



Carol Johnson CPD, FASPE - President

Application Package for Candidates to the ASPE Society Board of Directors

American Society of Plumbing Engineers
6400 Shafer Court, Suite 350
Rosemont, IL 60018
(847)296-0002
aspe.org info@aspe.org

Dear ASPE Member,

This Candidates Application Package should be completed in its entirety by any member who has decided to run for a position on the ASPE Society Board of Directors. This package must be submitted to the ASPE office no later than the deadline noted below to be considered as a Candidate in accordance with the Bylaws.

In addition to this Application Package, every Candidate must confirm they are currently employed in the Plumbing industry and submit a letter or provide another form of correspondence indicating approval of both family and their employer to undertake the requirements of serving as a member to the Society Board of Directors. Every Candidate must also include a current photograph in accordance with Chapter 10.16 Nominating of the P&O Manual.

The description, composition, and responsibilities of the Nominating Committee is listed in Chapter 8 of the P&O Manual. A few key points from that Chapter are as noted below:

- The list of Candidates for the Board of Directors shall include the name of any member submitting their application for consideration who meets the requirements of the Society's Bylaws.
- The Committee shall interview all Candidates to determine if they are qualified to hold the Board position they are seeking. If the Committee does not feel the Candidate is qualified to hold the position they are interested in, the Committee may recommend that the Candidate consider running for a different position.
- Based on the information gathered during the interview process of each Candidate, the Committee shall prepare a slate that list at least 2 recommended individuals for each position, and this list shall be referred to as the "Recommended Slate of Officers". The Recommended Slate of Officers shall be the top-rated Candidate or Candidates for each Board position as ranked by the Nominating Committee.

The next election of Board members will take place during the ASPE Biennial Business Meeting. The information provided by the Candidates in this Application Package, the letter or correspondence indicating family approval and if possible, similar correspondence relative to employer approval, and the Slate of Officers from the Nominating Committee, will help the members and Delegates make an informed decision when casting their vote during the election of the Society Board of Directors.

Thank you for your interest as a Candidate to the ASPE Board of Directors.

Sincerely,



Mitchell J. Clemente, CPD, FASPE
Nominating Committee Chair

Package must be submitted by May 8, 2020

NOTE: This Application Package will be presented to the members and Delegates exactly as submitted by the Candidate regardless of the accuracy, or legibility of the information provided. No changes or modifications of any kind will be permitted by anyone including the Candidate, Society office or the Nominating Committee once this Application Package has been submitted. It is recommended that all of the information submitted be hand written or printed legibly or typed to avoid any confusion or misunderstandings.

American Society of Plumbing Engineers
6400 Shafer Court Ste 350
Rosemont IL 60018

April 13, 2020

Dear American Society of Plumbing Engineers,

Attention: Mitch Clemente

Subject: Carol Johnson Letter of intent

Please accept this letter as my intent to submit an application to the Nominating Committee and the ASPE Board of Directors for the position of President.

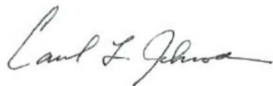
I declare my commitment and understanding of the requirement for the President position. I represent with this application that I am not aware of any reason or conflict of interest that would prevent me from performing the position's full duties.

If elected by the membership, I will focus on establishing ASPE as an "Intellectual Property" for members and the industry to grow our Society.

I have been honored to serve this Society for the last 20 years. I have been fortunate to have the opportunity to serve this Society. The path that I have taken in this great Society was not imagined in the beginning. I will cherish the friends that I have made along the way and I am proud to want to continue this Journey.

If you have any questions, please do not hesitate to contact me. I can be reached at cell 205.717.0032 or email ASPE4ALL@gmail.com.

Sincerely,

A handwritten signature in black ink that reads 'Carol L. Johnson'.

Carol Johnson, CPD, LeedAP, CFI, FASPE
Project Manager
ASPE - President

Office 205.988.2069 x114
Cell 205.717.0032
cjohnson@edmondsengineering.com
www.edmondsengineering.com



April 13, 2020

American Society of Plumbing Engineer
6400 Shafer Court Ste 350
Rosemont IL 60018

Dear American Society of Plumbing Engineer,

Attention: Mitch Clemente

Subject: Carol Johnson – Board Position - President

I am pleased to support Carol Johnson endeavors on the Society Board. As her employer I understand the demand and fully support her as a candidate for President of ASPE. She is a powerhouse in plumbing/fire engineering and project management. She has developed company standards and helped build our plumbing team across five locations. Clients work well with her because she is responsive and a trusted professional. Carol is well respected in the code community, inspection community, and the engineering community.

I am proud to help her continue her personal growth with ASPE.

ASPE is instrumental in the plumbing industry.

Thanks you for your service to Society.

Sincerely,

EDMONDS ENGINEERING, INC.



Dan Blackman, P.E.
CEO



American Society of Plumbing Engineers
6400 Shafer Court Ste 350
Rosemont IL 60018

Dear American Society of Plumbing Engineers,

Attention: Mitch Clemente
Subject: Family Support Letter

I am pleased to state I have the support of my Family and Friends. This is a broad statement since in my case it takes a village. My primary family whom I loved dearly have passed away.

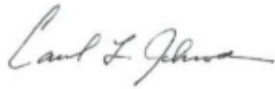
Since the passing of my primary family in 2010, I have had vast support from friends and coworkers.

Ben loves the kitties when I travel, he unstocks my fridge and eats chocolate. Andrea check on the house. Trinity, the neighbor's son, cuts my grass. Michael sweeps my roof off and maintains my car. Becky listens to my stories and gives perspective.

At the end of the day. I am very fortunate to have a village of friends that support me personally. I am also fortunate to have my ASPE family to support me.

If you have any questions, please do not hesitate to contact me. I can be reached at cell 205.717.0032 or email ASPE4ALL@gmail.com.

Sincerely,

A handwritten signature in black ink that reads 'Carol L. Johnson'.

Carol Johnson, CPD, LeedAP, CFI, FASPE
Project Manager
ASPE - President

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STATEMENT OF INCLINATIONS, INTERESTS AND AFFILIATIONS (To Help Determine Potential Sources of Bias and Conflict of Interest)

Name: Carol Johnson, CFI, CPD, LeedAP, FASPE Telephone (day): (c) 1.205.717.0032
Telephone (evening): (c) 1.205.717.0032 E-mail: Cjohnson@edmondsengineering.com
Address: 2102 Euclid Ave City: Jasper State: AL Zip: 35501
Company (Employer): EEL/Edmonds Engineering Title: Senior Project Manager
Company (Employer) Product or Service: Consulting Engineering Services ASPE Membership # 19693
Chapter Affiliation: Alabama Chapter
Preferred ASPE Society Board of Directors; if no preference please state "None": President

The responsibility for completing and submitting this statement of inclinations, interests and Affiliations rests solely with the individual completing this Application Package. Please reference the next page for guidelines and definitions, and submit only the information that is relevant and merits disclosure regarding:

1. All ASPE policies with respect to interest categories and as related to any bias and conflict of interest.

Instructions:

- A. Please make sure to include a cover letter of interest to the Nominating Committee addressed to the Nominating Committee Chair.
- B. Include a letter or other correspondence from both your employer and family stating their approval and support of you pursuing this position. This letter or correspondence is a vital piece to your application and will demonstrate that your family and employer are fully aware of the responsibilities that comes along with serving on the Society Board of Directors, and that serving on the board will require you to be away from family and your place of employment for certain periods of time.
- C. Contact the Nominating Committee Chair if you have any questions regarding the completion of this form.
- D. When this form has been completed, sign, date and return to bsmith@aspe.org. Attach additional pages if necessary and retain a copy for your records.
- E. A statement of inclinations, interests and affiliations does not prevent candidacy to the Board of Directors but is for the purpose of notifying the members and the delegates of any bias or potential bias.
- F. If there is no information to be reported, write the word "NONE" in the space provided.

If the Candidate is elected and during your period of service on the Board, any changes in information reported on this form, or any new information relevant to the question of potential bias or conflict of interest should be promptly reported to the ASPE Board of Directors and the ASPE Executive Director/CEO.

1. ORGANIZATIONAL AFFILIATIONS.

Report relevant present and past business relationships (as an employee, owner, officer, director, consultant, member, etc.) and relevant remunerated or volunteer non-business relationships (e.g., professional organizations, trade associations, code organizations, lobbying groups, public interest or civic groups, and trade magazines). Include specific activities and committee involvements.

2. PUBLIC STATEMENTS AND POSITIONS.

List relevant articles, testimony, speeches, etc. by date, title and publication (if any) in which they appeared. Provide a brief description of relevant positions of any organizations or groups with which you are or have been closely identified or associated.

Carol L. Johnson

Signature

05-08-2020

Date

GUIDELINES AND DEFINITIONS

Bias

The question of potential sources of bias ordinarily relates to views stated or positions taken that are largely intellectually motivated or that arise from the close identification or association of an individual with a particular point of view or the positions or perspectives of a particular group. Such potential sources of bias are not disqualifying for purposes of the Society Board of Directors. It is necessary, however, in order to ensure that the members and the Delegates are aware of potentially biasing backgrounds or professional or organizational perspectives.

Conflict of Interest

It is essential that the work of the ASPE Society Board of Directors not be compromised by any significant conflict of interest, or in some circumstances the significant appearance of conflict of interest, on the part of any member of the Board or anyone associated with the Board (e.g., consultants and staff). For this purpose, the term "conflict of interests" means any financial or other interest that conflicts with the service of an individual because it (1) could impair the individual's objectivity or (2) could create an unfair competitive advantage for any person or organization. The existence of a significant conflict of interest is important information to the membership and the delegates.

How conflicts of interest arise

1. The Society Board of Directors includes individuals with strong personal, financial, or professional interests in seeing that the Society recommend or produce a particular outcome.
2. An agency, a sponsor, or a private organization or company attempts either to influence the Society Board members or to skew the body of information reviewed by the Board of Directors.
3. The conflicts of interest or bias can arise concerning individual points of view especially on contentious issues. For the Board of Directors, nearly all of the people of relevant competence have backgrounds of connections and experience that constitute, or can be construed by others as constituting, potential sources of bias in one direction or another. It may, therefore, be difficult to find individuals with the pertinent knowledge who have not been involved previously with an issue that will come before the Board. Such situations are resolved by the membership and the delegates by selecting a carefully balanced consensus-forming body so that all points of view can be represented.

To avoid conflicts of interest

Adhere to ASPE policies and procedures. These policies and procedures include specific questions and assessments prior to the election of officers to the ASPE Society Board of Directors to bring possible conflicts of interest to the attention of the membership and the delegates. Two essential parts of this process are, prior to the election of officers, completion of a short statement of inclinations, interests and affiliations that lists professional connections and indicates any positions taken in relevant public statements, and any other interaction between the Candidates and Delegates during the biennial Convention.

CANDIDATE APPLICATION FOR ASPE BOARD OF DIRECTORS

[Please Type or Print]

1. Education

Education Level	Name of Institution	Major/Course of Study	Years Completed	Date of Graduation	Degree Earned
High School	Curry High School	College Prep	3 years	1986	Diploma
Technical School	Bevill State/Walker College	Science/Engineering	2 years	1998	Certificate
College or University	UAB Birmingham/Walker	Mathematics/Engineering	5 years	Current	Diploma
Graduate Studies or Other	AL Fire College	Fire Science	2 years	Current	Certificate

2. Certification and Registration

A. Are you Certified In Plumbing Design (CPD)?



Yes



No

B. Are you a Certified Plumbing Design Technician (CPDT)?



Yes



No

C. Do you hold the Green Plumbing Design Certificate (GPD)?



Yes



No

D. Are you a Registered Engineer?



YES



NO

Number of States: _____

List States: _____

C. Other (Specify): CFI Certified Fire Inspector, Leed AP

3. Professional Experience (Include Each Position)

Date		Employer	Title	Describe Duties/Responsibilities (e.g. design, codes, sales, etc.)
From	To			
1990	1997	Southeast Wood	CPM/Purchasing Spv	Capital Project Management, Purchasing Supervisor
1997	2012	WR/ Whitaker and Rawson	Senior PFP Engineer	Engineering Design Project Management
2012	2013	PEACH Engineering	Project Manager	Engineering Design Project Management
2013	Current	EEI/ Edmonds Engineering	Senior Project Manager	Project Management Engineer Design Company Training and Standards

(can continue on next page)

4. ASPE History

A. Please Provide:

a. Year Joined ASPE: 1998

b. Initial Membership Grade: Associate

c. Current Membership Grade: Full

B. Society Activities:

a. Society (National) Offices Held

Date		Society (National) Office/Position	Position
From	To		
2014	Present	Society VP Legislative	Society Board of Directors
2008 2014	Present	Long Range Planning Committee	Member
2012	Present	Legislative Committee	Board Liason
2012	Present	Technical and Research Committee	Member
2018	Present	Legionella Working Group	Member
2016	Present	Women of ASPE, WOA	Board Appt Liason
2018	Present	Membership	Society President

b. Society (National) Committees and Other Activities

Date		Name of Society (National) Committee/ Working Group or Other Activity	Society (National) Position
From	To		
2018	Present	PEWG Working Group	Society President
2018	Present	Finance Committee	Society President
2018	Present	Credentially Committee	Society President
2018	Present	Bylaws Committee	Society President
2018	Present	Design Standard Committee	Society President
2018	Present	Affiliate Advisory Committee	Society President
2018	Present	GPD Committee	Society President

C. Chapter Activities:

a. Chapter Offices Held

Date		Name of Chapter	Chapter Office/Position
From	To		
2008	Current	Alabama	VP Legislative
2006	2018	ASPE Data Books Various Chapters	None
2004	2006	Alabama	VP Technical
2008	Current	Alabama	Board of Governors

b. Chapter Committees and Other Activities

Date		Name of Chapter	Name of Chapter Committee or Other Activity
From	To		
2006	2018	Alabama	Golf Tournament Committee

5. Membership and Activities in Other Societies or Associations

Society or Trade Association	Year Joined	Membership Grade	Committee/Activity	Date		Position
				From	To	
ICC	2016	Individual	Member	2016	Current	Member
NFPA	2010	Individual	Member	2010	2013	Member
ALFM	2008	Individual	Member	2000	Current	Member

6. Technical Interest Areas (e.g., system design, equipment selection, specification preparation, codes, etc.)

My technical interest are diverse. I love my profession and find it rewarding. I love Humanity.

As a profession I specialize in plumbing and fire protection. I love to find solutions and designs for challenging projects. Since I have an industrial experience I am often called upon to do fire protection for the wood industry, storage warehouse, manufacturing, etc.

With years of experience my work involves designing various systems in both fire and plumbing. I design special hazard fire protection from standard wet, total flood, clean agent, and foam systems. My skill set includes various plumbing systems including domestic water, industrial water, compressed air, sanitary waste, acid waste, radioactive waste, fuel oil, medical gas, specialty gas, water reuse, solar, storm, medical etc.

My first interest was mathematics. I have applied it a lifetime with my long history in Code work and a diverse design background. Being very fortunate to now have the opportunity to train others and develop practices that helps grow my firm and career.

All this combines to my big love in life, people. I love people because I am amazed with the ability of us all. We as a collective change the world by making a difference.

Then who better to love that the Plumbers, who make a difference in the world. Which help humanity whom I love the most.

7. General or Society Interest Areas (e.g., technical, education, legislative, membership, finances, AYP, WOA)

General interest and what I consider recreation is travel, trivia, fishing, volunteering and golf. My interest lies heavily with ASPE. I consider you all my friends. My professional design interest is Codes and the impact we make as people and as design or engineer professionals. I believe in dedicating your time to what you believe in and I challenge myself to be learn and grow as a person.

I have developed strong relationships throughout this industry because I have learned my craft and give back the knowledge and continue to grow. Over the years I have enjoyed being helping my community with Code development and Code Council work. I enjoy working out the details and applying the science of our industry.

I love ASPE. My interest is strengthening ASPE to be the Voice of the Plumbing Industry. I am interested in our Profession being the recognized leader in our industry.

8. Honors and Awards [e.g., honors, awards (list ASPE's first)]

Honor or Award Received	Organization Received From	Date Received
Society Award	ASPE	2006
Chapter Award of Merit	ASPE	2010
Certificate of Appreciation	ASPE	2004
College of Fellowes	ASPE	2018

9. Publications Authored

25 National
Articles, 100+
Chapter

Number of Books/Manuals: 12

Number of Papers: _____

Number of Articles: Chapter

List up to five (5) significant publications. Attach additional list, if needed.

Title	Publisher or Publication	Date Published
ASPE Data Books Various Chapters	ASPE	2000-Current
Plumbing Engineer Articles 2018 - Current	TMB - Plumbing Engineer	Various
Chapter Newsletters/Board Articles	ASPE	2000 - Current

10. Patents, Registrations or Trademarks Owned

Number of Patents: None

Number of Trademarks or Registrations: None

Patent/Registration/Trademark Number	Describe Patent/Registration/Trademark	Date Issued

11. Projects

List up to five (5) significant projects. Attach additional list, if necessary.

Project Name or Description	Year Completed	Your Role in Project	Significance of Project
Please see attached resume.			
Healthsouth/Encompass Hospital Various	2015 - Current	PM	Hospital built across the Nation.
Villages - Printing Press	2019 - Current	PM	Printing press with rolled paper storage.
Various Distilleries and Event Centers	2018 - Current	PM	Distillery with Barrel Storage. Known for design of distilleries with challenging fire applications.
UAB Wallace Tumor Institute	2013	PM	

12. Civic, Charitable and Military Service

When I first read this question I indicated exactly what was asked see response:

I volunteer my time with the Birmingham Art Council, who develop learning centers in diverse neighborhoods to provide children art centers. Historically I have volunteered both with Habitat for Humanity and the Masons. I support the Humane Society.

Then I realized all the items that I believe represents my Civic and Charitable duties might not be included. Civic duty I support training others, I support the members and the meaning of improving others lives. I support my family, and help my neighbors. I have provided grass mowing, Tornado Food, and debris removal.

I simply believe, "What we can do for others give us meaning".

13. Your answers to the following questions will help the members and delegates better understand each candidates position and goals as they make the best possible informed decision when electing officers to the Society Board of Directors. If you need additional space, use additional sheets of paper. Reminder, however, you fill in this form (e.g., hand written, printed, typed, etc.) is how it will be presented to the members and Delegates.

13A: Why are you running for this position on the Society Board of Directors, and what makes you stand out from all the other potential Candidates?

I am running for the President of the Society because I believe in who we are and what we stand for and I want to make a difference.

After diligently serving ASPE for over twenty years I have come to understand we are Steward of this Society. It is that belief that I ran for President. Which was the greatest honor bestowed me. I was entrusted to lead and encourage and help build ASPE. I run for a second term because I still have passion and work to do.

I have worked to provide structure by developing levels within our Committees. I have worked for better tools and information for our members with ASPE Connect. I have worked to be transparent and open as a Society. I have worked to provide better communication and support for our Chapters. I have worked to support our members by growing this Society.

I am the first President to Charter multiple Chapters. I have traveled to universities and put a voice and a face to this profession. I have had the greatest honor to receive calls from excited members and members wanting more. I have worked with the Board to streamline a path to support our members and Chapters.

I have listened, strengthened and worked to make this Society better. It is because ASPE supported me and provided me a means to learn my craft and I have had a good career. I can give back and help others and I can honor the people who gave their time and followed their passion for this honorable profession.

What will make me standout. I have the experience to understand what makes "us better" and I have the passion to make "us better" happen.

13B: What do you suggest we do immediately to better the Society, and what you would do personally to accomplish this goal?

As President the two key component in ASPE being better is ASPE being stable in this time of pandemic and two staying focused on our members. This can be known as Protect the Home and Protect the Family.

Protect the Home:

We have reviewed the budget and reduced expenditures to make sure we keep ASPE on solid financial basis for us to provide more for our members and be represent the plumbing industry and meet the needs of this industry. We have reviewed contracts and look at each facet of the Business of this Society.

We have supported Staff, for them to be safe and continue to serve our members.

The Business of Society continued and we held our quarterly Board meeting as a virtual meeting.

We have increased Board calls to multiple times a month and will continue to work through this time in history.

We have done this to keep our Society stable and our members supported.

Protect the Family/Member:

We worked with Chapters to setup on-line meetings. Provide CEU opportunities on-line. Support the Chapters with support for members with programs to help meet their needs for membership. Support with communication tools for the members.

My immediate goal will be to continue making ASPE stronger by focusing on the reason I am here, "the members".

The plan as we continue is to provide more technical information, publications and papers. Provide a Certification in Healthcare and work to improve the message to employers and peers. It is critical our members have support of their employers and the industry.

For the President the answer is understand and work with the new Board to better us all.

13C: Every position on the Society Board of Directors has an effect on membership. Regardless of which position you are running for; how do you plan on retaining and growing our membership base?

Empower our Credential by expanding it to Health care and other Specialty areas. Empower by working with members and their employers to understand that credential is a key factor in hiring and training.

Providing publications and technical information needed to support the member in their job.

Provide technical information for potential new members in the Plumbing industry. Improving our communication with industry peers and partners.

Focusing on members using our tools like ASPE Connect to receive, technical and code information. For us to learn from Leaders in the industry.

Strengthening the Technical aspects of ASPE. ASPE has come a long way in being a voice in the industry. The members need to have more of this information readily available, not just what you know if you know someone.

13D: ASPE is a volunteer Society. How do you plan on getting our members more involved at the Chapter and Society levels to help advance our initiatives, and support our mission statement?

I smiled when my first thought was "money". Please forgive me. I can't pay you to be a Chapter member. We can thought provide value to the member.

We can provide a member recognizable assets for the company to value them. We can provide a credential that indicates you understand Plumbing or Healthcare.

We can provide white papers and technical resources that support good design and less risk an liability to your employer.

We can provide calculators and guides for you to do you job better and accurately. With tools that hundreds of years of experience has developed.

We can provide programs that interest the youth to increase long-term growth.

We can provide programs that help members expand their knowledge in Plumbing and Codes.

We can make make better processes that allows the member to be more efficient and effective.

We can get Plumbing recognized in testing for Engineers.

We can work with Code Bodies, City and State Authorities to make your job better and you Voice heard.

13E: What types of new programs/initiatives should ASPE be developing immediately in order to reach a larger market of potential new members and industry partners?

It has been my experience it is best to start with the apparent. Who needs what we have to offer and how can we develop more for our members. You all know I believe "Knowledge is Power and ASPE's power is Intellectual Property".

Contractors, students need the knowledge of plumbing. City reviewers need the knowledge plumbing. Industry needs the knowledge of plumbing. Government needs the knowledge of plumbing.

This world is influenced by plumbing.

I believe in understanding how others succeed can help you. We need to increase our educational materials to attract members in these sectors that need knowledge base.

We have started opening part of the knowledge door (limited time only) to ASPE Connect to educate people on some useful resources. When they understand what they can learn, we request them to be members.

If we can ways to target members such as contractors, plan reviewers, facility managers, union employees we can increase our membership. We can provide online learning certification programs.

13F: If elected, what specific short term ideas do you have to advance the Society, and what long term plans do you have for the future of ASPE?

I will see that we continue to focus on the member!

I will see that we continue to promote this Society by providing this Society a Voice and work with industry partners to establish the strength and the presence of our membership.

I will see that we continue to keep communication transparency and evolve ASPE.

I will see that we continue to structure committees to involve more people and give more people a place to be excited.

I will see that we continue to develop cooperation between Committees to get more done.

I will see that we continue to grow our members to work with our Committees and others.

Longterm is to develop our knowledge basis and materials. Publishing more to the members and continuing to embrace technology and providing

13G: Membership has increased over the past few years. With the introduction of the Women of ASPE (WOA) and ASPE Young Professionals (AYP), the Society is beginning to obtain a younger member base. What are your thoughts and ideas to increase membership to new record numbers? What are your ideas for recruiting and retaining both younger and previous members? What are your ideas for addressing the large age gap between younger and older members?

Increase membership to new records, work harder and keep people excited and make us more efficient.

We have recruiting, we need to work on retain-age and diversify our member base.

The best way to address the age gap and bond the young and old is to continue to show each of them how to learn from each other. The older members need the education of the newer members and the younger members needs the wisdom of the older member. That may be the basis of ASPE my friends. ASPE was developed as a share of knowledge.

What we need is communicate with the world about who we are and show them what we have to offer.

I had a three day experience meeting students and speaking on the behalf of ASPE at MSOE. I learned they needed information, inspiration and a path.

Our members are the same.

13H. ASPE has continuously relied on the affiliate member organizations to support the Society. What are your ideas to change this and how can we get our members to help support the Society other than with dues.

ASPE relies on affiliate member organization. The affiliates support ASPE and ASPE supports the members.

For ASPE to not relies on funding to support members, ASPE would need to generate more income and more members.

We are on the brink of getting more members in larger numbers because we have developed new programs, increase relationships with partners in the industry, and activated our members in the community and for this Society.

We have to get members interested in more, more programs, more initiatives, more for others and more for each other.

We have to publish more and improve our technical products.

13I. What should ASPE be doing for the membership that they are not currently doing?

We have to do more.

We attract members to the tune of nearly a thousand a year. The problem is we also have a loss of 70 percent of those members.

I have seen the largest growth and the most Chapter Chartering than any other President in twenty years. We have to do better than that.

There is work to do. We have put a dent and added members. But lets get the members joining and here to stay.

We have to understand what they need and why they are here.

Members need more open doors. They need new technologies and tools, they need tools to perform their jobs and they need to be embraced by this Society to meet their needs and be a part of this family. They need an industry and profession that recognizes their importance.

What we have to do to keep them, is to open doors and support them, then most of all inspire them.

We are here for each other as a family, we are the same.

14. ATTESTMENT OF CANDIDATES

1. As a Candidate to the Society ASPE Board of Directors, I hereby grant the American Society of Plumbing Engineers (ASPE) the non-exclusive, royalty-free rights, including nonexclusive, royalty rights in copyright, to any contributions I make to documents or material I prepared for ASPE and I understand that I acquire no rights in publication of such documents in which my contribution or other similar analogous form is used. I hereby attest that I have the authority and I am empowered to grant this copyright release.
2. If elected as a member of the ASPE Society Board of Directors, I understand that expenses I may incur in my official capacity as an officer of the Society Board shall be reimbursed in accordance to the official Society travel policies and that all such expenditures require budget authorization and must be approved in advance by the Society President and/or Executive Director/CEO.
3. I hereby attest that all information provided in the Candidate Application for the ASPE Society Board of Directors and the Statement of Inclinations, Interest and Affiliations are true and accurate representations of my interests, affiliations and background and do not believe I have any conflict of interest that would affect my serving as an officer of, and member of the Board of, the American Society of Plumbing Engineers.

Please sign below and return to:

American Society of Plumbing Engineers
c/o Nominating Committee
6400 Shafer Court, Suite 350
Rosemont, IL 60018
(847)296-0002 • aspe.org • info@aspe.org

Carol Johnson

05-08-2020

Name (print)

Date



Signature



SUPPLEMENT TO THE SOCIETY BOARD OF DIRECTOR CANDIDATE INTEREST FORM

PETITION TO INSURE PLACEMENT ON BALLOT

(Complete this section only if you are nominating a candidate from the floor, or if you have missed the deadline to submit the application package and are petitioning the committee for inclusion as a candidate.)

In accordance with the ASPE Bylaws:

The Nominating Committee shall be responsible for developing a recommended slate of officers for presentation to the membership and for election as officers by the delegates.

The Nominating Committee shall review the material for each Candidate, shall attest to the accuracy of the information provided, and shall prepare a summary biography for distribution to the membership and the delegates not later than sixty (60) days prior to the date of the election.

In accordance with the bylaws, the Nominating Committee will present to the delegates at the biennial ASPE Business Meeting. Based on the information in this Application and the interview process of each Candidate, the Committee shall prepare a slate that lists at least one recommended individual for each position, and this list will be referred to as the "Recommended Slate of Officers". The Recommended Slate of Officers shall be the top-rated Candidate or Candidates for each Board position as ranked by the Nominating Committee.

As there is no continuity provision in the ASPE Bylaws, all ASPE board members must run for re-election every two years (with the President limited to two two-year terms) if another term is desired.

The nomination bylaw also states:

Nothing in this bylaw shall exclude additional candidates being nominated from the floor during the biennial Business Meeting or petitioning the committee for inclusion as a candidate. All nominations from the floor shall require a second and a positive vote to include the candidate of at least 25 delegates; written petitions for inclusion on the official candidate ballot shall require a minimum of fifty (50) full or associate member signatures.

In order to ensure that a candidate who submits their Board of Director Candidate Interest Form is added to the ballot that the Nominating Committee submits to the delegates, this Special Petition to Insure Placement on the Ballot should be filled in and submitted along with the candidates Statement of inclinations, Interests and Affiliations Form.

THIS PETITION REQUIRES THE PRINTED NAME AND SIGNATURE OF 50 FULL OR ASSOCIATE ASPE MEMBERS IN GOOD STANDING.

Carol Johnson, CPD, LEED AP, CFI

cjohnson@edmondsengineering.com

205.988.2069



PROFESSIONAL CERTIFICATIONS

Certified Plumbing Designer (ASPE)

LEED Accredited Professional (GBCI)

Certified Fire Inspector (CFI)

WORK EXPERIENCE

Edmonds Engineering, Inc.

Birmingham, Alabama (2013 to Present)

Project Manager on design project, responsible for producing initial design layouts for space and other design team coordination, selects, schedules and details equipment and systems, communicates/coordinates with clients and other designers to complete the project design, prepares project specifications, produces feasibility reports, budgets, and reviews project checklists for initial project QC to prepare the plans for an internal 3rd party technical peer review and the final review. Has sufficient experience to make intuitive design decisions. Has direct contact with clients on a project by project basis and is the lead for quality control. Coordinates all disciplines, and performs final reviews prior to sending out deliverables to the client. Logs in projects, prepare proposals, combines multi-discipline site reports for issuance to the client, prepares design schedules, and manages staffing for each project.

In addition to project implementation, prepare code study, prepare and direct work for designers and CAD personnel, providing a full project assessment, field investigations, budgeting, coordination, design and construction administration.

Carol has expansive knowledge of plumbing/fire protection design and construction. Experienced in field evaluations of plumbing and fire protection systems. Her knowledge of design with an understanding of building construction provides the client with a comprehensive detail-oriented design. A wide variety of experience with complex projects defines a real world insight for constructability, and maintenance. Plumbing system design includes domestic potable, non-potable, compressed specialty gas, medical gas, water purification, sanitary waste, hazardous waste, radioactive waste, fire, cryogenics, etc. Fire protection system design includes wet systems, dry systems, pre-action systems, standpipes, fire pumps, clean agent, foam fire suppression, industrial special hazards. Design experience includes healthcare, commercial, military, industrial, mixed use facilities, educational, and religious projects. Projects includes animal research facilities, hospitals, psychiatric units, surgery centers, hyperbaric facilities, jails, women centers, heart centers, dialysis, rehabilitation centers, etc. Experience that values the code and maintainability of a system. Over

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1600 projects encompass all levels of schematic, budgeting, field evaluation, design, quality control, and construction administration.

She is a recognized leader in the plumbing and fire protection industry on a State and national platforms. Worked with the City of Birmingham Code Council Committee and the State Fire Marshall's Office. PME Magazine identified her as a leader in the field of Plumbing Engineering in 2008. Currently she works closely with the leaders in the field serving on legislative committee, technical committees, and ASPE RF Foundation. She is also currently serving as the National Society VP of Legislative for ASPE.

Peach Engineering

Columbus, Georgia

Project Manager - Provides design and drawings for plumbing and fire protection disciplines. Provide project estimates, client management, and organizational support. Supervised Plumbing, Fire Protection and Medical Gas design. Proficient on all levels of construction administration including conducts site surveys and construction reports.

Whitaker and Rawson, Inc.

Birmingham, Alabama

Project Manager - Senior Plumbing/Fire Protection Designer

Southeast Wood, Inc.

Jasper, Alabama

Purchasing Supervisor / Capital Projects - Purchasing supervisor / Capital Project Supervisor for a top 200 sawmill, chipmill, and trucking company. Developed capital projects for a state of the art plant producing 100MMBF SP dimensional lumber a year. Projects included modernization of Milling, Sorter, Chipping, Kiln, Planar, Shop, Maintenance and Wet & Dry-End Sorter. Capital project development included working with maintenance, contractors, and project team.

EDUCATION

Walker College, Jasper, AL

University of Alabama Birmingham, Birmingham, AL

HEALTHCARE**HealthSouth 60-Bed Rehabilitation Hospital, Westerville, OH**

Provided the plumbing and fire protection system design for the 60,000 square foot new hospital. Project included potable, non-potable domestic water, sanitary waste, storm waste, special waste, medical gases, and fire protection. Fire protection system was a wet and dry automatic fire suppression system.

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HealthSouth 34-Bed Rehabilitation Hospital, Pelham AL

Provided the plumbing and fire protection system design for the 34,000 square foot new hospital. Project included potable, non-potable domestic water, sanitary waste, storm waste, special waste, medical gases, and fire protection. Fire protection system was a wet and dry automatic fire suppression system coverage.

HealthSouth 80-Bed Rehabilitation Hospital, BJSP, St Louis MI

Refresh, renovation and fit out of existing 3rd floor. Refresh consist of 8,405sf. of 12 existing LDR rooms converted into 12 Private Patient Rooms. Renovation of 5,009sf. of existing LDR department rooms into Rehab Administration space. Fit out of 25,174sf. shell space into 28 new Private Patient Rooms, with core nursing area. Project included potable, non-potable domestic water, sanitary waste, storm waste, special waste, medical gases, and fire protection. Fire protection system was a wet automatic fire suppression system and dry system coverage.

HealthSouth 80-Bed Rehabilitation Hospital, Evansville, IN

Provided the plumbing and fire protection system design for the 75,500 square foot new hospital. Project included potable, non-potable domestic water, sanitary waste, storm waste, special waste, medical gases, and fire protection. Fire protection system was a wet and dry automatic fire suppression system.

Saint Vincent's Saint Clair Regional Medical Center, Pell City, AL

Provided new 76,000 square foot two-story general acute care replacement hospital with 40 beds and related ancillary support services. Areas include, PET, CT, gastrointestinal laboratory, trauma / emergency department, operating rooms, patient rooms, dialysis services and other support areas. Project management and design at all phases of construction. Project included potable, non-potable domestic water, sanitary waste, storm waste, acid waste, special waste, compressed gases, medical gases, fuel oil, and fire protection. Fire protection system was a wet automatic combination standpipe and fire suppression system supplied by a fire pump.

UAB, Wallace Building, Nephrology, Birmingham, AL

Provided renovation for approximately 5,200 square foot on the 8th floor Nephrology department.

UAB Highlands OR Unit Replacement, Birmingham, AL

Provided the HVAC system design for the replacement of air handling unit and outside air unit serving existing OR's, as well as multiple air terminal boxes throughout the OR space.

UAB Highlands Sports Medicine, Birmingham, AL

Provided the plumbing and fire protection system design for the 3200 SF build out of new clinic space.

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The Kirklin Clinic First Floor Infusion Suite, Birmingham, AL

Provided the plumbing and fire protection system design for the 1800 SF build out of new infusion space.

Auburn University Medical Clinic, Auburn, AL

Provided new construction of approximately 37,800 square foot medical clinic, including exam rooms. Offices, procedure rooms, treatment rooms, nurse's station, counseling rooms, work rooms, records storage, general storage, administrative and various support spaces for General Clinic, Women's Health Clinic, Mental Health Clinic, Optical Clinic, Radiology, Laboratory, Pharmacy, Medical Records, Administration.

Saint Vincent's Hospital, North Tower, Birmingham, AL

Designed several projects at St Vincent's including addition/renovation in the North Tower, Tenant Fit-outs and Neurosurgery Center.

Saint Vincent's East, Birmingham, AL

Designed several projects at St Vincent's East including addition/renovation of the emergency room, clinical lab, CT relocation, sleep lab, psychiatric area and surgery area. In addition to multiple tenant fit-outs in Professional Office Buildings #48, #50, #52.

University of Alabama at Birmingham, Wallace Tumor Institute, Birmingham, AL

Provided renovation and construction of a, 22,238 square foot, basement. Provided renovation and construction of, 21,295 square foot first floor. Design for new construction included the addition of a cyclotron suite with research labs and support spaces. Design also includes an imaging center with outpatient rooms, PET/CT and nursing support spaces. Provided the compressed gas, special gas, acid waste, sanitary waste, radioactive waste, special hazard fire systems and domestic potable water systems.

University of Alabama at Birmingham, Sparks Building, Birmingham, AL

Provided renovation to the third floor of the Sparks building, including new offices suites with a new and future space. 2nd, 3rd, 4th and 6th Floor Renovation: Renovation of approximately 25,000 square foot of Sparks Building for the Department of Neurology. Renovations consolidated the faculty of the Department of Neurology into one building and created a hub for neurological based research. The renovation created new offices, clinical study space, Resource library for residents, new EMG laboratory and a new Chairman's office.

University of Alabama Hospital, Spain Wallace, West Pavilion, Jefferson Tower, Highland, Volker Hall, FOT, Medical Education, Boshell, Birmingham, AL

Provided designed several projects at UAB including addition/renovation of the Labs, Operating Rooms, Clinical Lab, CT, Stem Cell Research, Neurology (5200 square foot), Hematopoietic Lab, Dentistry, Cytology, Endoscopy, Pain Management, Dialysis, Morgue, Autopsy, etc. In addition to medical facilities, large and small animal research facility design including Surgery, Holding, Cage Wash, Autopsy, Exam and Treatment etc. System include, potable and non-potable water, sanitary waste, acid waste,

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special waste, storm waste, compressed gases, instrument air, compressed air, medical gases, and liquid nitrogen.

UAB Tinsley Harrison Tower 10th Floor Renovation, Birmingham, AL

Renovation of 13,350 square foot floor consisting of new laboratory and office space. Laboratory space consisted of multiple fume hoods and recirculating biological safety cabinets. The plumbing systems include domestic potable and non-potable systems, lab and sanitary waste and vent. The space contains sterilizers, biosafety cabinets, fume hoods, general laboratory spaces and safety fixtures.

RELEVANT PROJECT EXPERIENCE
EDUCATIONAL

Auburn University Veterinary Referral Center – Gulf Shores, AL

AU Veterinary Referral Center Gulf Shores Building, 23,000 sf, \$5,900,000 +/- total construction (under construction). MEPFP cost 1,500,000.

Auburn University New Poultry Science Infectious Disease Laboratory, Auburn, AL

Provided Plumbing system design for 4,765 square foot facility consisting of animal holding and laboratory space.

Auburn University Fisheries Biodiversity Laboratory, Auburn, AL

Provided Plumbing system design for 4,608 square foot facility consisting of laboratory and office space.

Auburn University, Cater Hall Assessment, Birmingham, AL

Provided assessment of the existing Plumbing systems for Auburn University Cater Hall. System included domestic cold hot, gas, sanitary waste and vent, and storm systems. Assessment included a review of documents, site observations, maintenance staff interview, and code review to determine which systems needed to be upgraded to meet current codes and system/equipment assessments to determine which systems needed to be replaced and which could be salvaged, serviced and reused. Provided multiple options with construction budgets, expected system longevity and identified critical items for the owner to phase and appropriate funding.

Auburn University, Data Center, Auburn, AL

Provided new 62,580 square foot data center. Which included a 30 person seminar-style training lab, assembly/maintenance shop, office space and classrooms. Fire protections systems included total flood clean agent with smoke sampling detection, pre-action and automatic wet system. Clean agent Novec 1230 system designed as primary system for data area. A double interlock pre-action wet system as secondary system for data area. A combination automatic wet standpipe with variable speed fire pump serving all areas outside of data area.

Auburn University, Office of Information Technology, Auburn, AL

Provide plumbing and fire protection design for a new 62,580 square foot data center building. Center included a 30 person seminar-style training lab, assembly/maintenance workshop, offices and classroom areas. Project was LEED Silver Certified.

Auburn University, Samford Hall, Auburn, AL

Provided a fire protection system in an occupied 50,000 square foot, four story historic building. Renovation included a wet sprinkler system above and below the existing ceiling on each floor. A dry system was supplied at the attic and towers which extent 170 foot above grade. Fire design included a thorough review of the building condition including the videoing and identifying of vertical chases. The Fire system was supplied from a remote fire pump, to be relocated to a future location in an adjacent building. This fire pump was designed to serve three additional buildings. All areas of Samford Hall remained occupied and operable during entire construction period. Primary work was completed at night with weekly or bi-weekly team inspections on weekends. Inspections included University Risk Management, Engineer, Architectural and Contractor representatives.

Auburn University VCOM Building, Auburn, AL (2013)

Provided plumbing and fire protection system design for 88,000 square foot, 3 story education building.

Birmingham Southern College, Birmingham, AL

Provided design for plumbing & fire protection for 14,000 square foot Welcome Center. Provided design for plumbing & fire protection for College Stadium, Phase 1 & 2

Tuskegee University, Vet Teaching Hospital, Tuskegee, AL

Provided plumbing and fire protection system design for 120,000 square foot facility consisting of large and small animal veterinary hospital, classrooms, offices, large lecture rooms, anatomy building, necropsy building, and large animal isolation building.

University of Alabama, Moore Hall, Tuscaloosa, AL

Provided plumbing and fire protection system commissioning for a renovated hall. Systems included chilled water with variable speed pumping (4 pipe systems), gas fired boiler, and outside air system with energy recovery.

UAB Collat School of Business

New 4 story, 110,000 square foot facility with classrooms, atrium, café, auditorium, office space and a storm shelter in the ground floor of the building. The fire protection system included a wet and dry system supplied from a fire pump. The domestic plumbing system included a kitchen, and office areas. The central twin temp hot water system is supplied from a plate and frame heat exchanger. The building is served with building risers for isolation with system cognitive of maintenance and management. Storm shelter was supplied with separate systems.

UAB Sterne Library Second Floor Renovation: INTO UAB, Birmingham, AL

Renovation of the second and third floor of the existing 4 story building for 48,675 square feet of new classroom and office space. Complete fire protection system for

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second and third level. Plumbing systems included providing new domestic fixtures connecting back to existing building infrastructure.

UAB Optometry Renovation of 2nd and 3rd Floors – Henry Peters Bldg, Birmingham,
Renovation of the second and third floors of the existing 6 story building for 18,500 square feet of new classroom and office space. Complete fire protection system for second and third level. Plumbing systems included providing new domestic fixtures connecting back to existing building infrastructure.

UAB Football and Operations, Birmingham, AL

Provided plumbing and fire protection system design for 45,000 square foot football facility and 80000 square foot Pavilion.. Building consist of classrooms, offices, large lecture rooms, locker room areas, workout areas, hydrotherapy areas. The fire protection system included a wet and dry system the domestic plumbing system included a concession. The central twin temp hot water system is supplied from a plate and frame heat exchanger.

University of Alabama at Birmingham, Dormitory Halls, Birmingham, AL

Camp Hall: Existing 11 story building, 155,000 square foot

Rast Hall: Existing 6 story building, 129,000 square foot

Blazer Hall: Existing 8 story building, 205,000 square foot

Blount Hall: Existing 9 story building, 195,000 square foot

Provided assessment of the existing Plumbing and Fire Protection systems for Blazer Hall and Blount Hall. Assessment included a review of all relevant construction documents, maintenance staff interview, site observations code review to determine which systems needed to be upgraded to meet current codes, system and equipment assessments to determine which systems needed to be replaced and which could be salvaged, serviced and reused, provided multiple options for the owner to select the systems appropriate for their use and budget.

University of Alabama Birmingham, Institute of Visual Arts, Birmingham, AL

Provided design services include plumbing and fire protection for Visual Arts Building. Building included gallery, administrative and support areas.

University of Alabama, Science and Engineering Complex, Tuscaloosa, AL

Provided Specialty Gas and fire protection design for 215,000 square foot science and engineering complex.

Wallace State Community College, Gadsden, AL

Wallace State Health and Science Building 25,000 square foot.

Samford University, Samford Hall, Birmingham, AL

Provided plumbing design for Samford University West Campus Residence Hall, 3 buildings. Samford University Beeson Divinity Renovations, 1 story Renovation Current Design

Snead State Community College, Boaz, AL

Provided plumbing building assessments for 13 buildings on campus. Assessment included detailed reports containing summary of existing systems.

EDUCATIONAL – PRIMARY AND SECONDARY

Walker/Jasper City High School, Jasper, AL

Design plumbing & fire protection system for **252,000** square foot, 2 story high school including a performing arts auditorium, lecture hall, competition gym, **administrative** areas, kitchen, **culinary** areas and athletic support. Domestic plumbing system, to include: hot and cold water, sanitary waste, and natural gas piping systems. Design included domestic booster pumps and fire pumps.

Athens High School, Athens, AL

Design plumbing & fire protection system for **255,000** square foot, 2 story high school including a performing arts auditorium, lecture hall, competition gym, **administrative** areas, kitchen, and athletic support. Domestic plumbing system, to include: hot and cold water, sanitary waste, and natural gas piping systems.

Cahaba Village Elementary School, Trussville, AL

Complete renovation and addition to 46,269 SF school along with a 33,772 SF addition of new classroom and kitchen/cafeteria space. Domestic plumbing system, to include: hot and cold water, sanitary waste, and natural gas piping systems.

Cahaba Heights Elementary School, Entry Way, Vestavia Hills, AL

Provided renovation to 3400 square foot addition to the entry of the school.

Cahaba Heights Elementary School, Entry Way, Vestavia Hills, AL

Provided renovation to existing kitchen and expansion of existing cafeteria.

Calhoun Community College Center for Excellence, Calhoun, AL (2010)

Provided system commissioning for a state of the art Green Energy Technology Center. Systems included geothermal, rain water recycling (gray water) and solar array. Building is an ACECET training facility.

Charles Brown Elementary School, Birmingham, AL

Provided mechanical system commissioning for renovated school. System included variable refrigerant flow with ceiling cassettes.

Gadsden State College, Academic Building, Centre, AL

Provided fire protection & plumbing design for 38,500 square foot, 3 story building.

Gadsden State College, Arena, Centre, AL

Provided fire protection & plumbing design for 69,000 square foot arena.

Gardendale High School, Gardendale, AL

Design plumbing & fire protection system for, 297,000 square foot, 2 story high school including a performing arts auditorium, competition gym, vocation areas, auto-tech areas and athletic support.

Glen Iris Elementary School, Birmingham, AL

Designed fire protection & plumbing systems for, 178,000 square foot addition and renovation of existing school.

Hayes Middle School, Birmingham, AL

Provided mechanical system commissioning for renovated school. System included variable refrigerant flow with ceiling cassettes.

Hoover Freshman Center, Hoover, AL

Design plumbing & fire protection system for, 178,000 square foot, 3 story 9th grade high school facility.

Leeds Elementary School, Leeds, AL

Design plumbing and fire protection system, 78,000 square foot academic building including and gymnasium.

Mountain Brook City Schools Central Office, Mountain Brook, AL

Provide plumbing and fire protection design for a new 18,000 square foot office building. A new two-story building included administration offices, staff development center, community education classrooms, central network center, meeting rooms and staff support facilities.

PARA, Faucett Brothers Activity Center, Tuscaloosa, AL

Provided mechanical system commissioning for 60,000 square foot facility with a gymnasium, two indoor pools and additional support space. Systems included packaged and split system DX units.

Spain Park High School, Hoover, AL (2000)

Design plumbing & fire protection system for, 360,000 square foot, 3 story high school including a 2,000 seat competition gymnasium, concession and home and visitor room facilities.

FAITH BASED**Bluff Park United Methodist Church Renovation, Birmingham, AL**

New 13,300 SF building with gymnasium, classrooms and restrooms.

Saint Mark the Evangelist Addition, Birmingham, AL

New 27,165 SF building with offices, classrooms, kitchen and fellowship hall.

Guiding Light Church, Birmingham, AL

Designed plumbing system and fire protection services for 107,000 square foot mega-church which include AV sanctuary for TV production

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North Park Baptist Church, Trussville, AL

Designed plumbing system and fire protection system for 12,000 square foot sanctuary, multipurpose performance space and choir

Various – Let me know if you need further Church Resume items I have plenty more.

Designed plumbing system and fire protection system for xxx square foot sanctuary, multipurpose performance space and choir

SPORTS/ENTERTAINMENT**West Homewood Sports Complex, Homewood, AL****Homewood Athletic Complex Phase II:**

This project consists of a new facility that will house indoor basketball courts, concession, outdoor batting cages, multiple concession buildings and maintenance facilities. Provide plumbing and fire protection design for a new facility. Building included administration offices, gym, locker room areas, staff development areas, education classrooms, maintenance shop and maintenance support areas and staff support facilities.

Hoover Event Center, Hoover, AL

Provide plumbing and fire protection design for a new 150,000 square foot Event Center. Building included administration offices, kitchen, gym, locker room areas, staff development areas, education classrooms, central network center, event support areas, meeting rooms and staff support facilities.

Alabaster Sports Complex, Alabaster, AL

Design services include plumbing and fire protection for new soccer complex.

Barber Company Headquarters, Barber Motorsports, Birmingham, AL

Provided design services plumbing and fire protection for company headquarters consisting of event areas, training, and office areas.

Birmingham Southern Stadium, Birmingham, AL

Design services plumbing and fire protection for a new administrative building, field house, concession, and stadium support areas.

BJCC Arena, Concession Renovation, Birmingham, AL

Provided design serves include renovation to existing concession areas.

Faucett Brothers, Tuscaloosa, AL

Provided mechanical system commissioning for a 60,000 square foot facility with a gymnasium, two indoor pools and additional support space. Systems included packaged and split system DX units.

Homewood Municipal Center, Homewood, AL (2006)

Provided new, four-story, 58,000 square foot municipal center office building. Design services plumbing and fire protection for entire building. Center includes seminar training rooms, meeting rooms, offices, council chambers and support areas.

Oak Mountain Amphitheater, VIP Concession, Birmingham, AL

Provided design serves include Addition of Concession area to existing Amphitheater.

Talladega Super Speedway, Administration Building, Talladega, AL

Provided new administration building. Building served as a welcoming center displaying the history of the Speedway. Auxiliary spaces served as training spaces.

HOSPITALITY

Auburn University Hotel & Dixon Conference Center – Comprehensive Renovations

Provided plumbing and fire system design for 17,500 square foot renovation consisting of ballrooms, meeting rooms and restrooms.

Candlewood Suites, Birmingham, AL, Atlanta, GA, and Florida

Bed Towers, with hospitality and facilities lower level various square feet

SOHO Flats Condominium, City Hall, and Parking Structure, Homewood, Alabama

Four building. North, South - Multi use - 4 story building, Parking structure, and Independent 3 story Municipal Building. 97,000 square feet

Carillion Point, Destin, Florida

Multi-use retail space on main level with luxury Condos on upper floors.

3-story

Mercado Town Center, Rosemary Beach, Florida

Private Residence Condominiums, Winner of Builders Choice Award 3 story.

INDUSTRIAL

Boeing Generator Building, Huntsville, AL

Provided fuel oil systems design for two approximately 1.3 MW generators that were relocated to a new generator building.

Five Mile Creek Waste Water Treatment Plant, Birmingham, AL

Provided improvements to the existing WWTP located in the Jefferson County, Alabama. Plumbing and fire protection design was provided for various buildings on site: Administration Building, Maintenance Building, General Building, Rain/Waste Water Pump Station, Filtration etc.

Fort Benning, Ranger Issue Facility, Hunter Army Airfield, Ga

Provide an automatic wet system in a 5,600 square foot Ranger Processing facility. Design included balancing the cost of pump verses structure and oversized pipe to be within the hydraulic flow requirements of the system. System compliant with NFPA13, and UFC 3-600-00

Homeland Vinyl, Pinson, AL

Provide 118,500 square foot vinyl products manufacturer. System included fully compliant NFPA 13 system with dual water entries. Scope of services included direct construction administration, coordination with Fire Marshall and Owners Insurance Underwriter, flow test and Inspections.

JR Smith Trucking Company (WR), Cullman, AL

Provide plumbing and fire protection design for a new trucking company building. Building as multi-phased project consisting of a 12,000 square foot office building, a two unit cottage, bus barn, truck yard, and truck shop.

Kenworth Trucking Company, Birmingham, AL

Provide Plumbing and Fire Protection for a new 107,400 square foot trucking facility. Systems included sanitary, domestic water, roof drains, compressed air, waste oil for heating piping systems.

Moody Air Force Base, ADAL Aerial Delivery Mobility Bag Storage Building 932, Valdosta, Ga

Provide an automatic wet system in a 13,500 square foot addition to storage facility. System was compliant with NFPA 13 and UFC 3-600-01. Design analysis occupancy Ordinary Group 1, General Storage.

Moody Air Force Base, ADAL FARP MX Support Facility Building 769, Valdosta, Ga

Provide an automatic wet system in a 30,500 square foot addition to storage facility. System was compliant with NFPA 13 and UFC 3-600-01. Design analysis occupancy Ordinary Group 1, General Storage.

Moody Air Force Base, Control Tower Building 1300, Valdosta, GA

Provide automatic wet standpipe fire protection in an existing eight level control tower. System included a fire pump serving a combination standpipe. The existing fire pump was remote from building site allowing future building to be served by pump. The control tower instrument room/control tower smoke detection was a smoke sampling system. The smoke sampling system allowed a wet system application in an electronics room allowing multiple levels of detection. A system compliant with NFPA 13, 70, 72, 20, 14, 21, 24, 75, 101, UFC 3-600-01, AFI 91-203.

Moody Air Force Base, Hanger 1 and 2, Valdosta, GA (2013)

Provide renovations to two 50,000 square foot aircraft maintenance hangers. System renovation included removing existing AFFF high expansions, provide new wet system with a High Expansion Foam Fire suppression system with fire alarm and manual pull stations.

Moody Airforce Base, Hangar 644 and 701, Valdosta, Ga

Provided renovation of two existing 33,500 square foot (each) air craft maintenance Hangars. Provided a High Expansion foam system and an automatic wet system serving the hangar area. Design included integration of active existing building systems including fire alarm. Project design included working with all levels of project team, reviewers, facility personnel, field inspections, design, site planning and budgeting. System was compliant with NFPA 13, 11, 70, 72, 16A, 409, UFC 3-600-00, and ETL02-15.

NOVA Warehouse, Tuscaloosa, AL

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Provide fire protection for, 81,000 square foot warehouse. Provide complete code study, design, design review and coordination with local authorities. Facility was a 38 feet in height with exposed un-encapsulated plastic rack storage greater than 20 feet.

NOVEC Building, Tuscaloosa, AL

Provided an ESFR wet coverage fire suppression system for Tier 1 automotive supplier. System included ESFR coverage without in rack requirements. Served by a fire pump.

Opelika Saugahatchee WTP, Opelika, AL

Provided mechanical system commissioning for a new Operations/Administrative building at an 8MGD water treatment plant.

Smart Manufacturing Facility, Luverne, AL

Provided new office/automotive production for a 502,000 square foot plant. Plant consisted of 22,000 square foot office Facility: 120,000 square foot stamping facility and a 360,000 square foot assembly area.

Toray Manufacturing Facility, Decatur, AL

Provided new addition and renovation of a manufacturing facility with training and Administrative areas. Design services plumbing and fire protection for addition. Building includes seminar training rooms, meeting rooms, offices, manufacturing areas.

Topre America, Smyrna, TN

Provided new 123,000 square foot manufacturing facility complete with Sales, Administration, Training. Automotive Stamping Facility. Design services plumbing (specialty systems) and fire protection for entire building.

Turkey Creek Waste Water Treatment Plant, Birmingham, AL

Provided improvements to the existing Turkey Creek WWTP located in the Northeast Jefferson County, Alabama. Capacity of plant increased for 4 to 10 million gallons per day. Plumbing design was provided for various buildings on site: Administration Building, Maintenance Building, Generator Building, Rain/Waste Water Pump Station. Additional waste water and water treatment plants include: Wilsonville WT, Saugahatchee WT, Albany WT, Choccolocco WWT, Valley Creek WWT, Five Mile Creek WWT, and Village Creek WWT.

Village Creek Waste Water Treatment, Birmingham, AL

Provided addition and renovation to plumbing and HVAC of waste water treatment plant. Systems included sanitary, domestic water, roof drains, and compressed air.

COMMERCIAL/RETAIL

Crossplex Village, Birmingham, AL

White box design for new 6500 SF retail building and 7500 SF restaurant building.

The Strand Retail Development, Birmingham, AL

Provided black box design for 6 buildings totaling 93,338 SF and white box design for 20,762 SF large tenant.

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2200 Magnolia Office Building, Birmingham, AL

Complete renovation of historic building into 29,513 SF of office and tenant space.

FIS Global Office Fitout, Birmingham, AL

Fit out of existing 6 story office building, consisting of 100,000 square foot of renovated office space.

Hoover Fire Station Ross Bridge, Hoover, AL

Provide mechanical, plumbing and fire protection design for a new one story, 2 bay 4,550 square foot fire station.

Jackson County Ag Shops, Scottsboro, AL

Provide design Construction of a new 4,700 square foot Ag shop that includes 1,500 square feet of classroom & office space.

Jacksonville Public Safety & Justice Center, Jacksonville, AL

Provide MEP design for new 46,769 square foot public safety & justice center. Building included a fire station, police station, storm shelter, city offices and jail.

Jefferson County Vehicle Storage Facility, Birmingham, AL

Provided MEP design for a new building approximately 12,000 square foot of new vehicle storage facility.

Alabama Realtors Association, Montgomery, AL

Provided new, two-story, 23,520 square foot office building. Design services plumbing and fire protection for standard office and tenant shell. System included highly efficient Mechanical systems to reduce energy consumption 14%. Project obtained LEED Certification.

Barracks for Sheriff Training Center, Birmingham, AL

Provide Fire Protection Drawings for 1,050 square foot Sheriff Barracks.

Brookstone Park Apartments, Gulfport, MS

Multi-family, two story, 9 Buildings, 135,200 square foot

Cypress Equities - McCormick and Schmicks, Birmingham, AL

Provided evaluation of the existing plumbing and fire suppression systems for McCormick and Schmicks Restaurant. System included fire suppression, domestic cold, hot, gas, sanitary waste and vent, grease waste and storm systems. Assessment included a review of documents, site observations, maintenance staff interview, and code review to determine which systems needed to be upgraded to meet current codes. System/equipment assessments included evaluation to determine which systems needed to be replaced and which could be salvaged, serviced and reused. Provided compliance issues, maintenance required, critical items for grease waste management program compliance, expected system longevity and identified items for the owner to evaluate management and tenancy of the building.

Fayette Train Depot, Fayette, AL

Provided plumbing design for renovation of the Fayette Train Depot. The Depot was originally built in 1887 and was renovated to serve as the Historical Society Museum.

Guin Fire Station, Guin, AL

Provided plumbing design for the construction of a new 3,600 square foot fire station

Hoover Fire Station Ross Bridge, Hoover, AL

Provide mechanical, plumbing and fire protection design for a new one story, 2 bay 4,550 square foot fire station in Ross Bridge.

Jacksonville Public Safety and Justice Center, Jacksonville, AL

Provide plumbing and fire protection design for a new 46,769 square foot Municipal Complex including Police, Judicial, Fire Department, and Jail. Building included administration offices, staff development center, education classrooms, central network center, meeting rooms and staff support facilities.

Jefferson County Vehicle Storage Facility, Birmingham, AL

Provided MEP design for a new building, approximately 12,000 square foot.

Limestone County Courthouse, Limestone, AL

Provided renovation to an existing, 35,000 square foot, four-story municipal building. Design services plumbing and fire protection for entire building. Renovated space incorporated training rooms, meeting rooms, offices, Judicial Branch (Four Courtrooms) and support areas.

McCalla Sheriff's Substation, McCalla, AL

Provide HVAC and plumbing design for new 2,850 square foot building.

Montgomery Bus Station, Montgomery, AL

Provided plumbing system design for renovation of the historic Montgomery Bus Station, which was the site of the attacks in the 1961 Freedom Ride during the Civil Rights Movement. The renovation included an addition of a museum which won a preservation award and was placed on the National Register of Historic Places.

Parktowne Apartments, Cleveland, TN

Multi-family, one and two story, 105,000 square foot

Pelham Police Department, Pelham, AL

Provided new, 46,000 square foot, three-story police department building. Design services plumbing and fire protection for office, training space, evidence rooms, jail, weight room, and court room.

Steele Fire Station, Steele, AL

Provide MP/FP design for new 2,840 square foot fire station.

Willow Park Apartments, Lafayette Louisiana

Multi-family, one, two, three and four story, 207,000 square foot

FINANCIAL INSTITUTIONS**Coosa Pines Federal Credit Union, Sylacauga, AL****Coosa Pines Federal Credit Union, Pell City, AL****First Metro Bank, Florence, AL****First Metro Bank, Lexington, AL****Mutual savings Credit Union, Trussville, AL**

Birmingham, AL
205-988-2069

Tuscaloosa, AL
205-752-9915

Jackson, MS
601-362-6478

Huntsville, AL
205-527-8241

Nashville, TN
615-265-8071

Provided new single-story credit union. Complete design and inspection services provided on the domestic water, waste and fire protection systems.

Regions Bank, Infrastructure Upgrade and Floor Assessment, Birmingham, AL

Provided a full building assessment and renovations to 30 story corporate office located in downtown Birmingham. Work included the assessment of existing infrastructure included domestic plumbing systems equipment and infrastructure piping (waste/domestic building risers). Process included evaluating equipment condition, review of existing documents, review of maintenance, and code review. Extensive assessment included sampling and testing piping systems and evaluating a historical domestic hot water system problem. The assessment included developing phasing of renovation. The extensive assessment led to the upgrade and modernization of ageing building. Assessment led to the implementation of infrastructure upgrades. System assessment included the fire pumps, plumbing risers, domestic hot water system, pre-action systems, gas fired boiler, variable speed domestic booster pumps and mechanical systems.

The Regions Bank, Region Center, Birmingham, AL

The Regions Center (formerly the Amsouth Center) is a 30-story corporate head office building located in downtown Birmingham. The Mechanical systems in the 30 year old building required upgrade due to age. In addition changes to a modern office environment and the end-user requirements. The project entailed complete upgrades and modernization over a period of 5 years. Work included piping, plumbing, domestic water, and fire Sprinkler. This project entailed the construction of a new Network Room & PBX locate within the existing Center. Special hazard fire systems were incorporated in the design with primary coverage Clean Agent System and Secondary Pre-action system.

Regions Bank, Birmingham, Alabama

Regions, Harbert Plaza, 5th Floor, Renovations

Regions Center, Shell and Core 5th floor, 15th floor and 18th floor

Regions Center, Tenant Fitup, 20th floor, 28th floor and 29th floor

Regions, Harbert Plaza, Tenant Fit-Up, 22nd floor, 23rd floor, 24th floor, 26th floor, 27th floor and 28th floor

Regions, Harbert Plaza, 5th floor

Regions Center, 9th floor, 12th floor, 16th floor, 19th floor and 25th floor

Regions Bank, Alabaster, AL

Regions Bank, Trussville, AL

Amsouth Bank, Meredian, MS

Regions Bank, Lincoln, AL

These projects was a new buildings. Complete design and inspection services provided on the domestic water, waste and fire protection systems.

RELEVANT PROJECT EXPERIENCE

TUSKEGEE UNIVERSITY

Tuskegee University, Vet Teaching Hospital, Tuskegee, AL (2013)

Provided mechanical, electrical, and fire protection system designs for the new 110,000 square foot facility. Project included two ISO Class 7 clean rooms and an ISO Class 8 ante room designed in accordance with USP 797 standards.

New Veterinary Medical Teaching Hospital – Provided Plumbing and Fire protection system design for 120,000 square foot facility consisting of large and small animal veterinary hospital, classrooms, offices, large lecture rooms, anatomy building, necropsy building, and large animal isolation building.

RELEVANT PROJECT EXPERIENCE

MULTI-FAMILY, MIXED USE, HOSPITALITY

Peachtree Senior Living Apartments - Trussville, AL

New 36 bed, 35,000 SF three story apartment building.

Oaks on Parkwood Assisted Living facility, Birmingham, Alabama

Assisted Living Facility \$4,500,000.00 40,650 square feet

Candlewood Suites - Birmingham AL, Atlanta GA, and Florida

Bed Towers, with hospitality and facilities lower level. Various square feet / cost

SOHO Flats Condominium, City Hall, and Parking Structure, Homewood, Alabama

Four building. North, South - Multi use - 4 story building, Parking structure, and Independent 3 story Municipal Building. 97,000 square feet \$80million

Carillion Point, Destin, Florida

Multi-use retail space on main level with luxury Condos on upper floors. 3-story

Mercado Town Center, Rosemary Beach Florida

Private Residence Condominiums, Winner of Builders Choice Award. 3 story.

Brookstone Park Apartments, Gulfport, MS

Multi-family, two story, 9 Buildings \$5,909,000.00 135,200 square feet

Birmingham, AL
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The Designer Perspective

Plumbing Design 101

Passing on valuable information to the new generation of plumbing designers.

February 21, 2018
[Carol Johnson](#)



You never really know what life will offer you. You can't really differentiate between that which was opportunity and that which is fate.

I imagine that many of you are not sure if plumbing chose you, or if you chose plumbing. Some of us like to say, "Plumbing found me!" In all cases, the plumbing industry is more important today than ever. And for all involved to prosper in their career, there needs to be a level of shared knowledge and a passing of the torch.

There are things I wish someone had told me when I first started my career, and I'm sure I am not alone in thinking this. For example, for a new designer working on projects, the thought process usually starts with:

- What does the system do?
- What does the system need to look like?
- How do I use the software?

Those are all great questions, and truly the survival tools for a plumbing designer. But the better questions are:

- How does the system work, and why?
- How does the building get constructed?
- Where can I get good information?
- How do I document and design?
- How do I use this software?

For the new designers just getting started, I've broken down the questions you should ask, and provided some insight on how to answer them, too.

How does the system work, and why?

This answer is always, "It depends." I state this with a wry smile. It depends because the answer is influenced by the factors from physics, good design practice, and the code. Please remember physics will always win. There is a joke that goes, "Plumbing is easy; hot water is on the left and cold is on the right and sewage flows downhill. Anyone can do it." None of those are completely true. The actual truth is water can be cross-connected and sewage can be pumped. There is a simpler truth called physics. At a faucet, we design for the hot water on the left and the cold on the right. Physics will kick-in at some point though, and water will take the path of least resistance. Check that valves, backflow preventers and vacuum breakers are part of the system. Another simple truth is that not everyone can do it. But as a person who has set out to be in this industry, you should learn to understand your system. Understand the factors that influence your system and understand the code that influences the requirements of this system. Physics will always win.

The second part of understanding your system is a term in the office known as, "The Golden Nugget." The "Golden Nugget" is the small piece of information that was needed prior to the drawings going out at contract document level. The fact that the underground sewer system has been repaired several times, or that the pumps in the lift station were replaced a couple of years ago in an emergency and are no longer as shown on the existing drawing. Or, even the fact that the existing drawings dated 1968 have 8-inch terra cotta pipe verses cast iron or the building domestic hot water mixing valve set point varies because it hasn't been low point setup in its history. The "Golden Nugget" is sometimes not avoidable because your site visit is often a mere single point snapshot. Open the door for communication with facilities, document conditions, and understand how the system works and hopefully the "Golden Nugget" scenario will happen less often.

How does the building get constructed?

The answer to this question is one of the keys to becoming a well respected designer. Many designers start without any field experience. My absolute first suggestion is to get out to projects and understand how a building is constructed from trenches, to structural foundation pour, slab pour, in wall, above ceiling and final walkthrough. This recommendation includes listening and walking with the contractor and extending the respect of their understanding of the construction process. Understanding the constructability of your job will help you make the better decision on fitting locations, system layout, main locations and slab penetrations. You will always have the, "No, the floor mounted back outlet water closet cannot be installed on a structural beam" experience. You will understand the 2-inch pipe passing behind a chair carrier in an 8-inch block wall is not possible. You will also understand the slabs get poured in sections and the trench for your main cannot be that close to a footing. You will understand not to stack fittings. With all this knowledge, you will be able to provide a better design.

Where can I get good information?

Good information is what will make the difference at the end of the day. Aptitude to learn and a willingness to learn is the key to success. The truth is, this can be huge for long-term planning of your career. First of course, you should work in an environment that you enjoy or in an environment good for your development. You will need to have all the tools of the trade at your disposal: Codes, books, mentors, colleagues, and professional organizations. Codes set the rules. You must have access and understanding of them or you are driving without a road. Personally, I have a thorough collection and review code developments constantly. This of course, is one of the key components to the professional organization for me. Use your professional organization as the intellectual property that it is. The data books or the people who work with technical and legislative groups are great resources at your disposal. The organization will be a front line for books and mentors.

How do I document and design?

My first employer was the wood industry. My second was an engineering consulting firm. From both, I learned these basic principles: Your performance is not any better than your documentation. You should never state anything in writing that you would not publish in the *New York Times*. Your reputation is what you have to represent yourself. Your reputation is your last project.

This all wraps up to:

You/your firm has a contract with the owner/Architect to provide a client with design documents based off of certain parameters. If you are a consulting engineer, the firm provides contract documents. CD's are your firm's representation of what is required by code and good design practice for a client to construct a building. You are the organizer of the information that is provided to you by the client, AHJs, code and the client's representatives. You access from this information what is needed for the construction of the building. You apply the code and good design principles. You must understand both code and design principles to design well. A designer must understand that documentation of the information is as important in the process as understanding what must be done. If you cannot prove it, you have not done it. The contract documents represent your knowledge base.

How do I use this software?

This topic, is in this article, as my own "Golden Nugget." I write this with all sincerity to calm anyone concerned with using new software. Every firm has their own BIM/CAD standards, so do not panic if you are at the beginning of learning. You should sit down and walk through the standards from start to finish. Learn the terms and the file locations. Learn your tricks from YouTube and Autodesk. Whatever your level — designer to project manager — learn what task each person must perform at each level. The understanding of what others' path is, will ultimately make you better. I speak these words as a project manager who can use BIM.

The plumbing industry from a design perspective is at an age of evolution. Choose your knowledge base now. If you're trying to define a good design path, ask the right questions to learn. Here they are again:

- How does the system work, and why?
- How does the building get constructed?
- Where can I get good information?
- How do I document and design?
- How do I use this software?

Understand your growth at each level of learning your trade. Understand you are one of few selecting this career, which by sheer economics makes you valuable. Always value your time and your education in all facets of life. Follow your heart and live without regrets. Enjoy plumbing.

[Apprentice Associations](#) [Best Practices](#) [Business Codes & Standards](#) [Design Engineers & Specifiers](#) [Engineering](#) [How To Millennials](#) [Plumbing Training & Education](#)

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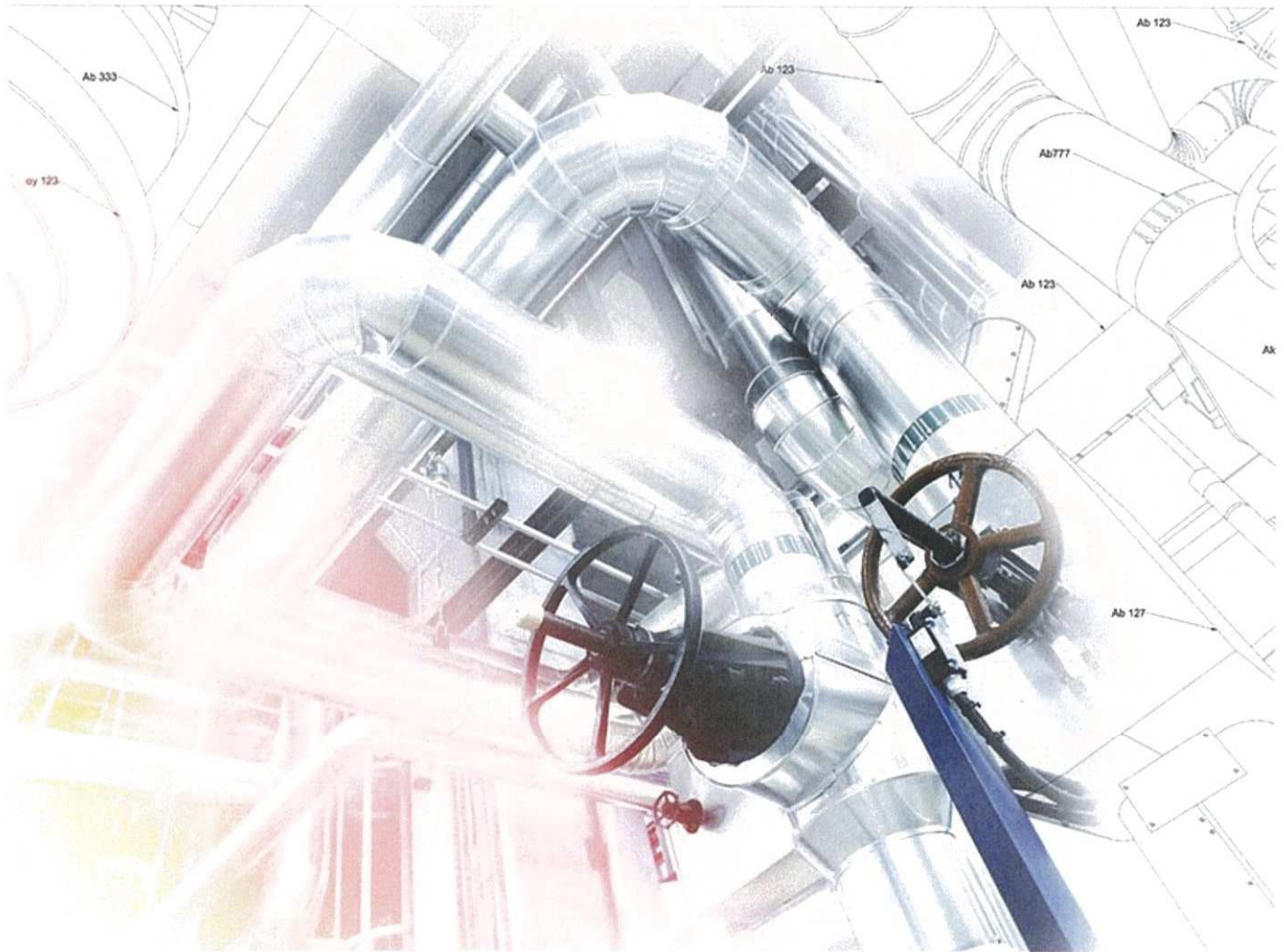
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Plumbing Engineer & Designer: The Profession

A career choice is one of the most important decisions you'll make.

April 25, 2018

[Carol Johnson](#)



There is a belief that as professional designers, the plumbing industry found us, not the other way around. I don't believe any of us went to a four-year college or university seeking simply a four-year degree. Some of us have technical aptitude and work in the real world to learn our craft, and some of us start as mechanical, or some other type of discipline, engineers. Currently, the profession of plumbing engineer is promoted by the need in engineering firms.

Need is the basis of many things in this world.

Why is the plumbing profession important?

This question is one of my favorite questions. The main answer leads me to one of the ultimate truths brought up in my first column, "Plumbing Design 101." The answer is that physics will always win. To explain this is a simple, yet critical understanding. The human race is nothing without water. A human being can live without air conditioning, or a car or a building or cell phone or a computer. We cannot exist without water. Physics will always win.

All water is recycled. The planet and its atmosphere are a recycling and supply process for water. Plumbing is a water distribution system. Without clean water, the human race perishes. We need the plumbing engineer/designer to design healthy systems with the information and products developed and represented by the marketing professionals. Those systems are then installed and maintained by the facility staff and plumbers. We also need the manufactures to produce products, the owners to build buildings, the plan reviewers to enforce healthy building and code bodies, and legislators to dictate healthy requirements.

Therefore, we all work as a team. This is because plumbing is a critical system to prevent a human being from dying. In this world, one in three people does not have clean water. One in 10 does not have a toilet. And if it takes you one minute to read this article, one child has died. These facts are per the World Health Organization.

Though water being critical is an important enough reason to get into the plumbing profession, it's not the only one. It is necessary to acknowledge plumbing systems include much more than water systems, they also include systems that house medical gases, and fire protection, and comfort, and so much more. The plumbing profession is important for so many reasons.

Why be a plumbing engineer/designer?

This question is likely my second favorite. My gut answer on this is that it is an important and rewarding career. However, when explaining that to a young engineer, it is never enough. Therefore, I start by asking, "Would you rather be one of many, or one of few?"

The answer is thought about and typically answered with, "A few."

In the firms that I have worked with, the ratio of mechanical to plumbing was 4:1 and as Revit crept, some as little as 3:1. It has never been 1:1. There is clearly a need for plumbing engineers and designers, as well as a need for people knowledgeable with plumbing systems and products. As this critical profession continues to grow, a plumbing engineer's demand will increase. According to Payscale, an online salary resource, the average entry level plumbing engineer salary is \$60,337. The average salary will continue to increase due to economics. Note this will change as the average number of professionals continue to decrease. With the average of plumbing professionals currently at 45-50 years old, there will be a path of opportunities as a younger professional develops.

Why become a fire protection engineer or a designer?

The plumbing engineer/designer is often also the fire protection engineer/designer in a firm. The answer to this question is exactly the same as above in that it is a rare position. It is also a rewarding choice. The truths are the same for experienced fire protection knowledge professionals as it is with plumbing engineers. The difference being a knowledgeable fire protection and plumbing professional is even more sparse. If pay is in indicator, Payscale average for a fire protection engineer is \$64,204.

As I write this article, I state simple facts: Physics will always win; the planet is a water recycling process; and for me, plumbing is a rewarding and important career. Millions and billions of people live longer, healthier lives, because of plumbing. The profession is one of honor because we are stewards of humankind's health. However, we as part of humankind, still must do more. Because in truth, two children died while you read this article in two minutes verses one minute.

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Carol Johnson: Humanity in Design

This woman was taught to stand for what's right, and so that guides her in every thing she does.

March 8, 2018

[Sharon J. Rehana](#)



Born in a small town in Alabama, Carol Johnson says she cherishes her roots. “I was raised in the country. Grew up playing in the woods.”

Johnson has since grown from that little girl who played in the woods to a woman who is a senior project manager at [Edmonds Engineering](#) (EEI), a full service commercial and industrial engineering consulting design firm. Johnson holds a Certified Plumbing Designer (CPD) designation from ASPE, a LEED Accredited Professional (AP) designation from Green Business Certification Inc., as well as a Certified Fire Inspector (CFI) designation.

Even when just a little girl playing in the woods, Johnson knew she just loved how things worked. She recalls being able to fix most any lawnmower or radio at a very early age. “It went uphill, or downhill from there,” she says. “I did my first real plumbing job under my grandmother’s house when I was eight-years-old. The yellow lab ate pipes.”

She never outgrew that passion for learning about how things work. She attended Walker College in Jasper, Alabama, and then the University of Alabama Birmingham, where she studied mathematics and engineering.

Her first real job out of college was a sawmill, which she says was a great learning experience. “I started in purchasing and worked my way up to project manager. The hands-on understanding of all these commercial systems and how construction works from the ground up was instrumental in shaping my path into plumbing/fire protection engineering.”

When the mill was purchased, she was offered a relocation position. But her family was dependent on care at the time, so she chose to stay in the area. “I took a position in a consulting firm and learned and filled the role as its fire protection and plumbing engineer. Twenty years later, I am still fascinated by how things work.”

Today, as a senior project manager, Johnson is responsible for producing initial design layouts for space and other design team coordination. Her everyday involves scheduling, detailing, communicating, preparing, producing and reviewing.

Her knowledge of design with an understanding of building construction and codes provides clients she works with a comprehensive detail-oriented design. Her experience stretches from health care, commercial, military, industrial, mixed-use facilities, to educational and religious projects.

She has worked on more than 2,000 projects that encompass all levels of schematic, budgeting, field evaluation, design, quality control and construction administration. For a woman who loves to learn how things work, she has certainly adopted an attitude and work ethic that makes the layperson wonder how she’s able to make it all work, especially in a male-dominated industry.

“I worked hard, learned my craft and respected those around me,” Johnson says.

She adds, “I am a daughter of a strong, single mom. I was raised to believe that I am a strong person, I should work hard, and I should stand for what is right. Standing for what is right meant following your heart and standing up for those who needed you. So, to this day, I live following my heart.”

Even with working hard and following her heart, Johnson has encountered challenges. But she talks about them as learning experiences and opportunities for growth.

“In my first job, I was the only woman among 117 men in an industrial facility. Ironically, they built me a bathroom. The benefit was, I could have been just about everyone’s daughter. I thrived to learn everything, and I was given that opportunity most likely because I was young enough to be their daughter,” she recalls.

“In my role as a consulting engineer, I learned my craft through osmosis in the industry, code review and with sound logic and engineering principles from education,” Johnson continues. “The Gentlemen of the [American Society of Plumbing Engineers](#) (ASPE) were absolutely some of the best mentors, and to this day many are my friends. I could never say thank you enough to that group for helping me have the tools to do my job today.”

Though Johnson credits the mentorship of others for her success today, it is in part her dedication to want to learn that keeps her successful.

“People are products of their environments and experiences,” Johnson says. “Will I have the same opportunities as men in this industry? I would not venture to answer. I have always approached the gender difference as if there is no gender difference because we are people doing a job, making a living, and making a difference in the world. If that is not the case, then I have been entering the room still the same with the belief I am a product of a strong lady that allowed me to feel I could be anything I wanted to be. Thus far she has not been wrong.”

In addition to her role as a senior project manager at EEL, Johnson serves as the Board Liaison to the [Women of ASPE](#) (WOA) group, as well as the ASPE VP Legislative.

In her role as the ASPE VP Legislative, she has answered thousands of emails relating to codes for plumbing and fire protection in almost every state. “I would like to continue my dedication to the codes,” Johnson says.

In regard to WOA, she says, “My original role with WOA was to work with Sarah Balz and the ladies of the committee to organize and develop the special interest group within ASPE.”

The core mission of WOA is to engage, retain and advance women in the plumbing industry, through education, leadership development and networking opportunities. I first met Johnson at the inaugural WOA event at the 2016 ASPE Convention & Expo. We sat at the same table, and she immediately welcomed me and made conversation. Johnson was eager to tell me about WOA and all the group hoped to accomplish.

Today, not much has changed in her passion about WOA. “This group is amazing. We have created a positive organization that is fostering relationships with all members of ASPE. It has provided many members a communication path to improve each other’s careers and knowledge base of learning. Often in the plumbing industry, your professional organization is a means of gathering good

design principles and engineering understanding. When the path to that knowledge is wide, it can only be good for career development. And in the plumbing industry, what is good design is also good for our environment and the safety of people.”



As Johnson has come into her own, she's taken that yearning to learn and applied it to teaching.

“To all the young girls out there, follow your heart,” she says. “If you love math, science and engineering, or if you love to fix things or how things work, go into this world and become the engineer, the mathematician, or the anything you want to be. You are who makes those choices. Work hard, learn from everything, and you will succeed.”

Johnson also has advice for women who are already in the industry. “Work hard, learn all that you can, build relationships and network, trust and value who you are and what you contribute. If you are driven to build a plane, or a plumbing system, or purify every drop of water on this planet, then do it.”

Usually, when you ask someone to talk about their most successful moments, they tend to share details of great projects, or awards they've received. Johnson says that in her current role, she designs, manages projects and trains others.

“Every once in a while, as I am helping someone, or I hear them repeat something I've shared to another person ... and I feel like I have helped them learn and understand, and that in turn helps them do their job better and gives them a stable life for them and their family, I have a moment. That's a success. When I feel like I have made a difference in someone's life — those are the greatest moments. I also of course, feel successful when I walk through a new hospital, cancer center, or school that I've helped to design.”

Johnson recognizes that there is an energy out there ready to be harnessed. “As an industry, we have to promote within and provide exposure to those who have succeeded,” she says. “There are women in this industry. We are tooled for this industry. Most of us are natural perseveres. Most of us have strong will and good skills at communication and learning. As an industry, we need to tap into that. We need to keep reaching out and informing people, training people and promoting people.”

Johnson will continue to press for progress and hopes to continue to serve in any capacity she can that will allow her to make a difference.

“In life, I feel we are stewards of our past. A past we should honor with the future. We have the future to either learn from our past or honor our past. I highly recommend both. If not INCLUSIVE now for all people, then when? We are humanity after all,” Johnson explains. “Do you want someone to tell your daughter or son she or he CAN’T? Life gets pretty simple at some point. The differences you make in this world, you do not get to take with you. It is what you leave behind. I am going to be the strong lady that I was raised to be. I love to make the world a better place by building structures that people work in, hospitals to get well in, research labs that develop drugs or processes that heal people, schools to get an education, etc. It is one of the cogs in my life. Hopefully I will be leaving behind great work in the codes, a stronger ASPE and family/humanity that is proud of me.”

Carol Johnson has taken on a new role in her journey of ‘doing what’s right.’ Starting last month, she is a regular [contributing columnist](#) to *Plumbing Engineer*. We could not be more honored to have her be part of the team and look forward to her knowledge sharing!