



## Curriculum Vitae

**Andrew J. Thielen, P.E.**  
Mechanical Engineer  
HVAC Plumbing Specialist

### **Professional Practice**

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Andrew Thielen is an accomplished Mechanical Engineer with more than 32 years of engineering experience. He provides expert consultation to the construction industry, primarily in terms of HVAC, plumbing, district heating, and cooling systems. In addition, he was the primary editor of the State of Minnesota Commercial Energy, Mechanical and Fuel Gas Building Codes used in Minnesota from 2008 to 2014. Andy also performs failure analysis.

### **Employment History**

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#### *Consulting Mechanical Engineer/HVAC Plumbing Specialist – Crane Engineering*

Plymouth, MN • 2013 - Present

Specializes in building mechanical systems, building code analysis and diagnoses failures. Provides consultation to clients regarding these systems. Works closely with clients to understand their needs.

#### *Principal Engineer/Owner – Andrew Engineering*

Duluth, MN • 2007 - 2012

Specialized in designs for the remodeling of existing HVAC systems for energy efficiency and system reliability for utility, commercial and institutional projects.

#### *Administrative Engineer, State of Minnesota*

St. Paul, MN • 2006 - 2007

Provided statewide oversight of the administration of the Minnesota Mechanical, Fuel Gas and Commercial Energy Codes. Primary editor and trainer of the current edition of those codes used by the State of Minnesota from 2008 to 2014. Provided onsite failure analysis of HVAC systems that lead to injury and fatalities as requested by Municipal Building Officials and MNOSHA.

*Project Manager – LHB*

Duluth, MN • 2000 - 2006

Managed multidisciplinary projects from the study phase through schematic design, design development, construction document and administration and project startup.

*Project Manager – Foster, Jacobs & Johnson, Inc.*

Duluth, MN • 1997 - 2000

Managed multiple projects for a mechanical/electrical consulting engineer for various commercial, industrial, and institutional clients. Mechanical project design for HVAC and plumbing systems in new and remodeling projects.

*Mechanical Project Engineer – Sebesta Bloomberg, Inc.*

Minneapolis, MN • 1995 - 1997

Mechanical project engineer for industrial clients. Mechanical design for HVAC and piping systems for chemical, explosive dust environments, web handling processes and Class 10 clean rooms.

*Contract Mechanical Engineer – 3M*

St. Paul, MN • 1989 - 1995

Mechanical design for industrial HVAC system ranging from chemical, explosive dust handling, dust collection systems, office HVAC and web handling processes and class 1,000 clean rooms.

*E.I.T. Designer – Gausman & Moore, Inc.*

St. Paul, MN • 1987 - 1989

*E.I.T. Designer – Foster, Jacobs & Johnson, Inc.*

Duluth, MN • 1986 - 1986

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## **Professional Licenses**

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Licensed Professional Engineer

Ohio, Minnesota, Montana, Wisconsin, South Dakota, Texas, Nebraska (1996-2006),  
Alabama (1991-2006)

Certified Construction Documents Technologist

Certified Construction Contract Administrator

Certified Instructor, Plumbing Related Topics, State of Minnesota – Continuing Education, St. Paul, MN



## **Professional Affiliations**

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International Code Council (ICC) – Member

American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) – Member

Minnesota Association of Plumbing and Mechanical Officials – Member

Minnesota Mechanical and Fuel Gas Code Technical Advisory Group – Member

Minnesota Ventilation Committee Member

National Fuel Gas Code (NFG-AAA) Technical Committee – Alternate Member

City Councilor, Hermantown, MN, 2005-2008

Adjunct Professor, Industrial Engineering Department, University of Minnesota, Duluth, MN, 2000

Northwest Loss Association, Inc.

Rotary of Wayzata

## **Education**

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B.S., Mechanical Engineering, University of North Dakota, Grand Forks, ND, 1985

## **Presentations and Publications**

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“Minnesota Energy Code”, Minnesota Blue Flame Association, MN, September 2015.

“When Building Codes Aren’t Followed”, ASHRAE, MN, April 2015.

“When Building Codes Aren’t Followed”, Duluth, MN, February 2015.

“Building Officials: Refrigeration Machine Room Requirements”, University of Minnesota, Minneapolis, MN, January 2015.

“Building Officials: When Building Codes Aren’t Followed”, University of Minnesota Annual School for Building Officials, MN, January 2015.

National Association of Power Engineers – State of Minnesota Boiler Seminar Continuing Education Presentation, October 2014.

“US Water Presentation: Common Mechanical Failures in Buildings”, October 2014.

“Premise Liability”, Collier’s College, MN, June 2014.

“When Building Codes Aren’t Followed”, Minnesota Plumbing Heating Cooling Contractors Association, Brooklyn Center, MN, February 2014.



“Building Codes #1 and Building Codes #2”, University of Minnesota Annual School for Building Officials, Minneapolis, MN, January 2014.

“Commercial Energy Code Update”, University of Minnesota Annual School for Building Officials, Minneapolis, MN, January 2014.

University of Minnesota Facilities Engineering, Forensic Engineering, MN, October 2013.

“When Building Codes Aren’t Followed” and “Upcoming Commercial Energy Code”, Minnesota Association of Plumbing and Mechanical Officials, MN, October 2013.

“When Building Codes Aren’t Followed”, Dakota Electric Cooperative Trade Show, MN, October 2013.

“When Building Codes Aren’t Followed”, Minnesota Blue Flame, MN, September 2013.

“Converting Hospitals from Steam to Hot Water”, Minnesota Health Care Engineers Association, September 2011.

“Things Design Professionals Miss and Mechanical Code Updates”, ASHRAE Minnesota Chapter, MN, January 2010.

“Building Retro-commissioning”, Arrowhead Chapter - Minnesota Health Care Engineers Association, March 2009.

Minnesota Fuel Gas Seminar, State of Minnesota, Department of Labor and Industry, Construction Codes and Licensing Division, Spring Seminar Series, January - May 2009.

“Mechanical Code and Commercial Energy Code Update”, University of Minnesota Annual School for Building Officials, Minneapolis, MN, January 2008.

“Upcoming Changes to the Minnesota Mechanical, Fuel Gas and Commercial Energy Codes”, State of Minnesota, Department of Labor and Industry, Construction Codes and Licensing Division, Spring Seminar Series, January - May 2007.

“Changes to the Minnesota Elevator Code”, State of Minnesota, Department of Labor and Industry, Construction Codes and Licensing Division, Spring Seminar Series, January - May 2007.

Contributing editor of the National Fuel Gas Code Handbook, Tenth Edition, 2018.

A. Thielen. Minnesota Commercial Kitchen Ventilation Guidelines. Ventilation Committee of the Inter-Agency Review Council, Fourth Edition, 2010.

