



Board of County Commissioners Agenda Request

4A
Agenda Item #

Requested Meeting Date: December 19, 2023

Title of Item: Jail Boiler/Chiller Replacement

<input checked="" type="checkbox"/> REGULAR AGENDA <input type="checkbox"/> CONSENT AGENDA <input type="checkbox"/> INFORMATION ONLY	Action Requested: <input checked="" type="checkbox"/> Approve/Deny Motion <input type="checkbox"/> Adopt Resolution (attach draft) <i>*provide copy of hearing notice that was published</i>	<input type="checkbox"/> Direction Requested <input type="checkbox"/> Discussion Item <input type="checkbox"/> Hold Public Hearing*
Submitted by: Jim Bright	Department: Facilities	
Presenter (Name and Title): Jim Bright, Facilities Coordinator		Estimated Time Needed: 5 minutes
Summary of Issue: Boiler and Chiller have reached life expectancy.		
Alternatives, Options, Effects on Others/Comments:		
Recommended Action/Motion: Approve going out for bids for replacement.		
Financial Impact: Is there a cost associated with this request? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No What is the total cost, with tax and shipping? \$ Is this budgeted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>Please Explain:</i>		

Legally binding agreements must have County Attorney approval prior to submission.

AITKIN COUNTY JAIL HVAC UPGRADES

CITY OF AITKIN
AITKIN, MN 56432

DRAWING INDEX

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ABBREVIATIONS

ELECT	ELECTRIC (ALS)	LA	LAG BOLT	PWD	PLYWOOD	TYV	TYPICAL
ENC	ELECTRIC WATER COOLER	LAM	LAMINATE (ES)	PT	POINT	UG	UNDERGROUND
EL	ELEVATOR	LAV	LAVATORY	LS	POUNDS PER SQUARE INCH	UFI	UNFINISHED
ELEV	ELEVATOR	LF	LEFT/HAND	PC	PREFAB	UNO	UNLESS NOTED OTHERWISE
EOP	EQUIPMENT	LT	LEFT	PFM	PREFINISHED	UR	URINAL
EXTST	EXITING	LL	LEFT LOAD	QT	QUARRY TILE	VB	VAPOR BARRIER
EXP	EXPANSION	LW	LONG LEO HORIZONTAL	RAC	RAILS	VCR	VEENER
EXP	EXPANSION BOLT	LWV	LONG LEO VERTICAL	REFR	REFRIGERATOR	VCT	VERTICAL
EXP	EXPANSION JOINT	LXK	LONG LEO VERTICAL LOWER	RE	REQUIRED	VNT	VERTIBLUE
EXT	EXTERIOR	MFR	MANUFACTURER	RECQ	REQUIRED (EQ) (INCL) (MENT)	VNT	VINYL COMPOSITION TILE
FB	FACE BRICK	MCO	MASONRY OPENING	RE	RETURN AIR	WH	WALL HUNG
FCC	FACE OF CONCRETE	MC	MASONRY OPENING	R	REVERSE	WC	WATER CLOSET
FOM	FACE OF MASONRY	MTL	MATERIAL (S)	R/1	REVISION	W	WATERPROOFING
FOS	FACE OF STUDS	MAK	MASONRY	R/H	RIGHT HAND	W/	WELDED WIRE FABRIC
FBI	FINISH	MECH	MECHANICAL	R/N	RIGHT OF WAY	W	WEST
FPE	FURNISHED FLOOR ELEVATION	MES	MESSENGER CABINET	R	ROOF	W/	WEST OF WIDTH WIDE
FBS	FIRE BRICK	MD	MEDIUM	RD	ROUGH OPENING	W/G	WROUGHT IRON
FE	FIRE EXTINGUISHER	MER	MEMBRANE	RO	ROUGH OPENING	W/W	W/ WITH
FE	FIRE EXTINGUISHER CABINET	MET	METAL	RD	ROUGH OPENING	W/W	W/ WITH
FP	FIRE PROOF	MFR	MANUFACTURER	RD	ROUGH OPENING	W/W	W/ WITH
FPLG	FLASHING	MIL	MILIKOM	RD	ROUGH OPENING	W/W	W/ WITH
FPL	FLOOR FINISH	MIN	MINIMUM	RD	ROUGH OPENING	W/W	W/ WITH
FDR	FLOOR DRAIN	MR	MASONRY	RD	ROUGH OPENING	W/W	W/ WITH
FD	FLOOR	MSC	MISCELLANEOUS	RD	ROUGH OPENING	W/W	W/ WITH
FDD	FLOOR DRAIN	MIS	MISCELLANEOUS	RD	ROUGH OPENING	W/W	W/ WITH
FFD	FLOOR FINISH	MT	MATERIAL (S)	RD	ROUGH OPENING	W/W	W/ WITH
FFS	FURNISHED BY OTHERS	MUL	MULLION	RD	ROUGH OPENING	W/W	W/ WITH
FFU	FURRED (ANG)	NOV	NORTH	RD	ROUGH OPENING	W/W	W/ WITH
FFU	FURRED (ANG)	NOV	NORTH	RD	ROUGH OPENING	W/W	W/ WITH
FUT	FUTURE	NOM	NOMINAL	RD	ROUGH OPENING	W/W	W/ WITH
FAP	FIBREGLASS REINFORCED PLASTIC	N	NORTH	RD	ROUGH OPENING	W/W	W/ WITH
IV	FIELD VERIFY	NS	NOT TO SCALE	RD	ROUGH OPENING	W/W	W/ WITH
GNLY	GLAZED	NTS	NOT TO SCALE	RD	ROUGH OPENING	W/W	W/ WITH
GN	GLAZED	NTS	NOT TO SCALE	RD	ROUGH OPENING	W/W	W/ WITH
GN	GLAZED	NTS	NOT TO SCALE	RD	ROUGH OPENING	W/W	W/ WITH
GN	GLAZED	NTS	NOT TO SCALE	RD	ROUGH OPENING	W/W	W/ WITH

TYPICAL SYMBOLS / MATERIALS

SECTION	DETAILS	EXTERIOR ELEVATIONS	INTERIOR ELEVATIONS	WALL TYPE	WINDOW NUMBER	CONSTRUCTION GRID	CONSTRUCTION NOTE	WORK CONTROL POINT	REVISION	MATCH LINE
NEW DOOR	DEMOLITION DOOR	EXISTING DOOR	ACoustICAL WALL PANEL	BRICK	CAST IN PLACE CONCRETE	CONCRETE MASONRY UNIT (CMU)	EARTH	GLASS BLOCK	GRANULAR FILL	GYPSUM BOARD
DOOR NUMBER							BATT INSULATION	RIGID INSULATION	METAL	EXISTING CONSTRUCTION
							PREFAB CONCRETE	PLYWOOD / OSB	STONE	TERRAZZO
							WOOD FINISH	WOOD ROUGH		

DESIGN TEAM:

ARCHITECTURE	WIDSETH RYAN ERSPERER 126 EAST SUPERIOR STREET DULUTH, MN 55802 (218) 451-7093 ryan.ersp@widseth.com
MECHANICAL	WIDSETH MICHAEL WASHBURN 704 EAST HOWARD STREET HIBING, MN 55746 (218) 274-6262 mike.washburn@widseth.com
ELECTRICAL	WIDSETH DAVID JOSEMAN 704 EAST HOWARD STREET HIBING, MN 55746 (218) 274-6262 david.jos@widseth.com



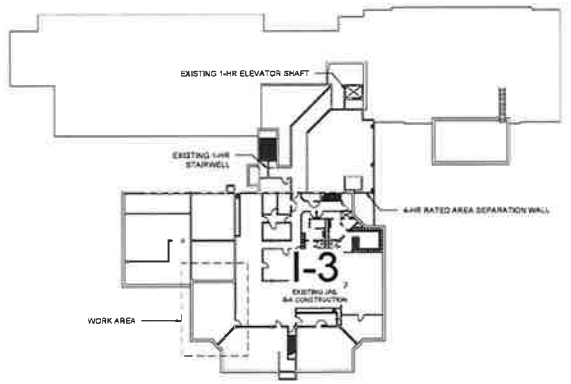
ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

DATE	REVISION	REVISION DESCRIPTION

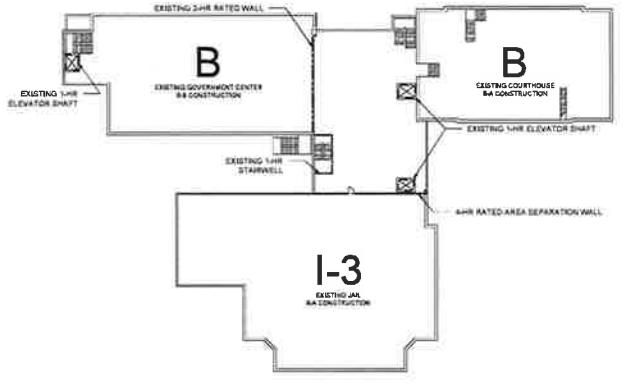
DATE: 12/13/2023

SHEET: G0.1

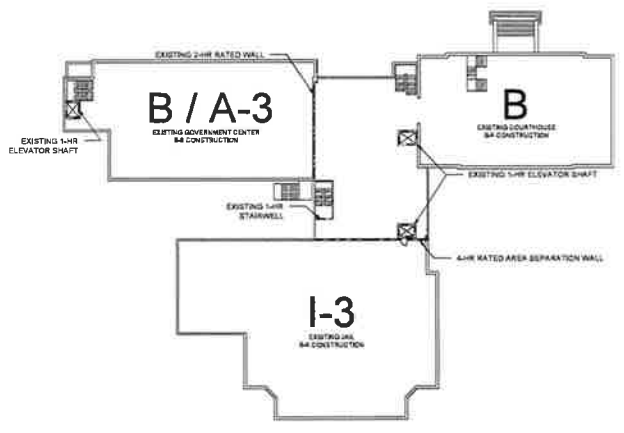
OF 10



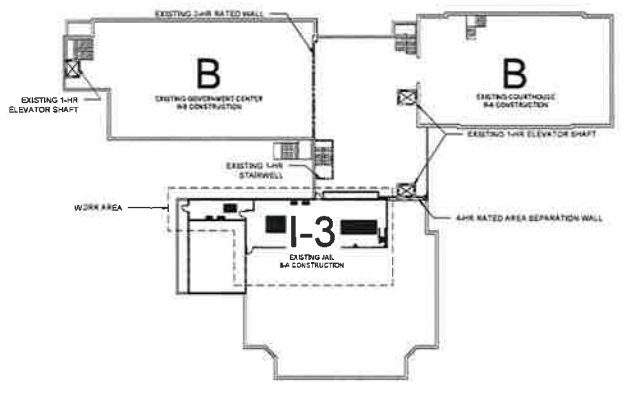
LIFE SAFETY PLAN - BASEMENT
G02.1 NTS



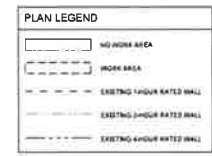
LIFE SAFETY PLAN - FIRST FLOOR
G02.2 NTS



LIFE SAFETY PLAN - SECOND FLOOR
G02.3 NTS



LIFE SAFETY PLAN - THIRD FLOOR
G02.4 NTS



CODE REVIEW

PROJECT SUMMARY	APPLICABLE CODES
THE EXISTING JAIL BUILDING WILL UNDERGO REMOVAL AND REPLACEMENT OF AN EXISTING BOILER, AIR HANDLING UNIT, AND ROOFTOP CHILLER UNIT. THERE WILL BE NO CHANGE TO THE BUILDING SQUARE FOOTAGE, OCCUPANCY OR USE.	2020 MINNESOTA STATE BUILDING CODE WHICH ADOPTS AND AMENDS THE 2018 IBC
	2020 MINNESOTA CONSERVATION CODE FOR EXISTING BUILDINGS MINNESOTA RULES 1311
	2020 MINNESOTA MECHANICAL AND FUEL GAS CODE, MINNESOTA RULES CHAPTER 1508
	2020 NATIONAL ELECTRICAL CODE MINNESOTA RULES CHAPTER 1515
	2020 MINNESOTA PLUMBING CODE MINNESOTA RULES CHAPTER 4714
	2020 MINNESOTA STATE FIRE CODE MINNESOTA RULES CHAPTER 1511
	2020 MINNESOTA COMMERCIAL ENERGY CODE MINNESOTA RULES CHAPTER 1521
	2020 MINNESOTA ACCESSIBILITY CODE MINNESOTA RULES CHAPTER 1541

2020 MINNESOTA CONSERVATION CODE

CHAPTER #	CLASSIFICATION OF WORK	ALTERATION LEVEL	REQUIREMENTS
CHAPTER 1	GENERAL	ALTERATION LEVEL 2	MAINTAIN CURRENT LEVEL OF SAFETY
CHAPTER 2	CONFORMANCE		OPERATIONAL, FROM INSIDE ROOMS, SOUND ALARM READY
CHAPTER 3	EMERGENCY ESCAPE AND RESCUE OPENINGS		
CHAPTER 4	BUILDING FRAMEWORK AND MATERIALS		NEW WORK TO COMPLY WITH IBC, IBC, IMC AND IRC
CHAPTER 5	FIRE PROTECTION		EXISTING SPRINKLER SYSTEM TO REMAIN
CHAPTER 6	ROOFING		COMPLY WITH IBC CHAPTER 15
CHAPTER 7	SEISMAL		NEW EQUIPMENT DOES NOT EXCEED MARKED ROOF LOAD CAPACITY
CHAPTER 8	STRUCTURAL LIGHTS		NEW ROOFTOP CHILLERS DO NOT EXCEED SEISMIC CAPACITY RATED
CHAPTER 9	STRUCTURAL		COMPLY WITH IBC RULES 1502
CHAPTER 10	REPLACEMENT OF ROOFTOP EQUIP		
CHAPTER 11	ADDITIONAL REQUIREMENTS		
CHAPTER 12	ENERGY CONSERVATION		
CHAPTER 13	PAINTS, COATINGS AND MATERIALS		
CHAPTER 14	ELECTRICAL OPENINGS		EXISTING STAIRWELLS AND ELEVATOR SHAFTS ARE RATED
CHAPTER 15	FIRE PROTECTION		EXISTING AUTOMATIC SPRINKLER TO REMAIN
CHAPTER 16	STAIRWAY RAMPING		EXISTING FIRE ALARM TO REMAIN
CHAPTER 17	AUTOMATIC SPRINKLER SYSTEM		NOT TO EXCEED
CHAPTER 18	FIRE ALARM AND DETECTION		
CHAPTER 19	GASBURN, INDOOR DETECTION		
CHAPTER 20	WINDS OF EFFECT		
CHAPTER 21	EXIT, STRUCTURAL ELEMENTS		NEW EQUIPMENT DOES NOT EXCEED DEMAND-CAPACITY RATED
CHAPTER 22	MINNESOTA BUILDING CODE		
CHAPTER 23	SPECIAL REQUIREMENTS		
CHAPTER 24	ACCESSIBLE USES		
CHAPTER 25	ALTERNABLE AREA		PROVIDE SPRINKLER OR 1-HR SEPARATION
CHAPTER 26	COURTHOUSE	112,500 SF	(54,138 SF ACTUAL, 3 STORIES)
CHAPTER 27	GOVERNMENT CENTER	28,000 SF	(22,246 SF ACTUAL, 3 STORIES)
CHAPTER 28	JAIL	45,000 SF	(48,450 SF ACTUAL, 4 STORIES)

NOT FOR CONSTRUCTION

AITKIN COUNTY JAIL HVAC UPGRADES
CITY OF AITKIN
AITKIN, MN 56431

PROJECT NO. G02.1
SHEET 2 OF 10

EQUIPMENT SCHEDULE

NOTE: Shop Drawings shall be clearly identified as to pertinent equipment number (E)

EQUIP. NO	LOCATION	DESCRIPTION	QUANTITY	SUPPLY BY DIV.	INSTALL BY DIV.	RELOCATE BY DIV.	MANUFACTURER & MODEL NO.	CAPACITY	MECH. CONN.	EQUIPMENT REMARKS	MOTOR		STARTER	WIRING & CONTROL REMARKS (APPLIES TO DIV. 23 & 26)	EQUIP. NO						
											HP	VOLT									
1	BOILER ROOM	HIGH EFFICIENCY NATURAL GAS FIRED BOILER	2	23	23	23	AERCO BENCHMARK MODEL #BMK 1500	1500 MBH INPUT, 1300 MBH OUTPUT @ 160% HIGH FIRE & 100 F RETURN WATER, 20 1 TURN/DWN, 40 GALLONS WATER VOLUME, 20 GPM MINIMUM FLOW, 350 GPM MAXIMUM FLOW	#1 HW & HW 3" IN. 1" INTAKE & FLUE	CONTROL SYSTEM PROVIDED BY MANUFACTURER. VERIFY VOLTAGE, CONNECTION AND WIRING WITH MANUFACTURER. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR.	16 FLA	120	1	VW UNIT	23	30A-1P	12	1/2	MONITORING OF BOILER CONTROLLERS VIA BMS BY DIV 23 93 CONTRACTOR TO INTERLOCK NEW BOILERS TO EXISTING BOILER SHUT-DOWN SWITCHES AT EVERY ENTRY TO BOILER ROOM LOCATED OUTSIDE OF ROOM. VERIFY QUANTITY & LOCATION. DIV 26 TO PROVIDE DISCONNECT IN BOILER ROOM	1	
2	MESSEMENT MECHANICAL ROOM	REPLACEMENT AIR HANDLING UNIT (AHU-2)	1	23	23	23	ENVIRO-TEC MODEL #VDD30	2000 CFM @ 2" D ESP HEATING COIL 55 F EAT, 81.7 F LAT, 118.3 MBH, 4.3 GPM 150 F FLOW / LWT (30 PD) 3K COIL, 45 F EAT, 7.08 F WBS EAT, 50.7 F, 54.6 F DB / WB LAT, 115.3 MBH HL, 8.1 MBH HW (IN 415A)	3/8" SA 1/2" SA & GA 1" HW & HW 1/2" REFRIGERANT LINESETS	BALANCE SUPPLY FAN TO 2000 CFM UNIT ASSEMBLY. ECONOMIZER W/ MOTORIZED DAMPERS SERV #13 FILTERS. WIRING BOX, GA COIL, HOT WATER COIL, AND SUPPLY FAN PROVIDE FLOW SWITCH ISOLATORS. ROUTE CONDENSATE LINE TO NEAREST FLOOR DRAIN. PROVIDE AIRFLOW MEASURING STATION. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS	9.9 MCA	240	3	VW UNIT	23	30A-3P	12	1/2	CONTROLS BY DIV 23 93 CONTRACTOR. RA SMOKE DETECTION BY DIV 26	2	
3	BOILER ROOM	HOT WATER HEATING PUMPS	2	23	23	23	BELL & GOSSETT E-1510 MODEL #2389	700 GPM @ 20' HEAD	#1 INLET & OUTLET	PROVIDE REDUCER, TRIPLE ENTRY VALVE, BOLTER, EXPANDERS & UNIT SUPPORTS WITH MECHFAME PADE. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS	7.5 HP	208	3	VFD	23	60A-3P	8	3/4	CONTROLS BY DIV 23 93 CONTRACTOR. PUMPS TO OPERATE WITH EQ #1 CONTROLLER	3	
4	BOILER ROOM	AIR & DIRT SEPARATOR	1	23	23	23	BELL & GOSSETT MODEL #CDS-5P MAG	383 GPM MAX FLOW	3" INLET & OUTLET	PROVIDE UNIT SUPPORTS & RETAIN NUTS AS PER MANUFACTURER'S INSTRUCTIONS										4	
5	BOILER ROOM	HOT WATER HEATING SYSTEM EXPANSION TANK	1	23	23	23	BELL & GOSSETT MODEL #D280	211 GALLON VOLUME, 177 GALLON ACCEPTANCE, 1040 GALLON APPROXIMATE SYSTEM VOLUME	1"2" SYSTEM CONNECTION	SYSTEM PARAMETER: 30 PSI RELIEF VALVE, 10 PSI RETAIL FILL. PROVIDE EQUIPMENT PAD. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS											5
6	BOILER ROOM	HOT WATER HEATING SYSTEM FILTER CHEMICAL FEEDER	1	23	23	23	J.S. WINDERT MODEL #F-5HD	5.8 GALLON FEEDER W/25 MICRON FILTER	3/4" INLET & OUTLET	PROVIDE UNIONS, BALL VALVES & BALANCE DEVICE TO INDUCE 5 GPM FLOW. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS											6
7	BOILER ROOM	HOT WATER HEATING SYSTEM RADIATED GLYCOL FEEDER	1	23	23	23	AXXON MODEL #RF-180	35 GALLON TANK, 24" 48" HIGH, RATED FOR 540 PSI WITH #10-12 SSA U. ALARM & MONITORING	3/4" FILL PIPING TO SYSTEM	PROVIDE 3/4" NPT RELIEF VALVE, 1/2" NPT RETAIL FILL. PROVIDE INSTRUCTIONS	0.7 AMPS	120	1	PLUG	12	1/2	23 93 CONTRACTOR TO MONITOR ON BMS. DIV 26 TO PROVIDE DISCONNECT	7			
8	AIR HANDLER ROOM	REPLACEMENT GA COIL SERVING EXISTING AHU-1	1	23	23	23	RAE CORPORATION MODEL #SE04X80-12-4-W-H-R	COOLING CAPACITY - 138 MBH HL, 403.3 MBH HW 45 F / 57 F DB / WB EAT, 55.4 F / 54.8 F LAT DB / WB 1 COIL & RINGS	VFF REFRIG. LINESETS W/ MANUFACTURER	INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS. VERIFY VOLTAGE, CONNECTION AND WIRING WITH MANUFACTURER. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR.											8
9	AIR HANDLER ROOM	REPLACEMENT GA COIL SERVING EXISTING AHU-2	1	23	23	23	RAE CORPORATION MODEL #SE030K70-12-4-W-Z-R	COOLING CAPACITY - 293.1 MBH HL, 198.8 MBH HW 45 F / 57 F DB / WB EAT, 55.2 F / 55.8 F LAT DB / WB 1 COIL & RINGS	VFF REFRIG. LINESETS W/ MANUFACTURER	INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS. VERIFY VOLTAGE, CONNECTION AND WIRING WITH MANUFACTURER. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR.											9
10	DN ROOF	DA UNIT (CU-1)	1	23	23	23	JCI MODEL #Y060005A2B443	35 TONS NOMINAL COOLING	VFF REFRIG. LINESETS W/ MANUFACTURER	INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS. VERIFY VOLTAGE, CONNECTION AND WIRING WITH MANUFACTURER. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR.	227.6 MCA	208	3	VW UNIT	23	400A-3P	300	2	1/2	CONTROLS BY DIV 23 93 93	10
11	DN ROOF	DA UNIT (CU-2)	1	23	23	23	JCI MODEL #MCR40000CB28R1	25 TONS NOMINAL COOLING	VFF REFRIG. LINESETS W/ MANUFACTURER	INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS. VERIFY VOLTAGE, CONNECTION AND WIRING WITH MANUFACTURER. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR.	123 MCA	208	3	VFD	23	200A-3P	1/0	2		CONTROLS BY DIV 23 93 93	11
12	DN GRADE	DA UNIT (CU-3)	1	23	23	23	JCI MODEL #YC12000A3D446	10 TONS NOMINAL COOLING	VFF REFRIG. LINESETS W/ MANUFACTURER	INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS. VERIFY VOLTAGE, CONNECTION AND WIRING WITH MANUFACTURER. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR. CONTROL SYSTEM SHALL BE INSTALLED AND WIRING SHALL BE VERIFIED BY THE CONTRACTOR.	54 MCA	208	3	VW UNIT	23	60A-3P	6	1		CONTROLS BY DIV 23 93 93	12



NOT FOR CONSTRUCTION

AITKEN COUNTY JAIL HVAC UPGRADES
 AITKEN COUNTY
 AITKEN, MN 56431
 ME1.2
 MECHANICAL & ELECTRICAL EQUIPMENT LIST
 2 of 2

WIDSETH
 ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

PRELIMINARY
DO NOT CON-
STRUCT
BASED ON THIS
DRAWING
DATE: 08/14/2024
DRAWN BY: [Redacted]
CHECKED BY: [Redacted]

NO.	DATE	REVISIONS	BY	CHKD.

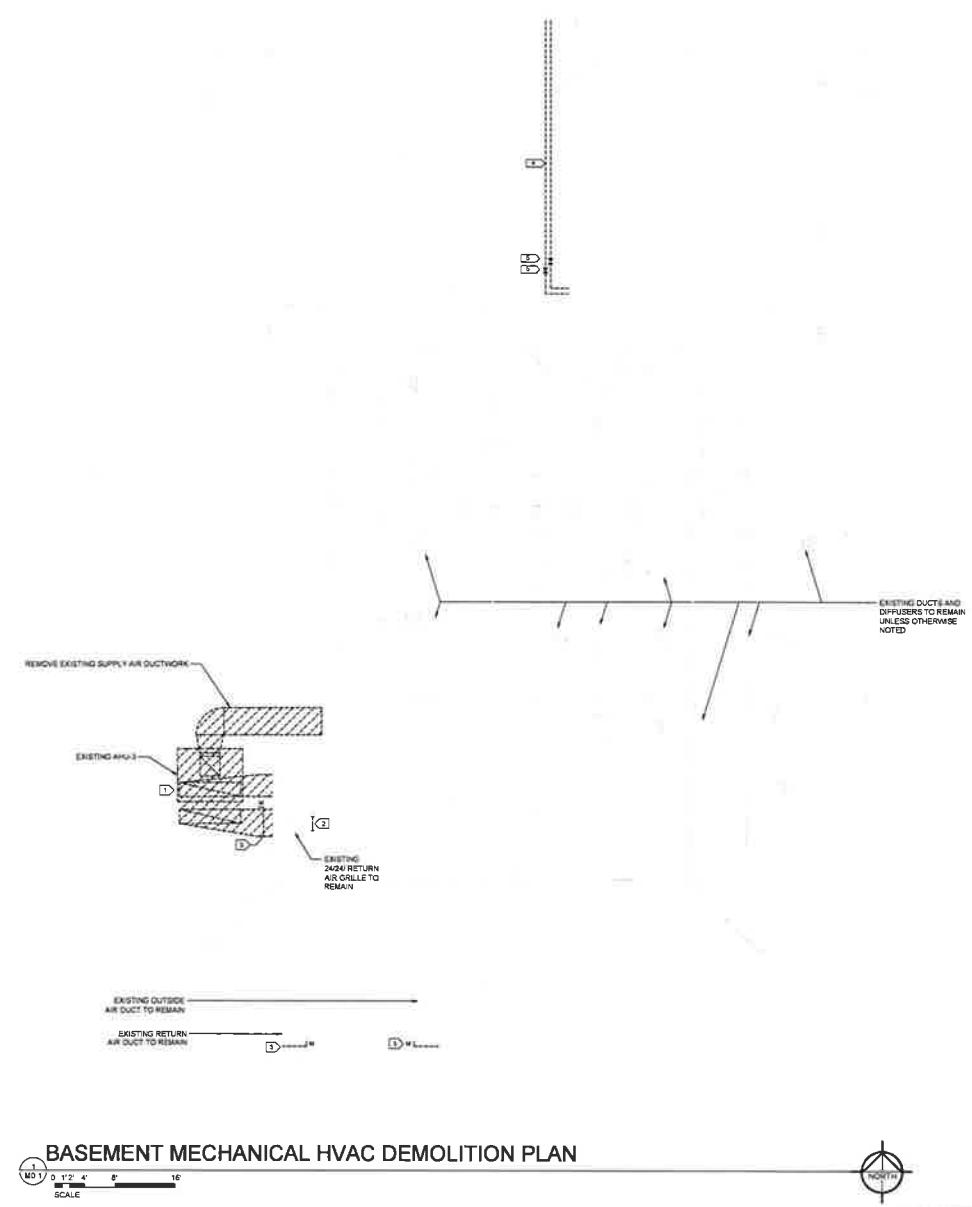
PROJECT NO.	2022-137
DATE	08/14/2024
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PROJECT: 2022-137
DATE: 08/14/2024
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NOT FOR CONSTRUCTION

AUTKIN COUNTY JAIL HVAC UPGRADES
CITY OF AUTKIN
AUTKIN, MN 56631
MECHANICAL DEMOLITION BASEMENT PLAN

SHEET NO. **MO. 1**
OF 4



BASEMENT MECHANICAL HVAC DEMOLITION PLAN

PLAN NOTES:

- 1 DISCONNECT AND REMOVE EXISTING AND RELATED OUTDOOR (SUPPLY AIR, RETURN AIR, AND OUTSIDE AIR), HOT WATER PIPING, AND CONTROL VALVES AS SHOWN AS THE HATCHED AREA IN PLAN.
- 2 DISCONNECT AND REMOVE EXISTING OUTDOOR AS SHOWN ON PLAN. CAP DUCTS WHERE SHOWN AND PREPARE FOR CONNECTION TO NEW.
- 3 DISCONNECT AND REMOVE EXISTING MOTORIZED DAMPER ACTUATORS AND RELATED CONTROLS. PREPARE DUCTWORK FOR NEW DIGITAL ACTUATORS.
- 4 DEMO EXISTING CHILLED WATER PIPING. EXISTING HWAS AND HWR TO REMAIN.
- 5 DISCONNECT AND REMOVE EXISTING SUMMERWINTER SWITCH-OVER ELECTRONIC CONTROL VALVES AND RELATED CONTROLS.

GENERAL NOTES:

- 1 CONTRACTOR SHALL COORDINATE WITH OWNER AND OTHER TRADES IN ORDER TO AVOID INTERFERENCE.
- 2 CONTRACTOR SHALL VERIFY EXISTING SIZES, FUNCTIONS, LOCATIONS AND CONDITIONS PRIOR TO BID. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES.
- 3 CONTRACTOR SHALL SUPPLY AND INSTALL NECESSARY FITTINGS AND/OR APPURTENANCES FOR THE COMPLETE INSTALLATION, OPERATION AND CONNECTION OF THE EQUIPMENT SHOWN AND/OR SPECIFIED.
- 4 MATERIALS REMOVED BY THE CONTRACTOR SHALL BE REMOVED BY THE OWNER. MATERIAL NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES. MATERIAL THE OWNER WANTS TO KEEP SHALL BE REMOVED BY THE CONTRACTOR AND STORED IN A LOCATION DETERMINED BY THE OWNER.
- 5 CONTRACTOR SHALL INSTALL EQUIPMENT, PIPING AND DUCTWORK IN SUCH A MANNER AS TO AVOID INTERFERENCE WITH THE NEW AND EXISTING EQUIPMENT AND SYSTEMS.
- 6 WHEN REMOVING EXISTING EQUIPMENT AS SHOWN AND AS NOTED, PIPING, WIRING, TUBING, DUCTWORK, AND ANY OTHER CONNECTIONS SHALL BE CAPPED AIRTIGHT BELOW FLOORS, ROOF, WELLS AND/OR ABOVE CEILING. CONCEALED TEARS NOT TO BE REPAIRED. WELLS MAY BE ABANDONED IF DISCONNECTED FROM THE SYSTEM. EXISTING EQUIPMENT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING: FURNACE/FURNACES, TEMPERATURE CONTROLS, CONTROL WIRING HVAC EQUIPMENT AND ANY OTHER DEMOLITION WORK. THE FLOORS, WALLS AND/OR CEILING SHALL BE PATCHED TO MATCH THE EXISTING CONDITIONS BY THE MECHANICAL CONTRACTOR.
- 7 OWNER SHALL PROVIDE THE DEMOLITION AREA FOR REMOVAL OF TEMPERATURE CONTROL. COMPENSATE THE REMAINING UNOCCUPIED TEMPERATURE CONTROL SYSTEM IS TO BE OPERATIONAL CONTRACTOR TO VERIFY EXISTING OPERATIONAL CONDITIONS PRIOR TO DEMOLITION.
- 8 SEE ARCHITECTURAL SEED REVIEW FOR RATED PARTITIONING. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE STOPPING ALL NEW PENETRATIONS OF FLOORS, WALLS AND CEILING AND EXISTING PENETRATIONS WHERE NEW PIPING AND DUCTWORK PASS THROUGH FIRE RATED PARTITIONS.
- 9 OPENINGS AND PENETRATIONS REQUIRED FOR INSTALLATIONS SHOWN ON THE DRAWINGS SHALL BE BY THE CONTRACTOR. PATCH AND PAINT TO MATCH EXISTING.
- 10 DUCTWORK MUST BE FIELD LEAK-TEST PRIOR TO FABRICATION.
- 11 ARCHITECTURAL REFLECTED CEILING PLAN SHALL SUPPLEMENT MECHANICAL PLANS FOR FINAL DIFFUSOR/CYLINDRICAL CEILING LOCATIONS. COORDINATE.

PRELIMINARY
DO NOT
CONSTRUCT

DATE	10/28/2022
SCALE	AS SHOWN
DRAWN BY	MM
CHECKED BY	MM
DATE	10/28/2022
SCALE	AS SHOWN
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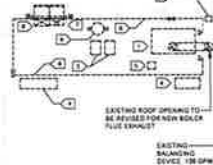
NOT FOR CONSTRUCTION

ATKIN COUNTY JAIL HVAC UPGRADES
CITY OF ATKIN
ATKIN, MN 55621
MECHANICAL DEMOLITION ROOF AND PENTHOUSE PLAN

SHEET NO.
MO.2

180 MPH CONNECTED LOAD PER 1993 PARAGRAPH

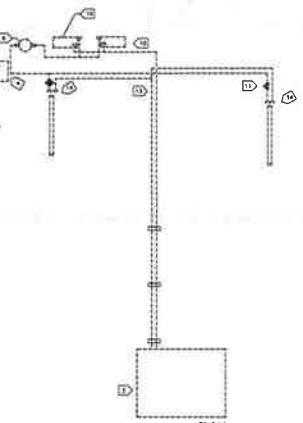
EX A-1
24 IN. 90% EFF. 2516 WHV OUTPUT



EXISTING WATER HEATER, EXPANSION TANK & COND. PUMP TO REMAIN

EXISTING BALANCING DEVICE 117 GPM

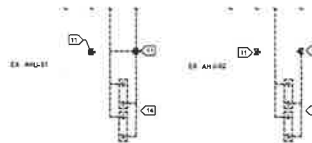
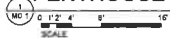
EX AHU-1 HEATING 341 WHV #1 GPM



EX AHU-2 HEATING 210 WHV 24 T GPM

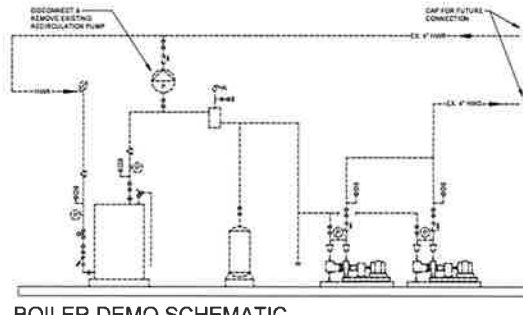
EX CH-1 120 TON COOLING 36.5 MIN. 251 MAX. GPM

PENTHOUSE / ROOF MECHANICAL DEMOLITION PLAN



AHU CONTROL VALVE DEMO SCHEMATIC

NO SCALE



BOILER DEMO SCHEMATIC

NO SCALE

MECHANICAL DEMOLITION NOTES

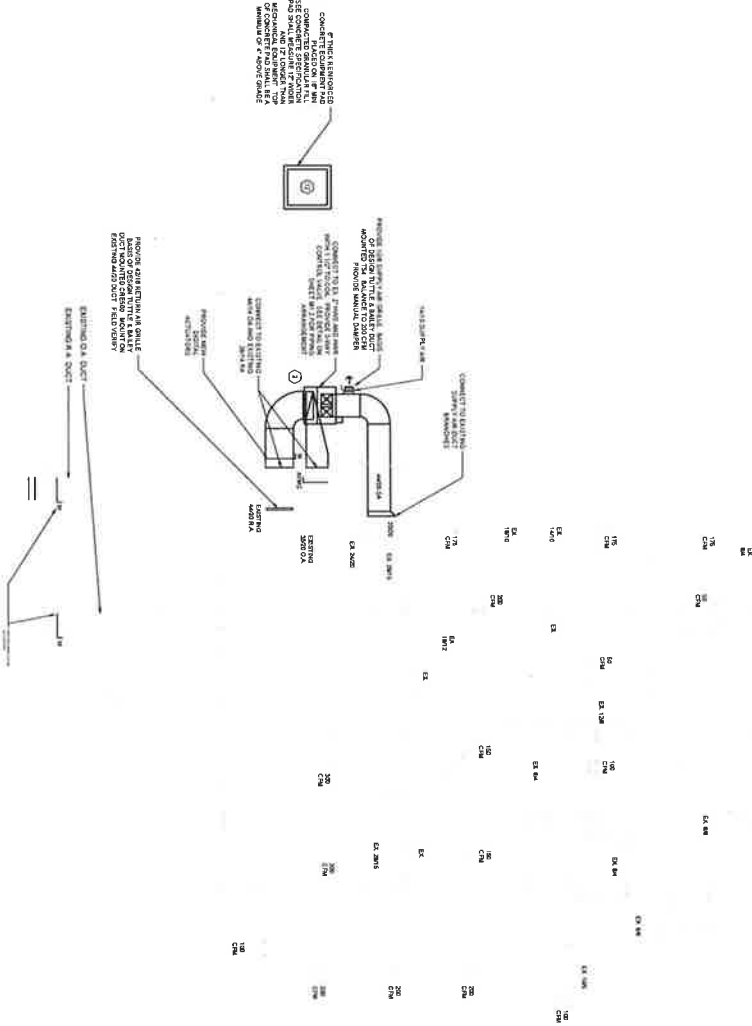
- 1 DISCONNECT & REMOVE EXISTING DUAL FUEL (LPG/NATURAL GAS BOILER, RELATED HVAC PIPING, OIL PIPING, GAS PIPING VENTING & CONTROLS)
- 2 DISCONNECT & REMOVE EXISTING CHILLER, RELATED PIPING & CONTROLS
- 3 DISCONNECT & REMOVE EXISTING HOT WATER HEATING PUMPS, RELATED PIPING & CONTROLS
- 4 DISCONNECT & REMOVE EXISTING HOT WATER / CHILLED WATER EXPANSION TANK, RELATED PIPING & APPURTENANCES
- 5 DISCONNECT & REMOVE EXISTING FUEL OIL PUMP, RELATED PIPING & CONTROLS
- 6 DISCONNECT & REMOVE EXISTING FUEL OIL PIPING AS SHOWN ON PLAN. CAP PIPING AT FLOOR
- 7 DISCONNECT & REMOVE EXISTING RELIEF AIR FAN, RELATED DUCTWORK, Louvers & CONTROLS. PATCH WALL TO MATCH EXISTING SEAL OPENING WEATHER TIGHT
- 8 DISCONNECT & REMOVE EXISTING COMBUSTION AIR INTAKE, RELATED DUCTWORK, Louvers & CONTROLS. PATCH WALL TO MATCH EXISTING SEAL OPENING WEATHER TIGHT
- 9 DISCONNECT & REMOVE EXISTING AIR SEPARATOR, RELATED PIPING & APPURTENANCES
- 10 DISCONNECT & REMOVE EXISTING CHILLED WATER PUMPS, RELATED PIPING & CONTROLS
- 11 DISCONNECT & REMOVE EXISTING CONTROL VALVE, RELATED PIPING & CONTROLS
- 12 DISCONNECT & REMOVE EXISTING BOILER PUMP, RELATED PIPING & CONTROLS
- 13 DISCONNECT & REMOVE EXISTING CHILLED WATER PIPING AS SHOWN ON PLAN. CHILLED WATER SYSTEM TO BE REMOVED IN ITS ENTIRETY
- 14 DISCONNECT & REMOVE EXISTING CHILLED WATER COIL. PREPARE AHU FOR NEW EX COIL

GENERAL NOTES:

- 1 CONTRACTOR SHALL COORDINATE WITH OWNER AND OTHER TRADES IN ORDER TO AVOID INTERFERENCE
- 2 CONTRACTOR SHALL VERIFY EXISTING SIZES, FUNCTIONS, LOCATIONS AND CONDITIONS PRIOR TO BID. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES
- 3 CONTRACTOR SHALL SUPPLY AND INSTALL NECESSARY FITTINGS AND/OR APPURTENANCES FOR THE COMPLETE INSTALLATION, OPERATION AND CONNECTION OF THE EQUIPMENT SHOWN AND/OR SPECIFIED
- 4 MATERIALS REMOVED BY THIS CONTRACTOR SHALL BE BELIEVED BY THE OWNER MATERIALS NOT WANTED BY THE OWNER SHALL REMAIN THE PROPERTY OF THIS CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES. MATERIAL THE OWNER ELECTS TO KEEP SHALL BE MOVED TO BY THE CONTRACTOR AND STORED IN A LOCATION DETERMINED BY THE OWNER
- 5 CONTRACTOR SHALL INSTALL EQUIPMENT, PIPING AND DUCTWORK IN SUCH A MANNER AS TO AVOID INTERFERENCE WITH THE NEW AND EXISTING EQUIPMENT AND SYSTEMS
- 6 WHEN REMOVING EXISTING EQUIPMENT AS SHOWN AND AS NOTED, PIPING WIRING TURNING OUTDOOR, AND ANY OTHER CONNECTIONS SHALL BE CAPPED AIRTIGHT BELOW FLOOR LEVEL. WIRING AND/OR CEILING CONCEALED ITEMS NOT TO BE REMOVED MAY BE AMOVED IF DISCONNECTED FROM THE SYSTEM. EXISTING EQUIPMENT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING: PUMPING/FILTERS, TEMPERATURE CONTROLS, CONTROL WIRING HVAC EQUIPMENT AND ANY OTHER DEMOLITION WORK. THE FLOOR WALLS AND/OR CEILING SHALL BE PATCHED TO MATCH THE EXISTING CONDITIONS BY THE MECHANICAL CONTRACTOR
- 7 UPON COMPLETION OF MODIFICATION AND/OR REMOVAL OF TEMPERATURE CONTROL COMPONENTS, THE REMAINING REMOVED TEMPERATURE CONTROL SYSTEM IS TO BE OPERATIONAL. CONTRACTOR TO VERIFY EXISTING OPERATING CONDITIONS PRIOR TO MODIFICATION
- 8 SEE ARCHITECTURAL CODE REVIEW FOR PARTIALLY PARTITIONS. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE STOPPING ALL NEW MECHANICALS ON FLOOR WALLS AND CEILING NEW ARE DURING CONSTRUCTION WHERE NEW PIPING AND DUCTWORK PASS THROUGH PARTIALLY PARTITIONS
- 9 OPENINGS AND PENETRATIONS REQUIRED FOR INSTALLATIONS SHOWN ON THE DRAWINGS SHALL BE BY THIS CONTRACTOR, MATCH AND PATCH TO MATCH EXISTING
- 10 DUCTWORK MUST BE FIELD-VERIFIED PRIOR TO FABRICATION
- 11 ARCHITECTURAL REFLECTED CEILING PLAN SHALL SUPERSEDE MECHANICAL PLANS FOR FINAL DIFFUSIBLE/GRILLE LOCATIONS. COORDINATE

BASEMENT MECHANICAL HVAC PLAN

SCALE: 1/8" = 1'-0"



TEST AND BALANCE NOTE:
 EXISTING DIFFUSERS AND REGISTER SHOWN ON PLAN CONNECTED TO MAIN DUCT TO BE BALANCED TO OWNER'S DESIGN. VERIFY FURNISHES BALANCED CURVES AND NOTIFY OWNER'S DESIGNER OF DISCREPANCY.

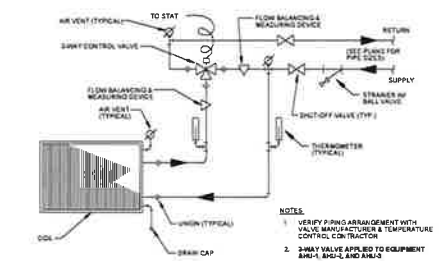
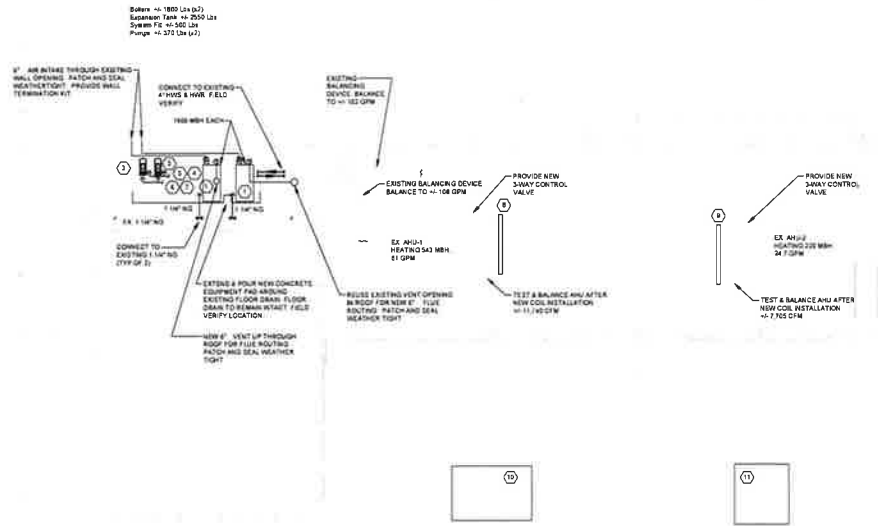
- GENERAL NOTES:**
1. CONTRACTOR SHALL VERIFY ALL REGISTER SIZES, LEAKAGE, OPERATING AND SHUT-OFF PRESSURES TO BE BALANCED TO OWNER'S DESIGN. VERIFY FURNISHES BALANCED CURVES AND NOTIFY OWNER'S DESIGNER OF DISCREPANCY.
 2. CONTRACTOR SHALL VERIFY ALL REGISTER SIZES, LEAKAGE, OPERATING AND SHUT-OFF PRESSURES TO BE BALANCED TO OWNER'S DESIGN. VERIFY FURNISHES BALANCED CURVES AND NOTIFY OWNER'S DESIGNER OF DISCREPANCY.
 3. CONTRACTOR SHALL VERIFY ALL REGISTER SIZES, LEAKAGE, OPERATING AND SHUT-OFF PRESSURES TO BE BALANCED TO OWNER'S DESIGN. VERIFY FURNISHES BALANCED CURVES AND NOTIFY OWNER'S DESIGNER OF DISCREPANCY.
 4. CONTRACTOR SHALL VERIFY ALL REGISTER SIZES, LEAKAGE, OPERATING AND SHUT-OFF PRESSURES TO BE BALANCED TO OWNER'S DESIGN. VERIFY FURNISHES BALANCED CURVES AND NOTIFY OWNER'S DESIGNER OF DISCREPANCY.
 5. CONTRACTOR SHALL VERIFY ALL REGISTER SIZES, LEAKAGE, OPERATING AND SHUT-OFF PRESSURES TO BE BALANCED TO OWNER'S DESIGN. VERIFY FURNISHES BALANCED CURVES AND NOTIFY OWNER'S DESIGNER OF DISCREPANCY.
 6. CONTRACTOR SHALL VERIFY ALL REGISTER SIZES, LEAKAGE, OPERATING AND SHUT-OFF PRESSURES TO BE BALANCED TO OWNER'S DESIGN. VERIFY FURNISHES BALANCED CURVES AND NOTIFY OWNER'S DESIGNER OF DISCREPANCY.
 7. CONTRACTOR SHALL VERIFY ALL REGISTER SIZES, LEAKAGE, OPERATING AND SHUT-OFF PRESSURES TO BE BALANCED TO OWNER'S DESIGN. VERIFY FURNISHES BALANCED CURVES AND NOTIFY OWNER'S DESIGNER OF DISCREPANCY.
 8. CONTRACTOR SHALL VERIFY ALL REGISTER SIZES, LEAKAGE, OPERATING AND SHUT-OFF PRESSURES TO BE BALANCED TO OWNER'S DESIGN. VERIFY FURNISHES BALANCED CURVES AND NOTIFY OWNER'S DESIGNER OF DISCREPANCY.
 9. CONTRACTOR SHALL VERIFY ALL REGISTER SIZES, LEAKAGE, OPERATING AND SHUT-OFF PRESSURES TO BE BALANCED TO OWNER'S DESIGN. VERIFY FURNISHES BALANCED CURVES AND NOTIFY OWNER'S DESIGNER OF DISCREPANCY.
 10. CONTRACTOR SHALL VERIFY ALL REGISTER SIZES, LEAKAGE, OPERATING AND SHUT-OFF PRESSURES TO BE BALANCED TO OWNER'S DESIGN. VERIFY FURNISHES BALANCED CURVES AND NOTIFY OWNER'S DESIGNER OF DISCREPANCY.
 11. CONTRACTOR SHALL VERIFY ALL REGISTER SIZES, LEAKAGE, OPERATING AND SHUT-OFF PRESSURES TO BE BALANCED TO OWNER'S DESIGN. VERIFY FURNISHES BALANCED CURVES AND NOTIFY OWNER'S DESIGNER OF DISCREPANCY.

NOT FOR CONSTRUCTION

NO.	DATE	REVISION DESCRIPTION

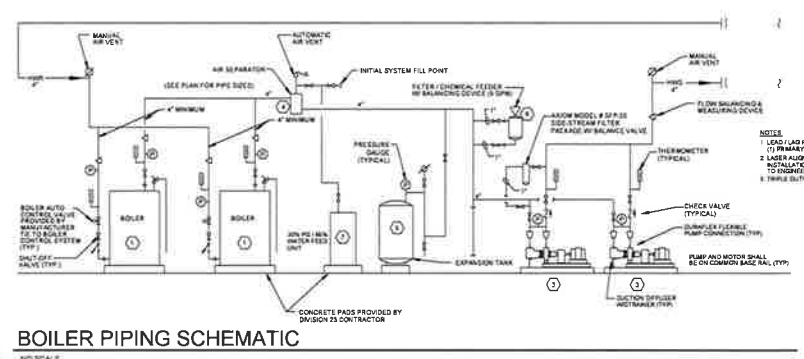
PRELIMINARY
 CONTRACT DOCUMENTS
 NOT FOR CONSTRUCTION

WIDSETH ARCHITECTS + ENGINEERS + SCIENTISTS + SURVEYORS

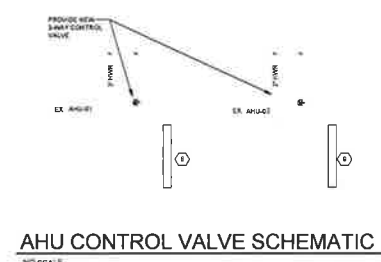


3-WAY VALVE HOT WATER COIL DETAIL
NO SCALE

PENTHOUSE / ROOF MECHANICAL PLAN
SCALE: 1/8" = 1'-0"



BOILER PIPING SCHEMATIC
NO SCALE



AHU CONTROL VALVE SCHEMATIC
NO SCALE

- GENERAL NOTES:**
- CONTRACTOR SHALL COORDINATE WITH OWNER AND OTHER TRADES IN ORDER TO AVOID INTERFERENCES
 - CONTRACTOR SHALL VERIFY EXISTING CONDITIONS, LOCATION AND CONDITIONS PRIOR TO BID. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES
 - CONTRACTOR SHALL SUPPLY AND INSTALL NECESSARY FITTINGS AND/OR APPURTENANCES FOR THE COMPLETE INSTALLATION, OPERATION AND CONNECTION OF THE EQUIPMENT SHOWN, UNLESS SPECIFIED
 - MATERIALS REMOVED BY THIS CONTRACTOR SHALL BE RECEIVED BY THE OWNER. MATERIAL NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THIS CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES. MATERIAL THE OWNER ELICTS TO KEEP SHALL BE MOVED TO BY THIS CONTRACTOR AND STORED IN A LOCATION DETERMINED BY THE OWNER.
 - CONTRACTOR SHALL INSTALL EQUIPMENT, PIPING AND DUCTWORK IN SUCH A MANNER AS TO AVOID INTERFERENCES WITH THE NEW AND EXISTING EQUIPMENT AND SYSTEMS
 - WHEN REMOVING EXISTING EQUIPMENT AS SHOWN AND AS NOTED, PIPING, WIRING, TUBING, DUCTWORK, AND ANY OTHER CONNECTIONS SHALL BE CAPED AT A POINT BELOW FLOOR LEVEL. FLOOR WALLS, INSULATION, CEILING, CONCEALED ITEMS NOT TO BE REUSED UNLESS ABANDONED & DISCONNECTED FROM THE SYSTEM. EXISTING EQUIPMENT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING: FURNACES, FURNITURE, TEMPERATURE CONTROLS, CONTROL WIRING, HVAC EQUIPMENT AND ANY OTHER DEMOLITION WORK. THE FLOORS, WALLS AND/OR CEILING SHALL BE PATCHED TO MATCH THE EXISTING CONDITIONS BY THE MECHANICAL CONTRACTOR
 - UPON COMPLETION OF MODIFICATION AND/OR REMOVAL OF TEMPORARILY IDENTIFIED COMPONENTS, THE REMAINING MODIFIED TEMPORARY CONTROL SYSTEM IS TO BE OPERATIONAL. CONTRACTOR TO VERIFY EXISTING OPERATING CONDITIONS PRIOR TO MODIFICATION
 - SEE ARCHITECTURAL LAYOUT REVIEW FOR NOTED PARTITIONS. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE STOPPING ALL NEW PENETRATIONS OF FLOORS, WALLS AND CEILING AND EXISTING CONSTRUCTION WHERE NEW PIPING AND DUCTWORK PASS THROUGH FIRE RATED PARTITIONS
 - EXPENSE AND PENETRATIONS REQUIRED FOR INSTALLATIONS SHOWN ON THE DRAWINGS SHALL BE BY THIS CONTRACTOR, PATCH AND PAINT TO MATCH EXISTING
 - DUCTWORK SHALL BE SEAL-TESTED PRIOR TO COMPLETION
 - ARCHITECTURAL REFLECTED CEILING PLAN SHALL SUPERSEDE MECHANICAL PLANS FOR FINAL DISPERSEMENT. CEILING LOCATIONS COORDINATE

WIDSETH
ARCHITECTS • ENGINEERS • SCIENTISTS • SURVEYORS

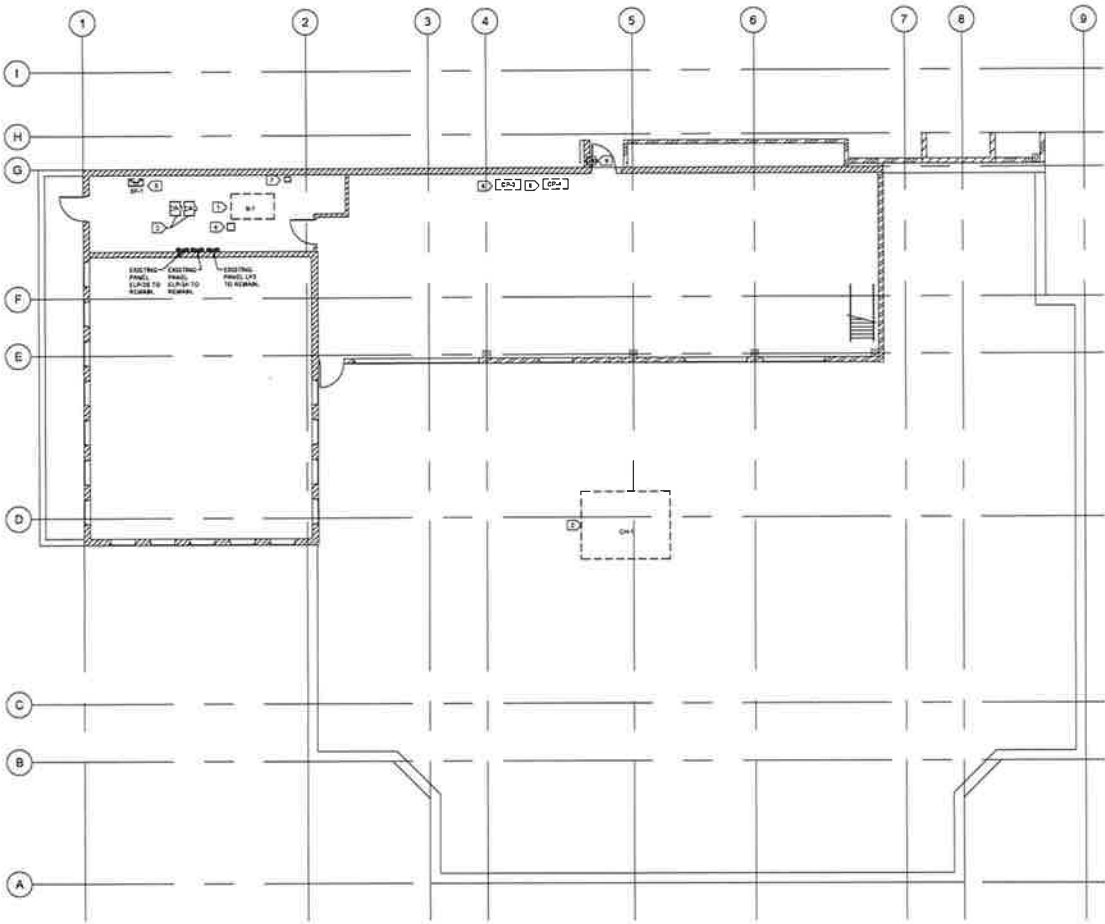
PRELIMINARY
DO NOT CONSTRUCT
DATE: 05/11/2023

NOT FOR CONSTRUCTION

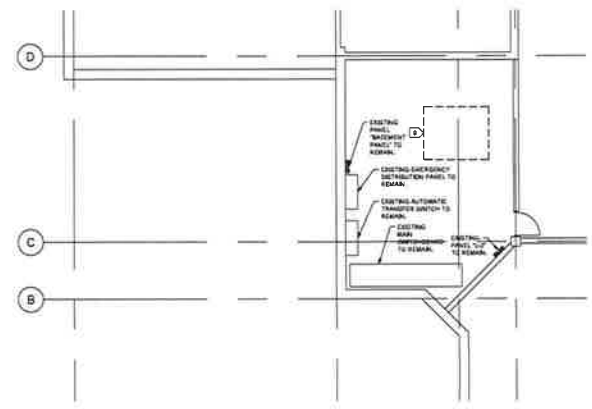
ATKIN COUNTY JAIL HVAC UPGRADES
CITY OF ATKIN
ATKIN, MN 56431
MECHANICAL ROOF AND PENTHOUSE PLAN

DATE	DESCRIPTION	BY	APP. NUMBER
05/11/2023	ISSUE FOR PERMIT	WIDSETH	2023-117
05/11/2023	ISSUE FOR PERMIT	WIDSETH	2023-117
05/11/2023	ISSUE FOR PERMIT	WIDSETH	2023-117
05/11/2023	ISSUE FOR PERMIT	WIDSETH	2023-117
05/11/2023	ISSUE FOR PERMIT	WIDSETH	2023-117
05/11/2023	ISSUE FOR PERMIT	WIDSETH	2023-117
05/11/2023	ISSUE FOR PERMIT	WIDSETH	2023-117
05/11/2023	ISSUE FOR PERMIT	WIDSETH	2023-117
05/11/2023	ISSUE FOR PERMIT	WIDSETH	2023-117

SHEET 4 OF 4



PENTHOUSE/ROOF ELECTRICAL DEMOLITION PLAN



BASEMENT ELECTRICAL DEMOLITION PLAN



GENERAL NOTES (DEMOLITION)

1. ALL DEVICES SHOWN ON DEMOLITION DRAWINGS ARE TO BE DISCONNECTED FROM ELECTRICAL POWER AND REMOVED UNLESS NOTED OTHERWISE THIS SHEET ONLY. REMOVE ALL CONDUIT AND WIRING NOT REUSED.
2. ELECTRICAL INFORMATION SHOWN ON THESE PLANS HAS BEEN COMPILED FROM PREVIOUS CONSTRUCTION DRAWINGS AND JOB SITE OBSERVATION AND IS INCLUDED FOR THE CONTRACTOR'S INFORMATION ONLY. THE INFORMATION SHALL NOT BE CONSIDERED AS A GUARANTEE THAT THE SYSTEMS WERE AS INSTALLED AS SHOWN. THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND MAKE MODIFICATIONS AS NECESSARY TO COMPLETE THE WORK AS SHOWN ON THE PLANS AND IN THE SPECIFICATIONS.
3. CONTRACTOR SHALL VERIFY ALL EXISTING SETS, FUNCTIONAL AND LOCATION PRIOR TO BEGINNING WORK.
4. CONTRACTOR SHALL DISCONNECT AND REMOVE ALL ELECTRICAL DEVICES IN EXISTING WALLS BEING REMOVED. DEVICES INCLUDE, BUT ARE NOT LIMITED TO, RECEPTACLES, SWITCHES, FIRE ALARM SYSTEM, EXIT LIGHT SYSTEM, EXISTING WIRING AND CONDUIT. ELECTRICAL CONTRACTOR SHALL RECONNECT DOWN LINE DEVICES AFFECTED BY THESE REMOVALS. EXISTING ALL WIRING AND/OR RACEWAYS WHERE NECESSARY. EXISTING CONDUIT AND/OR WIRING SHALL BE REMOVED AND/OR DISCONNECTED CONDUIT AND/OR WIRING AND DISCONNECT FROM SOURCE.
5. ALL MATERIALS REMOVED BY THE CONTRACTOR SHALL BE REMOVED BY THE OWNER. MATERIAL NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PREMISES. MATERIAL THE OWNER ELECTS TO KEEP SHALL BE STORED BY THE OWNER.
6. CONTRACTOR SHALL REMOVE ALL EXISTING EXPOSED CONDUIT NOT BEING USED. CUT OFF CONDUIT AT LEAST 6" ABOVE CONCRETE. VERIFY REMOVAL WITH THE OWNER. REMOVE ALL EXISTING WIRING NOT BEING REUSED.
7. CONTRACTOR SHALL VERIFY ALL CONDUIT AND SUPPORTS BEING REUSED MEET CURRENT CODE AND PROJECT SPECIFICATIONS INCLUDING HANGING METHODS.
8. THE FLOORING SHALL AND CEILING SHALL BE FINISHED TO MATCH EXISTING CONDITIONS.
9. FINISHES OF BASED FLOOR, WALLS AND CEILING SHALL BE FIRST STOPPED. SEE ARCHITECTURAL PLANS FOR FINISHES.

ELECTRICAL DEMOLITION NOTES:

- DISCONNECT EXISTING DUAL FUEL, OIL/NATURAL GAS BOILERS TO BE REMOVED. SEE MECHANICAL. DISCONNECT & REMOVE ANY ELECTRICAL COMPONENTS NOT BEING REUSED.
- DISCONNECT EXISTING CHILLER TO BE REMOVED. SEE MECHANICAL. DISCONNECT & REMOVE ANY ELECTRICAL COMPONENTS NOT BEING REUSED.
- DISCONNECT EXISTING HOT WATER HEATING PUMPS TO BE REMOVED. SEE MECHANICAL. DISCONNECT & REMOVE ANY ELECTRICAL COMPONENTS NOT BEING REUSED.
- DISCONNECT EXISTING FUEL OIL PUMP TO BE REMOVED. SEE MECHANICAL. DISCONNECT & REMOVE ANY ELECTRICAL COMPONENTS NOT BEING REUSED.
- DISCONNECT EXISTING RILIER AIR FAN TO BE REMOVED. SEE MECHANICAL. DISCONNECT & REMOVE ANY ELECTRICAL COMPONENTS NOT BEING REUSED.
- DISCONNECT EXISTING CHILLED WATER PUMPS TO BE REMOVED. SEE MECHANICAL. DISCONNECT & REMOVE ANY ELECTRICAL COMPONENTS NOT BEING REUSED.
- DISCONNECT EXISTING BOILER PUMP TO BE REMOVED. SEE MECHANICAL. DISCONNECT & REMOVE ANY ELECTRICAL COMPONENTS NOT BEING REUSED.
- DISCONNECT & REMOVE EXISTING EMERGENCY BOILER SHUTOFF.
- DISCONNECT EXISTING AIR HANDLER TO BE REMOVED. SEE MECHANICAL. DISCONNECT AND REMOVE ANY ASSOCIATED ELECTRICAL COMPONENTS NOT TO BE REUSED.

WIDSETH
 ARCHITECTS • ENGINEERS • SURVEYORS

NOT FOR CONSTRUCTION

ATKIN COUNTY JAIL HVAC UPGRADES
 CITY OF ATKIN
 ATKIN, MN 56011
 ELECTRICAL DEMOLITION PLAN
 SHEET 5 OF 2

NO.	DATE	DESCRIPTION	BY	CHKD BY
1	10/20/20	ISSUED FOR PERMIT	AW	
2	11/15/20	REVISED PER CITY OF ATKIN COMMENTS	AW	
3	12/15/20	REVISED PER CITY OF ATKIN COMMENTS	AW	
4	01/15/21	REVISED PER CITY OF ATKIN COMMENTS	AW	
5	02/15/21	REVISED PER CITY OF ATKIN COMMENTS	AW	
6	03/15/21	REVISED PER CITY OF ATKIN COMMENTS	AW	
7	04/15/21	REVISED PER CITY OF ATKIN COMMENTS	AW	
8	05/15/21	REVISED PER CITY OF ATKIN COMMENTS	AW	
9	06/15/21	REVISED PER CITY OF ATKIN COMMENTS	AW	
10	07/15/21	REVISED PER CITY OF ATKIN COMMENTS	AW	
11	08/15/21	REVISED PER CITY OF ATKIN COMMENTS	AW	
12	09/15/21	REVISED PER CITY OF ATKIN COMMENTS	AW	
13	10/15/21	REVISED PER CITY OF ATKIN COMMENTS	AW	
14	11/15/21	REVISED PER CITY OF ATKIN COMMENTS	AW	
15	12/15/21	REVISED PER CITY OF ATKIN COMMENTS	AW	

PROJECT NO. 2020-117
 SHEET NO. EQ.1
 DATE:

GENERAL NOTES (APPLIES TO ALL ELECTRICAL SHEETS)

- FOR EXACT LOCATIONS OF ALL WALL MOUNTED DEVICES, REFER TO ARCHITECTURAL INTERIOR ELEVATIONS. FOR CEILING MOUNTED DEVICES, SEE ARCHITECTURAL REFLECTED CEILING PLANS, RECEPTACLE & DATA OUTLET AND/OR RECEPTACLE & AV OUTLET PANELS LOCATED IN THE GENERAL VICINITY OF EACH OTHER ON THE PLANS ARE TO BE POSITIONED ADJACENT TO ONE ANOTHER ON THE WALL.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE RACEWAY INSTALLATIONS WITH ALL OTHER TRADES TO ENSURE CLEARANCE & ACCESSIBILITY OF MECHANICAL EQUIPMENT & CEILING ACCESS POINTS ARE MAINTAINED. RACEWAY INCLUDES CONDUITS, WIRE-WAYS, ETC.
- OPENINGS AROUND ELECTRICAL PENETRATIONS THROUGH FIRE RESISTIVE RATED WALLS, PARTITIONS, FLOORS, OR CEILING SHALL BE FIRE STOPPED USING APPROVED METHODS TO MAINTAIN FIRE RESISTIVE RATINGS.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY FRAMING, PATCHING, AND PAINTING TO MATCH EXISTING CONDITIONS IN AREAS BEING REWORKED WHERE NEW DEVICES/STRUCTURES ARE BEING INSTALLED AT EXISTING DEVICES/STRUCTURE LOCATIONS.
- MINIMUM WIRE SIZE FOR BRANCH CIRCUIT HOME-RUNS BASED ON 20 AMP CIRCUIT SHALL BE AS FOLLOWS:
OVER 50 SHALL BE #10 AWG. UNLESS NOTED
OVER 100 SHALL BE #8 AWG. UNLESS NOTED
OVER 150 SHALL BE #6 AWG. UNLESS NOTED
OVER 250 SHALL BE #4 AWG. UNLESS NOTED
- PROVIDE (1) NEUTRAL FOR EACH CIRCUIT. MULTI WIRE HANDLE TIES ARE NOT ALLOWED.
- WHERE CABLE TRAY PASSES THROUGH RATED WALLS, PROVIDE STEADY PATH.
- WHERE ELECTRICAL DEVICES ARE LOCATED, PRE-CAST CONCRETE WALLS LOCATE ROUGHINGS DURING THE MANUFACTURING/CASTING OF THE WALLS AT THE FACTORY. COORDINATE WITH MANUFACTURER & GENERAL CONTRACTOR.
- WHERE PRACTICAL AND COMPLIANT WITH ALL RELEVANT CODE, THE CONTRACTOR IS PERMITTED TO REUSE EXISTING WIRE, CONDUIT, STARTERS AND DISCONNECTS.

ELECTRICAL CONSTRUCTION NOTES:

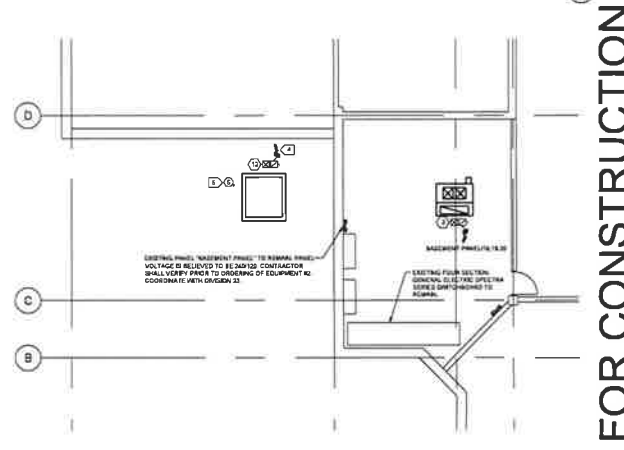
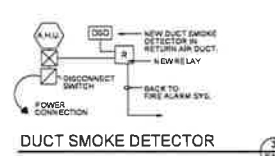
- ⊠ VERIFY EXISTING RECEPTACLES, COORDINATE EQUIPMENT LOCATION WITH DESIGNER.
- ⊡ CONNECT TO MSB, PROVIDE 400A-3P DISCONNECT.
- ⊢ CONNECT TO MSB, PROVIDE 400A-3P DISCONNECT.
- ⊣ CONNECT TO MSB, PROVIDE 400A-3P DISCONNECT.
- ⊤ SEE DUCT SMOKE DETECTOR DETAIL.
- ⊥ SEE DUCT SMOKE DETECTOR VERIFY LOCATION.

PANEL ELP-3B SCHEDULE

TYPE	LOAD	WATTS	BRKR	PH	A	B	C	BRKR	WATTS	LOAD
1	1000	1000								
2	1000	1000								
3	1000	1000								
4	1000	1000								
5	1000	1000								
6	1000	1000								
7	1000	1000								
8	1000	1000								
9	1000	1000								
10	1000	1000								
11	1000	1000								
12	1000	1000								
13	1000	1000								
14	1000	1000								
15	1000	1000								
16	1000	1000								
17	1000	1000								
18	1000	1000								
19	1000	1000								
20	1000	1000								

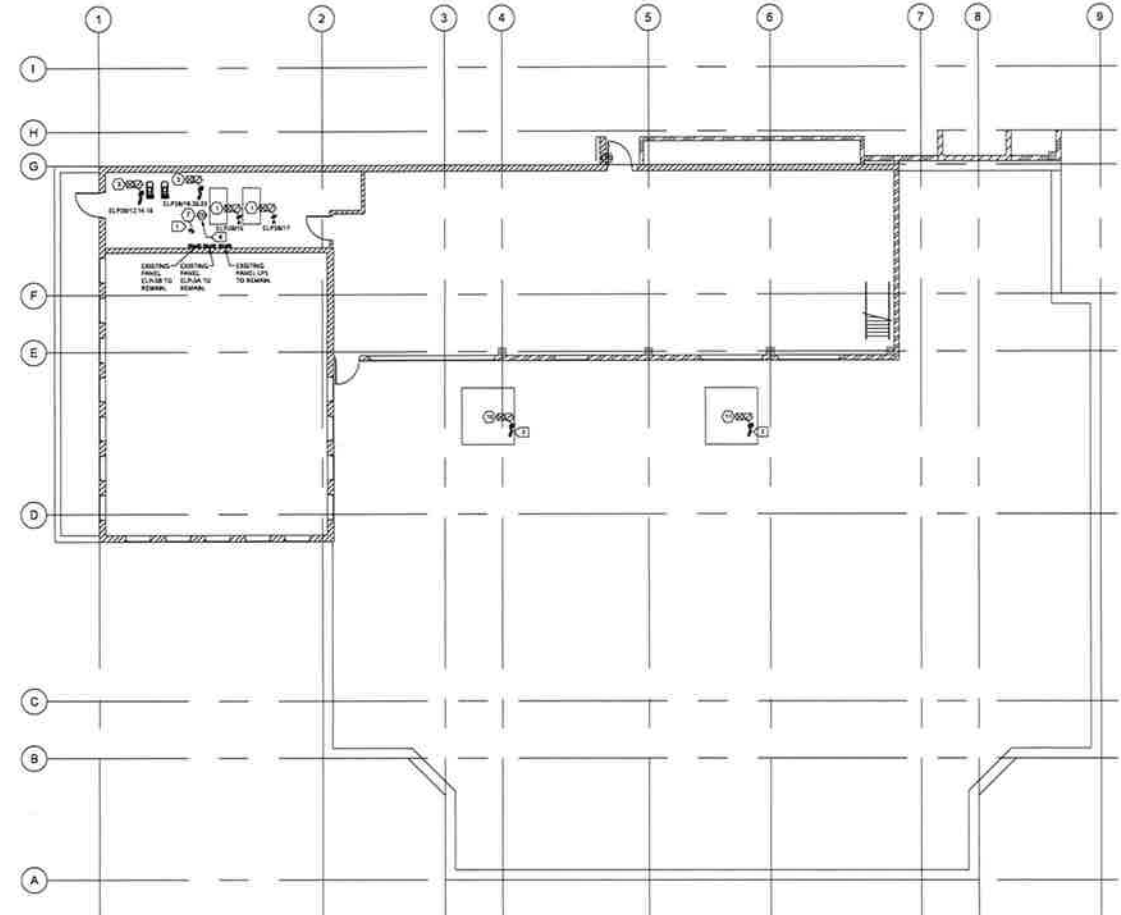
PANEL "BASEMENT PANEL" SCHEDULE

TYPE	LOAD	WATTS	BRKR	PH	A	B	C	BRKR	WATTS	LOAD
1	1000	1000								
2	1000	1000								
3	1000	1000								
4	1000	1000								
5	1000	1000								
6	1000	1000								
7	1000	1000								
8	1000	1000								
9	1000	1000								
10	1000	1000								
11	1000	1000								
12	1000	1000								
13	1000	1000								
14	1000	1000								
15	1000	1000								
16	1000	1000								
17	1000	1000								
18	1000	1000								
19	1000	1000								
20	1000	1000								



BASEMENT ELECTRICAL PLAN

0 1' 2' 4' 8' 16'
SCALE



PENTHOUSE/ROOF ELECTRICAL PLAN

0 2' 4' 8' 16'
SCALE

