

# UPGRADE HVAC AND BAS COMMUNITY SUPERVISION CENTER MISSOURI DEPARTMENT OF CORRECTIONS KENNETT, MISSOURI

STATE OF MISSOURI  
MICHAEL L. PARSON,  
GOVERNOR



3636 S. GEYER ROAD  
SUITE 305  
ST. LOUIS, MO 63127  
PHONE: 314.725.5889  
MISSOURI CERTIFICATE OF  
AUTHORITY #2002028690

**OWNER:** STATE OF MISSOURI  
MICHAEL L. PARSON,  
GOVERNOR  
DEPARTMENT OF CORRECTIONS

**PROJECT MANAGEMENT:** OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES MANAGEMENT,  
DESIGN AND CONSTRUCTION



**DESIGNER:** BRIC PARTNERSHIP, LLC  
3636 S. GEYER,  
SUITE 204  
ST. LOUIS, MISSOURI 63126

**PROJECT NUMBER:** C1910-01

OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT, DESIGN AND  
CONSTRUCTION  
DEPARTMENT OF  
CORRECTIONS

PROJECT TITLE:  
HVAC AND BAS UPGRADE

1401 LAURA DRIVE  
KENNETT, MO

PROJECT # C1910-01

REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
ISSUE DATE: 4/24/2020

CAD DWG FILE: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DESIGNED BY: \_\_\_\_\_

SHEET TITLE:

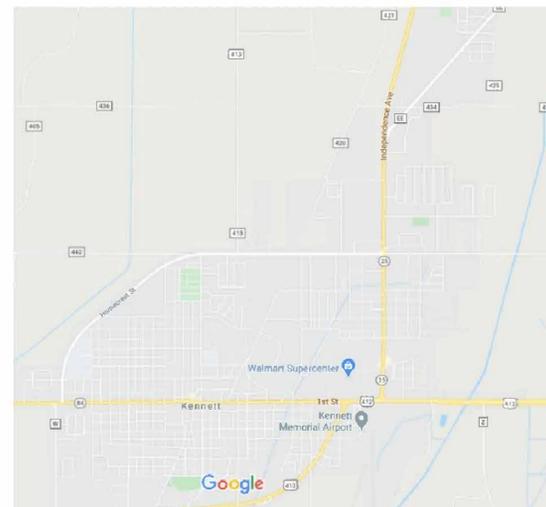
SHEET NUMBER:

**G-000**

**VICINITY MAP**



**LOCATION MAP**



FACILITY LOCATION

**DRAWING INDEX**

GENERAL

G-000 COVER SHEET

MECHANICAL

M-001 MECHANICAL LEGEND AND NOTES  
MD101 BASEMENT PLAN - MECHANICAL DEMOLITION  
M-201 FIRST FLOOR PLAN - MECHANICAL  
M-401 ENLARGED PLAN - MECHANICAL  
M-501 MECHANICAL DETAILS  
M-502 CHILLED WATER SCHEMATIC  
M-601 MECHANICAL SCHEDULES  
M-701 MECHANICAL CONTROLS

ELECTRICAL

E-001 ELECTRICAL LEGEND AND NOTES  
ED-101 ELECTRICAL DEMOLITION  
ED-401 ENLARGED ELECTRICAL DEMOLITION  
E-401 ENLARGED PLANS - ELECTRICAL  
E-501 EQUIPMENT SCHEDULE - ELECTRICAL







**KEYED NOTES**

1 DISCONNECT AND REMOVE EXISTING DX COOLING COIL IN AIR HANDLING UNIT. A NEW CHILLED WATER COIL WILL BE INSTALLED IN THIS AIR HANDLING UNIT. SEE NEW WORK DRAWINGS.

2 DISCONNECT AND REMOVE EXISTING DX CONDENSING UNIT, AND ALL ASSOCIATED REFRIGERANT PIPING AND CONTROLS. REMOVE EXISTING CONCRETE PAD.

STATE OF MISSOURI  
 MICHAEL L. PARSON,  
 GOVERNOR

STATE OF MISSOURI  
 MICHAEL R. HOFF  
 NUMBER  
 PE2013000576  
 PROFESSIONAL ENGINEER  
 4-24-20

MICHAEL HOFF  
 LICENSE #: PE2013000576  
 EXP: 12/31/2021

**BRiC**  
 PARTNERSHIP, LLC  
 CONSULTING ENGINEERS

3636 S. GEYER ROAD  
 SUITE 305  
 ST. LOUIS, MO 63127  
 PHONE: 314.725.5889  
 MISSOURI CERTIFICATE OF  
 AUTHORITY #2002028690

MICHAEL HOFF  
 LICENSE #: PE2013000576  
 EXP: 12/31/2021

OFFICE OF ADMINISTRATION  
 DIVISION OF FACILITIES  
 MANAGEMENT, DESIGN AND  
 CONSTRUCTION  
 DEPARTMENT OF  
 CORRECTIONS

PROJECT TITLE:  
 HVAC AND BAS UPGRADE

1401 LAURA DRIVE  
 KENNETT, MO

PROJECT # C1910-01

REVISION: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 REVISION: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 REVISION: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 ISSUE DATE: 4/24/2020

CAD DWG FILE: \_\_\_\_\_  
 DRAWN BY: MRH  
 CHECKED BY: CF  
 DESIGNED BY: MRH

SHEET TITLE:  
**MECHANICAL  
 DEMOLITION**

SHEET NUMBER:

**MD-101**

 **MECHANICAL DEMOLITION FLOOR PLAN**  
 SCALE: 1/8" = 1'-0"

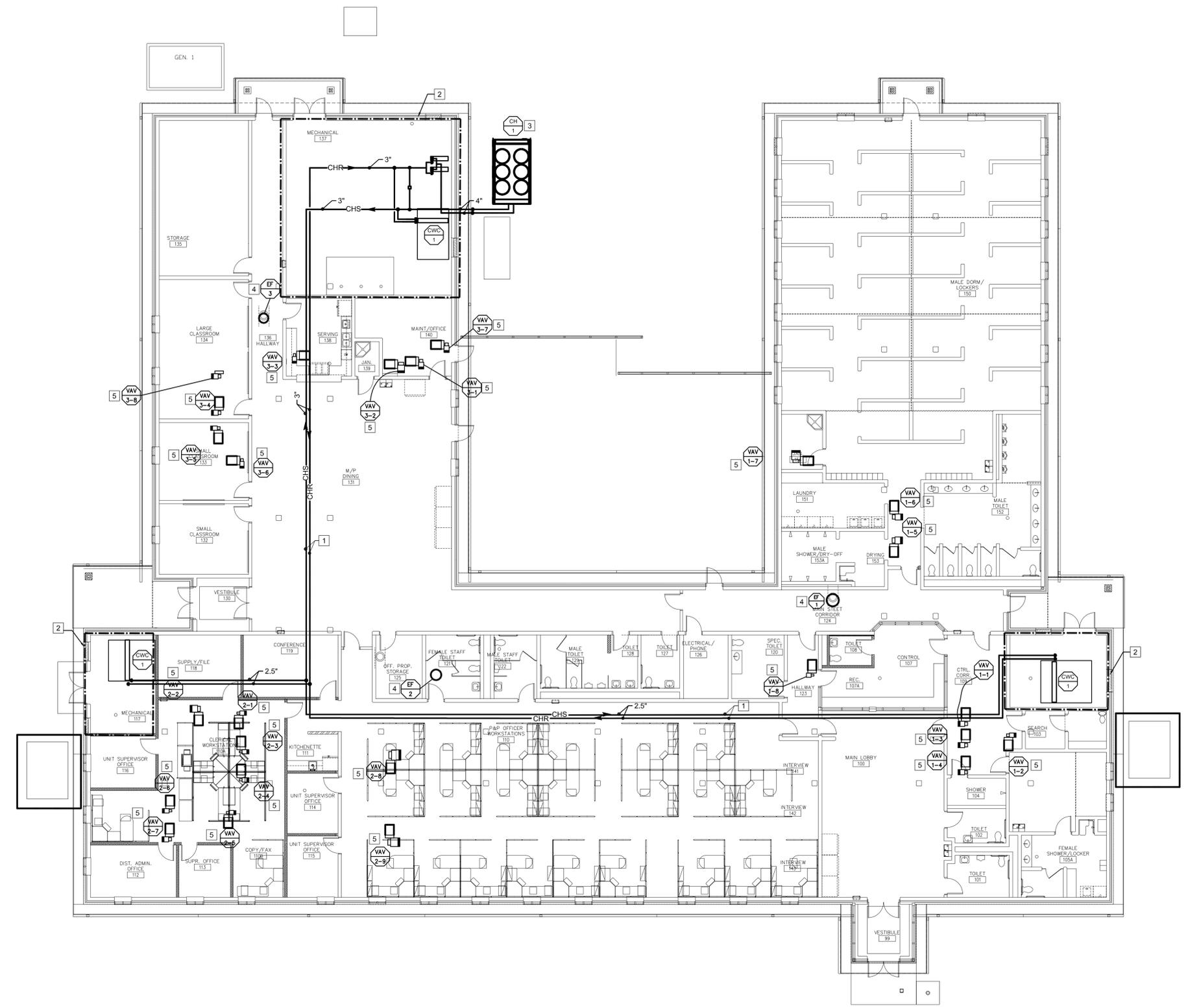


MICHAEL HOFF  
LICENSE #: PE2013000576  
EXP: 12/31/2021



3636 S. GEYER ROAD  
SUITE 305  
ST. LOUIS, MO 63127  
PHONE: 314.725.5889  
MISSOURI CERTIFICATE OF  
AUTHORITY #2002028690

- KEYED NOTES**
- 1 CHILLED WATER PIPING ROUTED THROUGH ATTIC SPACE. SEAL WALL PENETRATIONS THROUGH FIRE WALLS TO MAINTAIN FIRE RATING.
  - 2 SEE MECHANICAL ROOM DETAILS ON M-401
  - 3 NEW CHILLER ON NEW CONCRETE PAD
  - 4 CONNECT EXISTING EXHAUST FAN TO BMS
  - 5 CONNECT EXISTING VAV TO BMS. EXSITING CONTROLLER, WIRING AND TSTAT MAY REMAIN



OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT, DESIGN AND  
CONSTRUCTION  
DEPARTMENT OF  
CORRECTIONS

PROJECT TITLE:  
HVAC AND BAS UPGRADE

1401 LAURA DRIVE  
KENNETT, MO

PROJECT # C1910-01

REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
ISSUE DATE: 4/24/2020

CAD DWG FILE: \_\_\_\_\_  
DRAWN BY: MRH  
CHECKED BY: CF  
DESIGNED BY: MRH

SHEET TITLE:  
**MECHANICAL  
FLOORPLAN**

SHEET NO. \_\_\_\_\_  
**M-201**



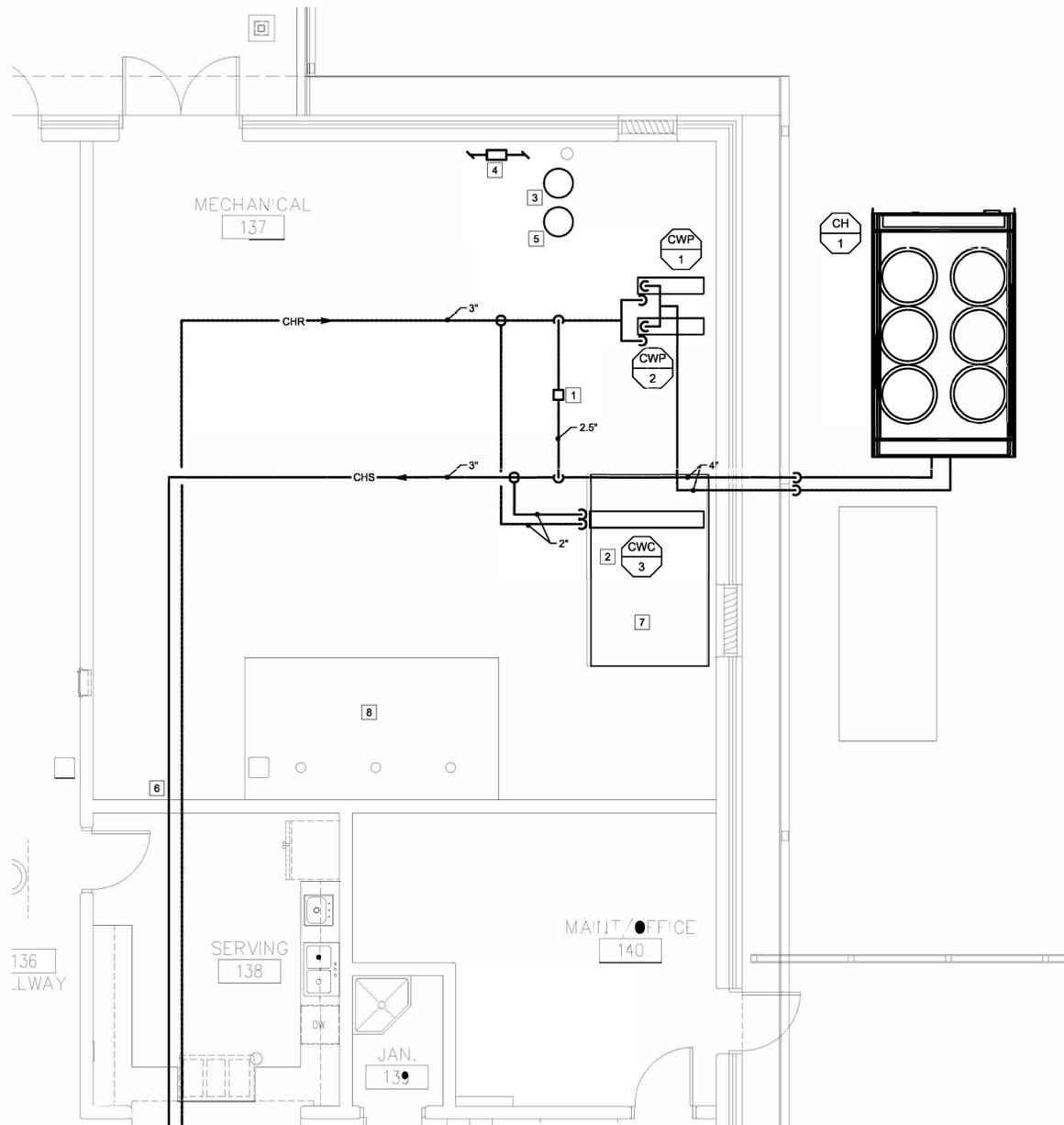
MICHAEL HOFF  
LICENSE #: PE2013000576  
EXP: 12/31/2021

**BRiC**  
PARTNERSHIP, LLC  
CONSULTING ENGINEERS

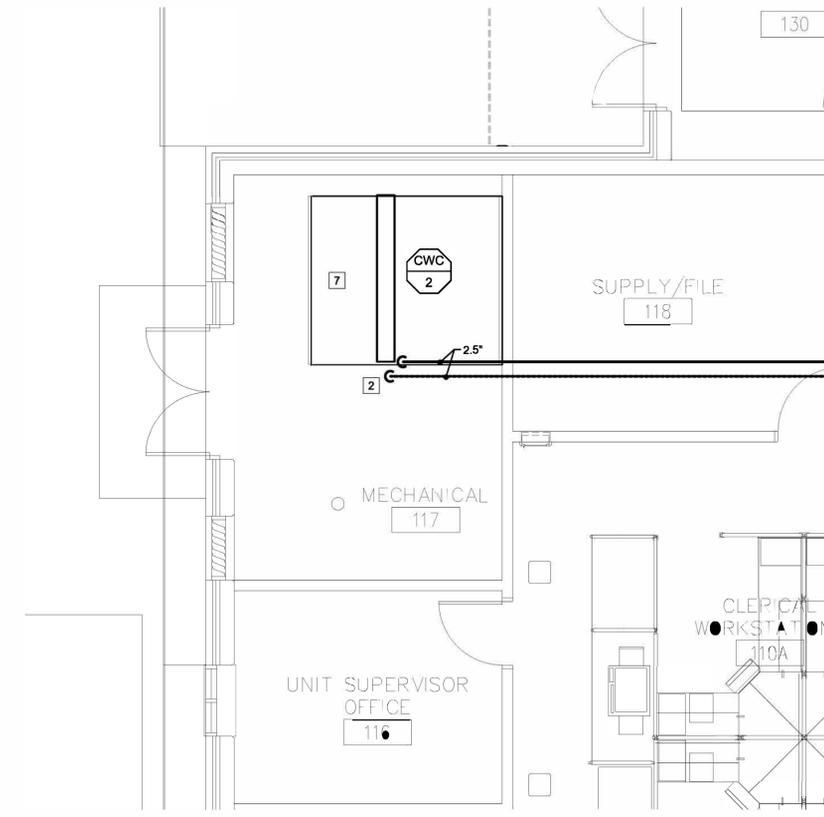
3636 S. GEYER ROAD  
SUITE 305  
ST. LOUIS, MO 63127  
PHONE: 314.725.5889  
MISSOURI CERTIFICATE OF  
AUTHORITY #2002028690

**KEY NOTES**

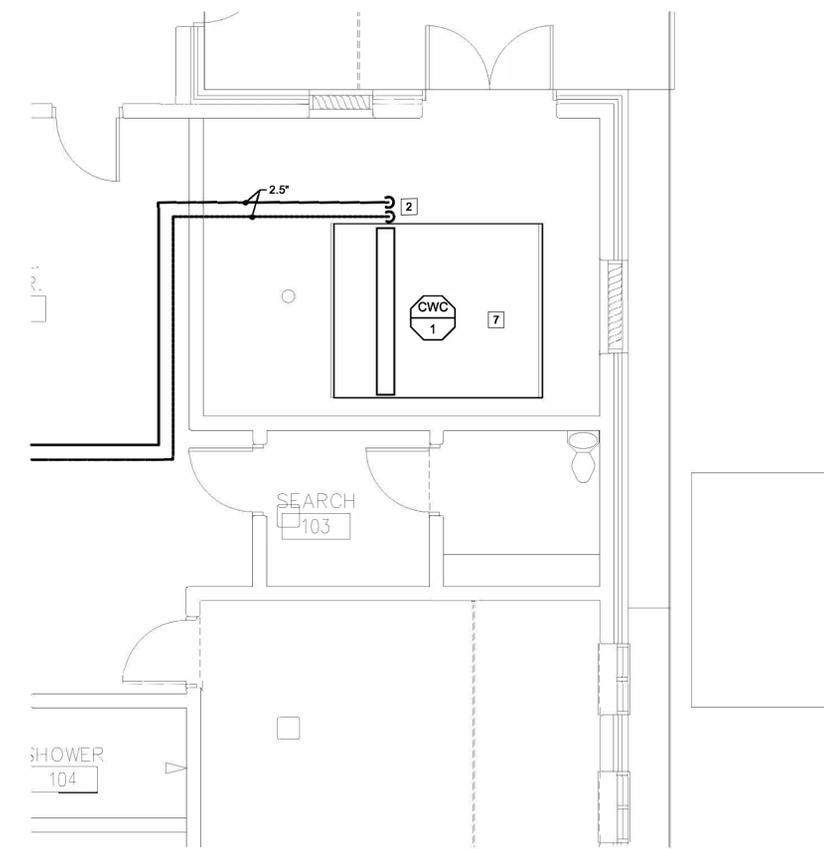
- 1 CHILLED WATER BYPASS WITH MODULATING CONTROL VALVE.
- 2 NEW CHILLED WATER COIL IN EXISTING AHU. SEE DETAIL.
- 3 CHILLED WATER GLYCOL FILL STATION SHALL BE A PREFABRICATED AUTOMATIC MAKE-UP PACKAGE, WESSELS COMPANY MODEL GMP-13050 (OR EQUAL) WITH 1/2 HP PUMP, STEEL FRAME, 50 GALLON SOLUTION CONTAINER WITH REMOVABLE LID AND A 110 VOLT PUMPING ASSEMBLY. SEE DETAIL.
- 4 PROVIDE DEDICATED 3/4" BACKFLOW PREVENTER FOR MECHANICAL MAKEUP WATER. SHALL INCLUDE A 3/4" SHUT OFF BALL VALVE, A 3/4" PRESSURE REDUCING VALVE, A 3/4" WATTS 909 BACKFLOW PREVENTER (OR APPROVED EQUAL) AND A PRESSURE GAUGE ON THE MECHANICAL DISCHARGE PIPING. TIE INTO EXITING 3" DOMESTIC WATER LINE.
- 5 CHILLED WATER BUFFER TANK. TANK SHALL BE WESSELS MODEL CBT-200 (OR EQUAL) WITH INTERNAL Baffle AND TOP AIR VENT CONNECTION. PROVIDE AIR VENT. SECURE TANK TO FLOOR WITH SEISMIC ANCHORS.
- 6 CHILLED WATER PIPING THROUGH WALL INTO ATTIC SPACE.
- 7 EACH AHU WILL REQUIRE NEW BMS CONTROLLER
- 8 CONNECT EXISTING HW SYSTEM (BOILERS AND PUMPS) TO NEW BMS



**ENLARGED MECH RM - MECHANICAL RM**  
SCALE: 1/4" = 1'-0"



**ENLARGED PLAN - MECHANICAL RM**  
SCALE: 1/4" = 1'-0"



**ENLARGED PLAN - MECHANICAL RM**  
SCALE: 1/4" = 1'-0"

OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT, DESIGN AND  
CONSTRUCTION  
DEPARTMENT OF  
CORRECTIONS

PROJECT TITLE:  
HVAC AND BAS UPGRADE

1401 LAURA DRIVE  
KENNETT, MO

PROJECT # C1910-01

REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_

ISSUE DATE: 4/24/2020

CAD DWG FILE: \_\_\_\_\_  
DRAWN BY: MRH  
CHECKED BY: CF  
DESIGNED BY: MRH

SHEET TITLE:  
**ENLARGED  
PLANS -  
MECHANICAL**

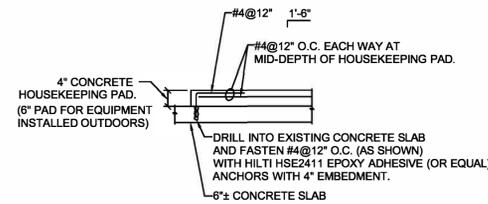
SHEET NUMBER:  
**M-401**



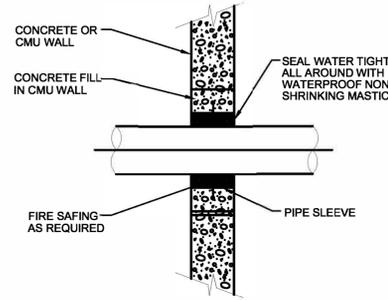
MICHAEL HOFF  
LICENSE #: PE2013000576  
EXP: 12/31/2021

**BRiC**  
PARTNERSHIP, LLC  
CONSULTING ENGINEERS

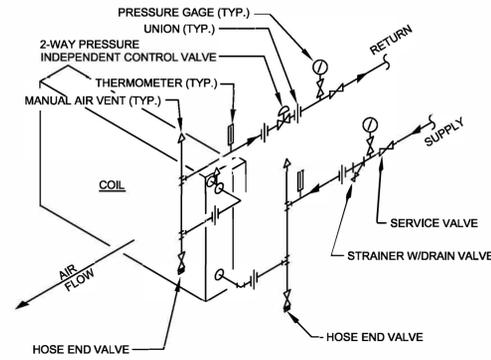
3636 S. GEYER ROAD  
SUITE 305  
ST. LOUIS, MO 63127  
PHONE: 314.725.5889  
MISSOURI CERTIFICATE OF  
AUTHORITY #2002028690



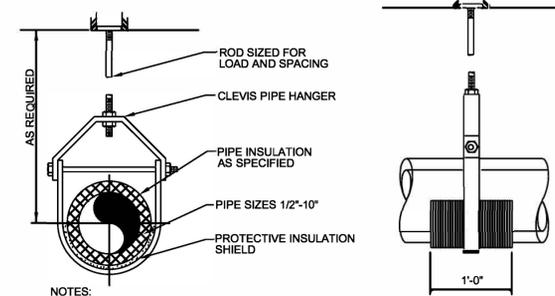
**NEW HOUSEKEEPING PAD**  
NO SCALE



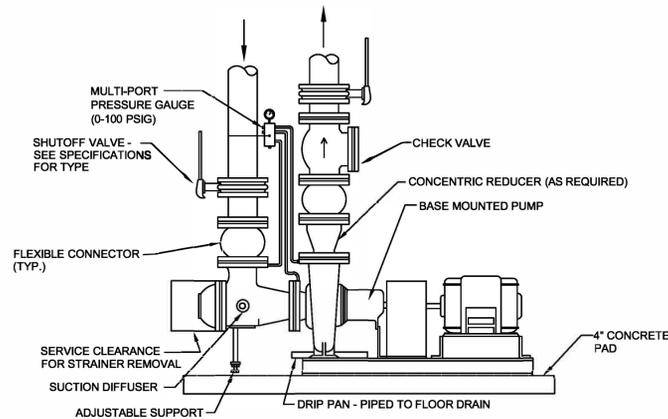
**PIPE PENETRATION THRU WALL**  
NO SCALE



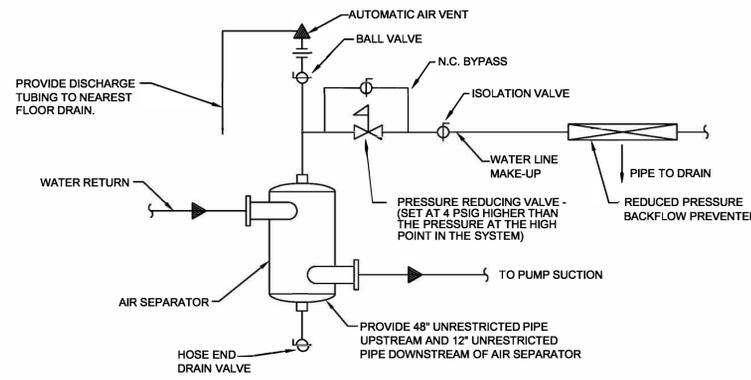
**CHILLED WATER COIL DETAIL**  
NO SCALE



**PIPE HANGER DETAIL**  
NO SCALE

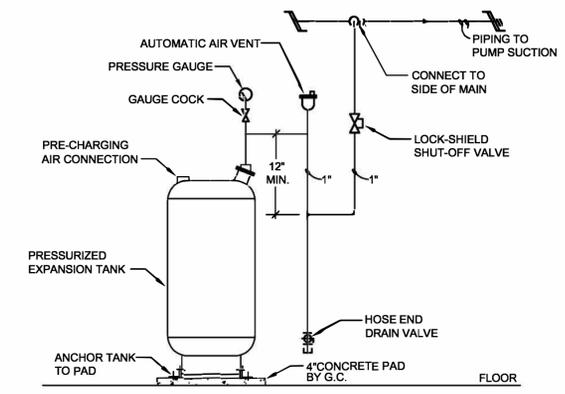


**END SUCTION PUMP PIPING DETAIL**  
NO SCALE

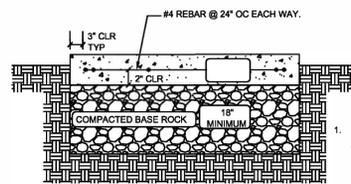


**AIR SEPARATOR DETAIL-AS-1**  
NO SCALE

AIR SEPARATOR SHALL BE  
TACO MODEL 4904 (OR EQUAL)



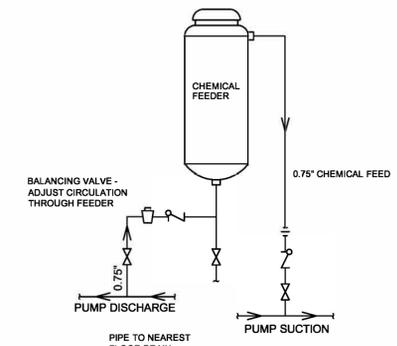
**BUFFER TANK DETAIL-XT-1**  
NO SCALE



COORDINATE FINAL SIZE OF PAD  
WITH EQUIPMENT TO BE PROVIDED.

**EQUIPMENT PAD DETAIL**  
NO SCALE

- NOTES:
- CONCRETE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI CODE AND AIR ENTRAINMENT. IT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. THE SAND AND GRAVEL ARE TO BE CLEAN AND HARD. THE AIR ENTRAINMENT SHALL BE 4 TO 7% BY VOLUME. THE MIX SHALL HAVE 5 BAGS OF PORTLAND CEMENT TYPE-1 PER CUBIC YARD OF CONCRETE.
  - PAD SHALL BE POURED MONOLITHICALLY, WITH NO COLD JOINTS.
  - NO FOOTING IS TO BE EXCAVATED WITHOUT HAVING REINFORCING AND CONCRETE READY TO PLACE WITHIN THAT WORKING DAY.
  - ALL REINFORCING BARS SHALL BE DEFORMED #4 BILLET STEEL CONFORMING TO ASTM A615, GRADE 60. BARS SHALL BE FREE OF ANY GREASE, RUST, OR SCALE AT THE TIME OF PLACEMENT. TIE ALL STEEL AT INTERSECTIONS. SPACING SHALL NOT EXCEED 24" ON CENTERS.
  - TOP SURFACES OF CONCRETE SHALL HAVE A STEEL TROWEL FINISH.



**BYPASS CHEMICAL SHOT FEEDER DETAIL**  
NO SCALE

OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT, DESIGN AND  
CONSTRUCTION  
DEPARTMENT OF  
CORRECTIONS

PROJECT TITLE:  
HVAC AND BAS UPGRADE

1401 LAURA DRIVE  
KENNETT, MO

PROJECT # C1910-01

REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
ISSUE DATE: 4/24/2020

CAD DWG FILE: \_\_\_\_\_  
DRAWN BY: MRH  
CHECKED BY: CF  
DESIGNED BY: MRH

SHEET TITLE:  
**MECHANICAL  
DETAILS**

SHEET NUMBER:

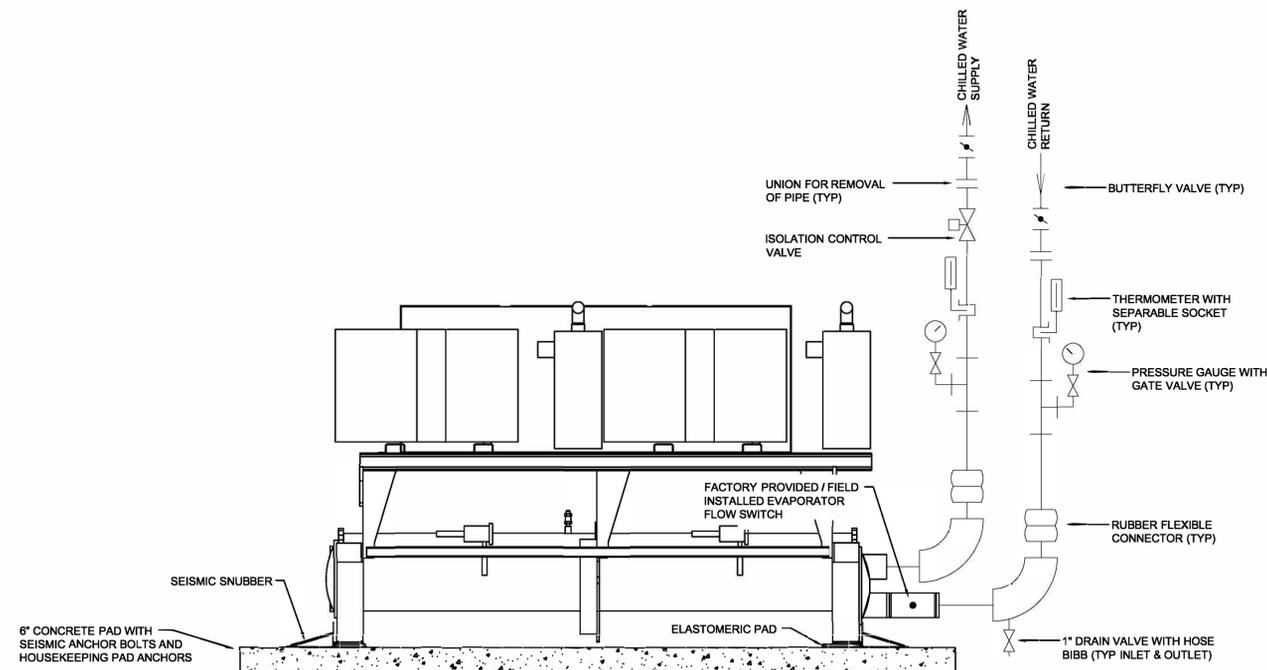
**M-501**



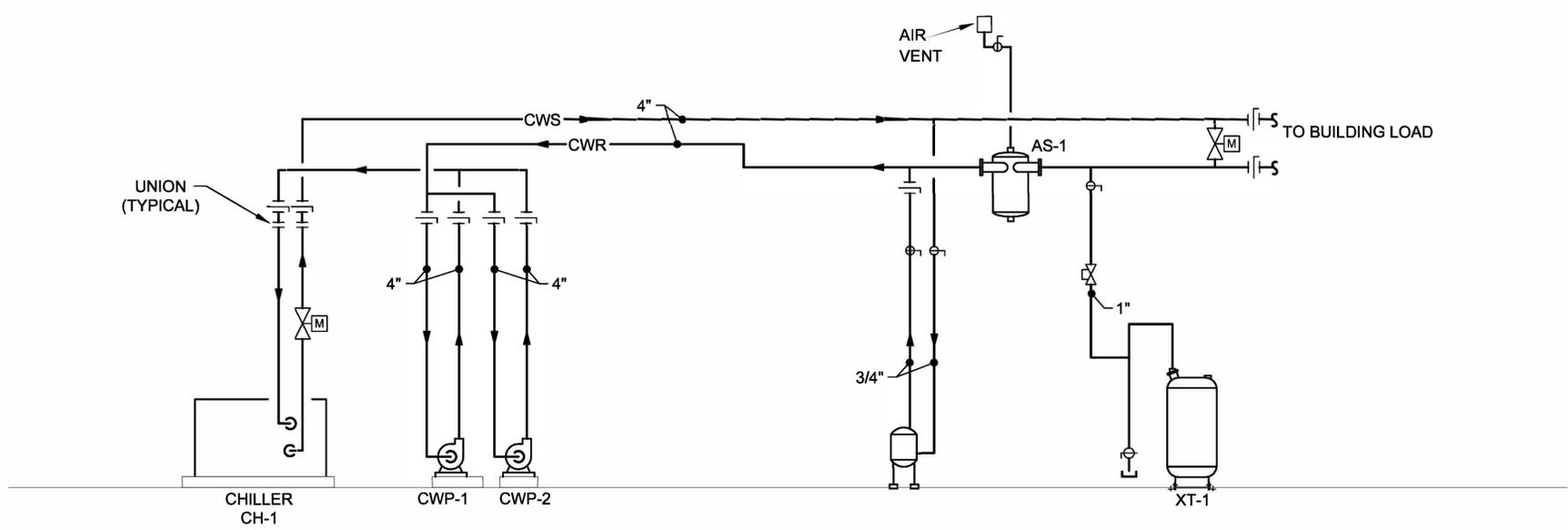
MICHAEL HOFF  
LICENSE #: PE2013000576  
EXP: 12/31/2021



3636 S. GEYER ROAD  
SUITE 305  
ST. LOUIS, MO 63127  
PHONE: 314.725.5889  
MISSOURI CERTIFICATE OF  
AUTHORITY #2002028690



**1 CHILLED WATER SCHEMATIC**  
NO SCALE



**2 CHILLED WATER SCHEMATIC**  
NO SCALE

OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT, DESIGN AND  
CONSTRUCTION  
DEPARTMENT OF  
CORRECTIONS

PROJECT TITLE:  
HVAC AND BAS UPGRADE

1401 LAURA DRIVE  
KENNETT, MO

PROJECT # C1910-01

REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_

ISSUE DATE: 4/24/2020

CAD DWG FILE: \_\_\_\_\_  
DRAWN BY: MRH  
CHECKED BY: CF  
DESIGNED BY: MRH

SHEET TITLE:  
**CHILLED WATER  
SCHEMATIC**

SHEET NUMBER:

**M-502**



MICHAEL HOFF  
LICENSE #: PE2013000576  
EXP: 12/31/2021



3636 S. GEYER ROAD  
SUITE 305  
ST. LOUIS, MO 63127  
PHONE: 314.725.5889  
MISSOURI CERTIFICATE OF  
AUTHORITY #2002028690

OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT, DESIGN AND  
CONSTRUCTION  
DEPARTMENT OF  
CORRECTIONS

PROJECT TITLE:  
HVAC AND BAS UPGRADE

1401 LAURA DRIVE  
KENNETT, MO

PROJECT # C1910-01

REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_

ISSUE DATE: 4/24/2020

CAD DWG FILE: \_\_\_\_\_  
DRAWN BY: MRH  
CHECKED BY: CF  
DESIGNED BY: MRH

SHEET TITLE:  
**MECHANICAL  
SCHEDULES**

SHEET NUMBER:

**M-601**

CHILLER SCHEDULE																			
PLAN MARK	MANUFACTURER	MODEL NO.	CAPACITY			EVAPORATOR					COMPRESSOR				SINGLE POINT POWER			FLUID PROPYLENE GLYCOL	NOTES
			TONS	IPLV	EER	WATER FLOW GPM	EWTF	LWTF	P.D. (FT. OF HD.)	MIN. WATER FLOW GPM	QTY	TYPE	RATED-LOAD AMPS	LOCKED-ROTOR AMPS	VOLT/PH	MCA	MOP		
CH-1	TRANE	CGAM	60	15.4	10.7	142	54	44	24	67	4	SCROLL	50.2	351	208/3	257	300	30%	ALL

NOTES:  
 ① SINGLE POINT POWER CONNECTION WITH DISCONNECT.  
 ② MINIMUM 14 IPLV.  
 ③ FACTORY INSTALLED THERMAL DISPERSION FLOW SWITCH ON EVAPORATOR.  
 ④ FACTORY CONTROL PANEL WITH TOUCHSCREEN AND BACNET INTERFACE.  
 ⑤ FACTORY INSULATION PACKAGE.  
 ⑥ HIGH EFFICIENCY/PERFORMANCE.  
 ⑦ STANDARD COOLING APPLICATION.  
 ⑧ REFRIGERANT SERVICE VALVES  
 ⑨ FAN VFD CONTROL  
 ⑩ RATINGS BASED ON 30% POLYPROPYLENE  
 ⑪ MODULATING DIGITAL SCROLL COMPRESSOR OPTION

SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS

PRODUCT LISTED IS BASIS OF DESIGN ONLY

CHILLED WATER COIL																						
PLAN MARK	MANUFACTURER	MODEL	AIRFLOW	TOTAL CAPACITY MBH	SENSIBLE CAPACITY MBH	AIR TEMPERATURE		FACE VELOCITY	AIR PD (WG)	H2O TEMPERATURE		GPM	H2O PD (WG)	PROP. GLYCOL	ROWS	FPI	TUBE DIAMETER	TUBE MATERIAL	FIN MATERIAL	WEIGHT	DIMENSIONS	REMARKS
						EDB/EWB	LDB/LWB			EWT	LWT											
CWC-1	MARLO	6W22-51-5609F-11.8-H-1.0-R-B	5700	283	178	82.1/69.1	55.0/54.3	490	0.5"	42	52	61	16.6"	30%	6	9	5/8	CU .035	AL .010	335	51"L X 33.4"H	ALL
CWC-2	MARLO	6W22-51-5609F-11.8-H-1.0-R-B	5700	269	168	82.1/69.1	55.0/54.3	490	0.5"	42	52	57	16.6"	30%	6	9	5/8	CU .035	AL .010	335	51"L X 33.4"H	ALL
CWC-3	MARLO	6W22-51-5609F-11.8-H-1.0-R-B	5400	214	135	82.1/69.1	55.0/54.3	490	0.5"	42	52	33	16.6"	30%	6	9	5/8	CU .035	AL .010	335	51"L X 33.4"H	ALL

NOTES:  
 ① CONTRACTOR TO VERIFY UNIT SIZES FOR COIL FIT.  
 ② ALTERNATE MANUFACTURERS HEATCRAFT AND USA COIL.  
 ③ COILS SELECTED BASED ON 30% PROPYLENE GLYCOL

SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS

PRODUCT LISTED IS BASIS OF DESIGN ONLY

PUMP SCHEDULE											
PLAN MARK	MANUFACTURER	MODEL	TYPE	GPM	HEAD IN FT	MOTOR HP	PUMP RPM	ELECTRICAL VOLT/PH	WEIGHT (lbs)	REMARKS	
											CWP-1
CWP-2	TACO	2509D	CLOSE-COUPLED FOOT MOUNTED END SUCTION	151	52	5	1750	208/3	343	ALL	

NOTES:  
 ① VARIABLE SPEED DRIVE PROVIDED BY EC  
 ② SUCTION DIFFUSER.  
 ③ HEAVY DUTY BASE PLATE.

SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS

PRODUCT LISTED IS BASIS OF DESIGN ONLY



MICHAEL L. PARSON  
LICENSE #: PE2013000576  
EXP: 12/31/2021

**BRiC**  
PARTNERSHIP, LLC  
CONSULTING ENGINEERS

3636 S. GEYER ROAD  
SUITE 305  
ST. LOUIS, MO 63127  
PHONE: 314.725.5889  
MISSOURI CERTIFICATE OF  
AUTHORITY #2002028690

OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT, DESIGN AND  
CONSTRUCTION  
DEPARTMENT OF  
CORRECTIONS

PROJECT TITLE:  
HVAC AND BAS UPGRADE

1401 LAURA DRIVE  
KENNETT, MO

PROJECT # C1910-01

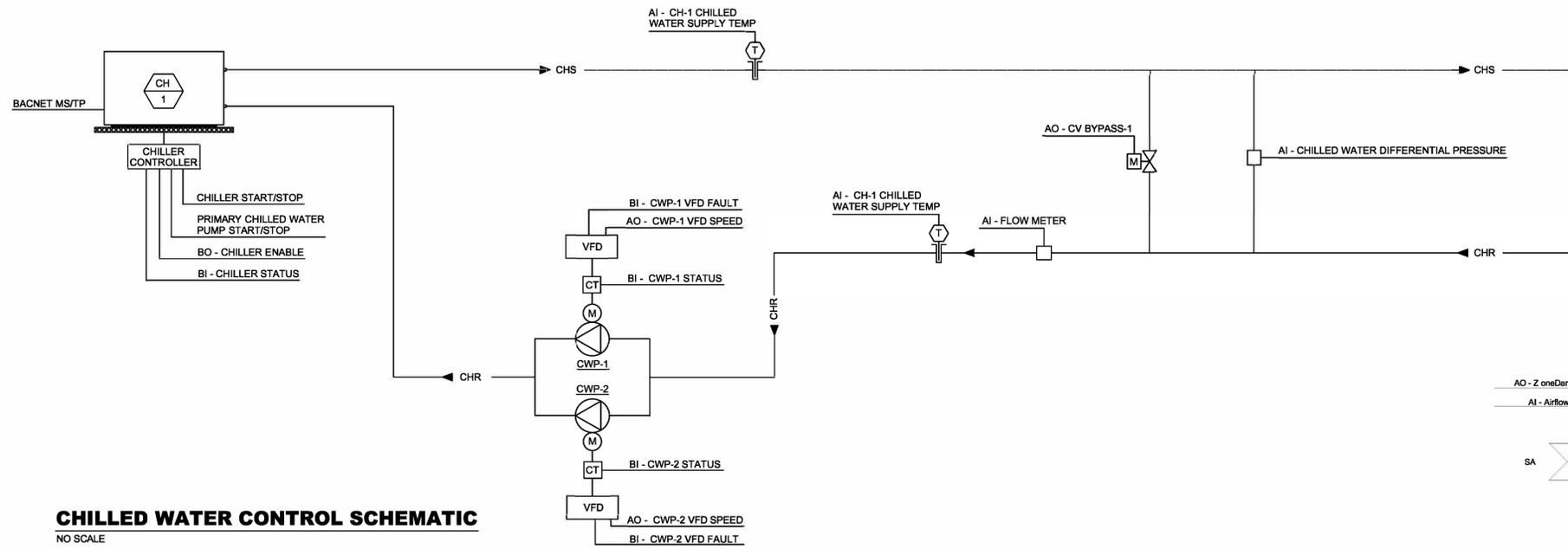
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
ISSUE DATE: 4/24/2020

CAD DWG FILE: \_\_\_\_\_  
DRAWN BY: MRH  
CHECKED BY: CF  
DESIGNED BY: MRH

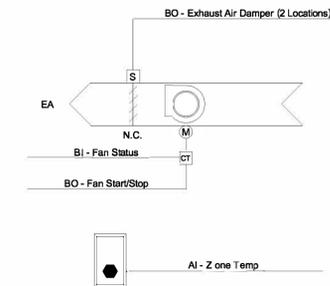
SHEET TITLE:  
**MECHANICAL  
CONTROLS**

SHEET NUMBER:

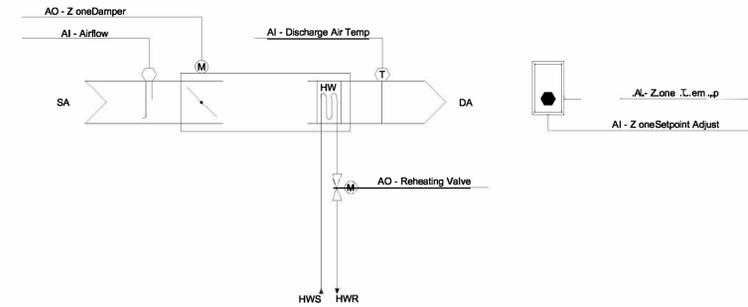
**M-701**



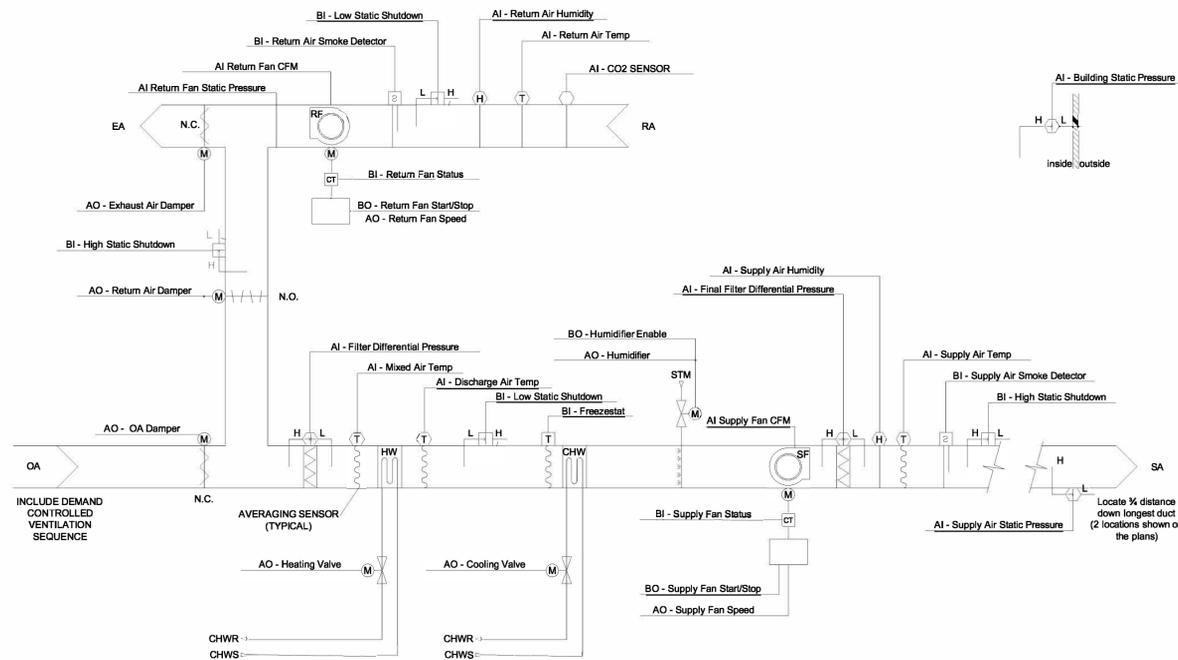
**CHILLED WATER CONTROL SCHEMATIC**  
NO SCALE



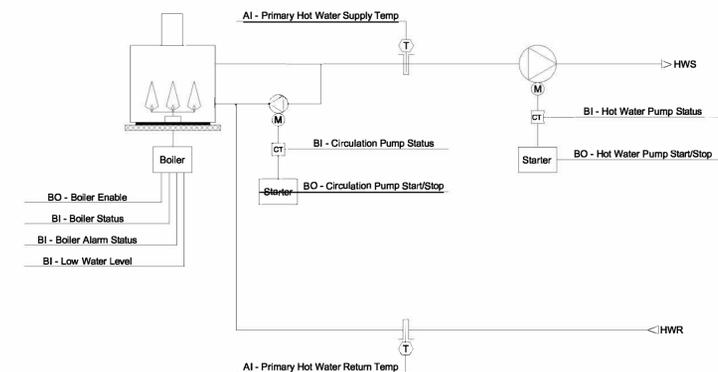
**EF CONTROL SCHEMATIC**  
NO SCALE



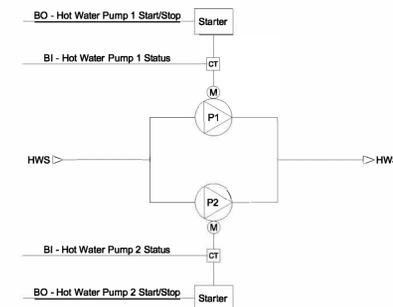
**VAV CONTROL SCHEMATIC**  
NO SCALE



**AHU CONTROL SCHEMATIC**  
NO SCALE



**BOILER CONTROL SCHEMATIC**  
NO SCALE



**HWP CONTROL SCHEMATIC**  
NO SCALE

# ELECTRICAL LEGEND AND ABBREVIATIONS (SEE SPECIFICATIONS & SCHEDULES)

NOTES: 1. NOT ALL SYMBOLS AND ABBREVIATIONS ARE USED ON THESE PLANS.  
 2. ALL MOUNTING HEIGHTS ARE TO CENTERLINE OF DEVICES AND EQUIPMENT U.D.N.  
 3. IN GENERAL, SYMBOLS SHOWN WITH LIGHT LINES DENOTE EXISTING WORK. SYMBOLS SHOWN WITH HEAVY LINES DENOTE PROPOSED WORK.

## JUNCTION AND PULL BOXES

- JUNCTION BOX
- PULL BOX

## WIRING PLANS

- CONDUIT RUN CONCEALED IN CEILING OR WALL CONSTRUCTION
- CONDUIT RUN IN FLOOR CONSTRUCTION OR UNDERGROUND
- CONDUIT RUN EXPOSED
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN
- FLEXIBLE CONDUIT
- CONDUIT CAPPED FOR FUTURE.
- EMERGENCY (LIFE SAFETY) CONDUIT SYSTEM
- CONDUIT SEAL
- CABLE TRAY
- BUSWAY
- HOMERUN TO PANEL OR DESTINATION NOTED
- HACHURES INDICATE NUMBER OF CONDUCTORS IN CONDUIT  
 NOTE: LONG HACHURE - NEUTRAL CONDUCTOR  
 SHORT HACHURE - HOT OR SWITCHED CONDUCTORS  
 LONG HACHURE WITH DOT - GROUND CONDUCTOR  
 LONG HACHURE WITH DOT & RETURN LINE - ISOLATED GROUND CONDUCTOR. WHEN HACHURES ARE NOT SHOWN AND WIRING IS FOR POWER OR LIGHTING CIRCUITS, PROVIDE HOT, NEUTRAL AND GROUND.  
 WHEN FOR MULTIPLE CIRCUITS, PROVIDE NO. OF PHASE CONDUCTORS, NEUTRAL CONDUCTORS AND A GROUND CONDUCTOR. HACHURES ARE SHOWN AS A GUIDE AND MAY NOT BE EXACT COUNTS IN ALL CASES. PROVIDE WIRING REQUIRED BY THE CIRCUITING AND SWITCHING REQUIREMENTS FOR THE PARTICULAR CIRCUITS INVOLVED.

## LIGHTING FIXTURES

- LIGHTING FIXTURE  
(A - DESIGNATES FIXTURE TYPE  
1 - DESIGNATES CIRCUIT NUMBER  
a - DESIGNATES CONTROLLING SWITCH)
- LIGHTING FIXTURE - EMERGENCY POWER
- LIGHTING FIXTURE - CRITICAL BRANCH
- LIGHTING FIXTURE - LIFE SAFETY BRANCH
- WALL MOUNTED LIGHTING FIXTURE. HEIGHT AS NOTED.
- RECESSED OR SURFACE LIGHTING FIXTURE EMERGENCY, CRITICAL OR LIFE SAFETY IF SHADED AS ABOVE
- WALL MOUNTED LIGHTING FIXTURE EMERGENCY, CRITICAL OR LIFE SAFETY IF SHADED AS ABOVE
- STRIP FIXTURE
- STRIP FIXTURE EMERGENCY POWER
- BATTERY OPERATED EMERGENCY LIGHTING UNIT
- EXTERIOR LIGHTING FIXTURE - POLE MOUNTED TYPES AND DETAILS AS NOTED
- EXIT SIGN DOUBLE-SIDED FIXTURE DIRECTIONAL ARROWS AS INDICATED
- EXIT SIGN SINGLE-SIDED FIXTURE DIRECTIONAL ARROWS AS INDICATED

SHADING INDICATES FACE(S)

## POWER EQUIPMENT

- MOTOR - SEE EQUIPMENT DATA SCHEDULE FOR HORSEPOWER
- STARTERS (MANUAL, MAGNETIC & COMB. MAGNETIC WITH DISC.)
- MOTOR CONTROL CENTER
- SWITCHBOARD
- PANELBOARD
- SEQUENCE NUMBER  
TYPE  
L - LIGHTING  
P - POWER  
E - EMERGENCY/EQUIPMENT BRANCH  
LS - LIFE SAFETY BRANCH  
C - CRITICAL BRANCH  
X - X-RAY  
VOLTAGE  
H - 480V  
L - 240V OR 208/120V  
FLOOR
- CONTROL CABINET
- PIPE WITH ELECTRIC HEAT TRACING
- ELECTRIC HEATING EQUIPMENT
- TRANSFORMER
- UNINTERRUPTIBLE POWER SUPPLY SYSTEM
- DISCONNECT SWITCH, FUSED OR UNFUSED AS NOTED
- HANDHOLE
- HANDHOLE
- ELECTRICAL SERVICE METER

## ABBREVIATIONS

- A.C.S. - ACCESS CONTROL SYSTEM
- A.F.F. - ABOVE FINISHED FLOOR
- ATS - AUTOMATIC TRANSFER SWITCH
- B.C. - BELOW CEILING
- C - CONDUIT
- CAM - CAMERA
- CB - CIRCUIT BREAKER
- CC - CONTROL CONTACTOR
- CCTV - CLOSED CIRCUIT TELEVISION
- CCW - COUNTER CLOCKWISE
- CW - CLOCKWISE
- DCU - DISTRIBUTED CONTROLLER UNIT
- DN - DOWN
- DP - DISTRIBUTION PANEL
- DR - DOCTORS REGISTER
- DT - DUSTTIGHT
- DWG - DRAWING
- E.C. - ELECTRICAL CONTRACTOR
- ELEC - ELECTRIC OR ELECTRICAL
- EMT - ELECTRICAL METALLIC TUBING
- ER - EXISTING RELOCATED
- ETR - EXISTING TO REMAIN
- EWC - ELECTRIC WATER COOLER
- FA - FIRE ALARM
- FM - F/D MODEM
- F/O - FIBER OPTIC
- FS - FUSIBLE SWITCH
- GC - GENERAL CONTRACTOR
- GF - GROUND FAULT
- GFCI - GROUND FAULT CIRCUIT INTERRUPTER
- GRD - GROUND
- GRS - GALVANIZED RIGID STEEL
- HH - HANDHOLE
- ILSM - INTERIM LIFE SAFETY MEASURES
- IMC - INTERMEDIATE METAL CONDUIT
- I/O - INPUT/OUTPUT
- LAN - LOCAL AREA NETWORK
- LP - LIGHTING PANEL
- MATV - MASTER ANTENNA TELEVISION
- MC - METAL CLAD
- MCC - MOTOR CONTROL CENTER
- MCP - MOTOR CONTROL PANEL
- MH - MANHOLE
- MT - EMPTY CONDUIT
- NC - NURSE CALL
- NL - NIGHT LIGHT
- PA - PUBLIC ADDRESS
- PI - PORTABLE INTERFACE
- P.I.R. - PASSIVE INFRA RED
- PP - POWER PANEL
- PR - PAIR
- PVC - POLYVINYL CHLORIDE CONDUIT
- R - RECESSED
- RF - RADIO FREQUENCY
- RGS - RIGID GALVANIZED STEEL
- RT - RAIN TIGHT
- SHLD - SHIELDED (AS IN CABLE)
- SWBD - SWITCHBOARD
- T - TELEPHONE
- TYP. - TYPICAL
- UNG - UNGROUNDING
- UPS - UNINTERRUPTIBLE POWER SUPPLY
- U.D.N. - UNLESS OTHERWISE NOTED
- VFD - VARIABLE FREQUENCY DRIVE
- VT - VAPORTIGHT
- WT - WATERTIGHT
- XP - EXPLOSION PROOF
- WP - WEATHER-PROOF

## RECEPTACLES

- TYPICAL MOUNTING HEIGHT - 18" AFF
- SPECIAL PURPOSE OUTLET AS NOTED
  - SINGLE RECEPTACLE OUTLET
  - DUPLEX RECEPTACLE OUTLET MOUNTED +8" ABOVE COUNTER
  - DUPLEX RECEPTACLE OUTLET MOUNTED +8" ABOVE COUNTER GROUND FAULT TYPE
  - DUPLEX RECEPTACLE OUTLET
  - DUPLEX RECEPTACLE OUTLET - GROUND FAULT TYPE
  - DOUBLE DUPLEX RECEPTACLE OUTLET
  - DUPLEX RECEPTACLE OUTLET WITH ISOLATED GROUND
  - DUPLEX RECEPTACLE OUTLET WITH UNIVERSAL SERIAL BUS CHARGING PORTS
  - DUPLEX RECEPTACLE WITH ONE OUTLET SWITCHED
  - FLOOR BOX - SYMBOL DESIGNATES TYPE OF SERVICE
  - FLOOR BOX - ROUGH IN ONLY WITH BLANK COVER
  - COMBINATION DUPLEX RECEPTACLE AND TV OUTLET (SEE TV SYMBOL UNDER "SPECIAL SYSTEMS"). MOUNT 1'-3" AFF. U.D.N.

## ONE-LINE DIAGRAM SYMBOLS

- FUSIBLE SWITCH (SIZE/FUSE)
- DRAWOUT CIRCUIT BREAKER } 3 POLE UNITS U.D.N.
- CIRCUIT BREAKER (FRAME/TRIP)
- WATTMETER
- KILOWATT DEMAND METER
- KILOWATT HOUR METER
- AMMETER
- AMMETER SWITCH
- GROUND FAULT
- VOLTMETER
- VOLTMETER SWITCH
- MICROPROCESSOR BASED DIGITAL MONITOR
- MOTOR STARTER } 3 POLE UNITS U.D.N.
- CONTACTOR
- GENERATOR
- CURRENT TRANSFORMER
- VOLTAGE TRANSFORMER
- POWER TRANSFORMER
- GROUND BUS
- NEUTRAL BUS
- GROUND
- KEY-INTERLOCK
- CAPACITOR
- MOTOR OPERATED MEDIUM VOLTAGE LOAD INTERRUPTER SWITCH
- GAP TYPE SURGE ARRESTER
- TRANSIENT VOLTAGE SURGE SUPPRESSOR
- ELECTRICAL SERVICE METER

## SWITCHES - LIGHTING CONTROL

- TYPICAL MOUNTING HEIGHT - 48" AFF
- SWITCHES - SINGLE POLE, 2 POLE, 3-WAY, 4-WAY
  - KEY SWITCHES - SINGLE POLE, 3-WAY, ETC.
  - SWITCH WITH PILOT LIGHT
  - COMBINATION SINGLE POLE SWITCH AND SINGLE RECEPT.
  - MOMENTARY CONTACT SWITCH
  - LOW VOLTAGE SWITCH
  - DIMMER SWITCH
  - MANUAL MOTOR STARTER WITH PILOT LIGHT
  - WALL MOUNTED VACANCY SENSOR (MANUAL ON/AUTO OFF), DUAL TECHNOLOGY TYPE
  - WALL MOUNTED OCCUPANCY SENSOR (AUTO ON/AUTO OFF), DUAL TECHNOLOGY TYPE
  - DUAL TECHNOLOGY CEILING MOUNTED OCCUPANCY SENSOR WITH WIDE ANGLE LENS
  - LIGHTING CONTROL POWER PACK

## DRAWING REFERENCES

- DETAIL NUMBER
- PLAN DETAIL REFERENCE TITLE
- DRAWING NUMBER
- KEYED NOTE DESIGNATION
- NORTH ARROW
- ROOM NUMBERS
- SECTION NUMBER
- SECTION REFERENCE TITLE
- DRAWING NUMBER

## GROUNDING SYMBOLS

- GROUND ROD WITH EXOTHERMIC CABLE CONNECTION
- GROUNDING CONDUCTOR
- BURIED GROUND CONDUCTOR

### PHASING NOTE:

THE JOB SHALL BE PHASED SUCH THAT ONLY ONE AIR HANDLING UNIT SHALL BE DOWN AT A TIME.

STATE OF MISSOURI  
MICHAEL L. PARSON,  
GOVERNOR



CARL V. HAUCK, PE  
LICENSE #: 016688  
EXP: 12/31/2021

**BRiC**  
PARTNERSHIP, LLC  
CONSULTING ENGINEERS

3636 S. GEYER ROAD  
SUITE 305  
ST. LOUIS, MO 63127  
PHONE: 314.725.5889  
MISSOURI CERTIFICATE OF  
AUTHORITY #2002028690

OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT, DESIGN AND  
CONSTRUCTION  
DEPARTMENT OF  
CORRECTIONS

PROJECT TITLE:  
HVAC AND BAS UPGRADE

1401 LAURA DRIVE  
KENNETT, MO

PROJECT # C1910-01

REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_

ISSUE DATE: 4/24/2020

CAD DWG FILE: \_\_\_\_\_  
DRAWN BY: TSM  
CHECKED BY: CVH  
DESIGNED BY: TSM

SHEET TITLE:  
**ELECTRICAL  
SYMBOLS  
AND LEGEND**

SHEET NUMBER:

**E-001**



CARL V. HAUCK, PE  
LICENSE #: 016688  
EXP: 12/31/2021

**BRiC**  
PARTNERSHIP, LLC  
CONSULTING ENGINEERS

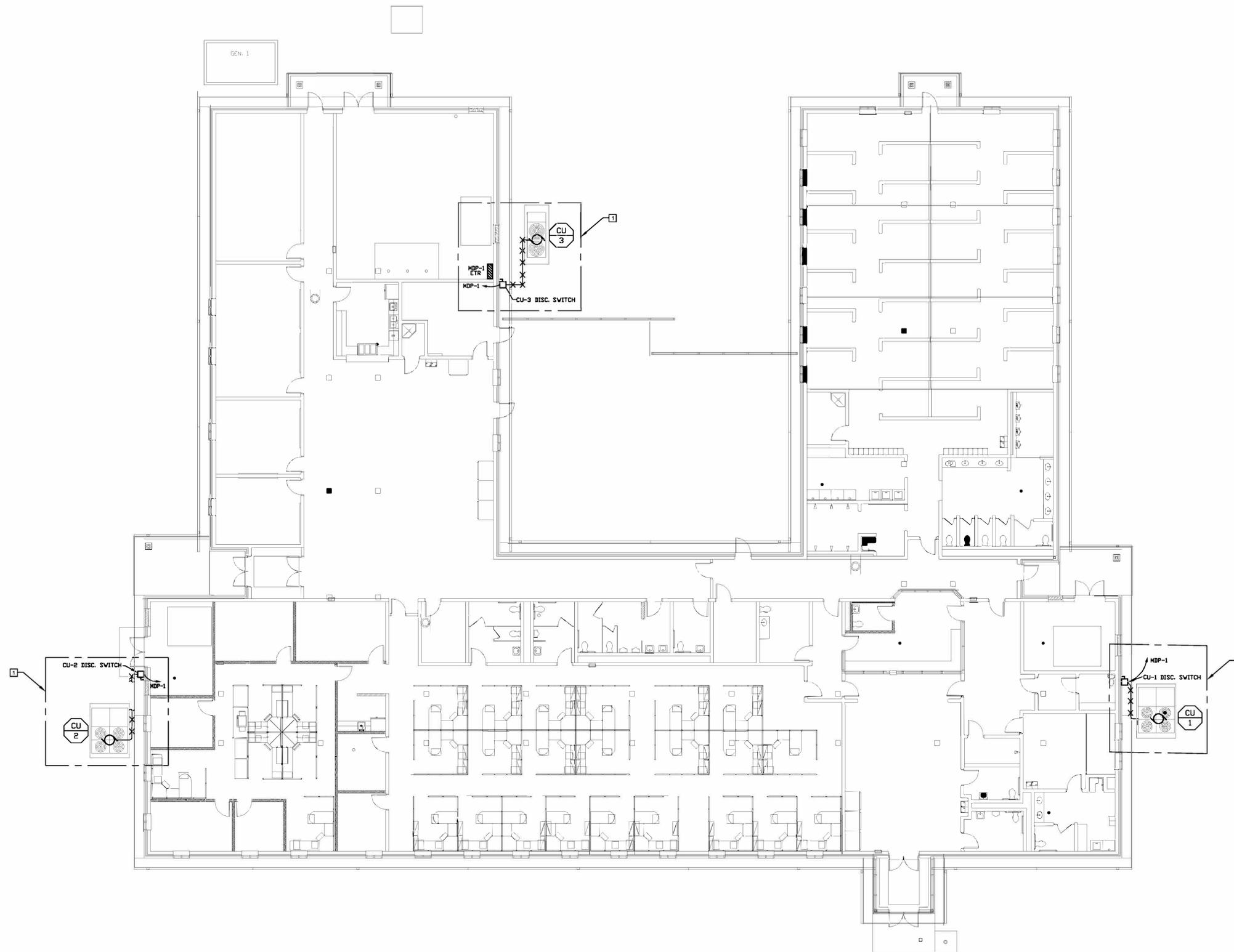
3636 S. GEYER ROAD  
SUITE 305  
ST. LOUIS, MO 63127  
PHONE: 314.725.5889  
MISSOURI CERTIFICATE OF  
AUTHORITY #2002028690

**GENERAL NOTES**

1. REFER TO SHEET ED-401 FOR FURTHER ELECTRICAL DEMO INFORMATION.
2. PLANS ARE DIAGRAMMATIC IN NATURE. THEY REFLECT THE AVAILABLE INFORMATION OBTAINED FROM FIELD OBSERVATION AND EXISTING DOCUMENTATION. ACTUAL LOCATION OF ELEMENTS AND EQUIPMENT MAY DEVIATE FROM THE LOCATION AND QUANTITIES SHOWN.
3. EXISTING WIRING TO REMAIN SHALL BE TEMPORARILY SUPPORTED AND PROTECTED. IF WIRE IS DAMAGED DURING THE CONSTRUCTION PROCESS, CONTRACTOR SHALL REPLACE WIRE WITH NEW PER SPECIFICATIONS.
4. WHILE MOST DEMOLITION WORK IS CONFINED TO CERTAIN AREAS OF THE BUILDING, WORK FOR ELECTRICAL SYSTEMS MAY BE EXTENDED TO INCLUDE OTHER AREAS OUTSIDE THE SCOPE OF WORK. PLAN IN ADVANCE TO PERFORM WORK IN OTHER AREAS TO MINIMIZE INTERRUPTIONS.
5. DEMOLITION REFERS TO THE DISCONNECTION AND REMOVAL OF EQUIPMENT, WIRING, AND COMPONENTS BACK TO SOURCE.
6. CONTRACTORS SHALL PROVIDE ALL CUTTING AND PATCHING AS REQUIRED FOR EXECUTION OF DEMOLITION WORK AND INSTALLATION OF NEW WORK.
7. COORDINATE THE DISCONNECTION AND REMOVAL OF ALL ITEMS WITH ASSOCIATED TRADES. ENSURE SERVICES THAT ARE REQUIRED TO REMAIN ACTIVE ARE ACTIVE DURING AND AFTER DEMOLITION IS COMPLETED.

**KEYED NOTES**

- 1 SEE ENLARGED DEMO PLANS SHEET ED-401 FOR DEMO WORK IN THIS AREA.



OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT, DESIGN AND  
CONSTRUCTION  
DEPARTMENT OF  
CORRECTIONS

PROJECT TITLE:  
HVAC AND BAS UPGRADE

1401 LAURA DRIVE  
KENNETT, MO

PROJECT # C1910-01

REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
ISSUE DATE: 4/24/2020

CAD DWG FILE: \_\_\_\_\_  
DRAWN BY: TSM  
CHECKED BY: CVH  
DESIGNED BY: TSM

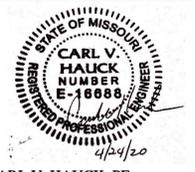
SHEET TITLE:  
**DEMO  
PLANS -  
ELECTRICAL**

SHEET NUMBER:

**ED-101**



**ELECTRICAL FLOOR PLAN**  
SCALE: 3/32" = 1'-0"



CARL V. HAUCK, PE  
LICENSE #: 016688  
EXP: 12/31/2021

**BRiC**  
PARTNERSHIP, LLC  
CONSULTING ENGINEERS

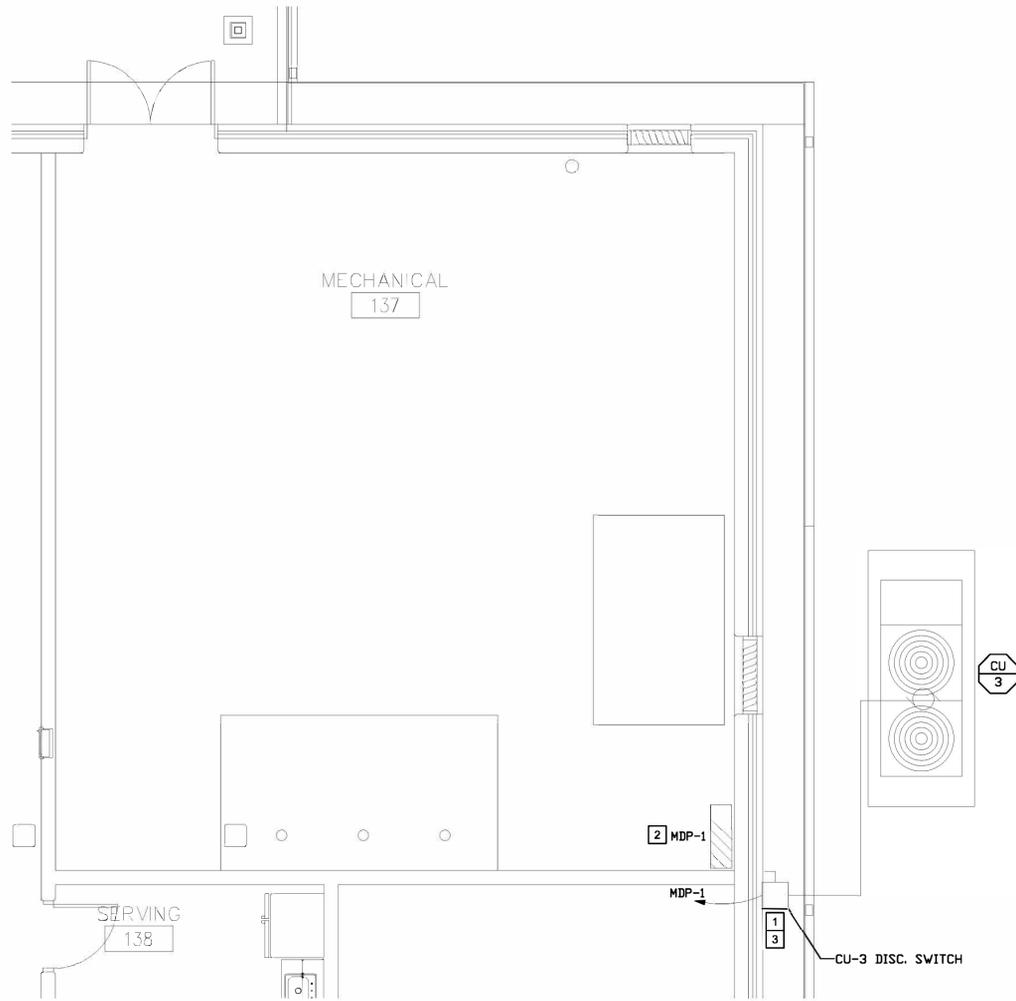
3636 S. GEYER ROAD  
SUITE 305  
ST. LOUIS, MO 63127  
PHONE: 314.725.5889  
MISSOURI CERTIFICATE OF  
AUTHORITY #2002028690

**GENERAL NOTES**

1. PLANS ARE DIAGRAMMATIC IN NATURE. THEY REFLECT THE AVAILABLE INFORMATION OBTAINED FROM FIELD OBSERVATION AND EXISTING DOCUMENTATION. ACTUAL LOCATION OF ELEMENTS AND EQUIPMENT MAY DEVIATE FROM THE LOCATION AND QUANTITIES SHOWN.
2. EXISTING WIRING TO REMAIN SHALL BE TEMPORARILY SUPPORTED AND PROTECTED. IF WIRE IS DAMAGED DURING THE CONSTRUCTION PROCESS, CONTRACTOR SHALL REPLACE WIRE WITH NEW PER SPECIFICATIONS.
3. WHILE MOST DEMOLITION WORK IS CONFINED TO CERTAIN AREAS OF THE BUILDING, WORK FOR ELECTRICAL SYSTEMS MAY BE EXTENDED TO INCLUDE OTHER AREAS OUTSIDE THE SCOPE OF WORK. PLAN IN ADVANCE TO PERFORM WORK IN OTHER AREAS TO MINIMIZE INTERRUPTIONS.
4. DEMOLITION REFERS TO THE DISCONNECTION AND REMOVAL OF EQUIPMENT, WIRING, AND COMPONENTS BACK TO SOURCE.
5. CONTRACTORS SHALL PROVIDE ALL CUTTING AND PATCHING AS REQUIRED FOR EXECUTION OF DEMOLITION WORK AND INSTALLATION OF NEW WORK.
6. COORDINATE THE DISCONNECTION AND REMOVAL OF ALL ITEMS WITH ASSOCIATED TRADES. ENSURE SERVICES THAT ARE REQUIRED TO REMAIN ACTIVE ARE ACTIVE DURING AND AFTER DEMOLITION IS COMPLETED.

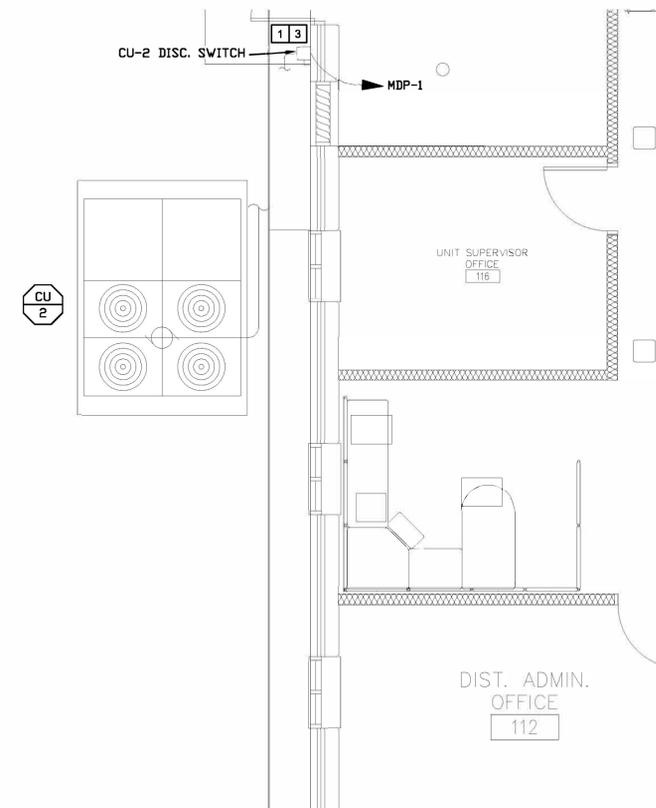
**KEYED NOTES**

- 1 REMOVE EXISTING DISCONNECT, REMOVE EXISTING FEEDERS, AND REMOVE EXISTING ACCESSIBLE CONDUIT BACK TO MDP-1.
- 2 REMOVE EXISTING 200 AMP FUSED SWITCHES FOR CU-1, CU-2, AND CU-3.
- 3 REMOVE CONDUIT AND WIRES FROM DISCONNECT TO CONDENSING UNIT.



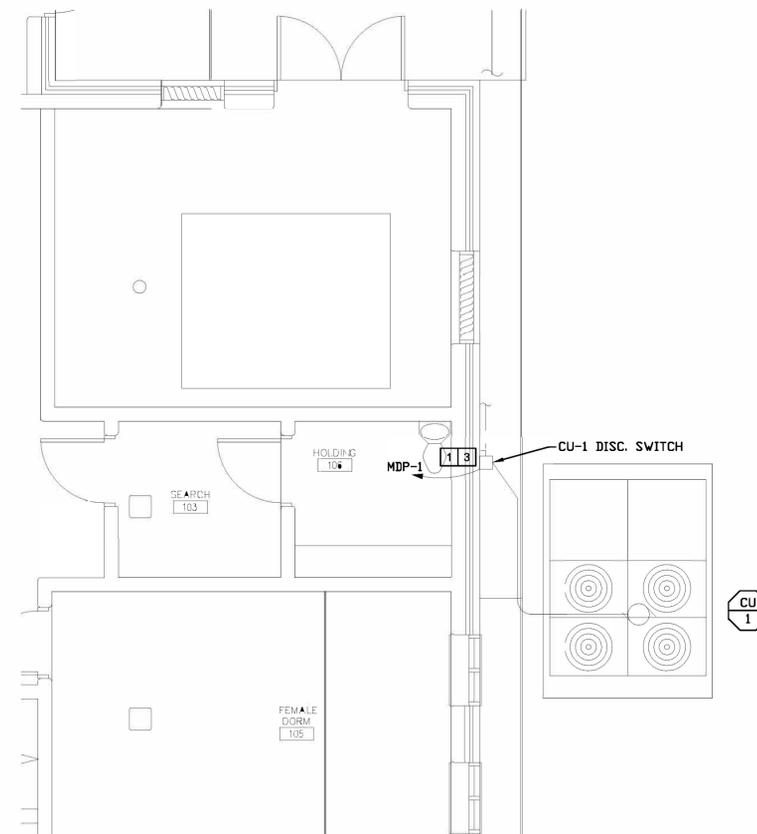
**ENLARGED MECH RM – ELECTRICAL**

SCALE: 1/4" = 1'-0"



**ENLARGED PLAN – ELECTRICAL**

SCALE: 1/4" = 1'-0"



**ENLARGED PLAN – ELECTRICAL**

SCALE: 1/4" = 1'-0"

OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT, DESIGN AND  
CONSTRUCTION  
DEPARTMENT OF  
CORRECTIONS

PROJECT TITLE:  
HVAC AND BAS UPGRADE

1401 LAURA DRIVE  
KENNETT, MO

PROJECT # C1910-01

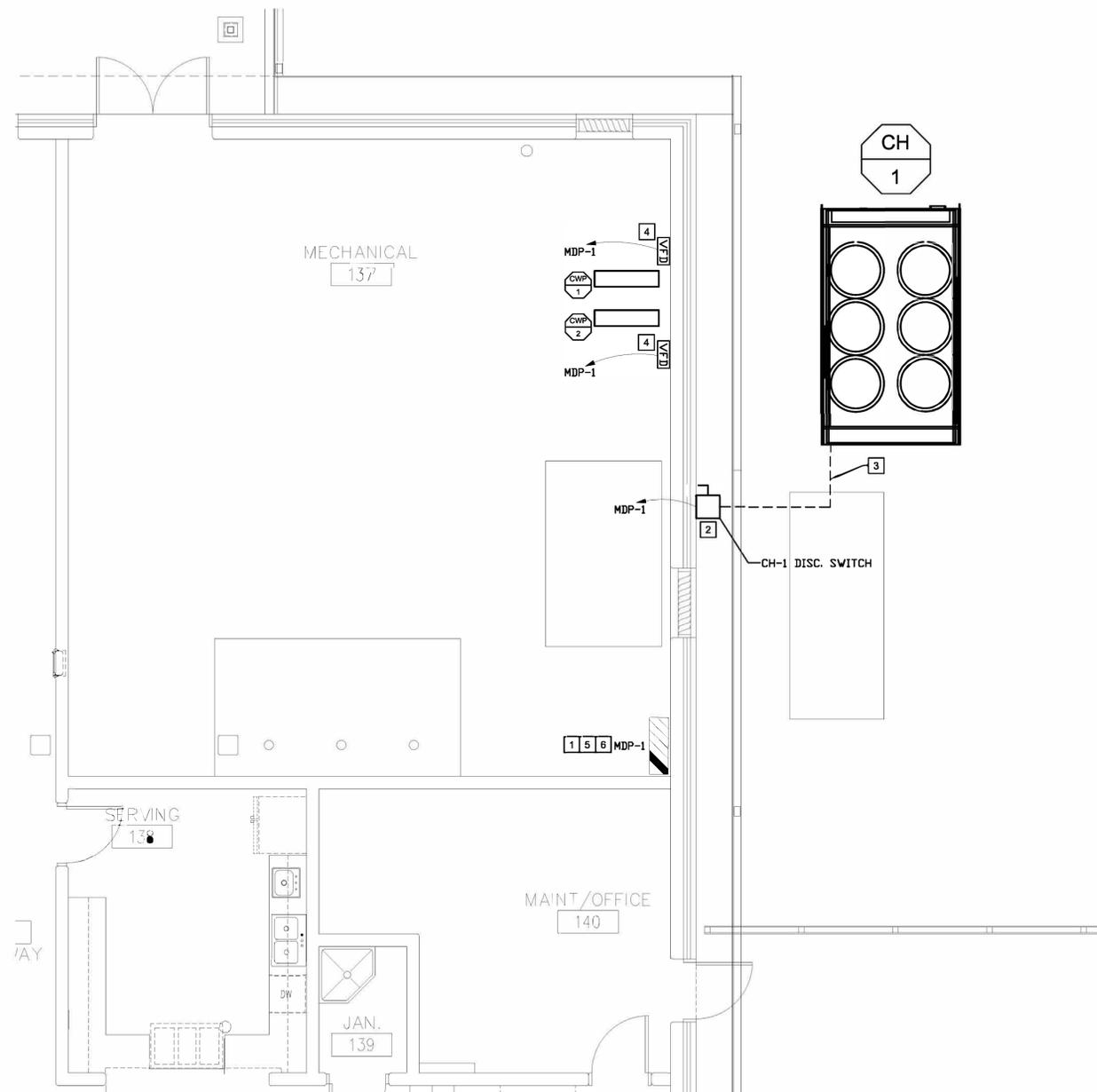
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
ISSUE DATE: 4/24/2020

CAD DWG FILE: \_\_\_\_\_  
DRAWN BY: TSM  
CHECKED BY: CVH  
DESIGNED BY: TSM

SHEET TITLE:  
**ENLARGED  
DEMO PLANS  
- ELECTRICAL**

SHEET NUMBER:

**ED-401**



**ENLARGED MECH RM – ELECTRICAL**  
 SCALE: 1/4" = 1'-0"

**GENERAL NOTES**

1. FOR FURTHER MECHANICAL INFORMATION, REFER TO SHEET M-601.
2. FOR FURTHER ELECTRICAL INFORMATION, REFER TO SHEET E-501.

**KEYED NOTES**

1. PROVIDE A 400 AMP 3-POLE FUSED SWITCH, FUSED AT 300 AMP IN EXISTING PANEL MDP-1, FOR CH-1. PROVIDE ALL NECESSARY FILLER PANELS AND SPACE COVERS TO RETAIN DEADFRONT INTEGRITY.
2. PROVIDE A NEMA 3R 400 AMP DISCONNECT FOR CH-1.
3. PROVIDE (3) 500KCM AND (1) #2 GROUND IN 3" CONDUIT. EXTEND CH-1 CIRCUIT TO 400 AMP 3-POLE FUSED SWITCH REFERENCED IN KEYED NOTE #1.
4. PROVIDE A NEMA 1 VFD WITH INTEGRAL DISCONNECT FOR CHILLER PUMP. PROVIDE (3) #8 AND (1) #10 GROUND IN 3/4" CONDUIT. EXTEND CHILLER PUMP CIRCUIT TO EXISTING PANEL MDP-1, TO FUSED SPARE SWITCH DESCRIBED IN KEYED NOTE 5.
5. PROVIDE 40 AMP FUSES IN EXISTING SPARE FUSED SWITCHES IN PANEL MDP-1, FOR CWP-1 AND CWP-2.
6. ELECTRICAL CONTRACTOR SHALL PROVIDE A TEMPORARY MEANS OF MAINTAINING POWER AND CIRCUIT PROTECTION TO THE THREE EXISTING CONDENSING UNITS. TWO OF THE EXISTING 200 AMP, 3 POLE FUSED DISCONNECTS IN MDP-1 SHALL BE REMOVED IN ORDER TO FACILITATE THE INSTALLATION OF NEW 400 AMP, 3 POLE FUSED DISCONNECT IN MDP-1 FOR THE NEW CHILLER CIRCUIT. TEMPORARY POWER MAY COME FROM MDP-1 BY MEANS OF TEMPORARY EXTERNAL 200 AMP, 3 POLE FUSED DISCONNECTS. AFTER THE NEW CHILLER BECOMES OPERATIONAL THE TEMPORARY EXTERNAL FUSED DISCONNECTS SHALL BE REMOVED.

STATE OF MISSOURI  
 MICHAEL L. PARSON,  
 GOVERNOR



CARL V. HAUCK, PE  
 LICENSE #: 016688  
 EXP: 12/31/2021

**BRiC**  
 PARTNERSHIP, LLC  
 CONSULTING ENGINEERS

3636 S. GEYER ROAD  
 SUITE 305  
 ST. LOUIS, MO 63127  
 PHONE: 314.725.5889  
 MISSOURI CERTIFICATE OF  
 AUTHORITY #2002028690

OFFICE OF ADMINISTRATION  
 DIVISION OF FACILITIES  
 MANAGEMENT, DESIGN AND  
 CONSTRUCTION  
 DEPARTMENT OF  
 CORRECTIONS

PROJECT TITLE:  
 HVAC AND BAS UPGRADE

1401 LAURA DRIVE  
 KENNETT, MO

PROJECT # C1910-01

REVISION: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 REVISION: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 REVISION: \_\_\_\_\_  
 DATE: \_\_\_\_\_

ISSUE DATE: 4/24/2020

CAD DWG FILE: \_\_\_\_\_  
 DRAWN BY: TSM  
 CHECKED BY: CVH  
 DESIGNED BY: TSM

SHEET TITLE:  
**ENLARGED  
 PLANS -  
 ELECTRICAL**

SHEET NUMBER:

**E-401**



CARL V. HAUCK, PE  
LICENSE #: 016688  
EXP: 12/31/2021



3636 S. GEYER ROAD  
SUITE 305  
ST. LOUIS, MO 63127  
PHONE: 314.725.5889  
MISSOURI CERTIFICATE OF  
AUTHORITY #2002028690

EQUIPMENT DATA SCHEDULE

MARK	EQUIPMENT	LOCATION	FURNISH. BY ①	MOTOR OR EQUIPMENT DATA			FED FROM	BRANCH CIRCUIT ③	DISCONNECT SWITCH AT EQUIPMENT				STARTER					REMARKS ⑦				
				HP/KVA ②	VOLTS/ PHASE	INST. BY/ CONN. BY			TYPE ④	NEMA ENCLOS. TYPE	SWITCH/ FUSE SIZE	FURNISH. BY	INST. BY/ CONN. BY	NEMA SIZE	NEMA ENCLOS. TYPE	TYPE ⑤	SWITCH/ FUSE SIZE		ACCESS. ⑥	FURNISH. BY	CONN. BY	CONTROL WIRING BY
CH-1	CHILLER	OUTDOORS	23	257 MCA	208/3	23/26	MDP-1	SEE E-401	-	3R	400A/300A	26	26	-	-	-	-	26	26	23	(-)	
CWP-1	PUMP	MECHANICAL ROOM 137	23	5 HP	208/3	23/26	MDP-1	SEE E-401	-	-	60A/40A	26	26	0	1	VFD	60A/40A	HOAP	26	26	23	(2)
CWP-2	PUMP	MECHANICAL ROOM 137	23	5 HP	208/3	23/26	MDP-1	SEE E-401	-	-	60A/40A	26	26	0	1	VFD	60A/40A	HOAP	26	26	23	(2)

① SPECIFICATION DIVISION NUMBER:  
DIVISION 22 - PLUMBING  
DIVISION 23 - MECHANICAL  
DIVISION 26 - ELECTRICAL

② HORSEPOWER (HP) IS SHOWN UNLESS AMPS(A), KILOWATTS(KW), OR MINIMUM CIRCUIT AMPS (MCA) CALLED OUT.

③ REFER TO FEEDER SCHEDULE WHEN THIS COLUMN CONTAINS A FEEDER DESIGNATION INSTEAD OF CONDUCTOR SIZE.

④ NF - NON FUSED  
F - FUSED  
TOG - TOGGLE

⑤ STARTER TYPE:  
COMB1 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH FUSED DISCONNECT SWITCH  
COMB2 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH UNFUSED DISCONNECT SWITCH  
COMB3 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH THERMAL MAGNETIC MOLDED CASE CIRCUIT BREAKER DISCONNECT  
COMB4 - COMBINATION FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITH MAGNETIC ONLY MOLDED CASE CIRCUIT BREAKER DISCONNECT

FVNR - FULL VOLTAGE NON-REVERSING MAGNETIC STARTER WITHOUT DISCONNECT  
MAN - MANUAL STARTER WITH PILOT LIGHT  
SDS - STAR DELTA STARTER  
PWCP - PREWIRED CONTROL PANEL  
VFD - VARIABLE FREQUENCY DRIVE  
2S2W - 2 SPEED 2 WINDING  
2S1W - 2 SPEED SINGLE WINDING

⑥ ACCESSORIES:  
HOAP - HOA WITH PILOT LIGHT  
PB - START/STOP PUSH BUTTON (MOMENTARY CONTACT)

⑦ KEY TO REMARKS:  
(1) FIRE ALARM INTERLOCK  
(2) INTEGRAL DISCONNECT SWITCH  
(3) MOUNT DISCONNECT SWITCH ON EQUIPMENT HOUSING  
(4) INTEGRAL MOTOR STARTER  
(5) INTEGRAL CONTROLLER  
(6) VFD PROVIDED BY AHU MANUFACTURER

ALL MAGNETIC AND SOLID STATE STARTERS ARE TO BE EQUIPPED WITH AUXILIARY CONTACTS, PILOT LIGHTS AND FUSED CONTROL POWER TRANSFORMERS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

OFFICE OF ADMINISTRATION  
DIVISION OF FACILITIES  
MANAGEMENT, DESIGN AND  
CONSTRUCTION  
DEPARTMENT OF  
CORRECTIONS

PROJECT TITLE:  
HVAC AND BAS UPGRADE

1401 LAURA DRIVE  
KENNETT, MO

PROJECT # C1910-01

REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_

ISSUE DATE: 4/24/2020

CAD DWG FILE: \_\_\_\_\_  
DRAWN BY: TSM  
CHECKED BY: CVH  
DESIGNED BY: TSM

SHEET TITLE:  
SCHEDULES  
ELECTRICAL

SHEET NUMBER:

E-501