



# DAYTON CHAPTER

WWW.DAYTONASHRAE.ORG

ISSUE III | 2022

## CURRENT OFFICERS

### PRESIDENT

**Matt Dill**

Matthew.dill@victaulic.com  
Victaulic

### PRESIDENT-ELECT

**Jennifer Eller**

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Heapy

### TREASURER

**Trent Hayden**

thayden@energyoptusa.com  
Energy Optimizers, USA

### SECRETARY

**Zak Schultz**

zak.schultz@ferguson.com

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Us on  
Facebook

## March 9th Hybrid Meeting!!!



**Main Presentation:** Passive House & Ventilation Strategies for Healthy & Energy Efficient Bldgs.  
**Presenters:** Erdem Kokgil and James Dean



**Erdem Kokgil, Application Eng. Team Leader for Oxygen8  
James Dean, CEO and Founder of Oxygen8**

### Theme: Joint AIA Meeting

Please note that this is a joint meeting with AIA and presentation is approved by AIA for continuing education.

**Held at: The Engineers Club of Dayton  
110 E Monument Ave, Dayton**

**Social Hour: 11:30 AM to 11:45 AM**

**Chapter Business/Instructions: 11:45 AM—Noon**

**Main Presentation: Noon**

**Topic:** The Passive House movement has been gaining momentum in North America with a drive toward healthy, comfortable and energy efficient buildings. This presentation will discuss the 5 Passive House principles, PHI and PHIUS labeling programs and centralized vs. decentralized ventilation strategies for multi-family residential and commercial buildings. James Dean, CEO and Founder of Oxygen8 will also discuss his experience building and living in his Passive House International certified home.

### Join Zoom Meeting Information:

<https://us02web.zoom.us/j/83478255125?pwd=b21uNE95K21Ib1VtNnJiM2lXOTBzQT09>

Meeting ID: 834 7825 5125

Passcode: 269590

Please email Vincent Caudill at [vcaudill@ecomfortohio.com](mailto:vcaudill@ecomfortohio.com) or by calling 740-971-7795 to sign up by March 4th. Please indicate if you are joining in person or by zoom. The meeting information will be sent out closer to the meeting date.

# FROM THE PRESIDENT

Thank you to everyone that attended our Holiday Party this year. We hope you enjoyed the wine tasting event that was hosted by Dorothy Lane Market and was paired with delicious food that was provided by the Engineers Club.

Thank you to everyone that was able to attend our Chapter lunch at the Helix. I would like to thank Rajan Rajendran, Mike Saunders, and Jennifer Butsch for giving an excellent presentation on The Latest Trends in Refrigeration System Architecture for Supermarkets and Food Service. This was a joint meeting with HARDI so I would like to thank all of their members who were able to attend.

Our next chapter meeting is scheduled for Wednesday, March 9<sup>th</sup>. Erdem Kokgil and James Dean will be presenting on Passive House and Ventilation Strategies for Healthy and Energy Efficient Buildings. This is a joint meeting with AIA and will be held at The Engineers Club. Social hour begins at 11:30 and the presentation will begin at noon.

Our 2022 Golf Scramble will be held at Pipestone Golf Club on May 27<sup>th</sup>. Please register your foursome at [Daytonashraegolf2022.eventbrite.com](https://daytonashraegolf2022.eventbrite.com).

Please reach out to a member of the board if you are interested in getting more involved with the Dayton chapter.

Thank you, *Matt Dill* – President, Dayton ASHRAE

## Upcoming Events

**Mar 9th**

**ASHRAE Chapter Mtg.**  
11:30 AM, Hybrid Meeting

**Mar 16th**

**Board of Governors**  
8:00 AM, Virtual Meeting

**April 13th**

**ASHRAE Chapter Mtg.**  
5:00pm, Tech. Tour!!!

**April 20**

**Board of Governors**  
8:00 AM, Virtual Meeting

[See Additional  
Events & Volunteer  
Opportunities Here](#)

# CHAPTER HISTORY (1989-1990)

<b>President:</b>	Dennis Helmig	Helmig Lienesch
<b>President Elect:</b>	Rich Huff	Weber Huff
<b>Vice Pres:</b>	Phil Van Styn	Heapy Engineering
<b>Secretary:</b>	Chris Hampel	CAC Distributing
<b>Treasurer:</b>	David Schmenk	Montgomery Co.
<b>Education:</b>	George Sehi	Sinclair CC
<b>RP:</b>	Garry Hayden	Mutual Energy
<b>Membership:</b>	Rich Eillot	Lorenz & Williams

Meetings were held at the Dayton Engineering Club.  
CRC held in Evansville, IN.

Received the PAOE award!

Had a Plant Tour of Kings Island & Golf Outing was held at Walnut Grove CC.

## Committee Chairs

### **MEMBERSHIP**

**Vincent Caudill**

Vcaudill@ecomfortohio.com  
Environmental Comfort, LLC

### **HISTORY**

**Bryan Schenck**

Brian.Schenck@waibelenergysystems.com  
Waibel Energy Systems

### **COMMUNICATIONS**

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Waibel Energy Systems

### **RESEARCH PROMO**

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TEM Associates, LLC.

### **STUDENT ACTIVITIES**

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Sinclair Community College

### **CTTC**

**Evan Nutt**

ENutt@elitaire.com  
ElitAire

### **GOVERNMENT AFFAIRS**

**Paul Hawkins**

Paul.Hawkins@waibelenergysystems.com  
Waibel Energy Systems

**YEA (Chair)**

**Phillip Reid**

PAReid@heapy.com  
Heapy

## Board of Governors

**Rick Pavlak**

Heapy

**Lorraine Kapka**

Sinclair College

**Evan Nutt**

ElitAire

# MEMBERSHIP

## New Members

The Dayton Chapter is happy to welcome its newest members. If you see them please give them a warm welcome!



### February:

**Stephen Heckler**

**Michael Buschhas Addison Grigsby**

**Jacob Pentasuglio**

**Do you know a colleague that would benefit from joining ASHRAE?**

You can go to [http://web.ashrae.org/connect\\_a\\_colleague/](http://web.ashrae.org/connect_a_colleague/) and quickly sign up for ASHRAE to send an email to ask them to sign up on your behalf.

## Membership Recognition

We would like to recognize the following members who have been with ASHRAE for the following years! Thank you for all your contributions to the field!

**15Years: Steven Meier**

**50 Years: Dennis Lewis**

**55 Years: George Letton**

**60 Years: Thomas Ferdelman**



## **Membership Promotion Committee**

Looking for a way to get involved with your local ASHRAE chapter and meet new people? The membership promotion committee is looking for volunteers to join the committee. The committee's primary responsibility is to recruit new members and retain existing members. If you are interested in serving please contact **Vincent Caudill** at [vcaudill@ecomfortohio.com](mailto:vcaudill@ecomfortohio.com) or by calling 513-512-5359.

## Membership Application Here

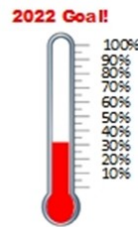
# ASHRAE RP

Spring is just around the corner. We are over halfway through the ASHRAE fiscal year and we need your help to reach our goals. To date, we are at 32% of our goal. The RP Year ends with the end of the ASHRAE year on June 30, 2022. If you have not donated, now is the time to do so in order to receive the recognition that you deserve as a supporter of ASHRAE. Please consider donating to ASHRAE RP / Education / Scholarships. See the link [BELOW](#) to donate today!

Please note again that in order to be recognized with a commemorative coin, and have your name published in the ASHRAE Journal, the minimum donation is \$150 for individuals and \$500 for Corporate Donors .

2021 Goal = \$ 19,680  
YTD = \$ 6,400  
To go = \$ 13,280

% to GOAL: 32%



## Partner Level

## Honor Roll

## Bronze Level

Steve Meier  
Tom Mastbaum  
Evan Nutt  
Brian Turner  
Lorraine Kapka  
Trent Hayden  
Russell Marcks  
Vince Caudill  
Kyle Schroeder  
Bryan Schenck  
Zak Shultz  
Jennifer Eller  
Matt Dill

Uptime Solutions

## Silver Level

Waibel Energy

## Honorable Mention

Keith Strayer  
Jeremy Fauber

**Thanks** for all your help and support. If you would like to donate **NOW** simply click this link:

**[DONATE NOW](#)**

And make your donation to help ASHRAE in its Research Efforts. Thank you so much!!



# ASHRAE News

## It's that time of year again to get your foursomes together for the Dayton ASHRAE Golf Scramble!

We will be returning to PipeStone on May 27<sup>th</sup> for a great start to your Memorial Day weekend. Registration and payments will be through Eventbrite. Please find the URL below.

If you have any questions or would like to pursue sponsorship opportunities, please reach out to Mike Weisman at [mweisman@elitaire.com](mailto:mweisman@elitaire.com).

**We are looking forward to seeing you at the event!**

### THE ANNUAL DAYTON ASHRAE GOLF SCRAMBLE

**May 27, 2022**

**PipeStone Golf Club**  
**Shotgun Start at 9:00 am**



Drink Tickets Sponsored by Trane



**TRANE**

Mulligans Sponsored by Point 2 Point Systems



**SOLID BLEND**  
WATER MANAGEMENT SOLUTIONS  
*safe. clean. sustainable.*

Bloody Mary Bar and Lunch Sponsored  
by SolidBlend Technologies

Register at [Daytonashraegolf2022.eventbrite.com](https://Daytonashraegolf2022.eventbrite.com)

EMAIL QUESTIONS TO [MWEISMAN@ELITAIRES.COM](mailto:mweisman@elitaire.com)

# ASHRAE News

YEA is hosting a Leadership Weekend opportunity next month. Please note that this opportunity is basically a month away, so you need to jump on it as soon as possible. If financial assistance is needed please contact Phil Reid at: [pareid@heapy.com](mailto:pareid@heapy.com).



## YLW 1.0 Spring 2022

Dates: March 25-27, 2022

Location: Atlanta, GA  
Registration Now OPEN!

YEA Leadership Weekend (YLW) is led by Ralph Kison as he guides individuals through a self-discovery process that reveals their strengths, talents, gifts and passion. From there it's all about identifying high pay-off, high impact jobs and activities that fully utilize their I.Q., E.Q, and P.Q. YLW also features YEA Society leaders who provide an overview of ASHRAE as it applies to the Society, Region, and Chapter levels, as well as how to get involved. Any YEA member is welcome to attend.

## Student Scholarship

Dayton ASHRAE is now accepting applications for student scholarships. Scholarships Available:

**Keller Memorial Scholarship: \$1500 for a UD ME or MET student.**

**Waibel Energy Systems Scholarship: \$1000, any 2- or 4-year student in a Built Environment field of study**

Note that applicants must either be directly related to a Dayton Chapter member OR a national Student ASHRAE member. For students not related to a chapter member, scholarships must be used to attend a school in the Miami Valley region.

Applications are due annually on January 31st.

**(Extended to 2-28 for 2022)**

Click either picture to go to application.



## U.S. Army Releases First Climate Strategy

On February 8, the U.S. Army released its first climate strategy, which includes goals to reduce the Army's greenhouse gas pollution by 50% by 2030 and reach net-zero emissions by 2050. The Army plans to meet these goals by increasing fuel efficiency, increasing the number of Army electric vehicles, and by modernizing operational power generation, battery storage, land management, and procurement. The strategy also includes a roadmap to make bases more prepared to face climate-related threats, including extreme weather impacts on infrastructure. In addition, the Army has 25 microgrid energy projects planned through 2024 and plans to install a microgrid on every Army installation before 2035. The full strategy document can be found [here](#).

## Boston Public Schools Install Indoor Air Quality Sensor Dashboards and Adopt Ventilation Plan

Public schools in Boston, Massachusetts have recently installed Indoor Air Quality (IAQ) sensors in all classrooms. The sensors report information in real-time on key measures of air quality, and this data is used to direct changes to the set-up in each classroom and note any additional work that needs to be done to reach optimal air quality and ventilation. Each sensor records multiple measures of indoor air quality (IAQ): Carbon Dioxide, Carbon Monoxide, Airborne Particulates, Temperature, and Relative Humidity. A link to the dashboard can be found [here](#). Boston public schools have also adopted [ASHRAE's Epidemic Task Force guidance](#) in the district's IAQ and Ventilation Plan, found [here](#).

## Nation's First Triple Net-Zero Housing Development in Albany, New York

Garrison Architects has unveiled designs for The Seventy-Six, a housing development in Albany, New York that is expected to become the first triple net-zero (energy, water, and waste) project of its kind in the United States. New York State Energy Research and Development Authority (NYSERDA) recently gave the development a Buildings of Excellence award and a portion of \$13 million in funding set aside for low- or zero-carbon multi-family buildings. Read more [here](#).

## The Beijing Olympics are keeping rinks ice-cold using natural refrigerants

For the first time, Olympic athletes are gliding across ice made using natural refrigerants. Five of the nine ice rinks at the Beijing Olympics will use carbon dioxide as the refrigerant. According to the International Olympic Committee, the carbon dioxide systems will save 26 million kilograms (57 million pounds) in greenhouse gas emissions. [Read more](#)



## Intelligent Building Materials Could Help Moderate Temperature

A team from UNSW Sydney [has developed new intelligent building materials](#) that can help keep the temperature in check throughout the seasons. The design adjusts the optical properties used in conventional building coatings to change the amount of heat they reflect and emit depending on the temperature in the air. [Read more](#)

# ASHRAE News

## **US household air conditioning use could exceed electric capacity in next decade due to climate change**

According to [a recent study](#), climate change could drive an increase in summer air-conditioning use in the U.S., which could cause prolonged blackouts during peak summer heat if states do not expand capacity or improve efficiency. Previous research has examined the impact of higher future temperatures on annual electricity consumption or daily peak load for specific cities or states. The new study projects residential air-conditioning demand on a household basis on a wide scale. [Read more](#)

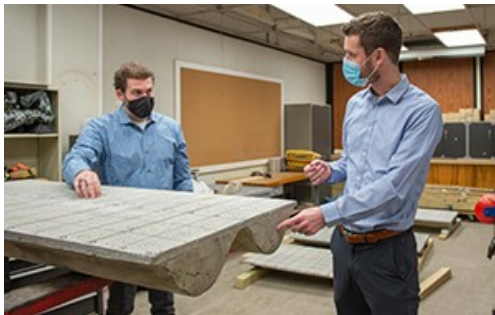
## **ASHRAE Wraps up First Hybrid Winter Conference in Las Vegas**

More than 2,800 HVAC&R industry professionals, building systems engineers, architects, contractors and students gathered in Las Vegas and virtually from January 29–February 2 for the 2022 ASHRAE Winter Conference. “This year’s conference and expo marked the first time that the Society has been together for our Winter Conference in two years and the return to the AHR Expo after last year’s cancellation,” said 2021-22 ASHRAE President Mick Schwedler, P.E., Fellow ASHRAE. “While the numbers are expectedly lower than past conferences, in-person attendance still exceeded our expectations, and our virtual attendees added a welcomed dynamic to our sessions.” [Read more](#)

## **Free Training Helps Grow Chapter’s Student Membership by Almost 900%**

One ASHRAE chapter increased their student membership by about 900% in the past year thanks to an education program. The Universidad Autónoma de Nuevo León Student Branch of ASHRAE Monterrey Chapter México designed a free program that offers 90 hours of training on 12 topics ranging from thermodynamics to energy modeling. Before launching the program, the student branch had 11 members. Now, the student branch boasts 109 new student members. [Read more](#)

## **Balancing Sustainability, Safety, Comfort in Engineered Floor Slabs**



Using less material in floors is a viable strategy for improving sustainability in buildings, as it can reduce the structure’s environmental footprint. Prioritizing only this goal, however, can lead to unwanted effects—such as an echo in a room or noise traveling between floors. Penn State researchers have explored a method for optimizing the acoustic and structural properties of concrete floor slabs. Researchers learned shaped structures can improve sound insulation performance in buildings while reducing the embodied carbon emissions of the structural system. [Read more](#)

*Penn State researchers analyzed structural properties for meeting building engineering standards and acoustic properties to minimize undesirable sounds. Credit: Kelby Hochreither/psu.edu*

## **Where Do Vapor Barriers Go in Parking Garages?**

*By Joseph W. Lstiburek, Ph.D., P.Eng., Fellow ASHRAE*

You have a concrete parking garage under a building. You have to insulate the underside of the structural slab between the building and the parking garage. The structural slab is concrete. Where does the vapor barrier go? This should be easy, but wait—are we in Montreal, Memphis or Miami? [Download here](#)



## Face-To-Face ASHRAE HVAC Design Training is Back!

Our first in-person training of the year will be hosted in ASHRAE Headquarters from March 7 to March 11. Registration is already available. The training is divided into 2 levels:

[More Info](#)

**Level I – Essentials | 7 – 9 March 2022:** Provides participants with instruction that accelerates their transformation into effective members of a design, construction or facilities maintenance team. Developed by industry-leading professionals selected by ASHRAE, the training provides attendees with the fundamentals and technical aspects of HVAC design. Attendees will gain practical skills and knowledge to design and maintain HVAC systems that can be put to immediate use.

In addition to gaining in-depth knowledge and understanding, attendees will receive real-world examples of HVAC systems based on the renovated ASHRAE Headquarters building. The training also teaches a systematic approach to guide a design team to a solution that optimally meets the client's expectations. Engineered drawings of the ASHRAE Headquarters renovation will also be discussed so participants are exposed to plan reading and visual understanding of system design.

**Level II – Applications | 10 – 11 March 2022:** Provides participants with instruction on HVAC system design. The training is tailored for engineers with advanced experience in the HVAC design field, or those who have completed HVAC Design: Level I – Essentials. Developed by industry-leading professionals, the training provides advanced information that allows practicing engineers and designers an opportunity to expand their exposure to HVAC systems design procedures for a better understanding of system options to save energy.

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## **ATLANTA (January 31, 2022) – ASHRAE is pleased to announce its nominees for the 2022-23 slate of officers and directors.**

*Nominations for officers and directors were made by the ASHRAE Nominating Committee from a list recommended by individual members and from Chapters Regional Conferences.*

*The 2022-23 nominees are as follows:*

- **President-Elect: Ginger Scoggins**
- **Treasurer: Dennis Knight**
- **Vice Presidents: Billy Austin, Dunstan Macauley, Sarah Maston, Ashish Rakheja**
- **Directors and Regional Chairs: Bryan Holcomb (Region IV ), James Arnold (Region V), Susanna Hanson (Region VI), John Constantinide (Region XII), Cheng Wee Leong (Region XIII)**
- **Directors-at-Large: Blake Ellis, Luke Leung, Wei Sun**
- **Alternate Director-at-Large: Patrick Marks**
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*ASHRAE members will vote on the nominees via electronic ballot in May. Farooq Mehboob will serve as ASHRAE President for the 2022-23 Society Year.*

For more information on the 2022-23 slate of officers and directors, visit [ashrae.org/2022-2023slate](https://ashrae.org/2022-2023slate).

# ASHRAE News

## Upcoming ASHRAE Online Training !

10-11 March | 11:00 a.m. - 2:00 p.m. ET

### Complying with Standard 90.1-2019

[More Info](#)

This seminar focuses on outlining changes for attendees (for use in their practice) and providing tools to explain changes to customers. Learn compliance paths for ASHRAE/IES Standard 90.1 and discuss HVAC and lighting systems, building envelopes, service water heating, power, and more. The course also covers key mandatory and prescriptive requirements applicable to each system, as well as whole-building compliance options. [Learn More>](#)

15 March | 11:00 a.m. - 2:00 p.m. ET

### V in HVAC – What, Why, Where, How, and How Much (Includes Basic Requirements of Standard 62.1-2019)

This course focuses on the basic requirements of ASHRAE Standard 62.1-2019 and covers the scope, application, and multiple compliance paths available in the standard, including the ventilation rate procedure, indoor air quality procedure, and natural ventilation procedure. The different application conditions for the ventilation rate procedure are also described, along with changes particular to the 2019 version of ASHRAE Standard 62.1. [Learn More>](#)

22 March | 12:00 p.m. - 3:00 p.m. ET

### Basics of Combined Heat & Power

This course focuses on the fuel savings, emissions reduction, and decentralization of energy and power supply. The basic CHP terms and definitions, rating parameters, and energy conversion systems are discussed. The focus of this course is to understand thermal design for CHP systems and the types of technology that exists. [Learn More>](#)

29 March | 10:00 a.m. - 1:00 p.m. ET

### NEW! Evaluating Your HVAC System's Readiness to Mitigate the Spread of SARS-CoV-2

This course expounds the online ASHRAE COVID-19 details for reopening buildings and the Building Readiness Plan for HVAC systems. The expansion of details discussed in this course will help reiterate the fact that there are mitigation strategies available and help you understand what a fit for your building is, its systems specific arrangement and your needs. [Learn More>](#)

6-8 April | 12:00 p.m. - 4:30 p.m. ET

### NEW! Soft Skills Essentials for Engineers

In this highly interactive 3-day course, problems of poor communication and engagement, lack of team collaboration, conflicts, inefficient meetings, unengaging presentations, poor management performance, decreased productivity, difficulty to retain talent and overwhelmed workload will be addressed. [Learn More>](#)