

AIR DISTRIBUTION SCHEDULE										
TAG	TITLE MODEL	FACE SIZE	NECK SIZE	MATERIAL	FRAME	FINISH	NOISE CRITERIA	NOTES		
A	TMS-AA	24x24	--	ALUMINUM	LAY-IN	WHITE	30	1,2,3,4,9,10,13,14		
B	TMS-AA	12x12	--	ALUMINUM	LAY-IN	WHITE	30	1,2,3,4,9,10,13,14		
C	ML-39	(2) 1" SLOTS 3" LONG		ALUMINUM	LINEAR	SEE NOTE 2	30	1,2,3,8,18,19,20,21		
D	ML-39	(2) 1" SLOTS 3" LONG		ALUMINUM	LINEAR	SEE NOTE 2	30	1,2,3,8,18,19,20,21		
E	FL-20	(1) 2" SLOTS CONTINUOUS		ALUMINUM	LINEAR	SEE NOTE 2	30	1,2,3,8,18,19,20,21		
F	JDOFS	10x8	8x6	ALUMINUM	SIDEWALL	WHITE	30	1,2,3,5,11,15,17		
AA	SEE NOTE 25	60x24	--	ALUMINUM	LAY-IN	WHITE	30	1,2,3,11,12,29		
BB	PAR-AA	48x24	--	ALUMINUM	LAY-IN	WHITE	30	1,2,3,11,12		
CC	PAR-AA	24x24	--	ALUMINUM	LAY-IN	WHITE	30	1,2,3,11,12		
DD	PAR-AA	16x16	--	ALUMINUM	LAY-IN	WHITE	30	1,2,3,11,12,23		
EE	PAR-AA	12x12	--	ALUMINUM	LAY-IN	WHITE	30	1,2,3,11,12,23		
FF	MLR-39	(2) 1" SLOTS 3" LONG		ALUMINUM	LINEAR	SEE NOTE 2	30	1,2,3,8,18,19,20,21,22		
GG	MLR-39	(2) 1" SLOTS 3" LONG		ALUMINUM	LINEAR	SEE NOTE 2	30	1,2,3,8,18,19,20,21,22		
HJ	FL-20	(1) 2" SLOTS CONTINUOUS		ALUMINUM	LINEAR	SEE NOTE 2	30	1,2,3,8,20,21,24		
HH	CT-700L	18x18	16x16	ALUMINUM	SIDEWALL	WHITE	40	1,2,3,7,15		
KK	350FL	10x8	8x6	ALUMINUM	SIDEWALL	WHITE	40	1,2,3,8,11,12,16		

1. APPROVED EQUAL MANUFACTURER: PRICE, CARNES, METALARE, NALOR  
 2. FINAL COLOR SELECTION SUBJECT TO ARCHITECT APPROVAL.  
 3. CONTRACTOR TO COORDINATE FINAL SELECTION WITH ARCHITECT AND OWNER. VERIFY CEILING SYSTEM FOR EXACT BORDER TYPE, I.E. STANDARD GRID OR NARROW GRID.  
 4. SQUARE LOUVER FACE CEILING SUPPLY DIFFUSER.  
 5. DOUBLE DEFLECTION SIDEWALL SUPPLY GRILLE.  
 6. SIDEWALL RETURN GRILLE.  
 7. SIGHT-PROOF, DOUBLE FLANGED TELESCOPIC DOOR GRILLE.  
 8. LINEAR CEILING DIFFUSER WITH ADJUSTABLE DEFLECTION VANES BEHIND EACH SLOT.  
 9. PROVIDE SPIN-IN COLLAR WITH VOLUME DAMPER AT TRUNK TO FLEX DUCT CONNECTION.  
 10. PROVIDE TYPICAL 4-WAY DIFFUSION, 2-WAY, 3-WAY OR VERTICAL ONLY WHERE INDICATED ON PLANS.  
 11. PROVIDE STEEL RADIAL OPPOSED BLADE VOLUME DAMPER.  
 12. PROVIDE VOLUME CONTROL DAMPERS FOR ALL RETURN GRILLES OR REGISTERS FOR BALANCED AIRFLOW. NOT REQUIRED IN TRANSFER.  
 13. FLEX DUCT SIZE TO BE SAME AS DIFFUSER NECK SIZE.  
 14. ROUND NECK OR PROVIDE SQUARE-TO-ROUND ADAPTER.  
 15. FRONT BLADES PARALLEL TO SHORT DIMENSION.  
 16. BLADES PARALLEL TO LONG (HORIZONTAL) DIMENSION, FIXED AT 35°.  
 17. HORIZONTAL BLADES SET AT 22° ANGLE.  
 18. CONCEALED FASTENING WITH NO SCREW HOLES.  
 19. PROVIDE STRAIGHTENING VANES.  
 20. PROVIDE END BORDER, ALIGNMENT STRIPS AND FACTORY PLENUMS. INSULATE PLENUMS WITH R-6 INSULATION.  
 21. PROVIDE TIGHT CORNERS FOR LINEAR DIFFUSERS.  
 22. PROVIDE YOUNG REGULATOR BORDERS REMOTE CABLE CONTROL LOCKING RACK MODEL 270-275 WITH 5000CC DAMPER OR EQUAL FOR DIFFUSERS ABOVE HARD CEILING.  
 23. PROVIDE FLEX TRIM KIT FOR DIFFUSERS IN OYPNUM CEILING.  
 24. PROVIDE CONCEALED FASTENING BORDER TYPE 77. NO SCREW HOLES.  
 25. FIELD FABRICATED PERFORATED RETURN AIR CEILING DIFFUSER WITH SHEET METAL PLENUM.

ROOFTOP AIR CONDITIONING UNIT SCHEDULE																	
MARK	TRADE MODEL	NOMINAL TONNAGE	TOTAL COOLING TONNAGE	SENSIBLE COOLING TONNAGE	TOTAL SUPPLY CFM	OUTSIDE AIR CFM	APPROX. ESP IN WG	CAPACITY STAGES	MIN. PART LOAD EFF.	SUPPLY FAN HP	HEAT INP/OUT MBH	VOLTAGE PHASE V/NO	MCA/MOP AMPS	WEIGHT LBS	HEIGHT IN	NOTES	
RTU-1	YHC20	10.0	114.0	94.1	3,800	500	0.5	2	14.7	IEER	2.75	250/200	460/3	21.9/30	1,810	51	1 THROUGH 20
RTU-2	YHC20	10.0	114.0	94.1	3,800	500	0.5	2	14.7	IEER	2.75	250/200	460/3	21.9/30	1,810	51	1 THROUGH 20
RTU-3	YSC048	4.0	48.9	38.8	1,600	200	0.5	1	14.0	SEER	1.0	120/96	460/3	11.0/15	715	41	1 THROUGH 18
RTU-4	YSC048	4.0	48.9	38.8	1,600	200	0.5	1	14.0	SEER	1.0	120/96	460/3	11.0/15	715	41	1 THROUGH 18
RTU-5	YSC102	8.5	98.1	77.9	3,300	400	0.5	2	14.0	SEER	2.0	200/160	460/3	21.2/25	1,282	47	1 THROUGH 19
RTU-6	YSC048	4.0	48.9	38.8	1,600	200	0.5	1	14.0	SEER	1.0	120/96	460/3	11.0/15	715	41	1 THROUGH 18
RTU-7	YHC048	4.0	48.9	35.1	1,800	200	0.5	1	15.0	SEER	1.0	120/96	460/3	12.8/15	950	41	1 THROUGH 18, 20

- NOTES:  
 1. APPROVED EQUAL MANUFACTURER: CARRIER, LENOX, ACON, DAIKIN  
 2. COOLING CAPACITIES BASED ON STANDARD AHRI CONDITIONS  
 3. DOWN FLOW UNIT. PROVIDE FULL PERIMETER ROOF CURB.  
 4. PROVIDE COMPRESSOR 5-YEAR WARRANTY  
 5. PROVIDE PHASE MONITOR DEVICE  
 6. PROVIDE SERVICE CLEARANCES PER MFG'S RECOMMENDATIONS  
 7. PROVIDE MOTORIZED OUTSIDE AIR DAMPER  
 8. PROVIDE SINGLE POINT POWER ENTRY. DISCONNECT TO BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR  
 9. PROVIDE FACTORY BUILT ROOFCURB 14"(OR 20" IF NECESSARY) HIGH  
 10. INSTALL UNIT LEVEL WITH PRESCRIBED TOLERANCES  
 11. PROVIDE FACTORY PROGRAMMABLE THERMOSTAT WITH REMOTE TEMPERATURE SENSOR TO MATCH CAPACITY STAGES  
 12. PROVIDE 2" THROWAWAY FILTER MERV  
 13. REFRIGERANT TO BE R-410A. PROVIDE REFRIGERANT CHARGE PER MANUFACTURER RECOMMENDATION  
 14. PROVIDE HAL GUARDS FOR CONDENSERS COILS  
 15. PROVIDE STAINLESS STEEL OR NON-CORRODING CONDENSATE DRAIN PAN  
 16. PROVIDE AIR ECONOMIZER WITH DUAL ENTHALPY EXHAUST AND BAROMETRIC RELIEF  
 17. ROOF SLOPE COMPENSATION TO BE ACHIEVED THROUGH ROOF CURB SLOPE. DO NOT SHIM ROOF CURB  
 18. PROVIDE FLOAT SWITCH TO SHUT DOWN UNIT AS PRIMARY DRAIN PAN FILLS  
 19. PROVIDE DUCT SMOKE DETECTOR IN SUPPLY PLENUM OF A/C UNIT FACTORY INSTALLED  
 20. PROVIDE FACTORY MOUNTED VARIABLE FREQUENCY DRIVE (VFD) FOR FULL MODULATING SINGLE ZONE VAV. STAGED FAN APPLICATIONS SHALL NOT BE ACCEPTABLE.  
 21. PROVIDE CONDENSATE LIFT MECHANISM FACTORY INSTALLED  
 22. PROVIDE MIN. 30% EFF. FILTER  
 23. PROVIDE FACTORY HARD WIRED WALL MOUNTED CONTROLLER  
 24. PROVIDE FACTORY MOUNTED VARIABLE FREQUENCY DRIVE (VFD) FOR FULL MODULATING SINGLE ZONE VAV. STAGED FAN APPLICATIONS SHALL NOT BE ACCEPTABLE.  
 25. PROVIDE FACTORY HARD WIRED WALL MOUNTED CONTROLLER

DUCTLESS AIR CONDITIONING SPLIT SYSTEM SCHEDULE																	
MARK	MITSUBISHI MODEL	NOMINAL TONNAGE	TOTAL COOLING TONNAGE	SENSIBLE COOLING TONNAGE	TOTAL SUPPLY CFM	HEATING @ 47°F MBH	SEER/AHP	ENTERING DB/WB	LEAVING DB/WB	VOLTAGE PHASE V/NO	MCA/MOP AMPS	WEIGHT LBS	DIMENSIONS IN	NOTES			
DOSS-1	PVU-A18	PKA-A18	1.5	16.0	12.8	370	15.3	79/64	55/54	208/1	13/20	1,2/20	88	29	32x13x24	36x10x12	1 THROUGH 11

- NOTES:  
 1. APPROVED EQUAL MANUFACTURER: DAIKIN, LG  
 2. COOLING CAPACITIES BASED ON STANDARD AHRI CONDITIONS  
 3. SIGHT-PROOF, DOUBLE FLANGED TELESCOPIC DOOR GRILLE  
 4. LINEAR CEILING DIFFUSER WITH ADJUSTABLE DEFLECTION VANES BEHIND EACH SLOT  
 5. PROVIDE SPIN-IN COLLAR WITH VOLUME DAMPER AT TRUNK TO FLEX DUCT CONNECTION  
 6. PROVIDE TYPICAL 4-WAY DIFFUSION, 2-WAY, 3-WAY OR VERTICAL ONLY WHERE INDICATED ON PLANS  
 7. PROVIDE STEEL RADIAL OPPOSED BLADE VOLUME DAMPER  
 8. PROVIDE VOLUME CONTROL DAMPERS FOR ALL RETURN GRILLES OR REGISTERS FOR BALANCED AIRFLOW. NOT REQUIRED IN TRANSFER  
 9. FLEX DUCT SIZE TO BE SAME AS DIFFUSER NECK SIZE  
 10. ROUND NECK OR PROVIDE SQUARE-TO-ROUND ADAPTER  
 11. FRONT BLADES PARALLEL TO SHORT DIMENSION  
 12. BLADES PARALLEL TO LONG (HORIZONTAL) DIMENSION, FIXED AT 35°  
 13. HORIZONTAL BLADES SET AT 22° ANGLE  
 14. CONCEALED FASTENING WITH NO SCREW HOLES  
 15. PROVIDE STRAIGHTENING VANES  
 16. PROVIDE END BORDER, ALIGNMENT STRIPS AND FACTORY PLENUMS. INSULATE PLENUMS WITH R-6 INSULATION  
 17. PROVIDE TIGHT CORNERS FOR LINEAR DIFFUSERS  
 18. PROVIDE YOUNG REGULATOR BORDERS REMOTE CABLE CONTROL LOCKING RACK MODEL 270-275 WITH 5000CC DAMPER OR EQUAL FOR DIFFUSERS ABOVE HARD CEILING  
 19. PROVIDE FLEX TRIM KIT FOR DIFFUSERS IN OYPNUM CEILING  
 20. PROVIDE CONCEALED FASTENING BORDER TYPE 77. NO SCREW HOLES  
 21. FIELD FABRICATED PERFORATED RETURN AIR CEILING DIFFUSER WITH SHEET METAL PLENUM  
 22. PROVIDE CONDENSATE LIFT MECHANISM FACTORY INSTALLED  
 23. PROVIDE MIN. 30% EFF. FILTER  
 24. PROVIDE FACTORY HARD WIRED WALL MOUNTED CONTROLLER WITH REMOTE TEMPERATURE SENSOR  
 25. HEAT PUMP SYSTEM (HEATING AT 47°F)  
 26. PROVIDE FACTORY HARD WIRED WALL MOUNTED CONTROLLER

LOW PROFILE AIR HANDLING UNIT SCHEDULE																		
MARK	MITSUBISHI MODEL	NOMINAL TONNAGE	TOTAL COOLING TONNAGE	SENSIBLE COOLING TONNAGE	TOTAL SUPPLY CFM	HEATING @ 47°F MBH	SEER/AHP	ENTERING DB/WB	LEAVING DB/WB	VOLTAGE PHASE V/NO	MCA/MOP AMPS	WEIGHT LBS	DIMENSIONS IN	NOTES				
CU/AHU-1	SUZ-KA09	PEAD-KA09	0.75	9.0	6.1	300	11.4	18.6/10.0	75/64	55/54	208/1	12/15	1,4/15	68	42	32x11x22	31x28x26	1 THROUGH 9
CU/AHU-2	SUZ-KA12	PEAD-KA12	1.0	12.0	10.1	400	16.3	18.6/10.0	75/64	55/54	208/1	12/15	1,4/15	77	50	32x11x22	39x28x26	1 THROUGH 9
CU/AHU-3	PVZ-A24	PEAD-A24	2.0	24.0	20.1	780	28.0	18.6/10.0	75/64	55/54	208/1	18/20	2,8/25	165	73	37x15x37	43x28x10	1 THROUGH 10

- NOTES:  
 1. APPROVED EQUAL MANUFACTURER: DAIKIN, LG  
 2. COOLING CAPACITIES BASED ON STANDARD AHRI CONDITIONS  
 3. HORIZONTAL, DUCTED INDOOR UNIT  
 4. SUPPLY AIRFLOW CFM BASED ON HIGH SPEED AND DRY COIL  
 5. HEAT PUMP SYSTEM (HEATING AT 47°F)  
 6. PROVIDE CONDENSATE LIFT MECHANISM FACTORY INSTALLED  
 7. PROVIDE MIN. 30% EFF. FILTER  
 8. PROVIDE DRAIN PAN LEVEL SENSOR TO SHUT OFF UNIT TO PREVENT DRAIN PAN OVERFLOW  
 9. PROVIDE FACTORY HARD WIRED WALL MOUNTED CONTROLLER WITH REMOTE TEMPERATURE SENSOR  
 10. PROVIDE FACTORY HARD WIRED WALL MOUNTED CONTROLLER

AIR HANDLING UNIT SCHEDULE																
MARK	TRADE MODEL	NOMINAL TONNAGE	TOTAL COOLING TONNAGE	SENSIBLE COOLING TONNAGE	TOTAL SUPPLY CFM	OUTSIDE AIR CFM	APPROX. ESP IN WG	CAPACITY STAGES	MIN. PART LOAD EFF.	SUPPLY FAN HP	HEAT KW	VOLTAGE PHASE V/NO	MCA/MOP AMPS	WEIGHT LBS	DIMENSION IN	NOTES
AHU-4	TEMB08B48	4.0	48.5	35.8	1,600	150	0.5	76/64	55.6/54.9	3/4	10.8	208/3	45.0/45	181	54x27x22	1 THROUGH 10
AHU-5	TEMB08B48	4.0	48.5	35.8	1,600	150	0.5	76/64	55.6/54.9	3/4	10.8	208/3	45.0/45	181	54x27x22	1 THROUGH 10
AHU-6	TDH40B24	2.0	24.0	16.8	800	100	0.5	76/64	55.6/54.9	1/4	5.8	208/1	36/40	120	24x21x16	1 THROUGH 10

- NOTES:  
 1. APPROVED EQUAL MANUFACTURER: CARRIER, LENOX, ACON  
 2. COOLING CAPACITIES BASED ON STANDARD AHRI CONDITIONS  
 3. PROVIDE WITH THERMAL EXPANSION VALVES, LIQUID LINE FILTER DRYER AND MULTI-USE SERVICE VALVES WITH LOCKING-TYPE THERMOSTAT  
 4. PROVIDE COMPRESSOR WITH DRAINAGE, OIL AND MINIMUM OPERATING TEMPERATURE  
 5. REFRIGERANT TO BE R-410A. PROVIDE REFRIGERANT CHARGE PER MANUFACTURER RECOMMENDATION  
 6. DISCONNECT TO BE PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR  
 7. PROVIDE MIN. 30% EFF. FILTER  
 8. PROVIDE FACTORY HARD WIRED WALL MOUNTED CONTROLLER WITH REMOTE TEMPERATURE PROTECTION  
 9. PROVIDE FACTORY HARD WIRED WALL MOUNTED CONTROLLER WITH REMOTE TEMPERATURE PROTECTION  
 10. PROVIDE 1/4" THICK NEOPRENE WAFFLE-PAD UNDER ALL SUPPORT POINTS  
 11. PROVIDE HAL GUARDS FOR CONDENSERS COILS

GAS HEATER SCHEDULE													
MARK	MANUF. & MODEL	INSTALLATION	MCA/MOP AMPS	HEATER INPUT MBH	GAS CONNECT.	DIMENSION IN	CONTROL	T-STAT POINT	MOUNTING HEIGHT FT	CLEARANCE*	NOTES		
H-1,2,3,4	TROIT 2400	HORIZONTAL	120/1	65	1/2"	20FT LONG	T-STAT 24V	60' F	10"	60"	30"	18"	1 THROUGH 7

- NOTES:  
 1. GAS FRED TUBULAR RADIANT HEATER, LOW INTENSITY  
 2. MIN. THERMAL EFFICIENCY 82%  
 3. PROVIDE WALL THERMOSTAT  
 4. PROVIDE THERMOSTAT GUARD WITH LOCKING COVER  
 5. TWO-STAGE NATURAL GAS VALVE  
 6. PROVIDE THEATED ROOF HANGING KIT  
 7. PROVIDE DEFLECTOR SHIELD FOR TOP CLEARANCE REDUCTION  
 8. \* INSTALL HEATER PER MANUFACTURER CLEARANCE REQUIREMENTS.

EXHAUST FAN SCHEDULE															
MARK	ORDER/NO. MODEL	SERVICE AREA	CONTOUR	TOTAL EXHAUST CFM	APPROX. ESP IN WG	SONES	SUPPLY FAN HP	RPM	DRIVE	VOLTAGE PHASE V/NO	WEIGHT LBS	DIMENSION IN	OPENING IN	CONTROL	NOTES
EF-1	G-085-D	RESTROOMS	ROOF	500	0.25	7.4	1/20	1,550	DIRECT	120/1	17	22"x15"	12x12	LIGHTING CONTROL	1 THROUGH 7
EF-2	G-095-D	RESTROOMS	ROOF	875	0.25	8.4	1/12	1,300	DIRECT	120/1	20	22"x15"	12x12	LIGHTING CONTROL	1 THROUGH 7
EF-3	G-090-D	RESTROOMS	ROOF	600	0.35	7.4	1/15	1,550	DIRECT	120/1	18	22"x15"	12x12	LIGHTING CONTROL	1 THROUGH 7
EF-4	G-085-D	RESTROOMS	ROOF	200	0.25	4.3	1/30	1,550	DIRECT	120/1	15	20"x12"	12x12	CONTINUOUS	1 THROUGH 7

- NOTES:  
 1. APPROVED EQUAL MANUFACTURER: COOK, PENN, AOME  
 2. ROOF MOUNTED CENTRIFUGAL EXHAUST FAN  
 3. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH  
 4. PROVIDE ROOF CURB, SLOPED TO MATCH ROOF SLOPE TO ENSURE FAN IS LEVEL  
 5. PROVIDE BIRDSCREEN AND GRAVITY BACKDRAFT DAMPER  
 6. BEARINGS WITH GREASE FITTINGS  
 7. PROVIDE MOTOR WITH THERMAL OVERLOADS  
 8. MOTOR STARTERS, DISCONNECTS (IF NOT FACTORY PROVIDED) AND ALL EQUIPMENT NOMINAL POWER WIRING BY ELECTRICAL CONTRACTOR  
 9. ALL CONTINUOUS-DUTY MOTORS SHALL BE PROVIDED WITH OVERLOAD PROTECTION ACCORDING TO THE NATIONAL ELECTRICAL CODE PAR. 430-32  
 10. FIELD ADJUST OPENINGS WITH STRUCTURE.

MECHANICAL SHEET INDEX													
SHEET#	DESCRIPTION												
M001	MECHANICAL NOTES AND SCHEDULES												
M201	MECHANICAL PLAN - FIRST FLOOR												
M202	MECHANICAL PLAN - SECOND FLOOR												
M203	MECHANICAL PLAN - ROOF												
M401	MECHANICAL 3D VIEWS												
M402	MECHANICAL SECTIONS												
M701	MECHANICAL DETAILS												

MECHANICAL LEGEND													
SYMBOL	DESCRIPTION												
—R—	REFRIGERANT PIPING												
—D—	DROPPING OR RISING PIPE												
—O—	PIPE TO OR FROM ABOVE												
—X—	ISOLATING GATE OR BALL VALVE												
—	NEW SCOPE OF WORK												
—	EXISTING												
24x12	RECTANGULAR DUCT SIZE: FIRST DIMENSION IS SIDE DRAIN												
—	ROUND DUCTWORK OR FLUE PIPING												
—	RECTANGULAR TO ROUND DUCT												
—	NEW FLEXIBLE ROUND DUCT												
—	FLEXIBLE DUCT CONNECTION												
—	ADJUSTABLE DEFLECTION VANE BRANCH												
—	SQUARE DUCT WITH TURN VANES												
—	MANUAL VOLUME DAMPER												
—	FIRE DAMPER IN DUCT THROUGH WALL												
—	AUTOMATIC (MOTORIZED) CONTROL DAMPER												
—	ONE INCH THICK DUCT LINER												
—	SPIN-IN TAP												
—	DUCT SMOKE DETECTOR												
—	TEMPERATURE SENSOR												
—	PROGRAMMABLE THERMOSTAT WITH REMOTE TEMPERATURE SENSOR												
—	TEMPERATURE SENSOR												
—	SINGLE POLE SWITCH												
—	DOOR GRILLE												
—	UNDERCUT DOOR 3/4"												

- NOTES:  
 1. ALL AIR DEVICES (DIFFUSERS, REGISTERS AND GRILLES) SHALL BE EXPOSED SURFACE OFF WHITE SMOOTH ENAMEL FINISH UNLESS SPECIFIED OTHERWISE. DEVICES SHALL BE SPECIFIED OR EQUAL TO TITUS PROVIDE OPPOSED BLADE DAMPERS AT ALL DIFFUSERS AND REGISTERS AS INDICATED ON PLANS. PROVIDE BALANCING DAMPERS FOR ALL AIR DEVICES TO ENSURE COMPLIANCE WITH MC 2012 PAR. 603.18 FOR BALANCED AIR FLOW.  
 2. CONTROLS:  
 A. FOR NEW UNITS: SHALL BE COMBINATION COOLING/HEATING, WITH SYSTEM "COOL-AUTO-HEAT-OFF" AND FAN "ON-AUTO" SELECTOR SWITCHES. PROVIDE PROGRAMMABLE THERMOSTAT WITH REMOTE TEMPERATURE SENSOR AS RECOMMENDED BY MANUFACTURER OR EQUAL.  
 3. REFRIGERANT LINES SHALL BE COPPER, TYPE "L" HARD DRAIN WITH MINIMUM COPPER BRAZING-JOINT TYPE FITTINGS, USE BRAZING MATERIALS FOR HIGH PRESSURE CONNECTIONS PER AWS A5.8 BRONZE SERIES COPPER-PHOSPHORUS ALLOY OR BAg1 SILVER ALLOY. REFRIGERANT LINES SHALL BE SIZED PER MANUFACTURER'S RECOMMENDATIONS. SOFT COPPER TYPE "F" SHALL BE USED FOR RISER PIPING INSIDE CHASE TO LIMIT NUMBER OF JOINTS. COORDINATE WITH ENGINEER FOR PRIOR APPROVAL. ALL EXPOSED INSULATION SHALL BE PROTECTED WITH UV RESISTANT PAINT OR ALUMINUM SHIELD.  
 4. ARMALUX INSULATION SHALL BE USED FOR SECTION 15.1 (1/2" FOR ABOVE 40' F AND FOR BELOW 40' F) PER IECC 2009 TABLE C403.2.8 FOR R-10 INSULATION. FILTER DRYER WITH GLASS SHALL BE PROVIDED AT LIQUID LINES.  
 5. ALL BRANCH TAKE-OFFS TO BE PROVIDED W/ MANUAL VOLUME DAMPERS. PROVIDE RADIAL ELBOWS WHERE FEASIBLE. SQUARE ELBOWS AND TEE'S SHALL BE PROVIDED WITH VOLUME DAMPERS. PROVIDE MANUAL VOLUME DAMPERS WITH EXTRACTOR AT ALL TAKE-OFFS. PROVIDE REMOTE, CABLE OPERATED VOLUME DAMPERS IN INACCESSIBLE AND HARD TO REACH AREAS. YOUNG REGULATORS SHALL BE PROVIDED FOR ALL CONDITIONING EQUIPMENT BEING START-UP, REPLACE PRIOR TO FINAL ACCEPTANCE BY OWNER.  
 6. PROVIDE 2" SERVICE ACCESS DOORS IN ALL SUPPLY AIR DUCTS FOR FANS AND SERVING A CAPACITY OF 2000 CFM OR ABOVE. FOR SMOKE DETECTORS NOT VISIBLE, INSTALL SERVICE ANNUNCIATION/TEST STATION AS REQUIRED BY MANUFACTURER. HAVING AUTHORITY TO INSTALLATION, DETECTORS SHALL BE BY ONE MANUFACTURER. COORDINATE WITH ELECTRICAL CONTRACTOR AND FIRE ALARM SYSTEM BEFORE COORDINATING SMOKE DETECTORS SHUT DOWN ASSOCIATED AIR MOVING EQUIPMENT AND MOVING EQUIPMENT SERVING THAT COMMON PLENUM.  
 7. PROVIDE TYPE "B" UL LISTED FIRE DAMPERS WITH SERVICE ACCESS DOORS IN ALL DUCTS AND OPENINGS PENETRATING RATED WALLS, MECHANICAL AND ELECTRICAL ROOMS, TENANT SEPARATION, ELEVATORS, FLOOR OR ROOF SLABS AND AT OUTSIDE AIR INTAKES AS REQUIRED. PROVIDE RADIATION DAMPERS IN RATED CEILING FOR ALL CEILING OPENINGS, CEILING FANS, DIFFUSERS OR GRILLES RATED FOR USE IN THE CEILING ASSEMBLY. PROVIDE LOW-LEAKAGE CLASS DAMPERS FOR ALL SITUATIONS WHERE THE AIRFLOW CFM HAS TO BE CONTROLLED. VERIFY AND REPLACE AS REQUIRED FOR EXISTING SYSTEMS.  
 8. HVAC CONTRACTOR SHALL PROVIDE A T & B REPORT PER IECC 2009 C408.2.5.3 (THE T & B REPORT SHALL BE INDEPENDENT FOR SYSTEMS OVER 15 TONS) FOR ALL MECHANICAL EQUIPMENT, AIR DEVICES, DAMPERS, AHU'S AND FANS. THE TEST AND BALANCE REPORT SHALL BE IN ACCORDANCE WITH THE AIR BALANCE COUNCIL STANDARDS AND SHALL INCLUDE AIR QUANTITIES FOR ALL SUPPLY GRILLES, RETURN GRILLES AND EXHAUST GRILLES AND THE LEAVING AND ENTERING AIR TEMPERATURE (T) FROM SUPPLY GRILLES AND EVAPORATORS.  
 9. THERMOSTAT LOCATION SHALL BE APPROVED BY OWNER AND ENGINEER BEFORE INSTALLATION. INSTALL THERMOSTAT 48" TO 54" A.F.F. PER A.D.A. REQUIREMENTS WHERE APPLICABLE. MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR ALL REQUIREMENTS FOR JUNCTION BOXES