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### Cleveland Chapter of The American Society of Plumbing Engineers January 2017

#### From the President:



Happy New Year! I would like to thank Jason Shank and Plumber's Local 55 for inviting the ASPE Cleveland Chapter for touring their facility in December.

The January Technical <u>Lunch</u> Session will be held at Crown Plaza (Skyline Ballroom) located at 5300 Rockside Road, Independence, Ohio 44131 on January 11, 2017.

11:30 – Lunch / Meet and Greet 12:00 – 1:00 Cast Iron Piping System

Applications presented by Pat McQuillan with New Age Casting.

Please RSVP by January 6, 2017 with Kevin Noble at <a href="mailto:knoble@sbmce.com">knoble@sbmce.com</a>. Registration is required. No Walk-Ins on day of event. \$26 per person.

The following are some important dates to keep in mind for this year!

- CPD registration Opens on January 4, 2017
- Alfred Steele Scholarship submission: January 31, 2017
- Symposium call for presenters: February 1, 2017
- Engineers Week: February 19-25, 2017
- World Plumbing Day: March 11, 2017
- CPD exam dates April 6&7, 2017
- ASPE Symposium Montreal, October 19-22, 2017 (Passports are required for travel.)
- College of Fellows applications for submission January 31, 2018

Let us know if there are any specific topics or field trips you would like to see our chapter sponsor. We are always looking for new ideas. Remember, without membership and participation, there is no local chapter.

Regards,

John A. Varga, P.E.

President, ASPE Cleveland Chapter

## Alfred Steele Scholarship

Want some help getting your degree in engineering?

Apply for the ASPE Alfred Steele Scholarship. Up to \$3,000 in scholarship monies may be awarded each year to qualified applicants.

The Deadline is January 31!

#### 2016-2017 ASPE Meeting/Plumbing Class Schedule January 2017

Date - Time - Place	<u>Agenda</u>	<u>Speaker</u>	<u>Exhibitors</u>
September 14, 2016 – 6:00 PM	Clam Bake	N/A	N/A
Cleveland Yachting Club	Topic – Social Event ASPE Cleveland Chapter		
October 12, 2016 – 6:00 PM Harry's Steakhouse Cost: \$26.00	Topic – Total System Approach for Grease Management	Vince Scriboni Territory Manager Green Turtle / Zurn	Campbell Equipment Co.
November 9, 2016 – 6:00 PM Harry's Steakhouse Cost: \$26.00	Topic – Siphonic Roof Drain Systems	Bill Shockley  Wade Drains	TOTO RepSource
December 14, 2016 – TBD Harry's Steakhouse Cost: \$20.00	Topic – Plumbers Local 55 Training Facility Tour	Plumbers Local 55 Staff	
January 11, 2017 – Noon Crown Plaza Hotel in Independence Cost: \$26.00	Topic – Cast Iron Soil Pipe Systems: Applications, Economics and Advancements	Pat McQuillan National Sales Manager NewAge Casting	Musillo Sales
February 8, 2017 – Noon Harry's Steakhouse	Topic – Domestic Water Booster Pump Systems	Jason Kresner Application Engineering Manager Syncroflo	
Cost: \$26.00			
March 8, 2017 – 6:00 PM Harry's Steakhouse	Topic – PP-RCT Piping Systems		
Cost: \$26.00			
April 12, 2017 – TBD TBD	Topic – Tour TBD		
Cost: \$26.00			
May 10, 2017 – 6:00 PM Harry's Steakhouse	Topic – Acorn Vacuum Plumbing Systems	Ron Mims	
Cost: \$26.00		Acorn Engineering	

#### 2016-2017 ASPE Meeting/Plumbing Class Schedule January 2017

The above is the meeting/plumbing class schedule for the 2015-2016 ASPE year. Updated information will appear in subsequent newsletter issues. All meetings will be at Harry's Steakhouse, 5664 Old Brecksville Road, Independence unless otherwise indicated. The meeting/plumbing class, including dinner, is \$26.00. Reservations are required. A mini product show will be held before each meeting/plumbing class highlighting some of the materials discussed in class or products that will assist the engineer in understanding what they are designing or specifying. All plumbing classes will qualify for 0.1CEU hours and will assist in preparation for the ASPE CPD examination.

The following times will be enforced as strictly as possible.

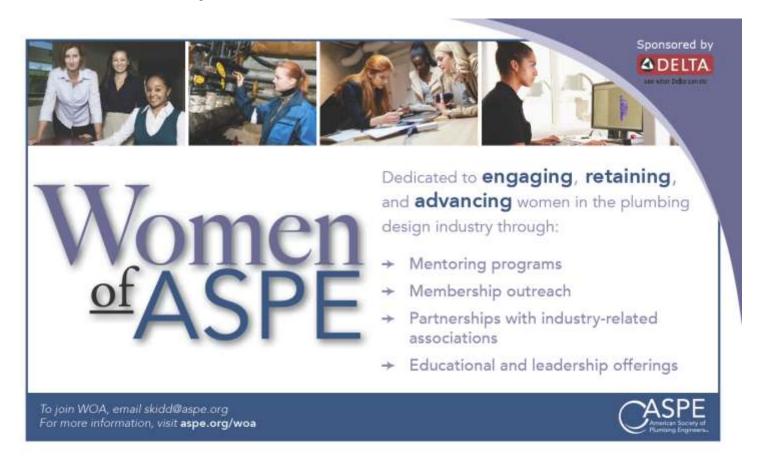
Make your reservations a minimum of two days before the meeting/class and try to be on time.

Mini product show 5:00 to 6:00

Dinner 6:00

ASPE business 6:30

Plumbing Class 6:45 to 7:45









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# ASPE Mentoring The Women of ASPE are excited to introduce ASPE's new Mentoring Program! This program which is

The Women of ASPE are excited to introduce ASPE's new Mentoring Program!

This program, which is available to all members of the Society, has been designed to connect ASPE members who have a particular skill set (mentor) with individuals (mentee) who are searching to acquire the same skills to develop and make progress toward their personal and professional goals.

#### Who Is a Mentor?

A mentor is someone who can help the mentee develop skills for success and long-range career planning, is able to be a good listener, is willing to share experiences and views, is willing to commit time and effort, provides an "open door" to questions and problems, points out both strengths and opportunities for improvement, and has a vested interest in the growth and development of their mentee.

#### Benefits to the mentor:

- Satisfaction in helping someone mature, progress, and achieve goals
- Meeting and sharing experiences with other mentors
- Personal ongoing support to help the mentee succeed
- Personal fulfillment through contribution to the Society and the individual

#### Who Is a Mentee?

Having a mentor can contribute to a successful and satisfying career. Without a mentor, that learning occurs mostly through trial and error. With a mentor, even experienced professionals can benefit from the experiences and expertise of someone who has withstood the trial and can help the mentee avoid the mistakes. Similarly, those new to the industry will discover that being a mentee shortens the learning curve for acquiring the skills and knowledge most critical to a fruitful career.

#### Benefits to the mentee:

- Discover new talents about yourself
- Career satisfaction
- Expand your personal network
- Maximize your strengths

aspe.org/aspe-mentoring-program





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#### Checklist for Cast Iron to PVC VE Discussion

Item: Maximum Working Temperature (at zero psi)	YES	NO
Will system exceed 140° F by design or accident? <i>Boiler condensate, comm. kitchen, washing machine, autoclaves?</i>	TES	NO
Fact: PVC maximum working temperature is 140° F.	-	
Fact: CISP maximum working temperature is 212° F.	YES	NO
Item: Thermal Expansion		
What is the air temperature at the time of installation?		
What is the maximum temperature of the system?		
What is the potential maximum change in temperature?		
Does contractor have expansion couplings and/or off-sets figured into bid?		
Access to expansion couplings for possible replacement/maintenace?		
Fact: PVC will expand 3.6" per 100' of pipe with a 100° F temperature change.		
Fact: CISP will expand .745" per 100' of pipe with a 100° F temperature change.	1/170	110
Item: Sound Attenuation	YES	NO
Will anyone be sleeping, convalescing, studying or working in the facility (i.e., Hotels, Dormitories, Hospitals, Schools, Libraries, Retirement, Convalescing Facilities, Shared Wall Condos & Apartments, Correctional Facilities, Quiet Work Areas, etc.)?		
Fact: PVC requires added insulation wrap & isolation brackets for quiet performance required in many buildings.		
Fact: Cast iron requires no insulation wrap because of its natural noise-dampening qualities with consistent sound performance levels in the 25 dB range (utilizing neoprene gaskets).		
Item: Underground Installation	YES	NO
Will contractor be installing PVC with ASTM D 2321 protocol?		
Will contractor be supervised during installation of underground PVC to assure required trench width, trench bottom and proper soil compaction?		
Does contractor have proper backfill material figured into his bid?		
Will the DWV system be installed under concrete? Are the consequences of an underslab failure significant?		
Fact: As a flexible piping system PVC requires greater care in underground application. It is dependent upon the surrounding soil (soil pipe mechanism) in order to withstand an external load. PVC pipe is considered to be in a failed condition when earth or live loads have caused the pipe to deflect beyond a certain point, generally 5%. Calculating maximum burial depths for flexible piping systems is more complex and requires the use of the Iowa Formula, pipe stiffness values for the system employed and knowledge of local soil conditions. Additional information of the Iowa Formula is available within the Uni-Bell Handbook of PVC Pipe.		
Fact: As a rigid material CISP fails when it crushes. Rigid piping systems can be evaluated with a ring crush test, and the derived values can be used to verity that the pipe will withstand the required external load.		
Item: Hanger Spacing/Fall		
Has the cost of additional hangers and their installation been considered?		
Fact: Model Plumbing Codes require PVC DWV pipe to be supported horizontally every 4 feet.		
Fact: CISP offers greater structural strength, significantly reducing hanger requirements and providing consistent fall. Cast iron needs to be supported within 18" of each joint and every 10 feet horizontally.		
Item: Plenum Spaces	YES	NO
Does the building utilize plenum spaces for return air?		
If wrapping PVC to meet ASTM E 84 is permitted by code, will a post cable/telecomm/HVAC installation inspection occur to make sure pipe/fitting wrap is not damaged or disturbed?		
Fact: PVC should not be installed in a plenum. It is classified as a combustible material per ASTM E 136.		
Fact: Cast iron is a non-combustible product, which can be installed in a return air plenum.		
Item: Fire Wall Penetrations	YES	NO
Has contractor added the cost of fire-stopping materials and labor or will that be passed along to another trade?		
Fact: PVC requires listed fire-stop devices or collars conforming to the requirements of ASTM E 814 on both sides of the fire-rated wall. The collars utilize intumescent fire-stopping materials.		
Fact: Cast iron requires installers to only seal the annular space between the wall and the pipe. Typically mineral wool batting and fire-resistant caulking are used to fill the annular space.		

If you answered yes to any one of these questions, please consult a Charlotte Pipe technical services rep to further discuss the best material for your project.







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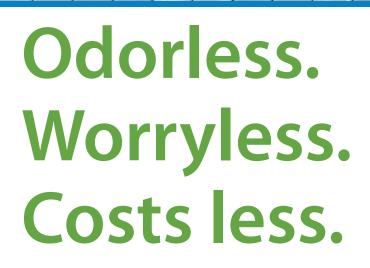


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ABT – Polydrain www.abtdrains.com	Pre-sloped polymer trench drains, <i>Trench Former</i> – pre-sloped trench drains systems.
Bradley Corporation www.bradleycorp.com	Advocate all in one hand washing stations, washfountains, Express and Frequency lavatory systems, Navigator thermostatic mixing valves, showers, safety equipment, metering faucets, security fixtures, patient care units, Terreon solid surface products, Evero natural quartz products.
Cool Drain Flow www.cooldrainflow.com	Drain Line Tempering Kits for commercial kitchen equipment, boiler blow down drain lines, condensate return, heat exchanger and dehumidifier lines to temper drain water below 140 deg F.
Creative Industries www.creative-terrazzo.com	Pre-cast terrazzo shower floors, mop basins, concrete laundry tubs and stairs or benches, terrazzo or concrete or glass counter tops and custom terrazzo products.
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Hydrotek www.hydrotekintl.com	Sensor operated Faucets, Flush Valves and Showers. Solar powered AC and DC operation. All products comply with the ARRA and BAA and are available in 2014 low lead requirements.
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Oasis International www.oasiscoolers.com	Oasis International, headquartered in Columbus, Ohio, manufactures and distributes a wide range of water dispensing solutions under the <i>Oasis</i> and <i>Sunroc</i> brands.
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Raychem / Pentair Thermal Heat Tracing www.pentairthermal.com	HWAT-Plus self-regulating heating cable system for domestic hot water, XL-Trace freeze protection cable, Pyrotenax MI and Electromelt snow and anti-icing cable, IceStop roof and gutter de-icing cable, RaySol floor warming and freezer frost heave cable, QuickNet floor heating cable.
Schott Scientific Glass / Kimax www.us.schott.com/drainline	Glass piping for acid waste and containment piping systems. <i>Knight-Ware</i> acid neutralizing sumps.
Summit Ice Melt Systems www.summiticemelt.com	Roof Ice Melt Systems. Radiant Edge HotSlot, Radiant Edge LT, Radiant Edge PRO, Radiant Edge LowSlope, Radiant Edge Valley, Heated Standing Seam Metal Roofing.
Tyler Pipe www.tylerpipe.com	American made CISPI, Cast Iron Pipe ,Fittings, and Couplings.
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Xerxes www.xerxes.com	Fiberglass oil, grease, solids interceptors, and decontamination tanks
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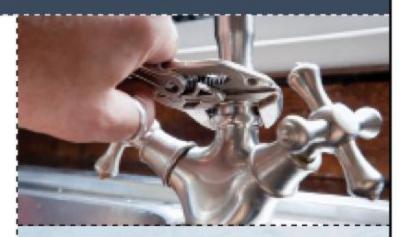
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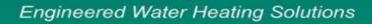
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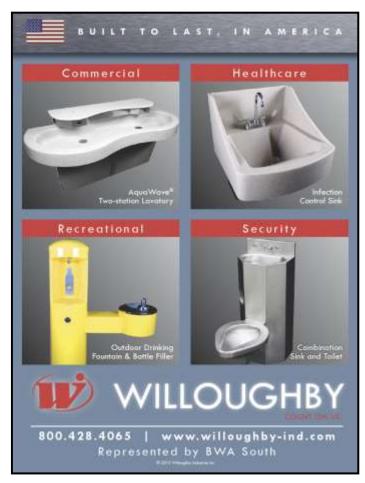
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