

CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND CORRELATE DIMENSIONS PRIOR TO PROVIDING THE WORK DETAILED IN THESE DRAWINGS.  
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### HVAC SCHEDULES

GRILLE, REGISTER, AND DIFFUSER SCHEDULE						
MARK	MANUFACTURER*	MODEL	FACE TYPE	MOUNTING LOCATION	FACE SIZE (IN)	NOTES
CD1	TITUS	PAS	PERFORATED	CEILING	24"x24"	A,B,C,E,F
CD2	TITUS	8F	PERFORATED	DUCT	24"x24"	A,C,D,E,F
RG	TITUS	PAR	PERFORATED	CEILING	24"x24"	A,C,D,E,F
TG1	TITUS	PAR	PERFORATED	CEILING	24"x24"	A,C,D,E,F
TG2	TITUS	8F	PERFORATED	CEILING	12"x12"	A,C,D,E,F
EG1	TITUS	8F	PERFORATED	CEILING	24"x24"	A,C,D,E,F
EG2	TITUS	8F	PERFORATED	CEILING	12"x12"	A,C,D,E,F
FEG	TITUS	8FF	PERFORATED	CEILING	24"x24"	A,C,D,E,F,H
FRG	TITUS	8FF	PERFORATED	CEILING	24"x24"	A,C,D,E,F,H
WTG	TITUS	350	LOUVERED	WALL	PER PLANS	A,C,G
WEG	TITUS	350	LOUVERED	WALL	PER PLANS	A,C,G

NOTES:  
 A. NECK SIZE SHOWN ON DRAWINGS.  
 B. 4-WAY THROW PATTERN UNLESS OTHERWISE SHOWN ON DRAWINGS.  
 C. BAKED ENAMEL FINISH, WHITE, PAINT PER ARCHITECTS RECOMMENDATIONS.  
 D. PROVIDE NECK FOR DUCT CONNECTION.  
 E. BRANCH DUCT SIZE SHALL BE SAME AS NECK SIZE UNLESS OTHERWISE SHOWN ON DRAWINGS.  
 F. FRAME TYPE TO MATCH CEILING CONSTRUCTION, COORDINATED WITH ARCHITECTURAL REFLECTED CEILING PLAN.  
 G. FRONT BLADES PARALLEL TO LONG DIMENSION.  
 H. PROVIDE SMITH FILTERS HOG HAIR FILTER PART #PH20.20.1. CONTACT SMITH FILTERS AT (800) 447-4009.  
 \*ACCEPTABLE ALTERNATES INCLUDE: METALAIR, PRICE, ANEVOSTAT AND J&J REGISTER.

ELECTRIC UNIT & CEILING HEATER SCHEDULE										
UNIT ID.	MANUFACTURER	MODEL NO.	BTUH	MOUNTING	CONTROL	ELECTRICAL DATA				NOTES
						KW	VOLTS	Ø	AMPS	
CUH-1	BERKO	FFCH-54B	6,800	RECESSED IN CEILING	EMS	2.0	208	1	9.6	1,2,3,4,5
CUH-2	BERKO	FFCH-55B	17,100	RECESSED IN CEILING	EMS	5.0	208	3	13.9	1,2,3,4,5

NOTES:  
 1. ACCEPTABLE ALTERNATE INDEECO (CCI SERIES), OR Q-MARK (CDF SERIES)  
 2. PROVIDE FACTORY-INSTALLED 24-VOLT CONTROL TRANSFORMER. EC TO PROVIDE 24-VOLT HOLDING COIL CONTROL RELAY.  
 3. COLOR SHALL BE WHITE.  
 4. PROVIDE FACTORY-INSTALLED DISCONNECT SWITCH.  
 5. FIELD CONVERT WIRING AS DIRECTED IN INSTALLATION MANUAL FOR OPERATION INDICATED.

SPLIT TYPE AC UNIT SCHEDULE												
TAG NO.	INDOOR UNIT				OUTDOOR UNIT				ELECTRIC VOLT/Ø/HZ	SEER	HSPF	ACCESSORIES
	MODEL #	CAPACITY (BTUH)	WEIGHT (LBS)		MODEL #	WEIGHT (LBS)	MCA	MOCP				
AHU-1/ACC-1	RAS-09LK	9000	20		RAS-09LA	75	10	15	208/1/60	20.0	10.0	1,2

NOTES:  
 1. UNIT SELECTION BASED ON CARRIER/TOSHIBA.  
 2. ALL REMOTE CONDENSING UNITS SHALL BE SECURELY MOUNTED ON EQUIPMENT CURBS FLASHED TO ROOF.  
 3. ALL REFRIGERANT PIPING SHALL BE SIZED AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.  
 4. AIR CONDITIONING UNITS ACC-1 AND AHU-1 SHALL BE OF THE SAME MANUFACTURER.

ACCESSORIES:  
 1. REMOTE MOUNTED TEMPERATURE CONTROLLER.  
 2. PROVIDE MANUFACTURER'S OPTIONAL 115V CONDENSATE PUMP AND RECEPTOR FOR INDOOR UNIT. PUMP TO BE MOUNTED ABOVE CEILING.

EXHAUST FAN SCHEDULE															
UNIT ID.	MANUFACTURER	MODEL NO.	TYPE	DRIVE	CFM	EXT. S.P. IN. WG	ACCESSORIES	INTERLOCKED WITH	SONES	FAN RPM	MOTOR			WEIGHT LBS	NOTES
											HP	VOLTS	Ø		
EF-1	GREENHECK	GB-091-4	ROOF EXHAUST	BELT	600	0.75	1	EMS VIA CONTACTOR	10.3	1556	1/4	120	1	85	1
EF-2	GREENHECK	GB-081-4	ROOF EXHAUST	BELT	180	0.5	1	---	6.1	1212	1/4	120	1	50	1
EF-3	GREENHECK	GB-081-4	ROOF EXHAUST	BELT	200	0.5	1	---	8.5	1556	1/4	120	1	50	1
EF-4	GREENHECK	GB-081-4	ROOF EXHAUST	BELT	150	0.5	1	EMS VIA CONTACTOR	5.7	1247	1/4	120	1	50	1
EF-5	GREENHECK	GB-081-4	ROOF EXHAUST	BELT	250	0.5	1	EMS DIRECT	8.5	1556	1/4	120	1	50	1,2
EF-6	GREENHECK	GB-081-4	ROOF EXHAUST	BELT	75	0.5	1	---	5.7	1247	1/4	120	1	50	1

ACCESSORIES:  
 1. FAN SHALL HAVE MANUFACTURER SUPPLIED ROOF CURB, BACK DRAFT DAMPER, BIRD AND INSECT SCREEN AND ELECTRICAL DISCONNECT.

NOTES:  
 1. ACCEPTABLE ALTERNATE MANUFACTURERS ARE PENNBARRY, COOK, OR BREIDERT.  
 2. EC TO PROVIDE 24-VOLT HOLDING COIL CONTROL RELAY.

ROOFTOP UNIT SCHEDULE (NATURAL GAS)																					
TAG NO.	MANUFACTURER	MODEL #	NOMINAL CAPACITY (TONS)	SUPPLY FAN			DX COOLING COIL DATA				HEAT		ELECTRIC				OPERATING WEIGHT LBS	CONCENTRIC PACKAGE		NOTES	
				TOTAL	OA MIN	OA MAX	E.S.P. IN. W.G.	TOTAL	SENSIBLE	MBH IN	MBH OUT	COMP RLA (EACH)	FAN HP	VOLT/Ø/HZ	MCA	MOCP		EER (SEER)	MODEL #		WEIGHT LBS
RTU-1	CARRIER	48HC*08	7.5	3000	0	600	0.8	93.3	72.2	125	103	6.1	2	480/3/60	19.0	25	12.0	1250	MM-0708-14-CN	310	1,2,3,4,5,6,7,8,9
RTU-2	CARRIER	48HC*08	7.5	3000	0	600	0.8	93.3	72.2	125	103	6.1	2	480/3/60	19.0	25	12.0	1250	MM-0708-14-CN	310	1,2,3,4,5,6,7,8,9
RTU-3	CARRIER	48HC*08	7.5	3000	850	850	0.8	93.3	72.2	125	103	6.1	2	480/3/60	19.0	25	12.0	1250	MM-0708-14-CN	310	1,2,3,4,5,6,7,8,9
RTU-4	CARRIER	48HC*08	7.5	3000	0	600	0.8	93.3	72.2	125	103	6.1	2	480/3/60	19.0	25	12.0	1250	MM-0708-14-CN	310	1,2,3,4,5,6,7,8,9
RTU-5	CARRIER	48HC*07	6	2400	600	600	0.8	75.2	55.5	125	103	9.7	2	480/3/60	18.0	25	12.0	1100	N/A	N/A	1,2,3,4,5,6,7,8,10

NOTES:  
 1. INSTALL MANUFACTURER SUPPLIED ROOF CURB AND ANCHOR BRACKETS.  
 2. UNIT SHALL HAVE FACTORY INSTALLED SUPPLY AIR SENSOR, BAROMETRIC RELIEF DAMPERS, LOUVERED HAIL GUARD, NON-POWERED CONVENIENCE OUTLET, NON-FUSED DISCONNECT SWITCH, HINGED ACCESS PANELS, THRU THE BASE ELECTRICAL CONNECTIONS, FILTER RACK, AND TEMPORARY FILTERS.  
 3. UNIT SHALL HAVE FACTORY INSTALLED SUPPLY AND RETURN SMOKE DETECTORS WITH SAMPLING TUBE. MECHANICAL CONTRACTOR RESPONSIBLE FOR SMOKE DETECTOR TERMINATION TO CONTROL BOARD WITH FACTORY PROVIDED LEAD (APPROX. 3FT). SMOKE DETECTOR REMOTE TEST/RESET STATION TO BE FURNISHED BY CARRIER AND FIELD INSTALLED IN THE LOCATION SHOWN ON THE DRAWINGS BY THE E.C. ONE TEST STATION PROVIDED TO TEST BOTH SUPPLY AND RETURN SMOKE DETECTORS.  
 4. UNIT SHALL BE VERTICAL DISCHARGE.  
 5. UNIT SHALL HAVE MODULATING ECONOMIZER WITH OUTDOOR AIR HOOD, ALL NECESSARY WIRING, GLOBAL ECONOMIZER CONTROL, AND SENSORS ARE FACTORY INSTALLED BY CARRIER.  
 6. UNIT SHALL HAVE FACTORY INSTALLED RTU-OPEN CONTROLLER AND SUPPLY AIR SENSOR. INSTALLING CONTRACTOR SHALL INSTALL ALL NECESSARY WIRING AND CONTROLS TO INTERFACE WITH THE EMS SYSTEM. SEE HVAC AND ELECTRICAL GENERAL NOTES AS WELL AS NOTES ON PME1.1, EMS1.1, AND SPECIFICATION IN THE PROJECT MANUAL.  
 7. FACTORY INSTALLED TEMPORARY THERMOSTAT INCLUDED TO ENABLE OPERATION OF RTU DURING CONSTRUCTION. EMS CONTRACTOR TO REMOVE TEMPORARY THERMOSTAT ONCE EMS IS OPERATIONAL.  
 8. ALL PETCO EQUIPMENT IS PRE-MANUFACTURED THROUGH CARRIER NATIONAL ACCOUNTS 1-800-301-0605 AND SHALL BE ORDERED THROUGH CARRIER. THE CONTRACTOR SHALL CONTACT DEBBIE JOBAN FOR PRICING AND ORDERING INSTRUCTIONS OF THESE CUSTOM UNITS. CONTACT CARRIER NATIONAL ACCOUNTS, THERSA DAWSON (949) 309-9815 WITH ADDITIONAL QUESTIONS.  
 9. CARRIER SHALL FURNISH AND CONTRACTOR TO INSTALL THE CONCENTRIC DIFFUSER PACKAGE CONSISTING OF "K" CURB TRANSITIONS AND CONCENTRIC SUPPLY/RETURN DIFFUSER WITH PRIME COAT. CONTRACTOR TO PROVIDE SUPPORTS AND CONNECTING DUCTWORK AND SHALL FIELD PAINT PER SPECIFICATIONS. DIFFUSER PACKAGE TO BE MICROMETL PRODUCT.  
 10. FACTORY INSTALLED HUMIDIFIER OPTION (HUMIDITY STAT TO BE PROVIDED BY EMS VENDOR).

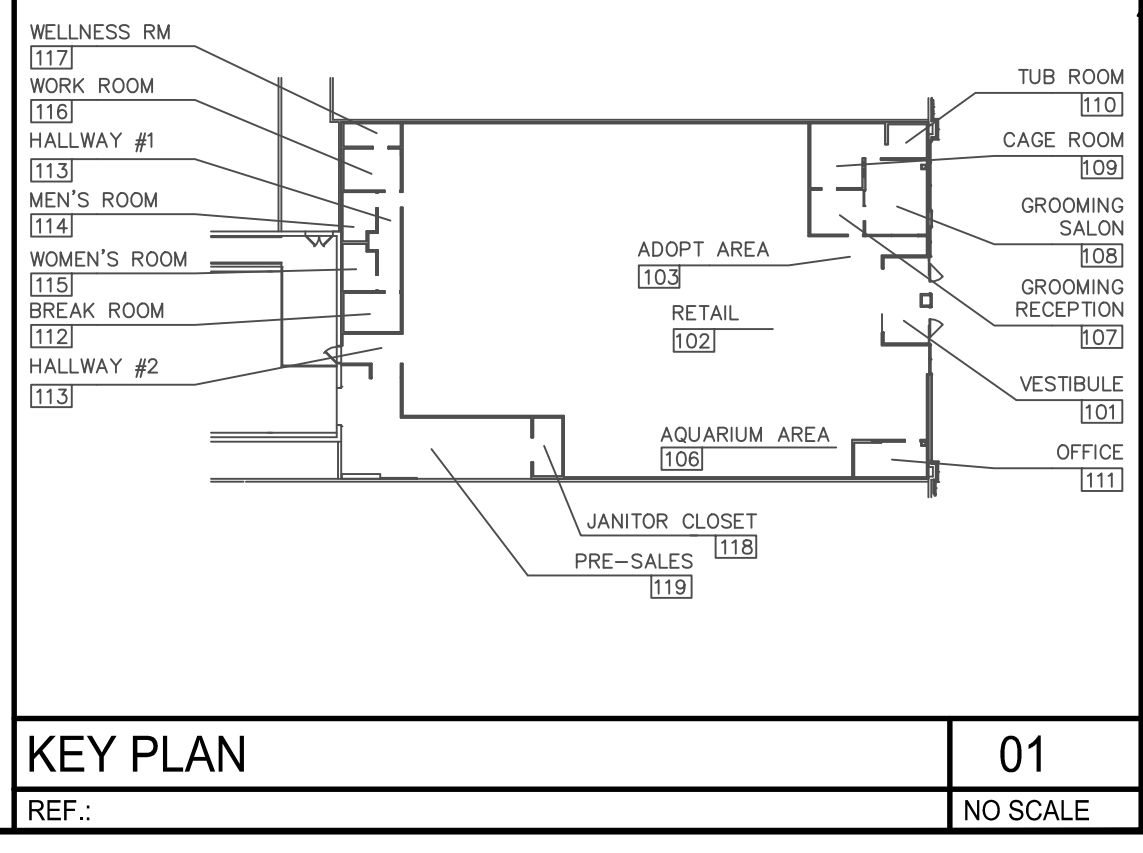
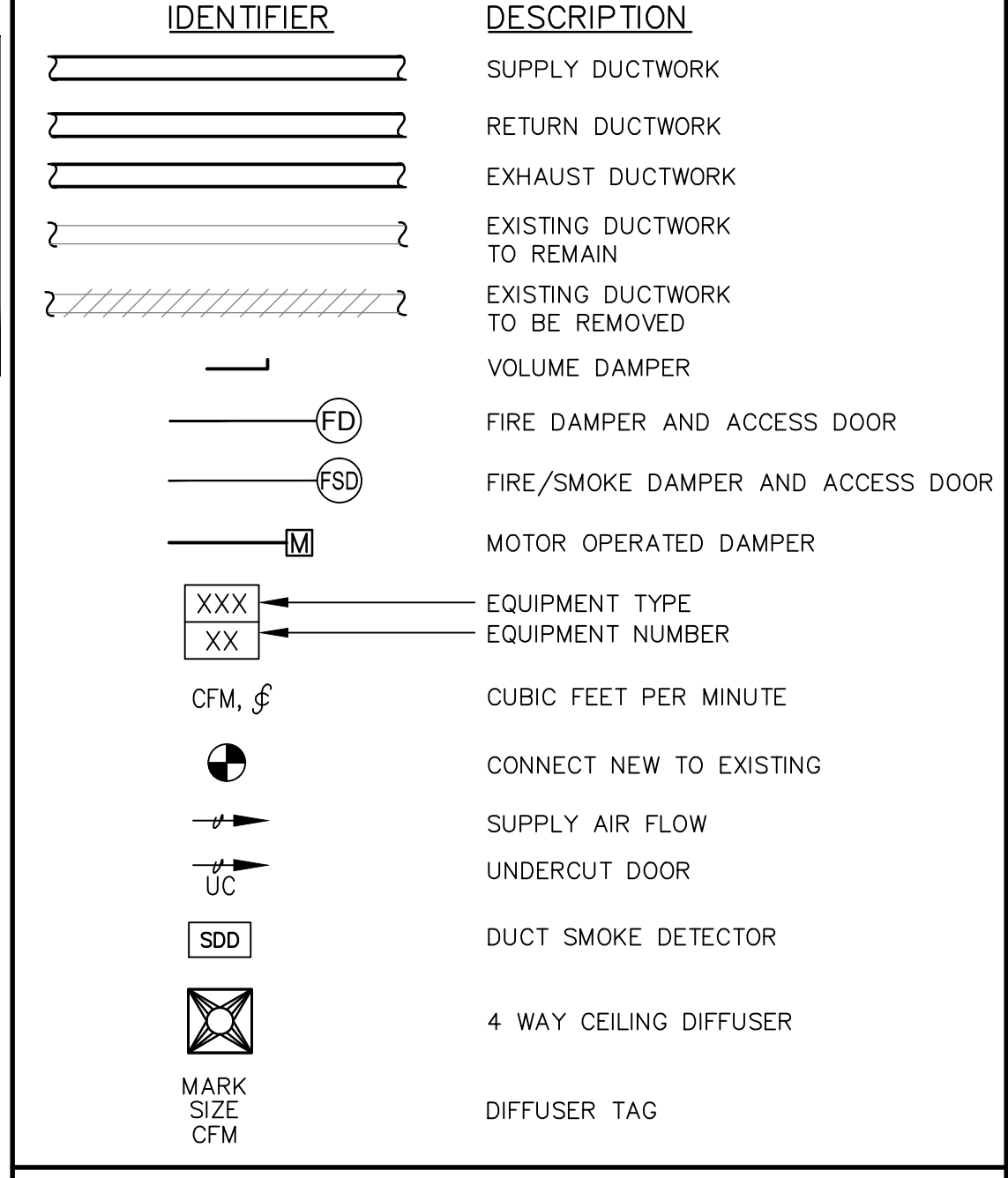
HVAC TREATMENT SCHEDULE			
SPACED SERVED	SEASON	INDOOR DESIGN TEMP (°F DB)	OUTDOOR AIR REQUIREMENTS
RETAIL	SUMMER	75 (OR AS REQUIRED BY CODE)	0.30 CFM / SF
	WINTER	70 (OR AS REQUIRED BY CODE)	0.30 CFM / SF
PET AREAS	SUMMER	75 (OR AS REQUIRED BY CODE)	1.0 CFM / SF
	WINTER	70 (OR AS REQUIRED BY CODE)	1.0 CFM / SF
OFFICES	SUMMER	75 (OR AS REQUIRED BY CODE)	20 CFM / PERSON
	WINTER	70 (OR AS REQUIRED BY CODE)	20 CFM / PERSON
PRE-SALES	SUMMER	75 (OR AS REQUIRED BY CODE)	0.15 CFM / SF
	WINTER	70 (OR AS REQUIRED BY CODE)	0.15 CFM / SF

### HVAC GENERAL NOTES

- ALL AIR MOVING DEVICES, INCLUDING BUT NOT LIMITED TO, AIR HANDLING UNITS, AIR CONDITIONING UNITS, AND UNIT VENTILATORS MUST COMPLY WITH AMCA STANDARD 210 AND ASHRAE STANDARD 62.
- PROVIDE FLEXIBLE CONNECTION ON ALL DUCT CONNECTIONS TO FANS AND OTHER EQUIPMENT.
- DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS.
- PROVIDE TURNING VANES IN ALL SQUARE ELBOWS, UNLESS OTHERWISE NOTED.
- PROVIDE VOLUME DAMPER ON EACH BRANCH TAKE OFF FROM DUCT MAIN AND ON EACH DIFFUSER TAKE OFF FROM BRANCH DUCT OR MAIN.
- FLEXIBLE DUCT CONNECTIONS TO REGISTERS, DIFFUSERS, ETC. SHALL NOT EXCEED 6'-0" IN LENGTH.
- COVER OPEN ENDED DUCTWORK WITH 1/2" X 1/2" WOVEN WIRE MESH.
- IF NOTED ON THE DRAWINGS, ALL MECHANICAL EQUIPMENT WITHIN THE CONTRACT LIMITS SHALL BE MOUNTED ON VIBRATION ISOLATORS TO PREVENT THE TRANSMISSION OF SOUND TO THE BUILDING STRUCTURE. VIBRATION ISOLATORS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS AND ON ACTUAL WEIGHT DISTRIBUTION OF THE EQUIPMENT FURNISHED. DEFLECTIONS SHALL BE NOTED ON THE EQUIPMENT SHOP DRAWING SUBMITTALS.
- PROVIDE ALL SEISMIC AND HURRICANE RESISTANCE PROVISIONS REQUIRED BY LOCAL CODE. WHERE REQUIRED, PROVIDE DETAILS WITH CALCULATIONS SIGNED & SEALED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE.
- BALANCE ALL AIR SYSTEMS AS PER SPECIFICATIONS. HVAC CONTRACTOR SHALL BE RESPONSIBLE TO SUBMIT ONE SIGNED AND SEALED TESTING AND BALANCING REPORT TO THE REVIEWING AGENCY AND ONE SIGNED AND SEALED TESTING AND BALANCING REPORT TO THE LOCAL BUILDING OFFICIAL PRIOR TO PROJECT COMPLETION.
- GAS-FIRED EQUIPMENT SELECTIONS ARE BASED ON ALTITUDES UP TO 2000 FEET ABOVE SEA LEVEL. EQUIPMENT SELECTIONS FOR ALTITUDES OVER 2000 FEET ABOVE SEA LEVEL SHALL BE CHECKED AND ADJUSTED AS REQUIRED.
- PROVIDE DECAL FOR EACH ROOFTOP HVAC UNIT, WITH MINIMUM 4" HIGH REFLECTIVE LETTERS, TO IDENTIFY EACH UNIT FOR MAINTENANCE PURPOSES. DECAL SHALL BE PLACED ON EACH UNIT ADJACENT TO THE UNIT POWER DISCONNECT SWITCH.
- ROOFTOP HVAC UNITS SHALL BE SUPPLIED WITH COASTAL PACKAGE (COIL COATING, PAINTED RAILS, ETC.) WHEN SITE IS LOCATED WITHIN FIVE (5) MILES OF THE COAST.
- FURNISH AND INSTALL MERV 7 PLEATED REPLACEMENT FILTERS IN EACH UNIT FOLLOWING SYSTEM STARTUP AND AFTER PROJECT COMPLETION.

- STARTUP EQUIPMENT AND TEST FOR ALL FUNCTIONALITY (HEATING, COOLING, VENTILATION, ETC.) AND ALL STAGES AS A CONDITION OF FINAL ACCEPTANCE OF THE SYSTEMS.
- FOR PROJECTS WHERE EITHER UNITS OTHER THAN CARRIER ARE FURNISHED (BY LANDLORD, FOR EXAMPLE) OR WHERE EXISTING UNITS ARE TO BE REUSED, HVAC CONTRACTOR SHALL FURNISH SMOKE DETECTOR SYSTEM SENSOR #D4120 WITH SAMPLING TUBE AND REMOTE TEST/RESET STATION RTS451KEY AND ELECTRICAL CONTRACTOR SHALL WIRE SAME.
- AT THE CONTRACTOR'S DISCRETION, DIRECT DRIVE EXHAUST FANS MAY BE USED WHERE BELT DRIVE FANS ARE INDICATED, PROVIDED THAT 1) PERFORMANCE AND CHARACTERISTICS ARE SIMILAR, 2) DIRECT DRIVE FANS ARE PROVIDED WITH A SOLID STATE FAN SPEED CONTROLLER FOR FIELD ADJUSTMENT, AND 3) CHANGES AFFECTING OTHER CONTRACTORS ARE DONE SO AT NO ADDITIONAL COST TO PETCO.
- DUCTWORK CROSSING FIRE RATED WALL OR OTHER FIRE RATED ASSEMBLIES SHALL BE MINIMUM 26 GAUGE SHEET METAL.
- PROVIDE FIRE AND/OR FIRE/SMOKE DAMPERS IN DUCTWORK AT CEILINGS AND WALLS AS REQUIRED BY BUILDING CODE AND/OR AUTHORITY HAVING JURISDICTION. FIRE AND FIRE/SMOKE DAMPERS SHALL CONFORM TO NFPA AS APPLICABLE.
- PROVIDE WALL AND/OR DUCT ACCESS PANELS OR DOORS FOR ACCESS TO ALL FIRE AND/OR FIRE/SMOKE DAMPERS. ACCESS PANEL OR DOOR SHALL BE MINIMUM SIZE OF 6"x6" AND SHALL BE INSTALLED WITHIN 12" OF DAMPER. PROVIDE A REMOVABLE DUCT SECTION WHERE DUCT SIZE IS TOO SMALL FOR A 6"x6" ACCESS DOOR.
- TO ENABLE TEMPORARY COOLING OR HEATING TEMPORARY CONSTRUCTION THERMOSTATS ARE FURNISHED BY CARRIER (CL-75 FOR COOLING AND TS-65 FOR HEATING). PROVIDE WIRING AS REQUIRED AND INSTALL BELOW UNIT IN SPACE. REMOVE AT TIME OF EMS INSTALLATION.
- IN SEISMIC AND HIGH WIND ZONES SECURE ROOF MOUNTED EQUIPMENT TO ROOF WITH ANCHOR METHOD APPROVED BY LOCAL AUTHORITY HAVING JURISDICTION.
- THE HVAC SUBCONTRACTOR SHALL SCHEDULE THE EOC AT LEAST THREE (3) WEEKS PRIOR TO DESIRED INSPECTION DATE. REFER TO SPECIFICATIONS FOR MORE INFORMATION.

### HVAC SYMBOLS



**ACERTUS CONSULTING GROUP, LLC**  
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 Registered Engineering Firm  
 E-1192

**petco.**  
 PETCO ANIMAL SUPPLIES STORES, INC.  
 6834 WESLEY STREET  
 GREENVILLE, TX 75402

DISTRIBUTION:	DATE:
25% SUBMISSION	06-28-11
75% SUBMISSION	08-11-11
98% SUBMISSION	08-16-11
100% SUBMISSION	09-23-11
PERMIT SET	09-28-11
FINAL PERMIT SET	09-20-13
BULLETIN #1	10-22-14

DRAWING TITLE:  
**MECHANICAL GENERAL INFORMATION AND SCHEDULES**  
**M1.1**