



TEST, ADJUST & BALANCE
SUBMITTAL

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VELOCITY INTRODUCTION

WHO WE ARE

Velocity BTS is a team of diverse individuals with exceptional technical know-how devoted to the health, functionality, and efficiency of commercial buildings.

Our qualified technicians are trained in multiple technical services. This single service approach increases productivity, reduces troubleshooting time and improves customer satisfaction.

WHAT WE DO

Velocity ensures your commercial building's safety, energy efficiency, and equipment longevity while reducing maintenance expenses, and improving indoor air quality. We specialize in building technical services with a holistic approach which incorporates improving the building's health and air quality and sustainability improvement measures.



**AIR & HYDRONIC
TEST AND
BALANCE**



**INDOOR AIR
QUALITY**



**FIRE LIFE/
SAFETY**



**ENERGY
SUSTAINABILITY
SOLUTIONS**



**COMMISSIONING/
RETRO-
COMMISSIONING**



HOW WE HELP YOU



EVEN, COMFORTABLE, CONSISTENT

Velocity tests, adjusts and balances your mechanical systems to maintain comfort, efficiency and equipment longevity.

**rebalancing of HVAC systems is strong recommended by the CDC as of 3/23/2021.*



NEW, RENEWED, RETROFITTED

Whether your building is new, re-purposed, or remodeled, Velocity critically analyzes your systems to ensure its function matches your needs. Energy modeling through recommissioning also increases your eligibility for energy rebates for early adopters.



KEEPING YOUR BUILDING FIRE-SAFE

Velocity reviews your mechanical fire life/safety and smoke-control systems to ensure its proper function, maintaining highest safety levels, and assuring compliance with state testing requirements.



PUTTING YOU IN CONTROL

Whether your building is new, re-purposed, or remodeled, Velocity critically analyzes your systems to ensure its function matches your needs. Energy modeling through recommissioning also increases your eligibility for energy rebates for early adopters.





Velocity Building Technical Services
Brad Sharp, CHC, TABB Supervisor
21440 68th Ave S #220
Kent, WA 98032

Re: ICB/TABB Certification for 3rd Party TAB Firms as an Acceptable Building Standard

To Whom It May Concern,

The purpose of this letter is to explain with justified reasoning from professional sources how ICB/TABB certification is equal to the NEBB certification for Test and Balance firms and should be included as an acceptable building standard.

Presently, there are numerous TABB only firms throughout the US and Canada. These firms have performed the most technically demanding and complex balance operations for over 20+ years. This is due to rigorous training the technicians receive as well as the high standards for certification. ICB/TABB has an issue resolution process unique to the industry. It guarantees the work performed by the technicians meets or exceed all industry standards or it will be re-accomplished/resolved at no charge. As the only testing, adjusting and balancing entity in the HVAC industry to earn [ANSI accreditation under ISO Standard 17024](#), TABB-certified technicians and supervisors demonstrate the highest level of professional expertise, are licensed and bonded and are held personally responsible for their work. This standard provides an international benchmark for personnel certification programs to ensure that they operate in a consistent, comparable, and reliable manner. NEBB standards are incorporated into TABB ensuring there is no difference in the outcome other than users of TABB get additional safeguards and higher recognized formal training from the technicians performing the balance work. These are but a few of the reasons California, Colorado, New York and the Army Corps of Engineers all specify TABB over all other options.

Here are a few of the many resources to justify including TABB as an acceptable building standard:

1. 2005 GSA Standards narrative which includes TABB on page 42:
https://www.gsa.gov/cdnstatic/Chapter_5_Mechanical_Engineering.pdf
2. The Whole Building Design Guide Division 23 spec for TAB used by multiple US Federal Agencies: <https://www.wbdg.org/FFC/DOD/UFGS/UFGS%2023%2005%2093.pdf>
3. Canadian National Standards for TAB: <https://www.gov.nl.ca/ti/files/works-masterspec-2three0five9three.doc>
4. Last but not least, a technical paper by Univ. of California Davis comparing AABC, NEBB, and TABB: <https://wcec.ucdavis.edu/testing-adjusting-and-balancing-hvac-systems-an-overview-of-certification-agencies/>.

Sincerely,

**Velocity Building Technical
Services**

Test and Balance Qual. Package

Relevant Experience:

800 5th Avenue Office Building

Levels 11, 14, & 36

Seattle, Washington

Scope: Test water source heat pump for proper installation and safe operation. Verify airflows to achieve design, adjusted volume dampers to reduce flow. Inspection of seven heat pumps and one terminal unit to achieve design CFM. All systems were found to be operating in good working conditions and design CFM totaled 100k.

Harbor Steps Apartments

Seattle, Washington

Scope: Verify noise source, possible smells, measure pressure and airflow. Inspection of existing space HVAC for proper installation and safe operations. Test, adjust, and balance exhaust fans and makeup air unit to achieve design CFM totaling over 100K.

505 Fifth Avenue Office Building

Vulcan Level 6

Seattle, Washington

Scope: Inspection of newly installed variable air volume, exhaust fans, transfer fan and fan coil units for proper install and safe operation. Verify airflow to achieve design CFM for best comfort and balance. K factors for each terminal unit were recorded and distributed to the control's technicians at the conclusion of the project. The primary airflows for the system were calibrated to over 100K CFM

Western State Hospital

Lakewood, Washington

Scope: Test, Adjust and record fan rpm to design requirements. Test and record motor amperes at design conditions. Make Pitot tube traverse of main supply duct and obtain design cfm at fans, systems of 1000CFM or greater. Test static pressure for systems 200CFM or greater. Test, adjust and record system for design CFM air and outside air CFM totaling over 100k.

Sabey Data Center, Suite 4203

Tukwila, Washington

Scope: Measure and adjust supply outlets in new TI space. Verify airflows on eight supply diffusers fed by existing RTU, which also supplies at least one other office space on the same floor. Increased fan speed to achieve design CFM totaling over 100K.

Test and Balance Qual. Package

Radisson Hotel Upgrades

Seattle, Washington

Scope: Newly installed guest room exhaust fans serving the central suites, all exhaust air through vertical risers serving the guest room restrooms. Measure air velocities to determine airflow volume. Tested, adjusted airflow of the system and balanced to achieve design CFM totaling over 100K.

Healthpoint Clinic

Auburn, Washington

Scope: Verify Install and setup of equipment, then verify controls Sequence of Operations is complete. Compare readings to motor nameplate to ensure motor can achieve design airflow. AHU, EF and GRD's totaling over 100K CFM.

Rich Uncles Building 7

Seattle, Washington

Scope: Test and Balance existing 164 VAV's associated with 6 RTU's totaling over 100K CFM. Verify airflows and manipulate front-end controls to determine if design CFM is achieved. Afterwards, adjust and balance airflow to +/- 10% of the design values.

Costco Headquarters Building #1

Issaquah, Washington

Scope: Set and Verify Fan Speed and proportion outlets for all VAV's associated with RTU-01 and RTU-02 totaling over 100,000CFM. Balanced system in full cooling mode with outlet designs values referenced from mechanical drawings. Completed a full set of As-Builts drawings showing current locations and current CFM design values of all associated VAV's.

References:

Rod Cross

American Assets Trust
425-890-4783

Rcross@americanassets.com

Mark Crudge

ABB
253-514-1782

mark.crudge@us.abb.com

Sgt. Scott Brender

Nisqually Public Health
360-790-1511

brender.scott@nisqually-nsn.gov

Test and Balance Qual. Package

Team & Certification:

On the following pages, please find resumes and relevant certification for Hermanson's proposed Test, Adjust & Balance (TAB) project team:

- Dave Petrie, TAB Lead Foreman and Supervisor
- Angela Roper, TAB and IAQ Supervisor
- Nic Hanson, TAB, Controls, and Service Technician



Veteran
10 YEARS ARMY

DAVID PETRIE

TAB Supervisor

Responsibilities: Dave is responsible for assisting with full test and balance services, scheduling and documentation for multiple on-going projects, and supervising apprentices.

SERVICE

15 Years
Industry Experience

EDUCATION

United States Army

TRAINING AND CERTIFICATIONS

TABB Supervisor
ICB Fire Life Safety Technician
ICB Smoke Control Technician

REFERENCES

Darrin Williams
MacDonald Miller Facility Solutions
(206) 510-6617

Mark Webb
Holaday-Parks, Inc.
(253) 380-1467

Nick Wright
Holaday-Parks, Inc.
(360) 440-0437

EXPERIENCE + BENEFITS

Dave brings over a decade of experience in the mechanical construction industry. He has worked on a variety of jobs from the Space Needle to Weyerhaeuser HQ. Dave is deeply involved with TABB certification and has been a proctor and judge for the TABB Technician certification test for the past 5 years.

American Express Lounge STIA | SeaTac, WA



Scope: Test and Balance of mechanical systems for new lounge at SeaTac.
Size: 14,000 sf
Role: TAB Supervisor
Client: Hermanson Company
Reference: David Goit
(206) 391-1052

Good Samaritan Hospital | Puyallup, WA



Scope: Test & Balance of the 1-Forest MEP upgrades.
Size: 38,000 sf
Role: TAB Supervisor
Client: Hermanson Company
Reference: Jay Danner
(206) 743-7494

Premera Annex Building | Mountlake Terrace, WA



Scope: Testing, Adjusting & Balancing perform in accordance with SMACNA and ASHRAE.
Size: 60,000 sf
Role: TABB & Commissioning Support
Client: Hermanson Company
Reference: Scott Sinclair
(206) 556-5428

AFFILIATIONS



ADDITIONAL EXPERIENCE

5808 Lake Washington Blvd Kirkland, WA | **REI Headquarters** Bellevue, WA | **Watershed Test & Balance** Seattle, WA | **Google Jayhawk** Kirkland, WA | **SeaTac Airport IAQ Mitigation & Airflow Management** Tukwila, WA



*The Sheet Metal Industry
International Certification Board
Certifies that*

David S Petrie

Has successfully completed the requirements for

TABB Supervisor

TB1090873S

Certification #

11/10/2022

Certification Date

9/30/2024

Valid Through



Valid during qualified employment



Labor Co-Chairperson

Management Co-Chairperson

ICB/TABB Administrator



Reserves
US ARMYRESERVES

ANGELA ROPER

TAB Technician

Responsibilities: As TAB Technician, Angela is responsible for Testing, Adjusting, and Balancing (TAB) is an important part of mechanical HVAC systems. TAB technicians ensure the cooling or process related airflow(s) and/or waterflow(s) are delivered efficiently, quietly, & safely throughout a system.

SERVICE

7 Years
Industry Experience

EDUCATION

SMART Local 66 TABB Technician Program
University of Management & Technology - BA

TRAINING AND CERTIFICATIONS

OSHA 30
Duct Leakage Testing
Fire & Smoke Damper Technician
Smoke Control Systems Technician
Local 66 Sheet Metal Union
US Army Reserve / Medic / Transportation Manager

REFERENCES

Mike Touchette
(253) 777-7180
Jaime Christensen
Holmberg
(425) 530-7192
Jason Gilbreth
Local 66 JATC
(360) 789-1551

AFFILIATIONS



EXPERIENCE + BENEFITS

Angela strives to make people comfortable, taking pride in the fact that if she's done her job correctly, you'd never know she was there. Manipulating air and water systems to provide quality conditioned air is a critical component of building efficiency and management. She firmly believes indoor air quality is a top priority when assessing peoples health in the workplace.

St. Michaels Medical Center | Silverdale, WA



Scope: Test & Balance of new HVAC equipment. Adjusted system to design & assisted with commissioning functional testing.
Size: 500,000 sf
Role: TABB & CommissioningSupport
Client: Randall Wiesbarth
Reference: Randall Wiesbarth (564) 240-0139

Puyallup Surgical Consultant | Puyallup, WA



Scope: Design-Build, full mechanical renovation of a Urology Suite.
Size: 18,800 sf
Role: TAB Technician
Client: Hermanson Company
Reference: Jeff Schuk (206) 319-8174

Hood Canal School District | Hood Canal, WA



Scope: Testing, Adjusting & Balancing of 17 ERV's, 34 VRF units, verifying air flows, & testing for proper installation & safe operation.
Size: 18,700 sf
Role: Lead TAB Technician
Client: Hermanson Company
Reference: Tyler Rogers (206) 445-4389

ADDITIONAL EXPERIENCE

7 Cedars Casino Sequim, WA | **Puget Sound Naval Shipyards Nuclear Research Building** Bremerton, WA | **Sound Transit N160 Northgate Station** Seattle, WA | **Central Kitsap Middle & High School** Silverdale, WA | **South Sound Behavioral Hospital** Lacey, WA | **UW Mary Gates Hall** Seattle, WA



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International Certification Board
Certifies that*

Angela M Roper

Has successfully completed the requirements for

TABB Supervisor

TB1182813S

Certification #

6/16/2023

Certification Date

6/30/2025

Valid Through



Valid during qualified employment



Labor Co-Chairperson

Management Co-Chairperson

ICB/TABB Administrator