

# **AIR BALANCING SPECIALTY INC.**

## **VENTURA PARK ELEMENTARY SCHOOL PORTLAND, OREGON**

**PROJECT NO: 21-4253-DW**

AIR BALANCING SPECIALTY INC. 3532 S.E. MILWAUKIE AVENUE PORTLAND, OREGON 97202-2751  
IN BUSINESS SINCE 1964 CERTIFIED NEBB FIRM - CERTIFICATION NO. 2984  
PHONE (503) 230-2332 FAX (503) 230-2820

PROJECT NAME:

**VENTURA PARK ELEMENTARY SCHOOL - PORTLAND, OREGON**

OWNER:

DAVID DOUGLAS SCHOOL DISTRICT

DATE STARTED:

04/06/21

DATE FINISHED:

04/06/21

MECHANICAL ENGINEER:

WORK PERFORMED BY:

DALE NEFFENDORF

WILLIAM NEFFENDORF

GENERAL CONTRACTOR:

CERTIFIED BY:

\_\_\_\_\_

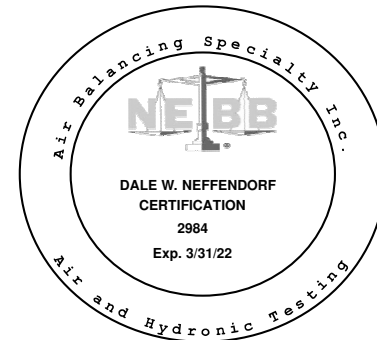
DATE:

\_\_\_\_\_

MECHANICAL CONTRACTOR:

SHEET METAL CONTRACTOR:

CONTROL CONTRACTOR:



IN BUSINESS SINCE 1964

**AIR BALANCING SPECIALTY INC.**

CERTIFIED NEBB No. 2984

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**CERTIFIED TEST AND BALANCE REPORT**

**PROJECT NO.: 21-42253-DW**

<b>INSTRUMENT AIR</b>	<b>MODEL NO.</b>	<b>SERIAL NO.</b>	<b>RANGE</b>	<b>CALIBRATION DATE</b>
(D) Shortridge Airdata Multimeter ADM Accessories	ADM860	M98375	0.0001 to 60.00" WC.	1/12/2021
(DH) Datameter Flow Hood	8400		25 - 2500 CFM	
(DP) Datameter Pitot Tube	12", 18", 24", 36", 48" & 60"		50 - 30000 FPM	
(DA) Datameter Airfoil	AFP18		50 - 5000 FPM	
(DG) Datameter Velgrid	VLG84		50 - 2500 FPM	
(R) Rotating Vane Anemometer	A4/-4"	83072B	200 - 10000 FPM	1/14/2021
Amprobe Ammeter	Fluke 335	99330394	0 - 750 Volts / 0 - 300 Amps	1/8/2021
Shimpo Tachometer	DT-207L	D26B0033	6 - 30,000 RPM	1/12/2021
<b>WATER</b>				
Hydrodata Meter	HDM-250	W01025	DP -10 to +300 PSI	1/12/2021

IN BUSINESS SINCE 1964

## AIR BALANCING SPECIALTY INC.

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### EQUIPMENT USED IN BALANCING

PROJECT: VENTURA PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

PROJECT NO.: 21-4253-DW

**PAGE ABBREVIATION KEY**

AK - GRILLE AREA OR RESTRICTION VALUE

VEL - VELOCITY

CFM - CUBIC FEET PER MINUTE

FPM - FEET PER MINUTE

ACH - AIR CHANGES PER HOUR

IN BUSINESS SINCE 1964

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**PROJECT: VENTURA PARK ELEMENTARY SCHOOL - PORTLAND, OREGON**

**PROJECT NO.: 21-4253-DW**

Ref	Ins	AREA SERVED			OUTLET			DESIGN		CUBIC FEET	TEST #1				TEST #2				
					No.	Size	Blow	AK	Vel		CFM	FPM	CFM	ACH	PRESSURE	FPM	CFM	ACH	PRESSURE
	R	Classroom	1				1.00			8981		812	5.42						
	R	Classroom	2				1.00			9056		858	5.68						
	R	Classroom	3				1.00			9036		914	6.07						
	R	Classroom	4				1.00			9021		891	5.93						
	R	Classroom	5				1.00			9067		904	5.98						
	R	Classroom	6				1.00			8043		950	7.09						
	R	Classroom	7				1.00			9042		875	5.81						
	R	Classroom	8				1.00			9162		881	5.77						
	R	Music	9				1.00			9019		812	5.40						
	R	Computer Lab	10				1.00			9041		842	5.59						
	R	Classroom	11				1.00			9025		825	5.48						
	R	Classroom	12				1.00			9035		828	5.50						
	R	Classroom	13				1.00			8565		842	5.90						
	R	Classroom	14				1.00			9122		911	5.99						
	R	Classroom	15				1.00			9186		855	5.58						
	R	Classroom	16				1.00			9198		911	5.94						
	R	Classroom	17				1.00			9127		878	5.77						
	R	Classroom	18				1.00			9156		911	5.97						

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CONSTANT VOLUME - FPM

AIR BALANCE DATA SHEET

PROJECT NO.: 21-4253-DW

PROJECT: VENTURA PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

DATE START: 04/06/21

FINISH: 04/06/21

SYSTEM: Classrooms 1-8, Music, Computer Lab, Classrooms 11-18

SECTION:

BY: DN / WN

PAGE: 1 OF 4

Ref	Ins	AREA SERVED			OUTLET			DESIGN			CUBIC FEET	TEST #1				TEST #2			
		Rm.#	No.	Size	Blow	AK	Vel	CFM	FPM	CFM		ACH	PRESSURE	FPM	CFM	ACH	PRESSURE		
	R	Classroom	19					1.00			9186		881	5.75					
	R	Classroom	20					1.00			9143		954	6.26					
	R	Classroom	21					1.00			9153		881	5.78					
	R	Classroom	24					1.00			9179		977	6.39					
	R	Classroom	25					1.00			9028		865	5.75					
	R	Classroom	26					1.00			3045		337	6.64					
	R	ERC	27					1.00			4412		343	4.66					

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CONSTANT VOLUME - FPM

**AIR BALANCE DATA SHEET**

PROJECT NO.: 21-4253-DW

PROJECT: VENTURA PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

DATE START: 04/06/21

FINISH: 04/06/21

SYSTEM: Classrooms & ERC

SECTION:

BY: DN / WN

PAGE: 2 OF 4

Ref	Ins	AREA SERVED			OUTLET			DESIGN Vel	CFM	CUBIC FEET	TEST #1				TEST #2			
		Rm.#	No.	Size	Blow	AK	FPM				CFM	ACH	PRESSURE	FPM	CFM	ACH	PRESSURE	
	DH	Mother Friendly	23					1.00		1459		70	2.88					
	DH	Library						1.00		21805		1350	3.71					
	DH	Parent Recourse						1.00		1280		40	1.88					
	R	Counselot			14x6			0.38		2059	630	239	6.98					
	R	Mrs Altig			10x4			0.18		935	500	90	5.78					
	R	Health						0.22		2754	1170	257	5.61					
	DH	Staff Work			8"O			0.35		1977	257	90	2.73					
	DH	Mother Room Office						1.00		453		55	7.28					
	R	Office			12x4			0.22		3497	900	198	3.40					
	R	Principal			12x4			0.22		1394	900	198	8.52					
	DH	Cafeteria						1.00		47916		4200	5.26					
	DH	Gym						1.00		88184		3625	2.47					

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CONSTANT VOLUME - FPM

AIR BALANCE DATA SHEET

PROJECT NO.: 21-4253-DW

PROJECT: VENTURA PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

DATE START: 04/06/21

FINISH: 04/06/21

SYSTEM: Mother Friendly, Library, Office, Staff Work, Principal, Cafeteria, Gym

SECTION:

BY: DN / WN

PAGE: 3 OF 4

Ref	Ins	AREA SERVED			OUTLET			DESIGN Vel	CFM	CUBIC FEET	TEST #1				TEST #2			
		Rm.#	No.	Size	Blow	AK	FPM				CFM	ACH	PRESSURE	FPM	CFM	ACH	PRESSURE	
	DH	Boys Exhaust (by Rm 24)					1.00		2099		105	3.00						
	DH	Girls Exhaust (by Rm 24)					1.00		2231		135	3.63						
	DH	Handicap RR Exhaust					1.00		433		55	7.62						
	DH	Mrs Altig RR Exhaust					1.00		106		0	0.00						
	DH	Staff RR Exhaust					1.00		208		0	0.00						
	DH	Boys Exhaust (by Rm 11)					1.00		1631		80	2.94						
	DH	Girls Exhaust					1.00		1869		90	2.89						
	DH	Restroom Exhaust (By MP)					1.00		395		30	4.56						
	R	Multi Purpose RR			10x4		0.19		474	150	29	3.61						
	DH	Boys Exhaust (by Rm 3)					1.00		1324		55	2.49						
	DH	Girls Exhaust (by Rm 3)					1.00		1350		55	2.44						
	DH	Kitchen RR Exhaust								NOT RUNNING								

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PROJECT NO.: 21-4253-DW

PROJECT: VENTURA PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

DATE START: 04/06/21

FINISH: 04/06/21

SYSTEM: Exhaust

SECTION:

BY: DN / WN

PAGE: 4 OF 4