

PRECISION TESTING & BALANCING, INC.

**1785 NEREID AVENUE, BRONX, N.Y. 10466
(718) 994-2300 FAX (718) 994-2341**

REPORT

ON

TESTING & BALANCING

THE

EXISTING SUPPLY AIR SYSTEMS

AT

MAYOR'S OFFICE OF EMERGENCY MGMT

7 WORLD TRADE CENTER

23RD FLOOR

NEW YORK, N.Y.

**COSENTINI ASSOCIATES LLP
SHOP DRAWING RECOMMENDATIONS**

FILE # M-19 JOB # 1854

APPROVED ☒ AS NOTED ☒

RESUBMIT ☒ NOT ACCEPTED ☐

USE SPECIFICATIONS FOR EXPLANATION

ARCHITECTS APPROVAL REQUIRED ☐

PREPARED FOR

STRUCTURAL APPROVAL REQUIRED ☐

DATE 3-5-99 BY V.L. **KABACK ENTERPRISES, INC.**

45 WEST 25TH STREET

NEW YORK, N.Y. 10010

1. READ JUST AND
REBALANCE VAV'S 41, 31 AND 27
2. INDICATE CFM READING
FOR A.C. UNITS 1, 2 AND 3.

PTB JOB # 3426

FEBRUARY 24, 1999

SYMBOL LIST

ABOV CLG	OUTLET OR OPENING IS INSTALLED ABOVE THE CEILING
CS	CIRCUIT SETTER
DD	DIRECT DRIVE
DRI	DIRECT READING INSTRUMENT
ECD	EXISTING CEILING DIFFUSER
ECR	EXISTING CEILING REGISTER
ELD	EXISTING LINEAR DIFFUSER
ELDR	EXISTING LINEAR DIFFUSER RETURN OR EXHAUST
ELT	EXISTING LIGHT TROFFER
EPSD	EXISTING PERIMETER SLOT DIFFUSER
ETR	EXISTING TOP REGISTER
EVAV	EXISTING VARIABLE AIR VOLUME TERMINAL
ECAV	EXISTING CONSTANT AIR VOLUME TERMINAL
FC	ALL DAMPERS ARE IN FULL CLOSED POSITION
FO	ALL DAMPER ARE IN MAXIMUM OPEN POSITION
LD	LINEAR DIFFUSER
LDR	LINEAR DIFFUSER RETURN OR EXHAUST
NA	NO ACCESS OR NOT AVAILABLE
NA CLG	NO ACCESS ABOVE CEILING
NI	NOT INSTALLED
NO STAT	NO THERMOSTAT FOR TERMINAL DEVICE IS NOT INSTALLED
RAW	COLLAR IS INSTALLED, OUTLET IS NOT INSTALLED
RCD	RELOCATED CEILING DIFFUSER
SRC	SHEET ROCK CEILING
WMS	WIRE MESH SCREEN
	SUPPLY OUTLET DESIGNATION
	RETURN/EXHAUST OUTLET DESIGNATION

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INSTRUMENTATION

1. ALNOR BALOMETER AV-18 -
(DIRECT READING CFM MEASURING DEVICE)
USE: CFM READINGS ON SUPPLY AND RETURN OUTLETS
*NOTE: WHEN BALOMETER IS USED "K" FACTOR IS DRI (1.0)
2. BACHARACH 16-7001 FLO-RITE (INSTANTANEOUS)
3. ROTATING VANE ANEMOMETER (INTEGRATED)
USE: VELOCITY READING AT RAW OPENINGS
4. DWYER MAGNEHELIC GAUGE
USE: SUCTION AND DISCHARGE STATIC PRESSURE READINGS
5. INCLINED MANOMETER AND PITOT TUBE
USE: IN DUCT TOTAL AIR READINGS
6. #2302 - JAQUET SPEED INDICATOR
USE: MEASURE FAN SPEED
7. AMPROBE RS-3
USE: VOLTAGE AND AMPERAGE READINGS ON FAN MOTORS
8. ALNOR VELOMETER 6000P
USE: VELOCITY READINGS AT CEILING DIFFUSERS (CD)
VELOCITY READINGS AT LINEAR DIFFUSERS (LD)
9. SHORTRIDGE
USE: VELOCITY READINGS AT CEILING DIFFUSERS (CD)
VELOCITY READINGS AT LINEAR DIFFUSERS (LD)
VELOCITY READINGS AT COILS

**PRECISION TESTING
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VENTILATION TEST REPORT

TESTED BY T.M.M.J.,K.W

Job Name MAYOR'S OFFICE OF EMERGENCY HGM'TDATE 1/99-2/99System (E) SUPPLY

SYSTEM BALANCED ON A BOX BY BOX BASIS Y/N (Y)

DWG	AREA SERVED	NO	OPENING SIZE	TYPE	K FACTOR	REQUIRED VEL	CFM	PD MIN	PD MAX	FINAL VEL	CFM	REMARKS
M1.23	23RD FL.		10"	VAV	41		215/720	.04	.20			
M1.23	21	1	9X9	CD	DRI	-	200				200	
M1.23	21	2	9X9	CD	DRI	-	280				220 *	
M1.23	CORR	3	9X9	CD	DRI	-	240				220	
			8"	VAV	42		175/580	.05	.30			
M1.23	07	4	14'	LD	DRI	-	450				450	
M1.23	06	5	9X9	CD	DRI	-	130				140	
			8"	FPB	30		160/420	.04	.10			
M1.23	10	6	9X9	CD	DRI	-	210				230	
M1.23	10	7	9X9	CD	DRI	-	210				230	
			8"	VAV	31		125/410	.04	.10			
M1.23	14	8	9X9	CD	DRI	-	100				75 *	
M1.23	CORR	9	9X9	CD	DRI	-	50				55	
M1.23	13	10	9X9	CD	DRI	-	130				100 *	
M1.23	13	11	9X9	CD	DRI	-	130				100 *	

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VELOCITY READINGS AT COILS

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& BALANCING INC.**

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VENTILATION TEST REPORT

Job Name MAYOR'S OFFICE OF EMERGENCY HGM'T

DATE

System (E) SUPPLY

SYSTEM BALANCED ON A BOX BY BOX BASIS Y/N ()

DWG	AREA SERVED	NO	OPENING SIZE	TYPE	K FACTOR	REQUIRED VEL	CFM	PD MIN	PD MAX	FINAL VEL	CFM	REMARKS
M1.23			10"	FPB	11		230/770	.04	.09			
M1.23	18	12	9X9	CD	DRI	-	250				250	
M1.23	17	13	9X9	CD	DRI	-	320				310	
M1.23	16	14	9X9	CD	DRI	-	200				210	
			12"	FPB	29		420/140	.05	.65			
M1.23	04	15	21'	LD	DRI	-	1300				1300	
M1.23	PWD. RM.	16	9X9	ECD	DRI	-	100				100	
			12"	VAV	27		460/153	.04	.80			
M1.23	56	17	9X9	CD	DRI	-	230				220	
M1.23	CORR	17A	9X9	CD	DRI	-	100				90	
M1.23	02	18	21'X2-1/2"	LG	2.31	390	900			400	925	
M1.23	02	19	7'-6"	LD	DRI	-	150				200 *	
M1.23	02	20	7'-6"	LD	DRI	-	150				200 *	
			10"	VAV	26		335/1120	.05	.75			
M1.23	02	21	21'X2-1/2"	LG	2.31	390	900			400	925	
M1.23	01	22	8'	LD	DRI	-	220				110 *	

**PRECISION TESTING
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VENTILATION TEST REPORT

Job Name

MAYOR'S OFFICE OF EMERGENCY HGMT

DATE

System

(E) SUPPLY

SYSTEM BALANCED ON A BOX BY BOX BASIS Y/N ()

DWG	AREA SERVED	NO	OPENING SIZE	TYPE	K FACTOR	REQUIRED VEL	CFM	PD MIN	PD MAX	FINAL VEL	CFM	REMARKS
M1.23			12"	VAV	24		390/130	.04	.70			
M1.23	CORR	23	9X9	CD	DRI	-	100				100	RAW
M1.23	02	24	21'X2-1/2"	LG	2.31	390	900			380	880	
M1.23	02	25	7'-6"	LD	DRI	-	150				150	
M1.23	02	26	7'-6"	LD	DRI	-	150				140	
			12"	VAV	23		415/1380					
M1.23	02	27	21'X2-1/2"	LG	2.31	390	900				810	
M1.23	02	28	7'-6"	LD	DRI	-	150				140	
M1.23	02	29	7'-6"	LD	DRI	-	150				150	
M1.23	54	30	9X9	CD	DRI	-	90				80	
M1.23	54	31	9X9	CD	DRI	-	90				80	
				VAV	28		360/1200					
M1.23	02	32	21'X2-1/2"	LG	2.31	390	900			400	925	
M1.23	02	33	7'-6"	LD	DRI	-	150				150	
M1.23	02	34	7'-6"	LD	DRI	-	150				160	
			8"	FPB	7		165/550					
M1.23	02	35	8'X2-1/2"	LG	.88	400	350			400	350	
M1.23	02	36	7'-6"	LD	DRI	-	100				110	
M1.23	02	37	7'-6"	LD	DRI	-	100				110	

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System (E) SUPPLY

SYSTEM BALANCED ON A BOX BY BOX BASIS Y/N ()

DWG	AREA SERVED	NO	OPENING SIZE	TYPE	K FACTOR	REQUIRED VEL	CFM	PD MIN	PD MAX	FINAL VEL	CFM	REMARKS
M1.23			12"	FPB	5		400/1250					
M1.23	02	46	16'X2-1/2"	LG	1.76	400	700			400	705	
M1.23	02	47	7'-6"	LD	DRI	-	100			-	110	
M1.23	02	48	7'-6"	LD	DRI	-	100			-	110	
M1.23	02	49	8'X2-1/2"	LG	.88	400	350			400	350	
			12"	FPB	4		400/110	.04	.50			
M1.23	02	50	24'X2-1/2"	LG	2.64	415	1100			400	1055	
			10"	VAV	25		270/900	.04	.75			
M1.23	02	51	21'X2-1/2"	LG	2.31	390	900			380	890	
			8"	FPG	3		165/550	.04	.55			
M1.23	02	52	8'X2-1/2"	LG	.88	400	350			380	335	
M1.23	02	53	7'-6"	LD	DRI	-	100			-	110	
M1.23	02	54	7'-6"	LD	DRI	-	100			-	110	
			10"	FPB	2		210/700	.50	.75			
M1.23	02	55	16'X2-1/2"	LG	1.76	400	700			400	705	

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System (E) SUPPLY

SYSTEM BALANCED ON A BOX BY BOX BASIS Y/N ()

DWG	AREA SERVED	NO	OPENING SIZE	TYPE	K FACTOR	REQUIRED VEL	CFM	PD MIN	PD MAX	FINAL VEL	CFM	REMARKS
M1.23			8"	FPB	1		165/650	.04	.75			
M1.23	02	56	8'X2-1/2"	LG	.88	400	350			410	360	
M1.23	02	57	7'-6"	LD	DRI		100				110	
M1.23	02	58	7'-6"	LD	DRI		100				110	
			8"	VAV	34		185/610	.05	.75			
M1.23	39	59	12X12	CD	DRI		350				340	
M1.23	39	60	9X9	CD	DRI		260				270	
			10"	VAV	33		290/960	.05	.55			
M1.23	39	61	12X12	CD	DRI		350				340	
M1.23	39	62	9X9	CD	DRI		260				260	
M1.23	39	63	12X12	CD	DRI		350				350	
			12"	VAV	35		330/110	.05	.55			
M1.23	22	64	9X9	CD	DRI		150				150	
M1.23	36	65	9X9	CD	DRI		110				105	
M1.23	CORR	66	9X9	CD	DRI		70				70	
M1.23	35	67	9X9	CD	DRI		250				230	
M1.23	30	68	9X9	CD	DRI		100				100	
M1.23	35	69	9X9	CD	DRI		250				250	
M1.23	33	70	9X9	CD	DRI		100				100	

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SYSTEM BALANCED ON A BOX BY BOX BASIS Y/N ()

DWG	AREA SERVED	OPENING			K FACTOR	REQUIRED		PD MIN	PD MAX	FINAL		MARKS
		NO	SIZE	TYPE		VEL	CFM			VEL	CFM	
M1.23				VAV	35	CON'T						
M1.23	CORR	71	9X9	CD	DRI	-	70			-	70	
			12"	VAV	15		495/1650					
M1.23	38	72	12X12	CD	DRI	-	450			-	450	
M1.23	38	73	15X15	CD	DRI	-	600			-	600	
M1.23	38	74	15X15	CD	DRI	-	600			-	580	
			8"	FPB	14		200/670					
M1.23	37	75	12X12	CD	DRI	-	350			-	370	
M1.23	37	76	9X9	CD	DRI	-	320			-	320	
			12"	FPB	13		275/910					
M1.23	34	77	9X9	CD	DRI	-	320			-	320	
M1.23	27	78	15X15	CD	DRI	-	590			-	620	
			12"	FPB			355/1180					
M1.23	26	79	15X15	CD	DRI	-	590			-	600	
M1.23	19	80	15X15	CD	DRI	-	590			-	600	

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DWG	AREA SERVED	NO	OPENING		K FACTOR	REQUIRED		PD MIN	PD MAX	FINAL		REMARKS
			SIZE	TYPE		VEL	CFM			VEL	CFM	
M1.23			10"	VAV	32		335/1120	.05	.70			
M1.23	CORR	81	9X9	CD	DRI		70				70	
M1.23	CORR	82	9X9	CD	DRI		70				70	
M1.23	20	83	12X12	CD	DRI		490				500	
M1.23	20	84	12X12	CD	DRI		490				450	
			12"	VAV	16		425/142	.05	.80			
M1.23	39	85	15X15	CD	DRI		510				520	
M1.23	39	86	15X15	CD	DRI		510				520	
M1.23	39	87	15X15	CD	DRI		400				430	
			12"	VAV	17		460/153	.05	.90			
M1.23	39	88	15X15	CD	DRI		510				490	
M1.23	39	89	15X15	CD	DRI		510				500	
M1.23	39	90	15X15	CD	DRI		510				500	
			8"	VAV	36		185/620	.05	.85			
M1.23	41	91	9X9	LD	DRI		250				260	
M1.23	41	92	9X9	LD	DRI		220				220	
M1.23	41	93	9X9	LD	DRI		75				70	
M1.23	41	94	9X9	LD	DRI		75				75	

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			SIZE	TYPE		VEL	CFM			VEL	CFM	
M1.23			10"	VAV	18		305/102	.05	.55			
M1.23	41	95	15X15	CD	DRI		510				510	
M1.23	41	96	15X15	CD	DRI		510				500	
			10"	VAV	37		290/960	.05	.60			
M1.23	41	97	9X9	CD	DRI		260				260	
M1.23	41	98	12X12	CD	DRI		350				350	
M1.23	41	99	12X12	CD	DRI		350				320	
			10"	VAV	19		305/102	.05	.75			
M1.23	41	100	15X15	CD	DRI		510				500	
M1.23	41	101	15X15	CD	DRI		510				500	
				VAV	38		315/1050					
M1.23	CORR	102	9X9	CD	DRI		60				50	
M1.23	CORR	103	9X9	CD	DRI		120				115	
M1.23	44	104	9X9	CD	DRI		250				225	
M1.23	45	105	9X9	CD	DRI		250				230	
M1.23	CORR	106	9X9	CD	DRI		120				115	
M1.23	46	107	9X9	CD	DRI		250				240	

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			SIZE	TYPE		VEL	CFM			VEL	CFM	
M1.23			10"	VAV	39		275/920	.04	.50			
M1.23	42	108	12X12	CD	DRI		460				440	
M1.23	42	109	12X12	CD	DRI		460				480	
			12"	FPB	20		400/1160	.04	.50			
M1.23	42	110	15X15	CD	DRI		580				600	
M1.23	42	111	15X15	CD	DRI		580				580	
				VAV	22		90/300	.04	.50			
M1.23	CORR	112	9X9	CD	DRI		100				100	
M1.23	44	113	9X9	CD	DRI		80				85	
M1.23	CORR	114	9X9	CD	DRI		120				130	
			14"	FPB	21		455/152	.04	.35			
M1.23	42	115	18X18	CD	DRI		870				850	
M1.23	42	116	18X18	CD	DRI		650				650	