

PLUMBING PUMP SCHEDULE														
TAG	SERVES	MAKE & MODEL	TYPE	GPM	HEAD	FLANGE	ELECTRICAL				BASIN		NOTES	
							MOTOR HP	VOLTS/PH (60 Hz.)	DIA	HEIGHT	INLET TYPE	INLET SIZE		DISCH SIZE
SP-1	ELEV SUMP	ZOELLER M152	SUBMERSIBLE	53	15	NA	0.4	115/1	18"	30"	SUMP PIT & COVER BY OTHERS	NA	1-1/2"	1 & 2
RCP-1	DHW RECIRC	TACO IL008-IFC	IN LINE	1	13	3/4 x 3/4	1/25	115/1	---	----	----	NA	1-1/2"	3

NOTES:
1. PLUG CONNECTIONS, COORDINATE LOCATION OF GFI OUTLETS.
2. PROVIDE OIL SMART SYSTEM
3. SEE SPEC SECTION 22 11 19.

RADIANT FLOOR CIRCUIT SCHEDULE												
AREA SERVED / MANIFOLD NO	TAG	CIRCUIT NO.	FLOOR AREA (s f)	UNIT HEAT (s f)	LENGTH (ft) (Circuit + Tail)	FLOW RATE (gal/min)	HEAD LOSS (Ft of water)	SUPPLY TEMP (°F)	SURFACE TEMP (°F)	DESIGN TEMP DROP (°F)	TUBE SPACING (in)	TUBE SIZE
MANIFOLD #2	RM-2	1 thru 6	1400	15	275	2.50	2.50	94	70 (adj)	20	12	1/2"

NOTE: Circuit lengths, tubing and manifold are based on WATTS Radiant Design (Emerson Swan, Inc.). Total Boiler Load = 63,087 BTUH.

GAS FIRED COMBINATION HEATING & DHW STORAGE HEATER	
TAG	DHW-1
MANUFACTURER	HTP - VERSA HYDRO COMBI
HEATER MODEL	PHE199-55
GROSS INPUT (MBH)	199,000
GPH @ 100degF RISE	229
FIRST HOUR RATING (GAL)	295
THERMAL EFFICIENCY (%)	94.96%
TANK SIZE, GALLONS	55
ASME CERTIFICATION	NO
SHIPPING WEIGHT (LBS)	210
OVERALL LENGTH (IN.)	34"
WIDTH (IN.)	23"
HEIGHT (IN.)	53"
VENTING	HORIZONTAL CONCENTRIC
VENT CONN. DIA (IN.)	3"
VENT MATERIAL	PVC
AIR INLET CONN. (IN.)	3"
AIR INLET MATERIAL	PVC
WATER CONN. (IN.)	1"
GAS CONN. (IN.)	3/4"
DRAIN	3/4"
2-STAGE or FULL MOD.	5:1 MOD
MIN / MAX GAS PRS. IN. WG.	3.5" TO 14"
HYDRONIC HEATING MODULE	
SPACE HEATING (BTUs)	135,000
MAX HEATING HW TEMP	160° F
PIPE CONN. SIZE	1"
ELECTRICAL	
VOLT/PHASE/HZ	120-1/60
AMP DRAW	6.3
MCA	7.8
MAX FUSE	15

MITSUBISHI CITY MULTI VRF OUTDOOR UNIT SCHEDULE												
System Tag	M-Net Address	Model Number	Nominal Cooling Capacity (BTU/h)	Nominal Heating Capacity (BTU/h)	Design Cooling Outdoor Temp DB (°F)	Design Heating Outdoor Temp WB (°F)	Corrected Cooling Total Capacity (BTU/h)	Corrected Heating Capacity (BTU/h)	Voltage / Phase	Electrical-Per Module 208/230		Notes / Options
										MCA	MCCP	
CU-1	51	MXZ-8C48NAHZ	48,000.0	54,000.0	87.0	-6.5	45,160.0	41,990.3	208/230V / 1-phase	42	50	1, 2, 3, 4, 5
CU-2	53	MXZ-4C36NAHZ	36,000.0	45,000.0	87.0	-6.5	34,839.1	34,991.9	208/230V / 1-phase	42	50	1, 2, 3, 4, 5
CU-3	56	MUZ-FH18NA2	17,200.0	20,300.0	87.0	-6.5	15,681.6	15,870.0	208/230V / 1-phase	15	20	1, 2, 3, 4, 5
CU-4	57	MUZ-FH18NA2	17,200.0	20,300.0	87.0	-6.5	17,091.1	16,117.1	208/230V / 1-phase	15	20	1, 2, 3, 4, 5
CU-5	58	MXZ-4C36NAHZ	36,000.0	45,000.0	87.0	-6.5	23,528.0	22,524.3	208/230V / 1-phase	42	50	1, 2, 3, 4, 5
CU-6	61	MXZ-4C36NAHZ	36,000.0	45,000.0	87.0	-6.5	23,528.0	22,524.3	208/230V / 1-phase	42	50	1, 2, 3, 4, 5
CU-7	64	MUZ-FH09NA	9,000.0	10,900.0	87.0	-6.5	8,943.0	8,654.0	208/230V / 1-phase	11	15	1, 2, 3, 4, 5

PLUMBING FIXTURE SCHEDULE												
TAG	DESCRIPTION	BRANCH SIZES				NOTES						
		CW	HW	VENT	WASTE							
P-1	WATER CLOSET - TANK TYPE - ADA	1/2"	---	1-1/2"	3"							
P-2	LAVATORY, WALL MOUNT - MANUAL FAUCET	1/2"	1/2"	1 1/2"	1 1/2"							
P-3	KITCHEN SINK - SINGLE BOWL - PULL OUT SPRAY FAUCET	1/2"	1/2"	1 1/2"	1 1/2"							
P-4	MOP BASIN	3/4"	3/4"	1 1/2"	3"							
P-5	LAVATORY, UNDERMOUNT BOWL - SENSOR FAUCET	1/2"	1/2"	1 1/2"	1 1/2"							
WH	WALL HYDRANT	1/2"	---	---	---							
HB	HOSE BIBB	1/2"	---	---	---							
FD-1	FLOOR DRAIN	---	---	2"	4"	SPRINKLER RM WITH TRAP PRIMER						

DUCT HEATING COIL SCHEDULE														
TAG	SERVE S	AIRFLOW	LENGTH	HEIGHT	FACE VEL	EDB	LDB	MBH	MAX APD	GPM	EWT	LWT	MAX WPD	RUNOUT SIZE
HC-1	ERU-1	390	18	8	390	40	85	19.0	0.2"	1.5	140	110	3'	1"

NOTES:
1. HEATERS SHALL BE WALL OR CEILING MOUNTED.
2. PROVIDE FACTORY DISCONNECT SWITCHES.
3. PROVIDE FACTORY BIMETAL LOW VOLTAGE THERMOSTAT W/24V RELAY KIT & TRANSFORMER.

ELECTRIC HEATER SCHEDULE												
TAG	SERVES	INDEECO MODEL / #	TYPE	VOLTS	PHASE	KW	AMPS	CFM	MBH	WEIGHT (LBS.)		
EUH-1	OPEN 3rd FLR	UCI-SERIES / 926U20000DA	UH	208	3	20	56.6	1300	68	90		
EUH-2	STAIR 3rd-4th	UCI-SERIES / 926U07500DA	UH	208	3	10.0	28.5	700	34	50		
EUH-3	OPEN 4th FLR	UCI-SERIES / 926U20000DA	UH	208	3	20	56.6	1300	68	90		
EHU-4	ROOF ELEV LOBBY 500	UCI-SERIES / 926U07500DA	UH	208	3	3.0	9	510	10	50		
EHU-5	1st FLR STAIR EXIT	CDIR SERIES / 937U05000D	CUH	208	3	5.0	14.6	310	17	31		

NOTES:
1. HEATERS SHALL BE WALL OR CEILING MOUNTED.
2. PROVIDE FACTORY DISCONNECT SWITCHES.
3. PROVIDE FACTORY BIMETAL LOW VOLTAGE THERMOSTAT W/24V RELAY KIT & TRANSFORMER.

REGISTERS - GRILLES - DIFFUSERS (RGD) SCHEDULE												
TAG	MFR.	MODEL	TYPE	NECK SIZE	FACE SIZE	CFM RANGE	MAX TOTAL P.D. (N.W.C.)	MAX NC LEVEL	BORDER TYPE	BLOW	NOTES	
S-1	PRICE	SCDA	SQ. CEILING SUPPLY DIFFUSER	6" DIA	24" x 24"	0-150	0.07"	16	LAY-IN	4-WAY, ADJUSTABLE		
S-2	PRICE	SCDA	SQ. CEILING SUPPLY DIFFUSER	6" DIA	12" x 12"	0-150	0.07"	19	LAY-IN	4-WAY, ADJUSTABLE		
S-3	PRICE	LV1	LINEAR VANE SUPPLY DIFFUSER WITH DIRECTIONAL VANES	4.5" x 30"	5.5" x 31"	150	0.04	28	FLUSH MT.	ADJUSTABLE	1	
S-4	AIR CONCEPTS	SPD	ROUND PLAQUE, HIGH ASPIRATION	4" DIA	7.5" DIA	50	0.04"	<20	FRAME 500	ADJUSTABLE		
R-1	PRICE	630	ALUM. RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	8" x 8"	10" x 10"	0-170	0.05"	23	SURFACE MT.	-----		
R-2	PRICE	630	ALUM. RETURN GRILLE, 3/4" SPACING, 45 DEG VANES	18" x 8"	20" x 10"	171-360	0.05"	27	SURFACE MT.	-----		

NOTES:
1. PROVIDE NARROW TYPE 500 FRAME

AIR CONTROL SCHEDULE		
SYSTEM	PRIMARY HEATING HW	DOMESTIC HW
ASSOCIATED PUMPS	P-1	
PIPE MAIN SIZE	1 1/4"	
AIR SEPARATOR		
TACO	#433 AIR SCOOP	NA
INLET/OUTLET (SYSTEM SIDE)	1 1/4"	
EXPANSION TANK TAP	3/4" TOP SIDE	
STRAINER w/Blowdown Valve	PIPELINE BEFORE SCOOP	
BLADDER-TYPE EXPANSION TANK	ET-1	ET-2
MFR-MODEL	TACO CA-90	TACO PAX-42
SYSTEM HEIGHT, FT	55	35
STATIC PRESSURE AT TANK, PSI	23.8	15.2
PSI REQ'D. AT HIGHEST SYS POINT	5	15
TANK PRE-CHARGE PRESSURE	28.8	78.8
TANK DIAMETER	20"	14"
TANK HEIGHT	29"	30"
ACCEPTANCE VOLUME	23	5
WATERLOGGED WEIGHT (LBS.)	312	91
ASME PRESSURE RATING	125	125

PUMP SCHEDULE																		
TAG	SYSTEM	MFR.	MODEL	SUCTION DISCH	TYPE	PUMPED FLUID	PERFORMANCE					ELECTRICAL		ELECTRICAL COORDINATION			NOTES	
							GPM	HEAD	RPM	NPSH	BHP	NOL HP	MOTOR HP	VOLTS/PH (60 Hz.)	VFD FURN BY	STARTER FURN BY		DISC. SWITCH FURN BY
P-1	HEATING	TACO	IL0013-IFC	1 1/4" X 1 1/4"	IN LINE	WATER	12	25	3250	NA	NA	NA	1/8	120/1	NA	NA	DIV 28	1, WIRED TO BOILER CONTROLLER CONTACTS
P-2	1st FLR RADIANT FLOOR	TACO	IL009-IFC	1 1/4" X 1 1/4"	IN LINE	WATER	3	15	3250	NA	NA	NA	1/8	120/1	NA	NA	DIV 28	1
P-3	2nd FLR RADIANT FLOOR	TACO	IL009-IFC	1 1/4" X 1 1/4"	IN LINE	WATER	3	15	3250	NA	NA	NA	1/8	120/1	NA	NA	DIV 28	1

NOTES:
1. Pumps to be located in mechanical room.

CABINET UNIT HEATER & UNIT HEATER SCHEDULE																							
TAG	MFR - MODEL	SIZE	LOCATION	TYPE	EXPOSED FACE WIDTH	EXPOSED FACE HEIGHT	DEPTH	WEIGHT	MBH	COIL	CFM	ESP	EAT (DEG.-F)	LAT (DEG.-F)	GPM	FLUID	EWT	LWT	MAX WPD	MOTOR HP	ELECT	PIPE RUNOUT SIZE	NOTES
CUH-1	TRANE FFC	300	WAITING-TELLER	CONCEALED DUCTED	2'-4"	10.5"	2'-3"	110 lbs	27.0	3HC	300	0.5"	70	---	2.5	WATER	150.0	130.0	8'	110w	120-160	3/4"	1, 2, 3, 4
UH-1	TRANE S-A18	18	SPRINKLER	HORIZONTAL HUNG	18"	16"	9.5"	35 lbs	10.0	1.0	500	---	60	---	2.0	WATER	150.0	130.0	3'	16w	120-160	3/4"	1, 2, 3

NOTES:
1. POWER WIRING TO UNIT HEATER BY DIV 26. ALL LOW VOLTAGE CONTROL WIRING, THERMOSTAT, RELAYS, AND TRANSFORMERS BY DIV. 23.
2. PROVIDE OPTIONAL UNIT MOUNTED DISCONNECT SWITCH.
3. MBH DERATED FOR 70 EAT AND 150 F EWT
4. HIGH STATIC MOTOR

MITSUBISHI CITY MULTI VRF INDOOR UNIT SCHEDULE																		
System Tag	Tag Reference	Room Name	Model	Type	Nominal Cooling Capacity (BTU/h)	Nominal Heating Capacity (BTU/h)	Cooling Design Entering Temp DB/WB (°F)	Heating Design Entering Temp DB/WB (°F)	Cooling Diversity Full/Partial (See Note 5, 6)	Cooling Total Capacity (BTU/h)	Cooling Sensible Capacity (BTU/h)	Heating Diversity Full/Partial (See Note 5, 6)	Heating Capacity (BTU/h)	Refrig Pipe Dim Liquid/Suction (inch)	Peak Fan Airflow (cfm)	Voltage / Phase	Electrical MCA/MFS	Notes / Options
CU-1	AC 1-2	Branch Lobby 100/Waiting 101	PLA-A24EA7	Ceiling cassette (4-way airflow) type	24,000.0	27,000.0	80.0/67.0	70.0	FULL DEMAND	22,580.0	19,274.5	FULL DEMAND	20,995.2	3/8 / 5/8	810	208/230V/1-phase	Powered by Outdoor	1, 2, 3, 4, 5, 6
CU-2	AC 2-1	Stairs 108	MSZ-GL24NA-U1	Wall mounted type	24,000.0	30,000.0	80.0/67.0	70.0	FULL DEMAND	23,226.1	18,575.1	FULL DEMAND	23,327.9	3/8 / 5/8	738	208/230V/1-phase	Powered by Outdoor	1, 2, 3, 4, 5, 6
CU-2	AC 2-2	Lobby 106	MSZ-GL06NA-U1	Wall mounted type	6,000.0	7,500.0	80.0/67.0	70.0	FULL DEMAND	5,806.5	5,806.5	FULL DEMAND	5,832.0	1/4 / 3/8	406	208/230V/1-phase	Powered by Outdoor	1, 2, 3, 4, 5, 6
CU-2	AC 2-3	Manager 103	MSZ-GL06NA-U1	Wall mounted type	6,000.0	7,500.0	80.0/67.0	70.0	FULL DEMAND	5,806.5	5,806.5	FULL DEMAND	5,832.0	1/4 / 3/8	406	208/230V/1-phase	Powered by Outdoor	1, 2, 3, 4, 5, 6
CU-3	AC 3-1	Work Room 102	MSZ-FH18NA2	Wall mounted type	17,200.0	20,300.0	80.0/67.0	70.0	FULL DEMAND	15,681.6	12,746.4	FULL DEMAND	15,870.0	1/2 / 1/4	514	208/230V/1-phase	Powered by Outdoor	1, 2, 3, 4, 5, 6
CU-4	AC 4-1	Conference 209	MSZ-FH18NA2	Wall mounted type	17,200.0	20,300.0	80.0/67.0	70.0	FULL DEMAND	17,091.1	13,292.7	FULL DEMAND	16,117.1	1/2 / 1/4	514	208/230V/1-phase	Powered by Outdoor	1, 2, 3, 4, 5, 6
CU-5	AC 5-1	Open Office 205	SLZ-KA09NAR-TH	Ceiling cassette (4-way airflow) type	9,000.0	10,800.0	80.0/67.0	70.0	FULL DEMAND	8,823.0	7,227.2	FULL DEMAND	8,446.6	1/4 / 3/8	320	/	Powered by Outdoor	1, 2, 3, 4, 5, 6
CU-5	AC 5-2	Kitchenette 204	MSZ-GL09NA-U1	Wall mounted type	9,000.0	10,800.0	80.0/67.0	70.0	FULL DEMAND	8,823.0	8,736.6	FULL DEMAND	8,446.6	1/4 / 3/8	406	208/230V/1-phase	Powered by Outdoor	1, 2, 3, 4, 5, 6
CU-5	AC 5-3	Private Office 210	MSZ-GL06NA-U1	Wall mounted type	6,000.0	7,200.0	80.0/67.0	70.0	FULL DEMAND	5,882.0	5,882.0	FULL DEMAND	5,631.1	1/4 / 3/8	406	208/230V/1-phase	Powered by Outdoor	1, 2, 3, 4, 5, 6
CU-6	AC 6-1	Private Office 206	MSZ-GL06NA-U1	Wall mounted type	6,000.0	7,200.0	80.0/67.0	70.0	FULL DEMAND	5,882.0	5,882.0	FULL DEMAND	5,631.1	1/4 / 3/8	406	208/230V/1-phase	Powered by Outdoor	1, 2, 3, 4, 5, 6
CU-6	AC 6-2	Private Office 207	MSZ-GL09NA-U1	Wall mounted type	9,000.0	10,800.0	80.0/67.0	70.0	FULL DEMAND	8,823.0	8,736.6	FULL DEMAND	8,446.6	1/4 / 3/8	406	208		