

Foundations & Perspectives

Volume 9 | Summer 2012

Inside:

Saving Life and Limb
AOC Arborists

Master Illusionists
of Capitol Hill



Do you know where this is?
Find out on page 22.

Photo by: Susanne Bledsoe

In This Issue



Photo by: Susanne Bledsoe

Caring for the trees on Capitol Hill is a year-round job for the small crew of AOC arborists.

- 1 Letter from the Architect
- 2 Behind the Numbers
- 6 Feature: One Team, One Mission, One Day
- 14 Saving Life & Limb: AOC Arborists
- 16 This Old Capitol
- 18 Feature: Master Illusionists of Capitol Hill
- 22 In Pictures: A Green Roof Comes Alive
- 24 Doing Good: Riding & Raising for Research and Treatment

Front Cover: Photo by Chuck Badal

Ernesto Ponce ("The General" among his coworkers for his trade know-how), AOC Senate painter and refinisher, touches up a Senate Committee room.

Letter from the Architect



One of the more interesting aspects of our mission here on Capitol Hill is that the work we perform today will affect the lives of millions of people in the future. The individuals who will walk the same halls as you do — 50 years from now — will directly benefit from the skill and effort you contribute today.

Trees planted this year will shade future Capitol visitors, much like how the soaring foliage that frames the grounds today was planted generations ago and now provides a welcome respite from the heat. The health of our trees is ensured thanks to the crew of dedicated tree arborists who perform inspections and pruning work year-round (see page 14). Careful planning is necessary in all aspects of our work — from choosing the right tree for a specific location to supporting large-scale events on Capitol Hill.

“The work we perform today will affect the lives of millions of people in the future.”

Every four years, the AOC has the distinct honor of supporting Congress in one of the premier events of our nation — the Presidential Inauguration (see page 6). As an agency, we take great pride in showcasing our nation’s

stage in all its glory. The smallest task takes on great importance when the eyes of the world are focused on the U.S. Capitol on a cold day in January.

Being good stewards of every dollar we receive is another way the AOC ensures we can fully support Congress in the future. On page 2, you will meet the three branches that make up the office of the Chief Financial Officer. These employees work hard to build the financial roadmaps that help every office in the AOC have the resources they need to meet our customers’ needs.

Although we are beginning a very busy six-month period on Capitol Hill, including implementing the biennial move of Congressional offices and supporting the Inauguration, I have faith that each one of you will embrace the challenges with the same “can-do” attitude that defines our agency.

We will continue to **serve** all who work and visit Capitol Hill, **preserve** the national treasures entrusted to our care, and **inspire** memorable experiences each and every day.

A handwritten signature in black ink that reads "Stephen T. Ayers". The signature is written in a cursive, flowing style.

Stephen T. Ayers, FAIA, LEED AP
Architect of the Capitol



Photos by: Dewitt Roseborough

Behind the Numbers

Energetic. Personable. Fun. *Fun?*

Those are not usually words one would traditionally associate with the jobs of accounting and financial management. Chief Financial Officer (CFO) Tom Carroll is no ordinary accountant or financier, however. He considers himself an “Operations Guru,” having honed his skills for 20 years in the Air Force by working as an engineer in facilities management and developing budget requests for Air Force installations worldwide.

“When I retired from the Air Force, I had not lost the desire to serve my country,” says Carroll, explaining his decision to apply for the position of deputy superintendent of the House Office Buildings, a job he began in early 2009. His job responsibility included development and management of operational budgets.

Hired last summer as the Architect of the Capitol’s CFO, Carroll says one of his greatest strengths is that “I bring an operational perspective to the CFO’s office. This really is my dream job in that it is the continuation of a lifetime of service.”

“We’re not boring — we’re a fun group of people,” says Jan Edwards, senior budget officer and payroll analyst, when asked about the bean counter reputation. “In this job, it helps to be outgoing and keep a sense of humor.”

Edwards works hard to keep an open line of communication with the many jurisdictions she serves by providing support in busy times, such as the end of the fiscal year.

Jan Edwards from the Budget Division collaborates with Corry Isaac from the Accounting Division on a project.

“Building a relationship with our clients is so important and allows us to learn about what they do so that we can provide them with the tools they need,” Edwards adds. For example, she created Payroll THINK, a tool that managers can use to estimate the total cost of a proposed position, ensuring the prudent use of taxpayer dollars.

Strong communication is the key to the CFO’s goal of being the “solutions people” for the agency. “We want to offer solutions and alternatives instead of saying no,” says Carroll. “It all goes back to my core belief that we are both teacher and student — we need to teach our trade, and at the same time, learn about what our customers do so we know how best to help them.”

Open communication with customers, including the AOC’s Congressional partners, also allows the agency to be viewed as a credible, reliable and transparent organization and to be considered trusted stewards of taxpayer dollars.

All year long, the Budget Office is hard at work producing the AOC’s annual budget request, a process that begins as soon as the latest budget justification book is submitted to Congress. “The more we understand what the jurisdictions are doing, the more we can explain our requests to the appropriators,” says Budget Officer Lauri Smith, explaining why

Financial Systems Division employees, Nina Bajaj and Mark Cooper, take some time to review a financial report. Below: Office Automation Clerk Mac Claggett is the friendly face that greets all Accounting Division visitors.

“This really is my dream job in that it is the continuation of a lifetime of service.”



As a “behind the scenes” organization, the CFO has three branches: the budget, accounting and financial systems divisions. Additionally, the CFO manages the AOC’s internal controls program.



Budget: tracking and reporting obligations and expenditures, developing budgets, estimating and projecting future expenses, developing cost savings initiatives, defending the budget and interfacing with Congress and the Office of Management and Budget.

Accounting: paying invoices, reporting and accounting for amounts spent, managing credit card reconciliations, managing and reporting on the cost accounting program, interfacing with the U.S. Treasury.

Financial Systems: financial and inventory systems management, report development, custom systems training and user support.



Inventory Management Specialist Stephen Krankowski, from the Accounting Division, meets with Inventory Management Specialist Carl Bowman in the Library of Congress' inventory supply store room.

Total CFO Authorized Full Time Equivalents: 35.

Big Accomplishment: Attained a clean audit opinion for seven years running.

What is the definition of a clean audit opinion?

A clean audit opinion is a representation by an independent auditor that the agency's financial statements are fairly presented and says that the statements are free of material misstatement.

What is the biggest misconception about the CFO?

"That the end of the fiscal year is our busiest time of year," says Carroll. "For us, there really is no down time. We have a constant flow of information going in and out of the office, in all divisions, on a daily basis."

they ask such detailed questions of supervisors and managers.

The AOC's Strategic Vision goal of "One Team, One Mission" is what the CFO's employees try to embody everyday. "It's important that we're all on the same page, all working for the same thing," says Carroll. Reports such as the annual budget submission and Performance Accountability Report (PAR) require contributions from employees across every jurisdiction, making them true team efforts. In addition, implementing financial systems and inventory management upgrades necessitate coordination throughout every organization in the AOC. *See next page for information about the PAR's recent award.*

As a part of his work load, Stephen Krankowski takes inventory of the AOC's shop supply rooms, including performing equipment verification. "We make sure what the AOC buys is issued and used properly," he says.

"The CFO provides support to AOC jurisdictions to help them fulfill their mission to Congress," explains Smith.

Ramon Jimenez, associate budget officer, agrees. "In a job like ours, we take care of the people so that they can take care of the mission."

— By Kristen Wandell



PAR Award



Photo courtesy of: Joe Peter

In May, the Architect of the Capitol was awarded what is equivalent to an Oscar in the world of government accounting:

the prestigious Certificate of Excellence in Accountability Reporting (CEAR) Award. The award recognized the AOC for its Performance and Accountability Report (PAR), an annual reporting tool in which the agency presents its previous year's financial and performance accomplishments and details its program challenges and successes in a transparent manner.

The Association of Government Accountants, an independent organization dedicated to promoting and advancing government accountability, awards the CEAR to qualifying federal government agencies every year.

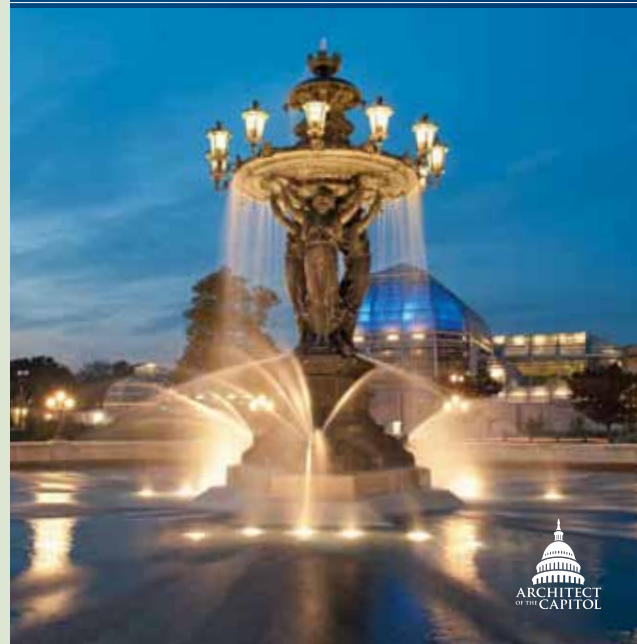
"Although by law we are not required to produce the PAR, it is an important exercise for the AOC to show our financial accountability and stewardship," said CFO Tom Carroll. "The PAR has significantly improved over time, and this year we finally reached a level where we felt confident submitting it for CEAR consideration."

The AOC is only the second legislative agency to receive the award and was one of 19 federal agencies that were awarded for Fiscal Year (FY) 2011. In addition to the CEAR, the AOC also won a special 'Best in Class' award for its Management Discussion and Analysis section of the PAR. The 'Best in Class' award recognizes select agencies for excelling in special components of the annual report.

2011
Architect of the Capitol

Performance and Accountability Report

SERVING, PRESERVING AND SUSTAINING THE CAPITOL



"The PAR is not just a financial or a performance report — it's essentially an agency wide report that communicates the services the agency provides, the results it achieves and how efficiently it manages its resources," said Joe Peter, senior accountant in charge of managing the 10-month process it takes to produce the PAR. All AOC jurisdictions contribute to the document, making it a true team effort.

"The AOC strives to balance our stewardship responsibilities with fiscal responsibility. During these challenging times, we are doing more with less to save taxpayer money," said Architect of the Capitol Stephen T. Ayers, FAIA, LEED AP. "We are honored to receive this award in recognition of our effectiveness in reporting our financial stewardship."



Scan the QR code to view the AOC's PAR online.

<http://www.aoc.gov/aoc/cfo>

To read this code, download a free QR reader app on your smart phone.

One Team, One Mission, One Day

Noon, January 20, 2009. The polished brass doors on the West Front of the Capitol gleamed. Thousands of chairs glistened in the winter sun. Red, white and blue flags and bunting fluttered in a cold breeze. Hundreds of Architect of the Capitol staff, who had helped plan, construct, secure, set up, clean, procure and organize the 56th Presidential Inauguration held their collective breaths as the ceremony began.

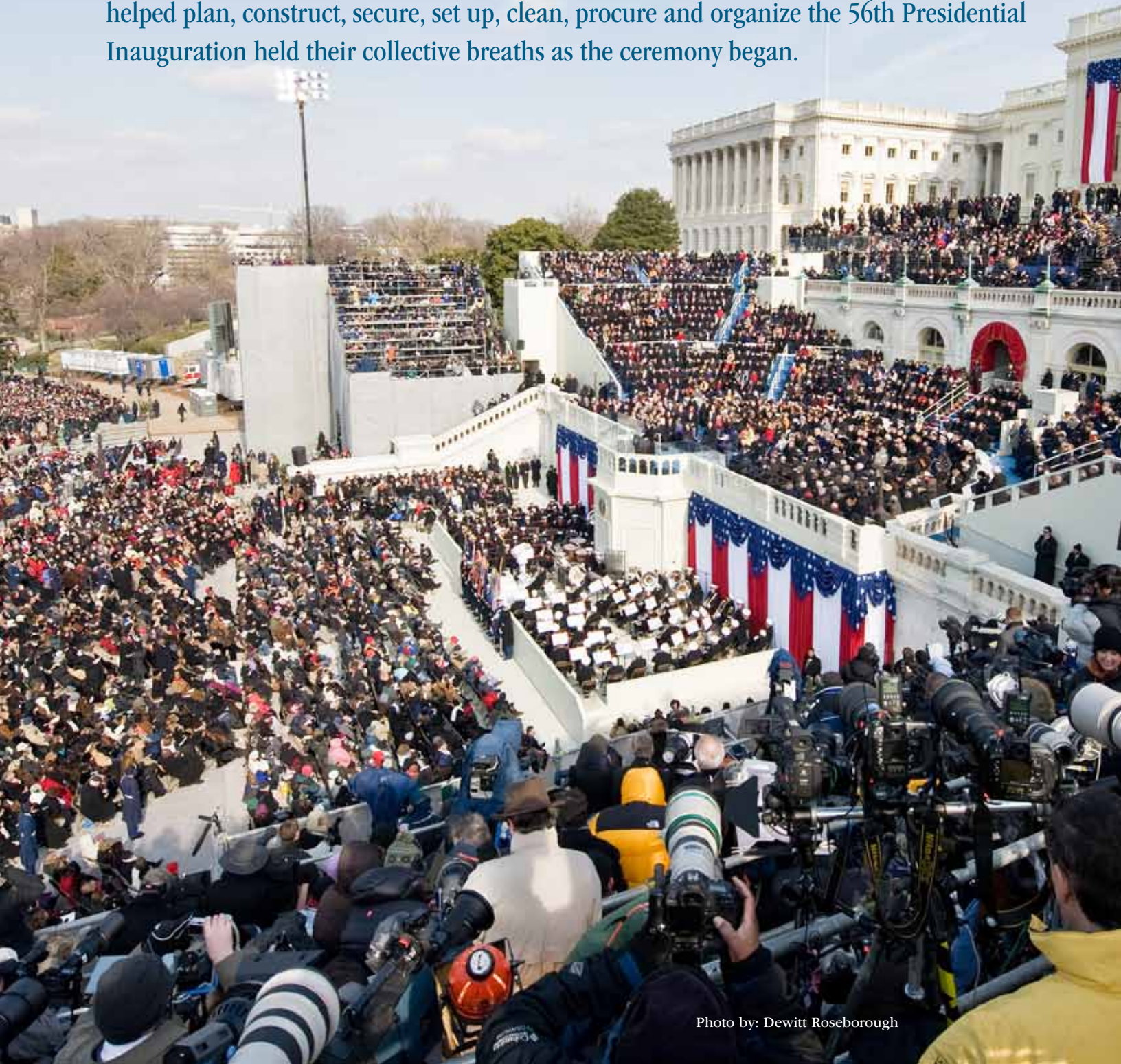


Photo by: Steve Payne

Photo by: Dewitt Roseborough



“It’s a very special day,” said Gary Bullis, woodcrafter with the Capitol Carpentry Division, who has worked on three inaugurations for the AOC. “Our whole shop is part of it, and we take pride in the work we do to get ready for the ceremony.”

Beth Plemmons, CEO for Visitor Services and new to the AOC in 2009, recalls getting chills as she watched the sun rise over the West Front. “It was dark, and you knew there were some people out there, but when the sun came up you could see throngs of people for miles. You could feel the energy radiating from the crowd.”

As the onsite coordinator for the event, Perry Caswell remembers sitting in the top row of the bleacher portion of the inaugural platform during the 2009 ceremony, flinching at every creak and groan of the 10,000 square foot temporary wooden structure he helped design. With several inaugurations under his belt, however, Caswell knew that the stage would bear the load.

One Team, One Mission

Berry Russom, high voltage electrician leader, sees the Presidential Inauguration as a collective effort involving nearly

At left: Hundreds of media outlets from around the world cover the Presidential Inauguration. Above left: Staff secure cabling underneath the inaugural platform. Above right: Former President Jimmy Carter and First Lady Rosalynn Carter enter the platform area.

every AOC employee and using the resources of virtually every division. Although the High Voltage Division is primarily responsible for ensuring a seamless transition if there is a problem with power on the day of the event, they pitch in to help wherever they can, even shoveling snow off the platform after an unexpected storm in 2005.

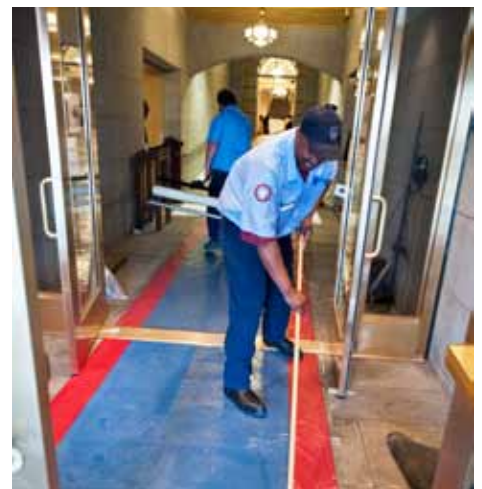


Photo by: Steve Payne

AOC staff install protection for the carpet leading to the inaugural platform.

Carlos Elias, Capitol Building superintendent, who is a veteran of four Inaugurations, takes the lead on behalf of the AOC, which is responsible for the entire inaugural infrastructure. He coordinates meticulously with the Joint Congressional Committee on Inaugural Ceremonies (JCCIC), Secret Service, military, Department of Homeland Security, Presidential Inaugural Committee, District Government, and all of the AOC's Congressional partners including the United States Capitol Police (USCP), House and Senate Sergeants at Arms, Office of Congressional Accessibility,

The inaugural platform is constructed entirely from scratch for each ceremony, and it is the biggest task for the AOC.

Office of the Attending Physician, media galleries, Member offices and other Congressional staff.

AOC staff oversee the construction of the stands and media towers, install cabling and security fencing, set up chairs, spread mulch, build trash bins, help with way-finding, select and hang pictures in the VIP holding rooms, construct ramps,

power trailers, distribute blankets and ponchos if necessary, lay carpet, adorn and decorate the Capitol with flags and bunting, and perform countless unpredictable tasks at the last minute.

Planning for 2013

Planning for the 2013 Inauguration began almost immediately after President Obama said the words, "So help me God," at the end of his oath of office on January 20, 2009. After-action meetings helped Capitol Building staff Caswell and Raynell Bennett, special events coordinator responsible for inaugural procurement actions, begin the planning process spearheaded by Elias.

As they plan for and carry out this coming Inauguration, AOC staff will often think of Don White, assistant superintendent for the Capitol Building, who passed away on October 26, 2009. "During prior inaugurations, Don took care of the details," said Elias. "I miss Don — he was a friend as well as a colleague." Luckily, White, who some called the "Inaugural Guru," left detailed budgets and records that provide the AOC with a thorough blueprint for the entire process.

Braving frigid temperatures, employees install carpet on the inaugural platform.



Photo by: Steve Payne



Photo by: Steve Payne

Everyone helped to clean up the West Front Grounds prior to the 2009 inaugural ceremony, including Capitol Grounds Superintendent Ted Bechtol.

The inaugural platform is constructed entirely from scratch for each ceremony, and it is the biggest task for the AOC. In June 2010, Elias hired a design consultant to make sure that plans for the 2013 platform and stands are compliant with current fire and life safety and accessibility codes.

Construction will begin after the traditional First Nail Ceremony in September when the Architect of the Capitol Stephen T. Ayers and members of the JCCIC will hammer nails into a plank on the platform site. The fencing that is in place for the Labor Day concert will remain there until after the Inauguration.

According to Ralph LoJacono, general supervisor for the Capitol Grounds Gardening Division, in September the grounds staff will begin a major cleanup of the West Front, inspecting the lawn for holes, trimming overhanging or dead tree branches, and repairing turf damaged during the concert. “We are continuously looking for potential pedestrian

hazards and safety issues leading up to the Inauguration,” said LoJacono, whose first Inauguration working for the AOC was in 2009.

The West Front fountain will be drained, filled with sand and wrapped securely to protect it from the platform construction that will take place above it. The Grounds Division will unroll additional fencing throughout the complex at the direction of the USCP.

Temporary trailers will be set up on both sides of the Capitol; the first one erected will be used for security screening of the contractors building the stands. Later, another trailer on the House side will screen media, and large quadruple-wide trailers will provide facilities for the Office of the Attending Physician and the USCP.

In November, the chairs and portable toilet facilities will be brought on site, and AOC staff will install banners and event markers to help guests find their designated seating or standing areas. The first dress rehearsal for the ceremony will most likely take place on January 10, 2013.

The materials needed in 2013 mirror those ordered for the 2009 ceremony, but Bennett began procuring the materials earlier this time. For example, in 2009, the demand for security fencing was so high in Washington, D.C. — with competing requests from the National Park Service and the Secret Service — that the AOC had to order fencing from Michigan. By starting earlier, Bennett hopes to avoid that scenario. *(See sidebar for other procured items.)* Also new this year

Materials Procured for the Inauguration



22,000 sheets of plywood

7 tractor-trailer loads of framing lumber



7 dump trucks of sand



Nearly **30,000** chairs

More than **23** miles of cabling



4 miles of snow fencing



505 portable toilet facilities

2,500 rain ponchos

100 cubic yards of mulch



1,700 blankets



Photo by: Steve Payne

is the infrastructure that will provide complete redundancy for all of the power required at the Inauguration.

Unusual Requests

Each inauguration brings unexpected obligations. Prior to the 2009 ceremony, Caswell donned thigh-high black trash bags in order to wade into the Union Square reflecting pool to measure its depth after someone suggested planking it for additional seating. Also that year, he and Bennett had to rent a grand piano at the last minute, which needed to be tented and heated until the morning of the ceremony. “It can be frustrating,” said Caswell, “but it’s also part of the fun.”

The opening of the CVC in December 2008 gave the AOC added space for support activities as well as additional personnel on Inauguration Day.

Just as the 2009 ceremony was getting underway, CVC Logistics and Resources Specialist Marc Kochenderfer, a veteran of four inaugurations, recalls getting a call from the House Sergeant at Arms that a Member’s spouse was lost in the Cannon Tunnel. “He had a walker with a chair on it but had no idea where to go. He sat in the chair while I pushed him in his walker from the Cannon Tunnel to his seat in the second row. We had to take breaks every few yards, but I got him to his seat just as Vice President Biden was taking his oath of office.”

Details, Details, Details

Bullis, woodcrafter with the Capitol Carpentry Division, heads a team



Photo by: Dewitt Roseborough

At left: Employees on scaffolding hang flags and bunting behind the inaugural platform. Above: Architect of the Capitol Stephen T. Ayers, Raynell Bennett and others check last-minute details on the 2009 inaugural platform.

that hangs five huge 22-foot by 12-foot flags and bunting behind the podium. This project begins about two weeks prior to the ceremony with the installation of wooden supports the length of the flags. Scaffolding is hung off the top of the building, and Bullis and his team attach background white sheets the length of the flags. The current American flag hangs in the center, and it is flanked on either side by the American flag in use at the time the President’s home state entered the union. The first American flag with 13 stars hangs on either side of those flags.

On the day of the ceremony, Bullis is also responsible for mounting the Presidential seal at the base of the large white speakers’ podium. The seal is delivered several weeks before the ceremony, and the Carpentry Division checks it carefully to see if any repairs are needed.



Photo by: Steve Payne

On September 24, 2008, Architect of the Capitol Stephen T. Ayers joined Senator Dianne Feinstein, then-chairman of the Joint Congressional Committee on Inaugural Ceremonies; then-Ranking Member of the Senate Rules Committee Robert Bennett; Senate Majority Leader Harry Reid; and then-Speaker of the House Nancy Pelosi at the First Nail Ceremony kicking off preparations for the Presidential Inauguration.

During inaugural years, LoJacono selects patriotic red, white and blue pansies for the flowerbeds around the Capitol. Prior to the ceremony, his crew coats nearly the entire West Front lawn with mulch to make it easier for visitors to walk to their seats, especially if the ground is wet.

Capitol Visitor Center

The opening of the CVC in December 2008 gave the AOC added space for support activities as well as additional personnel on Inauguration Day. AOC staff will use 30 to 40 of the CVC's radios so that all JCCIC personnel can communicate easily throughout the 2013 event.

In 2009, during her first Inauguration, CVC Visitor Guide Ara Carbonneau helped people with disabilities find their seats on the West Front. "It was wall to wall people that day," said Carbonneau. "I'm five feet tall, and I literally could not see where I was standing in relation to the Capitol. I oriented myself by looking down at where the grass ended and the sidewalk began."

Patrick Wicklund, CVC visitor guide and also new to the process in 2009, helped escort a group of 50 Tuskegee Airmen from their bus drop-off point at the Reserve Officers Association building on

Constitution Avenue to their seats. "It was a big honor for me," said Wicklund. "These men are heroes." To keep the men warm, Wicklund and others provided blankets and other resources.

The Day Of — What If It Snows?

Many AOC staff sleep in their offices the night before the Inauguration. In the morning, there are myriad details to deal with. "Some things you just can't do until the day of," said Caswell. "We line up the labor crew by the door near the terrace in case we need help with last-minute specifics like relocating chairs or cleaning off fingerprints from the glass around the front of the podium."

The Capitol's Electrical Division starts its work months before Inauguration Day to ensure that the VIP holding rooms and the stage area are ready

1,470 seats on main platform for:

President and Vice President-elects and their families

Members of the U.S. Senate and House of Representatives

Cabinet members and nominees

Supreme Court Justices

Outgoing President and Vice President

Former Presidents

Joint Chiefs of Staff

Governors

Diplomatic corps

Additional accommodations include:

936 seats on upper West Terrace bleachers

14,316 Senate side West Front seats

12,765 House side West Front seats

102,000 Senate side standing

112,000 House side standing



“I’m proud of the work I do on Inauguration Day. It’s a challenge, but it is definitely an honor.”

for any electrical needs. Their major role on Inauguration Day is to stand by in case of emergency. “If any lights flicker, we are ready,” said Martin Blanchet, high voltage electrician.

This year, as in previous years, the Capitol Grounds staff will develop a weather emergency plan in coordination with the District Department of Transportation.

“All of our snow removal equipment is prepped in case of inclement weather,” said LoJacono. “We’re responsible for roads and sidewalks, and the labor crew is responsible for the steps. But we will all work together if there’s a big storm.”

In 2005 when it snowed the night before the ceremony, AOC staff had to continuously vacuum the carpet on the stage until the storm stopped.



Photo by: Chuck Badal

“Everyone was shoveling the next morning,” said Bullis. “I think even Carlos Elias was outside cleaning off chairs.”

An Honor

A veteran of more inaugurations than he can count, William Warley from the Labor Division who has been with the AOC since 1973, still finds it thrilling to work on Inauguration Day. “It’s our job, but it is still

exciting to see all that goes into preparing for the event,” Warley said.

Inauguration Day is like no other for AOC staff. “I’m proud of the work I do on Inauguration Day,” said Bennett. “It’s a challenge, but it is definitely an honor.”

“It makes me feel very humble,” said Russom, high voltage electrician leader. “It’s not about politics; it’s about our history as a nation.”

— *By Sharon Gang*



To read this code, download a free QR reader app on your smart phone.

For more information about the 2013 Inauguration, scan the QR code.

www.inaugural.senate.gov

Arborists use surgical precision to keep patients alive for hundreds of years

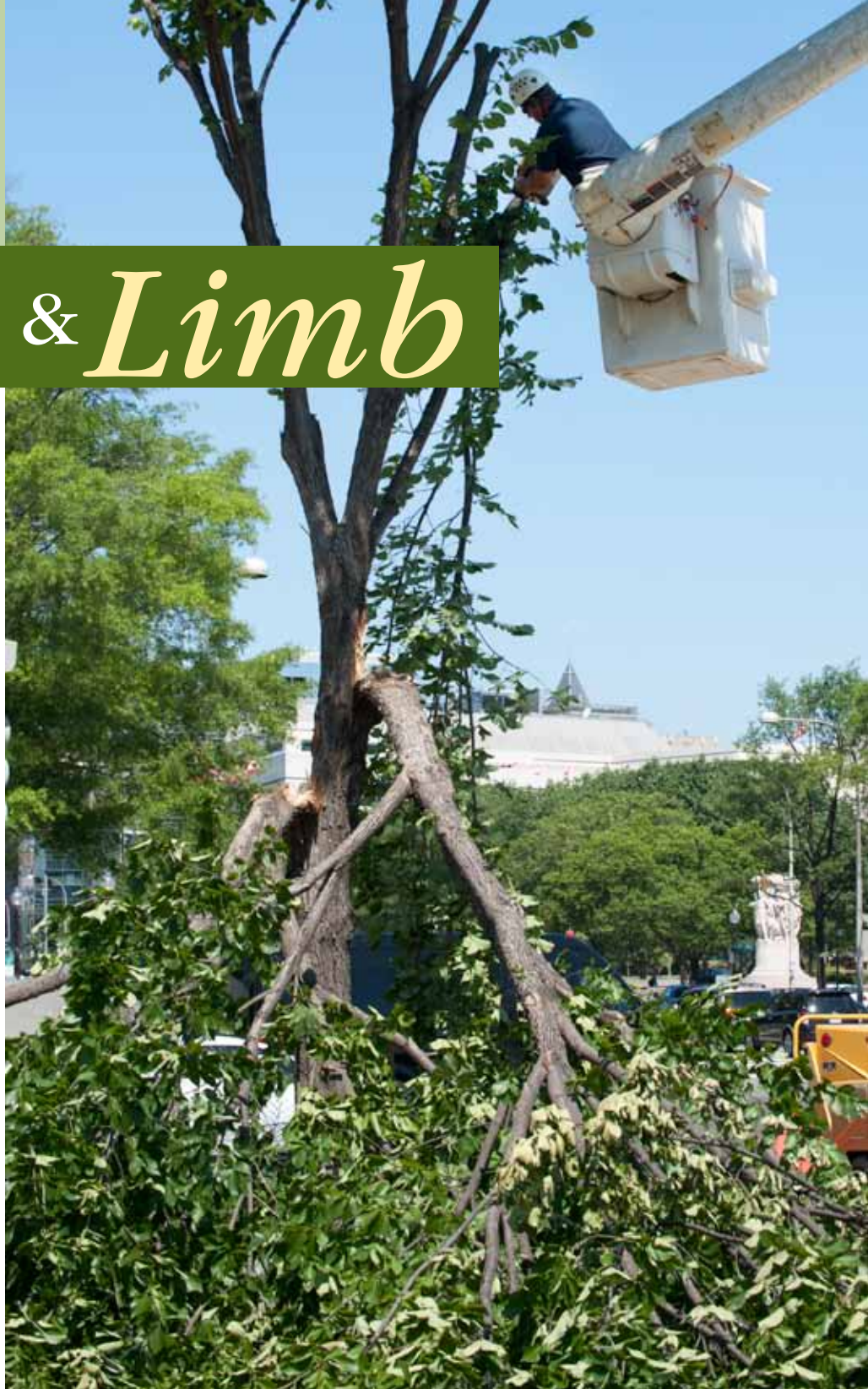
Saving Life & *Limb*

George Rollins and his crew of six perform surgery outdoors, year-round, often hanging over 100 feet above the ground — and they keep their patients alive for hundreds of years.

“Many of them, we don’t even know exactly how old they are,” Rollins explains. “Once they reach maturity, after about 50 years, it’s hard to determine their exact age. We can tell a little by the DBH — diameter at breast height — but not the exact age once they get to be that size.”

Most doctors don’t guess their patients’ ages by the size of their waistline, but Rollins’ patients are the more than 4,500 trees that fill the Capitol Grounds with shade and shelter for wildlife and that frame the Capitol as part of Fredrick Law Olmsted’s master plan for the grounds. Rollins’ official title is tree surgeon supervisor, but he explains, “The new term is ‘arborist,’ which includes everything we do.”

And the Architect of the Capitol’s arborists do quite a bit, year-round. “Spring and summer are the busiest, because the trees are leafed out,” says Rollins. This makes it easier to see which limbs are dead or weakened, which the arborists prune to maintain the health of the tree.



Photos by: Susanne Bledsoe

“You have to go to each tree and take out any diseased limbs, broken limbs, limbs that are rubbing, so the tree will be healthier and safer and will grow to maturity.”

On the northwest corner of Union Square, Arborist Henry Brady cleans up a tree that was damaged by a large storm.

“The priority after safety is caring for our oldest trees, which sit on Capitol Square.”

Helping them track the work needed is software that shows the exact location and species of each tree as well as other information. This database has many uses. For example, if they hear of a particular pest or disease that is spreading, “we can query the database and quickly see what the effect will be across the campus,” explains Rollins.

One reason they prune all year is for the safety of the people and property under the trees. Says Rollins, “We prioritize sidewalks and streets, to keep everybody who’s walking or driving safe. Safety is always a concern.” That concern extends to the arborists, who are often climbing through trees to get to their workplace. “We have a bucket truck, but it only reaches so far. It goes up 50 feet, but we’ve got trees that are 130 feet tall.”

The priority after safety, Rollins explains, “is caring for our oldest trees, which sit on Capitol Square.” Many people don’t know that although the arborists are part of the Capitol Grounds Division, they care for the trees in every AOC jurisdiction. The trees closest to the Capitol, however, are viewed most often by visitors and also provide shelter for special events, such as the Memorial Day and 4th of July concerts.

“We check over the trees on the West Front twice a year when they set up the tents because they’re a problematic species that can break in storms. They’re Ohio Buckeyes, and they have fruit that gets really big and heavy so it weighs the limbs down, and they also have big leaves and they’re soft wood,” says Rollins. “They’re beautiful trees; however, Olmsted never thought about holding big concerts right underneath of them.”

The arborists also assist with construction projects around the campus, helping guide any excavation around essential roots, whenever possible. However, “sometimes they can’t avoid it,” Rollins says. “Instead, we will dig the roots out by hand and choose where to make the cut, rather than having the backhoe rip across the roots, which leaves a large scar where disease or pests could get in.”

As part of the AOC team, the arborists also lend a hand digging the Capitol out after snowstorms, since there is often less pruning to do during the winter. “But still, if there’s an ice storm or something like that, you have to go and check all the trees,” adds Rollins.

None of that work bothers Rollins a bit. “I love working outdoors and getting around the whole campus.



AOC employees Steven Graham (top), Rick Prince (middle) and George Rollins (bottom) work diligently — in all kinds of weather — to keep the trees of Capitol Hill in excellent health.

And, you know, these trees are beautiful and deserve our help to live as long as possible.” That is why Rollins and his dedicated team will continue to make house calls to their patients, year round, for the benefit of all the visitors to the Capitol.

— By Franklin Bradley

This Old Capitol

Photos by: Chuck Badal



There isn't a person alive today who saw the construction of the Capitol Dome, designed by Thomas U. Walter and completed in 1866 from almost nine million pounds of cast iron. Consequently, there wasn't anyone alive to tell the Architect of the Capitol what was hidden under a dozen of coats of paint after almost 150 years.

The AOC is currently in the final stages of repairing and repainting the Dome skirt, which has not undergone significant repairs since the early 1960s. Lacking the proper repair and restoration work, the Dome is at risk for considerable damage due to water infiltration. The current leaks will accelerate and conditions will worsen, adding cost and complications to the repair and restoration process.

"The original foundry process for producing cast iron in the mid-to-late 19th century was not an exact science. It produced cast iron that had numerous imperfections, low tensile strength, and was susceptible to pitting and corrosion," explains Eugene Poole, project manager with the AOC Planning and Project Management Division. "That's why it's extremely important that the AOC continues its ongoing efforts of stewardship and

preservation for the safety of the members of Congress and for the millions of visitors who come to the Capitol each year."

During the current project, the AOC repaired both stone and cast iron, but absent a "handbook" on how to fix the Capitol, the project team had to develop methods for each new issue they encountered.

"No one else has a Civil War-era cast iron dome that has been or needs to be restored. There is just not much out there that compares to the Capitol Dome," says Dan Szwed, construction manager with the AOC Planning and Project Management Division (PPM). "Whenever you work with historic material such as the cast iron of the Dome, you have to be prepared to adapt the repair technology to fit the unique conditions. A one-size-fits-all approach will not work."



Photo: Library of Congress Archives

PPM identified multiple techniques to remove paint from the cast iron, including a high-powered needle gun for detail work on the trusses and aluminum-oxide abrasive blasting for the majority of the iron. Cracks and breaks have also affected the ornate features of the cast iron and repair is extremely difficult due to the brittle nature of the unique type of metal alloy used. The AOC modified a technique — a specialized pin system — to draw the cracked pieces together.

Traditional methods were used for the sandstone repairs, such as the replacement of damaged stone with a “dutchman,” which was inserted into the damaged portion. The AOC was able to match the original Aquia Creek sandstone by using stone that was placed in storage when the East Front of the Capitol was extended in the 1960s. The surface of the “new” stone was textured to match the original surrounding stone and then the perimeter joints were filled with mortar to complete the repair.

Project Architect Kevin Hildebrand notes, “Having access to original material for these repairs is an added bonus for our preservation of the sandstone walls. The importance of salvaging original materials, when they must be removed from our structures, can’t be overstated.”

Looking Ahead

The AOC continues to repair and protect the Capitol Dome, as well as the other historic Capitol buildings just as a family takes care of their own house, so that future tenants can enjoy them.

“We have an obligation to protect the Capitol Dome, the symbol of our country, for our kids and future generations,” says Capitol Projects Administrator Kristy Long.

— *By Justin Kieffer*

1790

Congress passes the “Residence Act,” stating that the federal government will be located in a permanent site on the Potomac River by 1800.

1791

Pierre Charles L’Enfant develops plan for capital city; he and President Washington select site for “Congress House.”

1793

Dr. William Thorton’s design for U.S. Capitol chosen; President Washington lays cornerstone.

1800

Congress moves from Philadelphia. Only the north wing of the Capitol is complete.

1814

Capitol burned by British troops.

1818

Center building begun.

1829

Building completed, including west terraces and landscaping.

1855

Congress votes to replace wooden/copper dome with cast-iron dome designed by Thomas U. Walter.

1861

Work on extensions suspended for 11-1/2 months because of Civil War; work on Dome continues.

1863

Statue of Freedom raised into place atop Dome.

1865

Constantino Brumidi painted the fresco “Apotheosis of George Washington” in the canopy over the U.S. Capitol Rotunda.

1866

Work on the Capitol Dome was completed in 1866 when the interior of the Dome was finished.





Photos by: Chuck Badal

Master Illusionists *of Capitol Hill*

Turning wood into marble, metal into wood, one dimensional into three dimensional; these are all “tricks” of the trade for the painters of the Architect of the Capitol.

“These buildings really are our American Sistine Chapel.”

“We make a lot of things look like something they are not,” said Cori Wright, assistant supervisor painter and decorator for the Capitol Building (and 2012 Winner of the Washington Post “Peeps Show” — dioramas made from Peeps marshmallows).

“Or we make something that has been put into a space disappear,” adds AOC “rookie” decorative painter, Ben Roberts, who joined the AOC Capitol jurisdiction this spring.



Above: Timothy Steadman and Charles Taylor, AOC Senate painters, carefully apply gold leafing within a Senate Committee room.

their responsibility to create unique, decorative surfaces, and artwork that blends seamlessly into the historic and modern spaces across the 17 million square feet of buildings under their care.

or to restore decorative surfaces. They remove old paint from interior and exterior surfaces of buildings by scraping, sandpapering, using blowtorches or applying liquid paint remover. In addition, they use steam strippers to remove old wallpaper and repair walls by placing putties into holes and cracks. They restore the spaces in a manner that ensures that the color, designs and textures are unchanged.

“Every building leaks; the bigger it is, the older it is, the more it leaks,” said Kalomas. This leaves plenty of repair and maintenance work for the AOC’s paint shops. And there are numerous “big and old” offices on Capitol Hill under the care of the AOC, including parts of the Capitol building dating to 1800 and the two oldest Congressional Office



The men and women who comprise the AOC painting craft across Capitol Hill (including the Senate, House of Representatives, Library of Congress and Supreme Court) are master illusionists ensuring the buildings inspire all who visit with their grandeur and beauty. It is

“These buildings really are our American Sistine Chapel,” said Dean Kalomas, AOC Library Building and Grounds decorative painter for the past 18 years. “I love it here.”

The AOC painters use solutions designed to preserve historic details

Decorative Painter Ben Roberts (far left), and Painter Lugarry Vernon (middle), ply their trade by enhancing the beauty of the buildings on Capitol Hill.



Roberto Duglio, AOC Capitol decorative painter, creates a “marble” fireplace from wood through skilled application of the right colors and design.

Buildings, Cannon and Russell, that are more than 100 years old. (Read *CSI: Cannon Scene Investigation* in the Winter 2010 *Foundations & Perspectives* to learn more about this work in the Cannon House Office Building.)

Tools of the trade include the use of materials to create decorative finishes such as stenciling, color glazing, marbling, lettering, striping,



stippling and graining. In addition, they use artist brushes for intricate painting and decorative work. They also do “straight” painting, staining and varnishing by brushing, rolling or spraying.

One of the methods practiced by the AOC decorative painters

The proper sizing of every detail, nuance of light and gradation of color must be skillfully incorporated in order to make the two-dimensional work appear to be three-dimensional.

is the ancient art of trompe l’oeil (pronounced *trump loy*), which requires meticulous attention to detail on the part of the artist.

“Trompe l’oeil means ‘deceive the eye’ and that is literally what we do,” said Kalomas. The proper sizing of every detail, nuance of light and gradation of color must be skillfully incorporated in order to make the two-dimensional work appear to be three-dimensional.

While the art of trompe l’oeil is ancient, some of the methods now employed at the AOC are completely

Claire Sharp, AOC Capitol decorative painter, helps restore the Old Senate Chamber using a faux marbleizing technique.

modern. The AOC Capitol paint shop has been at the forefront of the use of new tools such as the use of computer-aided design (CAD) and graphic design software for development of stencils and other intricate designs.

“Before we used to use standardized stencils and make them fit,” said Wright. “Now we create customized stencils to fit the space and then are able to print them.” A special printer cuts the design into a vinyl stencil, allowing what used to take four hours to cut by hand to be printed in minutes. “Not only is it more accurate, but it’s more efficient and allows us to easily make modifications to the design if needed.”

What’s the greatest compliment for the AOC painters? Having their work go unrecognized.

Jack Syult, supervisor of the Senate Paint Division, joined the AOC as a painter out of high school and has been with the AOC for the past 30 years. He and his team have been steadily making renovations to committee rooms in the century-old Russell Senate Office Building by employing the crafts of marbleizing, gold leafing, staining and straight painting. From marbleizing elements in the beautiful Kennedy Caucus Room to restoring antique furnishings in senators’ offices, the work of Jack



and his team is “unseen” across the Senate buildings.

“Most people don’t recognize it as faux marble, unless they look real close and see a marbled electrical outlet cover — then they might wonder,” said Syult.

One of Wright’s favorite stories involves a metal security door

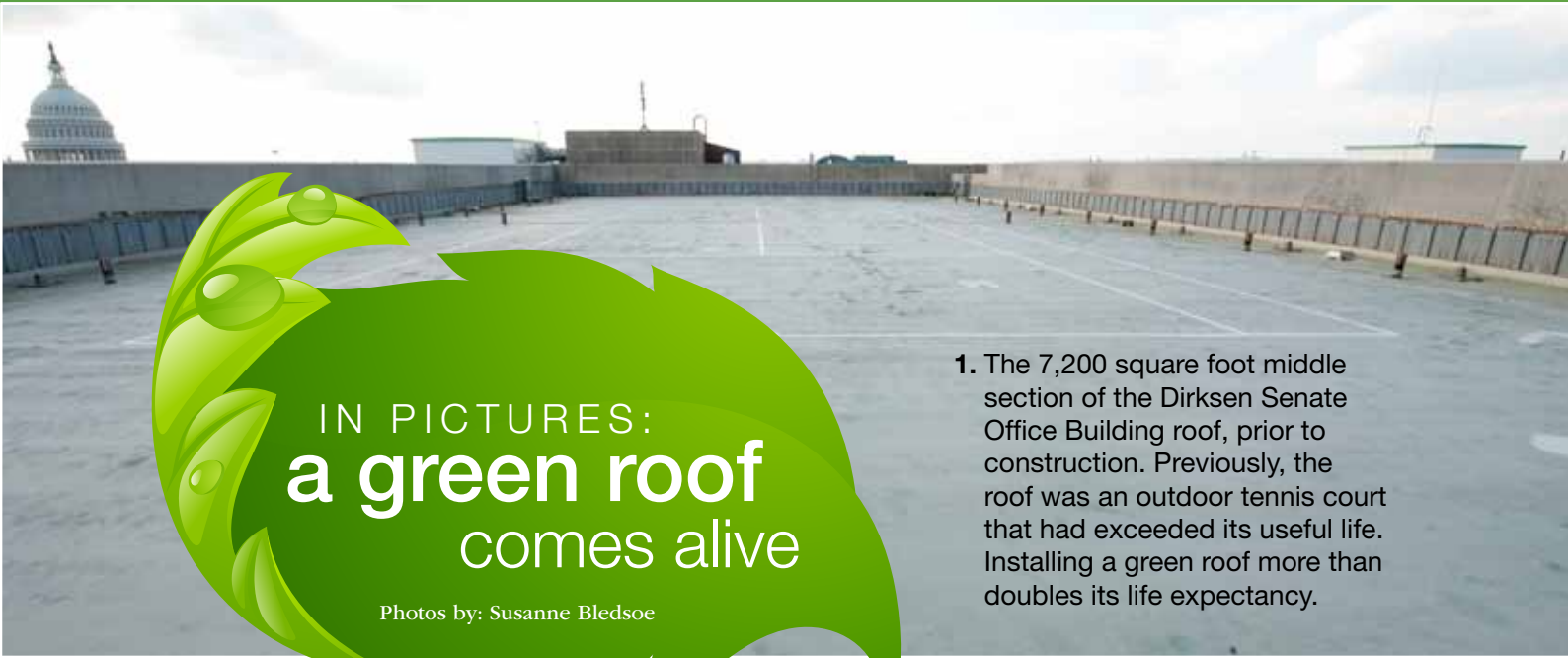
outside the House Chamber that is painted to look like an old mahogany door. “I was finishing the door when a Member of Congress walked by and said, ‘Why are you painting over that beautiful wood door?’ I just laughed to myself knowing that we did great work.”

— *By Matt Guilfoyle*




IN PICTURES: a green roof comes alive


Photos by: Susanne Bledsoe




1. The 7,200 square foot middle section of the Dirksen Senate Office Building roof, prior to construction. Previously, the roof was an outdoor tennis court that had exceeded its useful life. Installing a green roof more than doubles its life expectancy.




4. Next, workers installed a filter fabric over a drainage layer.



5. Workers installed a rigid insulation over the root barrier, creating two inches of insulation.



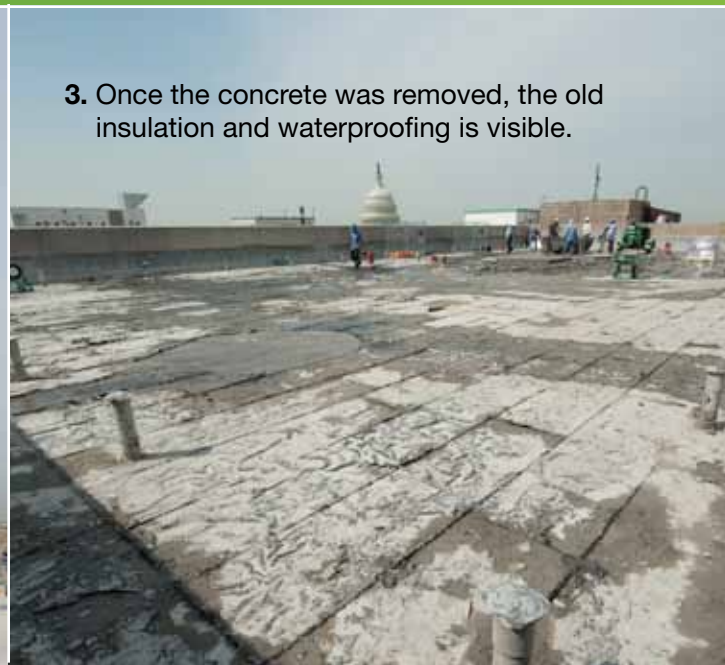
8. The green roof contains four different sedum mixes that provide yellow and white flowering areas, and bluish-grey and red foliage areas.



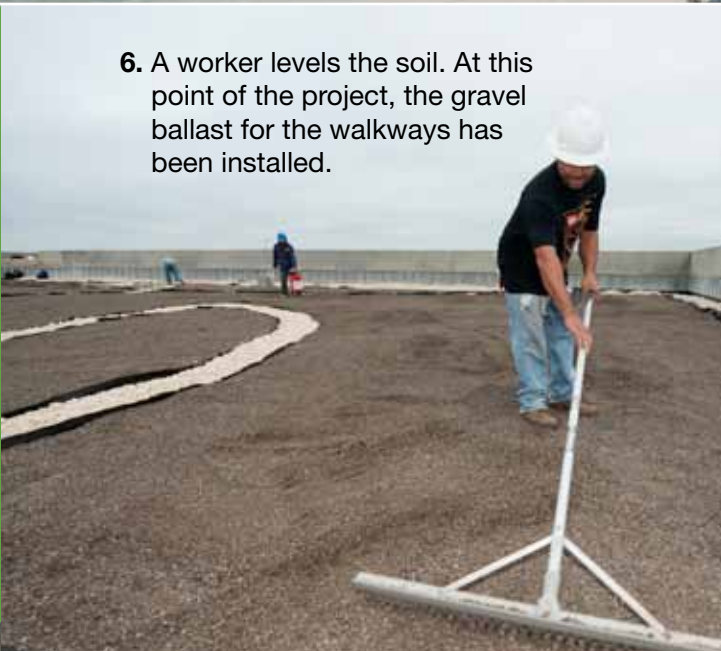
9. Twelve months later, the green roof continues to thrive.



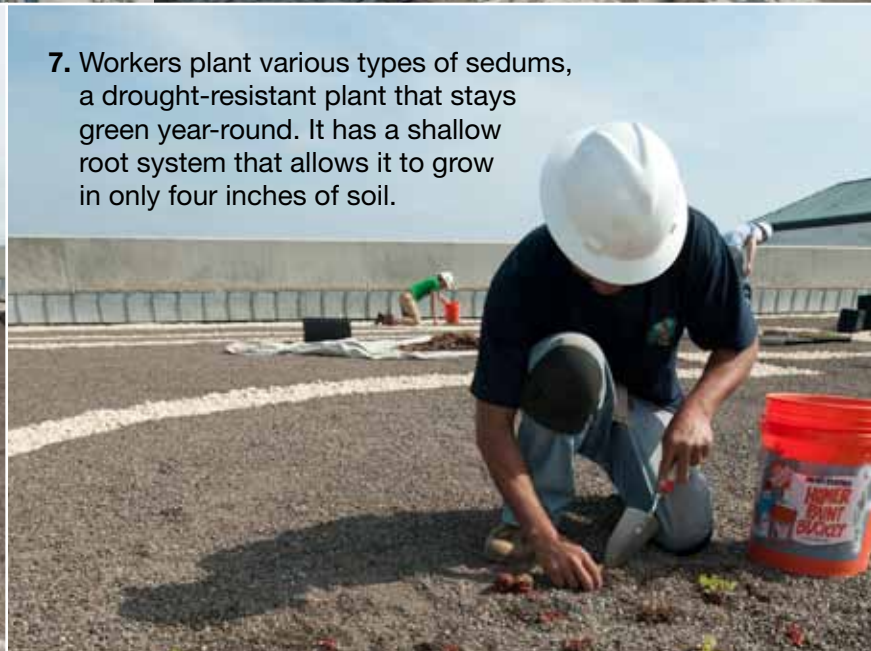
2. The first step was to remove the lightweight concrete from the roof.



3. Once the concrete was removed, the old insulation and waterproofing is visible.



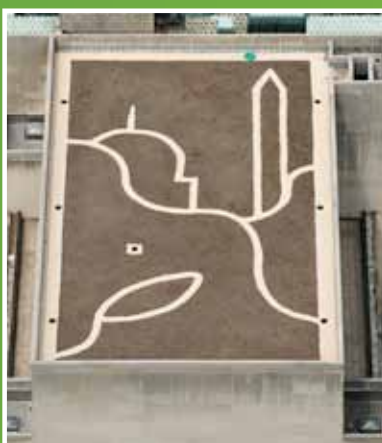
6. A worker levels the soil. At this point of the project, the gravel ballast for the walkways has been installed.



7. Workers plant various types of sedums, a drought-resistant plant that stays green year-round. It has a shallow root system that allows it to grow in only four inches of soil.



10. Can you tell what design the pathways make? The U.S. Capitol Dome is on the left, the Washington Monument is on the right and a leaf is in the bottom left corner.



Scan the QR code to watch a video of workers constructing the Dirksen Building green roof.



To read this code, download a free QR reader app on your smart phone.



DOING GOOD:

Riding & Raising

for Research and
Treatment

1 bike. 2 days. 190 miles. More than \$11,000.

Like many people, Franklin Bradley's life has been touched by cancer. When he was 16 years old, his father, Loren Bradley, died of a brain tumor. Franklin's uncle also passed away after battling mesothelioma (cancer that originates in the lining of internal organs, such as the lungs), leaving behind a wife and two young children.

For many years, Franklin — internal communications manager for AOC Communications and Congressional Relations — searched for a cancer cause he could support. "I wanted to put my efforts into something that would make a meaningful difference," Franklin explains.

Three years ago he discovered the Pan-Massachusetts Challenge (PMC), an annual bike-a-thon that raises money for cancer research and treatment at the Dana-Farber Cancer Institute. Since 1980, the PMC has raised \$338 million and donates 100 percent of every rider-raised dollar directly to the Institute, raising more money than any other single event in the country. In 2011, more than 5,500 cyclists rode in the event that took them through 46 towns across Massachusetts.



Photos courtesy of: Franklin Bradley



This year, Franklin's two-day ride on August 4 and 5 began in Sturbridge, and ended in Provincetown, Massachusetts. He raised \$11,000, putting his three-year total amount raised at almost \$30,000. One way he creatively raises funds is to set three goal amounts as a challenge to his friends and family. If he raises certain amounts by Father's Day every year, he will shave his beard, head and legs. This year his two young children, Solomon and Miriam, had the honor of clipping his hair and beard.



"I do this for my kids because I want cancer to be preventable — and if not preventable, then treatable.

When they grow up, I want them to be shocked to hear that there was no cancer treatment for their grandfather's cancer — because by then I'm confident there will be," Franklin says.

Knowing how many people his efforts help keeps Franklin riding in all types of weather, all year long. The only training he does to prepare for the grueling two-day ride is his

daily commute to and from work, a round trip of 27 miles on his bike.

Franklin's five older brothers and sisters, as well as his two cousins who lost their father to cancer, are his biggest supporters. His cousin Elizabeth De Witt designs the jersey he wears during the ride and also creates and maintains his fundraising website. If someone contributes \$100 to his fundraising goal, Franklin will put a photo of that person (or family members) touched by cancer on his jersey. "It's a way to tell the stories of people affected by cancer," Franklin explains.

During the ride, hundreds of people volunteer to feed the riders at designated stops and thousands more line the route, cheering on the participants. "I never fail to get choked up when I see people, especially kids, holding signs that say 'I'm alive because of you.' It's such an amazing motivator when you see that. It makes it all worth it."

— *By Kristen Wandell*

Dana-Farber Cancer Institute

The mission of Dana-Farber Cancer Institute is to provide expert, compassionate care to children and adults with cancer while advancing the understanding, diagnosis, treatment, cure and prevention of cancer, AIDS and related diseases. As an affiliate of Harvard Medical School and a Comprehensive Cancer Center designated by the National Cancer Institute, Dana-Farber also provides training for new generations of physicians and scientists, designs programs that promote public health particularly among high-risk and underserved populations, and disseminates innovative patient therapies and scientific discoveries to its target community across the United States and throughout the world. Dana-Farber Cancer Institute's ultimate goal is the eradication of cancer, AIDS and related diseases and the fear that they engender. Above all else, Dana-Farber makes a difference by relieving the burden of disease now and for the future through its research, clinical care, education, outreach and advocacy.



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Fireworks illuminate the U.S. Capitol Dome on July 4, 2012, during the annual celebration of America's Independence Day.

Photo by: Chuck Badal

