

# WHAT IS A Plumbing Engineer?

**PLUMBING ENGINEERS** are a vital part of design/build construction teams for residential, commercial, and industrial facilities. They interact with other construction trades to provide building owners with efficient, functional, and sustainable plumbing systems that protect the health, welfare, and safety of the public and prevent environmental contamination.

## WHAT DO PLUMBING ENGINEERS DO?

**PLUMBING ENGINEERS** use the principles of fluid flow along with engineering calculations to design plumbing systems that transport fluids and gases throughout buildings. Those systems include:

$$S = \frac{\text{rpm}\sqrt{Q}}{\text{NPSH}^{0.75}}$$
$$x 2.31 - h_f \quad L_H + \frac{(P_B - V_P)}{\text{Specific gravity}}$$



Domestic water systems



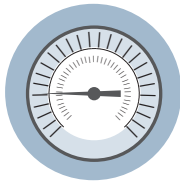
Wastewater



Fuel gas



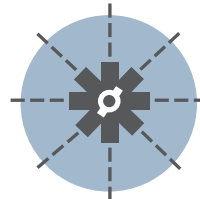
Medical gas & vacuum



Compressed air



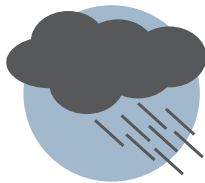
High-purity water



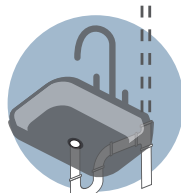
Fire suppression



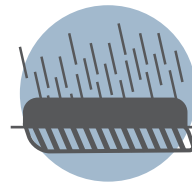
Chemical waste



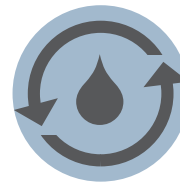
Rain & stormwater systems



Venting



Site & building drainage



Water efficiency

## WHAT DOES THE PROFESSION ENTAIL?

*"The old adage that 'anyone can do plumbing' does not hold water anymore. A diversified and accomplished plumbing engineer is a valuable commodity in the design/build market."*



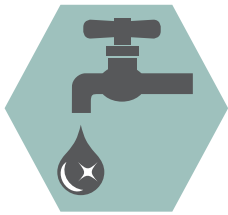
## PLUMBING ENGINEERS

are highly skilled individuals involved in many different aspects of the design/build process, including:

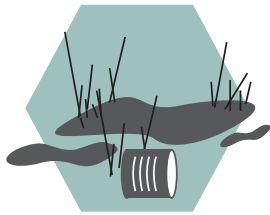
PLUMBING SYSTEM DESIGN	COMMISSIONING
PROJECT MANAGEMENT	CODE & STANDARD EXPERTISE
CONSTRUCTION ADMINISTRATION	FORENSIC & SUBSURFACE SYSTEM EVALUATION
BUILDING INFORMATION MODELING (REVIT)	COST ESTIMATION
PRODUCT & SYSTEM SPECIFICATION	PROBLEM SOLVING

## PROTECTING PEOPLE & THE ENVIRONMENT

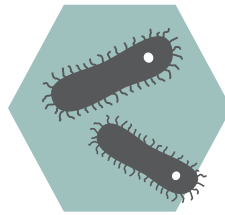
PLUMBING ENGINEERS help eliminate many of the threats that sicken people and harm the environment on a global scale by:



**Delivering** safe drinking water & sanitation systems



**Combating** groundwater contamination & depletion

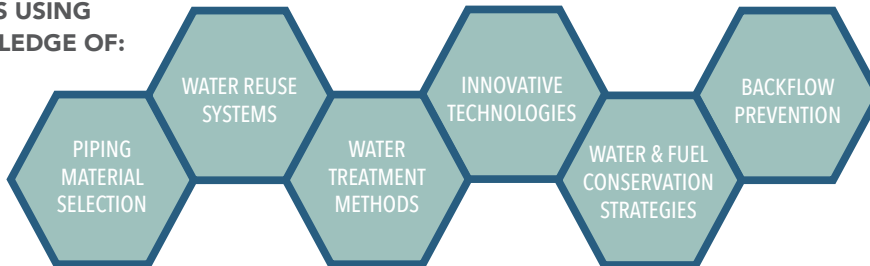


**Preventing** waterborne diseases



*"Through their designs, plumbing engineers affect every life."*

THEY DO THIS USING THEIR KNOWLEDGE OF:



## HOW TO LEARN MORE

The American Society of Plumbing Engineers (ASPE) is the only association dedicated to promoting the plumbing engineering profession and helping plumbing engineers advance in their careers. Our members have a wealth of knowledge and experience and are ready to help others learn more about the industry.



To discover ASPE and find local contacts, visit:

[aspe.org](http://aspe.org)



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