

**MIDDLETON ASSOCIATES INCORPORATED**  
**1702 W. COLLEGE AVE., SUITE E**  
**NORMAL, IL 61761-2793**  
**PHONE 309/452-1271 FAX 309/454-8049**

**SPECIFICATIONS FOR LABOR AND MATERIALS**

**FOR**

**REPLACE ONE CHILLER & RELATED EQUIPMENT**  
**PRAIRIELAND ELEMENTARY SCHOOL**  
**1300 E. RAAB RD., NORMAL, IL 61761**

**FOR**

**MCLEAN COUNTY UNIT DISTRICT NO. 5**  
**1809 HOVEY AVENUE**  
**NORMAL, ILLINOIS 61761-4339**

**PROJECT NUMBER: 22422319**

**ISSUE DATE: THURSDAY, OCTOBER 31, 2019**

**PRE-BID MEETING: WEDNESDAY, NOVEMBER 20, 2019 AT 9:00 A.M.**  
**PREVAILING TIME**  
**Meet at the Chiller, North Side of Prairieland Elementary School.**

**BID DATE: WEDNESDAY, DECEMBER 4, 2019 – 1:45 P.M.**  
**PREVAILING TIME**

**BID DELIVERED TO: Unit 5 Maintenance Warehouse**  
**1999 Eagle Road**  
**Normal, IL 61761**

**SPECIFICATION BOOKLET NO. \_\_\_\_\_**

Expiration Date  
11/30/20



[Seal and Signature]





DIVISION 0 – BIDDING & CONTRACT REQUIREMENTS

Section 00030 - Invitation for Bids

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

For Project: McLean County Unit District No. 5  
Replace One Chiller & Related Equipment Prairieland Elementary School  
A/E Project No. 22422319

Time of Bid Submission: **Wednesday, December 4, 2019 – 1:45 p.m.**  
Public Opening following due time.

Location of Bid Submission: McLean County Unit District No. 5 Warehouse, Attn: Joe Adelman,  
1999 Eagle Rd., Normal, Illinois 61761

Proposals shall be delivered to the above location prior to 1:45 p.m. Proposals shall be clearly identified on the outside of the envelope as "Sealed Proposal" and list the project title as shown above. Proposals will be opened and publicly read following the due time.

Terms of the proposal:

- Bid Security is required, 5% Bid Bond or Certified Check.
- Owner protective bonds are required in the amount of 100% of the Contract value after award.
- Illinois Prevailing Wage Act 820 ILCS 130/.01 *et seq.* applies to this job.
- 1992 Revised Statutes Illinois Criminal Code 720 ILCS: Article 33E Public Contracts: Bid Rigging (5/33E-3); Bid Rotating (5/E-4) Disclosure (5/33E-5); Interference (5/33E-1); Kickbacks (5/33E-7); Bribery (5/33E-8); Change Orders (5/33E-8), Drug-free Work Place Act 30 ILCS 580/1, Educational Loan Default 5 ILCS 385/1, Felony/Bribery Conviction 30 ILCS 505/10.2 and 505/10.3 apply to this job.
- The Board of Education has the right to reject or accept the bids submitted or to waive any bidding irregularities.

Interested parties may check out Plans and Specifications at the Architect's office, Middleton Associates Inc., Normal, IL (309/452-1271) or at [middletonassociates.net](http://middletonassociates.net). Scroll down and click on "Contractors". Refundable deposit for one printed set is \$10.00.

END 00030



REPLACE ONE CHILLER & RELATED EQUIPMENT  
PRAIRIELAND ELEMENTARY SCHOOL  
1300 E. RAAB RD., NORMAL, IL 61761

FOR

MCLEAN COUNTY UNIT DISTRICT NO. 5  
1809 W. HOVEY AVENUE  
NORMAL, ILLINOIS 61761-4339

A/E PROJECT NUMBER: 22422319

ISSUE DATE: Tuesday, Thursday, October 31, 2019

PRE-BID MEETING: Wednesday, November 20, 2019, 9:00 a.m. Prevailing Time  
Meet at the Chiller (North side of school)

1. **BID DELIVERED SEALED BID TO:** Joe Adelman  
Unit 5 Maintenance Office,  
1999 Eagle Road  
Normal, IL 61761
2. **BID DATE:** WEDNESDAY, DECEMBER 4, 2019 AT 1:45 P.M. PREVAILING TIME

Sealed proposals will be opened and read at 1:45 p.m. at the Maintenance Office.

Contractor shall submit with proposal basic descriptive information on included work and excluded work attached to his proposal to describe the design build proposal offered.

Contractor is in charge of directing the work, safety, barricades and all aspects of the means and methods of construction.

3. **BID SECURITY** – 5% as Bid Bond or certified or non-cancelable bank check payable to McLean County Unit District No. 5.
4. **OWNER'S PROTECTIVE BONDS** – Labor and Materials and Performance - Not required if proposal is less than \$100,000; required if proposal is over \$100,000.
5. **INSURANCE** – Upon award, Contractor shall provide insurance listing the Owner, Mclean County Unit District #5, and the A/E Middleton Associates as named insureds or additional insureds.
  - A. Workman's Comp, statutory
  - B. General Liability, personal injury not less than \$1,000,000/occurrence \$2,000,000 aggregate.
  - C. Property damage, Broad Form \$1,000,000 occurrence/ \$2,000,000 aggregate.
  - D. Business and completed operations one year and \$1,000,000
  - E. Auto rented and owned, \$1,000,000 occurrence / \$1,000,000 per person bodily injury.
  - F. Limits can be met with umbrella coverage.

## **6. PROPOSALS**

- A. All proposals shall be signed (live signatures, no copies of signatures accepted) by persons fully and duly authorized to sign same. See attached Bid Form.
- B. Any bid signed by a person other than set forth above shall enclose with his bid proposal evidence of Power of Attorney.
- C. No faxed proposals or modifications.
- D. By submitting a proposal as design build the contractor recognizes that each proposal will be considered on the merits of its content as well as cost. While the intent is to accept the lowest bid meeting the criteria, voluntary alternates may be considered or award if found to be advantageous and in the best interest to the District

## **7. AWARD OR REJECTION**

- 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 is determined to be in the best interest of Mclean County Unit District No. 5.
  - 1. Best interest will be determined by the content of the proposal to the Owner in the event of an award, after reviewing included and excluded work.

## **8. COMMENCEMENT AND COMPLETION OF CONSTRUCTION**

- A. Contractor shall not commence work until the agreement has been executed by both the Owner and Contractor and Insurance Certificate and Owner's Protective Bonds have been issued and accepted by the Owner and Architect.
  - 1. On site work may commence as soon as school is out for summer, approximately June 1, 2020, or prior to that if agreed upon at the Pre-Construction Meeting.
  - 2. Schedule all work for completion prior to August 15, 2020.
  - 3. Once started, work continuously through construction.
  - 4. Work not completed prior to start of school shall be completed after hours or weekends in coordination with the Owner's building occupancy schedule.
- B. Pre-Construction Meeting will be December 18, 2019, 10:00 a.m., Unit 5 Operations & Maintenance Building, 1999 Eagle Road.

## **9. EXAMINATION OF SITE AND CONTRACT DOCUMENTS**

- A. Bidder shall carefully examine bidding documents and inspect on site to obtain first-hand knowledge of existing conditions.

- B. Each Bidder, by submitting his bid, represents over his or her signature, that he has so examined the bidding documents and inspected the site premises, that he understands the provisions of the bidding documents, and 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, which could have been determined by such examination.

#### **10. BIDDER QUALIFICATIONS**

- A. Competency and responsibility of the Bidder, and of their proposed subcontractors, will be considered in making awards. Owner may require of the Bidder, prior to awarding the Contract, a detailed statement regarding the business, technical organization and plant facilities for the work that is contemplated. Information pertaining to the financial resources, experience of personnel and previously completed construction projects may also be required. The Owner may use this information in considering proposal.
- B. The Owner may reject a Bidder, if an updated financial statement prepared by a CPA not on the Contractor's payroll (bearing the CPA's live signature) shows the net worth of a Contractor to be less than 30% of the Contractor's bid including elected alternates for this work. Said statement, if required by the Owner, shall be furnished and paid for by the Bidder.
- C. The Owner reserves the right to reject any subcontractor to a prime contractor that cannot produce a favorable recommendation from a minimum of three (3) school districts or commercial owners involving a like size project or from said school district's Architect of record.

#### **11. PROGRESS PAYMENTS**

- A. Payment will be made for satisfactorily in place labor and materials, no payment for stored materials.
- B. If Performance and Payment Bonds are in place, ten percent (10%) of each pay request may be withheld pending final inspection. This retainage will be paid when the project is completed and the Contractor provides an affidavit showing all material suppliers, subcontractors and labor as paid.

#### **12. 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.

"During the Performance of the Contract, the Contractor agrees as follows:

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 applicants are considered and that employees are treated,

during employment, without regard to their race, color, religion, sex, age or national origin.”

**13. PREVAILING WAGE**

- A. 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 (280 ILCS 130/.01 et. seq.), see IDLR website for rates.
- B. Comply with HB188; submit payroll records with invoices or at end of job.

**14. SALES TAX**

- A. Materials supplied to a public school district are exempt from state sales taxes.
  - 1. Sales tax exemption number for Unit District No. 5 is: E9994-9091-07. This document expires 1/1/2020. Contact our office in January 2020 for updated information.
- B. The Contractor shall determine the extent of exemption and shall comply with the regulations established by the Illinois Department of Revenue and allow for this in his proposal.

**15. TOBACCO PRODUCTS**

- A. Smoking, chewing, etc. of ANY tobacco or medical marijuana shall not be permitted anywhere on school property by State Statute.

**16. SEXUAL HARASSMENT POLICY**

- A. The Owner will not tolerate sexual harassment in any form. Sexual harassment is defined, for the purpose of the policy, as “unsolicited, deliberate or repeated sexually derogatory statements, gestures or physical contact which 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...”

Should evidence be discovered that a Contractor, or a Contractor’s employee, has harassed a student or other individuals, the harasser shall be removed from the job site pending resolution of the claim.

**17. EMPLOYEE-STAFF/STUDENT RELATIONSHIPS**

- A. Except in an emergency situation involving safety, intermingling of the Contractor’s employees and the school facility, staff and students is to be avoided. Contractor or Subcontractor personnel violating this requirement shall be removed from employment at this site. The Contractor Superintendent shall monitor this to the best of his ability. 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.

- b. 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.

Verbal or physical action interpreted as sexual in nature or as sexual harassment will be grounds for removal of the employee. Further legal action remains the option of the persons affected.

In all aspects of this provision the Contractor shall be dealt with by the school, the Contractor's employees as adults have the greater responsibility and should not respond to inappropriate student behavior.

- B. Employees working on site may be subject to background check per the Illinois School Code, and upon request of the Owner or the Regional Office of Education.

## **18. BUILDING PERMITS**

- A. The Architect will assist the Owner to obtain the Building Permit from the Regional Office of Education. There is no cost associated with obtaining the Building Permit.
- B. Provide all necessary permit related information to local city authorities.

## **19. TERMINATION OF CONTRACT**

Termination of the agreement can be instituted with seven (7) days notice by the Owner for failure to perform in accordance with the agreement, schedules, non-payment of goods or services or other evidence of failure to perform to the intent of the agreement. Cost of said termination will be subject to the project completion by the Owner with the Contractor paying any shortfall in cost to complete. If the project is completed for less than the outstanding contract balance, then the Contractor will receive the remainder after all claims are satisfied.

## **20. 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.

- a. Contractor ensures that all persons have had background check paperwork initiate and sent to: Ann Fair, Unit 5 Maintenance Office, 1999 Eagle Road, Normal, IL 61761, Tel: 309-557-4100 or Fax: 309-557-4537.
  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 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 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.

## **21. SUBSTANCE ABUSE PREVENTION ACT ON PUBLIC WORKS PROJECTS**

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

- 22. EXPIRATION OF PROPOSAL** – I/We agree that this proposal shall be binding for a period of not less than thirty (30) days following the bid due date set forth in the advertisement for bids.

## **23. GENERAL CONDITIONS**

- A. Included in this Specification by this reference is AIA Document A201, 2007 Edition. This document may be viewed at the Architect's Office.

## **24. WORK INCLUDED – DESIGN/BUILD PROPOSAL**

- A. All work necessary to remove and dispose of the existing chiller and adapt piping and controls to accommodate the proposed replacement chiller.
1. Existing chiller is a Trane RTAA 155 ton twin compressor, model # RTAA155GYR01A5D0BFGJKM. Compressor model number is: not visible. Compressors have 4 capacity steps. Suction Temp. 44. Total KW177 - Total FLA 6835. Voltage 208/3/60 min. Evaporator remotely located in Mechanical Room: Serial # RTA155-8759.  
Chiller Breakers: CT1 700 amp and CT2 600 amp.

2. Properly prepare for removal including removal of R-22 refrigerant, disconnect power, controls and piping. Unit 5 personnel will disconnect and remove R-22 and retain the existing refrigerant.
3. Promptly remove the existing equipment from site during the process of installation of new equipment.
4. PROPOSED NEW CHILLER: One – Daikin Applied Model AGZ Air Cooled Chiller Tagged: CH-1 with remote evaporator (located in Mechanical Room).
  - a. 155 Nominal Tons
  - b. Dual Circuit with Tandem Scroll Compressors on Each Circuit
  - c. Shipped with Holding Charge of Nitrogen/Helium
  - d. Remote Evaporator with 3/4" Insulation
  - e. Totally Enclosed Condenser Fan Motors
  - f. Microtech Controller – see para 24.C. Controls
  - g. Voltage 208/230/3ph/60h
  - h. Single Point Power Connection with Non-fused Disconnect Switch (verify)
  - i. Evaporator Water Flow Indicator
  - j. Liquid, Discharge, and Suction Shut-off Valves
  - k. Standard Ambient to 35F
  - l. Condenser Coil Louvers
  - m. Refrigerant Specialties Kit (Factory Provided, Field Installed by Contractor) including Quantity Two of Each of the Following (One set per Circuit): Thermal Expansion Valves, Liquid Line Solenoid Valves, Liquid Line Filter Driers with Filter Drier Cores, and Liquid Line Sight Glasses.
  - n. Remote Evap Sensor Kit: Long sensor wires that allow installation of evaporator up to 90 feet from the chiller without splicing. The kit includes Evaporator Water Inlet and Outlet Temperature Sensors, Suction Line Temperature Sensors for Piping at the Evaporator for both Circuit #1 and #2, and Suction Transducer Wiring for Installation on Evaporator Suction Piping for both Circuit #1 and #2, and Suction Transducer Wiring for Installation on Evaporator Suction Piping for both Circuit #1 and #2. These must be field run by contractor. Run wires in conduit.
  - o. Factory Start-up and Owner Training. Run wires in conduit.
  - p. **First Year Parts and Labor Warranty. Refrigeration components to have 5-year Manufacturer Warranty.**
  - q. Refrigerant by contractor, R-410A.
5. Please bid Daiken in Base Bid. Offer Alternate price and delivery time for other brand: Carrier, etc., on Voluntary Alternate form 00 40 10.
6. Low voltage control side phase control to protect against operation during phase low voltage, or loss of phase with auto reset after voltage returns to normal.

#### B. Piping

1. Verify existing piping and modify and replace as needed for proper function and operation, support piping against movement and vibration.
2. Insulate all replaced piping.

### C. Controls

1. Existing controls are Johnson Controls Panel #110587, 10FZ installed 03/08/0.
2. This Contractor shall hire Alpha Controls to enable the new chiller and evaporator to respond to the Alpha Control System.
  - a. Outdoor air temperature
  - b. Outdoor air humidity
  - c. Chilled water supply temperature
  - d. Chilled water return temperature
  - e. Chiller enable
  - f. Chilled water pump enable
  - g. Chilled water pump status
  - h. Leaving chilled water temperature setpoint
  - i. Chiller demand (in Kw)
  - j. Provide software to connect Prairieland Elementary School to District computer.
3. All control wiring in conduit.

D. Evaporator: Replace with compatible unit selected to match chiller size and flow rates. Make accommodation as needed for proper operation and remote location.

### E. Electrical

1. Power wiring. Furnish all required conduit, wiring, fuses, breakers, etc. and make final connections to all electrically powered or motorized equipment as shown on the Drawings.
  - a. All control wiring from chiller to evaporator and control panel to be installed in conduit.
2. Verify proper location of equipment, outlets and controls, mounting heights, size and number of wires, etc., required prior to roughing in.
3. Verify motor types, voltages and sizes with the starter types, holding coil voltages, thermal overload capacities, interlocks, etc. No extras will be considered where this coordination was not properly completed prior to beginning work.
4. Where starters or control panels come as an integral part of the respective equipment, such as packaged air conditioning units, etc. this Contractor shall furnish and install all wiring and make final connections to the line side of the package disconnects or control panel. All power and control wiring beyond this point shall be by the Contractor furnishing the motor.

F. Start up: by contractor, to include instructions and maintenance instruction.

### G. Warranty

1. One (1) year 100% labor and materials on the entire installation.

2. Five (5) year manufacturer on refrigeration components and compressors of the new equipment.

**25. VOLUNTARY ALTERNATES, OPTIONS OR SUBSTITUTIONS**

- A. The Contractor may offer options which they believe will improve the result, be more serviceable, lower initial cost, lower operating costs, time factors for lowest down time and maintenance. This might include:
  1. Other manufacturers.
  2. Single compressor/condenser option.
  3. Plate and Frame design.
  4. Scroll compressors
  5. Because cost is a consideration, we may consider such options as determined to offer comparable and suitable results.

**26. ATTACHMENTS PROVIDED**

1. Prairieland Elementary School Aerial Views (Chiller Unit Location shown) – Pages 10 and 11)
2. Enlarged Mechanical Room 125 – HVAC Piping and location of evaporator (Page 12)
3. Enlarged Chiller Pit Drawing (Page 13)
4. Chiller – original specification and original electrical Specifications (Page 14)

**27. ALLOWANCE**

1. **The General Contractor shall include in his bid an allowance of \$5,000.00 for additional time and material or Change Order work as directed and approved IN WRITING by the Owner and A/E. \$5,000.00 to be added to base bid.**
  - a. This is for unseen conditions when the roof materials and flashing are removed.
  - b. Unused portion of allowance will be returned to owner at time of Final Payment request via Change Order.
2. 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.



**REPLACE ONE CHILLER & RELATED EQUIPMENT  
PRAIRIELAND ELEMENTARY SCHOOL**





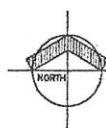


**REPLACE ONE CHILLER & RELATED EQUIPMENT  
PRAIRIELAND ELEMENTARY SCHOOL**





1	JUNCTION BOX (8750 / 1208 VOLT, THREE PHASE, 15 KW) CONNECT TO SUPPLY CABLE FROM UNIT FOR WALK-IN REFRIGERATOR. VERIFY LOCATION OF UNIT WITH ARCHITECT.	28	JUNCTION BOX (8750 / 1208 VOLT, SINGLE PHASE, 15 KW) WIRE TO AND PROVIDE A SINGLE WIRE OUTLET FROM WORKTABLE (1357).
2	JUNCTION BOX (8750 / 1208 VOLT, THREE PHASE, 15 KW) CONNECT TO REFRIGERATOR CONDENSING UNIT FOR WALK-IN REFRIGERATOR. VERIFY LOCATION OF UNIT WITH ARCHITECT. PROVIDE CABLE, WIRING FROM CONDENSING UNIT TO EVAPORATOR PAN FOR DEFROST TRIP.	29	JUNCTION BOX (8750 / 1208 VOLT, SINGLE PHASE, 15 KW) WIRE TO AND PROVIDE A SINGLE WIRE OUTLET FROM FREEP RACK (1347).
3	JUNCTION BOX (FROM ABOVE) 120 VOLT, SINGLE PHASE, 10 KW CONNECT TO FREEZER DRAWER 1, HEATER (1647).	30	JUNCTION BOX (8750 / 1208 VOLT, SINGLE PHASE, 15 KW) WIRE TO AND PROVIDE A SINGLE WIRE OUTLET FROM FREEP RACK (1347).
4	JUNCTION BOX (FROM ABOVE) 1208 VOLT, SINGLE PHASE, 14A AMPERE, CONNECT TO REFRIGERATOR EVAPORATOR (1647).	31	SINGLE OUTLET (1208) 1208 VOLT, SINGLE PHASE, 92 AMP.
5	JUNCTION BOX (FROM ABOVE) 120 VOLT, SINGLE PHASE, 10 KW CONNECT THROUGH TOP OF WALK-IN TO LIGHTS AND DOOR HEATER (1647).	32	JUNCTION BOX (1647) 120 VOLT, SINGLE PHASE, 56 AMPERE, CONNECT TO ROLL-IN REFRIGERATOR.
6	JUNCTION BOX (FROM ABOVE) 120 VOLT, SINGLE PHASE, 53 AMPERE, CONNECT TO WALK-IN REFRIGERATOR EVAPORATOR PAN (1647).	33	JUNCTION BOX (1208) 1208 VOLT, THREE PHASE, 15 KW, CONNECT TO DISPOSER THROUGH CONTROLS (1647).
7	DUPLEX OUTLET (1208) 120 VOLT, SINGLE PHASE, 15 KW.	34	JUNCTION BOX (1208) 1208 VOLT, THREE PHASE, 540 KW, CONNECT TO BOOSTER HEATER (1647).
8	JUNCTION BOX (1208) 120 VOLT, SINGLE PHASE, 3.8 AMPERE, CONNECT TO STEPPER (1647).	35	OMITTED
9	JUNCTION BOX (1208) 120 VOLT, SINGLE PHASE, 5.4 AMPERE, CONNECT TO BREAKING PAN (1607).	36	KITCHEN EQUIPMENT CONTRACTOR TO PROVIDE 10 APPROVED CORES TO RECEPTACLE MOUNTED ABOVE TABLE TOP. ELECTRICAL CONTRACTOR TO USE FROM THIS LOCATION TO DUPLEX.
10	JUNCTION BOX (1606) 120 VOLT, SINGLE PHASE, 200 AMP, 24 HOUR CIRCUIT CONNECT TO PROTECTION SYSTEM (1606) HOOD CONTROL, CABINET (1604). ELECTRICAL CONTRACTOR TO PROVIDE BUILT TRIPS ON CIRCUITS TO EQUIPMENT LOCATED BELOW THIS AND INTER-USE SHAKES TO FIRE PROTECTION SYSTEM.	37	KITCHEN EQUIPMENT CONTRACTOR TO PROVIDE 10 APPROVED FEEDERAL DUPLEX RECEPTACLE MOUNTED ABOVE TABLE TOP. ELECTRICAL CONTRACTOR TO WIRE FROM ROUGH IN LOCATION TO DUPLEX.
11	LIGHT SWITCH (1647) 120 VOLT, SINGLE PHASE, 100 AMPERE, WIRE UP THROUGH WALL AND CONNECT TO LIGHTS. WIRE UP LIGHTS ABOVE FINISHED CEILING. LIGHT FIXTURES PROVIDED BY OTHERS. CONSULT AND WIRE BY EC.	38	304 STAINLESS STEEL, RUBED PER EQUIPMENT MANUFACTURERS REQUIREMENTS POINT DISCONNECT ABOVE TABLE ON WALL.
12	SINGLE OUTLET (1208) 120 VOLT, SINGLE PHASE, 120 AMP.	39	1208 AMP, 220 VOLT, 3 POLE, 8A, NEMA 4 STAINLESS STEEL, RUBED PER EQUIPMENT MANUFACTURERS REQUIREMENTS POINT DISCONNECT ABOVE TABLE ON WALL.
13	JUNCTION BOX (8750 / 1208 VOLT, SINGLE PHASE, 15 KW) WIRE TO AND PROVIDE A DUPLEX OUTLET OUTLET FROM WORKTABLE (1347).	40	1208 AMP, 220 VOLT, 3 POLE, 8A, NEMA 4 STAINLESS STEEL, RUBED PER EQUIPMENT MANUFACTURERS REQUIREMENTS POINT DISCONNECT ABOVE TABLE ON WALL.
14	WIRE REPAIR, PUNCH FLOOR RECEPTACLE, 120 VOLT, SINGLE PHASE, 15 KW.	41	EC TO INSTALL AND WIRE LIGHTS PROVIDED BY OTHERS.
		42	EC TO PROVIDE CORE SET & FOR 3 PHASE PUMP AND MATCHING NEMA 3-BD PLUG.
		43	EC TO PROVIDE SEAL IN RELAY AND RESET BUTTON ON GAS VALVE BUILT DOWN UPON POWER OUTAGE.



AC4S, 14', 1", 0'



1. SEE 5-011 (HV) FOR HVAC GENERAL NOTES AND THE HVAC SCHEDULE OF SYMBOLS AND ABBREVIATIONS.
2. PROVIDE A CONCRETE HOUSEKEEPING PAD UNDER EACH AIR HANDLING UNIT, RUPP CHILLER, CONDENSING UNIT, BOILER, AND EXHAUST FAN.
3. SEE SPECIFICATION SECTION 5-020 FOR AIR-TIGHTENERS REQUIRED (BUT NOT SHOWN).
4. PROVIDE SEPARATE TRAPPED FULL SIZE DRAIN LINE FROM EACH COOLING COIL TO NEAREST FLOOR DRAIN.
5. PRESERVE COIL REMOVAL SPACE FOR ALL COILS.

1" COLD WATER MAKEUP CONNECTION BY PLUMBING CONTRACTOR





# EQUIPMENT CONNECTION SCHEDULE

- ① Verify with contractor furnishing equipment any deviation shall be reported to the Architect/Engineer
- ② Fuses and heaters shall be sized from nameplate rating for TT switches, starters, and disconnects
- ③ See remarks

2S = 2 Speed P = Pilot Light HOA = Hand/Off/Auto PB = Push Button On-Off  
 NOTE: 1. All starters across-the-line single speed type unless otherwise noted.  
 2. All motors 5hp and above require motor savers unless otherwise noted.  
 3. All starters furnished with pilot and 2 N.O./N.C. reversible AUX contacts unless otherwise noted.

- 1 Fire alarm fan shutdown relay required
- 2 Fire alarm duct type smoke detector  
Req'd. Locate in both supply and return air section unless otherwise noted
- 3 On timer furnished and installed by E.C.

MARK	TYPE OF EQUIPMENT	① FLA	① HP	① VOLTAGE	① PHASE	FEEDER CONNECTION	FUSE SIZE  BRKR SIZE	NUMBER AND SIZE OF WIRES	CONDUIT SIZE	DISCONNECT AT UNIT					COMBINATION STARTER 2⊙						REMARKS
										FURNISHED BY					FURNISHED BY						
										EC	HC	③	SIZE	TYPE	EC	HC	③	SIZE	2S	HOA	
CHI	CHILLER	{ 461		208	3	M5B-3	500	2 SETS OF (3)350MCM1/0 GRD.	(2)3"	●			600A	WP FUS	●						
			421		208	3	M5B-4	500	2 SETS OF (3)350MCM1/0 GRD.	(2)3"	●			600A	WP FUS	●					

## 15687 CHILLER

MARK	WITH UNIT	TRANE MODEL	MIN TONS	NO. REF. CKTS	NO. CAP. STEPS	NO. COMPS	NO. FANS	SUCT TEMP	MIN. EER	TOTAL KW	TOTAL FLA	VOLT.	Ø	MIN. OCT. AMPS	MAX. FUSE SIZE (AMPS)	LENGTH	WIDTH	HEIGHT	WEIGHT (LB.)	ARI SOUND RATING (BELS)	MIN. O.A. OPER. TEMP.	REMARKS
CUI	CHI	RTAA-155	149	2	4	2	11	44	9.4	1112	6835	208	3	(1432) (1235)	(1700) (1600)	23'-0"	7'-4"	7'-10"	11500	--	40	
CHI	CUI	RTAA-155	149	2	--	--	--	44	--	--	--	--	--	--	--	11'-0"	1'-4"	2'-0"	--	--	--	

### NOTES:

#### 1. CAPACITY BASED ON:

ARI 210  
 95 DEGREES F. OUTDOORS  
 44 DEGREES F. SUCTION  
 COOLING COILS AND PARAMETERS LISTED IN OTHER SCHEDULES

2. CHI: SHIPPED WITH CHILLER BARREL SEPARATE  
 3. GPM = 432.17  
 $\Delta T = 10^{\circ}F$   
 $\Delta P = 20'$

4. WEIGHT OF CUI INCLUDES WEIGHT OF CHI





PROJECT TITLE: REPLACE ONE CHILLER & RELATED EQUIPMENT  
PRAIRIELAND ELEMENTARY SCHOOL

BID DATE: Wednesday, December 4, 2019 TIME: **1:45 p.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. 22422319

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*)

**BASE BID – THE BIDDER AGREES TO PERFORM ALL WORK, INCLUSIVE OF ALL TRADES AND INCLUSIVE OF ALL MATERIALS TO PROVIDE NEW CHILLER, EVAPORATOR, & CONDENSER WITH RELATED PIPING MODIFICATIONS AND ADD \$5,000.00 TO THE BASE BID AS AN ALLOWANCE FOR UNFORESEEN CONDITIONS FOR THE SUM OF:**

Dollars \$ \_\_\_\_\_

written amount

**ALTERNATES** There are no alternates.

**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 thirty (30) 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 Paragraph 8, Commencement and Completion of Construction.

**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: \_\_\_\_\_

Date: \_\_\_\_\_

**LIST OF SUBCONTRACTORS (if  
applicable)**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SIGNATURE:**

\_\_\_\_\_

TITLE: \_\_\_\_\_  
For Corporations only.

END 00 40 00



00 40 00 PROCUREMENT FORMS  
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)
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

**VOLUNTARY ALTERNATE  
DESCRIPTION**

	ADD OR (DEDUCT)
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

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



**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 Contractor: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

For the Project:

**REPLACE ONE CHILLER & RELATED EQUIPMENT  
PRAIRIELAND ELEMENTARY SCHOOL  
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 A/E Project Number 22422319 and the Contractor's Bid Proposal dated December 4, 2019, which become the Contract for completion of the project as follows:

**Base Bid Completion Date: Prior to August 15, 2020**

Additional Terms & Conditions: None (or as applicable)

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.

END 00 41 13

