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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

DEPARTMENT OF
PUBLIC SAFETY,
MISSOURI VETERANS
COMMISSION

HVAC REPLACEMENT
PROJECT

MISSOURI VETERANS
HOME

620 N. JEFFERSON
ST. JAMES, MO 65559

PROJECT # U1503-03
FAI # 29-051
SITE # 4700
FACILITY # 55019

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 10-27-17

CAD DWG FILE: M-101.DWG
DRAWN BY: JMO
CHECKED BY: JMO
DESIGNED BY: JMO

SHEET TITLE:
**MECHANICAL
PLAN**

SHEET NUMBER:
M-101

5 OF 41 SHEETS

10-27-17

NOTES:

- 1) PROVIDE NEW THERMOSTAT AND CONTROL WIRING. REUTILIZE EXISTING CONDUIT. PATCH, REPAIR AND PAINT WALL TO MATCH ADJACENT WALL, PER ARCHITECT'S DIRECTION.
- 2) UNDER ALTERNATE BID #3, PROVIDE 6" CPVC BOILER VENTS UP THRU FLOOR. REFER TO MAIN LEVEL FOR CONTINUATION.
- 3) RE-BALANCE ALL EXISTING SUPPLY DIFFUSERS SERVED BY THIS AIR HANDLING UNIT TO THE AIRFLOW INDICATED.
- 4) PROVIDE NEW SPLIT SYSTEM FURNACE #11. PROVIDE NEW REFRIGERANT PIPING ROUTED IN SAME LOCATION AS DEMOLISHED PIPING. SEAL ALL PENETRATIONS.
- 5) EXISTING DOMESTIC WATER HEATER TO REMAIN.
- 6) UNDER ALTERNATE BID #1, PROVIDE DOMESTIC WATER "WH1" AND "WH2". REFER TO RISER DIAGRAMS FOR ADDITIONAL REQUIREMENTS. PROVIDE NEW FLEE AND COMBUSTION AIR AS INDICATED.
- 7) UNDER ALTERNATE BID #1, PROVIDE NEW 14" DIAMETER DOUBLE WALL FLEE UP THRU ROOF TO NEW FLEE CAP ON ROOF. CONTRACTOR SHALL REPLACE EXISTING FLASHING FOR NEW 14" DOUBLE WALL VENT PIPING.
- 8) UNDER ALTERNATE BID #1, EXISTING FLEE FROM WATER HEATER TO REMAIN. RECONNECT TO NEW DOUBLE WALL FLEE. CONTRACTOR SHALL FIELD MEASURE THE EXISTING FLEE SIZE AND MATCH THE NEW FLEE DUCT TO THE EXISTING FLEE DUCT SIZE.
- 9) UNDER ALTERNATE BID #1, PROVIDE NEW CPVC FLEE FROM NEW WATER HEATER UP THRU FIRST FLOOR AND UP THRU ROOF.
- 10) UNDER ALTERNATE BID #3, PROVIDE NEW HOT WATER BOILER AND VENT AND INTAKE PIPING, GAS PIPING, HRS & HWR PIPING, VALVES AND FITTINGS, AND ALL CONTROL WIRING. REFER TO HYDRONIC RISER DIAGRAMS FOR ADDITIONAL REQUIREMENTS.
- 11) UNDER ALTERNATE BID #3, SLEEVE EXTERIOR WALL AND ROUTE 4" PVC INTAKE PIPE THRU EXTERIOR WALL AS HIGH AS POSSIBLE. PROVIDE 90 DEGREE TURN DOWN WITH BIRD SCREEN OVER THE OPENING.
- 12) LOCATION OF NEW THERMOSTAT SERVING AIR HANDLING UNIT "AHU1".
- 13) RE-BALANCE RELOCATED EXHAUST GRILLE TO AIRFLOW SHOWN.
- 14) EXISTING THERMOSTAT TO REMAIN.
- 15) CAP EXISTING OUTSIDE AIR DUCT. FIELD VERIFY EXACT SIZE.
- 16) 1" CONDENSATE DRAIN UP TO "FCU-003". INSULATE ALL CONDENSATE DRAIN ABOVE CEILING IN ARMAFLEX INSULATION.
- 17) 1" CONDENSATE DRAIN DOWN WALL AND ROUTE TO FLOOR DRAIN THAT SERVES "AHU1".
- 18) CONNECT NEW 8" DUCT TO EXISTING OUTSIDE AIR DUCT. FIELD VERIFY EXACT LOCATION OF EXISTING OUTSIDE AIR DUCT.
- 19) EXISTING ELECTRICAL PANELS TO REMAIN.
- 20) PROVIDE NEW TEMPERATURE SENSOR FOR MONITORING AND PURPOSES ONLY.
- 21) UNDER ALTERNATE BID #1, SLEEVE EXTERIOR WALL AND ROUTE 4" PVC INTAKE PIPE THRU EXTERIOR WALL AS HIGH AS POSSIBLE. PROVIDE 90 DEGREE TURN DOWN WITH BIRD SCREEN OVER THE OPENING.
- 22) EXISTING FIRE DAMPER TO REMAIN.
- 23) "AHU1" SHALL BE INSTALLED WITH A HIGH LIMIT SWITCH FOR FAN TO SHUT DOWN IF THE EXISTING FIRE DAMPER FAILS.
- 24) CONTRACTOR SHALL REMOVE CEILING TILE, GRID, LIGHTS AND ALL CEILING DEVICES AS REQUIRED FOR DEMOLITION AND NEW WORK IN THIS ROOM. RE-INSTALL ALL TILE, GRID, LIGHT FIXTURES AND CEILING DEVICES. ANY DAMAGED CEILING GRID SHALL BE REPLACED TO MATCH EXISTING.

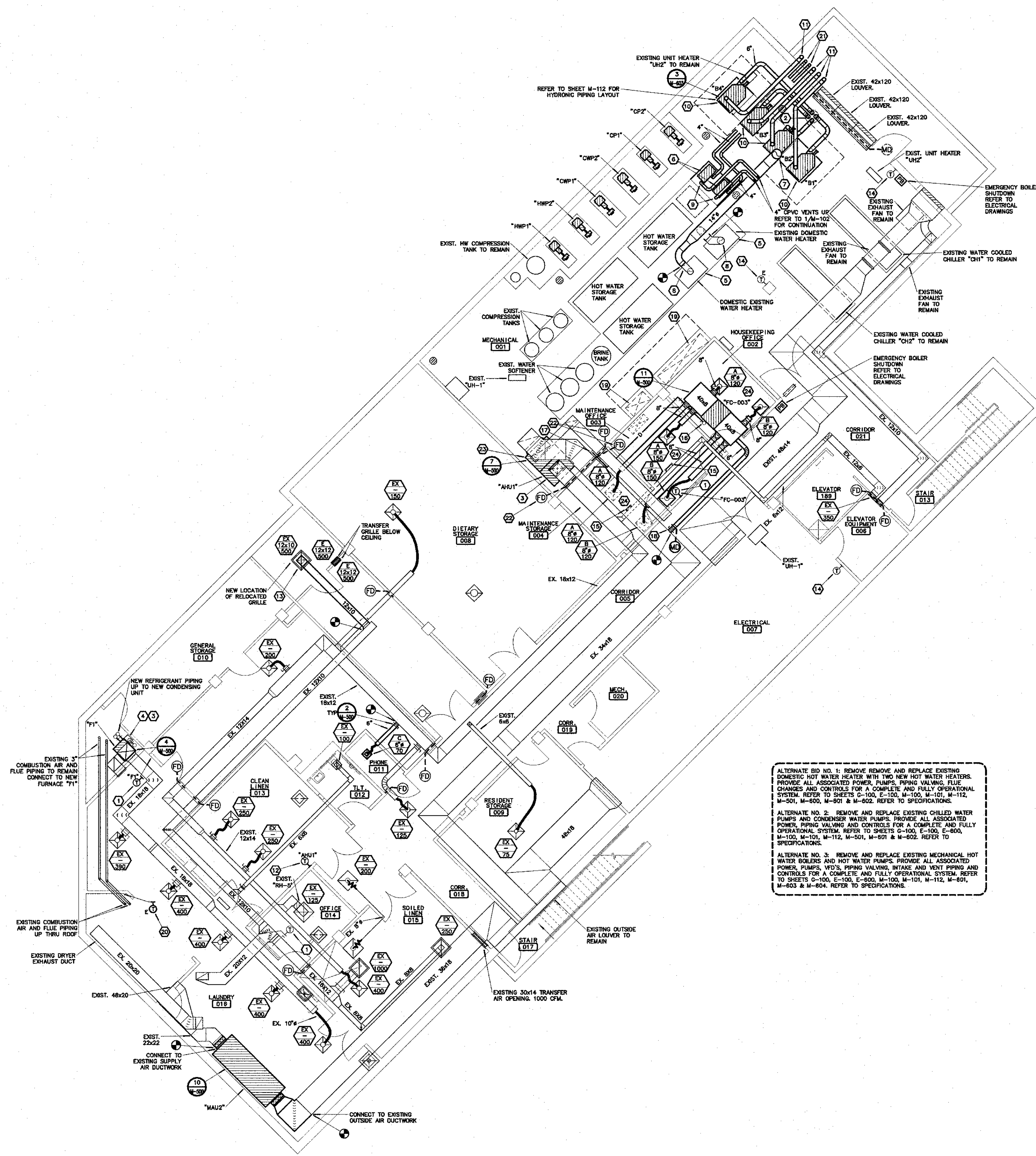
GENERAL NOTES:

1. ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH THE 2015 EDITION OF THE INTERNATIONAL PLUMBING CODE.
2. ALL MECHANICAL WORK SHALL BE IN ACCORDANCE WITH THE 2015 EDITION OF THE INTERNATIONAL MECHANICAL CODE.
3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONSTRUCTION PRIOR TO SUBMITTING THIS BID. NO EXTRAS WILL BE PAID DUE TO UNANTICIPATED EXISTING CONDITIONS.
4. CONTRACTOR SHALL SCHEDULE AND EXECUTE ALL WORK WITH REGARD TO THE OWNER'S USE OF THE BUILDING.
5. PLANS ARE DIAGNOSTIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
6. FOR ALL PLUMBING OR HVAC QUESTIONS DURING BIDDING OR DURING CONSTRUCTION, CONTACT SCOTT VANDOREN, (417-881-0023)

ALTERNATE BID NO. 1: REMOVE AND REPLACE EXISTING DOMESTIC HOT WATER HEATER WITH TWO NEW HOT WATER HEATERS. PROVIDE ALL ASSOCIATED POWER, PUMPS, PIPING VALVING, FLEE CHANGES AND CONTROLS FOR A COMPLETE AND FULLY OPERATIONAL SYSTEM. REFER TO SHEETS G-100, E-100, M-100, M-101, M-112, M-201, M-202, M-203 & M-204. REFER TO SPECIFICATIONS.

ALTERNATE BID NO. 2: REMOVE AND REPLACE EXISTING CHILLED WATER PUMPS AND CONDENSER WATER PUMPS. PROVIDE ALL ASSOCIATED POWER, PIPING VALVING AND CONTROLS FOR A COMPLETE AND FULLY OPERATIONAL SYSTEM. REFER TO SHEETS G-100, E-100, M-100, M-101, M-102, M-103, M-104, M-105, M-106, M-107, M-108, M-109, M-110, M-111, M-112, M-201, M-202, M-203 & M-204. REFER TO SPECIFICATIONS.

ALTERNATE BID NO. 3: REMOVE AND REPLACE EXISTING MECHANICAL HOT WATER BOILERS AND HOT WATER PUMPS. PROVIDE ALL ASSOCIATED POWER, PUMPS, VFD'S, PIPING VALVING, INTAKE AND VENT PIPING AND CONTROLS FOR A COMPLETE AND FULLY OPERATIONAL SYSTEM. REFER TO SHEETS G-100, E-100, M-100, M-101, M-102, M-103, M-104, M-105, M-106, M-107, M-108, M-109, M-110, M-111, M-112, M-201, M-202, M-203 & M-204. REFER TO SPECIFICATIONS.



**BASEMENT LEVEL
MECHANICAL IMPROVEMENT PLAN**
SCALE: 1/8"=1'-0"
NORTH

