

Chapters are not authorized to speak for the Society, the views and opinions of this Chapter are those of the respective authors and do not necessarily reflect the official policy or position of the Society or it's staff.





APRIL NEWSLETTER

TOPIC: DOMESTIC WATER BOOSTER PUMP SIZING

FOR EFFICIENCY

PRESENTER: ED ROSS - QUANTUMFLO

WHEN: WED., APRIL 14TH 11:45 am - 1:30 pm

WHERE: VIA ZOOM MEETING @

https://moseleyarch.zoom.us/j/99104807529

(highlight web address then right click & select Go To...)

INSIDE THIS ISSUE:

Greetings from the Board

Page 2

Technical Page 3

Membership Page 4

Industry Ads, Info. Page 5-23

Industry Opportunities
Page 24

News Page 25

Education Page 26

BOARD OF DIRECTORS:

President

Joshua H. Landis - Moseley Architects jlandis@moseleyarchitects.com

Vice President Technical

Mischa Zakhary - AKF Group mzakhary@akfgroup.com

Vice President Legislative

Istvan Godri Martis - WSP istvan.godri-martis@wsp.com

Vice President Membership

Robert V. Grubbs - Mason and Hanger robert.grubbs@masonandhanger.com

Treasurer

Joshua H. Landis - Moseley Architects jlandis@moseleyarchitects.com

Administrative Secretary

Jay Otto – Otto Sales jayotto@ottosales.com

Corresponding Secretary

Robbie Shearon - Baskervill rshearon@baskervill.com

Newsletter Editor

Cydney Johnstone – The Joyce Agency cydney@thejoyceagency.com

Chapter Affiliate Liaison / Resource Enhancement Chairperson

Bill Lesemann, Jr. – W.G. Lesemann & Assoc

Education Committee Chairperson

Tina M. Capece – Mason & Hanger tina.capece@masonandhanger.com

ASPE Young Professionals Chapter Liaison

Eric Geisendaffer - Bay Associates eric@bayassociates.com

GREETINGS FROM THE BOARD

President's Message

As we approach the last two months of our fiscal season (Sept-May), we will be looking to have voting for our board positions. If you or anyone you know is interested in serving on the Richmond Chapter board, please reach out to me and I can provide additional information and availability. For the time being I plan to continue to run for Richmond Chapter President.

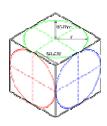
Remember to join our virtual Zoom meeting for this upcoming technical meeting. If you do not have the Zoom invite or have misplaced it, please do not hesitate to reach out to me and I will make sure you receive it.

We are continuing to book for our next 2021-2022 season meetings and they're starting to fill up. So if you are interested in presenting next season, please reach out to Mischa or myself for availability.

As always, if you have any questions or concerns, please do not hesitate to reach out to myself or anyone on the board.

Joshua H. Landis, CPD President, ASPE Richmond Chapter

VP TECHNICAL - MISCHA ZAKHARY



TECHNICAL LINE UP:

- MAY 12TH, 2021 (VIRTUAL VIA ZOOM UNLESS OTHERWISE NOTED)
 - TOPIC: THE SCIENCE BEHIND SANITARY DESIGN
 - PRESENTER: SCOTT STEINDLER-WATTS / SCOTT GARSTKA-STONHARD
 - SPONSOR: THE JOYCE AGENCY
- JUNE AUGUST 2021 >>> BREAK

VP MEMBERSHIP - ROB GRUBBS



It's never to late to join ASPE! The monthly meetings are just one of the advantages to becoming a member. Current members, please encourage your colleague's to attend our monthly meetings and consider joining the ASPE family. Visit https://www.aspe.org/join for more information.

MEMBERSHIP EXTENSION:

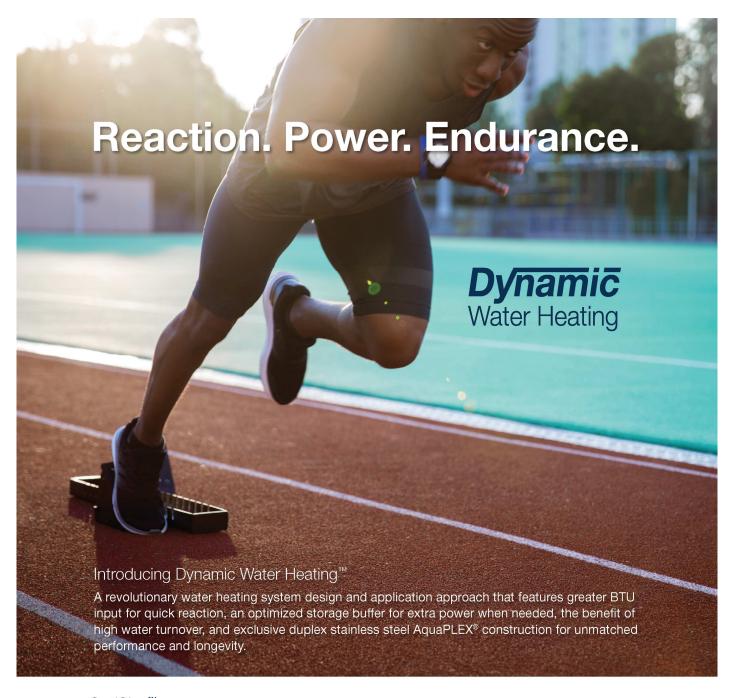
AS A REMINDER - ALL ASPE MEMBERS HAVE BEEN GIVEN AN ADDITIONAL 90 DAY EXTENSION ON THEIR MEMBERSHIP, WHICH BEGAN LAST YEAR AS A COURTESY DUE TO THE PANDEMIC. THE EXTENSION PROVIDES MEMBERS ONLINE RENEWAL ACCESS DURING THIS TIME. KEEP IN MIND, THAT THIS DOES <u>NOT</u> CHANGE THE MEMBERSHIPS ORIGINAL 'VALID TO' DATE.





BIRTHDAYS ANNIVERSARIES

Tina Capace	4/12	David Dahl	4/30/1993
Frank Marsh	4/13	Rob Grubbs	4/10/2000
Eric Geisendaffer	4/22	John Cutright	4/20/2014
Eric Scott	4/23		
Mischa Zakhary	4/26		



OptiSize[™] will help you select an optimally-sized water heater for your next project

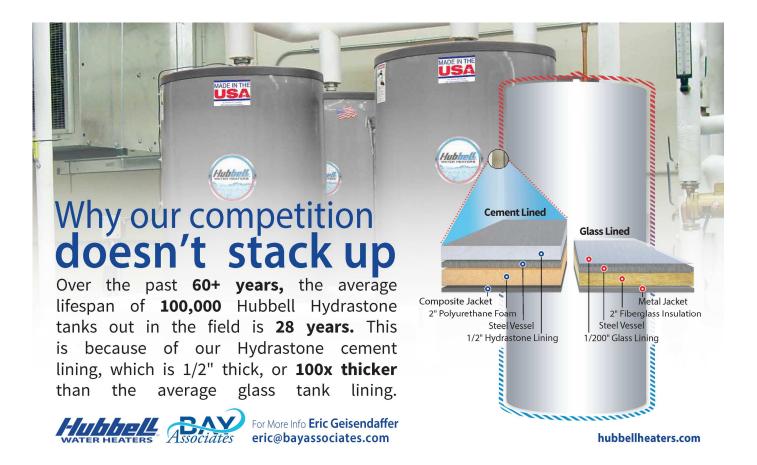




Eric Geisendaffer Bay Associates Group, Inc. 1432 Front Ave / Lutherville, MD 21093 410-825-6616 / 410-825-6618 bayassociates.com



800.784.8326 | pvi.com



Safety First....and Fast!

Everyone can now enjoy safe, refreshing, pure drinking water again with OASIS contactless bottle fillers and fountains.

- Fast Lead Times OASIS delivers products with shorter lead times than the competition.
- Contactless Touch-free operation reduces the spread of bacteria or viruses.
- Fast Filling Optional 8-, 10-, or 20-gallon chillers.
- Convenient Convert competitive drinking fountains into bottle fillers in just minutes.
- Innovative Quasar® UVC-LEDs disinfect water as it's dispensed, eliminating 99.99% of water-borne pathogens.
- Antimicrobial Nickel-infused copper reduces bacteria on common contact points and Freshield silver ion treated plastic reduces the growth of microorganisms and mildew.

Contact your local VMA Sales Representative

David Dahl 804-615-1962

for more details on solutions that OASIS offers

















The Power of Solutions

Roger Schultz Roger.Schultz@carotek.com 804-279-8800

Intellihot

TECHNOLOGY OVERVIEW

Our iQ3001 floor-standing units deliver the highest capacity in the industry – up to 3 million BTUs – with no storage tanks required. Designed for very large volume, commercial applications, these high-input units slash capital costs by up to 50%, and decrease operational costs by up to 40%, when compared to traditional tank-type systems.

(Q3001 delivers approximately 3.0 million BTU/hr iQ2001 delivers approximately 2.0 million BTU/hr iQ1501 delivers approximately 1.5 million BTU/hr iQ1001 delivers approximately 1 million BTU/hr iQ751 delivers approximately 750,000 BTU/hr

- Masterless Cascading Up to two iQ3001 floor units can be cascaded for unprecedented capacity up to 160 GPM at a 70°F rise. Eliminate single-point failure with our patented Masterless Cascading technology. If one unit is offline for servicing, all other units regroup and continue to operate.
- High Turndown Ratio With an industry leading turndown ratio, 100:1, our units provide unparalleled gas savings.
- Compact Unit Featuring a 30" width and a 1645 lb. weight, iQ floor units fit through elevator doors and are ideal where space is at a premium.





be think innovate

GRUNDFOS X

PRESSURE BOOSTING



Grundfos Hydro MPC BoosterpaQ is a fully integrated system with pump, motor and variable frequency drive. This packaged solution is factory assembled and fully factory tested to the highest standard.

The industry leader in boosting, this system is controlled by the cutting edge CU 352 MPC controller and based on the extremely reliable, high efficiency CR pump range, this is a fully integrated system that ensures all technologies involved in the process work perfectly together.

CU 352 CONTROLLER

- Advanced controller specifically designed to run up to six parallel connected pumps
- Control features include pump curve data loaded into the controller allowing for estimated flow readout on controller, and cascade control based on efficiency

CR PUMP

 World's number one multi-stage centrifugal pumps, the CR and CRE, known for their reliability, efficiency and adaptability

MLE MOTOR

 Grundfos integrated variable frequency drive and motor combined eliminates complexity by matching variable speed motor, drive and control logic components

MANIFOLDS

 Hygienically designed 316 stainless steel manifolds guarantee protection against corrosion

A TOTAL, STATE-OF-THE-ART HOT WATER SYSTEM, ENGINEERED TO DELIVER A SUPERIOR LEVEL OF USER SAFETY, INFECTION CONTROL AND COMPLIANCE, FROM MECHANICAL ROOM TO THE POINT OF USE.









ABH

THE BRAIN®
DIGITAL
RECIRCULATION
VALVE

Digital hot water temperature control that delivers unparalleled accuracy, stability and safety to mitigate the risk of Legionella and scalding.



RADA DIGITAL FAUCET

STEAM AND GAS-FIRED WATER HEATING

Leading-edge steam and gas-fired institutional hot water generation, built for reliability, efficiency and durability.

SAGE® SMART
HOT WATER
SYSTEM MONITORING
AND REPORTING

Advanced software provides regular updates, documentation, custom-filtered reports, and real-time alerts for compliance with industry guidelines and Standards of Care. RADA DIGITAL FAUCETS

Hands-free, programmable, point-of-use fixtures have The Brain® digital technology built in, and offers thermal disinfection, duty flush, bacterial-resistant design and ASSE 1070 compliance.

PROGRAMMABLE OPERATION AND FLOW CONTROL



DIGITAL-FLO



SAGE® MONITORING













FOR WHEN IT REALLY MATTERS SINCE 1962

The SyncroFlo team is dedicated to keeping your water flowing through these uncertain times. Our manufacturing plants are open and we're implementing the CDC guidelines to continue operating safely through COVID-19, for example, avoiding close contact, routinely washing hands, disinfecting frequently touched objects and surfaces and providing masks for our employees.

Since 1962, our commitment to provide reliable water pumping solutions has enabled SyncroFlo to become the world's leading manufacturer of water pumping stations serving the HVAC, plumbing, fire, municipal, and emergency water systems markets .. With over 25,000 systems installed worldwide, SyncroFlo is a trusted designer and manufacturer of system controls, with a 155,000 square foot manufacturing facility, which is third party certified by Underwriters Laboratory, Factory Mutual, IAPMO, Intertek and carries an ISO 9001-2015 Certification.

Representatives for the majority of Virginia: Enviro Mechanical Sales, Inc. www.enviromechanicalsales.com Midlothian Office: (804)897-8320 Williamsburg Office: (757)694-1017



















AB&I*AMERICA STRONG

Trust American manufacturing.

AB&I Foundry has been steadfast in manufacturing resilient durable products through world wars, natural disasters and pandemics.

AB&I has stood the test of time so your buildings can stand the test of time.

Support American made products.

ABIFoundry.com 510-632-3467





McWane Technical Services is part of ASPE's CEU Provider Program offering continuing education units (CEUs) for professional development. Here is the current list of programs available by McWane Technical Services:

- Cast Iron Soil Pipe Manufacturing and Associated Standards
- Environmental Sustainability of Cast Iron Soil Pipe Production and Use
- History and Overview of Cast Iron Soil Pipe
- Joining Methods for Cast Iron Soil Pipe and Fittings
- Overview of Underground Installations of Waste Systems

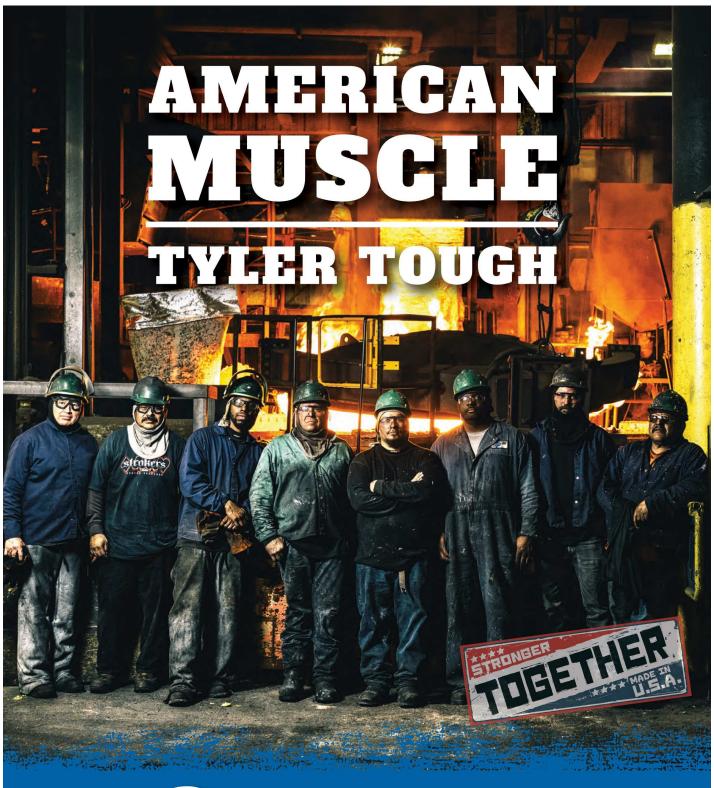


LEARN MORE:

mcwaneplumbingtechservices.com









Water Temperature Control Revolutionized



VIRTUAL STATUS CHECKS!

In these trying times when your staff is low, there is peace of mind with Leonard's Self Diagnostic Digital Mixing Valves - check from anywhere!

- ASSE 1017 Listed
- Easy Setup
- ► +/- 2°F Temperature Accuracy
- Daily Self Cleaning
- Self Balancing
- Disinfection Mode
- Six Standard Protocol Languages









NSF 372 COMPLIANT Made in the USA with domestic and imported parts





Mixing safety and performance... 804-798-2600 For over 100 years.



1360 Elmwood Avenue Cranston, RI 02910 | T: 401-461-1200 F: 401-941-5310 F: 800-222-1208 | www.leonardvalve.com | Revit available on BIMObject.com









2020 ASPE Industry Award Winner ASPE Affiliate Sponsor

calQflo sizing program utilizes the 70% redundancy method per ASPE Engineering Design Handbook Vol. II

Supports All local ASPE Chapters

QuantumFlo & Otto Sales

Your trusted Partners





P.O. Box 6005 Ashland, VA 23005 804-798-2600 FAX: 804-798-1356



PRODUCTS OF UNCOMMON QUALITY Security Healthcare & ADA & ADA & ADA Behavioral & ADA Compliant & ADA Compliant la la Commercial & ADA & ADA Park & Rec. & ADA & ADA & ADA

Specify Willoughby:



Product MasterSpec









The ezH2O Liv™ Built-in Filtered Water Dispenser

Unrivaled filtration for lead- and chlorine-reduced water, instantly.



Aaron Eastwood

n.eastwood@midatlanticrepsouth.c (804) 550-0025 Office (804) 550-0074 Fax (804) 516-4510 Cell

10261 Sycamore Drive, Ashland, VA 23005



The New Dart Canyon™ Sink

A dual-depth bowl for maximum versatility. ADA compliant for full maneuverability.

Elkay.com/dart-canyon





And we have the extensive product line to prove it.

When you're specifying for the next big job, you're also putting your name on the line. That's why T&S offers a vast selection of high-quality products that meet required codes and compliances — no matter the application. And with a companywide commitment to staying at the forefront of today's evolving industry, it's no wonder engineers everywhere rely on T&S when it matters most.











For in-depth product information, crossover assistance and other helpful resources, visit **tsbrass.com**.

T&S plumbing products represented in Richmond by: RepSource MidAtlantic - 804-550-0025



2518 Waco Street, Henrico VA 23294
Main Office Phone #: 804-672-8885
Toll Free Phone #: 800-572-2875
Roanoke Office Phone #: 540-345-5800
Company Website: www.seburks.com
General E-Mail: seb@seburks.com
60+ Years Of Industry Expertise



WWW.LOCHINVAR.COM

- Gas Fired Heating Systems
- High Efficiency Condensing Boilers up to 6.0MBH
- High Efficiency Condensing Water Heaters up to 4.0MBH
- ASME Tanks
- Storage Type Heaters
- Copper Finned Water Heaters & Boilers
- Pool & Spa Heaters



- WWW.WEILPUMP.COM
- Sewage Pumps
- Grinder Pumps



WWW.ALFALAVAL.COM

 Highly Efficient & Durable Heat Exchangers For Any Heat Transfer Application



- Water-Source Heat Pumps
- Dedicated Outdoor Air Systems
- Tranquility* Vertical Stack Systems



- Engineered Plumbing Booster
- HVAC Pump Packages



WWW.WEISSINSTRUMENTS.COM

- · Digital / Industrial Thermometers
- Pressure Gauges



WWW.HYDROLEVEL.COM

Controls For Residential & Commercial Boilers



WWW.ARMSTRONGFLUIDTECHNOLOGY.COM

- Hydronic Specialties
- . Centrifugal Pumps/Circulators
- Pressure Booster Systems
- Air Control Balancing Valves
- · Heat Exchangers
- Design Envelope/Intelligent Variable Speed Pumping



WWW.BURNHAMCOMMERICAL.COM

- · Wetback Scotch Boiler
- · Packaged Fire Tube Boilers
- · Forced Draft Firebox
- . Low NOx Boilers
- · Shock Proof Boilers



WWW.REYMSA.COM

- Closed Circuit Fluid Coolers
- Fiberglass Cooling Towers



WWW.WEBSTER-ENGINEERING.COM

- Gas, Oil, & Duel Fuel Powered Burners
- High Efficiency Along With Low NOx Burners



WWW.MUELLERSTEAM.COM

- Domestic / International Strainers
- Y-Strainers, Check Valves, & Butterfly Valves



www.spirotherm.com

- •High Efficiency Coalescing Air Separators
- Air & Dirt Separators
- Hydraulic Separators



WWW.MEPCOLLC.COM

- Steam Traps
- Condensate/Boiler Feed/Vacuum/Pressure



WWW.WEIL-MCLAIN.COM

- · Cast Iron Sectional Boilers-All Fuels
- Residential & Commercial Boilers
- Multiple Boiler & Energy Management
- High Efficiency Condensing Boilers
 5.0 Ranging Up To 2.0 MBH



WWW.SHIPCOPUMPS.COM

- Condensate & Boiler Feed Pumps
- Turbine Pumps / Vacuum Pumps
- Deaerators



WWW.WESTANKCOM

- Expansion Tanks
- Flash & BlowdownTanks
- Separator Tanks
- · Glycol Make-Up Packages



WWW.COLUMBIABOILER.COM

- Dual Fuel Boilers
- Steam Boilers
- Condensate Return Systems



WWW.RECOUSAHEATERS.COM

- ASME Pressure Vessels
- · Atmospheric Commercial Water Heaters
- Storage Type Water Heaters
- Hydropneumatic Tanks



WWW.CARLINCOMBUSTION.COM

- Residential / Commercial Gas & Oil Burners
- EZGas Pro Universal Conversion Burner
- Gas & Oil Burner Contols

THE JOYCE AGENCY UNITED IN MANUFACTURING

SUPPORT YOUR NEIGHBORS BY CHOOSING AMERICAN MANUFACTURING

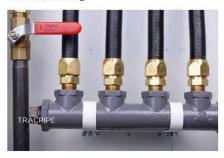
Buying American-made products contributes to a brighter and more stable future for our entire country. Not only does it help support our economy, but it also provides jobs for millions of people across the United States.

The Joyce Agency is proud to represent a portfolio of American-owned and operated manufacturers.



www.bradfordwhite.com

Bradford White is an American, employeeowned company founded in 1881 with a simple vision, to deliver high-quality water heaters made by American craftspeople. They currently employ over 2,300 people and have four locations in America, with headquarters in Philadelphia, Pennsylvania, and three manufacturing plants in Middleville and Niles, Michigan, and Rochester, New Hampshire. Bradford White is Built to be the Best and American Strong.



www.tracpipe.com

OmegaFlex was established in 1975 and located in Exton, Pennsylvania. They lead the flexible metallic piping industry with over 200 registered patents worldwide. In 2004, they introduced the TracPipe CounterStrike flexible gas piping used for natural and propane gas for residential and commercial applications.



www.eemax.com

Eemax was established in 1988 and located in Waterbury, Connecticut. They are the number-one supplier of tankless electric water heater solutions in America. For over 25 years, they have offered energy-efficient, on-demand hot water heaters for commercial applications, residential homes, industrial and safety applications.



www.watts.com

Watts was established in 1874 by Joseph Watts, the inventor of water pressure regulators. They are headquartered in North Andover, Massachusetts, with 10 locations in the United States, and 50 locations worldwide. They are the parent company to several brands, also located in the United States, including Ames, Backflow Direct, Dormont, Mueller Steam, and Powers. They proudly support the Buy American Act on a number of their products.



www.oatey.com

Oatey Company was founded in 1916 with headquarters in Cleveland, Ohio. They are the leading manufacturer of solvent cement, roof flashings, washing machine outlet boxes, and hundreds of other plumbing specialty products. They are the parent company to other American-owned and operated brands, including Keeney, QuickDrain USA, Cherne, Harvey, and Hercules, with 18 locations worldwide.



Contact us for more information:

Cydney Johnstone

804-240-8014

cydney@thejoyceagency.com

Need ASPE CEU Credits?

Visit our online training calendar:

www.thejoyceagency.com/trainingcalendar



PP-RCT PIPING SYSTEMS

www.nupiamericas.com

Random Copolymer Polypropylene (PP-RCT)

- Electrofusion Fittings, Tees, 90's, 45's to 10" & Couplings to 24"
- Electrofusion allows for us to offer a wet tap
- Butt Fusion 2" through 24"
- Socket Fusion 1/2" through 5"
- Available in 20' & 40' Lengths up to 16"
- 20' Lengths up to 24"
- One Pipe for Multiple Applications
- Pre-Insulated and UV Barrier Pipe and Fittings
- **Factory Fabrication Capabilities**
- Made in the USA
- 30 Year Warranty

Applications

- District Heating/Cooling
- Tranport of Chilled Water/Condenser Water
- Secondary Cooling/Glycol Cooling
- Industrial Cooling and Heating Installations
- Transport of Hot Water for Hydronic Heating
- Hot and Cold Potable Water
- Geothermal
- RO/DI Water

Certifications









714 N. Cleveland St. Richmond, VA 23221



Phone (804) 213-3801 FAX (804) 213-3802



midsouthmarketing1.com

Follow Us











Learn more about the benefits of using a cast iron plumbing system.

Meet Laura Loziuk

Laura is a Technical Service Manager in the McWane Plumbing Group covering the Northeast region. An avid rock collector, she's a "rock star" when it comes to her stellar performance with all things DWV and codes and standards.

Contact Laura to learn more about the benefits of a cast iron drain, waste, and vent plumbing system.





YOUR AD COULD BE HERE!

ADVERTISE WITH YOUR LOCAL CHAPTER

A Special Thank You to Everyone Who has Placed Ads This Season! Let us know if you want your ad included

Newsletter and Webpage Advertisement Costs

Full Page Newsletter (per season)

ASPE Member \$375 Non-Member \$450

Half Page Newsletter (per season)

ASPE Member \$275 Non-Member \$350

Business Card Newsletter (per season)

ASPE Member \$75 Non-Member \$150 **Meeting Tabletop Costs**

Per Meeting

ASPE Member \$80 Non-Member \$100

Per Year (8-9 Meetings)

ASPE Member \$450 Non-Member \$550

CONTACT: JOSH LANDIS @ jlandis@moseleyarchitects.com

INDUSTRY OPPORTUNITIES

If you'd like to advertise your employment opportunity here, please contact one of the list board members above.

BASKERVILL

Plumbing Designer/Engineer - Richmond, VA - #EP-L34

Baskervill has an immediate need for a Plumbing Designer to Support our Plumbing Department on a variety of projects.

RESPONSIBILITIES

Develop construction documents (drawings, models, details, schedules, and specifications) working in Revit. Conduct site inspections/surveys to obtain key field data; reviewing RFI's and shop drawings, coordinating with other disciplines, and attending project meetings.

QUALIFICATIONS

- Bachelors/2-Year technical degree in Mechanical Engineering/Plumbing focus.
- CPD preferred
- 5 to 7 years of commercial experience, at least 3 in plumbing design.
- Working knowledge of plumbing code
- Exceptional communication skills to coordinate with other disciplines and function in a collaborative environment.
- Proficiency in Revit required. Other related software a plus.

Salary will commensurate with experience.

Please email resume, work sample, and salary requirements and reference Job No. EP-L34 for consideration to careers@baskervill.com. If you are disabled or otherwise unable to apply online please mail to: Baskervill, PO Box 400, Richmond VA, 23218.

Baskervill is an E/O/E/M/F/D/V and drug-free environment.

TALK AROUND THE WATER COOLER...

Check-out these sites for interesting and educational topics & tools to stay up to date!







Some recent excerpts:

1. Reminder to CPDs Whose Recertification Date Is This April

The April 29, 2021 deadline to recertify is quickly approaching! You now must submit any external and third-party CEU certificates <u>prior to your expiration date</u> to have them approved by the Credentialing Committee, so don't wait until the last minute to start the process. Visit <u>education.aspe.org/cpdrecert</u> to learn how to get recertified soon.

2. What Are Your Responsibilities in the Code Process?

Dave Dexter continues the discussion of how the engineer interacts with the building official, and gaining a better understanding of the code process in his latest "Professional Engineer's Perspective" column. Read more at https://www.aspe.org/pipeline/understanding-everyones-responsibilities-and-obligations-in-the-code-process

3. Reaffirmation of WQA/ASPE Sustainable Management Standard Receives ANSI Approval

We are pleased to announce that WQA/ASPE/ANSI S-801-2015 (R2021): Sustainable Management was approved as an American National Standard on February 25, 2021 by the American National Standards Institute (ANSI). More at https://www.aspe.org/pipeline/reaffirmation-of-wqa-aspe-sustainable-management-standard-receives-ansi-approval

4. Need CEUs for CPD Recertification?

At ASPE Education you can find a wealth of programs to help you learn new skills and earn CEUs for your credential and license recertification requirements. In addition to our **on-demand webinars** and **Read, Learn, Earn program**, you can also participate in technical presentations hosted by ASPE Chapters all over the country. To find out when they are being held, visit the **Calendar of Events** page at https://education.aspe.org/calendar

EDUCATION STATION

ASPE has recently revamped their learning platform!! The new site is **education.aspe.org.**All educational programs and articles have transitioned over to the new site now. If you are looking to earn CEU's and/or enhance your skills and knowledge then this is the site for you! Once in the site Sign in (top right) using your **ASPE Connect credentials**. If you have not activated your ASPE Connect credentials, go to this link to reset your ASPE Connect password: https://connect.aspe.org.



SOME UPCOMING CHAPTER WEBINARS

- PROFESSIONAL ENGINEERING ETHICS APRIL 27, 2021, 12 PM
- CURBLESS SHOWER DESIGN APRIL 28, 2021, 12 PM
- DECODING PLUMBING CODES APRIL 29, 2021, 12 PM

VISIT HTTPS://EDUCATION.ASPE.ORG/UPCOMING FOR DETAILS



WE ARE PLEASED TO ANNOUNCE THAT THE 2021 BOOK OF THE MONTH PROGRAM FOR ASPE MEMBERS KICKS OFF WITH THE DIGITAL COPY OF **ENGINEERED PLUMBING DESIGN II**.

THROUGH APRIL 30, 2021, YOU CAN PURCHASE THE PDF VERSION OF THIS HANDBOOK FOR 35% OFF THE REGULAR MEMBER PRICE. JUST ENTER COUPON CODE **SPRINGTIME** WHEN YOU CHECK OUT.