

# Office of the University Building Official 2012-2013 Annual Report



**Elaine B. Gall**  
**University Building Official**  
**University of Virginia**

## INTRODUCTORY INFORMATION

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The Office of the University Building Official (OUBO) is a group of professional engineers and architects dedicated to ensuring UVa buildings are safe, accessible, and code compliant. OUBO staff reviews construction documents, issues building permits, performs inspections, and provides expert technical assistance in support of building construction and renovation. Reviews and inspections are based on state regulations governing health and safety as well as federal standards for accessibility. The office is led by University Building Official Elaine Gall.

The Office of the University Building Official was formed in 2006 as part of the management agreement between the University and the Commonwealth of Virginia under the Higher Education Restructuring Act. As such, the University Building Official reports solely and directly to the University's Board of Visitors.



*Tuttle-Dunnington and Lile-Maupin Residence Halls – August 1, 2013*

## REPORT SUMMARY

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The following report details work performed and goals achieved by the Office of the University Building Official from July 1, 2012 to June 30, 2013. It includes the following:

- Summary of work related to construction, including statistics for plan reviews performed, building permits issued, projects inspected, and new buildings opened.
- Accomplishments related to organizational goals set by staff prior to the beginning of the 2012-2013 fiscal year. The report includes information on actions taken and goals achieved during the last fiscal year. We have also included information regarding our current Organizational Goals for the 2013-2014 fiscal year.
- Highlights of process improvements made during the last year based on customer feedback and employee innovation.
- Descriptions of other staff activities, including projects for which OUBO has shared technical expertise with other professionals within the University and throughout the state.
- Staff biographies detailing the education, certifications, and recent achievements and activities of OUBO staff.



*New Cabell Hall – April 9, 2013*

## CONSTRUCTION: PLANS REVIEW, BUILDING PERMITS, AND CERTIFICATES OF OCCUPANCY

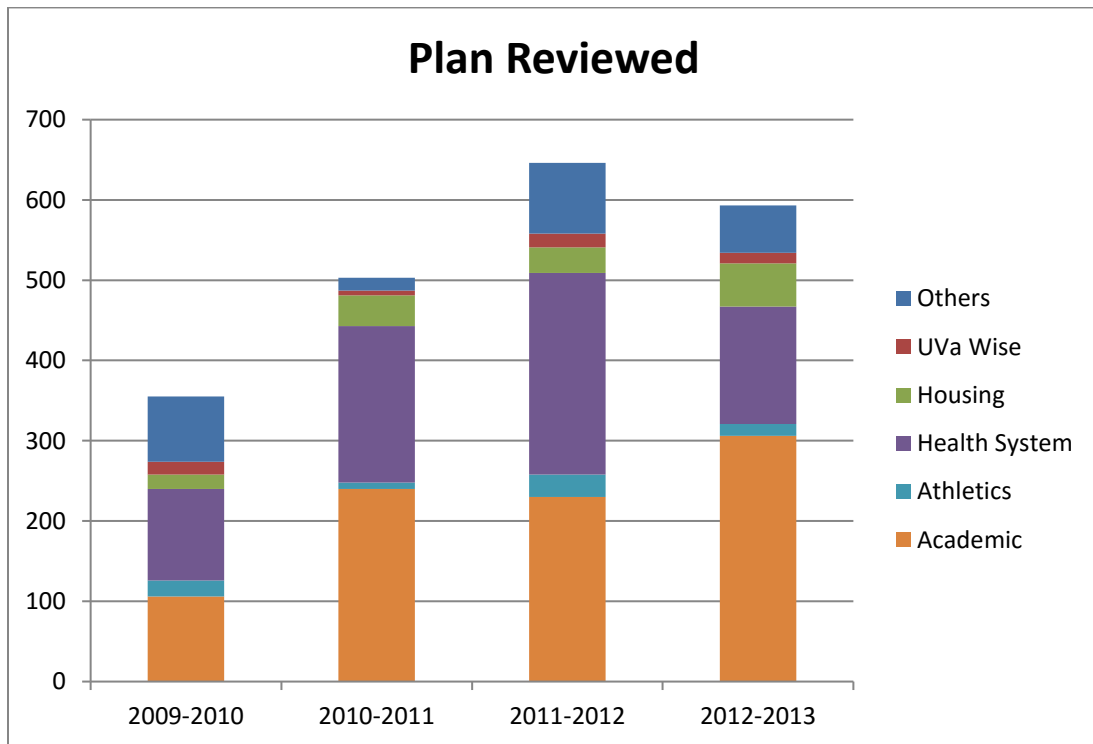
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The primary focus of Office of the University Building Official staff is to ensure all newly constructed buildings are built in accordance with state regulations and federal accessibility guidelines. Staff also works to ensure such projects meet the University’s own Facility Design Guidelines so that new buildings are of appropriate quality and energy efficiency. Projects involving renovations of existing buildings are similarly measured for code compliance and value. OUBO staff reviews design drawings, issues building permits, offers technical expertise, and performs onsite inspections in order to verify that designs and construction meet these standards.

OUBO performed plan reviews for 593 submittals last year which is down from the peak of 646 for the 2011-2012 reporting year. Projects for last year break down as follows:

Academic:	306
Athletics:	15
Health:	146
Housing:	54
UVa Wise:	13
Others:	59

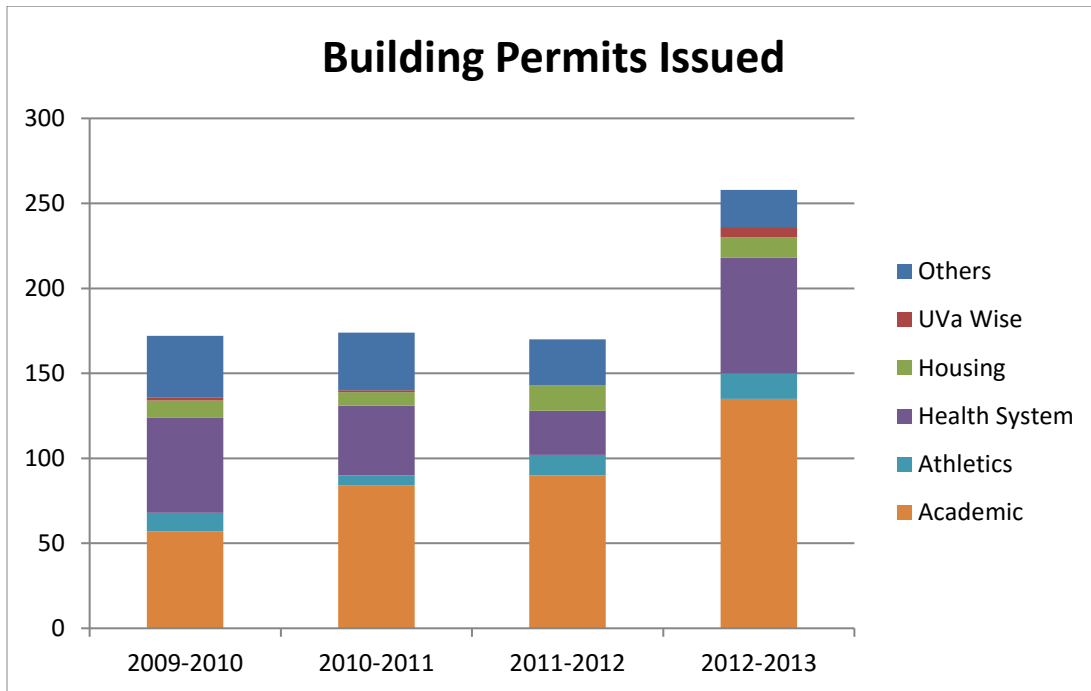
The chart below illustrates how these numbers compare to previous years.



It should be noted that staff has directed efforts at reducing resubmittals as part of our ongoing goal to improve efficiencies and assist clients in achieving code compliance. This is further reflected by noting that the number of plan reviews decreased while the number of building permits issued increased OUBO issued a total of 258 building permits in the 2012-2013 fiscal year compared to 170 during the 2011-2012 fiscal year. Permits issued during 2012-2013 included:

Academic:	135
Athletics:	15
Health:	68
Housing:	12
UVa Wise:	6
Others:	22

The following chart shows the number of permits issued during the 2012-2013 reporting year compared to the two previous years. As indicated, the number of permits increased significantly this year. This is due to a number of factors. While large construction has slowed somewhat, there are more small projects being performed in existing structures. There are also more partial permits issued as projects are broken into phases for expediency.



All projects require numerous inspections to ensure that work is performed in accordance with the approved drawings, UVA Facility Design Guidelines, and most importantly, state codes and regulations. OUBO staff is onsite frequently confirming proper installation and operation of various engineered systems including fire suppression, accessibility features, egress components, and other issues related to health and safety for occupants.

MAJOR PROJECTS COMPLETED INCLUDE:

Academical Village Chimney Repairs and Fire Suppression System

George Welsh Indoor Practice Facility

Greear Gymnasium Renovations

Lacy Hall

Landscape Shop

Lile-Maupin Residence Hall

McLeod Hall 3<sup>rd</sup> Floor Renovation

N2 Temporary Dining Facility

New Cabell Hall Phase 1

Newcomb Hall Addition and Renovations

Old Jordan Hall HVAC Refurbishment

Pavilion X Renovation

South Slaughter Hall Addition and Renovation

Thrust Theater

Tuttle-Dunnington Residence Hall

University Hospital Final Phases of Radiology Projects

University Hospital Fire Alarm System Infrastructure Upgrade

West Complex X-Ray Wing Renovation



*George Welsh Indoor Practice Facility – March 14, 2013*

## ORGANIZATIONAL GOALS: PAST ACHIEVEMENTS AND FUTURE STRATEGIES

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### COMPLETED ORGANIZATIONAL GOALS: JULY 2012 - JUNE 2013

The Office of the University Building Official successfully met their organizational goals for the 2012-2013 reporting year. The four main strategic goals related to performance improvements and monitoring, customer service and collaboration, and improved efficiencies both within our own office and for the University's built environment. Organizational goals, their related actions, and status of achievements are as follows.

#### 1) Review Organizational Performance

- a) Continue to participate in VPMB's Performance Assessment Workgroup to comprehensively evaluate performance and performance-measuring tools. *Completed*
- b) Complete OUBO Performance Assessment Action Plan as informed by the assessment work to date. *Completed*
- c) Identify comparative organizations for benchmarking and formalize means for information sharing, service assessments, and quality control. *Ongoing: Interaction with officials from Harvard with methodologies evaluated for possible systems that could be emulated at UVA. Also identified James Madison Chapter of Virginia Building and Code Officials Association as local resource for information sharing. Primary comparative organizations remain Virginia Tech and College of William and Mary.*

#### 2) Enhance Collaboration and Governance

- a) Identify and meet with focus group from internal customer service survey. Distill information into action plans as appropriate. *Completed: OUBO has instituted the following improvements based on feedback and details of new procedures are located on our website:*
  - i) *Policy regarding second submissions, known as the Yellow-Out Policy, was adopted to reduce resubmittals.*
  - ii) *"Very Small Project" reviews for which clients may submit documents and have a table-top review completed between 3:00 and 4:00PM each Wednesday. This review option was implemented into the 4<sup>th</sup> quarter of the year and provided expedited reviews and faster permit approvals.*
- b) Consider means to gain feedback from external customers. *Ongoing as staff seeks professional means of gathering formal feedback from external customers to be considered.*

#### 3) Explore Efficiencies and Timeliness

- a) Complete OUBO website. *Completed and launched December 2012.*
- b) Proactively engage stakeholders with goal of minimizing or eliminating requirements in the Facilities Design Guidelines while maintaining necessary construction standards. *Guidelines completed by target date of May 1, 2013.*

c) Monitor performance measures and further assess results and measurement tools. *Ongoing as Report is completed and evaluated quarterly.*

4) Inter-Departmental Partnerships and Support

a) Develop flowcharts for OUBO reviews and building permits to assist customers through the process and avoid unnecessary delays. Evaluate for simplification. *Completed and expanded.*

b) Create and implement an “orientation” package for new Facilities Management employees. *Completed.*

c) Develop “Top 10” items list for sprinkler and fire alarm shop drawings. *Completed.*



*Jordan Hall Exhaust Systems – October 5, 2012*

## CURRENT ORGANIZATIONAL GOALS: JULY 2013 - JUNE 2014

OUBO staff has set strategic goals for the current year as listed below. Some goals seek new approaches for ongoing improvements to efficiency and service. Other goals relate to the state's upcoming adoption of new codes and the need to educate both ourselves and our clients. The final goal seeks to continue operational excellence through continuous monitoring of performance measures and customer feedback.

- 1) Enhance Collaboration and Governance – Complete by June 1, 2014.
  - a) Utilize cross-functional partnerships to enhance overall effectiveness of the construction process on grounds.
  - b) Seek to further develop and enhance collaboration with UVa Wise to improve service delivery.
  - c) Proactively seek continuous feedback related to process improvements and services offered.
- 2) Enrich Technical Expertise and Enhance Messaging – Complete by June 1, 2014.
  - a) Prepare for state's transition from 2009 to 2012 Building Codes. Evaluate alternative resources and workload trends to minimize effect of state-mandated training on project schedules.
  - b) Optimize existing methods of communications and investigate alternatives to apprise clients of potential code issues and upcoming technical changes.
  - c) Increase staff involvement in other state and local professional organizations as a means to benchmark procedures and performance against others.
- 3) Optimize OUBO Resources - Complete by June 1, 2014
  - a) Optimize workspace environment to improve personnel efficiencies and to project a professional impression to clients. Seek alternative sites to provide a more cohesive setting for all employees.
  - b) Seek methods to reduce paper storage through improved technologies such as evaluation of using larger monitors for review of digital plans and providing electronic codes to all reviewers. Evaluate alternative locations for long-term storage.
  - c) Upgrade current electronic filing system to improve consistency and accelerate access to currently applicable files while archiving or purging outdated materials.
- 4) Monitor Organizational Performance - Complete by June 1, 2014.
  - a) Monitor organizational performance utilizing quarterly data. Continuously evaluate to ensure appropriate performance measures are used.
  - b) Analyze data and trends to inform decisions related to priorities and allocation of resources.
  - c) Continue to participate in VPMB's Performance Assessment efforts and utilize tools to seek methods of improvement based on customer feedback and employee innovation.

## ADDITIONAL STAFF RESPONSIBILITIES AND ACTIVITIES

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OUBO staff members utilize many avenues to share technical expertise with others while also seeking opportunities for continuing education. This is done at both the University level and in outreach to other communities and professional organizations.

During 2012-2013, OUBO staff members were involved in a number of special University committees and projects. Among these was participation on the Accessibility and HVAC committees. Staff also provided specialized assistance with the structural problems and subsequent reconstruction of the McCormick Road Bridge. In addition, staff frequently provided technical assistance to fire marshals for both the Health System and Environmental Health and Safety. Specialized evaluation and assistance was provided to determine the suitability of various UVa structures for use as State Managed Shelters in cases of emergency evacuation needs.

OUBO staff also maintains mutually beneficial relationships with local officials. The Charlottesville Fire Department is regularly consulted to ensure that acceptable provisions are made for emergency access to UVa buildings. We also participated in the selection process for the newly appointed Charlottesville Fire Marshal in late 2012 and have worked with him and his staff on several fire-safety related issues. The good working relationship previously established with the Charlottesville Building Official continued to benefit both parties this year in the resolution of construction related issues in buildings housing UVa interests but owned by private parties.

Perhaps most beneficial to the University of Virginia is the continued high level of mutual trust established between OUBO and the State Fire Marshal's Office. The state continues to be challenged with staffing shortages. However, the State Fire Marshal's Office has allowed our staff to perform inspections and document compliance when they are unable to schedule us for inspections on our timeline. This benefits the University in allowing construction to continue rather than to be delayed awaiting scarce appointments with state inspectors. Additionally, the State Fire Marshal has worked with our office during the 2012 code change process to resolve ongoing issues related to research laboratories.

Staff members also work with professional organizations throughout the state and country, sharing expertise, ideas for improved processes, and taking part in educational opportunities. Details of these activities are provided within the individual biographical sections at the end of this report.

## OFFICE OF THE UNIVERSITY BUILDING OFFICIAL STAFF

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**Elaine Gall, PE, CBO, CFO**  
**University Building Official**

*B.S. in Mechanical Engineering, Virginia Tech*

*M.E. in Fire Protection Engineering, University of Maryland*

Elaine was appointed University Building Official in 2009. She joined the University of Virginia in 2006, serving first as Senior Fire Protection Engineer. Prior to joining UVa, Elaine served in the Virginia State Fire Marshal's Office as Regional Engineer for a 20 county area in Western and Central Virginia. She also served as Building Commissioner for Roanoke County. Elaine has 28 years of professional experience in construction, code enforcement, and fire protection engineering. She has been actively involved in code development on both the state and national levels throughout her career.

Elaine's current role involves the administration of Office of the University Building Official, including the code compliance program for all construction projects at UVa. This includes UVa College at Wise, Blandy Farm, and UVa's various other properties throughout the state. She is also actively involved in inspections and provides technical guidance to staff and clients.

Elaine is a registered Professional Engineer and is a Certified Building Official. She is also a Certified Fire Official and holds certifications in Mechanical, Building, and Fire Code Plan Review and Inspections. She is a member of the Virginia Building and Code Officials Association and the Virginia Fire Prevention Association where she was recently elected as Second Vice-President. Elaine has served as a Governor-appointed member of the Virginia Fire Services Board for the last four years and represented that Board as a member of the Virginia Board of Housing and Community Development for the last two years.

**Robert Waite, AIA**  
**Review Unit Managing Architect**

*B.S. in Architecture, University of Virginia*

Bob joined OUBO as Senior Review Architect in December 2008. He has over 25 years of professional experience in architectural design, project management and code compliance inspections. He has experience in all types of building uses including health care facilities, residential and dining facilities, athletic facilities and classroom and laboratory facilities.

At OUBO, Bob manages and distributes the reviews for all projects that the office reviews. He coordinates with Project Managers and helps them schedule the reviews for their projects. He assigns the processing of all building permits. He provides ADA compliance inspections and expertise when needed and assists in reviews for architectural code compliance, constructability, ADA compliance, and compliance with UVa's Facilities Design Guidelines. He also assists the University Building Official on an as-needed basis.

During the past year, Bob attended the Life Safety Code Essentials class provided by the NFPA, classes on the Significant Changes to the International Building Code 2012 Edition

and on the 2009 International Existing Building Code Fundamentals, has attended the annual meeting of the Virginia Building Code Officials Association and has become active in the James Madison Building Code Officials Association. He plans on taking the coursework and exam to become a Certified Building Official this year.

He served with the US Army as a 1<sup>st</sup> Lieutenant with the 101<sup>st</sup> Airborne Division in the Republic of Vietnam. Bob is a registered Professional Architect in Virginia and holds certification as a State Building Plans Examiner. Bob is a member of the American Institute of Architects (AIA).

**Sathish Anabathula, PE**  
**Senior Electrical Engineer**

*B.S. in Electrical Engineering, Jawaharlal Nehru Technological University, Hyderabad, India*  
*M.S. in Electrical Engineering, Louisiana Tech University, Ruston, LA*  
*M.B.A., Louisiana State University, Shreveport, LA*

Sathish joined OUBO as Senior Electrical Engineer in January 2010. Prior to joining UVa, he worked as Staff Engineer for LSU Health Sciences Center for 6 years. He has over 9 years of professional electrical engineering design, safety and code compliance experience in higher education/ health care environment. At OUBO, he reviews plans and specifications and participates in inspections for electrical and fire alarm systems. He also serves as in-house consultant for electrical and fire alarm systems, and value management studies.

Sathish completed inspections of University Hospital fire alarm upgrade and is currently reviewing plans for emergency power upgrades in the Hospital and for fire alarm upgrades in several dorms including Page/Emmet and Gooch/Dillard. Sathish also served as teaching assistant for a graduate electrical engineering class and completed another entitled "Ethics in Engineering Practice" from SEAS during Spring 2013. He has signed up for the 2000 Life Safety Code training scheduled for October 2013 in Baltimore, MD.

Sathish is a registered Professional Engineer in Virginia and Louisiana and holds Virginia DHCD and ICC certified Electrical Plans Examiner and Commercial Electrical Inspector licenses. He is NICET certified in fire alarm systems design. He is a Senior Member of International Electrical and Electronics Engineers (IEEE) and a Member of Illuminating Engineering Society (IES)'s committee on Education Facilities lighting.

**Katherine Grove, AIA, LEED AP**  
**Senior Review Architect**

*B.S. in Architecture with Minor in Architectural History, University of Virginia*  
*M.A. in Architecture, Syracuse University*

Katherine joined OUBO as Senior Review Architect in April 2012. She has 22 years of professional experience in architectural design including 15 years as a Director/Project Manager specializing in sustainable design/consulting and construction of institutional, mixed-use and residential projects. She has been Project Manager for multiple LEED certified (Gold and Platinum) projects, has presented at the national AIA and Greenbuild conventions, and maintains a licensed architectural practice specializing in sustainable residential design.

At OUBO, she provides review and in-house consultation for architectural plans and specifications with regard to code compliance, constructability, ADA compliance, and conformance with UVa's Facilities Design Guidelines, as well as participating in value management sessions. She conducts progress inspections for code and ADA compliance as well as inspections for temporary and final occupancy.

Katherine is a registered Professional Architect in Virginia and a Virginia DHCD and ICC Certified Commercial Building Plans Examiner. She recently completed Virginia Code Academy Training Sessions towards achieving certification as a Commercial Building Inspector and a Residential Plans Examiner, and completed LEED Existing Buildings and Maintenance Training and the ICC Significant Changes to the 2012 International Building Code Seminar. Katherine is a member of the American Institute of Architects (AIA) and is a Leadership in Energy and Environmental Design (LEED) Accredited Professional.

**Ben Hays, PE, SE, LEED AP**

**Senior Civil/Structural Engineer**

*B.S. in Civil Engineering, Virginia Tech*

*M.S. in Civil Engineering, Virginia Tech*

*M.A. in Theology, Fuller Seminary*

*M.A. in Architectural History, University of Virginia*

Ben joined OUBO as Senior Civil / Structural Engineer in November 2011. Prior to joining UVa, he worked as a civil and structural engineer in both Virginia and California. He has over 10 years of structural engineering design, management, and review experience. At OUBO he reviews plans and specifications and conducts inspections related to civil and structural engineering. Additionally, he provides in-house consultation for structural engineering related projects and participates in large-project value management studies.

Ben is a registered Civil Engineer in Virginia and California and is also a registered Structural Engineer in California. Additionally, he is an ICC certified Commercial Plans Examiner as well as a LEED Accredited Professional.

Ben is a member of several professional organizations, including an Associate Member of the American Society of Civil Engineers (ASCE), a member of the National Trust for Historic Preservation, a member of the Construction History Society of America (CHSA) and a past member of the Structural Engineers Association of California (SEAOC). As a member of SEAOC, he authored several papers on the relationship between structural engineering, preservation, and sustainability. In May 2013, Ben completed a Master's degree in Architectural History at UVa. A portion of his research—which is on Guastavino Vaulting at UVa—was presented at CHSA's biennial conference at MIT last fall. His thesis on the same topic won the Architecture Department's *Frederick Doveton Nichols Award* and will be presented at the Southeast Chapter of the Society of Architectural Historian's conference in Charlotte this fall.

**Ronald Herfurth, PE**  
**Senior Mechanical Engineer**

*B.S. in Mechanical Engineering, Virginia Tech*

Ron joined OUBO as Senior Mechanical Engineer in 1991. He joined the University of Virginia in 1988. At OUBO he reviews mechanical and plumbing plans and specifications and participates in inspections of mechanical and plumbing systems. He also serves as in-house consultation for mechanical systems and value management studies. He is a standing member and chairman of an interdepartmental Facilities Management HVAC Committee.

Ron is a registered Professional Engineer in Virginia and holds DHCD certification as mechanical plans examiner, plumbing plans examiner, commercial mechanical inspector, and commercial plumbing inspector.

In the past year Ron attended a Virginia Fire Protection Association course on Commercial Kitchen Hood Suppression System Inspections and a course from the Association of Energy Engineers Course on energy management. Ron was recognized for 25 years of employment at the University in July.

Ron is a member of American Society of Heating Refrigeration and Air-Conditioning Engineers.

**Sean Wallace, PE**  
**Senior Fire Protection Engineer**

*B.S. in Mechanical Engineering and Physics, Virginia Commonwealth University*

*M.S. in Fire Protection Engineering, University of Maryland*

Sean joined OUBO as a Senior Fire Protection Engineer in June 2013. Prior to joining UVA, he spent six years at Dominion Resources Services Inc. working as a Loss Prevention & Fire Protection Engineer. He has over 6 years of professional experience working with a wide variety of sprinkler and special hazard fire systems, fire alarm systems and fire-resistance rated construction. His fire protection background experience includes system design, code compliance, plan review, commissioning, testing and inspections. At OUBO, his primary responsibility is plan review and consultation related to fire safety provisions including fire suppression, egress and fire-resistance rated construction.

Sean is a registered Professional Engineer in Virginia and is registered to complete Virginia Code Academy Training Sessions towards achieving certification as a Fire Protection Plans Examiner and Fire Protection System Inspector.

Sean is a member of the National Fire Protection Association (NFPA), Society of Fire Protection Engineers (SFPE), and American Society of Mechanical Engineers (ASME).



*From left to right: Ben Hays, Sean Wallace, Bob Waite, Elaine Gall, Kathy Grove, Sathish Anabathula, and Ron Herfurth*