LOUVER SCHEDULE

REMARKS:
1. LOUVER SHALL BE CUSTOM COLOR SELECTED BY ARCHITECT DURING SUBMITTAL PROCESS.
2. OR ENGINEER APPROVED EQUIVALENT.

MARK	AREA SERVED	AIR FLOW (CFM)	DIMENSIONS H	DIMENSIONS W	DIMENSIONS D	MAX FREE AREA (%)	FREE AREA VELOCITY (FPM)	PRESSURE DROP (WG)	DESIGN BASIS	REMARKS
L-1	BOILER ROOM	70	12"	12"	6"	49	350	0.02	GREENHECK ESD-635	1,2

FAN SCHEDULE

REMARKS:
1. PROVIDE MANUFACTURER'S FACTORY-MOUNTED DISCONNECT SWITCH.
2. OR ENGINEER APPROVED EQUIVALENT.

MARK	FAN TYPE	CFM	ESP (IN WG)	MOTOR DATA BHP	MOTOR DATA HP	MOTOR DATA RPM	MOTOR DATA DRIVE	ELECTRICAL DATA VOLTS	ELECTRICAL DATA PHASE	DAMPER TYPE	DESIGN BASIS	REMARKS
EF-1	INLINE	70	0.3	0.02	1/15	1538	DIRECT	115	1	MOTORIZED	GREENHECK SQ-80-VG	1,2

UNIT HEATER SCHEDULE - ELECTRIC

REMARKS:
1. PROVIDE WITH DISCONNECT SWITCH.
2. PROVIDE WITH BUILT-IN THERMOSTAT WITH TAMPER PROOF COVER.
3. UNIT TO BE SURFACE MOUNTED. PROVIDE MANUFACTURER'S SURFACE MOUNTED FRAME.

MARK	CFM	ELECTRICAL DATA KW	VOLTS	PHASE	FLA	DESIGN BASIS	REMARKS
EUH-1	100	1.5	208	1	7.2	QMARK VFK151F	1,2,3
EUH-2	100	2	208	1	9.6	QMARK VFK204F	1,2,3
EUH-3	100	3	208	1	14.4	QMARK VFK304F	1,2,3
EUH-4	100	4	208	1	19.2	QMARK VFK408F	1,2,3

AIR SEPARATOR SCHEDULE

REMARKS:
1. OR ENGINEER PRE-APPROVED EQUIVALENT

MARK	SYSTEM SERVED	SIZE (IN)	CAPACITY (GPM)	STRAINER (Y/N)	MAX PD (FT)	MINIMUM AIR REMOVAL (%)	DESIGN BASIS	REMARKS
AS-1	HEATING WATER	4"	300	N	1	99	B&G ROLAIRTROL RL-4F	1

MECHANICAL PIPING EXPANSION TANK SCHEDULE

REMARKS:
1. OR ENGINEER PRE-APPROVED EQUIVALENT

MARK	SYSTEM SERVED	TYPE	TANK CAPACITY (GAL)	ACCEPTANCE CAPACITY (GAL)	RELIEF VALVE RELIEF AT (PSI)	RELIEF VALVE FILL AT (PSI)	DESIGN BASIS	REMARKS
ET-1	HEATING WATER	BLADDER	106	106	100	30	GRUNDFOS GNLA-400	1

MECHANICAL PUMP SCHEDULE

REMARKS:
1. OR ENGINEER PRE-APPROVED EQUIVALENT.
2. VFD TO BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.

MARK	SYSTEM SERVED	TYPE	GPM	HEAD (FT)	SHUTOFF HEAD (FT)	MOTOR DATA HP	MOTOR DATA BHP	MOTOR DATA RPM	ELECTRICAL DATA VOLTS	ELECTRICAL DATA PHASE	DESIGN BASIS	REMARKS
HWP-1	HEATING WATER	END SUCTION	190	80	88.9	7.5	5.46	1770	208	3	GRUNDFOS 020-110-4P	1,2
HWP-2	HEATING WATER	END SUCTION	190	80	88.9	7.5	5.46	1770	208	3	GRUNDFOS 020-110-4P	1,2

UNIT HEATER SCHEDULE - HOT WATER

REMARKS:
1. OR ENGINEER PRE-APPROVED EQUIVALENT.
2. TO BE INSTALLED WITH FACTORY MOUNTED DISCONNECT
3. PROVIDE ALL PUHS WITH 3-WAY VALVE. SEE DETAILS.

MARK	CFM	EWT (°F)	LWT (°F)	EAT (°F)	LAT (°F)	MBH	GPM	MAX PD (FT)	MOUNTING HEIGHT (FT)	FAN MOTOR DATA HP	FAN MOTOR DATA VOLTS	FAN MOTOR DATA PHASE	DESIGN BASIS	REMARKS
PUH-1	2010	180	160	60	92	71.7	7.17	0.6	8'-0"	1/12	208	1	MODINE HC-108	1,2,3
PUH-2	370	180	160	60	94	13.9	1.39	0.8	8'-0"	1/25	208	1	MODINE HC-24	1,2,3
PUH-3	730	180	160	60	93	26.5	2.65	0.4	8'-0"	1/12	208	1	MODINE HC-47	1,2,3
PUH-4	1120	180	160	60	92	39.1	3.91	0.6	8'-0"	1/12	208	1	MODINE HC-63	1,2,3
PUH-5	730	180	160	60	93	51.6	5.16	0.4	8'-0"	1/12	208	1	MODINE HC-86	1,2,3

UNIT HEATER SCHEDULE - HOT WATER - EXISTING

REMARKS:
1. EXISITNG PUH TO BE REUSED AND CONVERTED TO HW.
2. CONTRACTOR TO PROVIDE CONVERSION KITS AND CONTROLS FOR HW.
3. PROVIDE ALL PUHS WITH 3-WAY VALVE. SEE DETAILS.

MARK	AREA SERVED	CFM	EWT (°F)	LWT (°F)	EAT (°F)	LAT (°F)	MBH	GPM	MOUNTING HEIGHT (FT)	FAN MOTOR DATA HP	FAN MOTOR DATA VOLTS	FAN MOTOR DATA PHASE	DESIGN BASIS	REMARKS
PUH-101	101	750	180	160	60	96	29.8	3	7'-0"	1/20	208	1	DAYTON 5PV46A	1,2,3
PUH-112	112	750	180	160	60	96	29.8	3	7'-0"	1/20	208	1	DAYTON 5PV48A	1,2,3
PUH-116A	116A	750	180	160	60	96	29.8	3	7'-0"	1/20	208	1	DAYTON 5PV46A	1,2,3
PUH-B01	B01	750	180	160	60	96	29.8	3	7'-0"	1/20	208	1	DAYTON 5PV46	1,2,3
PUH-B05	B05	750	180	160	60	96	29.8	3	7'-0"	1/20	208	1	DAYTON 5UT21	1,2,3
PUH-B16	B16 SHOP	900	180	160	60	97	37.4	3.75	7'-0"	1/20	208	1	DAYTON 5PV48A	1,2,3
PUH-B29	B29	450	180	160	60	90	14.9	1.5	7'-0"	16W	208	1	DAYTON 3DUF7	1,2,3

FIN TUBE RADIATION SCHEDULE - HYDRONIC

REMARKS:
1. OR ENGINEER PRE-APPROVED EQUIVALENT.
2. PROVIDE WITH 3-WAY VALVE. SEE DETAILS.
3. ELEMENT IS BARE. NO ENCLOSURE FOR THIS FIN TUBE. COVER TO BE INSTALLED OVER EXISTING CABINET.
4. ENCLOSURE TO BE PROVIDED WITH END CAPS.
5. ELEMENT AND ENCLOSURE TO BE CEILING MOUNTED

MARK	CAPACITY (MBH)	EWT (°F)	LWT (°F)	GPM	TUBE SIZE (IN)	NUMBER OF TUBES OR ROWS	ELEMENT LENGTH (FT)	EAT (°F)	HEATING COIL FIN DATA FIN HEIGHT (IN)	HEATING COIL FIN DATA FIN WIDTH (IN)	HEATING COIL FIN DATA FINS PER FOOT	ENCLOSURE LENGTH	ENCLOSURE DEPTH	ENCLOSURE HEIGHT	DESIGN BASIS	REMARKS
FT-1	6	180	168	1	0.75	3	3'-0"	65	4 1/4"	4 1/4"	48	0"	0"	0"	ZEHNDER-RITTLING 'BARE' COPPER TUBE-ALUMINUM FIN	1,3
FT-2	5.5	180	174	1.8	1.25	3	2'-4 51/64"	65	4 1/4"	4 1/4"	48	0"	0"	0"	ZEHNDER-RITTLING 'BARE' COPPER TUBE-ALUMINUM FIN	1,3
FT-3	5.9	180	160	0.6	0.75	1	6'-0"	65	4 1/4"	4 1/4"	48	6'-6"	4 1/2"	4 1/2"	ZEHNDER-RITTLING EXO COPPER TUBE-ALUMINUM FIN	1,4,5
FT-4	12.3	180	160	1.2	0.75	2	7'-6"	65	4 1/4"	4 1/4"	48	8'-0"	4 1/2"	10 1/2"	ZEHNDER-RITTLING EXO COPPER TUBE-ALUMINUM FIN	1,4,5
FT-5	9.2	180	160	0.9	0.75	3	4'-0"	65	4 1/4"	4 1/4"	48	4'-6"	5 3/8"	2'-0"	ZEHNDER-RITTLING FF COPPER TUBE-ALUMINUM FIN	1,4
FT-6	6.9	180	160	0.7	0.75	3	3'-0"	65	4 1/4"	4 1/4"	48	3'-6"	5 3/8"	2'-0"	ZEHNDER-RITTLING FF COPPER TUBE-ALUMINUM FIN	1,2,4
FT-7	15.4	180	160	1.5	0.75	3	6'-6"	65	4 1/4"	4 1/4"	48	7'-0"	5 3/8"	2'-0"	ZEHNDER-RITTLING FF COPPER TUBE-ALUMINUM FIN	1,4

FIRE-TUBE BOILER SCHEDULE - HOT WATER

REMARKS:
1. OR ENGINEER PRE-APPROVED EQUIVALENT.
2. DISCONNECT TO BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR

MARK	INPUT (MBH)	OUTPUT (MBH)	MIN GAS PRESSURE REQUIRED(IN)	EFFICIENCY (%)	EWT (°F)	LWT (°F)	GPM	MAX PD (FT)	FUEL TYPE	INLET FUEL PRESSURE (IN)	TURNDOWN RATIO	OPERATING PRESSURE (PSIG)	MAX DIMENSIONS MAX HEIGHT	MAX DIMENSIONS MAX LENGTH	MAX DIMENSIONS MAX WIDTH	ELECTRICAL DATA VOLTS	ELECTRICAL DATA PHASE	ELECTRICAL DATA FLA	ELECTRICAL DATA MCA	ELECTRICAL DATA MOCP	DESIGN BASIS	REMARKS
BLR-1	1500	1305	4	87	160	180	205	7	NG	14	20:1	160	6'-6"	2'-4"	3'-8"	120	1	16	20	30	AERCO BMK-1500	1,2
BLR-2	1500	1305	4	87	160	180	205	7	NG	14	20:1	160	6'-6"	2'-4"	3'-8"	120	1	16	20	30	AERCO BMK-1500	1,2

PLUMBING FIXTURE SCHEDULE

FLOOR DRAIN (FD):
FIXTURE: 3" ZURN Z-415-B SERIES, CAST IRON, MEMBRANE CLAMP, FLASHING COLLAR, WEEP HOLES, HUB OUTLET WITH GASKETED CONNECTION, 5" DIA ADJUSTABLE NICKEL BRONZE STRAINER, VANDAL-PROOF. SET TOP OF STRAINER FLUSH WITH FINISHED FLOOR. PROVIDE DEEP SEAL P-TRAP

BACKFLOW PREVENTER:
FIXTURE: WATTS, 009 SERIES, FULL LINE SIZE, REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER, TWO INDEPENDENTLY OPERATING CHECK VALVES WITH INTERMEDIATE RELIEF VALVE, BALL VALVE TEST COCKS, COMPLIANT WITH USCFCC MANUAL FOR CROSS CONNECTION CONTROL, ASSE STANDARD 1013, AWWA STANDARD C506-78. PROVIDE WATTS DRAIN CONNECTION WITH AIR GAP

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16 - Birches
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1251 334th St, Woodward, IA 50276

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