




GENERAL NOTES

ANNOTATION		
	TITLE MARK DETAIL OR PLAN NUMBER - 1 DETAIL OR PLAN REFERENCE LOCATION FOUND IN M-201	
	SECTION MARK A&T SECTION NUMBER - 1 SECTION FOUND IN M-501	
	DETAIL BOUNDARY B DETAIL NUMBER - 2	
	SHEET KEYNOTE	
	REVISION CLOUD (DELTA 1)	
	DETAIL REFERENCE DETAIL NUMBER - 1 DETAIL FOUND IN M-301	AIR TERMINALS
	FEEDER TAG	CD-A 100
	EQUIPMENT TAG, DESCRIPTION M, MARK NUMBER 1	CRA 100
	LOUVER IN DOOR, MINIMUM 1.0 SQUARE FOOT FREE AREA	EGA 100
	CONDENSATE	EGA 100
	UNDERCUT DOOR	
	POINT OF CONNECTION	
	POINT OF DISCONNECTION	
	ELEVATION REFERENCE SYMBOL BOTTOM OF DUCT AT 10'-0" AFF	
DUCT		VAV BOX
	SINGLE LINE DUCTWORK (NEW)	
	SINGLE LINE DUCTWORK (EXISTING)	
	SINGLE LINE DUCTWORK (EXIST. TO BE DEMOLISHED)	
	DOUBLE LINE DUCTWORK (NEW)	
	DOUBLE LINE DUCTWORK (EXISTING)	
	DOUBLE LINE DUCTWORK (EXISTING TO BE DEMOLISHED)	
	DUCTWORK WITH ACOUSTIC LINING	
	DUCT UNDER POSITIVE PRESSURE SUPPLY DUCT OR FAN DISCHARGE	
	DUCT UNDER NEGATIVE PRESSURE RETURN, EXHAUST OR OUTSIDE AIR RISE IN DUCTWORK (IN DIRECTION OF AIR FLOW)	
	DROP IN DUCTWORK (IN DIRECTION OF AIR FLOW)	
	REHEAT COIL	
	DUCT TRANSITION	
	VANED ELBOW	
	RADIUS ELBOW	
	DUCT FITTING (SEE DETAILS)	

		AUTOMATIC DAMPER (MOTORIZED)				PLUG VALVE		1. ALL DUCTWORK, INSULATION, EQUIPMENT AND INSTALLATION SHALL CONFORM, AS A MINIMUM, TO LATEST EDITION OF ASHRAE 90.1 AND ALL OTHER APPLICABLE FEDERAL CODES AND REQUIREMENTS, GOVERNING AUTHORITIES HAVING JURISDICTION.	
		VOLUME DAMPER				ANGLE GATE VALVE		2. LOCATION OF PIPING & DUCTWORK IS APPROXIMATE. ALL DRAWINGS AND LAYOUTS ARE DIAGRAMMATIC TO SHOW DESIGN INTENT ONLY. CONTRACTOR TO COORDINATE ALL DUCTWORK AND PIPING WITH ALL OTHER NEW WORK AND EXISTING CONDITIONS. IF FIELD CONDITIONS DIFFER SIGNIFICANTLY FROM THOSE SHOWN DRAWINGS, AFFECT MECHANICAL WORK, INFORM ENGINEER OF RECORD IMMEDIATELY BEFORE PROCEEDING WITH ANY WORK.	
						RELIEF VALVE		3. CONTRACTOR SHALL NOTE THE CRITICAL SPACE AVAILABLE ABOVE CEILINGS. PROVIDE TRANSITIONS AT CROSSOVERS, UNDER BEAMS, OVER/UNDER PIPES, AS REQUIRED TO ACCOMMODATE DUCTS WITHIN SPACE AVAILABLE, PROVIDING EQUIVALENT DUCT SIZE TO THE DIAMETER SHOWN. COORDINATE CLOSELY WITH OTHER SECTIONS TO REDUCE NECESSITY OF TRANSITIONS TO A MINIMUM. NO ADDITIONAL COSTS WILL BE PAID FOR ANY REQUIRED TRANSITIONS OR OTHER SPECIAL CHANGE SHAPE PIECES.	
						VALVE AND CAP		4. SUBMIT SHOP DRAWINGS TO VERIFY EXACT LOCATIONS OF CEILING DIFFUSERS, RETURN GRILLES.	
						VALVE AND CAP		5. PROVIDE VOLUME DAMPERS IN EACH SUPPLY AIR BRANCH DUCT TO THE OUTLETS, AS FAR AWAY FROM OUTLET AS POSSIBLE, AND ALL OTHER LOCATIONS AS INDICATED. INSTALL, PREFERABLY AT THE BRANCH TAKEOFF.	
						BALANCING VALVE AND CAP		6. WHERE CONNECTING FLEXIBLE DUCTWORK TO CEILING DIFFUSERS AND CEILING REGISTERS, SIZE OF BRANCH & FLEXIBLE DUCT SHALL BE AS INDICATED, REGARDLESS OF DIFFUSER OR REGISTER NECK SIZE. MAXIMUM FLEX RUNOUT 6'-0" LONG. FLEX DUCT NOT TO BE USED IN LIEU OF ELBOWS. MINIMUM 1'-0" RADIUS FOR ALL CHANGES IN DIRECTION.	
						PRESSURE GAUGE		7. ROOM THERMOSTATS SHALL BE CENTERED BESIDE THE LIGHT SWITCHES UNLESS OTHERWISE NOTED. CONTRACTOR TO VERIFY EXACT LOCATIONS WITH ARCHITECT, MOUNT THERMOSTATS AT 48" ABOVE THE FLOOR.	
						NEEDLE VALVE		8. CONTRACTOR TO PROVIDE (4) COPIES OF OPERATING AND MAINTENANCE MANUAL FOR OWNER'S USE FOR EACH PIECE OF EQUIPMENT. EACH ITEM SHALL BE CROSS-REFERENCED AND NUMBERED WITH AS-BUILT DESCRIPTIONS.	
						FLEXIBLE CONNECTION		9. RETURN AIR IS ACCOMPLISHED VIA DUCTED RETURN GRILLES UNLESS OTHERWISE NOTED.	
						BASKET STRAINER		10. ALL DUCTWORK SHALL BE GALVANIZED STEEL. ALL DUCT CONSTRUCTION, INSULATION OR LINING SHALL BE IN ACCORDANCE WITH "SMACNA" HVAC DUCT CONSTRUCTION STANDARDS, LATEST EDITION. ALL DUCTS TO BE SEALED WITH SHEET METAL SCREWS AND "CODE APPROVED" DUCT SEALANT. FOR ALL VAV INLET DUCTS, FROM THE MAIN DUCT SYSTEM, CONTRACTOR SHALL USE "HIGH PRESSURE" DUCT SEALANT. NO DUCT TAPE IS ALLOWED FOR THIS PROJECT.	
						DUPLEX BASKET STRAINER		11. AREAS ABOVE RETURN GRILLES SHALL BE PAINTED FLAT BLACK TO MASK "SEE THROUGH" EFFECT OR ANY LIGHT REFLECTION.	
						PIPE ALIGNMENT GUIDE		12. RUN ALL DUCTS AS TIGHT AS POSSIBLE TO BOTTOM OF STRUCTURE, UNLESS OTHERWISE NOTED. DUCT DIMENSIONS SHOWN ARE NET INSIDE DIMENSIONS. ALL PIPE SIZES SHOWN ARE NOMINAL PIPE DIAMETERS.	
						PIPE ANCHOR		13. CONTRACTOR SHALL COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF EQUIPMENT W/THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING.	
						PRESSURE DRIP ASSEMBLY - LOW		14. ALL SYMBOLS SHOWN ON SYMBOL LIST ARE NOT NECESSARILY USED ON THIS PROJECT.	
						PRESSURE DRIP ASSEMBLY - MEDIUM		15. CONTRACTOR TO PROVIDE CUTTING, PATCHING, AND PAINTING FOR ALL OPENINGS IN WALLS, FLOOR AND ROOF.	
						PUMP SUCTION DIFFUSER		16. FOR DUCT DROPS BETWEEN CEILING JOISTS, CONTRACTOR TO COORDINATE WITH STRUCTURAL ENGINEER AND ARCHITECT FOR ALL DUCT DROPS AND OPENING LOCATIONS.	
						PRESSURE REDUCING VALVE STATION		17. AIR MOVING SYSTEMS SUPPLYING AIR IN EXCESS OF 2000 CFM SHALL BE EQUIPPED WITH A AUTOMATIC SHUTOFF. AUTOMATIC SHUTOFFS SHALL BE ACCOMPLISHED BY INTERRUPTING THE POWER SOURCE OF AIR-MOVING EQUIPMENT UPON DETECTION OF SMOKE IN THE MAIN SUPPLY-AIR DUCT.	
						"Y" TYPE STRAINER		18. ALL INSULATION PRODUCTS FOR HVAC SHALL MEET LEED IEQ REQUIREMENTS.	
						THERMOMETER GAUGE		19. NO INSULATION INSTALLED FOR THE PROJECT SHALL BE OF MATERIAL MANUFACTURED USING CHLOROFUORO CARBONS (CFC'S), NOR SHALL CFC'S BE USED IN THE INSTALLATION OF THE PRODUCT.	
						TRAP (TYPE AS NOTED)		20. ALL INSULATING MATERIALS SHALL HAVE PROPERTIES THAT EXCEED OR MEET APPLICABLE INDUSTRY STANDARDS. POLYSTYRENE PRODUCTS SHALL MEET ASTM C578-91.	
						PUMP		21. ALL ITEMS REQUIRING ACCESS, SUCH AS FOR OPERATING, CLEANING, SERVICING, MAINTENANCE, AND CALIBRATION, SHALL BE EASILY AND SAFELY ACCESSIBLE BY PERSONS STANDING AT FLOOR LEVEL, OR STANDING ON PERMANENT PLATFORMS, WITHOUT THE USE OF PORTABLE LADDERS. EXAMPLES OF THESE ITEMS INCLUDE, BUT ARE NOT LIMITED TO: ALL TYPES OF VALVES, FILTERS AND STRAINERS, TRANSMITTERS, CONTROL DEVICES. PRIOR TO COMMENCING INSTALLATION WORK, REFER CONFLICTS BETWEEN THIS REQUIREMENT AND CONTRACT DRAWINGS TO THE COR FOR RESOLUTION.	
						AQUASTAT		22. THE FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED. DUCT SIZES ARE NET INSIDE DIMENSIONS.	
						TEMPERATURE TRANSMITTER		23. ACCESS PANELS IN HARD SUSPENDED CEILINGS ARE REQUIRED FOR ALL VALVES, TRAPS, DAMPERS, CLEANOUTS, CONTROLS, ETC. ACCESS PANELS SHALL BE FURNISHED AND INSTALLED UNDER THE ARCHITECTURAL SPECIFICATIONS.	
						VACUUM BREAKER		24. DIFFUSER, REGISTER AND GRILLE SIZES SHOWN ON FLOOR PLANS ARE NECK SIZES.	
						BALL JOINT		25. SEISMIC PROVISIONS REQUIRED - SEE SPECS..	
						CAPPED OUTLET		26. ALL DUCTWORK, INSULATION AND INSTALLATION SHALL CONFIRM, AS MINIMUM TO VA SPECIFICATIONS, STANDARDS, GUIDELINES AND SMACNA STANDARDS.</	

FULLY SPRINKLERED

Revisions:	Date	CONSULTANTS:		Stamp and Signature	ARCHITECT/ENGINEERS:		Drawing Title		Project Title		Project Number		Office of Construction and Facilities Management
		<div>BRYAN BENNO BRAUER,P.E. CONSULTING ENGINEER PO BOX 2586, TRUCKEE, CA 96160 (530)582-8683 BRYAN@BBBRAUER.COM</div>		<div>ARSENIO ORTEGA, P.E. CONSULTING ENGINEER 5 Third Street, Suite 716 San Francisco, CA 94103 (415) 546-0490 tel -0491 fax</div>			 <div>ENGINEERS ARCHITECTS 6700 KOLL CENTER PARKWAY SUITE 125 PLEASANTON, CALIFORNIA 94566 TEL 925.223.8217 www.thekpagroup.com ©THE KPA GROUP 2017 KPA Project No. 282.00</div>		MECHANICAL SYMBOLS, NOTES AND ABBREVIATIONS		ESTABLISH SUNNYVALE R AND D CAMPUS		
							Approved Project Director - - - VAPAHS PLANNING AND ENGINEERING		Location 1080 INNOVATION WAY, SUNNYVALE, CA 94085		Drawing Number M001 Dwg. of		
							Date 4/30/2017		Checked PWP		Drawn KPA TEAM		

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

AIR DEVICE SCHEDULE (SUPPLY)																
MARK	TYPE	AIR FLOW				MAX APD	MOUNTING	PANEL/FRAME SIZE		NECK SIZE		NC	DAMPER	FINISH	REMARKS	
		MIN		MAX				IN x IN	[mm x mm]	IN	[mm]					
		CFM	[L/s]	CFM	[L/s]	IN WG										[Pa]
SD-11	LOUVERED FACE	40	[19]	160	[76]	0.080	[20]	CEILING	24 x 24	[600 x 600]	6 ø	[152 ø]	19	NONE	WHITE	----
SD-12	LOUVERED FACE	70	[33]	280	[130]	0.100	[25]	CEILING	24 x 24	[600 x 600]	8 ø	[203 ø]	23	NONE	WHITE	----
SD-13	LOUVERED FACE	110	[52]	380	[180]	0.090	[23]	CEILING	24 x 24	[600 x 600]	10 ø	[254 ø]	22	NONE	WHITE	----
SD-14	LOUVERED FACE	160	[76]	470	[220]	0.080	[20]	CEILING	24 x 24	[600 x 600]	12 ø	[305 ø]	19	NONE	WHITE	----
SD-15	LOUVERED FACE	220	[100]	640	[300]	0.090	[23]	CEILING	24 x 24	[600 x 600]	14 ø	[356 ø]	21	NONE	WHITE	----
SD-16	LOUVERED FACE	250	[120]	740	[350]	0.100	[25]	CEILING	24 x 24	[600 x 600]	16 ø	[406 ø]	22	NONE	WHITE	----
SD-21	PERFORATED	60	[28]	180	[85]	0.100	[25]	CEILING	24 x 24	[600 x 600]	6 ø	[152 ø]	25	NONE	WHITE	----
SD-22	PERFORATED	110	[52]	320	[150]	0.100	[25]	CEILING	24 x 24	[600 x 600]	8 ø	[203 ø]	30	NONE	WHITE	----
SD-23	PERFORATED	160	[76]	450	[210]	0.100	[25]	CEILING	24 x 24	[600 x 600]	10 ø	[254 ø]	33	NONE	WHITE	----
SD-24	PERFORATED	240	[110]	700	[330]	0.100	[25]	CEILING	24 x 24	[600 x 600]	12 ø	[305 ø]	36	NONE	WHITE	----
SD-25	PERFORATED	220	[100]	950	[450]	0.100	[25]	CEILING	24 x 24	[600 x 600]	14 ø	[356 ø]	38	NONE	WHITE	----
SD-26	PERFORATED	280	[130]	1200	[570]	0.100	[25]	CEILING	24 x 24	[600 x 600]	16 ø	[406 ø]	41	NONE	WHITE	----
SD-47	ROUND	80	[38]	160	[76]	0.080	[20]	DUCT MOUNTED	13.5 ø	[343 ø]	6 ø	[152 ø]	41	NONE	WHITE	OPPOSED BLADE DAMPER IN NECK
SD-40	ROUND	140	[66]	270	[130]	0.080	[20]	DUCT MOUNTED	18 ø	[457 ø]	8 ø	[203 ø]	41	NONE	WHITE	OPPOSED BLADE DAMPER IN NECK
SD-41	ROUND	220	[100]	400	[190]	0.080	[20]	DUCT MOUNTED	22 ø	[559 ø]	10 ø	[254 ø]	41	NONE	WHITE	OPPOSED BLADE DAMPER IN NECK
SD-42	ROUND	300	[140]	600	[280]	0.080	[20]	DUCT MOUNTED	26 ø	[660 ø]	12 ø	[305 ø]	42	NONE	WHITE	OPPOSED BLADE DAMPER IN NECK
SD-43	ROUND	220	[100]	1000	[470]	0.080	[20]	DUCT MOUNTED	26 ø	[660 ø]	14 ø	[356 ø]	43	NONE	WHITE	OPPOSED BLADE DAMPER IN NECK
SD-44	ROUND	280	[130]	1300	[610]	0.080	[20]	DUCT MOUNTED	29 ø	[737 ø]	16 ø	[406 ø]	44	NONE	WHITE	OPPOSED BLADE DAMPER IN NECK
SD-45	ROUND	350	[170]	1500	[710]	0.080	[20]	DUCT MOUNTED	33 ø	[838 ø]	18 ø	[457 ø]	42	NONE	WHITE	OPPOSED BLADE DAMPER IN NECK
SD-46	ROUND	440	[210]	2000	[940]	0.080	[20]	DUCT MOUNTED	36 ø	[914 ø]	20 ø	[508 ø]	45	NONE	WHITE	OPPOSED BLADE DAMPER IN NECK
SD-51	SUPPLY REGISTER	80	[38]	120	[57]	0.100	[25]	WALL	8 x 8	[203 x 203]	6 x 6	[152 x 152]	25	OBD	WHITE	----
SD-52	SUPPLY REGISTER	80	[38]	160	[76]	0.090	[23]	WALL	12 x 8	[305 x 203]	10 x 6	[254 x 152]	25	OBD	WHITE	----
SD-53	SUPPLY REGISTER	130	[61]	350	[170]	0.080	[20]	WALL	14 x 10	[356 x 254]	12 x 8	[305 x 203]	26	OBD	WHITE	----
SD-54	SUPPLY REGISTER	200	[94]	500	[240]	0.100	[25]	WALL	14 x 12	[356 x 305]	12 x 10	[305 x 254]	26	OBD	WHITE	----
SD-55	SUPPLY REGISTER	400	[190]	700	[330]	0.080	[20]	WALL	18 x 12	[508 x 305]	18 x 10	[457 x 254]	26	OBD	WHITE	----
SD-56	SUPPLY REGISTER	360	[170]	700	[330]	0.070	[18]	WALL	18 x 18	[457 x 457]	16 x 16	[406 x 406]	27	OBD	WHITE	----
SD-57	SUPPLY REGISTER	560	[260]	1100	[520]	0.070	[18]	WALL	22 x 22	[560 x 560]	20 x 20	[508 x 508]	28	OBD	WHITE	----
SD-58	SUPPLY REGISTER	1250	[590]	3000	[1400]	0.100	[25]	WALL	32 x 32	[813 x 813]	30 x 30	[762 x 762]	36	OBD	WHITE	----
SD-61	DRUM LOUVER	100	[47]	200	[94]	0.090	[23]	DUCT MOUNTED	12 x 8	[305 x 203]	10 x 6	[254 x 152]	19	NONE	WHITE	----
SD-62	DRUM LOUVER	80	[38]	150	[71]	0.090	[23]	DUCT MOUNTED	14 x 6	[356 x 152]	12 x 4	[305 x 102]	15	NONE	WHITE	----
SD-63	DRUM LOUVER	150	[71]	300	[140]	0.090	[23]	DUCT MOUNTED	16 x 8	[406 x 203]	14 x 6	[356 x 152]	18	NONE	WHITE	----
SD-64	DRUM LOUVER	290	[140]	600	[280]	0.090	[23]	DUCT MOUNTED	22 x 10	[560 x 254]	20 x 8	[508 x 203]	21	NONE	WHITE	----
SD-65	DRUM LOUVER	450	[210]	900	[420]	0.090	[23]	DUCT MOUNTED	22 x 14	[560 x 2356]	20 x 12	[508 x 305]	23	NONE	WHITE	----
SD-66	DRUM LOUVER	670	[320]	1300	[610]	0.090	[23]	DUCT MOUNTED	32 x 14	[813 x 356]	30 x 12	[762 x 305]	25	NONE	WHITE	----
SD-67	DRUM LOUVER	550	[260]	1650	[780]	0.090	[23]	DUCT MOUNTED	38 x 14	[965 x 356]	36 x 12	[914 x 305]	25	NONE	WHITE	----

- NOTES
- SEE FLOOR PLAN FOR THROW PATTERN.
 - SEE DETAIL FOR DAMPER IN BRANCH DUCT SERVING EACH DIFFUSER.
 - PROVIDE SQUARE TO ROUND ADAPTER.

AIR DEVICE SCHEDULE (RETURN)																
MARK	TYPE	AIR FLOW				MAX APD		MOUNTING	PANEL/FRAME SIZE		NECK SIZE		NC	DAMPER	FINISH	REMARKS
		MIN		MAX					IN x IN	[mm x mm]	IN x IN	[mm x mm]				
		CFM	[L/s]	CFM	[L/s]	IN WG	[Pa]									
RG-21	PERFORATED	60	[28]	100	[47]	0.088	22.000	CEILING	24 x 24	[600 x 600]	6 DIAM	[152 DIAM]	13	NONE	WHITE	----
RG-22	PERFORATED	110	[52]	170	[80]	0.088	22.000	CEILING	24 x 24	[600 x 600]	8 DIAM	[203 DIAM]	13	NONE	WHITE	----
RG-23	PERFORATED	170	[80]	250	[120]	0.088	22.000	CEILING	24 x 24	[600 x 600]	10 DIAM	[254 DIAM]	14	NONE	WHITE	----
RG-24	PERFORATED	240	[110]	400	[190]	0.088	22.000	CEILING	24 x 24	[600 x 600]	12 x 12	[305 x 305]	12	NONE	WHITE	----
RG-25	PERFORATED	320	[150]	500	[240]	0.087	22.000	CEILING	24 x 24	[600 x 600]	14 DIAM	[356 DIAM]	14	NONE	WHITE	----
RG-26	PERFORATED	420	[200]	700	[330]	0.087	22.000	CEILING	24 x 24	[600 x 600]	16 x 16	[406 x 406]	16	NONE	WHITE	----
RR-51	RETURN REGISTER	130	[61]	210	[99]	0.078	20.000	WALL	10 x 10	[254 x 254]	8 x 8	[203 x 203]	13	OBD	WHITE	----
RR-52	RETURN REGISTER	200	[94]	330	[160]	0.078	20.000	WALL	12 x 12	[305 x 305]	10 x 10	[254 x 254]	15	OBD	WHITE	----
RR-53	RETURN REGISTER	270	[130]	440	[210]	0.078	20.000	WALL	14 x 14	[356 x 356]	12 x 12	[305 x 305]	17	OBD	WHITE	----
RR-54	RETURN REGISTER	250	[120]	610	[290]	0.082	21.000	WALL	16 x 16	[406 x 406]	14 x 14	[356 x 356]	18	OBD	WHITE	----
RR-55	RETURN REGISTER	320	[150]	810	[380]	0.082	21.000	WALL	18 x 18	[457 x 457]	16 x 16	[406 x 406]	19	OBD	WHITE	----
RR-56	RETURN REGISTER	90	[42]	160	[76]	0.078	20.000	WALL	10 x 8	[254 x 203]	8 x 6	[203 x 152]	12	OBD	WHITE	----
RR-57	RETURN REGISTER	140	[66]	240	[110]	0.078	20.000	WALL	14 x 8	[356 x 203]	12 x 6	[305 x 152]	14	OBD	WHITE	----
RR-58	RETURN REGISTER	210	[99]	350	[170]	0.078	20.000	WALL	20 x 8	[508 x 203]	18 x 6	[457 x 152]	16	OBD	WHITE	----
RR-59	RETURN REGISTER	190	[90]	320	[150]	0.078	20.000	WALL	14 x 10	[356 x 254]	12 x 8	[305 x 203]	15	OBD	WHITE	----
RR-510	RETURN REGISTER	220	[100]	360	[170]	0.078	20.000	WALL	14 x 12	[356 x 305]	12 x 10	[305 x 254]	16	OBD	WHITE	----
RR-511	RETURN REGISTER	330	[160]	560	[260]	0.078	20.000	WALL	20 x 12	[508 x 305]	18 x 10	[457 x 254]	17	OBD	WHITE	----
RR-512	RETURN REGISTER	360	[170]	850	[400]	0.082	21.000	WALL	26 x 14	[660 x 356]	24 x 12	[600 x 305]	20	OBD	WHITE	----
RR-513	RETURN REGISTER	460	[220]	1260	[590]	0.095	24.000	WALL	32 x 14	[813 x 356]	30 x 12	[762 x 305]	24	OBD	WHITE	----
RG-61	DRUM LOUVER	100	[47]	200	[94]	0.091	23.000	DUCT MOUNTED	12 x 8	[305 x 203]	10 x 6	[254 x 152]	19	NONE	WHITE	----
RG-62	DRUM LOUVER	80	[38]	150	[71]	0.091	23.000	DUCT MOUNTED	14 x 6	[356 x 152]	12 x 4	[305 x 102]	15	NONE	WHITE	----
RG-63	DRUM LOUVER	150	[71]	290	[140]	0.091	23.000	DUCT MOUNTED	16 x 8	[406 x 203]	14 x 6	[356 x 152]	18	NONE	WHITE	----
RG-64	DRUM LOUVER	290	[140]	580	[270]	0.091	23.000	DUCT MOUNTED	22 x 10	[560 x 254]	20 x 8	[508 x 203]	21	NONE	WHITE	----
RG-65	DRUM LOUVER	450	[210]	900	[420]	0.091	23.000	DUCT MOUNTED	22 x 14	[560 x 2356]	20 x 12	[508 x 305]	23	NONE	WHITE	----
RG-66	DRUM LOUVER	670	[320]	1370	[650]	0.091	23.000	DUCT MOUNTED	32 x 14	[813 x 356]	30 x 12	[762 x 305]	25	NONE	WHITE	----
RG-67	DRUM LOUVER	550	[260]	1650	[780]	0.091	23.000	DUCT MOUNTED	38 x 14	[965 x 356]	36 x 12	[914 x 305]	25	NONE	WHITE	----

NOTE

PROVIDE SQUARE TO ROUND ADAPTER.

AIR DEVICE SCHEDULE (LINEAR)

MARK	TYPE	AIR FLOW				MAX APD	MIN THROW		MAX THROW		# OF SLOTS	SLOT WIDTH		PANEL/FRAME SIZE		NECK SIZE		THROW PATTERN	THROW TYPE	NC	DAMPER	FINISH	REMARKS	
		MIN		MAX			FT	[M]	FT	[M]		IN	[mm]	IN	[mm]	IN	[mm]							
		CFM	[L/s]	CFM	[L/s]	IN WG					[Pa]							FT	[M]	FT	[M]			
SD-31	LINEAR	180	[85]	580	[270]	0.27	66.70	4-7-15	2.0-3.1-4.9	17-21-30	5.3-6.5-9.2	2	2	[50]	24 x 5	[600 x 127]	10 ø	[254 ø]	2 WAY	VERTICAL	41	NONE	WHITE	-----
SD-32	LINEAR	150	[71]	510	[240]	0.28	69.40	4-8-16	2.2-3.3-5.0	18-22-31	5.4-6.6-9.3	2	2	[50]	24 x 5	[600 x 127]	12 ø	[305 ø]	2 WAY	VERTICAL	42	NONE	WHITE	-----
SD-33	LINEAR	180	[85]	570	[270]	0.18	44.60	3-5-11	0.9-1.7-3.3	12-15-22	3.5-4.7-6.6	2	2.5	[63]	24 x 5	[600 x 127]	10 ø	[254 ø]	2 WAY	VERTICAL	43	NONE	WHITE	-----
SD-34	LINEAR	210	[99]	660	[310]	0.24	58.90	4-6-13	1.2-1.9-3.9	13-17-23	4.1-5.0-7.1	2	2.5	[63]	24 x 5	[600 x 127]	12 ø	[305 ø]	2 WAY	VERTICAL	41	NONE	WHITE	-----
SD-35	LINEAR	140	[66]	500	[240]	0.27	66.70	4-7-15	2.0-3.1-4.9	17-21-30	5.3-6.5-9.2	2	2	[50]	24 x 5	[600 x 127]	10 ø	[254 ø]	2 WAY	HORIZONTAL	41	NONE	WHITE	-----
SD-36	LINEAR	150	[71]	510	[240]	0.28	69.40	4-8-16	2.2-3.3-5.0	18-22-31	5.4-6.6-9.3	2	2	[50]	24 x 5	[600 x 127]	12 ø	[305 ø]	2 WAY	HORIZONTAL	42	NONE	WHITE	-----
SD-37	LINEAR	180	[85]	570	[270]	0.18	44.60	3-5-11	0.9-1.7-3.3	12-15-22	3.5-4.7-6.6	2	2.5	[63]	24 x 5	[600 x 127]	10 ø	[254 ø]	2 WAY	HORIZONTAL	43	NONE	WHITE	-----
SD-38	LINEAR	210	[99]	660	[310]	0.24	58.90	4-6-13	1.2-1.9-3.9	13-17-23	4.1-5.0-7.1	2	2.5	[63]	24 x 5	[600 x 127]	12 ø	[305 ø]	2 WAY	HORIZONTAL	41	NONE	WHITE	-----
SD-39	LINEAR	20	[9]	200	[94]	0.34	83.30	2-3-6	0.5-0.9-1.8	17-21-30	5.2-6.4-9.0	1	1	[25]	48 x 3	[1219 x 76]	10 ø	[254 ø]	1 WAY	VERTICAL	42	NONE	WHITE	-----
SD-310	LINEAR	50	[24]	350	[170]	0.26	63.80	4-5-11	1.1-1.6-3.3	23-28-39	6.9-8.4-11.9	2	1	[25]	48 x 5	[1219 x 127]	10 ø	[254 ø]	1 WAY	VERTICAL	32	NONE	WHITE	-----
SD-311	LINEAR	30	[14]	240	[110]	0.36	90.30	2-4-7	0.7-1.1-2.3	19-23-33	5.7-7.0-9.9	1	1.5	[38]	48 x 4	[1219 x 102]	10 ø	[254 ø]	1 WAY	VERTICAL	36	NONE	WHITE	-----
SD-312	LINEAR	40	[19]	400	[190]	0.25	62.70	1-3-7	0.4-0.9-2.1	23-30-42	7.1-9.0-12.8	2	1.5	[38]	48 x 7	[1219 x 178]	10 ø	[254 ø]	1 WAY	VERTICAL	32	NONE	WHITE	-----
SD-313	LINEAR	20	[9]	260	[120]	0.30	73.50	1-1-4	0.2-0.4-1.3	19-24-34	5.6-7.3-10.3	1	2	[50]	48 x 5	[1219 x 127]	10 ø	[254 ø]	1 WAY	VERTICAL	37	NONE	WHITE	-----
SD-314	LINEAR	40	[19]	460	[220]	0.29	71.20	1-1-5	0.2-0.4-1.6	26-36-51	8.0-10.9-15.4	2	2	[50]	48 x 9	[1219 x 229]	10 ø	[254 ø]	1 WAY	VERTICAL	33	NONE	WHITE	-----
SD-315	LINEAR	20	[9]	320	[150]	0.37	96.10	0-1-3	0.1-0.2-0.9	22-29-41	6.7-8.8-12.4	1	2.5	[63]	48 x 6	[1219 x 152]	10 ø	[254 ø]	1 WAY	VERTICAL	40	NONE	WHITE	-----
SD-316	LINEAR	40	[19]	580	[270]	0.29	71.20	1-1-5	0.2-0.4-1.6	26-36-51	8.0-10.9-15.4	2	2.5	[63]	48 x 11	[1219 x 279]	10 ø	[254 ø]	1 WAY	VERTICAL	37	NONE	WHITE	-----
SD-317	LINEAR	20	[9]	380	[180]	0.37	93.10	0-1-3	0.1-0.2-0.9	22-29-41	6.7-8.8-12.4	1	3	[75]	48 x 7	[1219 x 178]	10 ø	[254 ø]	1 WAY	VERTICAL	35	NONE	WHITE	-----
SD-318	LINEAR	50	[24]	650	[310]	0.25	68.10	1-2-6	0.2-0.5-1.9	27-38-54	8.1-11.5-16.3	2	3	[75]	48 x 13	[1219 x 330]	10 ø	[254 ø]	1 WAY	VERTICAL	33	NONE	WHITE	-----