

RESUME –
Melissa G Bowers, PE, CPD, GPD
(ASSOCIATE PRINCIPAL PLUMBING
ENGINEER)

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Phoenix, Arizona 85051

Personal Cell: 602-531-4563

Mechanical Engineer (Registered Professional Mechanical Engineer, AZ #59235) proficient in Plumbing and Hydronic Systems Design and also Certified in Plumbing Design (#77984) with a Green Plumbing Design Certification. Have been heavily engaged in AutoCAD and Revit production of construction documents, fixture, and equipment selection and specifications, construction administration, site observations, and client customer service on commercial and residential projects to facilitate or exceed overall client and end-customer/user satisfaction. Dedicated Full Member of the American Society of Plumbing Engineers (ASPE) (#PH 36863). I am looking to continue my strong engineering and customer service skills within the plumbing profession. My philosophy is simple. Anyone can put a set of construction documents together. What distinguishes me from a normal engineer is the client contact and support I am willing to offer before and after the construction documents go out so that the project is a success for all parties. Currently, I am the Associate Principal of the Plumbing Department of ARCXIS.

Education:

Bachelor of Science in Engineering Management - University of Portland (Oregon) – May 2004 (Student ID 774223)

www.up.edu

Proficiency:

Autocad 2000-2017

Revit 2014-2017

Trane Trace 700 (for prelim HVAC load calculations)

Microsoft Office

Significant Accomplishments:

Plumbing Engineer & HVAC Drafter for the Past 21 Years (since September 2004)

- Professional Engineer: Designation after successful passing of the Principles and Practice Examination in October of 2014. Recognized officially by State of Arizona as a Professional Engineer in December of 2014.
- Certified in Plumbing Design: April 2015, thru the American Society of Plumbing Engineers.
- Green Plumbing Design Certification: November 2024, thru the American Society of Plumbing Engineers.
- American Society of Plumbing Engineers: Became an Associate Member in 2008 and a Full Member in May of 2010. Served on the Phoenix Chapter Board of Directors as the Vice President Legislative and as President from May 2011 to May 2013 and again from May 2023 to May 2025. I also served on the Nominating Committee for the entire society (2014 and 2016). Recognized in Plumbing Engineer Magazine (Feb 2013). In 2014, the Phoenix Chapter was awarded the 2016 Convention and Exposition for ASPE. As such, the Phoenix Chapter organized a committee of members to help plan and recruit volunteers to help the Society host the Convention. I served on this committee as the AYP liaison and helped to plan a successful Society wide AYP event for members under 35 to participate in on Monday evening of the Convention (October 31, 2016). My goal is to eventually run for positions on the Society Board of Directors in 2026 as the Region 4 Director.
- International House of Pancakes: New prototype restaurant customization, and renovation of existing buildings and tenant improvement designs in Arizona, Pennsylvania, Washington, Oregon, and Arkansas.
- Army Corps of Engineer Projects: Plumbing Project Designer – Cannon Air Force Base, Holloman Air Force Base, Ft Sill Warrior in Training Barracks Building Design& Ft Sill Advanced Infantry Training Barracks Building Design.
- EI Companies/ARCXIS: Started off as a Senior Design Plumbing Engineer in 2018 and worked my way thru the design promotion chain and then became an assistant project manager in September 2022. Promoted to Senior Plumbing Engineer to help run the QC for the plumbing department as an engineer of record. Promoted to Associate Principal Plumbing Engineer on July of 2025 as a full-time associate and co-engineer of record on work generated by the Plumbing Department here at ARCXIS.

Experience:

06-2018 to Present:

El Companies/ARCXIS - 19820 N. 7th Street, Phoenix, AZ 85024 (480) 658-0641 x 419

Hired as the Senior Plumbing Engineer for the Phoenix offices of El Companies (dba Arcxis in 2022) in June of 2018. Designed drainage waste and vent systems, water systems, and natural gas systems for residential and light commercial offerings for national homebuilders/developers. I used AutoCAD as the design software. I addressed plumbing design questions from project managers & plumbing designers, questions from clients, and encouraged training/educational opportunities for the plumbing department, in addition to my job captain/design responsibilities. I created and maintained several CAD plumbing templates. I created a training document in Microsoft Word, that is a step-by-step procedure for laying out basic plumbing systems for any new designer to use and a plumbing QC checklist. My goal with creating these documents is to teach someone with little to no plumbing familiarity the basics to creating plumbing drawings. I authored several plumbing educational whitepapers to assist our entire team from sales to project managers understand basic plumbing concepts. I also served as a Job Captain for the Arizona based design team and helped the project manager of that team run the production schedule serving as assistant project manager for approximately 13 designers and energy analysts (September 29th, 2022 until March 22, 2024). As of March 25th, 2024 I started working full time as a QC plumbing resource specialist and educational resource for plumbing for the entire department focusing full time on QC reviews and training and mentoring. As of July 21st of 2025, I was promoted again to Associate Plumbing Principal Engineer, helping Mr. Joe McCabe, PE, LEEP AP run the entire plumbing engineering department for ARCXIS on a national level. My responsibilities are the QC plumbing resource specialist and educational resource on my discipline (plumbing design) but the title has changed as my responsibilities have grown.

02-2015 to 05-2018:

DG Koch Associates - 1759 E. Queen Creek Road, Ste 100, Chandler, AZ 85286, (954) 495-2112

Project Manager/Plumbing Engineer/Chandler Office Business Development Manager (DGKA):

Started with Wright Engineers in February of 2015. Successfully worked on residential and commercial projects till December 2015, when the MEP department was acquired by DGKA, based out of Las Vegas, Nevada. Was a project manager as well for Wright Engineers, responsible for team leadership and project success both on the customer and financial level and also engaged in client communication with ultimate customer service in mind. Gained much more Revit experience through this position. I obtained my Certified in Plumbing Design credential while employed here. DGKA also has utilized my marketing experience to acquire more work for the company starting in January of 2017 as the local business development manager for the Chandler, AZ offices. As such, I have been involved with not only designing the plumbing work locally for DGKA since 2017, but also with finding those clients, creating proposals and going after new work to keep the company busy. In May of this year, Don Koch closed our Chandler offices.

03-2014 to 01-2015:

Smith Group – 455 N. 3rd Street, Suite 250, Phoenix, AZ 85004, (602) 265-2200

Plumbing Systems Engineer:

Worked within a very large group of team members (architects, engineers and planners in the same office) on six large projects: One with the Healthcare Studio: Vaca Valley Wellness Center; Three with the Learning Studio: St Xavier University, ASU Psychology Building, and Yavapai Community College; and two with the Workplace Studio: Foundation for Blind Children, and Valley of the Sun United Way Corporate Headquarters. Obtained my PE registration while employed at this company.

01-2013 to 02-2014:

Henderson Engineers – 5343 N. 16th Street, Suite 460, Phoenix, AZ 85016, (602)336-5200

Plumbing Systems Designer:

Responsible for project plumbing designs for multiple projects using both AutoCad and Revit as a design tool. I worked within a design team with HVAC designers, and electrical engineers as well as project managers to produce quality engineered designs.

11-2007 to 01-2013:

Walsh Engineers Phoenix – 501 S. 48th Street Ste 240 Phoenix, AZ 85051

Plumbing Systems Designer/HVAC Drafter:

Responsible for project plumbing and mechanical systems designs for multiple projects including AutoCAD Drafting and Engineering of projects. Main emphasis of design was Plumbing Systems. For HVAC projects, I was engaged in area takeoffs and load calculations and helped with equipment selection with the Trane Trace software systems, and also drafted HVAC Engineered Plans for supervisors as required. Plumbing engineering responsibilities included layout of plumbing floor plans (sewer, water, gas, and pneumatic systems), plumbing roof plans, schematics, product scheduling, calculations and construction details.

09-2004 to 11-2007:

Air-Zona Systems Engineering: 4527 N. 16th Street, Suite 201, Phoenix, AZ 85016 -

Plumbing Systems Designer/HVAC and Plumbing Drafter:

Responsible for project plumbing and mechanical systems designs for multiple projects including AutoCAD Drafting of projects. Coordination included layout of plumbing floor plans, plumbing roof plans, schematics, calculations and details. Communication with the Project Architect to coordinate construction documents with other consultants, as well as architectural coordination.

REFERENCES AVAILABLE UPON REQUEST