

SR. NO.	DESCRIPTION	QUANTITY	WASTAGE	QTY WITH WASTAGE	UNIT	UNIT COST	MATERIAL COST	MANHOURS UNIT RATE	MANHOURS	MANHOURS COST	TOTAL TRADE COST
HVAC ESTIMATE											
AIR DEVICES											
1	6" Dia CD, Ceiling Diffuser, Manufacturer Titus, Model #TMS-AA, Face Size 24"x24", Type 3, Neck Size 6" Dia, 50 CFM.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
2	6" Dia CD Ceiling Diffuser, Manufacturer Titus, Model #TMS-AA, Face Size 24"x24", Type 3, Neck Size 6" Dia, 100 CFM.	5	0%	5	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
3	8" Dia CD Ceiling Diffuser, Manufacturer Titus, Model #TMS-AA, Face Size 24"x24", Type 3, Neck Size 8" Dia, 125 CFM.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
4	8" Dia CD Ceiling Diffuser, Manufacturer Titus, Model #TMS-AA, Face Size 24"x24", Type 3, Neck Size 8" Dia, 150 CFM.	4	0%	4	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
5	10" Dia CD Ceiling Diffuser, Manufacturer Titus, Model #TMS-AA, Face Size 24"x24", Type 3, Neck Size 6" Dia, 225 CFM.	4	0%	4	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
6	10" Dia CD Ceiling Diffuser, Manufacturer Titus, Model #TMS-AA, Face Size 24"x24", Type 3, Neck Size 10" Dia, 250 CFM.	7	0%	7	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
7	10" Dia CD Ceiling Diffuser, Manufacturer Titus, Model #TMS-AA, Face Size 24"x24", Type 3, Neck Size 10" Dia, 350 CFM.	3	0%	3	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
8	10"x6" SR, Sidewall Register, Manufacturer Titus, Model # 272FS, White Finish, Neck Size 10"x6", 100 CFM.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
9	12"x6" SR, Sidewall Register, Manufacturer Titus, Model # 272FS, White Finish, Neck Size 12"x6", 150 CFM.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
10	16"x6" SR, Sidewall Register, Manufacturer Titus, Model # 272FS, White Finish, Neck Size 16"x6", 300 CFM.	17	0%	17	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
11	20"x6" SR, Sidewall Register, Manufacturer Titus, Model # 272FS, White Finish, Neck Size 20"x6", 300 CFM.	6	0%	6	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
12	12"x22" RG, Return Grille, Manufacturer Titus, Model # 50F, White Finish, Neck Size 12"x22".	6	0%	6	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
13	22"x22" RG, Return Grille, Manufacturer Titus, Model # 50F, White Finish, Neck Size 22"x22".	5	0%	5	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
14	14"x14" EG, Exhaust Grille, Manufacturer Titus, Model # 50F, White Finish, Neck Size 14"x14", 400 CFM.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
15	14"x14" EG, Exhaust Grille, Manufacturer Titus, Model # 50F, White Finish, Neck Size 14"x14", 500 CFM.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
16	24"x24" EG, Exhaust Grille, Manufacturer Titus, Model # 50F, White Finish, Neck Size 24"x24", 400 CFM.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
17	8" Dia LCD, Linear Slot Diffuser, Manufacturer Titus, Model # ML-39, 2 Slots, Neck Size 8" Dia, 150 CFM.	6	0%	6	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
18	12"x10" LSR, Linear Slot Return, Manufacturer Titus, Model # MPI-39, 4 Slots, 1" Slot Size, Neck Size 8" Dia, 150 CFM.	2	0%	2	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
ROOF TOP UNIT											
1	RTU-1: 3000 CFM, 2.75 HP, 460V, 3PH, TRANE #THC092F4RKA, Provide Unit With Economizer And Power Exhaust Fan.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
2	RTU-2: 1200 CFM, 1.0 HP, 460V, 3PH, TRANE #TZCO36E4REA, Provide Unit With Economizer And Power Exhaust Fan.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
3	RTU-3: 2450 CFM, 2.75 HP, 460V, 3PH, TRANE #THC092F4RKA, Provide Unit With Economizer And Power Exhaust Fan.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
4	RTU-4: 2450 CFM, 2.75 HP, 460V, 3PH, TRANE #THC092F4RKA, Provide Unit With Economizer And Power Exhaust Fan.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
5	RTU-5: 1300 CFM, 1.0 HP, 460V, 3PH, TRANE #THC048F4REA, Provide Unit With Economizer And Power Exhaust Fan.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
6	RTU-6: 2400 CFM, 2.75 HP, 460V, 3PH, TRANE #THC0744F4RGA, Provide Unit With Economizer And Power Exhaust Fan.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
VARIABLE AIR VOLUME SINGLE DUCT TERMINAL UNIT											
1	VVT-1, VCEF (Electric Heating), 8" Primary Inlet, 900 CFM, 277V/1PH, Provide Factory-mounted and pre-programmed, pressure-independent, BACnet DDC Controller With Airflow Measurement And Wireless Communication Receiver. Provide With Wireless Zone Temperature Sensor. Provide With Factory-Wired Discharge Air Temperature Sensor, Unit Mtd. Control Power Transformer, Disconnect And Power Fuse.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
2	VVT-2, VCEF (Electric Heating), 8" Primary Inlet, 700 CFM, 277V/1PH, Provide Factory-mounted and pre-programmed, pressure-independent, BACnet DDC Controller With Airflow Measurement And Wireless Communication Receiver. Provide With Wireless Zone Temperature Sensor. Provide With Factory-Wired Discharge Air Temperature Sensor, Unit Mtd. Control Power Transformer, Disconnect And Power Fuse.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -
3	VVT-3, VCEF (Electric Heating), 6" Primary Inlet, 375 CFM, 277V/1PH, Provide Factory-mounted and pre-programmed, pressure-independent, BACnet DDC Controller With Airflow Measurement And Wireless Communication Receiver. Provide With Wireless Zone Temperature Sensor. Provide With Factory-Wired Discharge Air Temperature Sensor, Unit Mtd. Control Power Transformer, Disconnect And Power Fuse.	1	0%	1	EA	\$ -	\$ -	\$ 115		\$ -	\$ -

4	VVT-4, VCEF (Electric Heating), 5" Primary Inlet, 350 CFM, 277V/1PH, Provide Factory-mounted and pre-programmed, pressure-independent, BACnet DDC Controller With Airflow Measurement And Wireless Communication Reciever. Provide With Wireless Zone Temperature Sensor. Provide With Factory-Wired Discharge Air Temperature Sensor, Unit Mtd. Control Power Transformer, Disconnect And Power Fuse.	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
5	VVT-5, VCEF (Electric Heating), 5" Primary Inlet, 250 CFM, 277V/1PH, Provide Factory-mounted and pre-programmed, pressure-independent, BACnet DDC Controller With Airflow Measurement And Wireless Communication Reciever. Provide With Wireless Zone Temperature Sensor. Provide With Factory-Wired Discharge Air Temperature Sensor, Unit Mtd. Control Power Transformer, Disconnect And Power Fuse.	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
AIR HANDLING UNIT									
1	AHU-1, 50 LBS, 800 CFM, 230V/1, MITSUBISHI #NTXWST30A112A, Provide With Factory Thermostat. Interlock With Associated Condensing Unit. Verify Refrigerant Line Sizes With Manufacturer Prior To Installation.	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
AIR COOLED CONDENSING UNIT									
1	ACCU-1, 2.5 Ton, 150 LBS, 230V/3, MITSUBISHI #NTXSST30A112A, Provide And Install Hard-Start Kit With Condensing Unit. Provide And Install Liquid Line Solenoid Valve With Condensing Unit. Provide And Install Head Pressure Control With Condensing Unit. Provide And Install Sight Glass At Indoor And Outdoor Unit, Filter/Drier At Outside Unit. Mechanical Contractor Will Install Low-Ambient Kits Provided With Units. Provide And Install Thycurb Or Equal Roof Runner Supports For Condensing Unit.)	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
EXHAUST FAN									
1	EF-1, 24 LBS, 900 CFM, RPM 1187, Direct, 1/4 HP, 115V, 1 PH, COOK #ACED-120C15D, Starters By Electrical Contractor. Provide With Spring Hanging Isolator Kit. Provide With 7-Day Time Clock.	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
2	EF-2, 45 LBS, 900 CFM, RPM 1187, Direct, 1/4 HP, 115V, 1 PH, COOK #ACED-120C15D, Starters By Electrical Contractor. Provide With Spring Hanging Isolator Kit. Provide With 7-Day Time Clock.	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
3	EF-3, 200 CFM, RPM 1055, Direct, 58W, 115V, 1 PH, COOK #ACED-90D15DM, Starters By Electrical Contractor. Provide With Spring Hanging Isolator Kit. Provide With 7-Day Time Clock.	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
DUCT SMOKE DETECTOR									
1	Duct Mounted Smoke Detector	4	0%	4	EA	\$ -	\$ 115	\$ -	\$ -
MANUAL VOLUME DAMPER									
1	6" Dia Manual Volume Damper	6	0%	6	EA	\$ -	\$ 115	\$ -	\$ -
2	8" Dia Manual Volume Damper	11	0%	11	EA	\$ -	\$ 115	\$ -	\$ -
3	8"x6" Manual Volume Damper	2	0%	2	EA	\$ -	\$ 115	\$ -	\$ -
4	10" Dia Manual Volume Damper	13	0%	13	EA	\$ -	\$ 115	\$ -	\$ -
5	12" Dia Manual Volume Damper	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
6	12"x10" Manual Volume Damper	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
7	12"x12" Manual Volume Damper	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
8	14" Dia Manual Volume Damper	2	0%	2	EA	\$ -	\$ 115	\$ -	\$ -
9	16" Dia Manual Volume Damper	2	0%	2	EA	\$ -	\$ 115	\$ -	\$ -
10	16"x14" Manual Volume Damper	2	0%	2	EA	\$ -	\$ 115	\$ -	\$ -
11	18" Dia Manual Volume Damper	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
12	20"x14" Manual Volume Damper	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
BACKDRAFT DAMPER									
1	8" Dia Back Draft Damper	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
2	14"x14" Back Draft Damper	2	0%	2	EA	\$ -	\$ 115	\$ -	\$ -
THERMOSTAT									
1	Thermostat	5	0%	5	EA	\$ -	\$ 115	\$ -	\$ -
2	RTU Programmable Thermostat	6	0%	6	EA	\$ -	\$ 115	\$ -	\$ -
PUMP									
1	Wall Mounted Condensate Drain Pump	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
LOUVER									
1	12"x12" Door Intake Louver	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
CLEANOUT									
1	1" Dia Cleanout	6	0%	6	EA	\$ -	\$ 115	\$ -	\$ -
BIRD SCREEN									
1	8" Dia Bird Screen	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
2	14"x14" Bird Screen	2	0%	2	EA	\$ -	\$ 115	\$ -	\$ -
MISC.									
1	1" Dia Cloth Wire Mesh	4	0%	4	EA	\$ -	\$ 115	\$ -	\$ -

2	VAC Audio/Visual Alarm (AV), Firex Model # 592SC And Step Down Transformer.	4	0%	4	EA	\$ -	\$ 115	\$ -	\$ -
CONDENSATE DRAIN PIPE									
Type "L" Copper									
1	3/4" Dia Condensate Drain Pipe	31	10%	34	LFT	\$ -	\$ 115	\$ -	\$ -
2	1" Dia Condensate Drain Pipe	297	10%	327	LFT	\$ -	\$ 115	\$ -	\$ -
3	1-1/2" Dia Condensate Drain Pipe	6	10%	7	LFT	\$ -	\$ 115	\$ -	\$ -
CONDENSATE DRAIN PIPE INSULATION									
1" Thick ARMAFLEX									
1	3/4" Dia Condensate Drain Pipe	31	10%	34	LFT	\$ -	\$ 115	\$ -	\$ -
2	1" Dia Condensate Drain Pipe	297	10%	327	LFT	\$ -	\$ 115	\$ -	\$ -
3	1-1/2" Dia Condensate Drain Pipe	6	10%	7	LFT	\$ -	\$ 115	\$ -	\$ -
CONDENSATE DRAIN PIPE FITTING									
ELBOW									
1	3/4" Dia Condensate Drain 90 Elbow	4	0%	4	EA	\$ -	\$ 115	\$ -	\$ -
2	1" Dia Condensate Drain 90 Elbow	13	0%	13	EA	\$ -	\$ 115	\$ -	\$ -
3	1" Dia Condensate Drain 45 Elbow	12	0%	12	EA	\$ -	\$ 115	\$ -	\$ -
TEE									
1	1" Dia Condensate Drain Tee	11	0%	11	EA	\$ -	\$ 115	\$ -	\$ -
2	1-1/2"x1" Dia Condensate Drain Tee	1	0%	1	EA	\$ -	\$ 115	\$ -	\$ -
REFRIGERANT PIPE									
Type "L" Copper									
1	3/8" Dia Refrigerant Liquid Line	30	10%	33	LFT	\$ -	\$ 115	\$ -	\$ -
2	5/8" Dia Refrigerant Suction Line	30	10%	33	LFT	\$ -	\$ 115	\$ -	\$ -
REFRIGERANT PIPE INSULATION									
1" Thick ARMAFLEX									
1	3/8" Dia Refrigerant Liquid Line	30	10%	33	LFT	\$ -	\$ 115	\$ -	\$ -
2	5/8" Dia Refrigerant Suction Line	30	10%	33	LFT	\$ -	\$ 115	\$ -	\$ -
REFRIGERANT PIPE FITTINGS									
ELBOWS									
1	3/8" Dia Refrigerant Liquid Line 90 Degree Elbow	6	0%	6	EA	\$ -	\$ 115	\$ -	\$ -
2	5/8" Dia Refrigerant Suction Line 90 Degree Elbow	6	0%	6	EA	\$ -	\$ 115	\$ -	\$ -
DUCT LINER									
1	1" Thick, Fiberglass Duct Liner	3860	0%	3860	SF	\$ -	\$ 115	\$ -	\$ -
DUCT INSULATION									
1	2" Thick, 0.75 PCF Density, Foil-Scrim-Kraft Faced Glass Fiber Insulation, Seal All Joints And Breaks In The Vapor Barrier.	8300	0%	8300	SF	\$ -	\$ 115	\$ -	\$ -
DUCT WEIGHT									
1	Galvanized Steel Duct Weight	9636	0%	9636	LB	\$ -	\$ 115	\$ -	\$ -
PIPE SUPPORT									
1	1" Dia Carbon, Adjustable Clevis Hanger	35	0%	35	EA	\$ -	\$ 115	\$ -	\$ -
2	3/8" Dia Full Threaded Rod	35	0%	35	EA	\$ -	\$ 115	\$ -	\$ -
DUCT SUPPORT									
1	3/8" Threaded Rod	204	0%	204	EA	\$ -	\$ 115	\$ -	\$ -
2	1" x 22 Ga. Strap	102	0%	102	EA	\$ -	\$ 115	\$ -	\$ -
3	2" x 18 Ga. Band Clamp	204	0%	204	EA	\$ -	\$ 115	\$ -	\$ -
TOTAL MATERIAL COST								\$	-
TOTAL MANHOURS' COST								\$	-
TOTAL COST								\$	-
OVERHEADS & PROFIT							25%	\$	-
TOTAL BID								\$	-
SCOPE OF ESTIMATE:									
1	SUPPLY & INSTALLATION								
1	Supply & Return Air Duct w/ Fittings								
2	Exhaust Air Duct w/ Fittings								
3	Flexible Duct								
4									
5									
6									
7									
8									
9									
10									
11									
12	Condensate Drain Pipe w/ Fittings								



13	Refrigerant Pipe
14	Duct Insulation
15	Duct Support
II	NOTES
1	Detail Of ACCU Was Given As Tag ACCU-4, But In Plans It was Mentioned As ACCU-1, So we Assumed As Same.
2	Pricing & Manhours are calculated from PHCC database.