

Office of the University Building Official 2013-2014 Annual Report



Elaine B. Gall
University Building Official
University of Virginia

INTRODUCTORY INFORMATION

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.



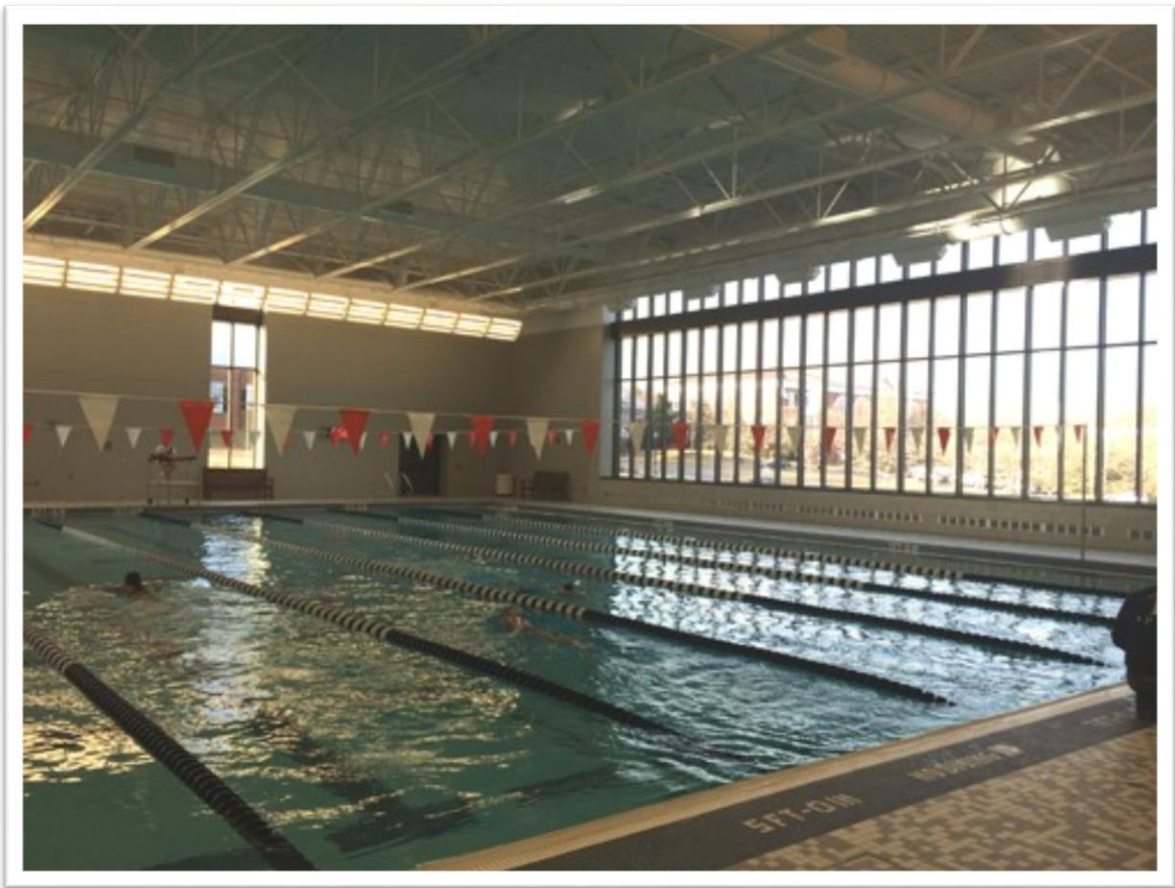
BATTLE BUILDING UNDER CONSTRUCTION

Previous Page: Completed Lee Street Connective Elements

REPORT SUMMARY

The following report details work performed and goals achieved by the Office of the University Building Official from July 1, 2013 to June 30, 2014. It includes the following:

- Summary of work related to construction. Statistics for plan reviews performed, building permits issued, and projects inspected and approved for occupancy.
- Results of 2013-2014 Organizational Goals and list of current 2014-2015 Organizational Goals.
- Additional OUBO 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.



NORTH GROUNDS RECREATION EXPANSION

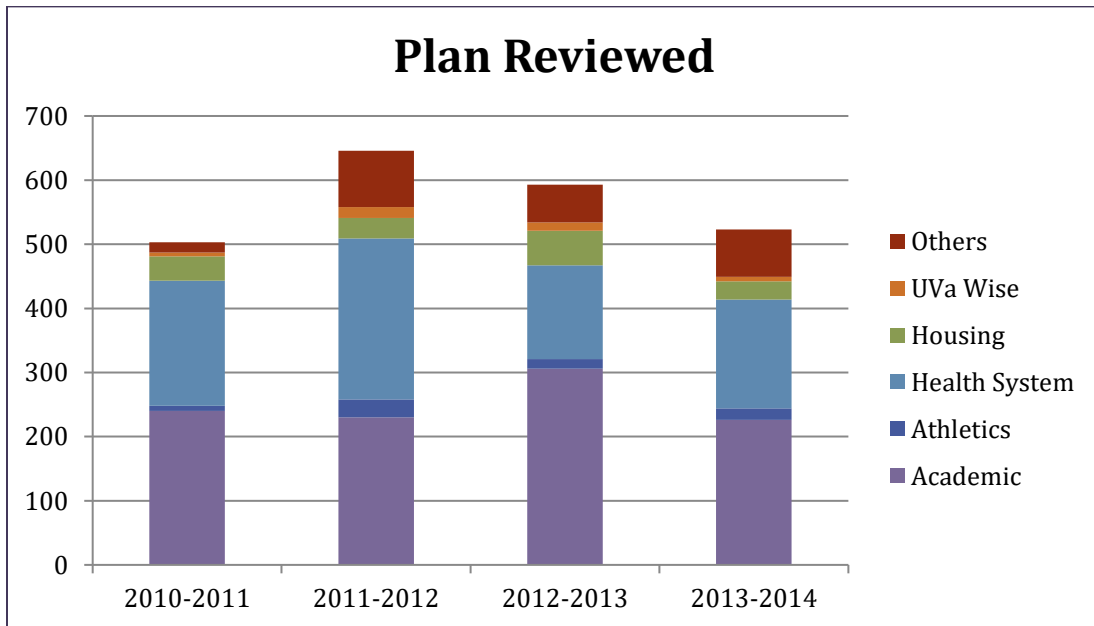
CONSTRUCTION: PLANS REVIEW, BUILDING PERMITS, AND CERTIFICATES OF OCCUPANCY

The primary goal of Office of the University Building Official staff is to ensure all newly constructed buildings and renovations are safe and suitable for occupancy by UVa’s many students, patients, faculty, and visitors. We work to ensure all are built in accordance with state regulations and federal accessibility guidelines. Staff also confirms that projects are built to meet the University’s Facility Design Guidelines so that new buildings are of appropriate quality and energy efficiency. To achieve these goals, 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 523 plan reviews for the year with a large spike in submittals during the last quarter. We received and reviewed 191 submittals compared to an average of 122 for the previous three quarters. The numbers of submittals for the year break down as follows:

Academic:	226
Athletics:	18
Health:	170
Housing:	28
UVa Wise:	7
Others:	74

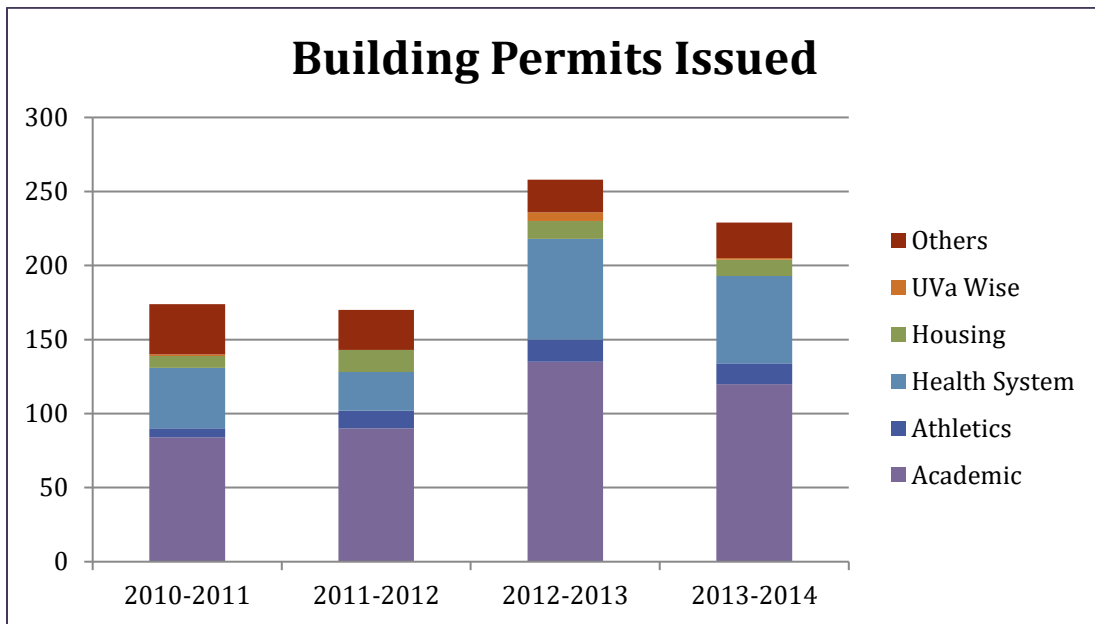
Below is a chart comparing plan review data with three previous years showing a decline in submittals due to a reduced number projects and smaller projects which require fewer reviews. OUBO has also focused on reducing the number of required resubmittals by offering individualized assistance to designers and project managers when projects get beyond a certain stage without the submittal of approvable drawings.



OUBO issued a total of 229 building permits in the 2013-2014 fiscal year. Permits issued during 2013-2014 included:

Academic:	120
Athletics:	14
Health:	59
Housing:	11
UVa Wise:	1
Others:	24

Similar to the chart above, the following chart illustrates how these numbers compare to data from the previous three years. While there is a slight reduction, the numbers are still high compared to our initial years.



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:

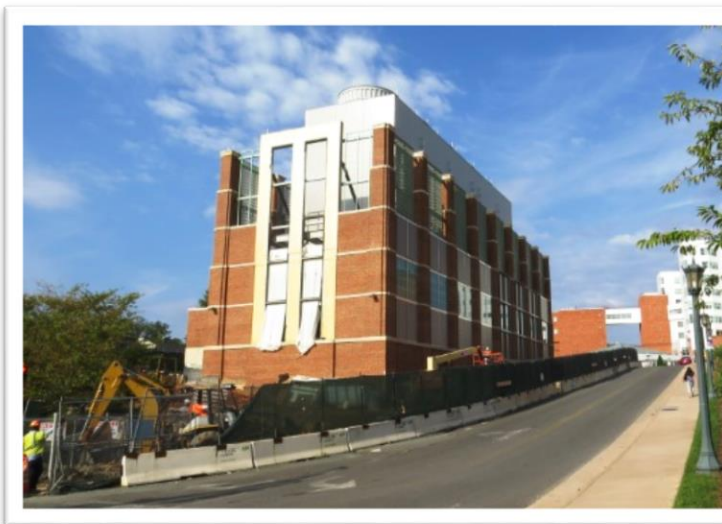
North Grounds Recreation
Center Expansion
FM Landscape Shop
Shannon House
Ruffner Hall Renovations
New Cabell Hall Renovations –
Final Phases
Baseball Hospitality Suite

Greear Gym Renovations



NEW CLASSROOM IN RUFFNER HALL

Lee Street Connective Elements
Hospital Lobby Expansion
Battle Building Children’s Hospital
East Chiller Plant
Old Jordan Hall 7th Floor Central Lab and Phase 1 Gross Anatomy Renovation
Neonatal Intensive Care Unit Expansion
McLeod Hall 3rd Floor Renovation
Hospital Sprinkler Zone Resolution



EAST CHILLER PLANT



EVALUATING EAST CHILLER PLANT
FIRE ALARM SYSTEM

ADDITIONAL STAFF RESPONSIBILITIES AND ACTIVITIES

OUBO staff members have a tremendous amount of knowledge and experience related to building s, building systems, and building codes. They enjoy sharing this technical expertise with others while also seeking opportunities for continuing their own education and experience. We do this with our colleagues throughout many departments here at UVa as well as through outreach to other communities and professional organizations.

Staff members were particularly active this year in working towards certifications from the Department of Housing and Community Development. Bob Waite obtained certification as a Certified Building Official while several others began taking the required classes and making preparations for this challenge. Ron Herfurth also obtained two newly adopted certifications related to Energy Codes. DHCD certifications give our office additional bench strength and cross-training which assists us with continuation of services. All staff members have listed their certifications in biographies at the end of this report.

During 2013-2014, OUBO staff members were involved in a number of special University committees and projects. The most notable example this year was our involvement with the Berlin Wall display. Ben Hays provided structural guidance in helping to find a suitable location for the heavy panels. Kathy Grove then joined him in the design and construction of the shelter. Both were deeply involved in the coordination with the donor and numerous University officials.

Staff provides leadership and active engagement with a number of UVa inter-departmental technical committees related to accessibility, HVAC systems, sustainability, fire protection, and electrical safety. In addition, staff frequently provided technical assistance to fire marshals for both the Health System and Environmental Health and Safety.

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 maintain good working relationships with building officials from Charlottesville, Albemarle County, Virginia Tech, and members of the local Virginia Building and Code Officials Association. We 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.

The State Fire Marshal's Office continues to allow our staff to perform inspections and document compliance when they are unable to schedule us for inspections on our timeline. This benefit is utilized frequently as it allows the University to continue doing construction without delays that might be caused by awaiting scarce appointments with state inspectors.

ORGANIZATIONAL GOALS: PAST ACHIEVEMENTS AND FUTURE STRATEGIES

COMPLETED ORGANIZATIONAL GOALS: JULY 2013 - JUNE 2014

The Office of the University Building Official successfully met their organizational goals for the 2013-2014 reporting year. Our year-end report, prepared on July 7 for internal evaluation purposes, is repeated below indicating the goals set by the OUBO team and the results of those efforts.

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.

Results: Staff was involved in several cross-functional partnerships this year including significant contribution in the siting, design, and construction of the Berlin Wall exhibit. Staff was also involved with committees dealing with other university planning issues for accessibility, water conservation, and energy efficiency. Recently staff has been involved with the development of the proposed indoor shooting range at Milton and assisting the county in review of sprinklers for a fraternity.

- b) Seek to further develop and enhance collaboration with UVa Wise to improve service delivery.

Results: OUBO has worked with UVa Wise staff to expedite two small project reviews. Staff has also provided assistance in working through RFIs related to construction of the new Library and inspections of the Health and Wellness Center.

- c) Proactively seek continuous feedback related to process improvements and services offered.

Results: Met individually with FM unit managers, project managers, directors, and staff to seek ideas and feedback related to OUBO organizational structure and priorities.

- 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.

Results: The state’s adoption of new codes occurred on July 14, 2014. Staff was very active in monitoring the code adoption process and attended hearings to evaluate and speak to the effect various proposals might have on UVa. Three staff members have attended training sessions offered by their respective professional organizations related to significant changes in the codes. State mandated training will occur in July and August. Staff will attend training in three separate localities to ensure office remains open during the critical summer construction season.

OUBO staff also obtained several new certifications this year, including certifications in Fire Plans Examiner, Commercial Building Inspector, Building Plans Examiner, and the state’s newest certification for Commercial Energy Plans Examiner. Most significantly, Bob Waite obtained his CBO certification.

- b) Optimize existing methods of communications and investigate alternatives to apprise clients of potential code issues and upcoming technical changes.

Results: Staff evaluated the 2012 codes to understand the possible effects changes would have on design and construction. Training sessions for clients are noted in our '14-'15 goals. An informational announcement was distributed to clients to alert them to the adoption of new codes and procedures for determining whether to stay under the previous codes or convert to the new ones.

- c) Increase staff involvement in other state and local professional organizations as a means to benchmark procedures and performance against others.

Results: The office has become actively involved with the local chapter of the Virginia Building Code Officials Association as a means to share ideas and solutions for common code enforcement issues. One staff member was also active with the Virginia Chapter of the Society for Fire Protection Engineers and one serves as 2nd VP of the Virginia Fire Prevention Association.

- 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.

Results: Entry space into the OUBO office area was converted into a small conference room that has become a central and frequently used space. Staff

members no longer need to accommodate visitors within their individual cubicles with the availability of this small conference area. The area was updated with new paint and historical photos of construction sites for several UVa structures. A space to post pertinent and important announcements was also provided.

- 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.

Results: Two reviewers transitioned to performing at least 80% of their reviews electronically on large computer monitors. This has resulted in less paper storage and a more professional and pleasing workspace. In addition, the individual OUBO printer was donated to Facilities Management administrative personnel and is no longer stored within the space.

- c) Upgrade current electronic filing system to improve consistency and accelerate access to currently applicable files while archiving and/or purging outdated materials.

Results: All building permit forms were updated in December to reflect up-to-date information as well as a more uniform and professional appearance.

- 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.

Results: Quarterly reports are prepared, distributed, and discussed at OUBO staff meetings.

- b) Analyze data and trends to inform decisions related to priorities and allocation of resources.

Results: OUBO now has two years' worth of data related to performance measures. This data shows trends in workload related to certain quarters and allows for better planning and scheduling of special projects during appropriate times of the year.

CURRENT ORGANIZATIONAL GOALS: JULY 2014 - JUNE 2015

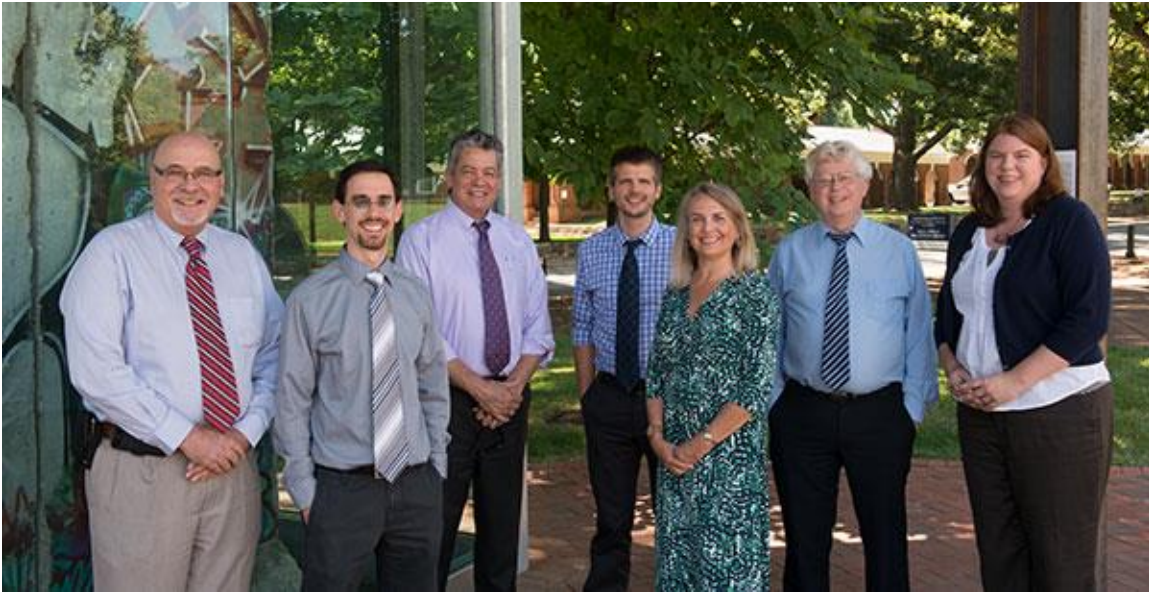
Strategic goals for the current year were prepared in early 2014 during FY2014-15 budget preparations and were slightly adjusted in early July to account for staff changes. Formatting of this document, which follows, was changed to improve ongoing tracking for OUBO staff.

Goal	Description	Lead	Steps
<p>Goal 1: Proactively Seek Customer Feedback Through New Outreach Surveys</p>	<p>The Office of University Building Official (OUBO) received high marks during the formal customer service survey in 2012. However, customer feedback also resulted in the implementation of two highly effective changes in procedures. We believe that proactively seeking out formal feedback will spark ideas and inform decisions as we continuously seek organizational excellence.</p>	<p>Ron Scott Bob</p>	<p>To achieve Goal 1:</p> <ol style="list-style-type: none"> 1. Develop plan review customer feedback form by 10/1/14. 2. Make a determination as to whether survey will be a single comprehensive outreach or an automated form sent when reviews are completed and plans approved or some combination of both. 12/1/14 3. Begin sending surveys by 2/1/15. 4. Formalize a method to appropriately analyze and utilize feedback received by 4/1/15.
<p>Goal 2: Extend Technical Outreach</p>	<p>OUBO will complete its transition from a reactive focus (providing assistance when requested) to a proactive focus of continuously providing clients with knowledge and resources.</p>	<p>Kathy Dave Elaine</p>	<p>To achieve Goal 2:</p> <ol style="list-style-type: none"> 1. Each OUBO staff member will develop and present a 15 -30 minute educational program by 6/1/15. 2. Develop a recurring and standardized process to evaluate and update web information by 1/1/15 to ensure all web information is up-to-date and timely. 3. *Stretch goal: Publish a quarterly hot topics newsletter. Establish by 4/1/15.

<p>Goal 3: Provide Specialized Technical Services</p> <p>*OUBO STRETCH GOAL</p>	<p>Highly trained and uniquely experienced architects and engineers make up the staff at OUBO. We seek ways to more fully serve the University utilizing our specialized expertise. We believe we can serve in providing good stewardship of the University's heritage and resources by sharing our skills to solve unique problems. We also believe we can expand our services to offer proactive project handling and scheduling assistance to first time clients, clients with highly compressed schedules, and clients needing individualized assistance. It is believed that an additional staff person is required to expand our services into this new direction.</p>	<p>Ben Kathy Elaine</p>	<p>Goal 3 is a Stretch Goal. To achieve Goal 3:</p> <ol style="list-style-type: none"> 1. Restructure services to improve concentration on non-plan review services. 10/1/14 2. To minimize delays caused by incomplete submittals and printing glitches, provide gatekeeper services whereby all plans are checked before log-in to ensure all required information has been submitted with notification sent to client immediately. 1/1/15 3. Offer special assistance to 1st time clients such as those needing stage permits or constructing privately owned buildings upon state-owned lands. For clients who have highly compressed schedules or other special challenges, actively monitor submittals and make frequent contact. Our focus will be to actively guide the client through timely submittals of complete information. 4/1/15 4. Utilize extensive in-house expertise to help protect the University's unique resources. Support the primary purpose of the University by being involved with student mentoring, guest teaching, and interdepartmental committees. Ongoing.
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<p>Goal 4: Strive for Continued Process Simplification and Organizational Excellence</p>	<p>Continue our tradition of seeking new efficiencies. OUBO has noted several areas with opportunities for process simplification.</p>	<p>Scott Ben Elaine</p>	<p>To achieve Goal 4:</p> <ol style="list-style-type: none"> 1. Develop visual illustrations of our processes by creating flowcharts for plan reviews, building permit applications, inspections, and project closeouts. 12/1/14 2. Complete the "type of construction" chart for automatic entry onto permits. 4/1/15 3. Consolidate location where clients send plan review requests, response comments, and building permit requests into a single email address. 1/15/15 *4. Stretch Goal: Develop a program that asks client a series of questions and automatically fills out the permit (similar to online process to obtain renewed car registration, hunting licenses, etc.). 6/1/15
<p>Goal 5: Improve Professional Work Environment</p>	<p>In 2013, OUBO's public office area was converted to a now frequently utilized conference area. Our goal this year is to update the reviewers areas to improve working conditions and to present a more professional image.</p>	<p>Bob Ron Dave</p>	<p>To achieve Goal 5:</p> <ol style="list-style-type: none"> 1. Consolidate ideas and needs of staff. 9/15/14 2. Complete design. 12/1/14 3. Manage project and schedule work to begin by 3/1/15. 4. *Stretch Goal: Find a location where OUBO staff can be consolidated into a contiguous office space while maintaining close proximity to Facilities Management. 6/1/15

OFFICE OF THE UNIVERSITY BUILDING OFFICIAL STAFF



OUBO Staff (left to right): Dave Cooper, Scott Clough, Bob Waite, Ben Hays, Elaine Gall, Ron Herfurth, and Kathy Grove

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 29 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 serves as Second Vice-

President and Chair of the newly created Budget and Contracts Committee. Elaine also served as a Governor-appointed member of the Virginia Fire Services Board for four years and represented that Board as a member of the Virginia Board of Housing and Community Development for the last two years. Most recently, she has been asked to represent Virginia at the International Code Council hearings to be held in October.

Robert Waite, AIA, CBO
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 Facility Design Guidelines. He also assists the University Building Official on an as-needed basis.

Since serving with the US Army as a 1st Lieutenant with the 101st Airborne Division in the Republic of Vietnam, Bob has become a registered Professional Architect in Virginia and is a member of the American Institute of Architects. He also holds certifications with the Virginia Department of Housing and Community Development as a Residential Building Inspector and a Combination Building Plans Examiner. Bob completed the requirements for Certified Building Official and obtained certification in May of this year.

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 energy plans examiner commercial mechanical inspector, commercial plumbing inspector, and commercial energy inspector. Ron obtained both energy certifications within the last year and is one of the first in Virginia to have done so as the program is newly adopted in our state.

Also in the past year, Ron has attended the DHCD Advanced Official course in preparation for obtaining CBO certification. Ron is a member of American Society of Heating Refrigeration and Air-Conditioning Engineers

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 the Senior Civil / Structural Engineer in November 2011. 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. In the spring of 2014, Ben acted as the project manager and structural engineer on the Berlin Wall display pavilion, located in front of Special Collections Library. He is currently helping direct an overhaul of the 300+ page *University Facility Design Guidelines*.

Ben has 12 years of professional design, management, and review experience and has worked as a civil and structural engineer in California and Virginia. He holds licenses in both Virginia and California and is also an ICC certified Commercial Plans Examiner, an ICC certified Commercial Building Inspector, and a LEED Accredited Professional. He recently completed coursework needed to take the Certified Building Official examination, which he plans to complete during the next academic year.

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 member of the Southeast Chapter of the Society of Architectural Historians (SESAH). Starting in January 2014, Ben taught a new course in the School of Architecture, titled *History of American Building Technology*. The course integrated material on the history of building technology with the development of design methods within the United States and used the University's buildings as a series of case studies.

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

Kathy joined OUBO as Senior Review Architect in April 2012. She provides review, in-house consultation and value-management input for architectural projects with regard to code and ADA compliance, constructability, and compliance with UVa's Facilities Design Guidelines. She also conducts building inspections for code, ADA compliance, and occupancy. Kathy is a member of UVa's Environmental Impact Subcommittee where she co-

chairs the Water Working Group. This year, she was the architect on the 3 person design team for the recently constructed Berlin Wall display pavilion on Grounds.

Kathy has 24 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 was 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.

Kathy is a registered Professional Architect in Virginia and holds Virginia DHCD and ICC certified Commercial Building Inspector and Commercial Building Plans Examiner licenses. Kathy is a member of the American Institute of Architects (AIA) and is a Leadership in Energy and Environmental Design (LEED) Accredited Professional.

Scott Clough, PE, LEED AP

Senior Electrical Engineer

B.S. in Electrical Engineering, Purdue University

Scott joined OUBO as Senior Electrical Engineer in January 2014. Prior to joining UVa, he worked as a Senior Project Manager in Ohio. He has 15 years of engineering experience including consulting, peer review, standards, and electrical design for education, healthcare, hospitality, and utility projects. 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 systems, lighting, fire alarm, and value management studies.

Scott is a member of UVa's Electrical Safety Committee. He is also a Leadership in Energy and Environmental Design (LEED) Accredited Professional and a member of the Institute of Electrical and Electronics Engineers (IEEE).

Scott is a registered Professional Engineer in Virginia and 17 other states. He has completed the Virginia Code Academy Training Sessions towards achieving certification as an Electrical Plans Examiner and Commercial Electrical Inspector.

David Cooper, CBO

Senior Fire Protection Engineer

David joined OUBO as a Fire Protection Engineer in June 2014 bringing with him a broad range of valuable code enforcement experience in all areas of expertise. Prior to joining UVA he spent 10 years as the Building Official for Fauquier County. He has 27 years of experience in the construction field as a field inspector, plan reviewer and general code compliance reviewer. His experience includes field inspections for all building trades, plan review and oversight of all processes of a County Building Department. Additionally he has spent several years with The State Fire Marshal's Office where he performed construction and general fire safety inspections for existing and new construction of State owned universities

and hospitals. At OUBO his primary responsibility is plan review and consultation related to fire safety provisions including fire suppression, egress and fire resistance rated construction.

David provides valuable proficiency in many areas of code enforcement and holds an astounding 14 certifications from Virginia Department of Housing and Community Development including: Certified Building Official, Fire Protection Plans Examiner, Commercial Plans Examiner, Commercial Electrical Plans Examiner, Combination Commercial Inspector; which includes Commercial Building, Electrical, Plumbing, and Mechanical Inspector Certifications; Combination Residential Inspector; which includes Residential Building, Electrical, Plumbing and Mechanical Inspector Certifications, Fire Protection Inspector, Elevator Inspector, and Amusement Device Inspector.

David is a member of the Virginia Building and Code Officials Association.

