

Todd Zachwieja, PE, CEM, LEED AP

PROFESSIONAL AND COMMUNITY AFFILIATIONS

Past President 2013-14, current Governor - WV ASHRAE Chapter, Served as ASHRAE's Energy and Technical Affairs Chairman for six years. Recognized by ASHRAE Region VII in 2014 with the David Levine Award of Excellence, Presidential Award of Excellence

Recognized by the International Who's Who of Professionals

Recognized nationally as West Virginia's Business Man of the Year

Recognized by AEE nationally in 2007 as a Legend in Energy

Recognized by AEE nationally in 2008 as a Charter Legend in Energy

Charter Life Member of the Association of Energy Engineers

Professional Affiliate Member of the American Institute of Architecture

Associate Member West Virginia Society for Healthcare Engineering

Member of the International Code Council

Member of the National Society of Professional Engineers



OTHER RECOGNITIONS

Selected by WVU and the WV Division of Energy to train Code officials and the design community on ASHRAE 90.1 State Energy Code

Presented at regional and national conferences including the annual National System Commissioning Conference

Contributing editor and served on the Editorial Review Panel for *"The Handbook of Building Management and Indoor Air Quality"*

Contributing editor *"Ventilation for a Quality Dining Experience"*

Contributing editor and served on the Editorial Review Panel for *INvironment Professional, Power Prescriptions* and other publications and articles featuring Indoor Air Quality (IAQ) and MEP engineering systems

Energy Star Certified for facilities in the nation's top 25% of energy efficiency

1st Place 2014 ASHRAE Technology Award, Region VII

LEED Silver Certified WVANG Fuel Cell/Maintenance Hangar, Charleston, WV

LEED Gold Certified Harvard Arboretum, Boston, MA

First ASHRAE bEQ certified building in West Virginia, 2015

1st Place 2023 ASHRAE Technology Award, Region VII



Ted Zachwieja III, PE, CEM

Ted, a third generation engineer and Principal in the firm, has over 20 years of experience in building construction design industry that includes award winning designs including the first Net Zero 911 Center in WV and technology awards for design innovation in multiple facilities. Innovation in HVAC, Plumbing, Fire Protection, lighting design/controls, technology, engineering design, communication methods and management of the design process are the areas of his expertise. As a pioneer and a believer in technological processes, Ted has championed Integrated Design Practices and Commissioning that has become the fabric of ZDS's day-to-day operations.

Ted develops ZDS's 3D Scanning and BIM services which have assisted in collecting key existing conditions for renovation projects, forensic engineering, historical preservation, and high definition reality capture. Ted has in-depth experience on collection, registration, and scan to BIM processes. He has provided training and developed materials for best practices when using 3D scan data. Ted's 3D scanning experience includes governmental, educational, healthcare, industrial, and commercial facilities. He also has experience in speaking on how 3D laser scanning impacts our industry today.

Ted is the Engineer-of-Record for design projects. As Engineer of Record he is responsible for all aspects of the project and takes a hands-on approach to the overall management, design and construction of the project. He works well with all stakeholders involved throughout the entire project lifecycle.

As Chief Technical Officer Ted develops and deploys a strategy of forward thinking and strategic development for ZDS' Integrated Design Processes, research and development into new technologies for improving quality of services for our clients.

Ted's project experience includes design and commissioning for electrical, lighting, security, IT, A/V, heating, ventilating, air conditioning, plumbing, fire protection, and acoustical systems for educational, healthcare, industrial and commercial facilities. His experience encompasses working both on new construction and renovation projects. He also is experienced in historical facilities including theatrical. He has significant experience in designing, commissioning and implementing efficient lighting and HVAC systems for various commercial, healthcare and educational facilities.

Ted maintains an active membership in the ASHRAE professional society and also has a lifetime membership in the Association of Energy Engineers. He maintains an active continuing education towards today's standards and codes as well as participates in ASHRAE at both a local and society level. He served on the Electronic Communications Standing Committee with ASHRAE. He has designed renovations to existing facilities which received ***Energy Star Certifications*** placing them in the ***nation's top 25% of energy efficiency*** facilities.



PROFESSIONAL REGISTRATIONS

Professional Engineer:

Florida

West Virginia

Certified Energy Manager (C.E.M.)

National Certificate



EDUCATION

Bachelor of Science in Mechanical
Engineering from Rochester Institute of
Technology, Rochester, NY

AWARDS AND RECOGNITIONS

Awarded 2012 Legend in Energy
by the Association of Energy Engineers

Awarded acceptance into ASHRAE's
2015 Leadership University

ASHRAE Blue Ribbon Award of Excellence
Co-Author at Autodesk University

1st Place 2023 ASHRAE
Technology Award, Region VII

Energy Star Certified for facilities in the
Nation's top 25% of energy efficiency

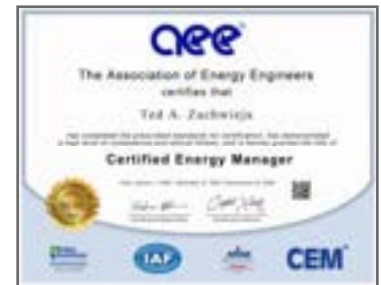


RELEVANT PROJECT EXPERIENCE

- WV State Capitol Complex Bldgs. 1, 3, 5, 7, 8, & 9 Renovations and #3 & #4 Cx
- Kanawha County Judicial Building Renovations and Cx - **EPAct Qualified**
- Office of Chief Medical Examiners Renovations and Commissioning
- CASCI Building Electrical Renovations, Charleston WV
- WV Air National Guard Maintenance Hangar and Fuel Cell Hangar
- University of Charleston - Virtual Dissection Lab, Innovation Center, Gorman Hall/ Eddie King Gym Renovations campus natural gas, medium voltage and water upgrades.
- Marshall University, Jomie Jazz, Harris Hall, Smith Hall Renovations
- WV Higher Education Policy Commission, S. Charleston Tech Center Master Planning
- Ben Franklin Career Center Renovations - **EPAct Qualified**
- Glade Middle School - **Energy Star Certified**
- Kanawha County Schools - County-Wide includes Master Planning, Renovations
- New laeger Elementary Schools - **Energy Star Certified**
- Pendleton Co Middle/High School, North Fork Elem Renovations - **EPAct Qualified**
- Pocahontas County 911/EMS Center
- Princeton Middle and High School HVAC Renovations - **Energy Star Certified**
- Raleigh County Schools - County-Wide
- WVDHHR Master Planning, Renovations for seven healthcare facilities
- William R. Sharpe, Jr. Hospital Additions/Renovations & Cx - **EPAct Qualified**
- Riverside High School HVAC/Lighting Renovations - **Energy Star Certified**
- Tyler County 911 Center - **Net Zero**
- Tyler County Courthouse Additions, Renovations and Commissioning
- Tyler Consolidated Middle/High School HVAC Renovations - **EPAct Qualified**
- Meadowbrook, Servia, White Sulphur Springs Rest Areas for WV DOT
- World Trade Center, Renovations, MD
- West Virginia University Renovations
- WV DHHR Healthcare Facilities master planning, additions/renovations, lighting renovations - **EPAct Qualified**

Professional Affiliations

Member of ASHRAE WV Chapter
Prior Membership Promotions Chair WV
ASHRAE Chapter
Prior Chapter Secretary WV ASHRAE
Chapter
Lifetime member of the Association of
Energy Engineers
Associate Member WV Society for
Healthcare Engineering



CEM®

OTHER RECOGNITIONS

Presented and co-authored at regional and national conferences

Energy Star Certified for facilities in the nation's top 25% of energy efficiency for many facilities

1st Place 2014 ASHRAE Technology Award, Region VII

First ASHRAE bEQ certified building in West Virginia, 2015

1st Place 2023 ASHRAE Technology Award, Region VII

ASHRAE Blue Ribbon Award of Excellence

2012 Legend in Energy by the Association of Energy Engineers

2015 ASHRAE Leadership University Recipient



David Cotton, PE, LEED AP BD+C

David is a professional Mechanical Engineer with over 19 years of experience in the design and construction of over 500 projects having construction values up to \$35 million. His commissioning/design experience ranges from commercial, industrial, institutional, healthcare, education, restaurant, retail, government, airport, and recreational facilities.

David collaborates well with fellow engineers, architects, owners, contractors, code officials and vendors to meet the goals and objectives. As a project manager he successfully manages projects from start to finish in design, bidding, construction administration and commissioning.

PROJECT EXPERIENCE

- Tyler County Courthouse Additions/Renovations
- Tyler County 911 Center - **Net Zero**
- Belmont County Commission Coroner, Records & Health Dept. Facility
- Oglebay Wilson Lodge Renovations
- New Clendenin Elem Commissioning
- Mabscott Elem Renovations/Cx
- Independence Middle HVAC/Roof Renovations and Commission
- Harrison County 911/EMS Center
- Shady Spring Middle HVAC Retrofit/Cx
- Maxwell Hill Elem HVAC Renovations/Cx
- Braxton County 911/EMS Center
- Saint Marys K-8 School Renovations
- Tyler Consolidated MSHS Commissioning
- Dominion Office Building - **LEED Gold**
- Mon General Hospital Echo Renovations
- Mon Health LTAC for Acuity
- United Hospital Ctr POB 4th Fl Retrofit
- Clarksburg Comprehensive Care Clinic Renovations
- Jerry Dove Medical Office Building
- Medbrook Building HVAC Replacement
- Pocahontas County 911/EMS Cx
- Mylan Pharmaceuticals
- Beckley Police Station
- Doddridge County Athletic Complex
- Boy Scouts of America, Rex W. Tillerson Leadership Center
- White Hall Public Safety Building
- Webster County 911/EMS Center
- Beitzel/Pillar Innovations Office Building
- Percival Hall Absorption Chiller and Cooling Tower Replacement
- Tyler Consolidated MS/HS Renovations and Commissioning
- Thrasher Engineering Office Building, Bridgeport
- Upshur County 911/EMS Center
- WVU Creative Arts Center Rehearsal Hall
- WVU Towers Dining Hall Renovations
- WVU Athletic Performance Center
- HP Hood Addition/Renovations, Winchester, VA
- Dominion Office Building, Delmont, PA
- University of Pittsburgh Softball Practice Facility
- Westmoreland Community and Technical College, Indiana, PA
- WVU Alumni Center
- WVU Biomedical Research Facility
- WVU Milan Puskar Locker Room Retrofit
- NOAA GOES-R Supercomputing Center, Fairmont, WV
- WV Capitol Complex Bldg. #1, #3 & #4 Renovations and Commissioning
- Renaissance Academy Morgantown, WV
- City of Bridgeport WWTP
- City of West Union WWTP & WTP
- VA Medical Center; Audiology Task Lab Clarksburg, WV
- Mylan Park Aquatic Center



PROFESSIONAL REGISTRATIONS

Professional Engineer:

West Virginia

Maryland

Virginia

Ohio

Pennsylvania

LEED AP BD+C Professional Accreditation

NCEES Record Certificate

USGBC Commissioning Badge

EDUCATION

Bachelor of Science

Mechanical Engineering

WV Institute of Technology

MEMBERSHIPS

WV ASHRAE, Past President

National Fire Protection Association

WV Society of Healthcare Engineers

Vineel Busa, PE, MSME



Vineel is a professional Mechanical Engineer with a Masters Degree in Mechanical Engineering and over 7 years experience in HVAC & Refrigeration. Technically sophisticated engineering professional with solid history of effective integration, and deployment of HVAC systems. Significant experience in designing, commissioning and implementing efficient HVAC systems for various commercial, healthcare and educational facilities.

Vineel is knowledgeable on HVAC systems, Controls, Heat Transfer, Refrigeration and Thermodynamic specializing in HVAC heating and cooling load calculations, Psychrometric and hydronic analyses and Energy modeling. He has applied that foundation in the MEP industry, manufacturing industry and the commercial industry. Vineel has a comprehensive knowledge of mechanical systems, principles and applications.

He is experienced hands-on in designing Variable Refrigerant Flow systems, Steam systems, Hydronic systems, Geothermal systems, DOAS and Building Automation systems. He is also proficient in Revit, AutoCAD, IESVE, Navisworks, and Autodesk Recap. Vineel is experienced in utilizing point clouds in the development of Scan to Building Information Modeling (BIM) and performing 3D scanning. Vineel is well-versed in technical specification writings and development of construction drawings. He has hands-on experience in performing Functional Performance Testing in leading Commissioning projects.

PROJECT EXPERIENCE

- WV Chief Medical Examiners Lodox CT Scanner Renovations, Commissioning
- WV Capitol Complex Campus Heating System Renovations Buildings #1, #3, #4, #5 and #7 over multiple phases
- WV State Capitol Complex Bldg. #3 Renovations & Bldg. #4 Commissioning
- New Belmont Co Commission Coroner, Records & Health Dept. Facility
- Oglebay Wilson Lodge Renovations
- Roane General Hospital Commissioning
- Veteran Administration Clarksburg Hospital & Huntington Hospital
- Kanawha Co. Judicial Building Renovations/Commissioning - ***EPAct Qualified***
- Marshall University—Jomie Jazz HVAC Renovations
- New Bluefield Elementary & Timberline Elem School Commissioning
- Clay County High School Commissioning - ***EPAct Qualified***
- New Clendenin Elementary Commissioning
- North Fork Elementary School HVAC/Roof Renovations, 3D Scanning, Scan-to-BIM and Commissioning - ***EPAct Qualified***
- Pendleton County Middle/High School HVAC/Roof Renovations, 3D Scanning, Scan-to-BIM and Commissioning - ***EPAct Qualified***
- New 911 Center high performance "***Net Zero***" facility
- Tyler County Courthouse Additions/Renovations and Commissioning
- Riverside High School HVAC/Lighting Renovations - ***Energy Star***
- New Spencer Middle School Commissioning
- New Clendenin Elementary School Commissioning
- WVARNG Brushfork Armory HVAC Renovations - ***EPAct Qualified***
- St. Marys High School Renovations
- Raleigh County Schools: 6 Schools - Renovations & Commissioning
- New Pocahontas County 911/EMS Center



PROFESSIONAL REGISTRATIONS

Professional Engineer:
West Virginia

EDUCATION

VIT University
Bachelor of Science
in Mechanical Engineering

Southern Illinois University Edwardsville
Master of Science
in Mechanical Engineering

University of Cumberland
Working on PhD in Project Management

AWARDS AND RECOGNITIONS

Certified by ASHRAE in
HVAC Design Essentials & Applications

1st Place 2023 ASHRAE
Technology Award, Region VII

Energy Star Certified for facilities in the
Nation's top 25% of energy efficiency

