

AIR BALANCING SPECIALTY INC.

GILBERT 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:

GILBERT PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

OWNER:

DAVID DOUGLAS SCHOOL DISTRICT

DATE STARTED:

04/07/21

DATE FINISHED:

04/07/21

MECHANICAL ENGINEER:

WORK PERFORMED BY:

DALE NEFFENDORF

WILLIAM NEFFENDORF

GENERAL CONTRACTOR:

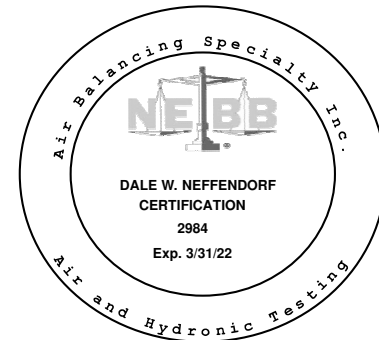
CERTIFIED BY:

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

INSTRUMENT AIR	MODEL NO.	SERIAL NO.	RANGE	CALIBRATION DATE
(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
WATER				
Hydrodata Meter	HDM-250	W01025	DP -10 to +300 PSI	1/12/2021

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EQUIPMENT USED IN BALANCING

PROJECT: GILBERT 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

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PROJECT: GILBERT PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

PROJECT NO.: 21-4253-DW

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	
	DH	Classroom	1					1.00		8406			1460	10.42				
	DH	Classroom	2					1.00		8361			1455	10.44				
	DH	Classroom	3					1.00		8362			1520	10.91				
	DH	Classroom	4					1.00		8351			1660	11.93				
	DH	Classroom	5					1.00		8357			1960	14.07				
	DH	Classroom	6					1.00		2998			310	6.20				
	DH	Classroom	7					1.00		8420			1595	11.37				
	DH	Classroom	8					1.00		8377			1460	10.46				
	DH	Classroom	9					1.00		8381			1370	9.81				
	DH	Classroom	10					1.00		8372			945	6.77				
	DH	Classroom	11					1.00		8410			1895	13.52				
	DH	Classroom	12					1.00		8382			915	6.55				
	DH	Classroom	13					1.00		8400			685	4.89				
	DH	Classroom	14					1.00		8403			1315	9.39				
	DH	Classroom	15					1.00		8432			1950	13.88				
	DH	Classroom	16					1.00		8409			1665	11.88				
	DH	Classroom	17					1.00		8378			1980	14.18				
	DH	Classroom	18					1.00		8488			1540	10.89				

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CONSTANT VOLUME - FPM

AIR BALANCE DATA SHEET

PROJECT NO.: 21-4253-DW

PROJECT: GILBERT PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

DATE START: 04/07/21

FINISH: 04/07/21

SYSTEM: Classrooms 1 - 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
	R	Library			28x4.5x3			0.64			11807	1360	870	4.42					
	DH	Computer Lab						1.00			5308		480	5.43					
	DH	Entry						1.00			1569		230	8.80					
	R	Office Main			18x6			0.56			3141	800	448	8.56					
	R	Principal			18x6			0.56			2307	850	476	12.38					
	R	Office	1-S		10x6			0.31			1166	1000	310	15.95					
	R	Nurse			18x4			0.49			2251	1000	490	13.06					
	R	Staff Room			18x6x2			0.56			3288	1750	980	17.88					
	DH	Gym Room	27					1.00			4054		640	9.47					
	DH	Gym Room	28					1.00			3944		900	13.69					
	DH	Gym Phy. Ed.						1.00			1089		255	14.05					
	DA	Gym			32"O			5.58			164532	620	3460	1.26					
	DA	Cafeteria			21x42			6.13			34294	549	3365	5.89					

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CONSTANT VOLUME - FPM

AIR BALANCE DATA SHEET

PROJECT NO.: 21-4253-DW

PROJECT: GILBERT PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

DATE START: 04/07/21

FINISH: 04/07/21

SYSTEM: Library, Computer Lab, Offices, Nurse, Gym, Cafeteria

SECTION:

BY: DN / WN

PAGE: 3 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		
	DH	Boys Exhaust (by Rm 5)							1.00			3003		145	2.90				
	DH	Girls Exhaust (by Rm 10)							1.00			2958		720	14.60				
	DH	Girls Exhaust (by Rm 11)							1.00			3015		0	0.00				
	DH	Boys Exhaust (by Rm 16)							1.00			3013		515	10.26				
	DH	Women's Exh. (by Library)							1.00			739		240	19.49				
	DH	Men's Exh. (by Library)							1.00			1169		180	9.24				
	DH	Restroom Exhaust (by 2-S)							1.00			431		225	31.32				
	R	Nurse RR Supply					10x6		0.31			535	800	248	27.81				
	R	Nurse RR Exhaust					10x6		0.31			535	NO EXHAUST						
	DH	Boys Supply (by Rm 27)							1.00			2070		155	4.49				
	DH	Boys Exhaust (by Rm 27)							1.00			2070		260	7.54				
	DH	Girls Supply (by Rm 25)							1.00			2106		195	5.56				
	DH	Girls Exhaust (by Rm 25)							1.00			2106		260	7.41				
	DH	Staff RR Supply (by Rm 25)							1.00			542		150	16.61				
	DH	Staff RR Exh (by Rm 25)							1.00			542		80	8.86				
	DH	Boys Gym RR Exh							1.00			706		195	16.57				
	DH	Girls Gym RR Exh							1.00			953		185	11.65				

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PROJECT NO.: 21-4253-DW

PROJECT: GILBERT PARK ELEMENTARY SCHOOL - PORTLAND, OREGON

DATE START: 04/07/21

FINISH: 04/07/21

SYSTEM: Exhaust

SECTION:

BY: DN / WN

PAGE: 4 OF 4