and deteriorated concrete.
 - c. Cleaning of surfaces. Remove surface finishes to install new work and finishes.
5. Patch, repair and refinish existing items to remain, to the specified condition for each material, with a neat transition to adjacent new construction.
6. Move room furnishings to allow access to specified floor, wall and ceiling work. Relocate same in place at the completion of specified rehab work.
7. Cooperate with the Owner and schedule ahead pursuant to rehab work at locations involving preparatory work by Owner - see 1.1.B. of this section.

B. Owner:

1. Remove, store and replace books and files to allow Contractor access to floors, walls and ceiling, room by room, on schedule determined by the Contractor.
2. Cooperate with the Contractor pursuant to providing Contractor access to rooms and areas scheduled for rehab - see 1.1.A. 6 & 7 this section.

1.2. RELATED REQUIREMENTS

A. Specified elsewhere:

01 35 16 - 1 Alteration Project Procedures

1. DIVISION 0 - PROCUREMENT REQUIREMENTS
 2. DIVISION 1 - ADMINISTRATIVE REQUIREMENTS
- 1.3. SEQUENCE AND SCHEDULES: Schedule work in sequences within times specified in 01 10 00.
- 1.4. ALTERATIONS, CUTTING AND PROTECTION
- A. Assign moving, removal, cutting and patching work to crafts qualified to perform the work in a manner to cause least damage to each type of work, and provide means of restoring surfaces to appearance of new work.
 - B. Perform cutting and removal work to minimize removals, and in a manner to avoid damage to adjacent work.
 1. Cut finish surfaces such as masonry, tile, plaster or metals by methods to terminate surfaces in a straight line at a natural point of division.
 - C. Perform cutting and patching in accordance with the general and supplementary General Conditions.
 - D. Protect from damage existing finishes, equipment and adjacent work which is scheduled to remain.
 1. Protect existing and new work from weather and temperature extremes.
 2. Provide weather protection, waterproofing, heat and humidity control to prevent damage to remaining existing work and to new work.

2. PRODUCTS

2.1. SALVAGED MATERIALS

- A. The Contractor shall:
 1. Remove all existing demolished material including boilers and chillers from the site.

2.2. MATERIALS FOR PATCHING, EXTENDING AND MATCHING

- A. Ensure that work is complete:
 1. Provide same materials or types of construction as that in existing structure, to patch, extend or match existing work.
 - a. Contract Documents may not define products or standards of workmanship present in existing construction.
 - b. Consult the Drawing Details and/or consult the Architect/Engineer.
 2. Presence of a product, finish or type of construction requires that

patching, extending or matching be performed to make work complete and consistent to identical or better quality standards.

3. EXECUTION

3.1. REMOVE EXISTING CONSTRUCTION

- A. Consult the drawings for removals and replacements as set forth.

3.2. PERFORMANCE

- A. Patch and extend existing work using skilled craftsmen capable of matching existing quality of workmanship.
- B. For patched or extended work, provide quality equal to that specified for new work.

3.3. ADJUSTMENTS

- A. Where existing construction and components are removed, patch floors, walls, doors, trim, and ceilings with finish materials to match existing as closely as possible.

3.4. DAMAGED SURFACES RESULTING FROM CONTRACTOR WORK

- A. Patch and replace all portions of the existing finished surfaces found to be damaged, lifted, discolored or showing other imperfections, with matching material.
 - 1. Provide adequate support prior to patching the finish.
 - 2. Refinish patched portions of painted or coated surfaces in a manner to produce uniform color and texture over entire surface.
 - 3. When existing surface cannot be matched, refinish entire surface to nearest intersections.

3.5. TRANSITION FROM EXISTING TO NEW WORK

- A. When new work abuts or finishes flush with existing work, make a smooth transition. Patched work shall match existing adjacent work in texture and appearance as closely as possible.
 - 1. When finished surfaces are cut in such a way that a smooth transition with new work is not possible, terminate existing surface in a neat manner along a straight line at a natural line of division, and provide trim appropriate to finished surface.
 - 2. Refinished surfaces must be weathertight as appropriate to the exposure

3.6. CLEANING

- A. Perform construction cleaning.
 - 1. Clean Owner occupied areas, where work prevails, daily.
 - 2. Clean all spillage, overspray and heavy dust collections in Owner's occupied areas immediately.

- B. At completion of work of each craft, clean area and make surfaces ready for work of successive crafts.

- C. At completion of alterations work in each area, provide final cleaning for occupancy and return space to a condition suitable for use of Owner.

END 01 35 16

1. GENERAL

1.1. GENERAL TERMS USED IN THE CONTRACT

- A. OWNER: McLean County Unit District No. 5
1809 W. Hovey Ave.
Normal, IL 61761
Telephone: 309/557-4000 Fax: 309-557-4537
- B. CONTRACTOR: A person, firm or corporation with whom a Contract or Agreement is made by the Owner.
- C. GENERAL CONTRACTOR: The General Contractor furnishes all of the work in the documents. Pursuant to these Documents the Designating Contractor, General Contractor and Prime Contractor shall be one and the same.
- D. ARCHITECT OR A/E: Middleton Associates, Incorporated, 1702 W. College Ave., Suite E, Normal, IL 61761 - Telephone 309/452-1271, Fax 309/454-8049, e-mail: russ@middletonassociates.net
- E. DOCUMENTS: The Drawings, Specifications and Contract as apply to all areas of the work.
1. Shop drawings do not become part of the Contract Document.
- F. WORK: All obligations undertaken by the Contractor, pursuant to the Contract Documents.
1. Work includes, but is not limited to, the furnishing of all of the materials, labor, equipment, supplies, plant, tools, scaffolding, transportation, unloading, superintendence, insurance, bonds, taxes and all other services, facilities, required demolition (major and minor as applicable) and expenses necessary for the full performance and completion of requirements of the Contract Documents.
2. Work also means that which is produced, built, or constructed, pursuant to the Contract Documents.
3. Work includes all labor and materials to properly install and make functional.
- G. PROVIDE: Furnish and install (including materials, accessories and labor) ready for the Owner's use. Comply with manufacturer's installation requirements as minimum standard, Drawings and Specifications where installation requirements exceed manufacturer's recommendations.
- H. EQUAL, APPROVED EQUAL: Alternative products meeting or exceeding the base specification product or process and approved by the

Architect/Engineer IN WRITING as suitable for this application. If not accepted prior to bidding, acceptance is discretionary.

- I. **SUBSTANTIALLY COMPLETE:** When work progress has arrived at the point where the Owner may have full use of the installation for the purpose for which the same was installed, all components installed, equipment operating under control and minimum code compliance achieved, then, the work may be declared substantially complete if so requested by the Contractor and specifically approved by the Owner.
 - J. **PUNCH LIST:** Those items, components, installation inclusive of labor and materials (in place) which, in the opinion of the Architect/Engineer or the Owner do not conform to the intent of the Contract Documents and/or adequately satisfy the purpose and intent of the Owner.
 - K. **DESIGNATED WORK:** Wherein the documents designate that one contractor shall provide specified material and labor for another trade area contractor, the cost of the work and material shall be included in the bid of the contractor that is designated to provide the material and labor.
 - L. **AND/OR:** Wherein employed in the documents shall be either and both, singularly and together, as applicable to the intent of the Project Documents.
 - M. **CONCEALED:** Concealed building components, services, and obstacles subject to Change Orders, shall be limited to those components, services, obstacles, etc., not designated or known to exist, not typical to the type of construction observed and not available for inspection without destructive action. Opening of access panels, looking above accessible ceiling systems or inside chase walls is not considered concealed items.
- 1.2. In general, definitions of words employed in the Contract Documents shall be as defined in "Webster's New World Dictionary" the latest edition. The Architect shall be the interpreter in the case of multiple meanings. Exceptions to this shall include longstanding meanings in the construction industry but have not been so defined in Webster's Dictionary. Determination shall be in accordance with these Specifications.

END 01 42 16

DIVISION 01 - GENERAL REQUIREMENTS
Section 01 50 00 - Temporary Facilities & Controls

1. GENERAL

1.1. WORK INCLUDES

- A. Contractor shall provide and maintain specified temporary utilities.
- B. Contractor may extend electrical and water services from Owner's existing sources.
 - 1. Tap on and extension of services shall be implemented and paid for by the Contractor requiring utility.
 - 2. Return tap on surrounds to original or contracted configuration and circumstances at close of job by the Contractor.
 - 3. Extension shall not compromise Owner's operations.
- C. Contractor shall furnish (included in his Base Bid):
 - 1. The cost of all utilities required by him which:
 - a. Are in excess of existing available at the building and are necessary for the completion of his work.
 - b. Exceed the capacity of existing or permanent systems and are necessary for the completion of his work.
 - c. Required prior to permanent enclosure.
 - 2. Extension cords, extension lights and lamps from approved temporary power centers to his work.
 - 3. Ventilation for his storage spaces containing volatile or hazardous materials.
 - 4. Security for materials and equipment.
 - 5. Heating as needed to protect construction form freezing or frost damage.
- D. Furnished by Owner
 - 1. Authorization of existing facilities for temporary use.
 - a. Electrical power service
 - b. Water service extended from existing outlets by the Contractor
 - 2. Owner will pay all costs of power and water consumables used for construction purposes for utilities properly extended.
 - 3. The Contractor requiring Owner-furnished services, shall provide and pay for extension or modification of services to perform the work and for restoration of services and Owner equipment at completion of the work.

4. Heating consumables
 - a. Only after building is fully enclosed with finished envelope elements, windows, doors, etc.
 - b. Only through Owner's equipment and/or new equipment.
 - c. Only when under control, 55 deg. max.
 - d. Only when protected from damage, dirt, infiltration, etc.
 - e. Do not extend the Owner's utilities for temporary heat.

- E. Enclosure - Definition
 1. Temporary: Sufficient preliminary enclosure of an area structure, or of an entire building, to prevent entrance or infiltration of rainwater, wind and other elements, and which will prevent undue heat loss from within enclosed areas.
 2. Permanent: Stage of construction at which all moisture and weather protection elements of construction have been installed in accordance with the Contract, either for a portion of structure or for entire building.

- F. Lighting: The Contractor shall provide the specified minimum lighting levels required by OSHA for the type of work under construction.
 1. Adequate illumination for safe movement of authorized persons through project.
 2. Adequate illumination for public safety.
 3. Special warning lighting for hazardous conditions.
 4. Task lighting by crew requiring same.

- G. Security: To protect project from unauthorized entry.

- H. Telephone: Contractor on site telephone services land line or cell to be provided by the Contractor.

- I. Water Service:
 1. For construction purposes:
 - a. The Contractor shall provide and maintain temporary water service connection throughout construction period.
 - b. The Contractor shall supply adequate water hoses from hose bibbs to the point of his operations.
 2. For temporary fire protection and cleaning.
 3. Maintain adequate volume of water for all purposes.
 4. The Contractor provides drinking water for his own forces.
 5. Water source: On or off site.

- J. Toilets: Contractors' personnel may use existing restroom facilities at the building in the construction project, provided that:

1. Construction workers do not use toilet facilities occupied by Unit 5 staff or students.

K. Heating Consumables

1. Provide appropriate temporary heating and distribution to protect new construction from damage at Contractor's expense prior to permanent enclosure.

1.2. COST OF INSTALLATION, OPERATION, MAINTENANCE & CONSUMABLES

A. Installation, operation and maintenance:

1. The Contractor requiring service extensions shall pay all costs of installation, operation, maintenance, restoration and equipment warranty extension of temporary utilities for designated time periods.
2. The Contractor shall not overload the system.

B. Consumables:

1. Contractor pay all costs of consumables for temporary utilities, as designated:
 - a. Heating Fuel via Temporary Heating Units: Contractor requiring same.
 - b. Heating
 - c. Electrical Energy Contractor except as properly extended.
 - d. Lamps: Contractor requiring same.
 - e. Water: Owner as properly extended.
 - f. Toilets and Supplies: Contractor.

1.3. MONITORING OF TEMPORARY UTILITIES

A. The Contractor extending or providing a temporary utility extension shall be responsible for all damage to his work or to the existing facility caused by a defect in temporary utilities or utility extensions.

1. Enforce compliance with specified codes and standards.
2. Enforce safe practices.
3. Prevent abuse of services and utilities.
4. Prevent damage to finishes.

B. Upon completion of work, or when directed by Architect/Engineer, restore existing systems to original condition.

2. PRODUCTS (Not applicable)

3. EXECUTION

3.1. ALL TEMPORARY UTILITIES AND EXTENSIONS

- A. Comply with DIVISION 15 and DIVISION 16 Specifications and Federal and State regulations.
- B. Install work in a neat and orderly manner.
- C. Be made structurally, mechanically and electrically sound throughout.
- D. Be maintained to give safe, continuous service, and to provide safe working conditions.
- E. Be modified and extended as work progresses.

3.2. INSTALLATION

A. Electrical:

- 1. Protect branch circuits or extension wiring on floor or on ground from damage.
- 2. Wiring for temporary heating and ventilating equipment:
 - a. Wire all safety devices specified for operation or equipment.
 - b. Verify proper operation of all safety devices.

B. Lighting:

- 1. Control lighting at Contractor installed secondary power centers or unless otherwise specified.
- 2. Install exterior security lighting at vertical conveyances left in place overnight.

C. Water services:

- 1. Do not run unprotected piping on floor or on ground.
- 2. Provide drip pan under each water service connection located within buildings.
- 3. Provide insulation, or other means, to prevent pipes from freezing.
- 4. When necessary to maintain pressure, the Contractor requiring same to complete his work shall provide temporary pumps, tanks and compressors.

3.3. REMOVAL & REINSTALLATION

- A. At the conclusion of the work, completely remove temporary materials and equipment.
- B. Repair all damage caused by installation. Restore to original condition or better.

END 01 50 00

1. GENERAL

1.1. WORK INCLUDES

- A. Completed Deficiency List
- B. Final Cleaning
- C. Project Record Drawings
 - 1. Contact list of Installing Contractor and/or Subcontractors.
- D. Guarantees, Warranties and Bonds
 - 1. Contact list for warranty claims.
- E. Submittal
 - 1. All materials shall be submitted in multiple copies in an orderly and labeled fashion.
 - 2. Generic documents not filled in, dated, and job specific are not acceptable.

1.2. EVIDENCE OF COMPLETION OF THE CONTRACT

- A. Equipment and Building
 - 1. All equipment operational as intended, under control, installed per Manufacturer's recommendations.
 - 2. All construction completed, finished and in new condition.
 - 3. All deficiencies addressed to the satisfaction of the A/E and Owner.
 - a. Return Punch List with each completed item initialed by the Contractor representative who has inspected the corrective work.

1.3. COORDINATE FINAL CODE INSPECTIONS

- A. Work with governing authorities for occupancy inspection.
 - 1. Municipality
 - 2. Regional Superintendent of Schools (school project).
 - 3. IDPH for plumbing and any other IDPH permitted work.
 - 4. A/E for called inspection when applicable.
 - 5. Fire Marshall, not applicable for this project.

1.4. WARRANTIES

- A. Extended warranties beyond the one (1) year 100% labor and material overall warranty shall be provided showing:

1. Terms and dates
2. Contact information
3. Installing Contractor
4. Exact system / material as applicable.

B. Extended warranties

1. As listed in various Specification Sections.
2. As advertised by Manufacturers.
3. As required for:
 - a. Hardware – five (5) years
 - b. Refrigeration equipment – five (5) years.
 - c. Boilers
 - d. Roofing
 - e. Mechanical BAS controls – two (2) years.
4. Items requiring chronic repair during the warranty period shall have an extended 12-month warranty until repairs are not needed over a 12-month period.

1.5. PROJECT RECORD DOCUMENTS

A. Submit Project Record Documents to reasonably provide information on:

1. Hidden utilities
2. Products used.
3. Any hidden from view structural or mechanical or electrical variations from plans.
4. Notation of alternates where same impacted the Base Bid Drawings.

B. Provide listing:

1. Contractor / Subcontractor / Vendor list with:
 - a. Product or service
 - b. Contact information

1.6. FINAL PAY APPLICATION

- A. Final Lien Waivers – all Subcontracts and direct Suppliers.
- B. Final Affidavit showing \$0.00 due to all vendors.
- C. Letter from Bond holder approving closeout payment.
- D. Final paperwork on allowances, adds or deductions agreed upon by Change Order.
- E. Final acceptance as applicable.

END 01 78 00

DIVISION 23 – HEATING, VENTILATING, AND AIR CONDITIONING
Section 23 0920 – Instrumentation/Devices for IAQ

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. This is an indoor air quality improvement project where products specified below shall be furnished by Alpha Controls & Services and sized to meet the airflow requirements of each piece of HVAC equipment to help limit community spread of infectious disease.

1.2 REFERENCED CODES & STANDARDS

- A. The following codes and standards are referenced through out. The edition to be used is that currently enforced by the authority having jurisdiction (AHJ) or in absence of such direction that referenced by the current enforceable IBC code or as indicated by the contract documents, except where specifically referenced by this section of the specifications.
 - 1. ASHRAE Standards 62 & 52
 - 2. National Electric Code NFPA 70
 - 3. UL 867 including ozone chamber test required as of December 21, 2007

1.3 RELATED WORK

- A. Testing, Adjusting and Balancing
- B. Facility Access and Protection
- C. Ductwork
- D. Filters
- E. Water and Refrigerant Piping
- F. Electrical Wiring
- G. Control Wiring

1.4 QUALITY & IP ASSURANCE

- A. Basis of design is Global Plasma Solutions. American Ion shall be considered equal subject to meeting all specifications herein. All other manufacturers requesting prior approval must submit product drawings, specifications and test results specified in section 2.2 at least four weeks prior to bid date.
- B. The Air Purification System shall be a product of an established manufacturer within the USA.
- C. A qualified representative from the manufacturer shall be available to inspect the installation of the air purification system to ensure installation in accordance with manufacturer's recommendation.
- D. Technologies that do not address gas disassociation such as UV Lights, Powered Particulate Filters and/or polarized media filters shall not be considered. Uni-polar ion generators shall not be acceptable. "Plasma" particulate filters shall not be acceptable.
- E. Projects designed using ASHRAE Standard 62, IAQ Procedure shall require the manufacturer to provide Indoor Air Quality calculations using the formulas within

ASHRAE Standard 62.1-2007 to validate acceptable indoor air quality at the quantity of outside air scheduled with the technology submitted. The manufacturer shall provide independent test data on a previous installation performed within the last two years and in a similar application, that proves compliance to ASHRAE 62 and the accuracy of the calculations.

- F. The Air Purification System shall have been tested by UL or Intertek/ETL to prove conformance to UL 867-2007 including the ozone chamber testing and peak ozone test for electronic devices. Manufacturers that achieved UL 867 prior to December 21, 2007 and have not been tested in accordance with the newest UL 867 standard with the ozone amendment shall not be acceptable. All manufacturers shall submit their independent UL 867 test data with ozone results to the engineer during the submittal process. All manufacturers shall submit a copy with their quotation. Contractors shall not accept any proposal without the proper ozone testing documentation.
- G. The maximum allowable ozone concentration per the UL 867-2007 chamber test shall be 0.007 PPM. The maximum peak ozone concentration per the UL 867-2007 peak test as measured 2 inches away from the electronic air cleaner's output shall be no more than 0.0042 PPM. Manufacturers with ozone output exceeding these ozone values shall not be acceptable.

1.5 SUBMITTALS

- A. Product Data: Submit manufacturer's technical product data for ion generators including:
 - 1. Schedule of plasma generators indicating unit designation, number of each type required for each unit/application.
 - 2. Data sheet for each type of plasma generator, and accessory furnished; indicating construction, sizes, and mounting details.
 - 3. Performance data for each type of plasma device furnished.
 - 4. Indoor Air Quality calculations using the formulas within ASHRAE Standard 62.1-2007 to validate acceptable indoor air quality at the quantity of outside air scheduled (when projects are designed with outside air reduction).
 - 5. Product drawings detailing all physical, electrical and control requirements.
 - 6. Copy of UL 867 independent ozone test.
- B. Operating & Maintenance Data: Submit O&M data and recommended spare parts lists.

1.6 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver in factory fabricated shipping containers. Identify on outside of container type of product and location to be installed. Avoid crushing or bending.
- B. Store in original cartons and protect from weather and construction work traffic.
- C. Store indoors and in accordance with the manufacturers' recommendation for storage.

1.7 WARRANTY

- A. Equipment shall be warranted by the manufacturer against defects in material and workmanship for a period of eighteen months after shipment or twelve months from

owner acceptance, whichever occurs first. Labor to replace equipment under warranty shall be provided by the owner or installing contractor.

PART 2 - PRODUCTS

2.1 GENERAL

- A. The air purification system(s) shall be of the size, type, arrangement and capacity indicated and required by the unit furnished and shall be of the manufacturer specified.
- B. Basis of Design: Global Plasma Solutions
- C. All other Suppliers of comparable products requesting prior approval shall:
 - 1. Submit for prior approval in accordance with the requirements of Section 15010.
 - 2. In addition, manufacturers submitting for prior approval for Bi-Polar Ionization must as part of the prior approval request provide their ASHRAE 62.1-2007 calculations that prove conformance to the ASHRAE Standard with the reduction of outside air to the scheduled values. A letter on the manufacturer's letterhead requesting prior approval must accompany the request for prior approval stating their calculations are ASHRAE compliant. A third party validation study performed on a previous installation of the same application shall also be included.
 - 3. Submit independent test data from ETL or UL showing ozone levels produced during the UL 867 ozone chamber test. Manufacturers without this test data shall not be acceptable.

2.2 BI-POLAR IONIZATION DESIGN & PERFORMANCE CRITERIA

- A. Each piece of air handling equipment, so designated on the plans, details, equipment schedules and/or specifications shall contain a Plasma Generator with Bi-polar Ionization output as described here within.
- B. The Bi-polar Ionization system shall be capable of:
 - 1. Effectively killing microorganisms downstream of the bi-polar ionization equipment (mold, bacteria, virus, etc.).
 - 2. Controlling gas phase contaminants generated from human occupants, building structure and furnishings.
 - 3. Capable of reducing static space charges.
 - 4. Increasing the interior ion levels, both positive and negative, to a minimum of 800 ions/cm³ measured 5 feet from the floor.
 - 5. Self-cleaning requiring no maintenance or replacement parts.
 - 6. Producing a minimum of 160M ions/cc.
- C. The bi-polar ionization system shall operate in a manner such that equal amounts of positive and negative ions are produced. Uni-polar ion devices shall not be acceptable.
 - 1. Air exchange rates may vary through the full operating range of a constant volume or VAV system. The quantity of air exchange shall not be increased due to requirements of the air purification system.

2. Velocity Profile: The air purification device shall not have maximum velocity profile.
- D. Humidity: Plasma Generators shall not require preheat protection when the relative humidity of the entering air exceeds 85%. Relative humidity from 0 - 100%, condensing, shall not cause damage, deterioration or dangerous conditions within the air purification system. Air purification system shall be capable of wash down duty.
- E. Equipment Requirements:
1. Electrode Specifications (Bi-polar Ionization):
 - a. Each Plasma Generator with Bi-polar Ionization output shall include the required number of electrodes and power generators sized to the air handling equipment capacity. A minimum of one electrode pair per 2,400 CFM of air flow shall be provided. Bi-polar ionization tubes manufactured of glass and steel mesh shall not be acceptable due to replacement requirements, maintenance, performance output reduction over time, ozone production and corrosion.
 - b. Electrodes shall be energized when the main unit disconnect is turned on and the fan is operating. Electrodes shall be made from carbon fiber to prevent oxidation over time. Internal circuitry shall be provided to sense air flow across the electrode output. Ionization systems requiring the use of a mechanical air pressure switch to cycle the electrodes only when the fan is operating shall not be acceptable due to high failure rates and pressure sensitivity.
 - c. Electrode pair shall provide a minimum of 160 million ions per cubic centimeter as measured at 2 inches, both positive and negative ions, in equal quantities. Devices providing less than 160 million ions/cc per electrode pair shall not be acceptable.
 - d. Each Plasma Generator shall be provided with a self-cleaning system that is field programmable to change the number of days between the cleaning cycle. Systems without a no-maintenance, self-cleaning system shall not be acceptable.
 - e. Each electrode pair shall be designed with a banana style plug such that it can be field replaced, if necessary.
 - f. Each Plasma Generator shall be provided with an inline on/off switch, universal voltage input (24VAC to 240VAC or DC), magnets for mounting to the fan inlet, replaceable carbon fiber emitters and a programmable self-cleaning system.
- F. Air Handler & Plenum Mounted Units (non-ductless mini-split units):
1. Where so indicated on the plans and/or schedules Plasma Generator(s) shall be supplied and installed. The mechanical contractor shall mount the Plasma Generator and wire it to the AHU control power (24VAC) as instructed by the Air Purification Manufacturer's instructions or line voltage subject to power available. Each unit shall be designed with a molded casing, self-cleaning system, self-cleaning test button, power status LED and dry contacts to prove ion output is operating properly. The dry contacts shall close to prove the ion generator is working properly and may be daisy chained in series such that only one dry contact per AHU is required to interface to the BAS or the

optional DDC controller. Dry contacts proving power has been applied in lieu of the ion output is actually operating, are not acceptable. Manufacturers providing multiple ion modules that have alarm status wired in parallel, and not in series, shall not be acceptable.

G. Ionization Requirements:

1. Plasma Generators with Bi-polar ionization output shall be capable of controlling gas phase contaminants and shall be provided for all equipment listed above.

a. The Bi-polar ionization system shall consist of Bi-Polar Plasma Generator and integral power supply. The Bi-polar system shall be installed where indicated on the plans or specified to be installed. The device shall be capable of being powered by 24VAC to 240VAC without the use of an external transformer. Ionization systems requiring isolation transformers shall not be acceptable.

b. Ionization Output: The ionization output shall be controlled such that an equal number of positive and negative ions are produced. Imbalanced levels shall not be acceptable.

c. Ionization output from each electrode shall be a minimum of 160 million ions/cc when tested at 2" from the ionization generator.

d. All manufacturers shall provide documentation by an independent NELAC accredited laboratory that proves the product has minimum kill rates for the following pathogens given the allotted time and in a space condition:

A. MRSA - >96% in 30 minutes or less

B. E.coli - > 99% in 15 minutes or less

C. TB - > 69% in 60 minutes or less

D. C. diff - >86% in 30 minutes or less

Manufacturers not providing the equivalent space kill rates shall not be acceptable. All manufactures requesting prior approval shall provide to the engineer independent test data from a NELEC accredited independent lab confirming kill rates and time meeting the minimum requirements stated in section 2.2 B, points 6A, 6B and 6C. Products tested only on Petri dishes to prove kill rates shall not be acceptable.

2. Ozone Generation:

a. The operation of the electrodes or Bi-polar ionization units shall conform to UL 867-2007 with respect to ozone generation. There shall be no ozone generation during any operating condition, with or without airflow.

J. Electrical Requirements:

1. Wiring, conduit and junction boxes shall be installed within housing plenums in accordance with NEC NFPA 70. Plasma Generator shall accept an electrical service of 24VAC to 240VAC, universal 2 wire input, 1 phase, 50/60 Hz. The contractor shall coordinate electrical requirements with air purification manufacturer during submittals.

- a. Total cost of project to include labor and materials for all line and low voltage wiring as required to result in a complete turn-key project.

K. Control Requirements:

1. All Plasma Generators shall have internal short circuit protection, overload protection, and automatic fault reset circuit breakers. Systems with manual fuses shall not be allowed.
2. Integral airflow sensing shall modulate the Plasma output as the airflow varies or stops. A mechanical airflow switch shall not be acceptable as a means to activate the Plasma device due to high failure rates and possible pressure reversal.
3. The installing contractor shall mount and wire the Plasma device within the air handling unit specified or as shown on the plans. The contractor shall follow all manufacturer IOM instructions during installation.
4. All Plasma devices shall have a means to interface with the BAS system. Dry contacts shall be provided to prove there are ions being produced. Systems providing indication that power is applied to the Plasma device, but not directly sensing the power at the ion output, shall not be acceptable.

PART 3 - EXECUTION

3.1 GENERAL

- A. The Contractor shall be responsible for maintaining all air systems until the owner accepts the building (Owner Acceptance).
 1. This is a performance based project. Install sufficient NPBI equipment to result in a minimum continuous 1500 ions/cc when measured at the working surfaces of all classrooms, common areas, and offices in all 28 district buildings.

3.2 ASSEMBLY & ERECTION: PLASMA GENERATOR WITH BI-POLAR IONIZATION

- A. Furnish and install needlepoint bi-polar ionization air purification equipment in all schools and district facilities. HVAC systems including but not limited to the following types of HVAC equipment and shall include connection to the Building Automation System to monitor status. All required programming and NPBI equipment shall be furnished by Alpha Controls & Services. Contractor accepts responsibility for providing quantity of devices required to meet ion count for each piece of HVAC equipment.
 1. All equipment shall be assembled and installed in a workman like manner to the satisfaction of the owner, architect, and engineer.
 2. Any material damaged by handling, water or moisture shall be replaced, by the mechanical contractor, at no cost to the owner.
 3. All equipment shall be protected from dust and damage on a daily basis throughout construction.
- B. Central equipment including:

1. Rooftop Units
2. Dedicated Outside Air Units
3. Air Handling Units

Classroom Units including:

1. Heat Pumps
2. Fan Coil Units
3. Unit ventilators
4. Furnaces
5. Ductless Split Systems

Connect to power source as per manufacturer's guidelines.

3.3 TESTING

- A. Provide the manufacturers recommended electrical tests.
 1. Verify operation of equipment

3.4 COMMISSIONING & TRAINING

- A. A manufacturer's authorized representative shall provide start-up supervision and training of owner's personnel in the proper operation and maintenance of all equipment.

END 23 0920

DIVISION 23 – HEATING, VENTILATING, AND AIR CONDITIONING
Section 23 4133 – High-Efficiency Particulate Filtration

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and Bidding and Contract Provisions, including General and Supplementary conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes:

- 1. Check existing filter racks and existing filters at air handling units, unit ventilators, and at the terminal units.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.1 EXISTING FILTERS

- A. If, upon checking, the existing filters are found to be loaded (dirty) to the point they require replacement, then notify the Architect. Arrangements will be made in that instance to replace the filters.

END 23 4133

