

LEFLER ENGINEERING, INC.

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LEFLER ENGINEERING INC.

Lefler Engineering was established in September 1978. Lefler Engineering Inc. is a mechanical engineering consulting firm that specializes in the design, inspection, evaluation, and/or testing of heating, ventilating, air conditioning (HVAC), plumbing, and fire sprinklers systems for all types of commercial or residential buildings. Our office has experience with projects ranging from 1000 square feet up to 600,000 square feet. Annually our office designs approximately 80 million dollars worth of construction. Our primary source of revenue is through mechanical engineering design projects; however, we also have a great deal of experience doing forensic investigation work. Our experience includes work on both the plaintiff and the defense sides of cases. Our expertise includes the following areas:

1. Expert witness testimony at settlement conferences.
2. Deposition testimony.
3. Testimony at mini-trials, mediations, arbitrations, and in court.
4. Evaluation of the design and installation of plumbing systems including sewer, water, and gas services to buildings.
5. Evaluation of the design and installation of fire sprinkler, halon or FM-200, and other fire suppression systems.
6. Evaluation of the design and installation of heating, ventilating, and air conditioning (HVAC) systems.
7. Evaluation of the design and installation of exhaust systems.
8. Evaluation of the design and installation of roof drainage and area drainage systems.
9. Evaluation of roof flashing and support details as they relate to mechanical equipment.
10. Cost estimating and the analysis of repair costs.
11. Thorough knowledge of the California Building Code, California Plumbing Code, California Mechanical Code, NFPA codes, San Francisco codes, and the State of California energy and handicap codes.
12. Air flow measurements at air outlets in homes or commercial buildings.

Our office has the in-house capability to run heating and cooling calculations, measure heating and cooling system performance, make site inspections, review drawings, and evaluate or generate defect repair estimates. We own our own testing equipment so we can calculate a system's requirements and then do field testing to determine if an installed system is performing as required.

QUALIFICATIONS OF KEY PERSONNEL

Michael Lefler (Principal) has experience dating back to 1980 including two (2) years with General Motors in Los Angeles prior to joining Lefler Engineering, Inc. He holds a Bachelor of Science Degree in mechanical engineering from the University of California, Berkeley, since 1980. Michael has been a licensed Professional Engineer in the State of California since 1983 (ME-22208).

He has been LEED accredited and has a thorough understanding of the energy conservation, water conservation, air quality, water quality, system flexibility, and sustainability issues that contribute to a LEED certified building. LEED compliant design approaches have been incorporated into our design work for years. Projects where LEED certification was a part of the design process included a child care center in Menlo Park, various fire stations, and a county office building in Petaluma. Several other projects included "green" design but did not involve formal LEED certification.

Michael is the principal in charge of all mechanical, plumbing and fire protection work done by Lefler Engineering, Inc. A partial list of forensic projects is included below.

Bruce Allen has mechanical engineering experience dating back to 1988 including two years as the project mechanical engineer for a consulting firm in San Jose, California. He graduated in 1989 with a Bachelor of Science Degree in Mechanical Engineering from San Jose State University. Bruce is a licensed Professional Engineer in the State of California (M-33876) and has extensive experience working on forensic investigation projects.

Trevor Lefler has mechanical engineering experience dating back to 2010 including one and a half years working for an HVAC representative. In his time there he visited a number of factories and was factory trained in dehumidification systems, fan selection, heat rejection systems, and variable frequency drive technology at factories such as Munters, Climatemaster, Loren Cook Fans, Baltimore Aircoil (BAC) and ABB. He graduated in 2011 from Santa Clara University with a Bachelor of Science Degree in mechanical engineering. Trevor has been a licensed Professional Engineer in the State of California (M-37725) since 2015 and has experience with a number of HVAC and plumbing design types. Trevor is also licensed in Nevada (M-26330).

Mahdi Majidi has mechanical engineering experience dating back to 2002. Mahdi joined Lefler Engineering, Inc. in August, 2017. He holds a Bachelor of Science Degree in mechanical engineering from Azad University in Iran, since 2002. Mahdi was a Professional Engineer in Australia for 7 years before moving to the United States.

Brett Hecker is a Junior Engineer at Lefler Engineering, Inc. He joined the firm in November 2019. He holds a Bachelor of Science degree in mechanical engineering from University of California, Davis, since 2019. Primary responsibilities include design of mechanical, plumbing, and fire protection projects, and company website and technical maintenance.

PROFESSIONAL ASSOCIATIONS

Lefler Engineering belongs to the American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. (ASHRAE), American Society of Plumbing Engineers (ASPE), ASTM, National Fire Protection Association (NFPA) and the LEED green building construction association. We are very experienced at interpreting the application and requirements of the Standards of the National Fire Protection Association (NFPA), the International Association of Plumbing and Mechanical Officials (IAPMO) and the Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA).

PARTIAL LIST OF DEFENSE CASES

1. Fairmont Sonoma Mission Inn: Evaluate claims related HVAC issues, particularly focusing on new split heat pump system sizing and pipe design.
2. Hampton Inn: This is a current case in which we are investigating claims relating to the HVAC system consisting of a Variable Refrigerant Flow installation.
3. Jackson Rancheria: Evaluate claims related to plumbing and HVAC issues. The work included numerous site inspections, heating and cooling calculations, and code research.
4. San Luis Obispo Government Center (San Luis Obispo): We defended the mechanical contractor against several alleged construction defects. Our work included several site visits, drawing and design review, reports, and settlement meetings.
5. Pulte Homes (Tracy): Defended issues related to the water heater installation, fireplaces, and heating and air conditioning systems. The work included multiple site inspections, heating and cooling calculations, reports, and meetings.
6. Max's Opera Cafe (San Francisco): Investigation of alleged problems associated with the grease exhaust systems in the restaurant.
7. Walnut Factory (Santa Clara): We defended the fire sprinkler contractor against various alleged installation and code deficiencies.
8. 888 7th Street (San Francisco): We defended the general contractor regarding a laundry list of mechanical, plumbing, sound, and odor allegations.
9. Planned Parenthood (San Francisco): Evaluation and testimony about the adequacy of the heating and air conditioning system.
10. Diablo Valley College: Review the mechanical engineering design of HVAC systems for a college classroom building. The issues included acoustical problems, duct design, change orders during construction, and more.
11. Bel Marin Business Park: Evaluated plumbing and ventilation issues at the project. Ventilation solutions were developed to respond to mold complaints.

PARTIAL LIST OF PLAINTIFF CASES

1. The Beacon (San Francisco): The mechanical and plumbing defects for this project included a lack of ventilation, excessive heat gain problems, overheating transformer rooms, dryer duct issues, inadequate pool heating capacity, and more.
2. Ocean Beach Condominiums (San Francisco): Plumbing system, heating system, and area drainage problems were investigated.
3. Market Square Condominiums (Oakland): The investigated issues included suds zone separation, plumbing leaks, corridor ventilation, and other general mechanical and plumbing defects.
4. Lake Tahoe Resort (Tahoe City): The pool mechanical ventilation system problems and other mechanical and plumbing issues were investigated.
5. Larkspur Isle (Larkspur): Complete mechanical, plumbing, and fire protection investigation. All aspects were studied during a destructive investigation. Preliminary investigation and destructive investigation reports were generated.
6. 200 Brannan (San Francisco): The defects on this condominium project included water pipe corrosion, hot water circulation system problems, lack of pipe insulation, heating and air conditioning system noise, odor transfer due to building pressure problems, sub-duct shaft and "Z" duct problems, corridor ventilation and heat gain problems, ventilation issues, and several other issues. This investigation included running heating and cooling calculations, checking the existing HVAC equipment sizes, many site inspections, and writing a complete report of our findings.
7. Whisman Park Condominiums (Mountain View): The defects on this project included inadequate water heating systems, pipe banging, fire caulking deficiencies, inadequate heating and air conditioning system capacities, dryer duct code violations, and several other issues. This investigation included running heating and cooling calculations, checking the existing HVAC equipment sizes, checking the air balance (air flow rates) at all of the supply and return registers, and writing a complete report of our findings.
9. Telegraph Terraces Condominiums (San Francisco): Complete project analysis of mechanical, plumbing, and fire protection systems including detailed defect reports and contract documents for the repair work. The work included settlement conferences.

PARTIAL LIST OF INDEPENDENT WITNESS CASES

1. Hard Rock Hotel, San Diego: Evaluate claims related to plumbing and HVAC issues. The work included several site inspections, heating and cooling calculations, and code research.

REFERENCE LIST

A. Attorneys

1. Berding & Weil
Alamo, CA
Mr. Scott Mackey - (925) 838-2090
2. Hughes, Gill, Cochrane, Tinetti
Walnut Creek, CA
Mr. John Gill - (925) 926-1200
3. Miller Law Firm
San Francisco, CA
Mr. Thomas Miller - (415) 461-1000
4. Huguenin Kahn
Roseville, CA
Mr. Edward Huguenin - (916) 367-7098
5. Kate Warner Construction Lawyers
San Rafael, CA
Ms. Kate Warner - (415) 457-7977

B. Architects and Construction Consultants

1. Ferrari-Moe, LLP
San Rafael, CA
Mr. Brett Ferrari - (415) 458-3511
2. Govan Associates
Walnut Creek, CA
Mr. Dennis Govan - (925) 935-2342
Mr. Ray Choy-Marshall - (925) 935-2342
3. Interactive Resources, Inc.
Point Richmond, CA
Mr. Tom Butt - (510) 236-7435
4. Richard Avelar & Associates
Oakland, CA
Mr. Dan Chekene - (510) 893-5501
Mr. Tim Stokes - (510) 893-5501
5. Axis Construction Consulting
Hayward, CA
Mr. Tim Fitzpatrick - (510) 719-0428
6. Weir/Andrewson Associates
San Rafael, CA
Mr. Paul Weir - (415) 485-9797
Mr. Jack Kemp - (415) 485-9797