

# County of McHenry Request for Proposal

## **RFP # 13-61** **Purchase of Air-Cooled Chillers**

August 8, 2013

This Request for Proposal (RFP) is for the purpose of, contracting with a qualified firm to provide Air-Cooled Chillers to the County of McHenry as outlined within this document. All requirements are as per specifications enclosed herein.

**GENERAL REQUIREMENT:** This is a Request for Proposal (see attached). Proposal will be opened and evaluated in private and proposal information will be kept confidential until an award is made. **One (1) original and one (1) copy of the complete proposal are to be submitted.**

**SUBMISSION LOCATION:**

**Mailing Address:**

Purchasing Department  
McHenry County Administration Building  
2200 N. Seminary Avenue Room 200  
Woodstock IL 60098

**Drop Off In Person:**

Purchasing Department  
McHenry County Administration Building  
667 Ware Road Room 200  
Woodstock IL 60098  
Phone: (815) 334-4818  
Fax: (815) 334-4680

**CONTACT PERSON:**

Mr. Donald A. Gray, CPPB  
Director of Purchasing

**SUBMISSION DATE AND TIME:**

**2:00 PM, (CST) September 4, 2013**

Proposals received after the submittal time will be rejected and returned unopened to the sender. (See below for schedule of events).

### **SCHEDULE OF EVENTS**

August 9, 2013-----	RFP Available
August 20, 2013-----	Vendors Questions Submitted via fax to 815-334-4680 by 4:00 P.M.(CST)
August 23, 2013-----	Vendors Questions Answered via fax and Posted on Website by 4:00 P.M.(CST)
September 4, 2013-----	RFP due in Purchasing at 2:00 P.M.(CST)

## **GENERAL INFORMATION**

### REQUEST FOR PROPOSALS

#### DEFINITION

Request for Proposals (RFP) is a method of procurement permitting discussions with responsible vendor and revisions to proposals prior to award of a contract. Proposals will be opened and evaluated in private. **Award** will be based on the criteria set forth herein.

#### RECEIPT and HANDLING of PROPOSALS

Proposals shall be opened in private by the Evaluation Committee to avoid disclosure of contents to competing vendors.

#### EVALUATION of PROPOSAL

The proposals submitted by vendors shall be evaluated solely in accordance with the criteria set forth in the RFP.

#### DISCUSSION of PROPOSAL

The Evaluation Committee may conduct discussions with any offeror who submits an acceptable or potentially acceptable proposal. Vendors shall be accorded fair and equal treatment with respect to any opportunity for discussion and revision of proposals. During the course of such discussions, the Evaluation Committee shall not disclose any information derived from one proposal to any other vendor.

#### NEGOTIATIONS

The County of McHenry reserves the right to negotiate specifications, terms, and conditions, which may be necessary or appropriate to the accomplishment of the purpose of this RFP. The County may require the RFP and the offeror's proposal be incorporated in full or in part as Contract Documents. This implies that this RFP and all responses, supplemental information, and other submissions provided by the vendor during discussions or negotiations may be held by the County of McHenry as contractually binding on the successful Vendor.

#### NOTICE of UNACCEPTABLE PROPOSAL

When the Evaluation Committee determines a vendor's proposal to be unacceptable, such vendor shall not be afforded an additional opportunity to supplement its proposal.

### TERMS AND CONDITIONS

#### AUTHORITY

This Request for Proposals is issued pursuant to applicable provisions of the **McHenry County Purchasing Ordinance**, approved December 1, 2006. This ordinance is incorporated by reference into this RFP as if it were contained herein. If you desire a copy of this ordinance, contact the Director of Purchasing.

#### RESERVED RIGHTS

The County of McHenry reserves the right at any time and for any reason to cancel this Request for Proposal, to reject any or all proposals, or to accept an alternate proposal. The County reserves the right to waive any immaterial defect in any proposal. ***Unless otherwise specified by the offeror, the County has no less than one hundred and twenty (120) days to accept.*** The County may seek clarification from a vendor at any

time and failure to respond promptly is cause for rejection. The County may require submission of best and final offers.

INCURRED COSTS

The County of McHenry will not be liable in any way for any costs incurred by respondents in replying to this RFP.

AWARD

Award shall be made by the McHenry County Board to the most responsive and responsible vendor whose proposal is determined to be the most advantageous to the County, taking into consideration price and the evaluation criteria set forth herein below.

CRITERIA for SELECTION

The following criteria and point system shall be used by the selection team to determine the firm or individual(s) most qualified and best suited to perform the work:

1. Qualifications and experience for the specific scope of services as set forth herein (50pts).
2. Cost Proposal based on the contract description (5 pts)
3. Compliance with requirements of this RFP (40 pts).
4. References provided (5 points)

Total 100 points

NON-DISCRIMINATION

Vendor shall comply with the Illinois Human Rights Act, 775 ILCS 5/1-101 et seq., as amended and any rules and regulations promulgated in accordance therewith. Including, but not limited to the Equal Employment Opportunity Clause, Illinois Administrative Code, Title 44, Part 750 (Appendix A), 775 ILCS 5/1-102, which is incorporated herein by reference, and constituting of a written EEO Policy and a workforce profile that demonstrates its EEO practices. Furthermore, the Vendor shall comply the Public Works Employment Discrimination Act, 775 ILCS 10/0.01 et seq., as amended. The Vendor must have a written sexual harassment policy, which meets Illinois State Statutes, 775 ILCS, 15/3.

SECURITY

The Vendor represents and warrants to the County of McHenry that neither it nor any of its principals, shareholders, members, partners or affiliates, as applicable, is a person or entity named as a Specially Designated National and Blocked Person (as defined in Presidential Executive Order 13224) and that it is not acting, directly or indirectly, for or on behalf of a Specially Designated National and Blocked Person. The Vendor further represents and warrants to the County of McHenry that the Vendor and its principals, shareholders, members, partners, or affiliates, as applicable, are not directly or indirectly, engaged in, and are not facilitating, the transactions contemplated by this Agreement on behalf of any person or entity named as Specially Designated National and Blocked Person. The Vendor hereby agrees to defend, indemnify and hold harmless the County of McHenry, the Corporate Authorities, and all County of McHenry elected or appointed officials, officers, employees, agents, representatives, engineers and attorneys, from and against any and all claims, damages, losses, risks, liabilities, and expenses (including

reasonable attorneys' fees and costs) arising from or related to any breach of the foregoing representation and warranties.

#### PREVAILING WAGE

The State of Illinois requires that all wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended. This requires payment of the general prevailing rate for each craft or type of worker, including payment of the general prevailing rate for legal holiday and overtime work. The Illinois Department of Labor publishes the prevailing wage rates on its website at [www.state.il.us/agency/idol/rates.htm](http://www.state.il.us/agency/idol/rates.htm). The Contractor shall review the wage rates applicable to the work of the contract at regular intervals in order to ensure the timely payment of current wage rates. The Contractor agrees that no additional notice is required. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto. A copy of the prevailing wage rates is posted on the McHenry County website at [www.co.mchenry.il.us](http://www.co.mchenry.il.us) under BIDS and RFP's. If wage rates change during the course of the project, the new rates will be available in the County of McHenry Purchasing Office. Vendors may access the Illinois Department of Labor website for updates [www.state.il.us/agency/idol](http://www.state.il.us/agency/idol).

#### CERTIFIED PAYROLL REQUIREMENTS (Public Act 94-0515)

Effective August 10, 2005 Vendors and Subcontractors on public works projects must submit certified payroll records on a monthly basis to the public body in charge of the construction project, along with a statement affirming that such records are true and accurate, that the wages paid to each worker are not less than the required prevailing rate and that the Vendor is aware that filing records he or she knows to be false is a Class B misdemeanor.

The certified payroll records must include for every worker employed on the public works project the name, address, telephone number, social security number, job classification, hourly wages paid in each pay period, number of hours worked each day, and starting and ending time of work each day. These certified payroll records are considered public records and public bodies must make these records available to the public under the Freedom of Information Act, with the exception of the employee's address, telephone number, and social security number. Any Vendor who fails to submit a certified payroll or knowingly files a false certified payroll is guilty of a Class B misdemeanor.

#### INCREASED PENALTIES for PREVAILING WAGE VIOLATIONS (Public Act 94-0488)

Effective January 1, 2006, penalties for violations of the Prevailing Wage Act will increase from 20% to 50% of the underpaid amounts for second or subsequent violations. An additional penalty of 5% of the underpayment penalty must be paid to workers for each month the wages remain unpaid (up from the current 2% penalty).

For violations that occur after January 1, 2006, the debarment period --during which Vendors are ineligible for public works contracts -increases from 2 years to 4 years if two notices of violation are issued/serious violations occur within a 5-year period. In addition, a new monetary penalty of \$5,000 may be assessed against Vendors who retaliate against employees who report violations or file complaints under the Prevailing Wage Act.

#### OSHA REQUIREMENTS

The Occupational Safety and Health Act of 1970 (OSHA) "guarantees workers the right to a safe and healthful workplace". Under Section 5(a) (1) of the OSHA Act, the

employer must “furnish to each of his employees’ employment and a place of employment which are free from recognized hazards that are causing or likely to cause death or serious physical harm to his employees.”

There are times when the County must hire entities and individuals (contractors) to perform services. To this end, contractors hired by the County of McHenry must perform their duties in a manner that is compliant with all state and federal health and safety laws and industry guidelines. It is the responsibility of the contractor to ensure that their personnel and subcontractors comply with all state and federal health and safety laws and regulations and industry guidelines, including, but not limited to those set forth by: OSHA and related regulations, the Safety Inspection and Education Act, the Health and Safety Act, the National Institute of Occupational Safety and Health, the National Fire Protection Association, the Centers for Disease Control, American Industrial Hygiene Association, the American Council of Governmental Industrial Hygienists, the Environmental Protection Agency, and the Department of Transportation.

#### SUBSTANCE ABUSE PREVENTION ON PUBLIC WORKS PROJECTS ACT

The successful bidder must be in compliance with State of Illinois HB-1855 (Public Act 095-0635), which amends the Prevailing Wage Act. Before an employer commences work on a public works project, the employer shall have in place a written program, which meets or exceeds the program requirements in this Act, to be filed with the public body engaged in the construction of the public works and made available to the general public, for the prevention of substance abuse among its employees. The testing must be performed by a laboratory that is certified for Federal Workplace Drug Testing Programs by the Substance Abuse and Mental Health Service Administration of the U.S. Department of Health and Human Services.

#### PROCUREMENT OF GREEN PRODUCTS AND TECHNOLOGIES

As approved by the McHenry County Board in April 2008, it is in the interest of public health, safety and welfare and the conservation of energy and natural resources to use and promote environmentally responsible products. The County should strive to influence private purchases through the example of using government specifications and standards that are green or environmentally friendly when making its purchases.

Whenever available and cost-justified, the County should purchase those materials including the purchase of recycled products containing post-consumer materials rather than residual materials resulting from the processing or manufacturing from another product. To the extent practicable, all products standards shall emphasize functional or performance criteria, which do not discriminate against the use of, recycled materials.

McHenry County should cooperate to the greatest extent feasible with other governments and organizations to develop a comprehensive, consistent, and effective procurement effort intended to stimulate the market for recycled products, reusable products, products designed to be recycled, and other environmentally responsible products.

McHenry County shall continue to participate in and shall encourage other public jurisdictions to participate with the County in the purchase of products containing recycled content. Participation in such cooperative systems shall be aimed at obtaining maximum practical recycled content in County purchases, to obtain best available price

for products with recycled content, to facilitate or encourage lower prices industry-wide and to encourage development of industries and markets dealing with recycled content products.

#### PROCUREMENT OF PRODUCTS THAT ARE ENERGY STAR QUALIFIED

McHenry County shall select, where life cycle and cost-effective, ENERGY STAR and other energy efficient products, when acquiring energy-using products. This information will be required by the bidder in their bid submittal.

#### PURCHASE EXTENSION

This contract shall be offered for purchases to be made by other counties and governmental units within the State of Illinois as authorized by the Government Joint Purchasing Act. All purchases and payments made under this authority shall be made directly by the governmental unit to the Vendor. The County of McHenry shall not be responsible in any way for such purchase orders or payments. All terms and conditions of this contract shall apply to all orders placed by another governmental unit.

#### PROTEST PROCEDURES

Any Bidder who believes contractual terms or specifications are unnecessarily restrictive or limit competition may submit a protest, in writing, to the Director of Purchasing. To be considered, the protest must be received by McHenry County five (5) days prior to the stated bid opening. Any adversely affected or aggrieved Bidder shall have ten (10) days from the date of the bid opening to file a written protest regarding the intent to award the bid. Protests submitted after that date will not be accepted. Protests must specify the grounds upon which the protest is based (refer to appropriate statute, rule, code, or ordinance which defines the protest process).

#### ADDENDUM

Should the Vendor require any additional information about this Bid, please fax to Purchasing (815-334-4680) any questions by the deadline as outlined in the schedule of events. ANY AND ALL changes to these specifications are valid only if they are included by Written Addendum to All Bidders. NO interpretation of the meaning of the plans, specifications, or other contract documents will be made orally. If required, all addenda will be faxed to bidder if a Notice of Intent to Bid has been completed and faxed to the Purchasing Office. In addition, all addenda are posted on the County of McHenry's website. Failure of the bidder to receive any such addendum or interpretation shall not relieve the bidder from obligation under this Bid as submitted. All addenda so issued shall become part of the bid documents. Failure to request an interpretation constitutes a waiver to later claim that ambiguities or misunderstandings caused by a bidder to improperly submit a bid.

Response to these questions will be made by means of an addendum. Only the Director of Purchasing has the authority to issue an addendum.

Addenda are written instruments issued by the County prior to the date for receipt of proposals, which modify or interpret the Bid by addition, deletions, clarifications or corrections.

Prior to the receipt of bids, addenda will be faxed or delivered to all who are known to have received a Notice to Bid. Each vendor shall ascertain prior to submitting a bid that all addenda issued have been received and, by submission of a bid, such act shall be taken to mean that such vendor has received all addenda and that the vendor is familiar with the terms thereof and understands fully the contents of the addenda.

#### TAXES

The County of McHenry is exempt from paying Illinois Use Tax, Illinois Retailers Occupation Tax, and Federal Excise Tax.

#### PAYMENTS

The Vendor shall furnish the County with an itemized invoice. Payment shall be made in accordance with applicable provisions of the "Local Government Prompt Payment Act."

#### VENDOR RESPONSIBILITIES

The selected Vendor will be required to assume responsibility for all services offered in this proposal. The County will consider the selected Vendor to be the sole point of contact with regard to contractual matters, including payment of any and all charges resulting from the contract.

Any contract resulting from this RFP may not be assigned, in whole or in part without written consent of the County. If the Vendor attempts to make such an assignment without the written consent of the County, the Vendor shall nevertheless remain legally responsible for all obligations under the Contract.

#### INTERPRETATION or CORRECTION of REQUEST for PROPOSALS

Vendors shall promptly notify the Director of Purchasing of any ambiguity, inconsistency, or error, which they may discover upon examination of the Requests for Proposals.

Interpretations, corrections, and changes to the Request for Proposals will be made by addendum. Interpretations, corrections, or changes made in any other manner will not be binding.

#### CHOICE OF LAW AND VENUE

The bidder agrees that this bid has been executed and delivered in Illinois and that their relationship and any and all disputes, controversies or claims arising under this bid or any resulting contract shall be governed by the laws of the State of Illinois, without regard to conflicts of laws principles. The bidder further agrees that the exclusive venue for all such disputes shall be the Circuit Court of the 22<sup>nd</sup> Judicial Circuit of McHenry County, Illinois, and the bidder hereby consent to the personal jurisdiction thereof.

#### RECOURSE for UNSATISFACTORY MATERIALS

Payment shall be contingent upon the County's inspection of and satisfaction with completed work. Any defective work or materials, non-conformance to bid specifications, damaged materials, or unsatisfactory installation shall be corrected to the County's satisfaction by the successful bidder at no additional charge.

#### TERMINATION

Failure to comply with the terms and conditions as herein stated shall be cause for cancellation of the contract. The County will give written notice of unsatisfactory performance and the Vendor will be allowed thirty (30) days to take corrective action and accomplish satisfactory control. If at the end of the thirty days, the County deems the Vendor's performance still unsatisfactory, the contract shall be canceled. The exercise of its right of cancellations shall not limit the County's right to seek any other remedies allowed by law.

The successful bidder will agree that the resulting contract is made subject to available budgetary appropriations and shall not create any obligation on behalf of the County in excess of such appropriations. In the event that no funds or insufficient funds are appropriated and budgeted, this Contract shall terminate without penalty or expense to the County thirty (30) days after written notification of termination from the County.

The successful bidder will agree that pursuant to requirements imposed under Illinois law, the County shall have 120 days after each election of county board members to terminate this Agreement, without cause and without penalty.

#### REJECTION of BIDS, WAIVER of IRREGULARITIES

McHenry County reserves the right to reject any or all bids, to waive irregularities, and to accept that bid which is considered to be in the best interest of the County. Any such decision shall be considered final.

#### DELIVERY

Delivery will be considered in making the award and the bidders shall state, in the spaces provided expected delivery after receipt of order. Failure to meet said delivery promises without prior consent of the Director of Purchasing will be considered a breach of faith.

#### WORKMANSHIP

Items shall be manufactured according to the highest traditions of the industry and shall meet all commercial standards of quality. The County shall be the sole judge of acceptable products. Unacceptable products will be rejected and suitable price adjustments made.

#### QUALIFICATIONS

Each firm submitting an RFP for this project shall submit detailed information concerning the professional qualifications of the individual(s) assigned to carry out this project. Relevant project experience, logistical capabilities and other relevant support data regarding the firm and assigned personnel must be included.

Each firm submitting a proposal for this project must provide at least three (3) references where projects of a similar nature have been successfully completed and implemented. These references should provide the name and address of the entity where the project was completed as well as a contact person.

#### INSURANCE

General The successful bidder shall maintain for the duration of the contract and any extensions thereof, at bidder's expense, insurance that includes "Occurrence" basis wording and is issued by a company or companies qualified to do business in the State of Illinois that are acceptable to the County, which generally requires that the

company(ies) be assigned a Best's Rating of A or higher with a Best's financial size category of Class XIV or higher, in the following types and amounts:

- a) Commercial General Liability in a broad form, to include, but not limited to, coverage for the following where exposure exists: Bodily Injury and Property Damage, Premises/Operations, Independent Vendors, Products/Completed Operations, Personal Injury and Contractual Liability; limits of liability not less than:

\$500,000 per occurrence and \$1,000,000 in the aggregate;

- b) Business Auto Liability to include, but not be limited to, coverage for the following where exposure exists: Owned Vehicles, Hired and Non-Owned Vehicles and Employee Non-Ownership; limits of liability not less than:

\$300,000 per occurrence combined single limit for:  
Bodily Injury Liability and Property Damage Liability;

- c) Workers' Compensation Insurance to cover all employees and meet statutory limits in compliance with applicable state and federal laws. The coverage must also include Employer's Liability with minimum limits of \$100,000 for each incident.
- d) Professional Liability Insurance with \$1,000,000 per occurrence and \$1,000,000 in aggregate.

**EVIDENCE of INSURANCE**

The successful bidder agrees that with respect to the above-required insurance that:

- (a) The County of McHenry shall be provided with Certificates of Insurance evidencing the above required insurance, prior to commencement of the contract and thereafter with certificates evidencing renewals or replacements of said policies of insurance at least fifteen (15) days prior to the expiration or cancellation of any such policies;
- (b) The contractual liability arising out of the contract shall be acknowledged on the Certificate of Insurance by the insurance company;
- (c) The County of McHenry shall be provided with thirty (30) days prior notice, in writing, of Notice of Cancellation or material change and said notification requirement shall be stated on the Certificate of Insurance;
- (d) Subcontractors, if any, comply with the same insurance requirements. In addition to being named as an additional insured on the Certificate of Insurance, each liability policy shall contain an endorsement naming the County of McHenry as an additional insured. A copy of the endorsement shall be provided to McHenry County along with the Certificate of Insurance; and

- (e) have McHenry County named as an additional insured and the address for certificate holder must read exactly as:

County of McHenry, a **body politic**  
2200 N. Seminary Avenue  
Woodstock, IL 60098

- (f) Insurance Notices and Certificates of Insurance shall be provided to:

McHenry County, Purchasing Department  
2200 N. Seminary Avenue, Room 200  
Woodstock, Illinois 60098

The County shall be provided with Certificates of Insurance evidencing the above required insurance prior to the commencement of this Agreement and thereafter with the certificated evidencing renewals or changes to said policies of insurance at least fifteen (15) days prior to the expiration or cancellation of any such policies.

The County shall be named as additional insured on all liability policies, and the parties acknowledge that any insurance maintained by the County shall apply in excess of, and not contribute to, insurance provided by successful bidder.

The contractual liability arising out of the Agreement shall be acknowledged on the Certificate of Insurance by the insurance company. The County shall be provided with thirty (30) days prior notice, in writing, of Notice of Cancellation or material change, and said notification requirements shall be stated on the Certificate of Insurance.

Acceptance or approval of insurance shall in no way modify or change the indemnity or hold harmless clauses in this agreement, which shall continue in full force and effect.

#### HOLD HARMLESS CLAUSE

The Vendor agrees to indemnify, save harmless and defend the County of McHenry, their agents, servants, and employees, and each of them against and hold them harmless from any and all lawsuits, claims, demands, liabilities, losses and expenses, including court costs and attorney's fees, for or on account of any injury to any person, or any death at any time resulting from such injury, or any damage to property, which may arise or which may be alleged to have arisen out of or in connection with the work covered by this contract. The foregoing indemnity shall apply except if such injury, death or damage is caused directly by the willful and wanton conduct of the County of McHenry, their agents, servants, or employees or any other person indemnified hereunder.

#### EVALUATION

Evaluation of proposals will be done by the Director of Purchasing and associated County staff. Proposals will be evaluated on experience in doing projects of a similar nature and adherence to specifications.

**DIRECTIONS FOR SUBMISSION**

Qualified individuals or firms are to submit one (1) original and one (1) copy of the completed proposal along with any support documentation to:

Mr. Donald A. Gray, CPPB  
Director of Purchasing  
McHenry County Administration Building  
2200 N. Seminary Avenue, Room 200  
Woodstock, Illinois 60098

All data and documentation submitted as part of this RFP shall become the property of McHenry County, Illinois. After award of this contract, all responses, documents, and materials contained in the RFP shall be considered public information and will be made available for inspection in accordance with the Illinois Freedom of Information Act.

All proposals must be received by **2:00 p.m. (CST) on September 4, 2013**. Absolutely no proposal will be accepted after the time specified. Late proposals shall be rejected and returned unopened to the sender. The County of McHenry does not prescribe the method by which proposals are to be transmitted; therefore, it cannot be held responsible for any delay, regardless of reason, in the transmission of proposals.

**BID ENVELOPES ARE TO BE CLEARLY MARKED WITH THE RFP TITLE, TIME & DATE OF OPENING.**

**SUBMITTAL**

Submit one (1) bid, multiple bids will not be accepted.

**PRICING**

Price offered shall be firm for at least 120 days after the latest time specified for submission of proposals and thereafter until written notice is received from bidder.

**FREIGHT**

Freight is all inclusive unless otherwise stated.

**FUEL SURCHARGE**

The County of McHenry does NOT accept any fuel surcharges.

# **SPECIFICATIONS**

## **AIR-COOLED CHILLERS**

### **PART 1 - GENERAL**

#### **1.1 SCOPE OF WORK**

- A. Products provided in this section include:
  - 1. Air-cooled chillers between 150 and 500 nominal tons
  - 2. Charge of refrigerant and oil
  - 3. Building automation system (BAS) interface
  - 4. Vibration isolators (alternate)
  - 5. Sound attenuation package(s) (alternate)
- B. Services provided in this section include:
  - 1. Factory functional testing
  - 2. Manufacturer's field services
  - 3. BAS integration
  - 4. Maintenance agreement (base bid and alternate)

#### **1.2 DEFINITIONS**

Not Applicable

#### **1.3 CODES AND STANDARDS (UTILIZE MOST RECENT VERSION)**

- A. Air-Conditioning, Heating, and Refrigeration Institute (AHRI)
  - 1. AHRI 370: Sound Performance Rating of Large Air-Cooled Outdoor Refrigerating and Air-Conditioning Equipment
  - 2. AHRI 550/590: Water Chilling Packages Using the Vapor Compression Cycle
- B. American Society of Heating, Refrigerating, and Air-Conditioning Engineers
  - 1. ASHRAE 15: Safety Standard for Refrigeration Systems
  - 2. ASHRAE 34: Designation and Safety Classifications of Refrigerants
  - 3. ASHRAE 90.1: Energy Standard for Buildings except Low-Rise Residential Buildings
  - 4. ASHRAE 147: Reducing the Release of Halogenated Refrigerants from Refrigerating and Air-Conditioning Equipment and Systems
- C. American Society of Mechanical Engineers (ASME) Section VIII:Boiler and Pressure Vessel Code
- D. American Society for Testing and Materials (ASTM) B-117: Standard Practice for Operating Salt Spray (Fog) Apparatus
- E. Institute of Electrical and Electronic Engineers (IEEE) 519: IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems
- F. International Organization for Standardization (ISO)9001: Standard for Manufacturing Quality
- G. National Fire Protection Association (NFPA) 70: National Electric Code (NEC)
- H. National Electrical Manufacturers Association (NEMA)
  - 1. NEMA 250: Enclosures for Electrical Equipment
  - 2. NEMA AB-1: Molded-Case Circuit Breakers, Molded Case Switches, and Circuit Breaker Enclosures
  - 3. NEMA ICS 2: Industrial Control and Systems: Controllers, Contactors, and Overload Relays
  - 4. NEMA ICS 6: Industrial Control and Systems: Enclosures

- 5. NEMA KS 1: Enclosed and Miscellaneous Distribution Equipment Switches
- 6. NEMA MG 1: Motors and Generators
- I. Occupational Safety and Health Act (OSHA)
- J. Underwriters Laboratories Inc. (UL)1995: Heating and Cooling Equipment

**1.4 QUALITY ASSURANCE**

- A. Conform to all national, state, and local codes.
- B. Conform to Intertek Testing services for construction of chillers and provide ETL/cETL Listed compliance label.
- C. Comply with UL and UL Canada and include a compliance label by a qualified testing agency.
- D. Chiller components shall be constructed, tested, and stamped in accordance with applicable ASME codes.
- E. Conform to ASHRAE 15: Safety Code for Mechanical Refrigeration.
- F. Conform to NFPA 70: National Electrical Code.
- G. Chiller shall be manufactured in a facility registered to ISO 9001 or ISO 9002.
- H. Chiller performance shall be rated and certified in accordance with AHRI 550/590.
- I. Chiller sound data shall be rated and certified in accordance with AHRI 370.
- J. Chiller painted components shall be capable of withstanding 500 hour salt spray test in accordance with ASTM B-117.
- K. Chiller shall be functionally tested at the factory with water flowing through the chiller.
- L. Chiller startup services shall be performed by factory trained personnel.

**1.5 SUBMITTALS (SUBMIT WITH BID)**

- A. Submittals shall indicate components, dimensions, weights and point loads, required clearances and location and size of field connections.
- B. Provide product data indicating rated capacities, specialties and accessories, electrical requirements and wiring diagrams.
- C. Submit complete performance and sound data at full and part load capacities per the table below. In addition, provide full load and part load ratings at AHRI conditions.

Tons	Evap Flow**	Ambient Air Temperature (AAT)	AAT2	AAT3	AAT4	AAT5
100%	100%	105°F	95°F	85°F	75°F	65°F
90%	100%	105°F	95°F	85°F	75°F	65°F
80%	100%	105°F	95°F	85°F	75°F	65°F
70%	100%	105°F	95°F	85°F	75°F	65°F
60%	100%	105°F	95°F	85°F	75°F	65°F
50%	100%	105°F	95°F	85°F	75°F	65°F
40%	100%	105°F	95°F	85°F	75°F	65°F
30%	100%	105°F	95°F	85°F	75°F	65°F
20%*	100%	105°F	95°F	85°F	75°F	65°F
10%*	100%	105°F	95°F	85°F	75°F	65°F

\*Or minimum allowable

\*\*Chilled water pressure drops shall be included.

- D. Submit manufacturer's installation and operation instructions and spare parts list.

## 1.6 DELIVERY, STORAGE AND HANDLING

- A. Comply with manufacturer's installation instructions for storage, rigging, unloading and transporting units.
- B. Provide protective covering over entire chiller and piping connections. Protective covering shall remain until chiller is installed.
- C. Unit controls shall be capable of withstanding 150°F storage temperature in the control compartment.

## 1.7 SPARE PARTS

- A. Provide recommended spare parts list as part of submittal package.

## 1.8 WARRANTY

- A. Provide one (1) year parts and labor warranty on chiller package including materials, labor, and refrigerant from date of startup.
- B. **Alternate Bid 1 – Extended Warranty:** Provide 2<sup>nd</sup>-5<sup>th</sup> extended parts and labor warranty including materials, labor, and refrigerant.

## 1.9 MAINTENANCE SERVICE

- A. Furnish service and maintenance for one year from **date of startup**.
- B. **Alternate Bid 2 – Extended Maintenance:** Provide 2<sup>nd</sup>-5<sup>th</sup> year extended preventative maintenance agreement as an annual cost (if it were to be paid at the beginning of each year). Agreement shall start the day the Base Bid warranty expires.
- C. The maintenance agreement shall cover all preventive maintenance and service during regular work hours as outlined below:
  - 1. Cooling Season Preparation and Inspection
    - a. Check refrigerant and oil levels.
    - b. Check oil sump, oil heaters and temperatures.
    - c. Check and test all operating and safety controls.
    - d. Check the starter operation.
    - e. Start the chilled water pump.
    - f. Start the chiller and calibrate controls.
    - g. Leak check the unit and identify leak sources for repair.
    - h. Log operating conditions after system and unit stabilized.
    - i. Review operating procedures and Owner=s log with operator.
    - j. Check auxiliary equipment operation.
  - 2. Four Inspections During the Cooling Season (April, June, August, October)
    - a. Inspect chiller and adjust safety controls.
    - b. Inspect condenser coils and clean as needed per manufacturer's instructions.
    - c. Check operation of controls.
    - d. Check oil and refrigerant levels.
    - e. Check operation of lube system.
    - f. Check the oil return system.
    - g. Check operation of motor and starter.
    - h. Record operating conditions.
    - i. Check log and review chiller and system operation with operator.
    - j. Conduct routine maintenance as recommended and required.
    - k. Log and report repairs and parts that are required.
  - 3. Annual Equipment Shutdown Inspection and Preventative Maintenance

- a. Check the compressor-motor assembly for the following items and perform tasks as indicated:
  - S Record voltages.
  - S Meg test and record motor winding resistance.
  - S Lubricate motor.
  - S Check seals.
- b. Check the compressor oil system for the following items:
  - S Conduct analysis on oil and oil filter at an independent laboratory.
  - S Check oil pump, seal and motor.
  - S Cleaning the dirt leg.
  - S Check heater and thermostat.
  - S Check all other oil system components including cooler, strainer and solenoid valve where applicable.
- c. Check variable frequency drive (if applicable) and perform the following tasks:
  - S Run diagnostic check.
  - S Clean contacts or recommend replacement.
  - S Check linkage.
  - S Meg test the motor.
  - S Check all terminals and tighten connections.
  - S Check overloads, dash pot oil and calibrate.
  - S Inspect and clean heat rejection device, as required.
  - S Dry run starter (or before start-up); check status.
- d. Review the control panel for the following items:
  - S Run diagnostic check of micro control panel.
  - S Check safety shutdown operation.
  - S Check all terminals and tighten connections.
  - S Check display data accuracy and setpoints.
- e. Check the condenser for the following items:
  - S Clean condenser coils per manufacturer's instructions. **Do not pressure wash or use chemicals unless recommended by manufacturer.**
- f. Check the cooler for the following items:
  - S Check the water flow.
  - S Check flow switch operation.
  - S Check refrigerant level.
  - S Remove evaporator head and inspect end sheets.
- g. Check the system for the following items:
  - S Conduct a leak check and identify leak sources for repairs. Verify proper operation of purge and perform periodic purge preventive maintenance (e.g., replacement of filter/drier).
  - S Record condition of sight glasses.

- S Check the refrigerant cycle to verify the proper operating balance.
- S Check chilled water heat transfer.
- h. General items included:
  - S Repair insulation removed for inspection and maintenance procedures.
  - S Clean equipment and surrounding area upon completion of work.
  - S Consult with the operator.
  - S Report deficiencies and repairs required.
- D. Total Service Coverage including labor and materials for repairs and/or troubleshooting, available during normal business hours (six hours or less response time).

**PART 2 - PRODUCTS**

**2.1 MANUFACTURERS**

- A. Carrier 30XA/30RB.
- B. McQuay AWS-B/AGZ-D/AGS.
- C. Trane RTAE.
- D. York YVAA/YLAA.

**2.2 GENERAL REQUIREMENTS**

- A. Provide factory-assembled, wired and tested outdoor air-cooled liquid chiller consisting of screw or scroll compressors, air-cooled condenser, evaporator, thermal expansion valve, refrigeration accessories, variable frequency drives/starters, and control panel.
- B. Control panels, structural elements, electrical boxes, and heavy gauge structural base shall be constructed of heavy gauge structural steel with weather resistant baked on enamel powder or pre-painted prior to assembly.
- C. Chiller performance requirements are summarized below. See Bid Form for additional requirements.

Chiller Tag:	ACC-A1	ACC-A2
Refrigeration capacity:	151 tons min.	167 tons min.
Approximate footprint*:	23'-0"L x 7'2"W x 7'-9"H*	23'-0"L x 7'2"W x 7'-9"H*
Approximate shipping weight**:	10,300 lbs.	11,200 lbs.
Motor voltage:	460/3/60	460/3/60
Full load power consumption:	As rated	As rated
Part load performance:	Min 12.75 EER at AHRI conditions	Min 12.75 EER at AHRI conditions
Evaporator flow rate:	360 GPM	400 GPM
Evaporator fluid:	100% water	100% water
Evaporator entering fluid temp:	54°F	54°F

Chiller Tag:	ACC-A1	ACC-A2
Evaporator leaving fluid temp:	44°F	44°F
Evaporator fouling factor:	0.00010 ft <sup>2</sup> ·hr·°F/Btu	0.00010 ft <sup>2</sup> ·hr·°F/Btu
Evaporator pressure drop***:	20 ft	20 ft
Condenser entering air temp:	105°F	105°F
<p>*existing chillers are mounted on steel rails on the roof. If new footprint is significantly different than existing chillers, steel may need to be replaced, adding cost to the project. This will be considered as part of the bid analysis.  **shipping weights based on existing chillers. Significant deviation from the existing weight may impact cost to the project. This will be considered as part of the bid analysis.  ***differences in pressure drop will be considered as part of bid analysis.</p>		

D. Alternate bids for chiller options are specified in various places throughout this section. These alternates are summarized as below:

1. **Alternate Bid 1 – Extended Warranty:** Provide 2<sup>nd</sup>-5<sup>th</sup> year extended parts and labor warranty including refrigerant.
2. **Alternate Bid 2 – Extended Maintenance:** Provide 2<sup>nd</sup>-5<sup>th</sup> year extended preventative maintenance agreement. See Section 1.9.
3. **Alternate Bid 3 - Full Louvered Enclosure:** Provide factory installed louvered panels on all sides of chiller covering condenser and compressors.
4. **Alternate Bid 4 - Active Harmonic Filter:** For units provided with variable frequency drives, provide field installed active harmonic filter. See 2.7D.
5. **Alternate Bid 5–2" Restrained Spring Isolators:** Provide 2" deflection restrained spring isolators of quantity and size for specific chiller operating weight.
6. **Alternate Bid 6A – Sound Attenuation Package – Ultra low sound fans:** Provide price for ultra-low sound fans including sound data.
7. **Alternate Bid 6B – Sound Attenuation Package – Full attenuation package:** Provide price for full attenuation package including sound data.

### 2.3 COMPRESSORS

- A. Compressors shall be field serviceable, direct-drive, semi-hermetic rotary screw type or scroll type including muffler, temperature controlled heater, rain-tight control box, suction and discharge service valves, cast iron housing.
- B. Statically and dynamically balance rotating parts and mount compressor on vibration isolators.
- C. Provide oil pump lubrication system with thermostatically controlled oil heater, oil charging valve, oil level sight glass, oil filter and strainer. Components shall be arranged to ensure adequate lubrication during starting, stopping, power failure, and normal operation.
- D. Provide compressor with automatic capacity reduction through slide-valve assembly or VFD down to 15% of full load. Microprocessor controls shall modulate capacity and maintain stable operation throughout entire chiller operating range.
- E. Provide constant speed or variable speed, 3600 rpm maximum at 60 Hz, suction gas-cooled compressor motors, with internal overload protection.

### 2.4 EVAPORATOR

- A. Provide one of the following:

1. Shell-and-tube evaporator of seamless or welded steel construction with removable cast iron or fabricated steel heads, cleanable seamless copper tubes with integral fins rolled or silver-brazed into tube sheets.
  2. Direct expansion type with single pass on the refrigerant and water side for high efficiency counterflow heat transfer and low pressure drops, carbon steel shell, and high efficiency finned copper tubes rolled into steel tubesheets. Water side shall be serviceable in the field.
- B. Design, test and stamp refrigerant side for minimum 220 psig working pressure and liquid side for minimum 150psig working pressure, in accordance with ASME SectionVIII.
- C. Insulate with minimum 1.5" thick flexible elastomeric foam insulation with maximum thermal conductivity of 0.27 BTU-in/hr-ft<sup>2</sup>-°F at 75°F mean temperature.
- D. Furnish thermostatically controller heater to provide evaporator freeze protection to -20°F.
- E. Provide water drain and vent connections and thermometer wells for temperature controller and low temperature cutout.
- F. Provide factory installed proof of flow sensor. If not available, provide field installed differential pressure flow switch equal to United Electric Model J21K-150; NEMA 4X; 150 psi DWP; ¼" NPTI pressure connection; 15 amp at 115V; Class B switch SPDT; auto-reset; high and low pressure bellows stops; shipped loose for contractor field installation in condenser water and chilled water piping. Flow switches shall be configured for use with variable flow systems.

## 2.5 CONDENSER

- A. Condenser coils shall meet one of the following:
1. Condenser coils shall be micro-channel type, parallel flow aluminum alloy tubes, fins, and manifolds.
  2. The condenser coils shall have seamless copper tubes mechanically bonded into aluminum plate type fins. The fins shall have full drawn collars to completely cover the tubes. A subcooling coil shall be an integral part of the main condenser coil.
- B. Coils shall be designed for minimum 350 psig working pressure.
- C. **Alternate Bid 3: - Full Louvered Enclosure:** Provide factory installed louvered panels on all sides of chiller covering condenser and compressors. Panels shall be painted to match chiller.
- D. Provide vertical-discharge, direct-drive propeller-type condenser fans with coated wire fan guard on discharge. Fans shall be of low sound design statically and dynamically balanced. Fans and fan hubs shall be of corrosion resistant aluminum or reinforced polymer construction.
- E. Provide high efficiency fan motors with double-sealed, permanently lubricated ball bearings and built-in current and overload protection. Fan motors shall be totally enclosed, air-over (TEAO) with minimum Class F insulation.

## 2.6 REFRIGERATION COMPONENTS

- A. Provide a minimum of two refrigerant circuits, with separate circuits for each compressor.
- B. Furnish for each refrigerant circuit:
1. Hot gas discharge muffler
  2. Liquid line solenoid valve

3. Replaceable core filter drier
4. Liquid line sight glass and moisture indicator
5. Electronic or thermostatic expansion valve sized for maximum operating pressure
6. Charging valve
7. Insulated suction line
8. Liquid line and discharge service valves
9. Evaporator and condenser relief valves
10. Pressure sensors to allow for control panel display of compressor suction, discharge, and oil pressures
11. Temperature sensors to allow for control panel display of compressor discharge, oil, saturation, condenser subcooling temperatures
12. Complete operating charge of refrigerant (R-134a, R-407c, or R-410a) and compressor oil

## 2.7 ELECTRICAL

- A. Provide NEMA 3R control panel and lockable, hinged, and gasket sealed access door(s). Doors shall be equipped with wind struts. Panel shall contain main power connections, compressor starters, fan motor contactors, current overloads, and factory wiring. Short circuit withstand rating of the electrical enclosure shall be 30,000 amps in accordance with UL 508.
- B. For each compressor, furnish closed transition wye-delta starter, solid state starter, or variable frequency drive. Starters shall be mounted in the control panel.
- C. **Alternate Bid 4: - Active Harmonic Filter:** For units with variable frequency drives, provide field installed active harmonic filter correctly sized for chiller provided. Filter shall meet all applicable codes and help building comply with latest version of IEEE 519.
- D. Provide single point power connection to chiller with UL approved circuit breaker/disconnect factory mounted and wired with external lockable handle.
- E. All exposed power wiring shall be routed through liquid-tight, UV-stabilized conduit.

## 2.8 CONTROLS

- A. Provide microprocessor based controls. Operating software shall be stored in non-volatile memory. Field programmed setpoints shall be stored in battery regulated memory.
- B. Provide factory mounted and wired 115V control power transformer with primary and secondary fuses.
- C. Provide the following automatic controls:
  1. Adaptive logic to take action to keep chiller operating to extent possible during abnormal operating conditions
  2. Programmable setpoints for chilled water supply temperature, local/remote mode
  3. Compressor start/stop, loading/unloading, lead/lag, and anti-recycle
  4. Expansion valve control
  5. Condenser fan staging
  6. Chilled water pump control and chilled water flow contacts
  7. Leaving chilled water temperature control
  8. Low ambient operation to 0°F
  9. High ambient operation to 115°F
  10. Remote temperature reset, current limiting, shutdown, alarms
- D. Provide multi-line LCD display with access to the following data and functions:

1. Chilled water entering and leaving temperatures
  2. Outside air temperature
  3. Component status of compressors, condensers, etc.
  4. System pressures including suction, discharge and oil pressure
  5. System temperatures including suction, discharge, oil, saturation, and condenser subcooling temperature
  6. Compressor data including number of starts, percent full load amps, run time
  7. Evaporator heater status
  8. Alarm history and data for past 10 fault shutdowns
- E. Provide the following safeties:
1. For each refrigerant circuit: high or low refrigerant pressures or temperatures, high or low oil pressure, high motor temperature, three phase motor current overload, motor branch circuit protection, control voltage.
  2. For chiller: high or low ambient temperature, low chilled water temperature, loss of flow, phase loss, undervoltage, short circuit protection, ground fault protection.
- F. BAS Interface:
1. Provide BACnet interface card to connect to Building Automation System (BAS) to provide (at a minimum) the following points: reset of chilled water supply temperature; reset of current limit; chilled water temperatures; motor amperages; motor voltages; motor kW; refrigerant pressures; oil temperature and pressure; and status messages indicating chiller is ready to start, chiller is operating, chiller is shut down on a safety requiring reset, and chiller is shut down on a recycling safety.
  2. Remote start/stop of the chiller shall be hardwired to the chiller.
  3. Provide and install any additional hardware required.

**2.9 ALTERNATE BID 5 – 2" RESTRAINED VIBRATION ISOLATORS**

- A. Acceptable Manufacturers
1. Kinetics Noise Control
  2. Mason Industries
  3. Vibro Acoustics
- B. General requirements applicable to all isolators:
1. Outside Spring Diameter: Not less than 80% of the compressed height of the spring at rated load.
  2. Minimum Additional Travel Distance to Solid: 50% of the required deflection at rated load.
  3. Lateral Stiffness: More than 80% of rated vertical stiffness.
  4. Overload Capacity: Support 200 % of rated load, fully compressed, without deformation or failure.
  5. Operating static deflection: 2".
  6. Materials: Hot dip galvanized housings and cadmium plated spring elements in compliance with ASTM A123.
  7. Springs shall be color coded to indicate load capacity.
- C. Restrained Spring Isolators
1. Freestanding, steel, open-spring isolators with limit-stop restraint
  2. Housing: Steel with resilient vertical-limit stops to prevent spring extension due to weight being removed; baseplate with factory drilled bolt holes for bolting to mounting surface, bonded to 1/4" thick, neoprene or rubber isolator pad attached to baseplate underside; and adjustable equipment mounting and leveling bolt

that acts as blocking during installation. Vertical limit stops shall be out of contact during normal operation. Horizontal clearance on the sides between the spring assembly and the housing shall be a minimum of 1/2" to avoid bumping and interfering with the spring action.

3. For equipment located outside, limit stops shall resist wind velocity up to 130 mph.
4. Restraint: Limit stop as required for equipment. Restraining bolts shall have rubber grommets to provide cushioning in the vertical as well as horizontal directions. The hole through the bushing shall be a minimum of 3/4" larger in diameter than the restraining bolt.
5. Basis of Design: Mason Industries Type SLR

**2.10 SOUND ATTENUATION**

- A. Provide sound attenuation package to reduce **sound power** levels of the chiller. Provide octave band sound data as indicated in table below for each scenario bid. Sound attenuation shall consist of a combination of ultra-low sound fans, compressor enclosures, and inlet attenuators.
1. **Alternate Bid 6A – Ultra low-sound fans:** Provide ultra-low sound fans in lieu of standard low sound fans.
  2. **Alterante Bid 6B – Full attenuation package:** Provide complete attenuation package including ultra-low sound fans, compressor blankets, and inlet attenuators. Any equipment de-rate due to attenuation shall be indicated.

Sound power levels (dB re 10 <sup>-12</sup> Watts)									
Tag	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz	dBA
ACC-X									

**PART 3 - EXECUTION**

**3.1 INSTALLATION**

Not Applicable.

**3.2 MANUFACTURER’S FIELD SERVICES**

- A. Provide startup services by factory trained manufacturer’s representative in accordance with Conditions of Contract. Services shall include but not be limited to:
1. Inspection of chiller installation to confirm it meets manufacturer’s requirements including: overall condition of the chiller, shipping brace removal, operational and maintenance clearances, piping connections, electrical connections, vibration isolator installation, controls integration, and field installed accessories.
  2. Provide startup of chiller per manufacturer’s operation manual.
  3. Provide calculation of estimated energy efficiency ratio (EER) based on operating conditions available to verify chiller performance.
- B. In conjunction with the Controls Contractor, provide a minimum of eight (8) hours of commissioning of the chiller integration to the building automation system (BAS).
1. Verify that control wiring is per manufacturer’s requirements.
  2. Verify that chiller is communicating with the BAS.
  3. Verify that all required points have been successfully mapped to the BAS and are calibrated correctly.
  4. Troubleshoot any communication issues.

- C. On completion of installation of vibration isolators, the local vibration isolator manufacturer's representative shall inspect the chiller installation and indicate installation errors or other faults in the system that affect the isolating system performance.

### **3.3 DEMONSTRATION**

- A. Provide a minimum of four (4) hours per chiller of systems demonstration and training by factory trained manufacturer's representative in accordance with Conditions of Contract. Coordinate with Owner so that all shifts are included in training.

### **3.4 FIELD INSPECTION AND REPORT**

- A. Provide report in accordance with Conditions of Contract, prepared by manufacturer's representatives for chiller and vibration isolators, stating that systems installed and services provided under this Section are in accordance with manufacturer's recommendations and are properly operating.

### **ADDITIONALLY:**

#### **"OR-EQUAL" ITEMS**

- A. The equipment selected (including copies of this document and the installation Bid) shall be made available to the Bidders of the installation work.
- B. Submit with the Bid Form the data requested in technical specifications.
- C. Bid shall state the amount of time required to deliver the equipment.
- D. Bid Shall include Work called for in this manual only.

#### **PAYMENT TERMS**

- A. Ninety percent (90%) of the equipment cost shall be paid within thirty (30) days of receipt of the equipment. The remaining ten percent (10%) of the equipment cost shall be paid upon successful start-up and Owner acceptance of the equipment. Payment of the ten percent (10%) shall not exceed ninety (90) days from the date the equipment is received, unless the start-up and acceptance of the equipment is due to Bidder's inability to schedule and perform the start-up in a timely manner and/or Owner acceptance of the equipment is not possible within the stated time frame due to defects in the equipment or non-compliance with the Contract.

#### **ASSIGNMENT**

- A. Equipment prepurchased by Owner will be assigned to the successful installation contractor so that, once selected, that contractor becomes (1) responsible for coordination of the installation and (2) the single construction and warranty period contact for the project thereafter. Bidder agrees to accept, honor, and acknowledge Owner's assignment of its obligations under the prepurchase agreement.

***THIS PAGE IS MANDATORY.***

**PROPOSAL FORM**

WE, \_\_\_\_\_, PROPOSE TO PROVIDE THE REQUESTED SERVICES PER THE REQUIREMENTS OF THIS REQUEST FOR PROPOSAL IN ACCORDANCE WITH THE SPECIFICATIONS CONTAINED HEREIN.

MANUFACTURER \_\_\_\_\_ (PLEASE MAKE ADDITIONAL COPIES OF THIS SHEET IF ADDITIONAL CHILLER MODELS ARE TO BE BID)

MAKE & MODEL NO. <sup>1</sup>	COST TO FURNISH, DELIVER, TEST & START UP	DELI-VERY (wks) <sup>2</sup>	MIN CODE EER AT AHRI	MIN CODE IPLV (EER) AT AHRI	SOUND (dBa) <sup>1,4</sup>	CHILLED WATER 44F LWT			DESIGN AMBIENT AIR TEMPERATURE (F)	REFRIGERANT TYPE/ COMMENTS
						EWT (F)	FLOW (gpm)	Δ P (ft) <sup>3</sup>		
ACC-A1			9.6	12.75		~54	360	20	105	Minimum 151 tons at rated conditions
ACC-A2			9.6	12.75		~54	400	20	105	Minimum 167 tons at rated conditions
<b>MULTIPLE SELECTIONS ENCOURAGED!</b>										

**NOTES:**

<sup>1</sup> Provide multiple ratings per Section 23 6423.

<sup>2</sup> Define initiation event that will mark the beginning of the delivery period, will assume receipt of approved shop drawings unless otherwise noted.

<sup>3</sup> These are suggested maximums. Pressure drop of evaporator will be considered in life cycle analysis.

<sup>4</sup> Sound data will be a factor in the final selection. Provide sound reduction package(s) as alternates as shown below.

<b>Additive Alternates (provide for each bid above) (PRICING SHALL BE FOR BOTH CHILLERS UNLESS OTHERWISE NOTED):</b>		
Alternate Bid 1: 2 <sup>nd</sup> -5 <sup>th</sup> year extended parts and labor warranty incl. refrigerant for entire unit.	Total Cost (Per Chiller):	\$ _____
Alternate Bid 2: 2 <sup>nd</sup> -5 <sup>th</sup> year preventative maintenance and service agreement for entire unit.	Annual Cost (Per Chiller):	\$ _____
Alternate Bid 3: Full louvered chiller enclosure panels	Total Cost (Per Chiller):	\$ _____
Alternate Bid 4: Active harmonic filter (field installed)	Total Cost (Per Chiller):	\$ _____
Alternate Bid 5: 2" restrained spring isolators	Total Cost (Per Chiller):	\$ _____
Alternate Bid 6A: Sound attenuation package – ultra low sound fans (provide sound ratings)	Total Cost (Per Chiller):	\$ _____
Alternate Bid 6B: Sound attenuation package – full attenuation package (provide sound ratings)	Total Cost (Per Chiller):	\$ _____

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Alternate Bid 2: 2 <sup>nd</sup> -5 <sup>th</sup> year preventative maintenance and service agreement for entire unit.	Annual Cost (Per Chiller):	\$ _____
Alternate Bid 3: Full louvered chiller enclosure panels	Total Cost (Per Chiller):	\$ _____
Alternate Bid 4: Active harmonic filter (field installed)	Total Cost (Per Chiller):	\$ _____
Alternate Bid 5: 2" restrained spring isolators	Total Cost (Per Chiller):	\$ _____
Alternate Bid 6A: Sound attenuation package – ultra low sound fans (provide sound ratings)	Total Cost (Per Chiller):	\$ _____
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MANUFACTURER \_\_\_\_\_ (PLEASE MAKE ADDITIONAL COPIES OF THIS SHEET IF ADDITIONAL CHILLER MODELS ARE TO BE BID)

MAKE & MODEL NO. <sup>1</sup>	COST TO FURNISH, DELIVER, TEST & START UP	DELI-VERY (wks) <sup>2</sup>	MIN CODE EER AT AHRI	MIN CODE IPLV (EER) AT AHRI	SOUND (dBa) <sup>1,4</sup>	CHILLED WATER 44F LWT			DESIGN AMBIENT AIR TEMPERATURE (F)	REFRIGERANT TYPE/ COMMENTS
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<b>MULTIPLE SELECTIONS ENCOURAGED!</b>										

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Alternate Bid 6B: Sound attenuation package – full attenuation package (provide sound ratings)	Total Cost (Per Chiller):	\$ _____

***THIS PAGE IS MANDATORY.***

**PROPOSAL FORM**

WE ALSO CERTIFY THAT THIS WRITTEN PROPOSAL IS VALID FOR 120 DAYS FROM THE DAY OF THIS PROPOSAL AND THE ATTACHED INFORMATION IS RECEIVED AND FILED BY THE COUNTY OF MCHENRY.

\*\*Please list below other costs that may be associated with this service or used additional sheets if necessary:

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Estimated start date after receipt of purchase order: # \_\_\_\_\_ days.

Estimated time of completion: # \_\_\_\_\_ days

***THIS PAGE IS MANDATORY.***

Does your company have a formal safety policy and your employees participate in safety training?

Upon request, would you be able to provide the County with a copy of your safety policy?

YES	NO

***REFERENCES***

AUTHORIZED NEGOTIATORS:

Name: \_\_\_\_\_  
Phone # \_\_\_\_\_  
Title: \_\_\_\_\_

Name: \_\_\_\_\_  
Phone # \_\_\_\_\_  
Title: \_\_\_\_\_

***THIS PAGE IS MANDATORY.***

List three (3) references that you have done similar work, service or supplied similar products to within the last twelve (12) months (Only correct contact names and phone numbers will be acceptable).

Entity:

Address:

City, State, Zip Code:

Telephone Number:

Contact Person:

---

Entity:

Address:

City, State, Zip Code:

Telephone Number:

Contact Person:

---

Entity:

Address:

City, State, Zip Code:

Telephone Number:

Contact Person:

**THIS PAGE IS MANDATORY.**

**RUBBER STAMPED, FAXED, COPIED, OR TYPED SIGNATURE WILL  
DISQUALIFY YOUR BID MUST BE AN ORIGINAL SIGNATURE**

**CERTIFICATIONS**

Vendor certifies that it has not been barred from contracting with a unit of State or local government as a result of a violation of Section 33E-3 or 33E-4 of the Criminal Code of 1961, as amended. \_\_\_\_\_ Yes \_\_\_\_\_ No

Vendor certifies that it is aware that all contracts for the Construction of Public Works are subject to the Illinois Prevailing Wage Act (820 ILCS 130/1-12) \_\_\_\_\_ Yes \_\_\_\_\_ No

Under penalties of perjury, I certify that \_\_\_\_\_ is my correct Federal Taxpayer Identification Number. I am doing business as a (please check one):

- |   |  |
|---|--|
| <input type="checkbox"/> Individual   | <input type="checkbox"/> Real Estate Agent       |
| <input type="checkbox"/> Sole Proprietorship                                      | <input type="checkbox"/> Government Entity       |
| <input type="checkbox"/> *Partnership   | <input type="checkbox"/> Tax Exempt Organization |
| <input type="checkbox"/> **Corporation  | (IRC 501(a) only)                                |
| <input type="checkbox"/> Not-for-Profit Corporation                               | <input type="checkbox"/> Trust or Estate         |
| <input type="checkbox"/> Medical and Health Care<br>Services Provider Corporation |  |

\*State full names, titles and addresses of all responsible principles and/or partners below;

\_\_\_\_\_  
Name: \_\_\_\_\_ Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_  
Name: \_\_\_\_\_ Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_  
Name: \_\_\_\_\_ Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_  
Name: \_\_\_\_\_ Title: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_  
Name: \_\_\_\_\_ Title: \_\_\_\_\_

Address: \_\_\_\_\_

**If needed please submit any additional sheets.**

***THIS PAGE IS MANDATORY.***

**PROPOSER'S CERTIFICATION**

I have carefully examined the Request for Proposal, Requirements for Statements of Qualifications, Scope of Services Background, and any other documents accompanying or made a part of this Request for Proposal.

I hereby propose to furnish the goods or services specified in the Request for Proposal. I agree that my proposal will remain firm for a period of up to 120 days in order to allow the County adequate time to evaluate the qualifications submitted.

I verify that all information contained in this proposal is truthful to the best of my knowledge and belief. I further certify that I am duly authorized to submit this proposal on behalf of the firm as its act and deed and that the firm is ready, willing and able to perform if awarded the contract.

I further certify, under oath, that this proposal is made without prior understanding, agreement, connection, discussion, or collusion with any other person, firm or corporation submitting a proposal for the same product or service. No officer, employee or agent of the County of McHenry or any other proposer is interested in said proposal and that the undersigned executed this Proposer's Certification with full knowledge and understanding of the matters therein contained and was duly authorized to do so.

\*\*State of Incorporation \_\_\_\_\_

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(Individual - Partnership - Company - Corporation)

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(Business Address)

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(City, State, and Zip Code)

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(By Signature)

(Title)

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(Witness Signature)

(Title)

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(Telephone No)

(Fax No)

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(Date)

*End of Document*