



LANE
COBURN &
ASSOCIATES

FIRM PROFILE

2016

ELECTRICAL ENGINEERING &
TECHNOLOGY SOLUTIONS
FOR THE CONSTRUCTION INDUSTRY



LANE COBURN & ASSOCIATES, LLC

Electrical Engineering & Technology Solutions for the Construction Industry

Electrical & Telecommunications Engineering, Design, CAD/REVIT/BIM/3D & Construction Administration Services.

Specialty Design Services Include; Power/Coordination Studies, Arc Flash Studies, Power Quality Analysis, Lighting Design & Photometric Analysis & Energy Audit Studies for Mission Critical Facilities.

With our LEED AP BD+C Staff and extensive LEED Project Experience, We are a Strong Green Building Team Member. We also provide Data Systems Design. We are RCDD, NTS, RTPM Certified through BICSI.

LCA has the Advantage of Professional Engineering Licenses, a General Electrical Administrator License and a Journeyman Electrician License. We will provide Designs with the Most Value and Constructability.

LCA is a registered Small Business with the Federal Government. The following is our registration information:

Certifications: SBE
ORCA Registration

DUNS # 926179537
NAICS: 541330 & 541340

CCR Registration
CAGE CODE: 555F1



Our 11 staff members include Professional Engineers, Sr. Electrical Designers, Project Management Professionals & CAD designers. With an average of over 25 years of experience each, our team has the expertise to support your project.



Keith Lane, P.E., RCDD, LEED



Scott Coburn



Bill Waldrop, RCDD



Nick Alexander, LEED



Gary Mullin, P.E.



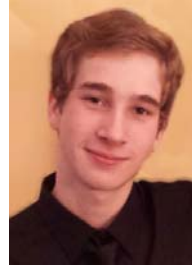
Don Pontsler, P.E., MPA



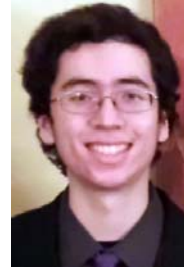
Vicky Williams



Theresa Lane



Maxx Coburn



Kevin Thomas



Dane Coburn

Keith Lane, P.E., RCDD, NTS, RTPM, LC, LEED AP BD+C
Scott Coburn
Bill Waldrop, RCDD
Nick Alexander, LEED AP
Gary Mullin, P.E.
Don Pontsler, P.E., MPA
Vicky Williams
Theresa Lane
Maxx Coburn
Kevin Thomas
Dane Coburn

President, CEO & Chief Engineer
Principal/Director of Constructability
Sr. Associate/Telecom Group Manager
Sr. Associate, Sr. Electrical Designer
Sr. Electrical/Communication Engineer
Sr. Electrical Engineer
Sr. Associate, Sr. Electrical Designer
Associate, Office Manager
Associate - Electrical Designer
Associate - Electrical Designer
Associate - Electrical Designer

LCA Website: www.lanecoburn.com, www.neher-mcgrath.com, www.neher-mcgrath.org, www.electricensexpertwitness.com

Keith Lane, P.E., RCDD, NTS, LC, LEED AP BD+C
Phone: 425-368-4247; Cell: 206-499-5221
Email: klane@lanecoburn.com

Scott Coburn
Phone: 425-368-4248; Cell: 206-499-5220
Email: scoburn@lanecoburn.com



LANE COBURN & ASSOCIATES AWARDED 2009, 2011, 2012 & 2013 BEST OF BUSINESS AWARD

SAN FRANCISCO, November 7, 2009, Lane Coburn & Associates, LLC has been selected for the 2009 Best of Business Award in the Business services category by the Small Business Commerce Association (SBCA)

The SBCA 2009 Award Program recognizes the top 5% of small businesses throughout the country. Using statistical research and consumer feedback, the SBCA identifies companies that they believe have demonstrated what makes small businesses a vital part of the American economy. The selection committee chooses the award winners from nominees based off statistical research and also information taken from monthly surveys administered by the SBCA, a review of consumer rankings, and other consumer reports.

LANE COBURN & ASSOCIATES, LLC - COMPANY PROFILE

Lane Coburn & Associates, LLC is an electrical engineering & technology firm located in the greater Seattle Washington area. We offer electrical engineering & Telecommunications consulting and design services for the construction industry. Lane Coburn & Associates will provide electrical engineering & technology design services for fast paced projects as a key member of your dynamic design build team.

We fully embrace and understand the importance of technology to better serve our clients. We stay mobile and agile with laptops and smart phones. We stay connected to our clients with a company FTP site and with Video Conferencing and Live Meetings. We also have extensive experience with 3D modeling, 3D animation, Autodesk Building Systems, Revit and Bentley BIM for BIM (Building Information Modeling) and other software including SKM Power Tools.

Lane Coburn & Associates, LLC has extensive experience with both consulting and design/build projects. These projects include:

- Data Center, Mission Critical, DC Plant
- High Tech, High Rise, Commercial
- Hotel, Mixed Use, Retail, Residential
- Lab/Hospital, Clean Rooms, cGMP
- Special Events, Museum, Historical Convention Center
- High Voltage, Community Infrastructure
- School, Government, Agency Projects
- Wastewater Treatment Facilities

Lane Coburn & Associates Principals and employees have a long history of successful relationships with a diverse set of clients. We have provided engineering services for General Contractors, Developers, Design/Build Electrical Contractors, Electrical Consultants, Mechanical Consultants, Mechanical Contractors, Architects, Owners and Government/City Agencies.

In addition to superior customer service, Lane Coburn & Associates, LLC main objectives are providing a design with maximum value and constructability. Our mission statement is: "Work in conjunction with the Design Team to provide the Client with superior design, value engineering and constructability."



Lane Coburn & Associates, LLC has an extensive amount of telecommunication design and building systems integration experience. In addition, Lane Coburn & Associates holds the RCDD (Registered Communications Distribution Designer) professional credential a NTS (Network Transport System) Specialist and RTPM (Registered Telecommunication Project Manager) certification.

Lane Coburn & Associates is "LC" Certified (Lighting Certified Qualified Professional) through the National Council on Qualifications for the Lighting Professional (NCQLP). The "LC" certification along with our twelve year professional membership with the Illuminating Engineering Society of North America (IESNA), our extensive electronic library of photometrics, state of the art three-dimensional lighting programs and our extensive experience with high end, high profile lighting projects ensures a high quality, professional, competent lighting design.

Lane Coburn & Associates, LLC maintains LEED AP DB+C accreditation with the United States Green Building Council and Professional Electrical Engineering licenses in several states. These states include; Washington, Oregon, Alaska, Nevada, Utah, California, Hawaii, Arizona, Nevada, Pennsylvania, New York, Virginia, Texas, Wyoming, Iowa & Idaho.

Maintaining the highest quality product means keeping abreast of the latest technologies, products and codes. In addition to participating in continued education, Lane Coburn & Associates, LLC has professional memberships in the following organizations:

- ▶ BICSI - A Telecommunications Company
- ▶ The Illuminating Engineering Society of North America
- ▶ The Washington State Society of Professional Engineers
- ▶ 7x24 Power Exchange
- ▶ The Washington State Society of Healthcare Engineers
- ▶ The National Fire Protection Agency - Electrical Section
- ▶ Honored Member of the American Registry of Outstanding Professionals

Lane Coburn & Associates offers full electrical engineering, design and CAD services, including:

- ▶ Complete Engineering / Design Services
- ▶ Quality Assurance, Quality Control Process
- ▶ High Quality Computer Aided Design (CAD)
- ▶ Conceptual Engineering
- ▶ Cost Estimating
- ▶ Construction Administration
- ▶ Peer Review Services
- ▶ Plan Review Coordination Services
- ▶ Lighting Design
- ▶ Power System Studies
- ▶ Energy Audit Studies

Our ultimate goal is to provide a quality and timely product. We would appreciate your consideration in using Lane Coburn & Associates as your Electrical Engineering Consultant and/or part of your Design/Build team.

Client Recommendations

At Lane Coburn & Associates our customers are our primary concern. It is critical that we bring exceptional value to any project. Attached below is a sampling of some of our client's recommendations that we have received since opening our doors in 2007:

"I hired Mr. Lane as an expert in several lawsuits involving complex electrical engineering issues and theories. Mr. Lane did an excellent job helping the legal team, and the jury, understand the complexities within the issues and theories. Mr. Lane's work was always top-notch -- timely, well written, and thoughtful. He is also very responsive to the needs of the legal team, as well as the needs of the client that we are representing. I highly recommend him."

Service Category: Expert witness, Testifying Expert - electrical engineering from 2011 to 2013
Top Qualities: Great Results, Personable, Expert

[Elizabeth Snyder Poeschl](#) - Partner – Meager & Geer PLLP. Hired Keith as a Expert in electrical engineering, litigation in 2010-2014

"Mr Lane just testified as an expert in an extremely complex electrical engineering case involving a large Data Center. The jury thought he brought "fire" to the defense case and helped us advance a complex defense in terms lay people could understand. We got an excellent result and feel he played a pivotal role in getting us there. I would definitely hire him again."

Service Category: Expert witness, Testifying Expert - electrical engineering from 2011 to 2013
Top Qualities: Great Results, Expert, High Integrity

[Michael D. Hutchens](#) - Partner – Meager & Geer PLLP. Hired Keith as a Expert in electrical engineering, litigation in 2010-2013

"Keith Lane was excellent to work with. We had a case where the technical stuff was being "dribbled" to us, so it made our Expert work very difficult. Keith was happy to accommodate the situation and was very easy to work with. He is what my parents used to call a "go-getter" ...he would hop on the job and make some sense out of it right away. His trial testimony came under some really difficult circumstances because of negative rulings by the judge; but he weathered the storm very well and did a good job on the stand. I would hire Keith again. Keith did a great job and went way beyond the call of duty.""

Mr. Lane testified as an expert witness in Superior Court on a personal injury case involving an arc flash event in Superior Court in March of 2014. Lane Coburn & Associates worked for Thomas Brown, Partner of Brown Lewis Janhunen & Spencer Law Firm.

Service Category: Expert witness, Testifying Expert - electrical engineering from 2013 to 2014

[Tomas Brown](#) - Partner – Brown Lewis Janhunen & Spencer. Hired Keith as a Expert in electrical engineering, litigation in 2013-2014

“Keith is a great professional. Not only is his knowledge unmatched as an electrical engineer, but his organization skills are something we should all strive to achieve. Keith helped me with a very complex litigation matter, and was able to explain electrical engineering to me, as it related to a very technical environment. Keith is patient, well organized, knowledgeable, efficient, and responsive. Keith also puts together very easy to understand diagrams, and presentations, that can be used for any type of legal matter. I would recommend using Keith if you ever need an electrical engineer.” May 5, 2012

Top qualities: Great Results, Expert, High Integrity

[Alexander Yoffe](#) – Partner at Yoffe & Cooper, LLP. Hired Keith as a Expert in electrical engineering, litigation in 2011

Mr. Lane provided Expert Witness Analysis and an Expert Witness Report and testimony for a Data Center Construction defect project in litigation.

After providing his Testimony during deposition and cross examination, Mr. Kennedy, lead council for Taft Stettinius & Hollister sent Keith the following email:

“You were outstanding.” *May 23rd, 2015*

Service Category: Expert witness, Testifying Expert - electrical engineering 2015.

[John F. Kennedy](#) – Lead Attorney Taft Stettinius & Hollister LLP. Hired Keith as a Expert in electrical engineering, litigation in 2015

Mr. Lane provided Expert Witness Analysis and an Expert Witness Report for a Data Center Construction defect project in litigation.

After providing his Final Expert Report, Ms. Schaller sent Keith the following email:

“Thank you for your expedient and proficient work on the report.” *April 1, 2015*

Service Category: Expert witness, Testifying Expert - electrical engineering 2015.

[Rachel L. Schaller](#) - Attorney Taft Stettinius & Hollister LLP. Hired Keith as a Expert in electrical engineering, litigation in 2015

“Lane Coburn & Associates was hired to do the electrical engineering for a large data center project on which I was the owner's representative. Keith took the lead on the project and from the beginning did an excellent job of balancing cost and quality to achieve the highest value of designed systems for the client. Keith consistently considers new and alternative approaches to systems and brings new, creative solutions to the table. He is a leader in his field and I would be pleased to work with him in the future.” *December 9, 2008*

Top qualities: Great Results, Expert, High Integrity

[Terry Rennaker](#), Owner of Rennaker Company LLC - Hired Lane Coburn & Associates as an Electrical Engineer in 2008

“I work with Keith on a very complicated mixed-use Seattle condominium project which included residential, retail and hotel components. Keith was able to take the divergent requirements of each component and weave those requirements in to a cohesive, constructible, cost effective electrical system design. Keith’s attention to detail and finger-tip knowledge of electrical codes made him an invaluable member of the design team. Keith’s innovative approach to electrical system design incorporates new, cutting-edge technology solutions in balance with cost objectives. Keith is a leader in his field and I look forward to future opportunities to work with him.” *February 11, 2009*

[Jim Alekson](#), *President & CEO, Alekson Development Group*

“Sequoyah Electric has worked with Lane Coburn and Associates on various projects throughout the Seattle, Washington area which have proven to be very successful for all parties involved. The engineering Team that Keith Lane and Scott Coburn developed has proven to be excellent in their knowledge of the Industry and proactive in design creativity along with understanding budget constraints. We feel that the Lane Coburn Team always brings to us their refined skills and insights to a project which eliminates conundrums and positions a project for success. Lane Coburn and Associates will continue to be a instrumental part of our business and future growth throughout the Washington area.” *February 17, 2009*

[Jeff Casino](#), *Sequoyah Electric Pre-construction Manager*

“I have worked with Keith on several mission critical projects over the past 7-8 years. I first worked with Keith at SASCO and have recently worked with Keith at Lane Coburn & Associates. Keith is an excellent engineer with a strong work ethic. Keith brings an in depth knowledge of the leading edge technologies and design philosophies to ensure a project has the desired amount of reliability and value. Keith has a unique ability to communicate design options in basic terms to the owner and the other design team members. Keith is a leader and I would be pleased to work with him in the future.” *January 08, 2009*

[Matt Blackburn](#), *Owner, Lighthouse Electric Group.*

"I recently worked with Keith on two data center projects (one in the pre-planning stage and one in construction). He is a very detail oriented electrical engineer who is a pleasure to work with. He is very code savvy and a true team player. I hope to work with Keith again in the near future." *December 29, 2008*

Michael Frank, P.E., Senior Engineer, McKinstry.

"Keith's dedication to constant improvement and knowledge growth ensures that his design incorporates all of the latest innovations and ideas." *December 16, 2008*

Top qualities: Great Results, Expert, High Integrity

Tom Williams, Sr. Project Manager SASCO - Hired Lane Coburn & Associates as an Engineer in 2008/2009.

"Keith is an outstanding engineer and has a very strong work ethic. We worked together for several years for a consulting engineering firm. We have also worked on some of the same projects at my current position. I highly recommend Keith and his firm for all types of electrical engineering." *December 14, 2008*

Gary Mullin, P.E., Electrical Engineer, Port of Seattle. Worked directly with Keith at Lane Coburn & Associates, LLC.

"VECA Electric and Technologies would like to say thank you for the dedication and extreme knowledge LCA brings to the table. Your exceptional performance shines through time and time again. We appreciate you as a valuable team member and look forward to many more successful projects together. Thanks again for the great job you do."

Terry McCabe - Sr. Project Manager - VECA Electric. - 12/10/10

"Dear Keith, Tactical Vs. Technical set the tone for the referenced project. It is all too common to rely on the field crews to initiate rigging and cable pulling techniques for a large project. However, LCa staff proved that your firm works beyond just electrical technical knowledge. At my clients request LCa provided "Tactical" calculations for installing over 5000 feet of medium voltage cable weighing 12 pounds per foot. The weight and lengths of these cables required precise cable pulling calculations to assure that ropes, cables and sheaves would meet the tensions and pressures during the installation process. In addition, LCa staff designed "Sheave Placements" for use by the Linemen during the installation.

The engineering work by LCa was incorporated into the "Work Plan" that was written by Salish Group to provide a safe and professional installation of the 15KV cables. Previous work was halted for two months due to three near fatalities occurring in a very short duration prior to Salish Group

becoming the construction management team on the project. With Lane Coburn's tactical approach to solving the aforementioned issues the project was completed on time and the client conceded that they were not certain the work could have been completed without proper engineering assistance.

I look forward to working with you again!" *October 26th, 2009*

[Jim Long](#), Owner of Salish Group Construction Services - Hired Lane Coburn & Associates for the electrical engineering on the 11.95 KV Switchyard - 15KV Cable Replacements at Grand Coulee Dam.

Sequoyah Electric, LLC has had the pleasure of teaming with LCA on several projects including campus wide office buildings and mission critical facilities. As a key team member, their innovation and insightfulness has played a very important role within our collaborative Design-Build team. LCA has a strong track record of going above and beyond to exceed client expectations. Their understanding of construction issues makes them uniquely qualified Electrical Engineers for Design-Build projects. I highly recommend LCA for your next project.

[Mahmood Ghassemi](#), P.E. Vice President of Sequoyah Electric. - August 24th, 2010

"I have worked with Keith and his team at Lane Coburn & Associates on a number of mission critical projects. LCA has always performed at a very high level. Keith and team have a deep grasp of the issues involved in the design and operation of mission critical environments. In addition LCA has assisted CPSI in forensics analysis, failure analysis and peer review of complex existing and critically operating data centers and industrial facilities. I highly recommend LCA on you next mission critical project."

[John Dwyer](#) - President - CPSI - Computer Power & Service - 9/05/10

"Silent-Aire has worked with Keith Lane and Lane Coburn & Associates on a number of mission critical projects. LCA has always proven to go the extra mile to meet or exceed the expectations of the client. LCA and Silent-Aire work in tandem to provide continued design innovation to ensure the most cost effective and efficient design. LCA has always been a key member of the team, their insight and innovation through the design and construction has helped to ensure successful projects. I highly recommend LCA for your next project."

[Lindsey D. Leckelt P.Eng.](#) - Director of Marketing and Engineering - Silent Aire - Aug. 30, 2010

"Sabey Construction is working with Keith Lane and Lane Coburn & Associates on a large, complex, very reliable data center in Eastern Washington. This project is also on a very fast track schedule. LCA has proven to go the extra mile to meet or exceed the expectations of the client. LCA understands the complex issues related to the design and build of today's reliable, scalable and efficient data centers. Keith and his team have taken the design to the extra step and is working hand in hand with VECA to

create detailed 2D and 3D drawings as well as animated flyovers of the contained hot aisles to ensure proper coordination with all the trades. I highly recommend LCA for your next project."

[Doug Gardner](#) – Sr. Project Manager Sabey Construction Inc. – 8/30/10

"BergerABAM has worked with Bill Waldrop and his team at Lane Coburn & Associates on several projects with the USACE, providing power and communication design. Bill Waldrop and his team continue to demonstrate knowledge, experience and understanding of customer requirements and regulations. Bill is responsive, detail oriented, thorough and continues to deliver high quality designs that meet clients' needs and expectations."

[Ruba Zumut](#), PE. Senior Project Manager BergerABAM- Aug. 27 2010

"Rock Electric Inc. has worked with Lane Coburn and Associates on assorted projects throughout the San Diego, California. I have personally known Scott Coburn for over 20 years and he has never failed to exceed my expectations. The Lane Coburn system of engineering produces exceptionally high quality and extremely buildable project documentation saving me

[Rock Conaty](#), President Rock Electric, Inc. – August 17, 2010

"I have known Keith professionally and personally for many years. The best recommendation I can give is he's never let me down. Keith's knowledge of electrical systems is beyond the ordinary, adding tremendous value to every project he has been a part of for me. I would recommend Keith and LCA without hesitation to anyone looking for a real partner for their project." **Top qualities: Great Results, Expert, High Integrity**

[TJ Porter](#), Sr. Vice President - SASCO Electric - February 4, 2011

"Lane Coburn and Associates has been a good partner during our initial design and construction phase. Keith and company have been very responsive turning information and designs very quickly. Keith and company are very active in ensuring they work together with the customer, they drive results and chase all components of a design build. I highly recommend using Lane Coburn Associates if you require fast turnaround of solid designs, with good communications with the end customer"

[Oz Morales](#) Director, Data Center Engineering, Amazon.com - Sept. 7, 2010

“Sabey Corporation was introduced to Keith and the Lane Coburn team by an electrical contractor interviewing on one of our data center projects. Keith’s technical skills and familiarity with leading edge data center technology was readily apparent, but even more impressive was Keith's ability to convey his expertise and ideas at the level of the listening audience. Subsequently, we entered into a partnership agreement with Lane Coburn and the results have been a number of successful projects. We consider ourselves to have a distinct advantage over our competition in having Keith, Scott Coburn and the entire Lane-Coburn team contributing to our Design-Build services.”

Top qualities: Personable, Expert, On Time

[Dale Spencer](#), Director of Construction, Sabey Construction - February 14, 2011

“I have worked on many commercial projects with Keith since he was the Vice President of engineering at SASCO Electric in the 1990’s. Keith is a creative electrical engineer that specializes in understanding the latest trends in data center design, but also has an eye for budget control. He has been a great partner in many design build projects.”

[Jack Beaudoin](#), General Manager, Turner Construction – March 31, 2011

“Keith and I have worked together for about 4 years. During that time, he has been on the editorial advisory board of Consulting-Specifying Engineer, a national publication (in print and online) for mechanical, electrical, plumbing, and fire protection engineers.

Keith has been a valuable resource during this time, and is always willing and able to assist wherever needed. His technical expertise has been invaluable, and he's seen as an expert in the industry.

Through both written and verbal communication (specifically technical feature articles and webinars), Keith has contributed to bringing the publication to a whole new level. He was honored as one of the best and brightest in the engineering industry in the publication's 40 Under 40 program, and that push for excellence continues.

It has been a pleasure to work with Keith, and I look forward to the opportunity to continue working with him.”

[Amara Rozgus](#), Editor in Chief/Content Manager of Consulting-Specifying Engineer, CFE Media - October 19, 2011

“I had the pleasure of working with Keith during the design and construction of a data center. Keith & Lane Coburn & Associates demonstrated a great level of commitment to the project during all phases from concept through startup. He is a very detail oriented electrical engineer who is a pleasure to work where no question or email never goes unanswered. I would highly recommend Keith and Lane Coburn & Associates.” October 29, 2011

Top qualities: Great Results, Personable, Expert

John Dennehy, Critical Systems Infrastructure Manager at BlackRock, October 30, 2011
Hired Keith as an Engineer in 2010

“I have had the pleasure to work with Keith on many large projects. He is knowledgeable, competent, professional, tech savvy and fun to work with. I recommend him highly. Dale Kaemingk ENW”

Dale Kaemingk, vice president, Engineers Northwest - October 31, 2011
worked directly with Keith at Lane Coburn & Associates, LLC

“As a chief editor for Consulting-Specifying Engineer magazine from 2007-2010, I had the pleasure of having Keith Lane, PE, serving on the Editorial Advisory Board. During my tenure, Keith contributed many highly detailed and instructional technical articles on electrical engineering topics. He also was a frequent speaker on CSE's live webinars, during which Keith expertly presented on mission critical electrical and power systems, and answered the difficult questions that attendees sought answers to after the presentations.

Furthermore, Keith was generous with his time and expertise toward reviewing articles written by others and responding to research inquiries about the construction market and engineering field. In short, Keith was (and currently is) an outstanding member of the Consulting-Specifying Engineer Editorial Advisory Board, who voluntarily contributes a (more than) generous amount of time and expertise to the benefit of the engineering field.

The content of his contributions speak to his impeccable engineering skills, and his commitment to assisting with the continuing education needs of the engineering community speaks the quality of his character.”

Top qualities: Great Results, Expert, High Integrity

Michael Ivanovich, Chief Editor of Consulting Specifying Engineering Magazine - November 2, 2011
hired Keith as a Writer/Editor in 2007, and hired Keith more than once

“I have worked with Keith starting in 2000 on a major project where I was the owner’s rep. Keith's knowledge and professionalism as well as his dedication to quality and attention to details contributed significantly to the success of the project and the facility's success. I have also worked with Keith during my time with Walt Disney on several issues in a data center I inherited. In all cases, Keith was able to provide detailed information that led to solutions. I would highly recommend Keith for any Mission Critical design and implementation project.”

Top qualities: Great Results, Expert, Creative

[Bill Hunter](#), Data Center Architect, EIT, Critical Facilities at The Walt Disney Company – January 25, 2012



To: Lane Coburn & Associates, LLC

CC: Scott Coburn

08/18/2015

Dear Keith,

I would like to take a few minutes to thank you again for dedicating Mr. Coburn to the success of the CYS04 (Cheyenne DC04) project. Scott immediately stepped in and understood the critical nature of where we were at and what we needed to accomplish.

Obviously you are well aware that due to multiple moving pieces, the original coordination study turned out to be incorrect, and was basically useless in commissioning our site. LCA immediately jumped on board as a true partner in our efforts to not only provide a correct and current study, but accomplish this in an expedited manner.

This commitment allowed the commissioning team to stay focused on forward progress and truly minimized any schedule impacts. Scott drove these efforts with constant updates, focused efforts and ultimately a timely deliverable that I could not have been happier with.

Please extend my appreciation and thanks to Scott and his team for a simply outstanding performance.

Best Regards,

A handwritten signature in black ink, appearing to read "Danny Horton".

Danny Horton

Sr. Program Manager

Data Center Construction and Delivery

Direct: (206) 538-3780 dhorton@microsoft.com



Keith Lane, P.E., RCDD, NTS, RTPM, LC, LEED AP BD+C
Professional Electrical Engineer, General Electrical Administrator
President/CEO - Chief Engineer – Lane Coburn & Associates, LLC



Years of Experience: 24

P.E. Licenses

Washington, Alaska, California, Oregon, Utah, Montana, Idaho, Hawaii, Nevada, Arizona, Texas, Iowa, Wyoming, Pennsylvania, New York, Minnesota & Virginia – National Certificate Holder NCEES.

Qualifications

Keith is a Professional Electrical Engineer licensed in seventeen states (P.E.), a Licensed General Electrical Administrator in Washington State, a Registered Communications Distribution Designer (RCDD) through BICSI, a Network Transport System Specialist (NTS (LAN) Specialist) registered through BICSI, a Registered Telecommunications Project Manager (RTPM) through BICSI, a Lighting Certified Qualified Professional (LC) through the National Council on Qualifications for the Lighting Professional – NCQLP and a LEED Accredited Professional (LEED AP) Keith has active memberships in several professional organizations including; BICSI, The Uptime Institute, TPMA (Telecommunication Project Management Association), the NFPA, the 7 x 24 Exchange – End to End Reliability, Illuminating Engineering Society, Association of Fire Investigators, the Washington State Society of Healthcare Engineers.

Work History

LANE COBURN & ASSOCIATES, LLC. ***7/07 – Present***
President/CEO – Chief Engineer

SASCO - Electrical Design/Build Contractor ***12/99 – 7/07***
Overall Director / Vice President/ Engineer of Record (P.E.)

Keith was the Overall Director of Engineering for SASCO, for the largest privately held electrical and data contractor in the nation. In addition, he was the Vice President of Engineering and Engineer of Record for the Northwest and Northern California operations. Keith provided management, engineering/design and construction administration services for a broad range of project including; commercial, industrial, high-tech, high-rise, residential, mix-use, retail, data center, switch facilities, healthcare, historic, school, government, and public utilities. He has proficiencies in various engineering, management, coordination study, CAD and lighting analysis/design programs. He stays current with memberships in several professional organizations.

Keith oversaw, managed and was professionally responsible for the engineering and construction administration of approximately \$85,000,000/year of commercial and industrial electrical construction. Keith played an integral role in the interregional sharing of resources and ideas between SASCO regional offices through weekly video conf. calls and meetings.

Keith is a nationally recognized author and has provided numerous technical articles to leading engineering magazines and has served as an expert panelist on several nationally broadcast web casts. Keith has also served on the Seattle Code Committee, which evaluated the 2005 & 2008 National Electrical Code.

Gray & Osborne Consulting Engineers ***4/95 – 12/99***
Sr. Electrical Engineer/P.E.

Keith was a Sr. Electrical Engineer and a Professional Electrical Engineer at Gray & Osborne.



Keith provided Professional Electrical Engineering services for projects including City infrastructure, High Voltage Distribution, Industrial, Street Lighting, Wastewater Treatment Facilities, Military Facilities, Schools, Fire Station, City Hall and Pump Stations.

In addition to providing professional engineering services for plans and specifications on many diverse projects, Keith was integrally involved as either Sr. Electrical Engineer or Engineer of Record with several Capital Improvement Plans, reports and studies.

Cochran Electric - Electrical Engineer

12/94 – 4/95

Keith was a Sr. Electrical Engineer at Cochran Electric. Keith provided engineering services for a broad range of projects including; commercial, high-tech, theatre, retail & data centers.

In addition to providing plans and specifications, Keith provided extensive field investigation and documentation throughout the entire design process. The Construction Administration process included field investigation and verification of scope.

Sparling Consulting Engineers - Electrical Engineer

12/93 – 12/94

Keith was an Electrical Engineer at Sparling. Keith provided engineering services for a broad range of projects including; commercial, high-tech, retail, hospital & data centers. In addition to providing plans and specifications, Keith provided extensive field investigation.

Veca Electric - Electrical Engineer

2/93 – 12/93

Keith was an Electrical Engineer at Veca. Keith provided engineering services for a broad range of projects including; commercial, high-tech, theatre, retail and data centers.

Professional Certifications, Education & Activities -Professional Electrical Engineering Licenses

Washington: 1998 (#35731)	Alaska: 2001 (#10332)	California: 2001 (#E16471)
Arizona: 2002 (#38527)	Oregon: 2001 (66879PE)	Utah: 2001 (#4909891)
Montana: 2001 (#14712PE)	Idaho: 2001 (#10104)	Hawaii: 2002 (#10622)
Virginia: 2007 (#046144)	Pennsylvania: 2007 (#PE075498)	New York: 2011 (#089223)
Nevada: 2002 (#015900)	EIT Certified: 1994 (#19253)	NCEES Record Holder

Licensed General Electrical Administrator – Washington State: LANE*KT943DR

Additional Certifications / Accreditations:

- (RCDD) Registered Communications Distribution Designer – BICSI #07016
- (NTS (LAN) Specialist) Network Transport System Specialist – BICSI #01506
- “LC” Lighting Certified Qualified Professional (NCQLP)
- RTPM – Registered Telecommunications Project Manager through BICSI
- LEED BD+C Accredited Professional (Leadership in Energy & Environmental Design)
- Cold Regions Engineering Certified-University of Washington & University of Alaska
- Advanced project manager training BICSI – PM 125
- International Illumination Design Award (IIDA) 2003 - Section Participant Award

Education

Bachelor of Science in Electrical Engineering, Seattle University, 1993

Dean’s List, Seattle University, Electrical Engineering Department 1992

Dean’s List, University of Washington, Engineering Department 1987, 1988

Professional Memberships & Activities

Member of the Seattle Code Committee Implementation of the NEC – 2005 & 2008

Contributing Editor to Consulting Specifying Engineering Magazine – 2004/2005

Advisory Board for Mission Critical Magazine 2013, 2014, 2015

Advisory Board for Consulting Specifying Engineering Magazine 2005 – 2015

Member of the Uptime Institute

Named one of the “Top 40 Engineers Under 40” by Consulting Specifying Engineering (2008)

Member of the Illuminating Engineering Society of North America.

Member of the 7x24 Exchange – Northwest Chapter (End to End Reliability).

Member of BICSI – A Telecommunications Association.

Member of the Telecommunication Project Management Association (TPMA)



high-rise, residential, mix-use, retail, data center, switch facilities, healthcare, historic, school, government, and public utilities. He has proficiencies in various engineering, management, coordination study, CAD and lighting analysis/design programs. He stays current with memberships in several professional organizations.

Rock Electric – San Diego

8/87 – 10/05

Vice President, Sr. Electrical Designer/Project Manager/Journeyman Electrician

Scott was the Vice-President of engineering at Rock Electric Inc. This included “cradle to grave” and “cradle to cradle”, design, utility design and coordination and Project Management of all Design Build projects. From conception to final buy off by owner Scott works hands on in all aspects of the project to ensure compliance with design and good engineering practices, code and local requirements, efficient and cost effective building methods and satisfaction of all stakeholder.

Education & Activities

Journeyman Electrician
SKM Power Tools
Captor/Dapper/Arc Flash
Navisworks
Jetstream V5
CalcWare AmpCalc
ETAP
AutoCAD through ACAD2014
Architectural Desktop 2014
Bentley Microstation
Revit 2014 MEP
AutoCAD P&ID
3DMAX
Visual 2.5
Lexicon 2.5.25
AGI32
GIS-ArcView
Primavera 6.0 (P6™)
Primavera Expedition to Version 8.5
Sure Track
Masterspec
Accubid Bid Winner Version 6
Accubid C/O Version 5
McCormick
Energy Pro Version 3.0
COMcheck 5.5.2
Microsoft Office
Working knowledge of National Electrical Code
Working knowledge of IES lighting standards
Working knowledge of construction trade



Bill Waldrop, RCDD
Sr. Associate, Telecommunications Group Manager
Lane Coburn & Associates, LLC

Years of Experience 34

Qualifications

Bill is a Registered Communications Distribution Designer (RCDD) through BICSI and LCA’s Telecommunications Group Manager. Bill’s background includes extensive project experience in mission critical, commercial, municipal, institutional, industrial, airport, seaport and military projects. Design experience includes site lighting, power distribution, standby and emergency power systems, building power, lighting, communications, controls, cost estimating, project management and construction administration. Computer skills include proficiency in AutoCAD, Microsoft Word and Excel, and other engineering programs. Bill’s goal on every project is to create high-quality construction documents, including calculations, plans, details and specifications, and to coordinate effectively with the design team and other disciplines to ensure quality control and code compliance.

Work History

LANE COBURN & ASSOCIATES, LLC. 7/08 – Present

Sr. Associate - Sr. Electrical Designer

Bill joined Lane Coburn & Associates to contribute his experience to the design team for the successful completion of projects, including mission critical, commercial, industrial, high-tech, high-rise, residential, mix-use, retail, data center, switch facilities, healthcare, historic, school, government, and public utilities. Bill stays current with memberships in several professional organizations.

McGowan Broz / CB Engineers 5/01 – 7/08

Sr. Electrical Designer

Bill worked at McGowan Broz Engineers as a Sr. Electrical Designer on commercial, industrial, municipal and military projects. In addition to project design work, Bill developed panel and feeder schedules to include automatic demand load, fault current and circuit voltage drop calculations, rewrote the company policies and procedures manual, including development of standard office forms, created project management and quality control checklists, developed electrical survey forms for condition assessment reports, and created a business disaster preparedness plan. During the transition from McGowan Broz Engineers to a branch office of San Francisco based CB Engineers, Bill worked with staff members in other offices to coordinate design, drafting and project management procedures for incorporation into overall company standards.

SASCO - Electrical Design/Build Contractor 2/00 – 5/01

Sr. Electrical Designer

During his employment with SASCO, Bill provided all elements of electrical design, including field investigation, calculations, drawings and specifications for this electrical contracting company. Coordination was required with construction project managers and the cost estimating



department to ensure profitability on all design-build contracts. Bill assisted in updating symbol libraries, drafting and presentation standards.

McGowan Broz Engineers
Sr. Electrical Designer

6/95 – 2/00

Bill joined McGowan Broz Engineers shortly after the company started business to provide electrical design and drafting support. Bill learned AutoCAD and developed symbol libraries, drafting and presentation standards for the office. Project work included industrial, municipal, commercial, military and government facilities. Bill further developed his electrical design skills, including field investigation, calculations and specifications, and was assigned to both project management and project administration responsibilities on numerous small to medium scale projects. Bill's attention to detail and accuracy contributed significantly to the success of each project.

Coffman Engineers
Electrical Designer

6/83 – 6/95

Bill joined Coffman Engineers for the opportunity to learn electrical design and computer aided drafting using Microstation. When the company changed drafting software to Pegasys, Bill learned the system, converted symbol libraries, documented hardware and software changes and trained others. Bill developed electrical design skills through on-the-job training, including calculations, specifications, and cost estimating, and was given limited project management and construction administration opportunities. Project work included commercial, industrial, municipal facilities. Bill developed a good working relationship with other design team members to consistently produce high-quality construction documents.

URS Engineers
Design Technician

5/77 – 6/83

Bill joined URS Engineers after completing his degree in structural drafting. Bill was highly regarded for his drafting speed and accuracy and was given additional responsibilities as a drafting technician in other disciplines. Projects were typically for municipal clients and included numerous large water and wastewater treatment plants and associated pump stations.

United States Navy
First Class Data Systems Technician

6/69 – 6/75

After two years of training, Bill was assigned duty on the guided missile frigate USS England. Bill made rank quickly and become the division leading petty officer responsible for the operation, maintenance and troubleshooting of Naval Tactical Data Systems equipment aboard the ship, including computer systems and transmission equipment. Bill served three tours of duty during the Vietnam conflict.

Education & Activities

Registered Communications Distribution Designer (RCDD) through BICSI
Associate of Applied Science Degree in Structural Drafting
AutoCAD through ACAD2006
Microsoft Office 4.0, Visual 2.5
Energy Pro Version 3.0
Working knowledge of National Electrical Code
Working knowledge of IES lighting standards
Participation in various continuing education seminars, including National Electrical Code updates, Lighting Design, Grounding and Bonding, and CSI Specifications
Working knowledge of construction trade.



Nick Alexander, LEED AP BD+C
Sr. Associate/Engineer - CAD Manager /
LEED Accredited Professional



Years of Experience 24

Qualifications

Nick is an experienced Principal Electrical Engineer/Designer with a strong background in electrical design and management of mission critical, commercial residential, hotels, bio-tech and military projects. His experience includes managing projects and skills with AutoCad. Nick is a LEED Accredited Professional (LEED AP BD+C) (Leadership in Energy and Environmental Design) through the U.S. Green Building Council.

Work History

LANE COBURN & ASSOCIATES, LLC. ***6/16 - Present***

Sr. Associate – Principal Engineer/Designer CAD Manager

Nick was an experienced electrical principal Engineer/Designer with a strong background in electrical design and management of mission critical, hotels, bio-tech, military and commercial projects. His experience includes managing projects and skills with AutoCad. Nick is a LEED Accredited Professional (LEED A.P.) (Leadership in Energy and Environmental Design) through the U.S. Green Building Council.

EC Company ***6/14 – 6/16***

Sr. Project Manager

Nick was an experienced electrical principal Engineer/Designer with a strong background in electrical design and management of mission critical, hotels, bio-tech, military and commercial projects. His experience includes managing projects and skills with AutoCad. Nick is a LEED Accredited Professional (LEED A.P.) (Leadership in Energy and Environmental Design) through the U.S. Green Building Council.

LANE COBURN & ASSOCIATES, LLC. ***9/07 – 6/14***

Sr. Associate – Principal Engineer/ Designer CAD Manager

Nick was an experienced electrical principal Engineer/Designer designer with a strong background in electrical design and management of mission critical, hotels, bio-tech, military and commercial projects. His experience includes managing projects and skills with AutoCad. Nick is a LEED Accredited Professional (LEED A.P.) (Leadership in Energy and Environmental Design) through the U.S. Green Building Council.



Hultz/BHU/Cross

3/04 – 4/08

SASCO - Electrical Design/Build Contractor

4/02 – 3/04

CAD Designer - Electrical Designer

Nick was an experienced electrical CAD designer with a strong background in electrical design of residential, hotels, bio-tech, military and commercial projects. His experience includes managing projects and skills with AutoCad. Nick is a LEED Accredited Professional (LEED A.P.) (Leadership in Energy and Environmental Design) through the U.S. Green Building Council.

Cross Engineers

11/95 – 4/02

CAD Designer - Electrical Designer

Education & Activities

LEED Accredited Professional – Building Design & Construction
Management continued education
Engineering/Design Continued Education
LEED Continued Education
REVIT, Navis Works, Bentley/Microstation
AutoCAD through ACAD2009
Architectural Desktop 2009
Visual 2.5
Microsoft Office 4.0
Working knowledge of National Electrical Code
Working knowledge of IES lighting standards
Working knowledge of construction trade



Gary Mullin, P.E.
Professional Electrical Engineer
Electrical and Communications Engineer - LCA



Years of Experience 24
P.E. Licenses Washington

Qualifications Gary is a Professional Electrical Engineer licensed in Washington State. Gary has an active membership in the I.E.E.E. communications society.

Work History

LANE COBURN & ASSOCIATES, LLC. **7/09 – Present**
Electrical and Communications Consulting Engineer

Port of Seattle, Seattle-Tacoma International Airport, Facilities and Infrastructure **10/03 – 4/09**

Senior Electrical and Communications Engineer/P.E.
 Provided technical leadership and implementation support for communication infrastructure at Sea-Tac airport. Was a team leader and member of several design teams. Managed several capital projects in the areas of telephony, networking, voice and data. Coordinated radio frequencies and managed radio systems. Managed communications, networks and controls systems, including: Fiber-optic networks, real-time controls systems running on Cisco networks, digital voice paging systems (airport-wide), radio systems (VHF, UHF and microwave), CCTV and broadband CATV systems & security, facility monitoring and control systems. Approved designs for new infrastructure projects, including tenant improvements, airport-wide cellular/Wi-Fi access, IP-based voice and video upgrades. Chaired the Sea-Tac telecommunications architecture review team (START). Delegated work to technicians and other engineers. Performed design reviews and field commissioning. Worked with consultants and electrical controls contractors. Managed and maintained databases, programming and as-built drawings. Acted as a technical resource to managers, consultants and technicians. Managed budgets and schedules on several projects.

Bonneville Power Administration (BPA), Telecommunications, Vancouver, WA **4/02-7/03**
Sr. Electronics Engineer/P.E.

Responsible for maintaining technical expertise on telecommunications and networking systems. Received technical training on telecommunications equipment, including: T1 channel banks, drop and insert TDM (DS0/DS1/DS3/OC3/OC12 transport), SONET, fiber optics and SCADA, analog and digital microwave radio systems & cisco routers and TCP/IP-based networks.

Coffman Engineers, Seattle, WA **4/00-9/01**
Electrical Engineer, Instrumentation and Controls

Provided electrical and controls systems design solutions for data centers. Customized PLC software for controlling medium voltage switchboards at a Microsoft data center. Developed as-built documentation for existing networks and controls systems. Developed, tested and commissioned custom PLC and HMI software including GE/Fanuc, Allen Bradley and Wonderware. Fluent in AutoCAD.



Gray & Osborne Consulting Engineers

4/98 – 3/00

Sr. Electrical Engineer/P.E.

Designed SCADA systems, motor controls, medium voltage distribution and instrumentation for municipal water and wastewater projects. Developed engineering cost estimates including man-hour and equipment estimates. Worked with PLC's, RTU's, HMI software, LAN and radio systems.

Innovation, Inc; Coastal Environmental Systems

5/94-4/98

Project Manager/Electrical Engineer

Managed the design and production of integrated cellular and paging base stations for the wireless telephone industry. Developed low voltage power distribution drawings using AutoCAD. Member of a product development team for a cell site power generator. Managed schedules and budgets for multiple revenue projects. Managed the design, systems integration and testing of networked data acquisition systems, including UHF / VHF radio links. Successfully installed and repaired complex systems domestically and internationally.

U.S. Navy

3/90-5/94

Electronics Engineer

Designed and managed the development of a high-bandwidth fiber-optic telemetry and data acquisition system for a U.S. Navy acoustics research laboratory. Designed communications systems for Naval vessels.

Professional Certifications, Education & Activities -Professional Electrical Engineering Lic.

Washington: 2002 (#39455)

EIT Certified: 1998

Education

Bachelor of Science in Electrical Engineering, Seattle University, 1990

Professional Memberships & Activities

Member, I.E.E.E.



Vicky Williams
Associate, Sr. Electrical Designer

Years of Experience: 34

Qualifications

I have over 30 years of design experience in electrical engineering and telecommunications, with a broad background that includes critical facilities/data centers, commercial high-rise and mixed-use, hospitality, health care, municipal, military, industrial, aviation and seaport projects. My project experience includes low- and medium-voltage electrical distribution, branch-circuit wiring, interior and exterior lighting, data/com, CATV, security and access control, and mass notification. My computer skills include proficiency in AutoCAD, Microsoft Word and Excel, and various other engineering design programs. I work with the rest of the design team to create high-quality construction documents, including calculations, details, plans, and coordinate with other disciplines to meet the client's objectives.

Work History

LANE COBURN & ASSOCIATES, LLC. **1/2010 – Present**
Associate – Sr. Electrical Designer

CB Engineers - Senior Electrical Designer **2007 – 2009**

Provide design services for a range of projects including high-rise residential, data center, offices and military. Provide high-quality design for medium voltage, mechanical, and lighting systems to meet the client's objectives and local electrical codes. Took part in establishing company CADD symbols, details, calculation forms and menus.

SASCO - Electrical Design/Build Contractor - Electrical Designer **2000 – 2007**

Provide design services for a range of projects including high-rise residential, mixed use, data centers, offices, hospitality, municipal, convention center, health care and museum. Provide high-quality design for medium voltage, mechanical, and lighting systems to meet the client's objectives and local electrical codes.

McGowan Broz - Electrical Designer **1996-2000**

Provide design services for a range of projects including parks, pump stations, and tenant improvements. Design medium voltage, mechanical, and lighting systems to meet the client's objectives and local electrical codes. CADD drafting for the electrical and mechanical departments meeting company standards. Took part in establishing company CADD symbols, details, and menus. Proficient in the use of AutoCAD, Word, and Excel.

Weiland Lindgren - Electrical Designer **1995-1996**

Provided design services for military and Port of Seattle. Design medium voltage and lighting systems to meet the client's objectives and local electrical codes. Work on projects from schematic design, construction through the record close-out process. Proficient in the use of AutoCAD and Microstation CADD systems.

Boeing Facilities Design Support - Electrical Designer **1985-1995**

Provide design services for new and tenant improvement projects for the Boeing Company at multiple locations throughout the Seattle area. CADD lead for the electrical department meeting the company standards. Design and draft data systems from the fiber backbone to fiber to the desk. Design electrical medium voltage power and lighting.

Education

Undergraduate work, Alvin Community College 1976, 1977



Theresa Lane
Associate - Office Manager

Years of Experience: 25

Background

Theresa managed her own small business for over three years. Her responsibilities included servicing clientele, marketing, sales and monthly billing analysis. She has also worked for over 10 years managing hundreds of clients as a personal trainer. Part of her role as a personal trainer included scheduling and billing. Theresa was one of the most successful personal trainers at the Pro Sports club and was well respected for her expertise. In addition, Theresa managed three rental properties over a seven year period. Theresa will leverage her years of management experience, client development, scheduling analysis, invoicing and billing to provide accounting and administrative support for Lane Coburn & Associates.

Work History

Lane Coburn & Associates, LLC **7/07 - Present**
 Associate – Office Manager

Theresa Lane Coaching **10/01 – 12/04**
 Small Business Owner

Theresa owned and ran her own small business as a Personal Life Coach. She started and managed all facets of the business. This included all start operation, client relations, marketing, sales and billing.

Property Manager **9/99 – 12/06**

Theresa managed three rental properties continuously over a seven year period. Her duties included; interviewing tenants, running criminal background and credit checks, managing repairs, monthly billing and move in / move out paperwork.

Pro Sports Club **12/93 – 5/04**
 Personal Trainer

Theresa was Personal Trainer. Theresa managed a large clientele, scheduled and invoiced clients on a monthly basis. Theresa achieved and maintained the following certifications: American Council on Exercise (ACE), American Federation Fitness Association (AFFA), Clinical Exercise Specialist (CES). Theresa was one of the most successful personal trainers at the Pro Sport Club.

Remax Realty **1993 – 1995**
 Administrative Support

Theresa coordinated first time home buyer seminars.

Education & Activities

American Council on Exercise (ACE) Certification
 American Federation Fitness Association (AFFA) Certification