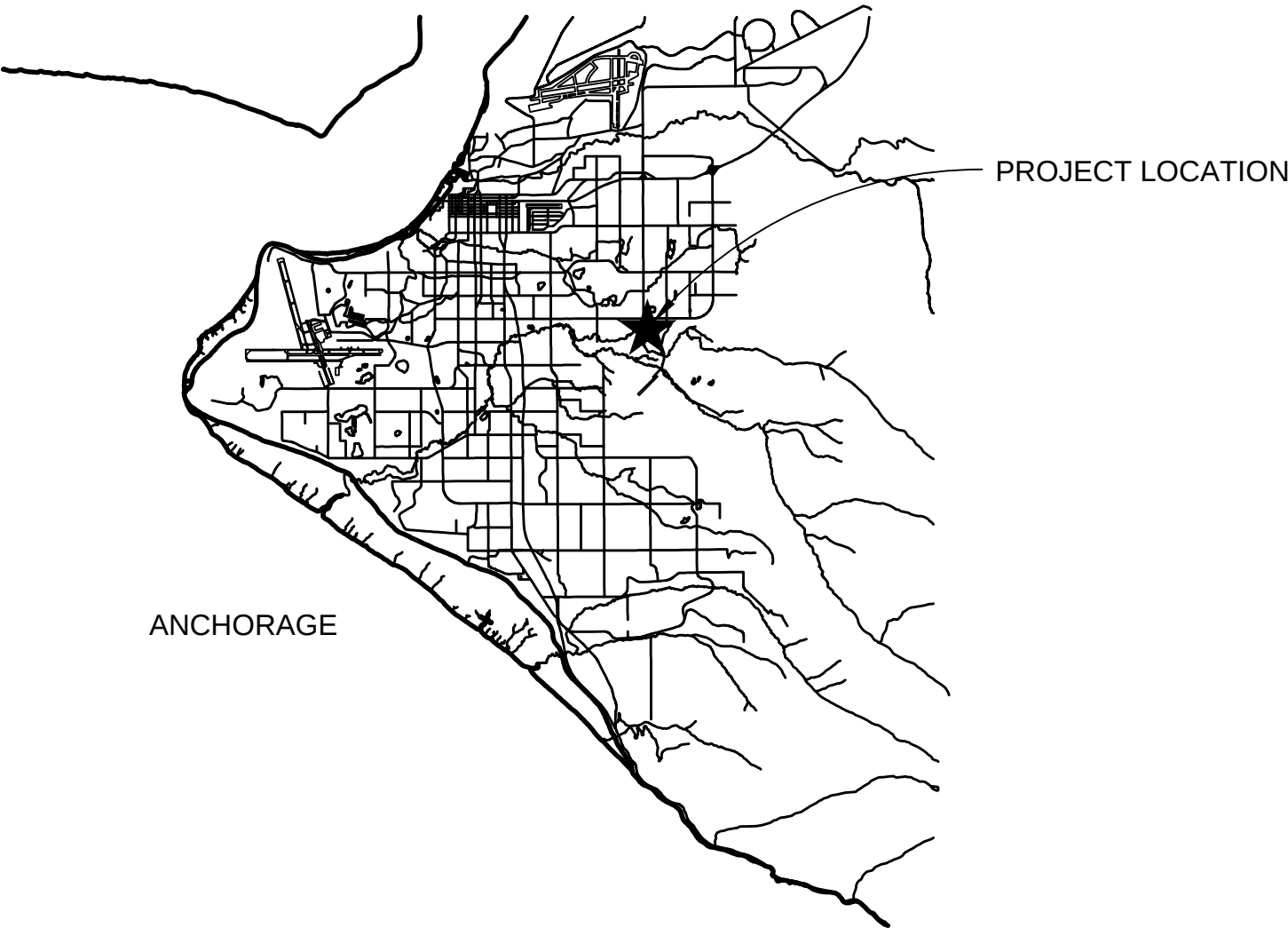


MECHANICAL DRAWING INDEX

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M2.0	FLOOR PLAN - SUPPLY AIR BALANCE
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M3.0	FLOOR PLAN - THERMAL ZONE BOUNDARIES
M4.0	ENLARGED MECHANICAL ROOM PLAN - LOWER LEVEL
M4.1	ENLARGED PLANS



ALASKA BUREAU OF
INVESTIGATION
HVAC RENOVATON PROJECT
DPS PROJECT NO. 12-133434F

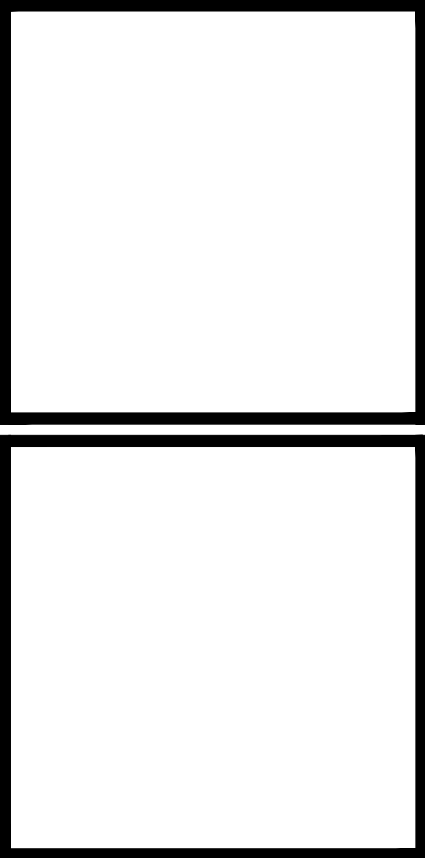
5500 E. TUDOR ROAD
ANCHORAGE, ALASKA 99507



PROJECT OWNER:
STATE OF ALASKA
DEPARTMENT OF PUBLIC SAFETY -
DIVISION OF ADMIN. SUPPLY SECTION
524 E. 48TH AVE
Anchorage, AK 99503
Phone: (907) 929-8952

PROJECT MANAGER:
AMERESCO
6643 Brayton Dr
Anchorage, AK 99507
Phone: (907) 278-1880

MECHANICAL ENGINEERS:
JERNSTROM ENGINEERING, LLC
6927 Old Seward Hwy, Suite 202
Anchorage, AK 99518
Phone: (907) 522-1042



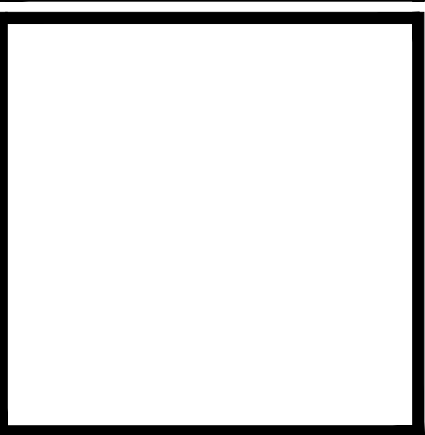
JERNSTROM ENGINEERING
CONSULTING MECHANICAL ENGINEERS
6927 Old Seward Hwy, Suite 202, Anchorage, Alaska 99518
Phone: (907) 522-1042 Fax: (907) 522-1052
E-mail: rjernstrom@jernstromengineering.com

ALASKA BUREAU OF INVESTIGATION BUILDING
HVAC RENOVATION PROJECT
5500 E TUDOR ROAD
ANCHORAGE, ALASKA 99507

TITLE SHEET

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Date	4/30/15
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CONSULTING MECHANICAL ENGINEERS
6927 Old Seward Hwy, Suite 202, Anchorage, Alaska 99518
Phone: (907) 522-1042 Fax: (907) 522-1052
Email: rjernstrom@jernstromengineering.com

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HVAC RENOVATION PROJECT
5500 E TUDOR ROAD
ANCHORAGE, ALASKA 99507

LEGEND AND SCHEDULES

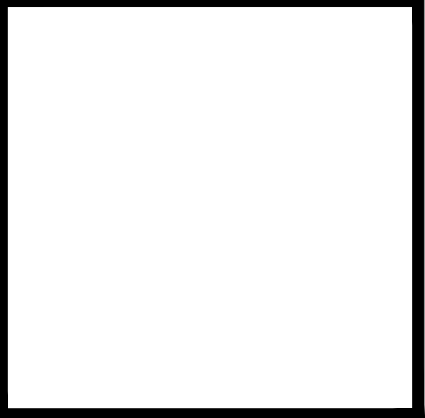
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M1.0

MECHANICAL LEGEND AND ABBREVIATIONS																																																																																																																																									
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MECHANICAL SPECIFICATIONS
SUMMARY OF WORK
This project is generally described as comprising of adding heating, ventilation, air conditioning and control systems to the Alaska Bureau of Investigation HVAC Renovation project. It includes the addition of equipment and systems to serve the heating, ventilation, air conditioning and control functions in the facility.
COORDINATION & SCHEDULING
Provide all required administrative and supervisory requirements for the coordination of the work. The mechanical contractor shall coordinate his work with the work of his subcontractors, suppliers, and the Owner.
QUALITY CONTROL
The contractor shall be required to maintain complete control of the constructed project, such that the complete project shall be free of defects and in full conformance of the project documents.
CONTRACTOR RESPONSIBILITY
The contractor shall utilize procedures that assure quality construction throughout, with use of the best industry standards for the specific process used. Remove and replace any work found defective or not complying with requirements of the contract documents, at no additional cost to the Owner.
INSPECTION SERVICES
The Owner has full authority to see that the work is performed in strict accordance with the contract documents.
FINAL CHECKOUT & PROJECT CLOSEOUT
The Owner will require a complete final inspection of all parts of the work. Work shall include but not be limited to the following: plumbing, piping, equipment, ductwork, wiring, and finish work.
CLEAN-UP
Remove all waste materials and rubbish from the site, thoroughly clean all surfaces of work, and leave ready for occupancy by the Owner. The Owner will verify the completion and/or correction of the items above.
PERMITS, INSPECTIONS & FEES
Obtain permits and inspections and pay fees required by the local authorities. During its progress, the work shall be inspected by the Owner. Present Inspector's certificates of compliance to the Owner.
SUBMITTED DATA
Submit technical data and required information on all equipment and materials.
QUALITY
Contractor shall comply with the applicable local and national codes, ordinances and regulations affecting materials and methods used; and recommended practices as set down by the International Building and Mechanical Codes, Uniform Plumbing Codes, and the National Electric Code.
WORKMANSHIP
All work to be done by workmen skilled in and regularly employed at that trade.
CUTTING & PATCHING
Cutting and patching shall be kept to a minimum. All patching to match existing finish work. Do not cut structural members.
MEASUREMENTS
Contractor shall field verify prior to bidding. Verify space availability prior to fabrication and installation of any work.
BASIC MATERIALS & METHODS
1. Ductwork: All ductwork shall be galvanized steel, fabricated and installed in accordance with SMACNA HVAC Duct Construction Standards, 2" W.G. Pressure Class for low pressure systems and 4" W.G. for medium pressure systems. Duct Sealer shall be UL Labeled duct sealer as manufactured by 3M Company or equal. Duct Fittings shall be fabricated in accordance with SMACNA Standards. Duct runs shall coordinate with walls, suspended ceilings, light fixtures, roof trusses and similar finished work. Duct opening shall be covered during construction to prevent entrance of dust and debris. 2. Flexible Ducts, Insulated: Factory-fabricated, insulated, round duct, with an outer jacket enclosing 1-inch-thick, glass-fiber insulation around a continuous inner liner. Rated for maximum pressures of 10-inches wg positive and 1-inch wg negative. Reinforcement: Steel spring coated wire helix supporting the inner liner. Outer Jacket: Metalized fiberglass crosshatched jacketing. Inner Liner: Chlorinated Polyethylene, acoustically rated. 3. Coordinate all new work with the conduits, lights, hangers, structural members and other trades. 4. See schedules for equipment requirements and specifications. 5. Install all equipment according to manufacturer's recommendations. Install only products specifically designed and approved for the type of operation or service.
BALANCING & STARTUP
1. An independent air balancing company will perform the air balancing of the complete heating and HVAC systems per the SMACNA Balancing and Adjustment Manual. Adjust air quantities to within 5% of the design values. 2. Complete and submit the final testing and balancing report before the project is complete. 3. Field Services: The manufacturer's representative shall provide the services of a local factory authorized service technician to supervise all phases of the startup for the variable frequency drives.
CONTROLS
1. Provide a complete automatic temperature control system to provide the equipment control sequences noted below. 2. All components used will be only commercial grade. Provide all equipment for a complete and operational system. 3. Control Wiring: Provide electric wiring and wiring connections required for the installation of the control system. Comply with the requirements of the National Electric Code. 4. The control contractor shall work with and coordinate with the engineer on the components, sequences of operation and system capabilities.
SEQUENCE OF OPERATION
TBD



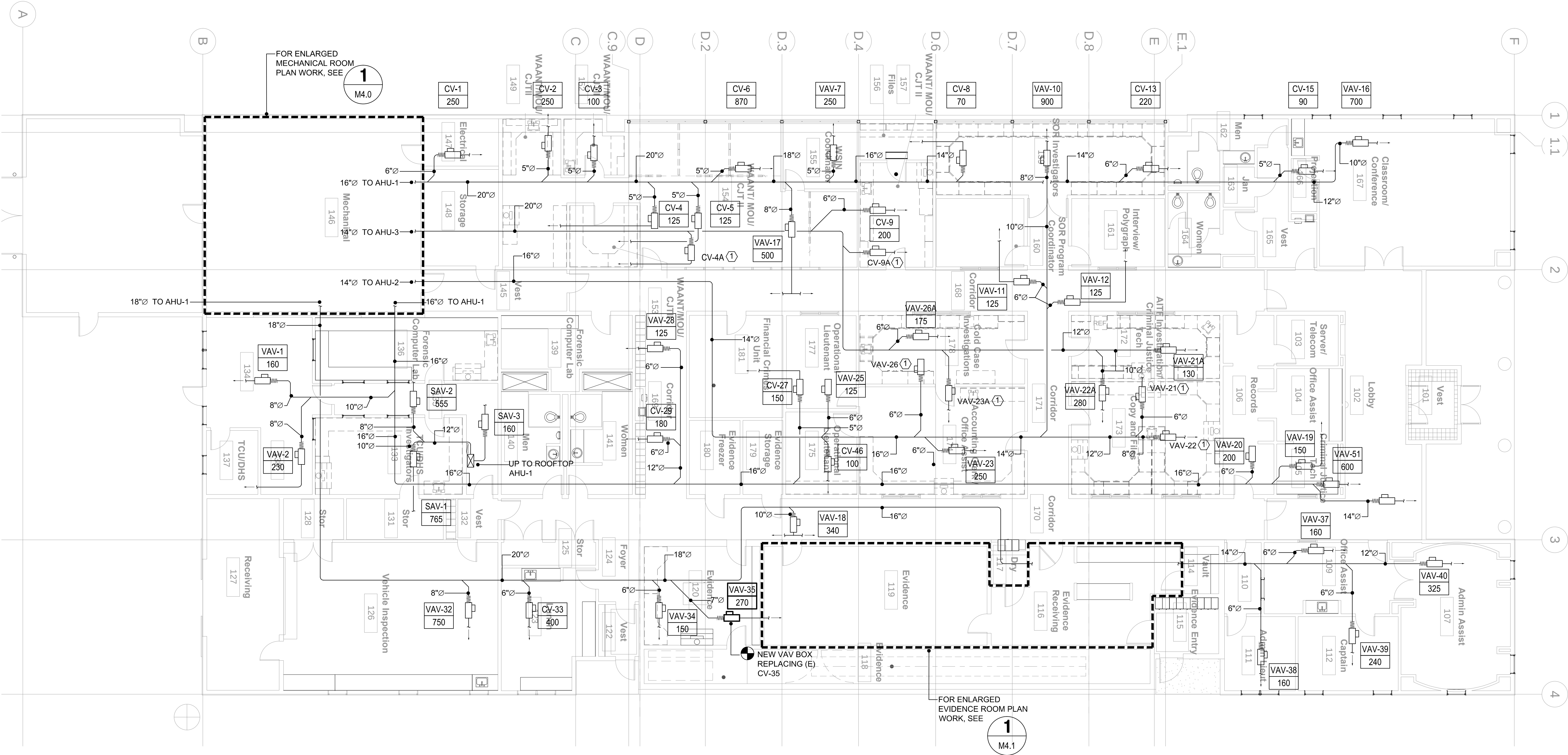
JERNSTROM ENGINEERING
CONSULTING MECHANICAL ENGINEERS
6927 Old Seward Hwy, Suite 202, Anchorage, Alaska 99518
Phone: (907) 522-1042 Fax: (907) 522-1052
E-mail: rjernstrom@jernstromengineering.com

ALASKA BUREAU OF INVESTIGATION BUILDING HVAC RENOVATION PROJECT 5500 E TUDOR ROAD ANCHORAGE, ALASKA 99507	SPECIFICATIONS
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Revisions	
Date	4/30/15
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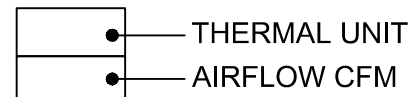


1 FLOOR PLAN - SUPPLY AIR BALANCE
M2.0 SCALE: 1/8"=1'-0"

NOTES:

(1) NOT USED.

2. TERMINAL UNIT KEY PLAN



3. PROVIDE DDC VAV CONTROL RETRO FIT KITS FOR ALL CONSTANT VOLUME (CV) BOXES. CONTROLS TO BE INSTALLED AND PROGRAMMED AS PART OF A FUTURE CONTROLS PROJECT.



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CONSULTING MECHANICAL ENGINEERS
6927 Old Seward Hwy, Suite 202, Anchorage, Alaska 99518
Phone: (907) 522-1042 Fax: (907) 522-1052
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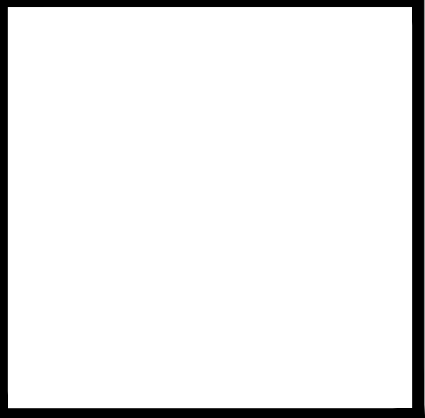
FLOOR PLAN - SUPPLY AIR BALANCE

Revisions

Date	4/30/15
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Sheet No.

M2.0



ALASKA BUREAU OF INVESTIGATION BUILDING
HVAC RENOVATION PROJECT
5500 E TUDOR ROAD
ANCHORAGE, ALASKA 99507
FLOOR PLAN VENTILATION - EXHAUST AIR

M2.1





JERNSTROM ENGINEERING
CONSULTING MECHANICAL ENGINEERS
6927 Old Seward Hwy, Suite 202, Anchorage, Alaska 99518
Phone: (907) 522-1042 Fax: (907) 522-1052
Email: jernstrom@jernstromengineering.com

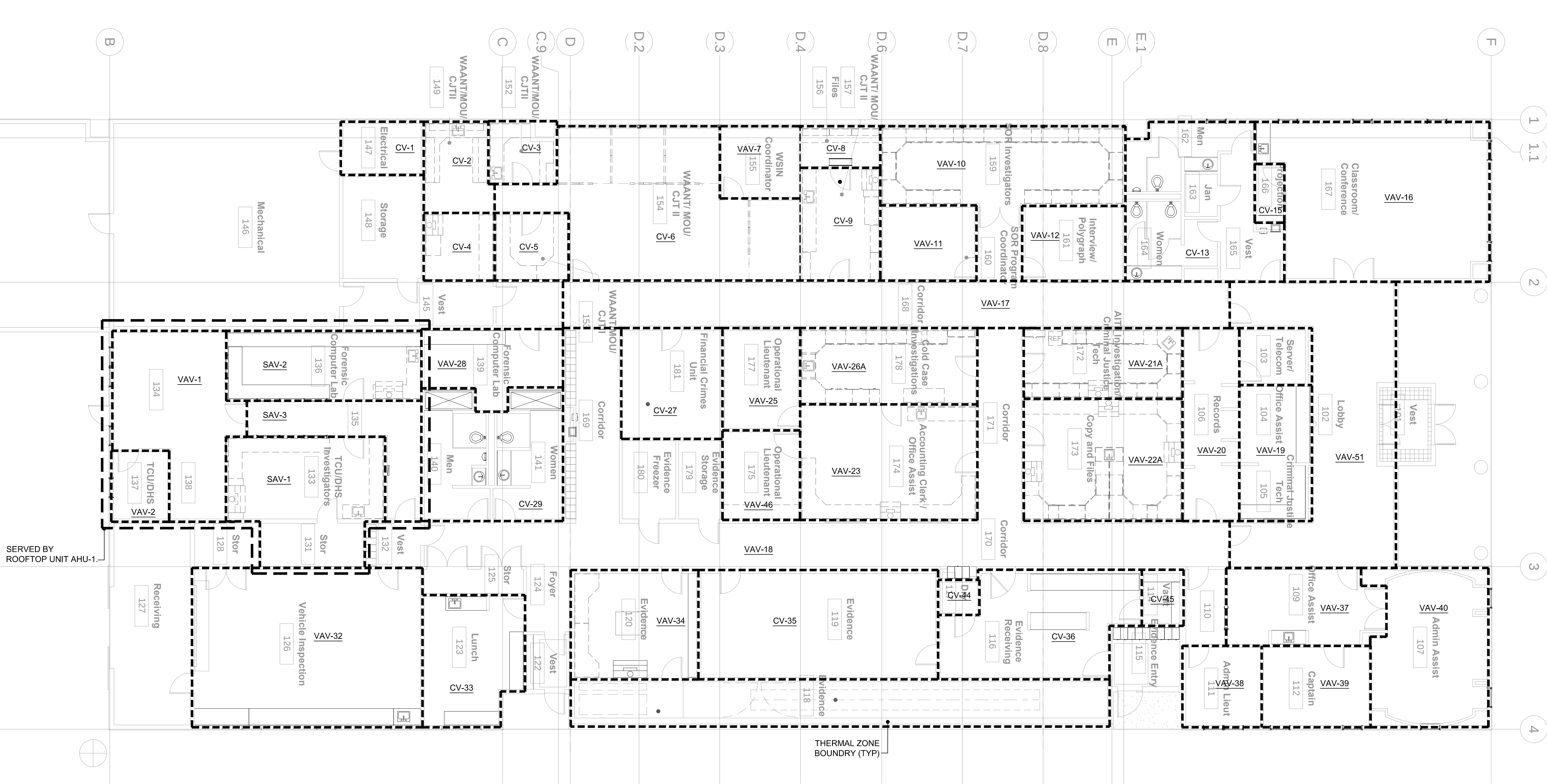
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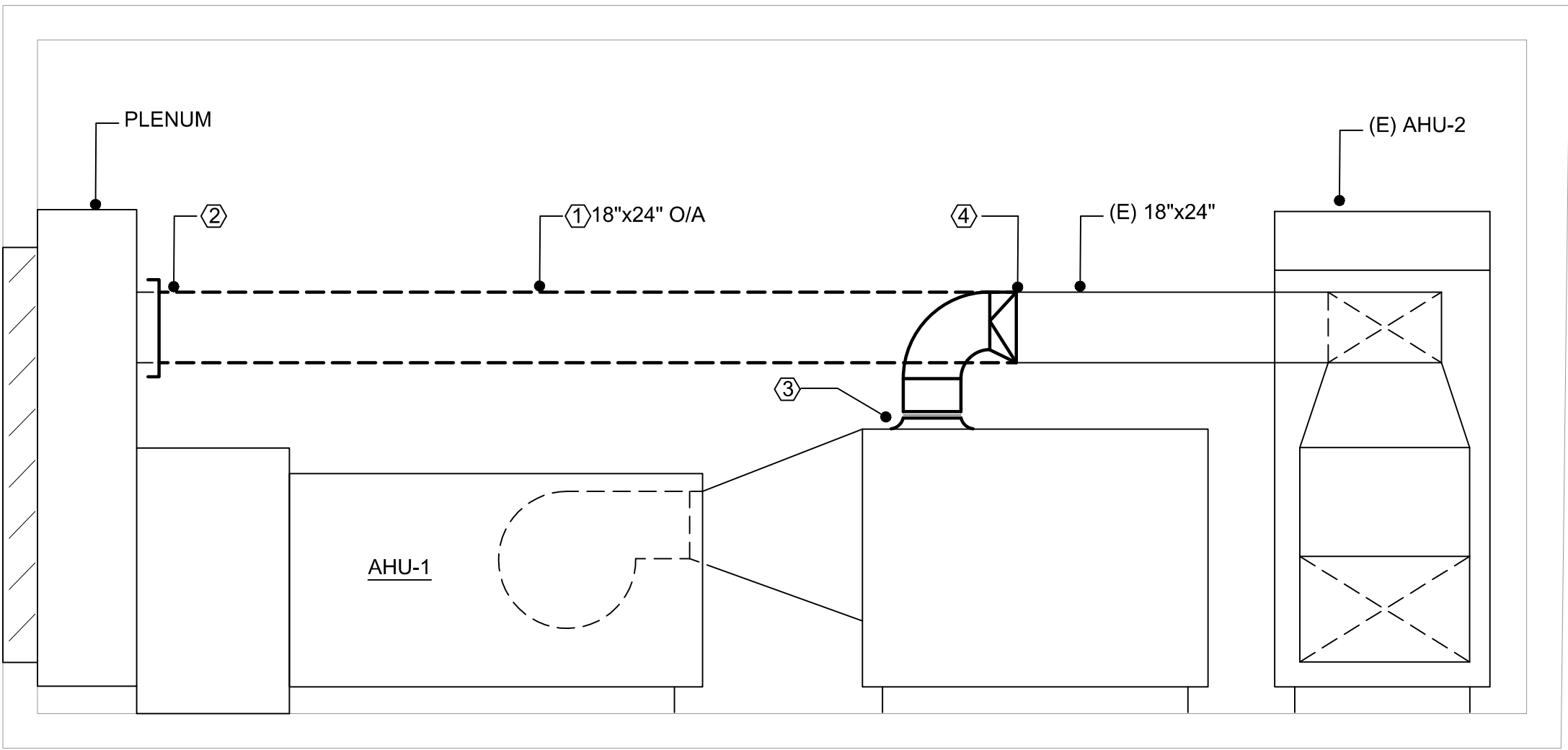
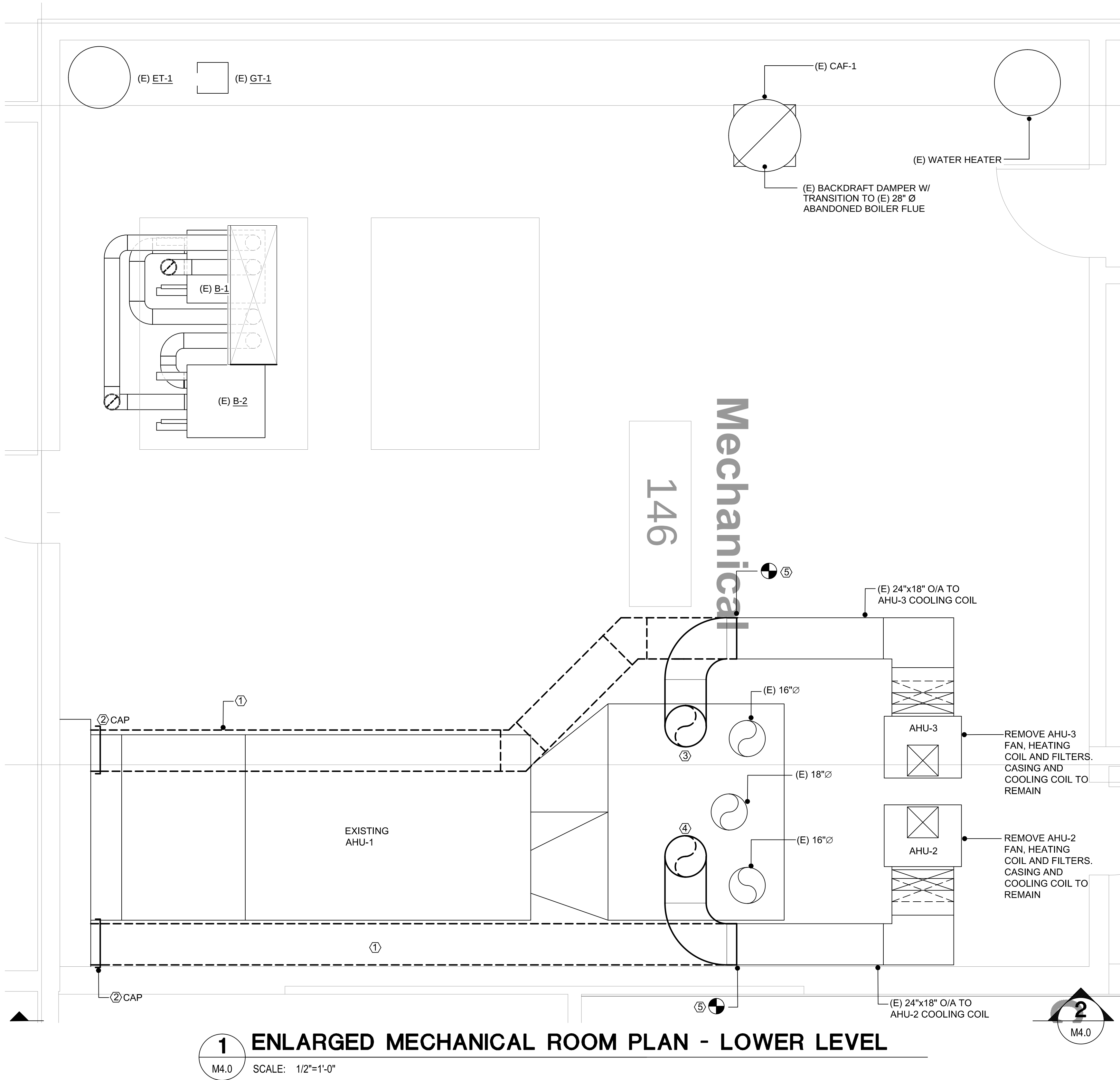
FLOOR PLAN - PLAN THERMAL ZONE BOUNDARIES

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M3.0



1 FLOOR PLAN - THERMAL ZONE BOUNDARIES
M3.0 SCALE: 1/8"=1'-0"



2 SECTION AT AHU-1
M4.0 SCALE: NTS

NOTES:

- ① DEMO EXIST. 24"x18" O/A DUCT AS SHOWN.
- ② CAP AND INSULATE O/A DUCT CONNECTION TO AHU-2 AND AHU-3.
- ③ 16"Ø BELLMOUTH AND FLEX CONN. TO AHU-1.
- ④ CONNECT TO EXIST. 24"x18" O/A DUCT AS SHOWN.



JERNSTROM ENGINEERING
CONSULTING MECHANICAL ENGINEERS
6927 Old Seward Hwy, Suite 202, Anchorage, Alaska 99518
Phone: (907) 522-1042 Fax: (907) 522-1052
Email: rjernstrom@jernstromengineering.com

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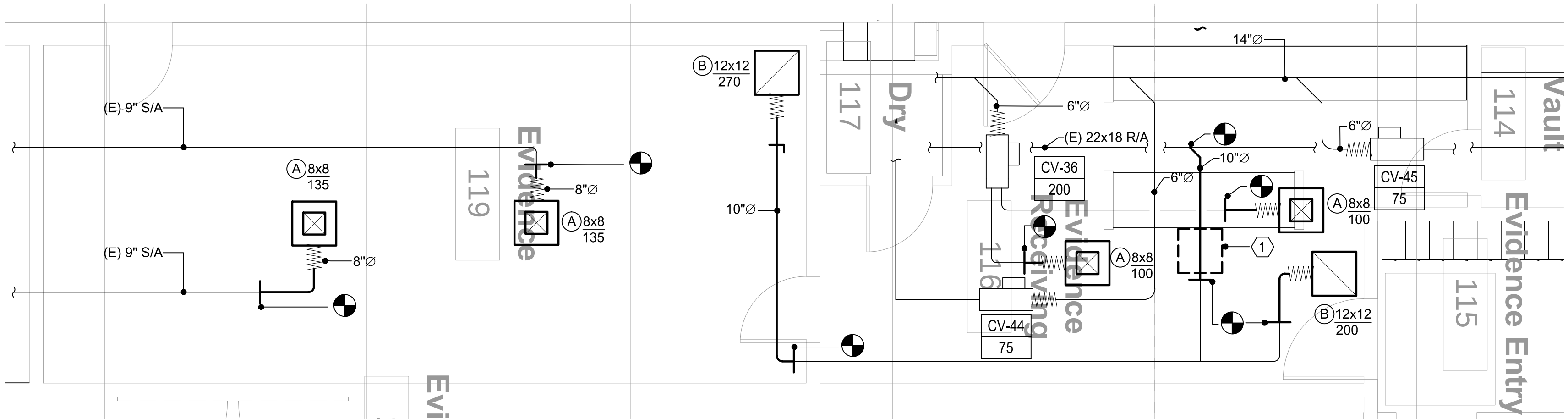
ENLARGED MECHANICAL ROOM PLAN - LOWER LEVEL

Revisions

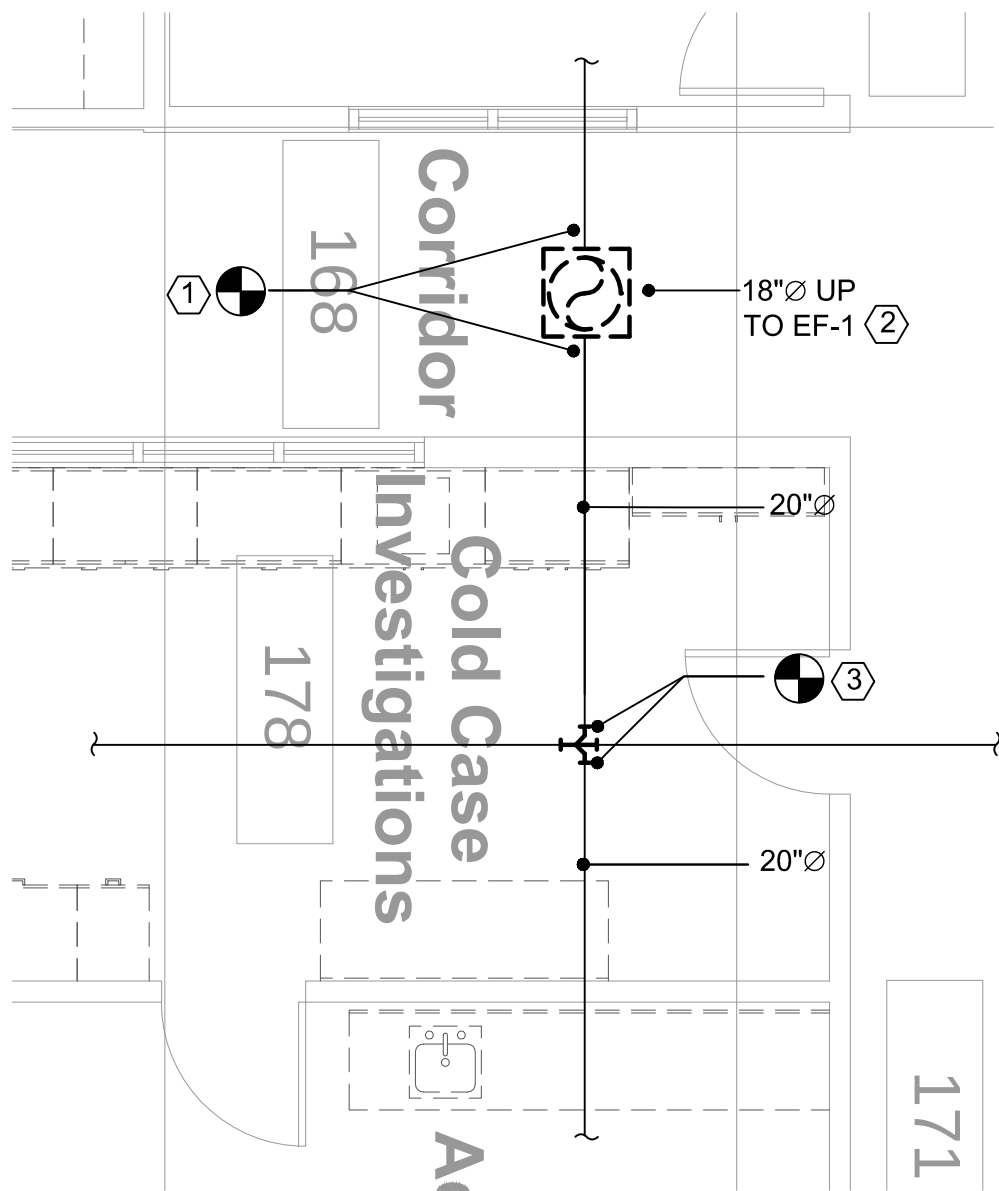
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M4.0



1 ENLARGED EVIDENCE ROOM PLAN
M4.1 SCALE: 1/4"=1'-0"



NOTES:
① EF-14 TO BE REMOVED AND DUCTWORK THRU ROOF CAPPED. PREVIOUS EXHAUST DUCT FROM ROOMS TO BE RECONNECTED TO RETURN DUCT SYSTEM.

NOTES:
① PROVIDE 18"Ø TO 20"Ø DUCT TRANSITION.
② REMOVE EXIST EF-1 AND 18"Ø DUCT DROP.
③ CONNECT TO (E) 16"x16" WITH 45-90 DEGREE BOOT TEE FITTING.

2 ENLARGED RETURN AIR PLAN
M4.1 SCALE: 1/4"=1'-0"



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CONSULTING MECHANICAL ENGINEERS
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Phone: (907) 522-1042 Fax: (907) 522-1052
E-mail: rjernstrom@jernstromengineering.com

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ENLARGED PLANS

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