
AC / HEAT SYSTEM Specifications

Location :

Riverside Court Condominiums 6300 & 6320 Riverside Dr., Metairie, LA 70003

HVAC Site Overview:

This request for quotation is for the replacement of the existing chilled water systems in a 198 unit apartment / condo complex consisting of multiple buildings with stand alone heat pumps rated 13 SEER or better. Most of the existing fan coil units were made by the First Company (www.firstco.com) who also manufacture drop in replacement refrigerant based fan coil evaporator systems such as what we are requesting bids on. However, you may quote any brand or combination that you prefer to supply pending our approval.

Existing installations at the complex are in most cases are straight down, one above the other, mostly in 2 story flats consisting of 1, 2, and 3 bedroom units. The flats all use a ceiling return air space mounting arrangement that dictates the fan coil evaporator units be approximately 10" in height. There are some townhouses and a few penthouse units. The townhouse and penthouse installations use the more traditional style vertical blower units. Abbreviated floor plan specifications follow at the end of this RFQ.

Warranties:

Unenforceable warranties (5-year / 10-year, etc.) are not to be part of the contract price unless bonded and insured by an independent 3-party A rated insurer. Contractor, however, will be expected to stand behind his work and to extend the equipment manufactures warranties on site for a period of 1-year from equipment start up.

Scope of work:

Contractor is to remove each pair of existing 1/2 - 5/8 inch copper chiller water lines from the existing roof penetration to existing fan coil units with no further action required as the chiller system is inactive. Contractor has the right to dispose of existing copper or to recycle it for its scrap value. Installation of the new fan coil / evaporator units are to fit in the existing spaces and use the existing duct work and return air plenum.

New refrigerant lines are to be pulled through the existing roof penetrations left by removal of the chiller line drops and be resealed by the HVAC contractor. Contractor shall exercise due diligence and be responsible for keeping the roof penetrations sealed prior to and during inclement weather and at the end of each day. The refrigerant lines are to be long enough to make a horizontal loop before attachment to the condensers in order to keep vibration transmitted noise to a minimum and allow minor movement of the units for roof repairs.

Mounting of the condensers should be in groups of 2 or 3 where ever possible and be screwed down to a common "skid" composed of 2, 4 X 4 X 8, or longer where applicable, lengths of treated lumber in order to spread the roof load and provide additional resistance to wind. An additional layer of roofing material must be added under the skids to help vibration protect the roofing surface.

Electrical service to the condensers shall be extended from the existing 20A / 208V service currently wired to the heat strip fan coil units as there is currently no rooftop electrical service. The cut-off breaker for this existing service is usually located within 5 feet of the fan coil.

Condensers must be rated to work with 208 Volts with a target load of no more than 15 amps. The electrical feed and thermostat control wiring should be routed alongside and installed along with the installation of the refrigerant lines thereby using the same roof penetration and keeping labor to a minimum. Condensate drains may be connected to the existing PVC drain lines and must be verified clear prior to start up. High condensate level cut-off float switches shall be installed in the drain lines. All condensers shall be labeled with their corresponding unit numbers and delay on make timer settings.

If necessary, contractor is to install insulation board or otherwise cause return air to only be drawn through an installed air filter.

Contractor is to advise when each installation is taking place so management, at its option, can arrange for proper independent inspection for conformity with industry standard workmanship practices.

If removal of any sheetrock is required for difficult installations of drop lines then replacement shall be contracted separately by facility management and is not to be considered as part of the scope of work.

These specifications should be considered as minimum and shall be in addition to any others required by federal, state or local codes.

Finances:

This project may be funded by the typical milestone method or “pay as you go” so as not to exclude the smaller contractor. In accordance with SBA and State of Louisiana contract guidelines, payments will only be made for acceptable completed work.

HVAC equipment spec's :

Heat pump units are to be a minimum 13 SEER and draw no more than 15 amps. For reference, one such equipment configuration in a 2 ton version is a Goodman model ACNF24001A fan coil evaporator measuring 43-1/4 X 21 X 10 inches coupled with a Goodman heat pump condenser model GSH130241A. Running amps should be considered in the selection of equipment as our facility is on common metering making it important that utility costs be kept to a minimum.

For all operating conditions the electrical load of the installation must be compatible with the existing 20A / 208 Volt service provided. Additionally, all units must be equipped as standard or field equipped with an add on programmable startup delay device (delay on make) and field adjusted by the installer so that all units will not attempt to restart at the same time but rather follow a staggered start sequence after power up or a power interruption.

The delay devices are to be installed so that there will not be any running of the fan during any introduced delay period. No delay is desired unless there is an actual power interruption. This requires that the delay device be installed in the air handler at the control transformer. Locked rotor protection from customer operation of the wall thermostat is provided by a built in delay within the thermostat itself.

For example, in an 8 unit condo building, the first condenser would be set to 2 minutes, the second to 2-1/2 minutes, the third to 3 minutes and so on. This is to reduce the peak demand load for energy billing, and to help prevent overloading of the existing electrical equipment serving the complex. It is sufficient to set the timing on a per building basis.

For reference only, one equipment configuration recommended to us in a 2 ton version was a Goodman model ACNF24001A fan coil evaporator measuring 43-1/4 X 21 X 10 inches coupled with a Goodman heat pump condenser model GSH130241A. No effort has been made to qualify this recommendation nor should it be restrictive in your quotation.

As this is a 30 year old complex and constructed with thermally inefficient materials such as flat roofs and single pane aluminum windows, tonnage should be figured on the high side especially for top floor and end units with additional exposure to the sun and for those units with 3 bedrooms.

Floor plan Specifics, 198 units total :

- 20, 1-br / 1-ba flat @ 636 sq. ft.
- 24, 1-br / 1-ba flat @ 680 sq. ft.
- 44, 2-br / 1-ba flat @ 936 sq. ft.
- 10, 2-br / 2-ba flat @ 1000 sq. ft.
- 12, 2-br / 2-ba flat @ 1008 sq. ft.
- 24, 2-br / 1-ba townhouse @ 1059 sq. ft.
- 16, 3-br / 2-ba flat @ 1089 sq. ft.
- 40, 2-br / 2-ba flat @ 1080 sq. ft.
- 2, efficiency flat (former club house) @ 537 sq. ft.
- 2, Penthouse @ 1272 sq. ft.
- 2, Penthouse @ 1497 sq. ft. (partially on patio), apx. 1230 sq. ft. air conditioned
- 2, Penthouse @ 1726 sq. ft. (partially on patio), apx. 1400 sq. ft. air conditioned

Detailed floor plan drawings are available at -
www.datakik.com/riverside/CondoDocs/EXHIBIT%20G.pdf

Thank you for interest and we look forward to working with you.

Sincerely,

Revised from original 8-8-06 spec's.