

THOLOS

**FEATURE:
FALLING INTO SPRING**

**THEN & NOW:
MADISON BUILDING**

**HISTORIC FIRSTS:
CAPITOL HILL
ELEVATORS**



ARCHITECT
OF THE CAPITOL



Feature: Cherry blossoms usher in spring on the U.S. Capitol Grounds. *Photo by Chuck Badal*

12

In This Issue

1 ARCHITECT'S NOTEBOOK

2 YEAR IN REVIEW

2016 projects

6 HISTORIC FIRSTS

Capitol Hill Elevators

10 THEN & NOW

Madison Building

12 FEATURE

Capitol Grounds:
Falling into Spring

18 DOING GOOD

A Supreme Choice for
Developing Area Youth

20 BY THE NUMBERS

Senate Fountain

YEAR IN REVIEW:

Highlights of the important restoration work concluded in 2016.

2



HISTORIC FIRSTS:

A celebration of the passenger elevator's birthday leads to a search for our own historic first elevator.



THEN & NOW:

A look back at the founding of the Madison Building.

10



COVER: The newly restored Dome at dawn.
Photo by James Rosenthal

Design with Purpose



As many of you know, I love birds. I made the mistake of announcing at a meeting some time ago that I occasionally listen to CDs of bird calls and songs as I drive to and from work.

Most of you have made fun of me since then, while a few other bird enthusiasts have secretly come forward.

I live near the Chesapeake Bay, which is a magnificent place if you are a birder. About a million swans, geese and ducks spend their winters on the Bay, while several others use it as a place to refuel as they migrate in the spring and fall.

One of the grandest birds on the Bay, and also one of my favorites, is the great blue heron. I love their beautiful steel blue color with hints of white, yellow and gray. Their ability to stand quietly and motionless is amazing. It also allows them to remain stealthy hunters and one of the Bay's top predators.

At up to four feet tall, they are big birds, and when they fly it's hard to believe they can get airborne. They are both beautiful and majestic creatures.

Our grand U.S. Capitol Building is both beautiful and majestic as well. To me it's only fitting that Frederick Law Olmsted, landscape architect of the U.S. Capitol Grounds,

had a heron carved in stone at the focal point, the central fountain, in the perimeter wall surrounding Capitol Square. As one approaches the fountain, it's easy to sense that this is both a great place and a place of greats.

I can imagine weary travelers approaching the U.S. Capitol from the west, eager for a refreshing drink of water from the fountain. Then as they look up, seeing the stately heron carved in stone before looking up a bit further to see our splendid U.S. Capitol Building.

To me, Olmsted's selection of what image to carve was purposeful, and when images reinforce one another a sense of order and purpose are present. This sense of order and balance are comforting to me.

I hope you're able to take in some of the finer details around our beautiful campus this spring as the flowers and fountains burst to life. *

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



Photo by Chuck Badal

2016 PROJECTS



DOME

The U.S. Capitol Dome, symbol of American democracy and world-renowned architectural icon, was constructed of cast iron more than 150 years ago. The Architect of the Capitol recently completed a multi-year project to completely restore the Dome for the first time since 1959-1960. The project consisted of repairing more than 1,000 cracks and included the restoration and replacement of cast iron and ornamentation. The exterior paint was removed and 1,215 gallons of new paint were applied to the Dome from the top down to protect it from corrosion and effects from the elements. The project required installing 52 miles of scaffold pipe and two miles of decking, providing access to the entire surface of the Dome. As removal of the scaffold commenced, the Dome emerged revealing a return to its inspiring splendor.



Photos by Chuck Badal

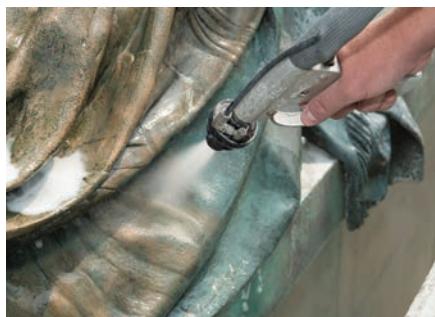


ROTUNDA

The Rotunda is among the most recognizable and hallowed spaces within all of America's public buildings. Due to the extensive exterior damage on the U.S. Capitol Dome, which covers the Rotunda, water had leaked through more than 1,000 cracks, damaging paint, cast iron, stone and decorative elements. In conjunction with the U.S. Capitol Dome Restoration Project, the Architect of the Capitol also began the Rotunda restoration, which focused on removing hazardous materials, restoring ironwork, upgrading electrical and mechanical systems, installing new lighting, and repainting it to historically appropriate colors. The successful restoration effort concluded in the fall of 2016.



Photos by Susanne Bledsoe



GRANT

The Ulysses S. Grant Memorial, by Henry Merwin Shrady, honors the Civil War Commander of the Union Armies and two-term President. It sits in Union Square, just west of the U.S. Capitol Building, near the Capitol Reflecting Pool. Care of the memorial was transferred to the Architect of the Capitol from the National Park Service in late 2011. Weather and time had caused significant deterioration to the monument's surfaces. Architect of the Capitol staff developed a preservation strategy, and efforts to restore the Grant Memorial to its original condition began in 2015. Restoration work included removing disfiguring corrosion, recasting over 150 missing or broken pieces, and refurbishing the marble plinths. Completed in 2016, the work on the bronze components and marble pedestals allows visitors to once again see the delicate details of the captivating sculpture. This spring, additional work on the memorial will include stone restoration, replacing missing lamp posts, waterproofing and utility upgrades. ☈

Capitol Hill Elevators

WRITTEN BY ERIN NELSON • PHOTOS BY CHUCK BADAL

One of 330 Capitol Hill
elevators maintained
by the AOC.

Before I started my research for this article, I had already outlined it in my head. An introduction highlighting the 160th birthday of the passenger elevator followed by a short summary of our own first passenger elevator. As I explored the history of the first Capitol Hill elevator, I soon discovered its location was a mystery.

Given our current detailed record keeping of projects, it's hard to imagine a time when such a historic moment passed with so little fanfare. Today, preservation consumes the work days of many Architect of the Capitol (AOC) employees. Projects large and small are carefully documented in detail to ensure the historic integrity of the Capitol campus is not lost. Future generations will be able to learn all about our modern-day projects, but unfortunately, as I learned, detailed record keeping was not high on one's priority list in the 1800s.

Where to begin when searching for historic facts? In 2017 the answer is Google. It led to our own website, www.AOC.gov, and my first clue: "In 1873 the first elevator was installed..."

I had a year, but not much else. I skimmed a few books about the history of the U.S. Capitol and learned that the first elevator was installed in the Senate Wing, but nothing detailed its exact location. I would have to leave Google and modern research to return to a time when paper was king, and no one has more paper than the Records Management and Archives Branch. I spent hours carefully sifting through letters, newspaper clippings and vouchers from the 1800s.

Correspondence dating back to 1871-1873 revealed obvious interest from several companies hoping to be chosen to install the prominent building's first elevator.



In the end, Leonard Atwood was awarded the contract. Records show the total cost of installation was \$8,259.21. While records related to the elevator's expenses were meticulously kept, its exact position remained a mystery.

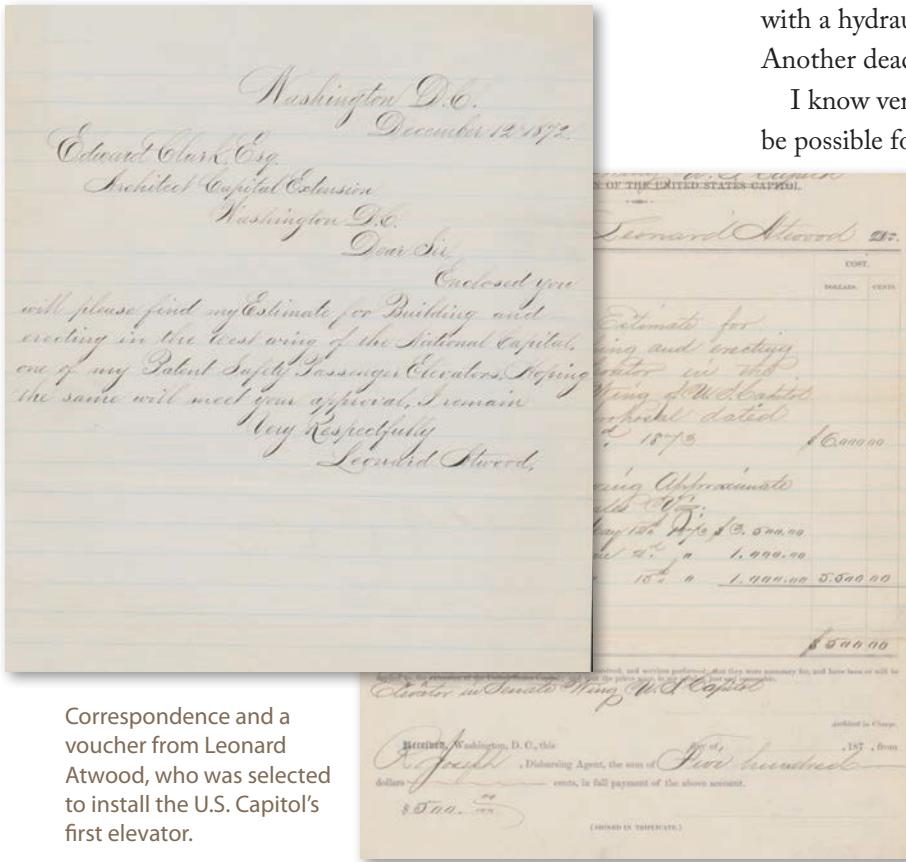
I read Glenn Brown's "History of the United States Capitol" and found my next clue: "For a discussion of the historical development of elevator service in the Capitol, see... Annual Report of the Architect of the Capitol for the Fiscal year Ended June 30, 1934." That seemed promising, but where would one find these reports? Perhaps the Curator would know.

Standing in the Curator's Office, Vicky Villano, Curatorial Assistant, pointed to the books behind her desk. The annual reports lined several shelves, starting with the

TOP RIGHT: Correspondence from the 1800s revealed several companies were eager to be selected to install the prominent building's first elevator.

LEFT: Erin Nelson (left) and Vicky Villano search the Architect's Annual Reports for clues to the location of the U.S. Capitol's first elevator.

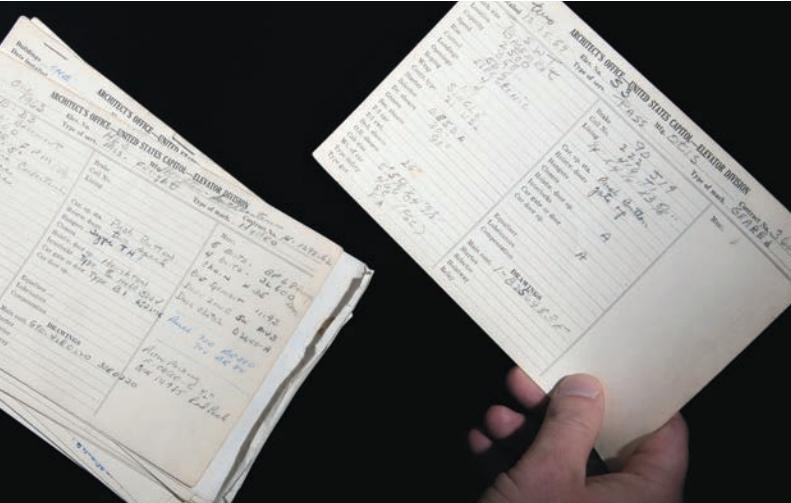
HISTORIC FIRSTS



Correspondence and a voucher from Leonard Atwood, who was selected to install the U.S. Capitol's first elevator.

very first one published in 1850. She had already pulled the 1934 report and marked the section on elevators, which stated that previous reports had not covered elevator service in great detail. In an attempt to capture the history of elevators, the 1934 report had included a summary of elevator references and their history.

The first elevator reference did not appear until 1876, which details the unbearable noise the screw elevator caused when running and, due to the noise, was replaced



Scott Luketich searches records from the Elevator Division.

with a hydraulic elevator. It's location: "Senate Wing." Another dead end.

I know very little about elevators, but thought it might be possible for a remnant of a screw elevator to still exist. I turned to the Capitol Building's Elevator Division.

Scott Luketich, Supervisor of the Capitol's Elevator Division, informed me that any elements of past elevators would not have survived, but he had a guess for the first elevator's location. "I believe it would have been elevator S1. I will do a little more research and let you know if I find more information," he said.

The Elevator Division's records only went back to 1957 — a long way from 1873. Luketich and I returned to the Curator's Office to see if we could narrow down the U.S. Capitol's footprint in 1873. With the building's extensions completed in the 1860s, we weren't able to narrow down our search area by much.

Curator Michele Cohen took another look at the 1934 annual report as Luketich unrolled his map of elevators. The report gave enough details to guess the location of elevators installed in the 1880s, but the location of that first elevator remained out of reach.

“What about floor plans?” Cohen asked. I had not seen many floor plans in the archived files, and the ones I had seen did not include elevators. She pulled a black binder of historic floor plans from a shelf directly under the annual reports.

1871, 1872. There was no floor plan for 1873. At this point, I felt like my search might be nearing its end. 1874, 1875, 1876. No elevator reference. I decided to keep going until I found the first one. Perhaps I could then narrow down the list — but I wouldn't have to.

1877. There it was. The only one. The first one.
“31. Elevator.”

Luketich and I searched for 31 on the map of rooms. At first glance and after an even harder second look, it appeared to be missing. And then I saw it. The number, far smaller than the other room numbers, was almost hidden away in a hallway corner.

"The location of 31 is S1," Luketich said. His



CLOCKWISE FROM TOP LEFT: Erin Nelson, Michele Cohen and Scott Luketich review old floor plans.

This 1877 floor plan shows the location of the first elevator on the Capitol campus marked with a "31."

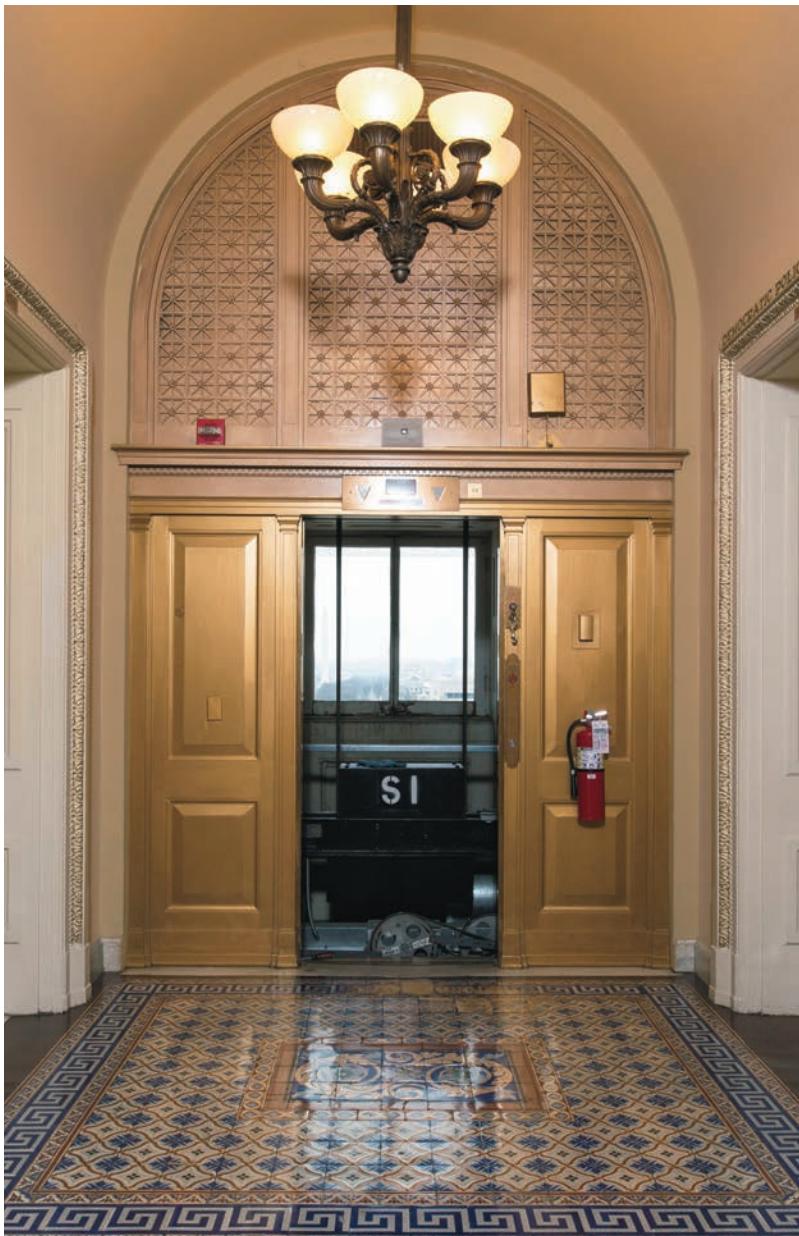
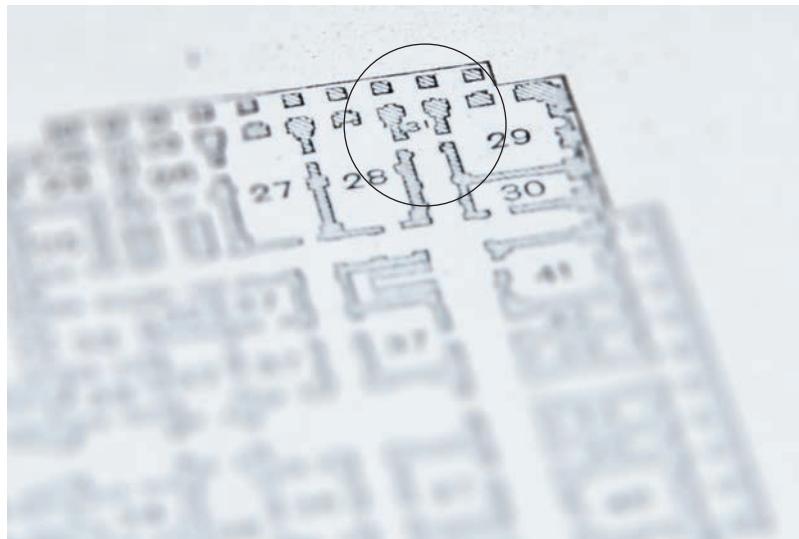
31, or S1 as it's known today, was added after the U.S. Capitol Building was built, covering the window that still exists at what was once the end of a hallway.

assumption had been right from the start.

It's hard to imagine the U.S. Capitol Building without lights, heat, air conditioning and elevators, but plans for the building were made without those items in mind. Adding them in required a disruption of the spaces they would occupy, though one would never notice today. S1 begins at the basement level near the Senate Carry Out. As it climbs up to the third floor, it occupies space that once included hallways, a Minton tile floor and a window overlooking the National Mall.

History may have relegated our first elevator to a simple "31" on an old floor plan, but elevators are now a central component of U.S. Capitol Hill buildings. Today, the Architect of the Capitol maintains 330 elevators across the campus, and it's hard to imagine our buildings — and work days — without them.

The U.S. Capitol Building has continued to expand and evolve over the decades, allowing for the installation of modern conveniences while remaining one of the world's most iconic structures. Working on Capitol Hill often provides AOC employees with a front row seat to the history unfolding around us. It's easy to forget there is so much more history tucked away — in long forgotten reports, walls and even an elevator shaft — just waiting to be rediscovered. ☀





Madison Building

WRITTEN BY FRANKLIN BRADLEY

For \$75 a month, you could rent a Capitol Hill apartment across the street from the magnificent Thomas Jefferson Building in a quiet neighborhood with tree-lined brick sidewalks, broad alleys and neighbors who could be laborers, lawyers or congressmen. At least, you could 60 years ago.

At that time, you would find cobbler shops, doctors' offices and restaurants, like the Little Tavern, famous for its five-cent hamburgers. Recalling that time, a cobbler's granddaughter remembered looking down on the staging area for inauguration parades from the iron balcony outside her grandparents' house above their store.

For 25 cents a week, you could

have a paperboy deliver the Times-Herald twice daily — Times in the evening, Herald in the morning. As the years passed and the neighborhood developed, your paperboy, Jerre Ness, would grow up to work for the Architect of the Capitol as a supervisor during construction of the new Library of Congress building on the block across from the Jefferson Building

that once held apartments, shops and restaurants.

That building is the James Madison Memorial Building, the largest library structure in the world, containing 1.5 million square feet of space. In addition, the Madison Building is the nation's memorial to the father of the U.S. Constitution and the Bill of Rights and the fourth president of the United States.



TOP ROW, LEFT: One original plan for the Madison Building had it in another location, wrapped around a historic church. RIGHT: Once envisioned as a simple building, the Madison Memorial was integrated into the library building, honoring the Founding Father who first listed books useful to legislators, a harbinger of the Library of Congress.

BOTTOM ROW, LEFT: A view of the block where the Madison Building now stands. Children would watch inauguration parade preparations from the iron balcony above the cobbler shop in the tallest building pictured. *Photo by George Holmes* MIDDLE & RIGHT: Scenes from construction. *Photos by Harry Burnett, Jr.*

Original plans were for a separate memorial to occupy the block the building now sits on. The library building, housing the ever-expanding collection of newspapers, magazines and books, would be located farther east, on a block containing the historic St. Mark's Episcopal Church. Initial drawings show that the church would be preserved, with the library building wrapped around it. The memorial is shown as a simple classical building with Corinthian porticoes on each of its sides surrounded by a large park.

The final design, however, placed a memorial hall with a monumental statue of Madison within the

building, allowing construction to begin immediately, saving time and money and preserving more of the historic Capitol Hill neighborhood.

The Madison Building opened its doors in 1980, enabling the Library of Congress to expand its work to protect and preserve our nation's cultural treasures. Fitting, then, that the spacious new building was designed by the architecture firm of Roscoe DeWitt, who himself preserved the treasures of Europe while under enemy fire during World War II, as a Monuments Man. His comrade in arts, another Monuments Man, Walker K. Hancock, sculpted the statue of

Madison that resides just behind the colonnade in a memorial alcove.

Madison considered the preservation of knowledge essential to democracies and, in 1783, foresaw the founding of the library by proposing a list of books that would be useful to legislators. He wrote that, "A people who mean to be their own governors must arm themselves with the power which knowledge gives." This is inscribed at the entrance to the Madison Building, which continues to honor his legacy by arming people with knowledge that empowers them to preserve the democracy he helped design. ♫



FALLING INTO *Spring*



WRITTEN BY ERIN COURTNEY

Spring is the season of new beginnings when the Earth seems to come to life again. But it is the year-round planning, preparation and hard work of the Capitol Grounds team that ensures buds bloom, vibrant colors delight and fragrant flowers excite the senses on Capitol Hill.





Photo by Susanne Bledsoe



Photo by Chuck Badal

Ted Bechtol, Capitol Grounds Superintendent, says fall preparations for the spring make autumn one of the busiest times of the year for his team.

The work that Capitol Grounds does during the fall helps to create a beautiful campus in the spring that is popping with color and bursting with a healthy, robust glow. “Our gardeners pull, till and amend more than 160 flower beds and plant springtime bulbs. Our maintenance shop is busy hauling materials for the gardeners, cleaning and making repairs to fountains, and servicing the Capitol Reflecting Pool. And our tree care specialists are preparing recently planted campus trees to not only survive cold weather but thrive in the warmer months,” said Bechtol.

Ralph LoJacono, Supervisor of the Gardening Division, is constantly watching the weather, the calendar and the clock during the late summer and fall months. “Timing is essential for us. I begin ordering approximately 110,000 bulbs in August for fall planting. Our team is trying to clear thousands of leaves from flower beds while also planting bulbs and doing turf work. At the same time,

we're busy aerating the turf lawns, seeding, sodding and doing light organic fertilization and mulching throughout the campus," said LoJacono.

The flower bed color palettes are themed, blooms in 2017 will be patriotic colors — reds, blues and accents of white — in a nod to the 58th Presidential Inauguration. "We get comments on the colors, and we take those into account for future color palettes," said LoJacono. Tourists, congressional staff and even members of Congress notice the floral displays and share their likes — and dislikes — with the Capitol Grounds team. To time a peak bloom period, the Gardening Division also considers types of bulbs that bloom earlier, watering needs and warmer locations on campus (the House-side of the U.S. Capitol Building gets more sun).

Milton Lee Dennis, Supervisor of the Maintenance Division, coordinates with his colleagues to haul old organic materials off campus and truck in new materials and support supplies in preparation for the spring. His team, which consists of masons, plumbers and heavy equipment operators, is also busy preparing the fountains and the Capitol Reflecting Pool. "The fountains are high-maintenance. We clean the smaller fountains twice a week in the spring, summer and fall to remove particulate matter, maintain water flows and clean stains. But our biggest challenge is the Capitol Reflecting Pool," said Dennis.

The Maintenance Division drains and cleans the Reflecting Pool in the fall with heavy equipment to remove the sludge that collects throughout the year. This annual rite of passage ensures that the water in the Reflecting Pool will sparkle and delight visitors — and ducks — in the spring. Capitol irrigation systems are flushed and winterized and catch basins are cleaned — repeatedly — to ensure proper drainage on the campus. The division also ensures leaf piles are removed and stored for future fertilizing needs; oversees snow preparations, including purchasing salt, ice melt and repairing snow removal equipment; and coordinating the winter fuel supply, all of which happen in the fall. This preparatory work creates a safe campus for employees and congressional staff, as well as visitors, the heaviest volume of whom, come to the U.S. Capitol in the spring.

A central part of the U.S. Capitol's landscape plan, designed by famed Landscape Architect Frederick Law



Photo by Susanne Bledsoe



Photo by Chuck Badal



Photo by Chuck Badal



Photo by Erin Courtney

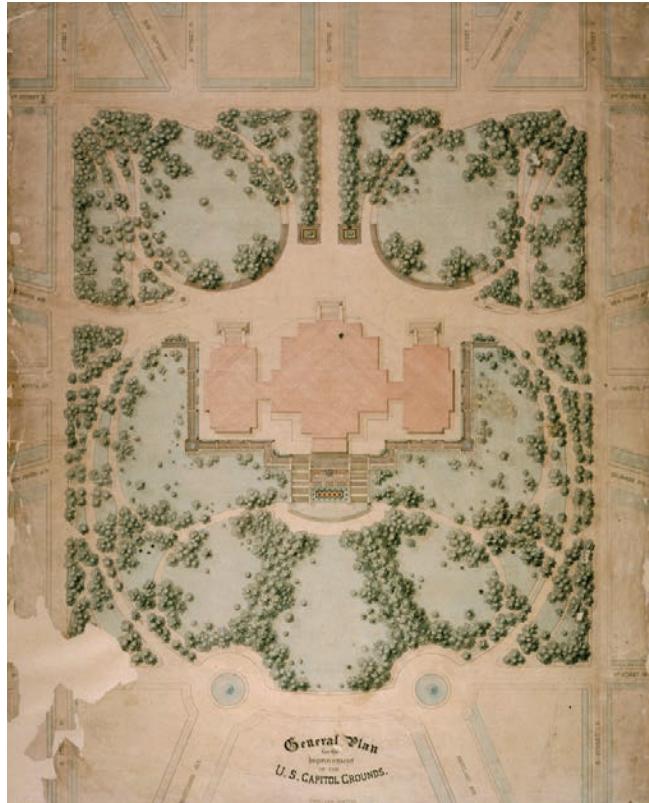


Photo by Chuck Badal

The dedicated efforts of the Capitol Grounds team is evident to all who visit the Capitol campus.



On the 274-acre U.S. Capitol Grounds, there are more than 4,300 trees cared for by the Capitol Grounds team. *Photo by Lanvi Nguyen*



Olmsted, are trees. The delicate swaying of tree tops throughout Capitol Hill offer a picturesque counterpoint to the U.S. Capitol Building's formal architecture. Many of the trees on the grounds bear special plaques that identify their species and their historic significance.

Throughout the year, trees lose vital nutrients in the soil. Capitol Grounds applies fertilizer to the soil across campus that helps the trees replace nutrients and improves resistance to disease, insects and weather. They also make sure that trees are well hydrated and trimmed. Members of the Tree Care Branch monitor the trees carefully year-round. As autumn approaches, the team pays special attention to any potential issues that limit a tree's success in surviving the winter.

Regular pruning of existing trees, for example, helps them withstand the added weight of snow and ice during the winter and thrive in the spring and summer months.

This drawing shows the arrangement of drives, paths, trees, fountains and terraces that Frederick Law Olmsted created at the U.S. Capitol beginning in 1874.

"Throughout the year, we regularly prune campus trees to keep them healthy," said Rick Prince, Supervisor of the Tree Care Branch. Pruning of the Osage Orange trees are particularly important. The curious-looking oranges are heavy, hard and can be a safety concern. "We actually remove them from the tree on the South West Drive because they are a hazard. This usually takes about two days for one tree. It is very tedious work. The oranges are very heavy and harder than you might expect. We try to remove them before they start to fall from that particular tree because it's over a very busy sidewalk," said Prince.

Autumn is also an opportune time to plant new trees. Temperatures are cooler and the trees are able to build root mass before the winter dormancy season. Soon, the trees planted in the fall will sprout new life and herald the arrival of spring on the Capitol campus.

The diligent efforts of the Capitol Grounds team is evident to all who work and visit the Capitol campus. The team's hard work was recently recognized as the U.S. Capitol Grounds became an accredited arboretum. The grounds are now listed in the Morton Register of Arboreta, a comprehensive list of arboreta and public gardens that have a substantial focus on woody plants for the benefit of the public, science and conservation.

As warmer temperatures return to the Washington, D.C. region, get outside to enjoy and appreciate the amazing work of the Capitol Grounds team! ☀



The Osage Orange trees on campus pose a safety concern with their heavy, hard oranges. As a result, Capitol Grounds carefully prunes them each year. *Photo by Lanvi Nguyen*



WANT TO LEARN MORE ABOUT THE U.S. CAPITOL GROUNDS?

Download the U.S. Capitol Grounds App to your phone and explore photos, audio clips and historic details about the trees, hardscapes, fountains, special events and more on the Capitol campus. Use the map options to study specific features or narrow your search for information on a favorite pediment, monument or other outdoor detail.

Visit the Apple Store or Google Play to download the app today!



A Supreme Choice for Developing Area Youth

WRITTEN BY SARAH BUBLITZ • PHOTO BY DEWITT ROSEBOROUGH

What started as a boy's after-school project request has turned into a man's mission. Joel Evans, Electrician Supervisor for the Architect of the Capitol's Supreme Court jurisdiction, has spent more than 16 years mentoring children with the help of animals.

My son came home one day and said, 'Dad, I think I'd like to raise pigs," Evans said. They talked over the details and "it turned out to be a really good thing."

Together they joined the local chapter of 4-H, a youth development organization that aims to provide young people with hands-on learning experiences. The programs themselves are designed for children ages 8-18, but there are also plenty of opportunities at 4-H for adults, and that's what has kept Evans engaged long after his son graduated. "We do a lot of public service activities," he said.

Evans spends a week each August volunteering with his local 4-H

chapter at Maryland's Howard County Fair. He reviews livestock entries for competitions, making sure they are classified correctly, and works directly with the kids in the 4-H program to weigh in their animals and answer any questions they may have.

"It's a great benefit to the kids. It teaches them a lot of responsibility and is kind of like sports in that they learn the good and bad of it, both winning and losing. It builds their character," Evans said.

There's more to 4-H than livestock and farm-related projects. "There is a whole array of subjects that kids can get into," he said, "from sewing projects to public speaking, even rocketry and computer science.

"It's a great benefit to the kids. It teaches them a lot of responsibility and is kind of like sports in that they learn the good and bad of it, both winning and losing. It builds their character."



Photo courtesy of Joel Evans

You name it, it's probably a part of 4-H."

The skills and lessons learned through 4-H extend far beyond the projects completed. The students are better prepared for their future careers and some eventually get their first jobs as a result of their 4-H experience. Evans is motivated by these rewards of mentorship, "It's nice to see the kids evolve. It's all about their personal growth." *

Senate Fountain

WRITTEN BY ANDREW DENTAMARO



Photo by Susanne Bledsoe

One of the overlooked gems on Capitol Hill, the Senate fountain, is nestled between Union Station and the U.S. Capitol, atop the Senate upper park. A hexagonal granite monolith with high jets of water spouting from its center, the Architect of the Capitol received authorization for its construction on March 4, 1929. The fountain was built under the direction of Architect of the Capitol David Lynn. It operated for the first time on July 16, 1932. Designed with many unique features, the main fountain is fabricated of Minnesota Pink granite, with a basin of Minnesota Green granite.

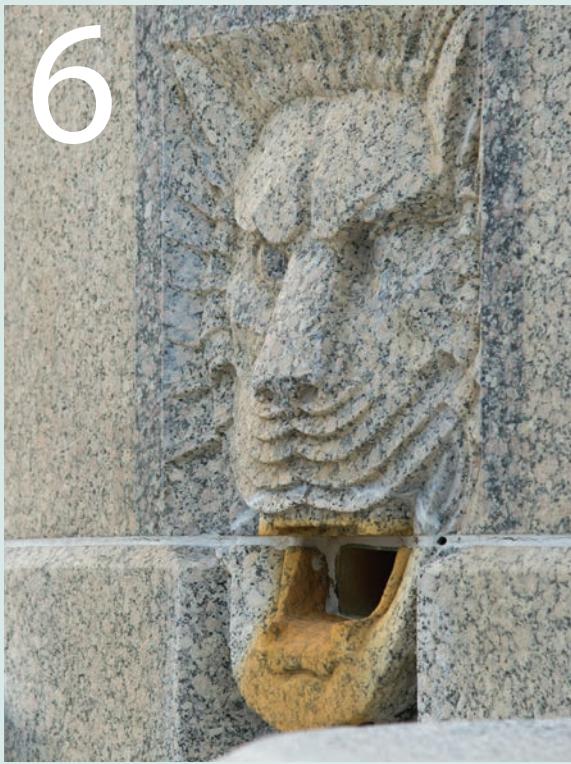


Photo by Susanne Bledsoe

Number of lion-head spouts on the faces of the hexagon main basin. Water streams into a large circular basin with a scalloped stone rim, over which the water spills into a larger oval basin.



Photo by Susanne Bledsoe

Number of underwater light fixtures controlled by a computer program that repeats every 20 minutes. Safety features include an automatic shutoff activated by the water level dropping below the surface of any light fixture or by a ground current rising above 5 millamps; thus, any danger of shock is removed.

114



Photo by James Rosenthal

The fountain consists of three separate components: the main basin, lower level basins and the reflecting pool. From the basin, the water is piped underground to three sculpted stone bubbler fountains in the north wall of the terrace. From there the water is again piped underground to the lower level of the reflecting pool.

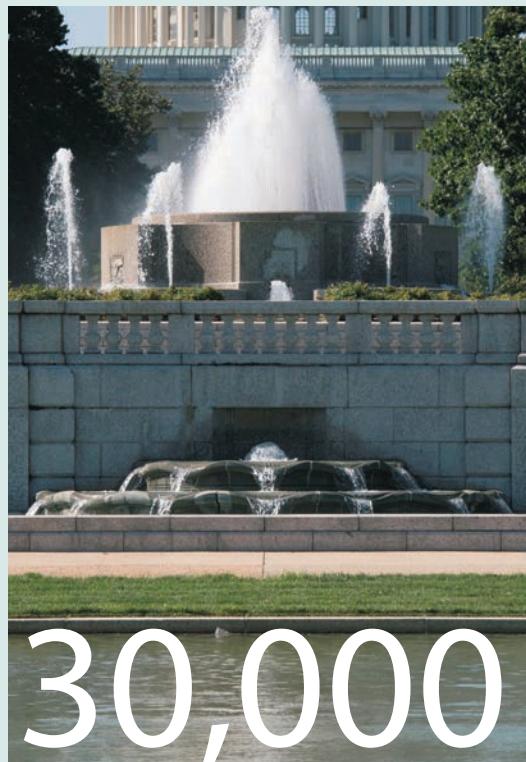


Photo by Susanne Bledsoe

The fountain's water is circulated by pumps, passing by gravity through a 24-inch cast-iron pipe to the lower fountains, before flowing to a concrete 30,000-gallon surge tank under the section of the terrace containing the bubbler fountains. Recirculating pumps ensure water conservation, and fresh water is added occasionally to replace any losses.

30,000



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Gardens Bartholdi Park.
Answer: Daffodils (*Narcissus*
spp.) in bloom at the U.S. Botanic

Photo by Devin Dotson

