TOWN OF LEDYARD
CONNECTICUT
PUBLIC WORKS DEPARTMENT

741 Colonel Ledyard Highway
Ledyard, CT 06339
(860) 464-1100
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BID PACKAGE

for

BID #2012-06

HVAC IMPROVEMENTS POLICE STATION

SEPTEMBER 2012

LEGAL NOTICE
TOWN OF LEDYARD, CONNECTICUT
INVITATION TO BID -- BID # 2012-06

HVAC IMPROVEMENTS POLICE STATION

September 29, 2011

The Town of Ledyard seeks sealed bids for HVAC improvements at the Ledyard Police Station. Project Plans, Technical Specifications, and Bid Proposal Forms may be obtained on-line at www.ledyardct.org or in person at the Ledyard Town Hall, 741 Colonel Ledyard Highway, Ledyard, CT 06339.

Sealed proposals will be received by the Director of Finance, Ledyard Town Hall, 741 Colonel Ledyard Highway, Ledyard, CT. 06339, until **2:00 p.m., Thursday, October 13, 2011,** at which time they will be opened and read aloud. Proposals received after that time will not be accepted and will be returned to the bidder unopened. Proposals should be clearly marked **"SEALED BID #2012-06: HVAC IMPROVEMENTS POLICE STATION."**

Prospective Bidders may contact Buildings & Grounds Foreman Bob Kardys at (860) 464-9060 for additional information or clarification of the bidding process. The Town of Ledyard reserves the right to waive any technical defects in the bids; to reject any bids which do not conform to terms and conditions described in the specifications; to reject any or all bids and to again invite bids; and waive informalities or irregularities in the bidding process.

Note that there is a mandatory pre-bid walk-through on location at 11 Lorenz Industrial Parkway, Ledyard, CT on Thursday, October 6, 2011, at 10:00 AM.

The contract will be awarded to the lowest responsible and qualified bidder whose bid is the lowest of those bidders possessing the skill, ability and integrity necessary to perform the work in good faith.

Marcia Hancock

Marcia Hancock
Director of Finance

AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER

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App. A: Existing system schematic (Drawing #1)

App. B: New Zones (Drawing #2)

1. Diagrams:

Two (2) sets of diagrams are provided.
- Drawing # 1 (Previous air study duct drawing)
- Drawing # 2 (New zones)

2. Wages, Insurance, Building Permits, Fees and Disposal of Materials.

a) Wages: Shall be of non prevailing rate.

b) Insurance: A copy of mandatory insurance must be delivered to the Town of Ledyard, Mayor's Office, a minimum of twenty-four (24) hours prior to start date.

a) Worker's Compensation - as required by State statute.

b) Commercial Liability as follows:

$ 2,000,000 -- General Aggregate
$ 2,000,000 -- Products Completed Operations Aggregate
$ 1,000,000 -- Personal & Advertising Injury
$ 1,000,000 -- Each Occurrence Bodily Injury & Property Damage
$ 100,000 -- Fire Damage, Any One Fire
$ 5,000 -- Medical Payments, Any One Person Including Explosion Collapse & Underground

c) Automobile Liability: $1,000,000 Combined Single Limit Bodily Injury & Property Damage.

Such insurance must be by insurance companies licensed to write such insurance in the State of Connecticut against the above risks and in the amounts indicated. All insurance must provide for a thirty (30) day notice to the Town of cancellation or restrictive amendment. Certificates of Insurance do not have to be submitted as part of the bid; however they must be submitted to the Director of Public Works within ten (10) days after the Notification of Award. Failure to provide and to keep current the required insurance and certificates may be held to be a willful and substantial breach of this Contract.

c) Building Permit, Fees and Disposal of Materials:

- A building permit is required. Fees are applicable. Local fees will be waived. The Building Department is located at the Ledyard Town Hall. For information contact the Building Department at 860-464-3217.
- Disposal of all debris and old equipment is the responsibility of the contractor. This shall be removed daily, or a suitable container may be used at the contractor's expense. (The location is to be mutually agreed upon by the Town of Ledyard and contractor). The contractor is required to recover refrigerant and dispose of the removed units and HVAC piping according to USEPA requirements. The contractor is also required to properly dispose of the existing mercury thermostats after removal. The affected building interior shall be vacuumed daily at the end of the work day by the contractor.

3. Start, Completion Dates and Working Hours.

   a) Start and completion Dates:

      The project may begin on site seven (7) days after the contract is awarded. Seven (7) days notice is required. No work shall begin until all equipment and parts are on site, unless otherwise authorized. Once project has begun, it is to continue to completion unless there are weather restrictions. The order of replacement of units is to be mutually agreed upon to minimize disruption.

   b) Hours of Operation:

      - Contractor working hours shall be 8:00 a.m. to 4:30 p.m. Monday – Friday.
      - Town holidays will be observed. Other days / hours of work may be available with the consent of the Director of Public Works.
      - Police Station hours of operation are 24/7

4. Contact Persons.

   - Administrative questions: Resident State Trooper – Sergeant Jim Gilman 860-464-9416

   - Technical questions:
     Mr. Bob Kardys, Buildings and Grounds Foreman. 860-464-9060
     Mr. Steve Masalin, Public Works Director. 860-464-1100

5. Performance Bond.

   A Performance Bond (if the total amount for the project is greater than $25,000.00) in the full amount of the bid and a Labor and Materials Bond in the same amount will be required from the successful bidder for the faithful performance on the contract. The Bonds must be in favor of the Town of Ledyard and executed by a surety company authorized to do business in the State of Connecticut. In lieu of the above bonds, alternate surety in the same amount, in the form of a secured passbook, if acceptable to the Town Treasurer, may be submitted. The surety must be posted and accepted within thirty (30) days of the notification of award and prior to the commencement of any work under the contract.

6. Maintenance Agreement, Material, Labor Guarantee and Turnover Package.

   a) Maintenance Agreement:

      The contractor shall supply and factor into the bid; a first year heating and air conditioning annual preventative maintenance inspection prior to that season. This shall include the two (2) new package units, one (1) existing package unit supplying the lunch room wing, one (1) split AC unit to the locker room and the 911 computer room Mitsubishi 2 ton unit.

   b) Warranty:

      The contractor shall submit a written one year minimum warranty. This warranty shall be in addition to and not a limitation of other rights the owner may have against the contractor under the contract agreement.

c) Turnover Package:

The contractor shall supply a three ring binder (Operation & Maintenance manual). This shall include all manufactures written warranties.

7. Air Study (Previous study and work accomplished since study).

a) An air study was accomplished in January 2011. (See attached drawing # 1)

b) Results of Air Study.

- Both HVAC systems #1 and HVAC system #2 are approximately 500 cfm short in return air.
- HVAC #1 has a barometric damper that needs to be replaced. (incorrectly installed)
- HVAC #1 has 12 zones and a by-pass damper. (5 of the zones do not operate).
- There are no economizers on the HVAC's. So there is no outside fresh air and no seasonal free cooling.

c) Work performed since the air study.

- The barometric damper was removed.
- The 8" round return was increased to 10" round in Rm #3
- Two returns were added to Rm. #10
- All motorized zone dampers were disconnected on HVAC #1

8. Description of Work (See attached drawing # 2 and schematic section 17)

- Replace two (2) existing 5 - ton package units:
  - Unit #1 supplies the Classroom (Rm # 3) and related rooms (#1, 2, 4, 5, 6, 7 & 8).
  - Unit #2 supplies the Dispatch Center (Rm # 14) and related rooms (#9, 10, 11, 12, 13 & Hall).
- Unit system #1 will be changed from a six (6) zone, eleven (11) mechanical damper system, with a by-pass damper; to a five (5) zone damper system, with a digital operated by-pass damper system.
- Unit system #1: The Class Rm; Room #3 shall have over all control of heating or cooling.
- Unit system #2 will be changed from a no zone to a (3) three zone damper system, with a digital operated by-pass damper system.
- Unit system #2: The Dispatch Center; Room #14 shall have over all control of heating or cooling.
- The units shall be single phase, propane gas.
- Supply and install all necessary ductwork, controls and control wiring, gas lines, electrical and concrete work as required.
- A duct smoke detection system is not required for an HVAC system with 2,000 or less CFM.

9. Scope of Work: Equipment

a) The contractor shall supply and install:

- Two (2) Trane or equal five (5) ton, 15 SEER, Energy Star Rated, single phase, propane gas with crankcase heaters and economizers.

- Warranty: 1 year labor
  10 years compressor
  10 years heat exchanger
- Two (2) Trane Vari Trac Central Control Panel or equal
- Zone temperature sensors. Sensor with digital display, adjustable setpoint, night setpoint override button, cancel button and communications jack. (Note : Building is utilized 24 / 7)
- All low voltage control wiring shall be shielded.
- Zone and by pass dampers.
- Necessary electrical and control wiring.

b) All equipment is to be installed per manufacturer's specifications.

10. Scope of Work: General

a) All work is to be conducted per manufacturer specifications.

b) Unit #1 and #2 systems shall be renovated on separate days allowing the building to be heated or cooled as warranted.

c) During renovation of unit # 2 system, the Dispatch Center shall be heated or cooled at all times by running a temporary flexible insulated duct from Unit #1.

d) The new package unit # 2 shall be physically relocated forward, thus meeting code for fan exhaust air (See Scope of Work: Masonry)

e) The package units shall be fitted with pleated air filters.

f) Material and labor required to achieve compliance with code, overlooked in these specifications shall be the brought to the Town's attention by the contractor.

A change order may be initiated for additional work, if necessary.

11. Scope of Work: Masonry

(Beware of underground gutter leaders and electrical PVC conduit which may or may not contain electrical wiring)

a) Package Unit #1.

- The contractor shall remove the existing bollards, decorative stone and sidewalk under and adjacent to this unit; from in front of the State Police hall door to the expansion joint right of the garage door.
- The contractor shall supply, prep (min 6" gravel base) and install an eight (8) inch thick, re-inforced, brushed precast concrete pad, minimum four (4) inches exposed above grade. The pad shall have a five (5) inch foot print beyond the unit front and sides. The pad shall abut the building with the use of a fiber expansion joint and the joint epoxy sealed. The Town shall seal the pad for salt exposure.
- The pad shall be relocated approximately one (1) foot left of the existing location, to minimize contact with the exterior door.

- The contractor shall replace the affected sidewalk with reinforced concrete, fiber expansion joints and the joints epoxy sealed. The Town shall seal the concrete for salt exposure.
- The contractor shall supply and install two (2) six (6) inch galvanized bollards in front of the unit. The bollards shall be concreted around and filled.
- The decorative stone shall be replaced by the Town.

b) Package unit #2

- The contractor shall remove the existing one (1) bollard and decorative stone in front of the unit.
- The contractor shall prep (min 6" gravel base) pin and pour an eight (8) inch, re-inforced, brushed, concrete pad: as an extension to the existing pad. (Due to the relocation of the package unit forward, to meet code of the condensor exhaust air flow.) The finished pad shall have a five (5) inch footprint larger than the unit front and sides. The pad shall abut the existing pad. The Town shall seal the pad for salt exposure.
- The contractor shall supply and install two (2) six (6) inch galvanized bollards in front of the unit. The bollards shall be concreted around and filled.
- The decorative stone shall be replaced by the Town.

12. Scope of Work: Duct Work

a) All existing and new flex duct shall preferably be no longer than six (6) feet and in no case longer than seven (7) feet.

b) Package Unit #1.

- The existing exterior sheet metal plenum shall be replaced and installed off the concrete pad to allow air circulation and minimize corrosion.
- Remove the eleven (11) existing mechanical zone and one (1) bypass dampers which are disconnected in the open position and the multi zone control panel.
- Install five (5) new zones and dampers with a digital operated by-pass damper system and wiring; as indicated on drawing #2 (new zone system) and typical HVAC schematic (section 17).
- The system shall be installed in such a way to allow each zone to be adjustable for air balancing.

c) Package Unit #2.

- The existing exterior sheet metal plenum shall be replaced and installed off the ground and acoustically lined.
- The existing return duct shall be wrapped with insulation. (Existing duct is not insulated)
- Unit system #2 will be changed from a no zone to a three (3) zone system; including dampers, a digital operated by-pass damper system and wiring; as indicated on drawing #2 (new zone system) and typical HVAC schematic (section 17).
- The system shall be installed in such a way to allow each zone to be adjustable for air balancing.

13. Scope of Work: Electrical & Controls

a) All low voltage control wiring shall be shielded with no contact to the drop ceiling.

b) Package Unit #1

- The existing exterior electrical disconnect, conduits and wiring shall be replaced. (The wiring from the electrical panel to the electrical disconnects shall remain unless not to code).
- Install five (5) new sensors as indicated on drawing #2 (new zone system) and Section 9a.
- Thermostats removed and not being replaced shall be covered with a solid plastic wall plate (ivory color). Old control wiring not used shall be removed.
- The new central control panel shall be located in Rm #1 (closet) replacing the existing control panels.

c) Package Unit #2

- The existing exterior electrical disconnect, conduits and wiring shall be replaced.
  (The wiring from the electrical panel to the electrical disconnects shall remain unless not to code).
- Install three (3) new sensors as indicated on drawing #2 (new zone system) and Section 9a.
- The central control panel shall be located in Rm #10 behind the door as per drawing #2.

14. Scope of Work: Propane & Plumbing

a) Package Unit # 1

- The propane line shall be replaced from the main 1" supply (along the building by the exterior door) to the burner assembly.
- The new supply line shall be run and secured along the top of the unit and secured along the pad in such a way as to minimize being stepped on. (All lines 1" minimum clearance)
- The condensate line shall be run to the front of the unit to the stone area. It shall be secured in such a way as to minimize being stepped on and broken.

b) Package Unit # 2

- The propane line shall be replaced from the exterior of the building to the burner assembly.
- The new supply line shall be run and secured along the top of the unit and secured along the pad in such a way as to minimize being stepped on. (All lines 1" minimum clearance)
- The condensate line shall be run to the stone area. It shall be secured in such a way as to minimize being stepped on and broken.

15. Miscellaneous

a) The Town of Ledyard is responsible for the replacement of decorative stone.

b) The Contractor is responsible for:

- Testing and start up.
- Air balance of systems upon completion of installation.
- Upon completion of the project, a walk thru and demonstration of the system and controls shall be conducted, with representatives of the Town of Ledyard Maintenance Department and Police Department.
- Repairs or adjustments to vinyl siding.
- Replacement of broken or marred ceiling tiles caused by the contractor.
- Repositioning of fallen fiberglass insulation during construction.
- Ductwork shall be vacuumed a minimum of three (3) feet into the building from the exterior wall.
- Supplying one full case of pleated air filters of each size required.
- Moving and covering of furniture.
- Vacuuming daily at the end of the work day, the affected building interior.

16. Bid Form – Bid #2012-06 HVAC Improvements Police Station

NOTE: There will be a mandatory pre-bid walk-through on Thursday, October 6, 2011, at 10:00 AM on location at 11 Lorenz Industrial Parkway, Ledyard, CT.

a) Replacement #1 & #2 HVAC Package Units. (Base Bid) _____

Written in Words: _____

b) Project estimated start date after award of bid: _____

c) Project estimated completion time: _____

d) Number of years contractor in business: _____

Submitted by: Vendor _____

Address _____

Phone Number _____ Date _____

Authorized Signature _____

Printed Name _____

16. Continued Next Page

16. Continued

e) Information Pamphlet Containing:

1) Manufacturer's Warranty
2) Energy Star Rating ("R" and "U" Rating)
3) Pertinent Information
4) Certifications
5) Specification Sheets Must State the Following:

(For HVAC package units)
- Manufacturer's Name
- Energy Star Rating
- Multiple Zone Capacity
- Seasonal Energy Efficiency Ratio (SEER)
- Heating Seasonal Performance Factor (HSPF) (if available)
- Energy Efficiency Ratio (EER) (if available)
- Cooling Capacity in KW or BTU/hr
- Air Flow Rate CFM
- Heating Capacity Size in Tons
- Clearances and Specifications

(For Sensors)
- Manufacturer's Name
- Model #
- Energy Star Rating

(For Central Control Panel)
- Manufacturer's Name
- Model #

6) Contractor is to provide a schematic showing the configuration and components of their proposed system. You may use drawing #2 as a template.

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16. Continued

f) References:

A minimum of three (3) references (preferably municipal) for projects of comparable specifications are required. Note: If previous work has been done for The Town of Ledyard; please specify.

#1 _____ Contact Person

_____ Company Name

_____ Address

_____ Phone Number

#2 _____ Contact Person

_____ Company Name

_____ Address

_____ Phone Number

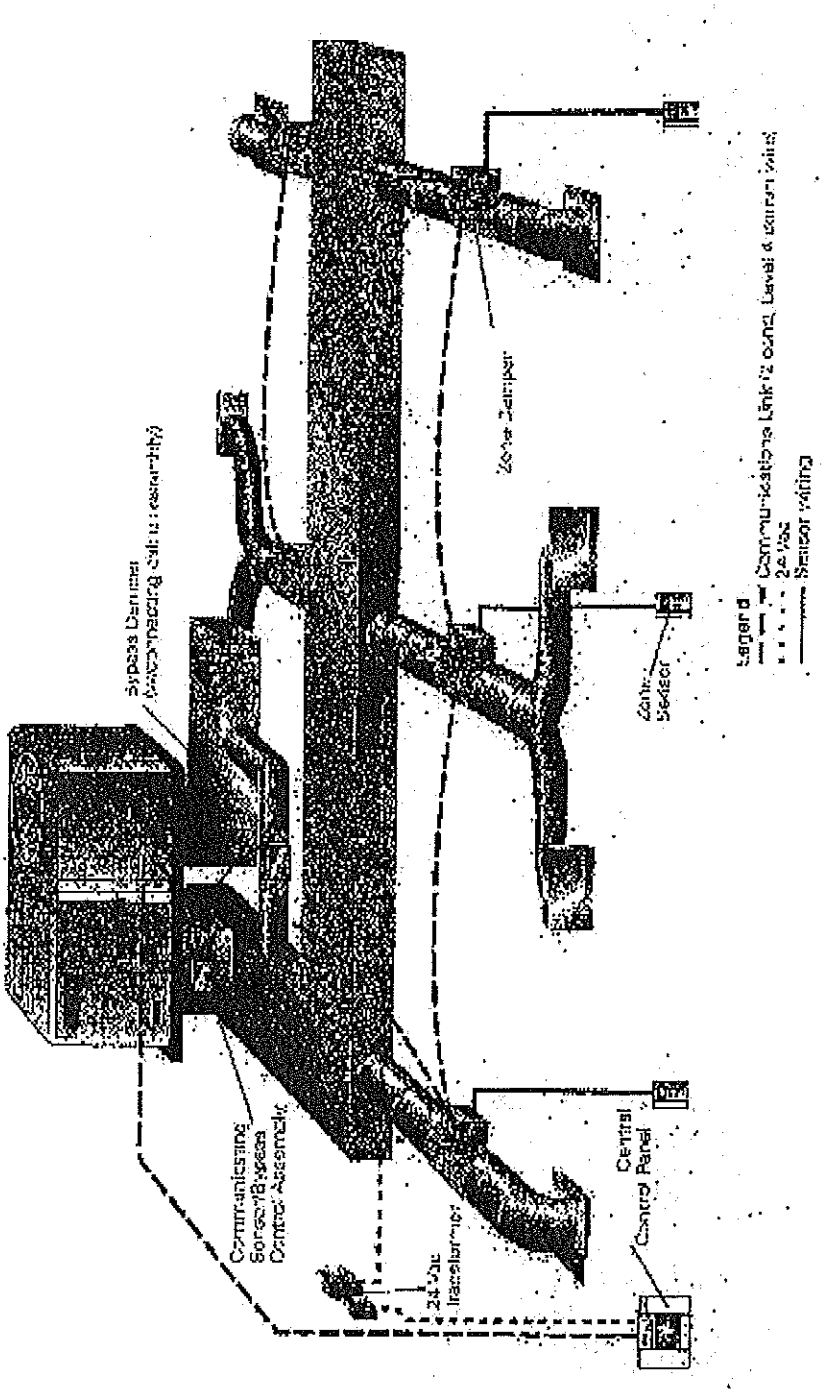
#3 _____ Contact Person

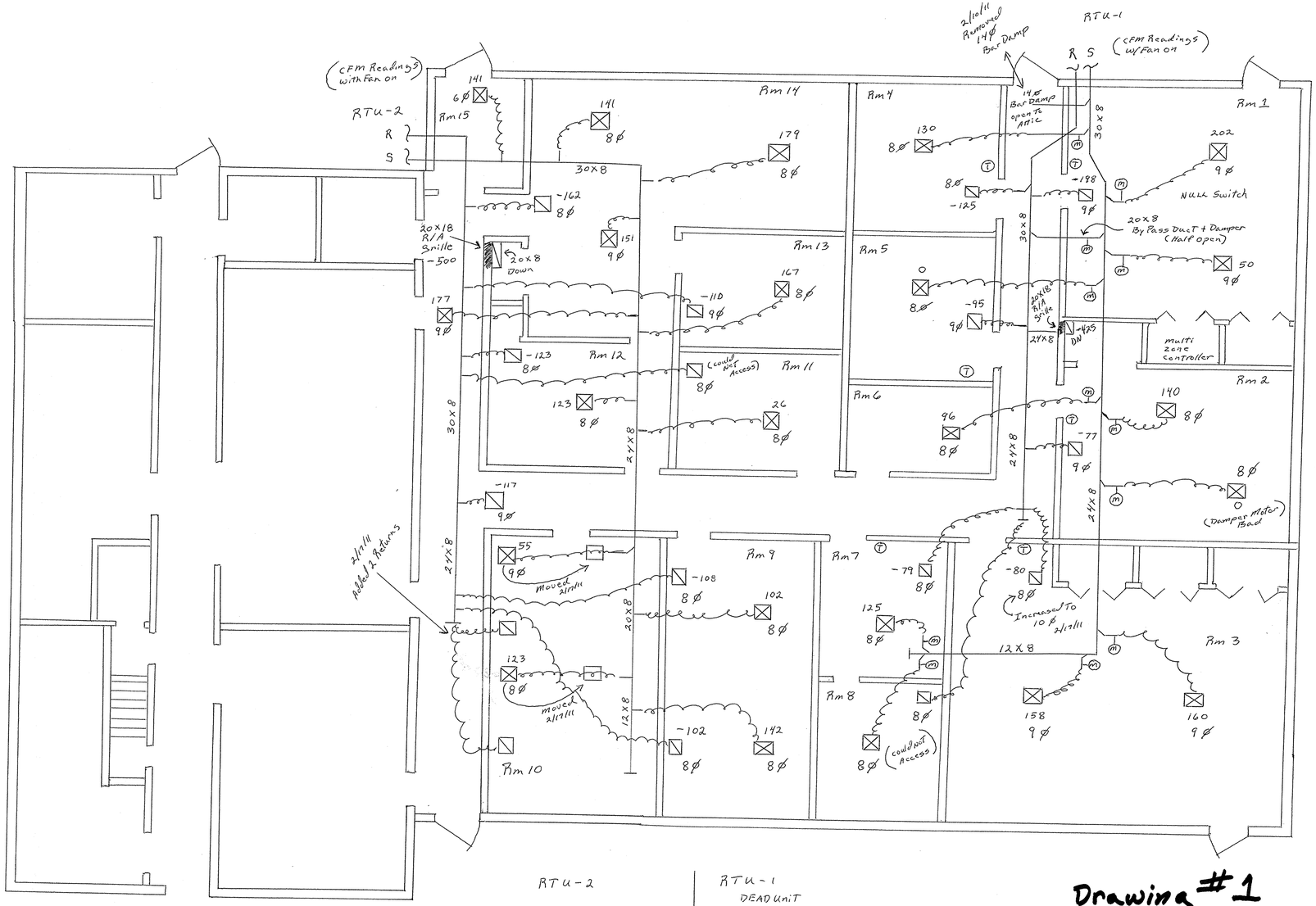
_____ Company Name

_____ Address

_____ Phone Number

17. Typical HVAC Schematic





RTU-2

1516 S

1332 R No By Pass

RTU-1

DEAD Unit

1500 R

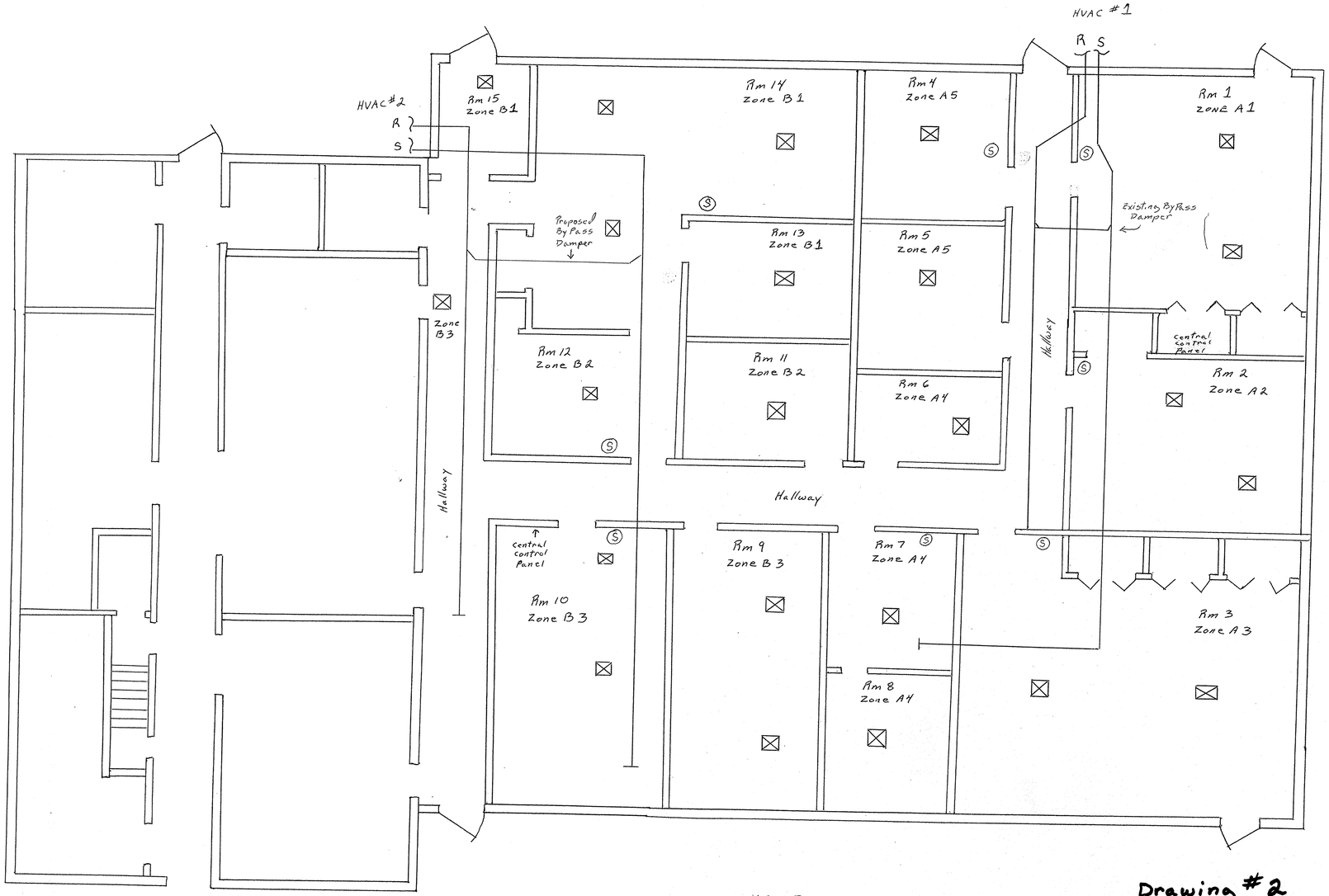
1186 - Plus By Pass

Drawing #1

Ledyard Police Station (1ST Floor)

(Not To Scale) 1/20/11

Air Study



NEW Zones

Zone A (5 zones)

Zone B (3 zones)

Drawing #2

Ledyard Police Station (1ST Floor)

(Not To Scale)