ADMINISTRATOR’S MESSAGE

It is with great pride that the U.S. General Services Administration honors the winners of the 2016 Biennial Design Awards. Of the 127 entries, the jury has selected 18 projects as the very best from many exemplary submissions. The range of undertakings is impressive—new facilities, modernizations, sustainability, preservation, workplace environments, innovative building systems, construction management, and graphics. In all these areas, we have responded creatively and effectively to meet our customers’ needs. On behalf of the American people, we have extended an inspiring legacy of excellence that is a hallmark of GSA and the Public Buildings Service’s mission. Also, we have capably and responsibly managed the resources committed to our stewardship.

In honoring these achievements and the individuals from both the private sector and GSA who made them possible, we add valuable lessons learned and best practices that will allow us to do even better in the future.

I congratulate and thank all the winners for demonstrating that quality design and good Government go hand-in-hand.

[Administrator’s Signature]
With the 2006 Design Awards, OSA marks the second decade of Design Excellence. As the projects in this book suggest, the Public Buildings Service has a solid record of remarkable accomplishments.

Our commitment to be a leader in providing quality, high-performance, sustainable facilities is evident across the spectrum of awards. We are providing customers with inspiring, productive workplaces. We are promoting sustainable design strategies—giving new life to existing structures through our preservation and modernization programs; recycling and using recycled materials; and incorporating energy-saving systems in new and existing buildings. We are improving project delivery performance with techniques that ensure collaboration from design through construction. In addition, we are documenting and sharing successful projects and methodologies in prominent publications. Understandably we are very proud.

Although we celebrate these accomplishments, we are not content with the status quo. These awards establish a baseline of excellence. Our focus now is on exceeding these standards. On behalf of our customers, we expect the highest quality design. In this endeavor, we seek an open, inclusive process that fosters participation from the full spectrum of professional philosophies, including cross-cultural and emerging talent. We are devising ways to continue to improve on building performance. We are refining our design and construction processes to ensure that our projects are on time and within budget. This is no small challenge on commissions that can span up to ten years from conception to delivery. These efforts are all aspects of Design Excellence.

I am proud to extend my congratulations to all who contributed to these outstanding projects.

[Signature]

Chief of Staff
OSA
Commissioner

PUBLIC BUILDINGS SERVICE
The jury was struck by the general level of excellence across a broad range of projects—large and small, urban and rural, on the east and west coasts, and in the middle of the country. Selecting the “best” from this outstanding GSA portfolio of work was an exciting challenge, one that generated lively discussion and debate. Landscape design and Art in Architecture were, perhaps, the only areas where GSA might encourage a clearer focus and effort.

Particularly impressive were the port of entry and the border station submissions. These were thoughtfully integrated into their respective sites, responsive to climatic conditions, and poetic in their symbolism and use of materials. Sustainability was a consistent theme exemplified by a variety of different strategies. There was the creative reuse of existing structures. A conscious effort was made to recycle and use recycled materials. Siting, landscape, massing, and facade treatments reflected environmental concerns. Daylight, characterized as “the ideal use of solar power,” was used to conserve energy and create inviting and productive workplaces as well as to help achieve Leadership in Energy and Environmental Design (LEED) certification. In one project, a modest atrium not only introduced light to the surrounding offices, but became a work of art.

Modernization elicited an animated conversation related to the choice between renewing a building with a new design versus preserving it. Replacing the façade of a mid-twentieth century building of no special historical significance was deemed worthy because it created a better workplace and brought new life to its downtown context. In a second project, restoring the façade—indeed keeping as much of the original material as possible—was noted as the best approach. Options in this arena have to be evaluated on a case-by-case basis, and GSA has an excellent process for making this assessment.

A number of projects excelled in more than one area. The Honor Award in architecture, for example, achieved that status not only because of its building design, but also because of its carefully developed landscape and urban design and the successful incorporation of public art. In a preservation commission, historic elements were painstakingly restored, new spaces and materials were sensitively designed to complement the existing building, and major artworks were conserved and displayed in prominent venues.

The construction excellence entries explored several different project delivery methods. They also exemplified high standards and were successful due to the early collaboration among designers and builders.

In graphic design, two publications received awards. These are a tribute to GSA’s extension of its stewardship and best practices to include the dissemination of its message and the education of professionals and the general public.
The design of the U.S. Courthouse in Fresno, California, binds itself to the city and region it serves not merely in physical terms but, as importantly, in spirit. Fresno’s richly textured character—a lush agricultural valley that meets the majestic snow-capped Sierra Nevada Mountains—finds eloquent expression in the building, which is located in the civic district of downtown. The structure is at once rational and rugged, responding gracefully to its urban milieu while telling a compelling story about the natural history of the region.

The nine-story L-shaped structure is located on a 3.3-acre site. It frames a large public garden entitled Once Upon a Time in... A collaboration between artists commissioned by GSA’s Art in Architecture program and a landscape architect, it celebrates the ecology of the San Joaquin Valley and is meant to be experienced as a path to the building’s entrance and as a tableau of water, boulders, trees, and other natural elements viewed from the lobby and the public galleries on the courtroom floors. Cut boulders carry this theme into the lobby itself, a low-rise two-story entrance volume with a sloped roof and a low-fronted public gallery that mediates between the street and the 224-foot-high wings. In addition, a semicircular well brings the sound of the water inside, a reminder of the spring snowmelt and irrigation that have shaped and changed the history of the valley. Wood details and an earthy palette define the public spaces of the courthouse.

One of the most intriguing aspects of the courthouse is its unique skin of sculptural precast concrete, which gives a human scale to its large mass. Although precast is commonly deployed as an exterior material, it is seldom manipulated so successfully and to such dramatic effect. The variations of concrete surface patterns across the elevations of the courthouse are intended to suggest the nature of the landscape in the region. No two facades are alike. The faceted nature of the 1,261 individual concrete panels breaks down the massive wall surfaces and heightens the sculptural

**UNITED STATES COURTHOUSE**

FRESNO, CALIFORNIA

**ARCHITECTURE**

This building embraces its site. The sculptural precast concrete reflects the local climate and the civic environment. The library and ceremonial stair pull visitors and courtroom tourists, and the rooftop terrace offers a panoramic view of the Central Valley.

**HONOR AWARD**
effect of the entire building. Throughout the day, as the sun travels across the sky, the walls of the building become an ever-changing tapestry of light and shadow. The design of the panel system is the result of extensive collaboration between the architect and the concrete fabricator. The pattern was designed to produce the greatest surface variation with the minimum number of forms. It validates the use of concrete as a cost-effective alternative to stone.
With the use “We Shall Return” following the destruction of the Alfred P. Murrah Federal Building in Oklahoma City on April 18, 1995, this new 181,000-square-foot Federal Building fulfills the poignant promise with a symbol of strength and renewal. Constructed on a two-block parcel immediately south and east of the Murrah site, which is now a memorial park, this new landmark is comfortably integrated into the urban fabric, follows the street grid in the north downtown area of Oklahoma City, and provides up-to-date safety and security for its occupants at the same time that it is welcoming and accessible—a blend of attributes that merits emulation. The supporting structure is a cast-in-place concrete system designed to prevent progressive collapse. Exterior walls facing perimeter streets are reinforced concrete detailed to resist blasts.

The form and orientation of the building is a direct response to the environment. It is designed to save energy and give users a sense of the outdoors. The U-shaped floor plate allows all workstations to be located no more than 59 feet from a window offering light and views. Most of the curtainwall and windows face north, northeast, or northwest and are shaded by omni-coated fiberglass-stretched over aluminum tube frames supported by steel outriggers and brackets projecting from the building face. These shading devices lessen the impact of summer sun and redirect daylight onto ceilings inside the building.

Far from being a fortress, the three-story building is easily approached from north or south. The dual entries share a four-story glass lobby with overhead walkways that look out to the city skyline and an expansive elliptical courtyard. The courtyard is the focal point of the building, curving inward to welcome the public. This geometry connects both the building and a tree-lined park that occupies the second block of the site on the north. Federal architecture’s longstanding classical tradition is also respected with a monumental colonnade that stretches across the southeast corner and the front of the courtyard.

OKLAHOMA CITY FEDERAL BUILDING
OKLAHOMA CITY, OKLAHOMA

ARCHITECTURE

THIS BUILDING SUCCESSFULLY EMBODIES THE HEAVY BURDEN OF REPLACING THE MURRAH FEDERAL BUILDING. THE NEW OFFICE IS SECURE, BUT IMPROPRIET, ALSO SPAN AND NAHAN. IT IS AN EXCELLENT RESPONSE TO ITS URBAN CONTEXT IN A LANDSCAPE DESIGN THAT INTEGRATES BUILDING AND CITY INTO A KINORESTED WHOLE.

JUNE HARRELL
CARL B. STOKES UNITED STATES COURT HOUSE
CLEVELAND, OHIO

ARCHITECTURE

The contemporary 21-story Carl B. Stokes U.S. Court House—one of the largest federal courthouses at 720,000 square feet—draws on and extends Cleveland’s grand civic architecture in its form, materials, and public art. As a model, the building fuses two archetypes: the government landmark, typically a dressed-stone structure that conveys the gravity of its mission in the way it hurls the ground; and the urban tower, which reaches skyward to celebrate human achievements. The slender limestone-clad mass of the building is articulated to create a distinctive icon on the skyline while reinforcing the urban fabric around it.

Responding to the 50-foot drop to the Cuyahoga River on the southwestern edge of the 5.8-acre triangular-shaped site, the architects introduced a broad curved façade overlookng the river, creating a quarter-round footprint to unite the river’s industrial edge below with the urban streetscape above. The courthouse steps wrap the entrance corner as a triangular terrace. They rise from a 23,600-square-foot plaza that brings visitors to an entrance rotunda beneath a 27-foot high bronze female figure—Cleveland Venus—by Ohio-born artist Jim Dine.

The quarter-round footprint extends through the sixth floor. At the seventh floor, which contains a spacious lobby, the interior well pulls back from the point of the quarter-round plan to create a large outdoor terrace. The tower, then, rises as a rounded wedge on the west and chambered façade on the east. This part essentially creates two buildings at once. At ground level, the orthogonal corner of the quarter-round plan becomes part of Cleveland’s urban grid. Above, the tower is a subtle abstraction of classical form as the rounded portion of the courthouse resembles a Greek column. A dramatic, capital-like coriace clad in lead-coated copper completes the illusion. This setback also narrows the building so that spaces are filled with abundant natural light. Public areas, 16 courtrooms, and chambers enjoy either direct or “borrowed” daylight. At night, upward illumination turns the tower into a sentinel of justice visible for miles.
Nestled into the tough, and landscape of the Temecula Valley of southern California, this new U.S. Border Patrol Station weather the harsh elements with rugged grace. A security facility, it is, at the same time, dignified and accessible. The 40,000-square-foot station serves agents responsible for detecting and apprehending illegal aliens in the valley between San Diego and Los Angeles. It furnishes a modern workplace setting at a human scale, reflecting the collegial Border Patrol culture.

The building’s low profile recedes into the rolling topography of the site. The horizontal structure stretches along a north-south axis, with views toward the mountains across the dry valley. The exterior walls are constructed with concrete masonry units in four earthen colors that complement the surrounding landscape. The building’s main public face is that of a tilted “garden wall” with punched windows. The panels for this wall are made of Corten steel, a durable corrugated metal that rusts into a warm, reddish-brown over time. Corten is used along much of the U.S. border with Mexico, giving it symbolic weight in this context. This solid garden wall façade breaks at the public entrance on the building’s south end, opening to a transparent glass vestibule sheltered by broad, cantilevered metal sunshades. On the interior, the plan organizes three separate functions—administrative, squad, and detention areas—along a circulation spine. Exterior features are echoed on the inside—tilted walls, sunshades, masonry, and corrugated metal—unifying the building’s design vocabulary.

In a demonstration of energy conservation in an extreme environment, this building’s high thermal mass has proven very effective in controlling the desert temperature swings. Another energy strategy has been to use breezes from the west for cooling. In addition, generous daylight penetrates the structure through skylights, clerestories, and full-height glass walls at corridor ends. This natural light orients occupants, illuminates interiors, saves energy and enhances the station’s visual interaction with its environment.
UNDERSTATED FORMS COMPLEMENT THE SURROUNDING LANDSCAPE IN THE DESIGN OF A NEW U.S. PORT OF ENTRY IN BLAINE, WASHINGTON. ON A 15-ACRE SITE ALONG THE TIDELANDS OF SEMIHATLAN BAY, DIRECTLY WEST OF THE TOWN OF BLAINE, THIS NEW NATIONAL GATEWAY TO THE UNITED STATES FROM CANADA COMPRISES A 31,000-SQUARE-FOOT PORT BUILDING, TEN LANES OF PRIMARY INSPECTION FOR VEHICLES ENTERING THE U.S. AND 60 SPACES FOR SECONDARY INSPECTION.


VISUALLY, THE ROOF APPEARS TO FLOAT ABOVE SLENDER COLUMNS AND GLASS WALLS. ITS CROSS-SECTION IS THICK IN THE CENTER TO HOLD DUCTWORK, YET THIN AT THE OUTER EDGES TO CREATE A LIGHT SILHOUETTE. ITS METALLIC SURFACE WARPS SLIGHTLY, RISING SLIGHTLY HIGHER ABOVE THE LOBBY AND LEARNING ON EITHER END AND IT ALSO TILTS UPAL TOWARDS APPROACHING VEHICLES FROM THE SOUTH AND TILTS DOWN TOWARDS THE LANDSCAPE AND BRITISH COLUMBIA’S PEACE ARCH PROVINCIAL PARK TO THE NORTH.

INTERACTING WITH THE DOMINANT LINEAR GEOMETRY IS A SECONDARY GRID PLACED ON A DIAGONAL AXIS TO FOLLOW THE LINE OF THE ROAD AND, ULTIMATELY, THE COASTLINE. THE ANGLED FRAMES THAT...
separate the primary inspection bays follow this secondary grid, defining the lanes of the highway as it intersects with the east-west line of the port facilities.

Immediately to the south of the main building lies the secondary inspection structure. Its roughly oval, organic roof form is planted with native grasses to temper its presence and provide a naturalistic counterpoint to the main building’s machinistic precision.

As a whole, the scheme is predominantly functional. What is noteworthy is that it achieves this goal with a subtle balance of landscape, architecture, and roadways.
In the Civic Center of Manhattan’s Lower East Side, a new entrance plaza and pavilion is planned for the 47-story Jacob K. Javits Federal Building. The design responds elegantly to the significant increase in security-screening. More valuable, it creates an engaging urban solution to a problematic entry sequence. It preserves the open plan of the existing lobby and aesthetically complements the transparency and symmetry of this vintage late-modern high-rise.

The Javits plaza, facing Broadway, was originally built to drop six feet below street level. This arrangement presented a daunting, constricted path to the entrance within a massive area that isolated the building from the street. Adding further confusion, a tent was erected in the sunken area as a temporary queuing shelter when more extensive screening measures were implemented.

In the new design, the entrance is pulled closer to and level with the street in a linear pavilion running along the width of the building. The pavilion is framed in pressed concrete panels that surround a visually unbroken glass façade. The new volume is a clear, strong entrance—a pedestrian-scaled gateway with a column rhythm that integrates the pavilion with the vertical detailing of the tower’s façade. At the center of the pavilion, a stair leads employees down to a security tunnel just before the existing lobby. Visitors enter to either side and queue along switchback walkways that lead to a ramp or stairs that end at visitor-dedicated screening stations.

The redesigned plaza and entrance has an open, well-organized, and inviting urban presence. It is a valuable lesson in how thoughtfully developed security enhancements can actually improve a facility. Bollards secure the perimeter and eliminate the need for site walls and stairs. New plantings, paving, and semi-circular stainless-steel seating provide a relaxed area for outdoor gathering. At either end, a raised terrace garden surrounds existing sculptures by Beverly Pepper, focal points for the plaza that maintain the period appeal of a prominent civic precinct and office tower.
Completed in 1968, this 10-story, 390,000-square-foot federal office in downtown Des Moines had serious moisture and thermal problems. Masonry walls had cracked and shifted because of water leakage through areas with inadequate anchorages, a lack of expansion joints, and insufficient flashing. Window frames were long outdated. The single-pane glass was not energy efficient, and operable sashes had been sealed shut. In the granite column cladding, joints between panels had been improperly installed, panels had cracked and spalled, and accumulating water had frozen and displaced panels.

Over the years, several attempts at repairs never succeeded. The architects determined that the existing envelope’s numerous flaws were inherent to the whole cladding system and recommended that it all be replaced. Cost limits and the need to keep the building fully occupied and operating, however, precluded conventional approaches.

In an outstanding example of collaboration between the design team and the contractor, the solution was to build a lighter, more efficient new curtainwall outside the existing concrete-and-brick walls. Tubular steel supports were installed across the building’s façade along each floor line to hold the new curtainwall. Panels were designed to meet the dimensions and performance requirements of the project. They were assembled at a nearby warehouse and delivered when they were ready to be installed to minimize site storage. Installation proceeded once major areas had been enclosed, reducing disruptions for the 10 federal agencies with offices in the building.

The project achieved a LEED Silver rating. More than 700 tons of materials taken off the building—aluminum fins and framing, granite column cladding, concrete and masonry—were recycled. The new curtainwall satisfied energy and moisture specifications, met recent standards for glass shard retention, and helped reduce the chances of progressive collapse.

The modernization gives the office an entirely new urban presence. The original design had awkward proportions and a dark, ponderous appearance. The new exterior refreshes the building with a crystalline skin that projects an open, transparent response to the public realm.
This landmark 1910 courthouse in downtown Cleveland, designed by Arnold Brunner, underwent a $51 million modernization and preservation effort that has brought new life to its historic interiors, artworks, and decorative details while equipping the building for a second century and a new purpose. The courthouse, formerly a U.S. District Court, was renovated to house four courtrooms for the U.S. Bankruptcy Court on the first and second floors after a new U.S. District courthouse was completed in Cleveland in 2002. The two existing historic District courtrooms remain in place on the third floor. The building has other federal offices on the fourth and fifth floors.

The project involved extensive preservation oversight by GSA as well as by state and local preservation groups to ensure fidelity to the original urban design, architecture, and artwork. Among the major elements restored were the original box-beamed ceilings, decorative plasterwork and paintings in public corridors, painting schemes in elaborate corner offices, a cast-glass coffered ceiling in the original Post Master’s office, and the main entry façade’s bronze balustrade. The project also addressed the conservation of multiple historic works of art, including 35 murals by the American painter Francis Dines Milet plus other federal commissions for the building by Daniel Chester French and Henry Siddons Mowbray, among other notable artists.

Simultaneously, the building’s configuration was modernized to create separate public and private circulation, as required by the courts. A central exterior light well was covered and brought into the building as an interior “light court,” five stories deep, where the new fixtures and finishes—such wood wall panels and galleries trimmed in glass and metal—contrast richly with the original brick. The renovation brought improved access for people with disabilities. New data, life-safety, and communications systems were integrated unobtrusively into the building’s original fabric. A complete overhaul of mechanical systems has increased comfort for occupants while conserving energy and controlling humidity to protect the building’s artworks and historic finishes.
This project saves a historic federal building from progressive decay. More than 300 limestone panels cladding the piers on the 11-story, 1930s U.S. Custom House in Chicago had cracked or spilled. An initial scope-of-work prospectus called for removing and replacing most of the building’s panels with new ones. The design team instead proposed an approach to save as much existing stone as possible, a better option historically and environmentally.

An investigation by the design/build contractor of the project found that the spalls and cracks occurred because of corrosion of the carbon-steel shell angles and steel straps that had been used as lateral supports for the limestone units. There were also many cracked mortar joints and deteriorated sealants around the windows’ perimeter joints.

In the course of the project, all the limestone panels (some weighing more than 5,000 pounds) were removed, brought to the ground, pressure-washed and cleaned, and placed back on the building. All of the carbon-steel shell angles and straps were replaced with stainless steel to prevent future corrosion and damage to the stone. In addition, the design/build contractor identified all of the previously dismantled parapet stones that had been stored on site by a previous contractor but had not been documented. Some of these limestone pieces bore decorative motifs or other carvings. The contractor’s experience in masonry reconstruction enabled the team to catalog and reuse the parapet stones.

Of more than 9,000 limestone panels treated, only 1,002, or about 12 percent, needed replacement, much better than the initial goal of a 50 percent salvage rate. Noteworthy, too, was the fact that the project was completed well ahead of schedule and below its $10 million budget.
This 1.5 million-square-foot Internal Revenue Service facility consolidates employees from several regional locations and creates a new civic presence in downtown Kansas City. A model of design excellence in lease construction projects, it is a LEED-certified, productive workplace for up to 7,000 IRS employees, with light-filled interiors and a landscaped site with several outdoor courtyards and gardens.

As an urban infill development, the center advances the ongoing revitalization of the city by creating links among several significant downtown landmarks. The building’s 27-acre site lies just south of Union Station, west of the Liberty Memorial, and north of Penn Valley Park. The development strategy incorporates the existing historic 0.75 million-square-foot Post Office, which serves as the main entrance to the facility.

The striking virtue of the complex is the way it breaks down a vast program into comprehensible parts, both aesthetically and functionally. The building includes three 300,000-square-foot wings that connect along a central interior circulation spine. Broad exterior walls are clad in precast concrete, banded to create a rich texture.

In a staggered pattern, strip windows perforate this surface to provide views of the city. To break up the center’s mass, wall expanses are interrupted by glass-enclosed stair halls that project forward, and at the upper floors, by mullion-glass volumes set back from the building line.

On the interior, daylight suffuses the public areas and workspaces. At the heart of the complex, a cafeteria and outdoor plaza and pool serve as a social hub for employees. Courtyards, a linear garden, and a pathway that winds its way around the site are other areas where employees can relax and experience the connections between the building and the city around it.
In an exceptional case of adaptive reuse, an old, potentially hazardous warehouse on a government campus has become a glowing model of sustainability and workplace quality. Warehouse 7, one of eight almost identical 1930s storage buildings on the 136-acre CSA Auburn Campus, was chosen for adaptive reuse as a title-fee call center for the Social Security Administration. Several creative decisions made this an especially effective transformation, one that stayed within its budget and took one year less to complete than originally scheduled.

Initially, the plan was to occupy 80,000 square feet of the 146,000-square-foot warehouse. During the design process, a 30,000-square-foot mezzanine level was added to the cavernous, timber-framed interior above the main ground level, providing a more densely populated floor plate and making better use of its enormous volume.

A sustainability strategy was implemented with two major initiatives: daylighting and underfloor air distribution. In the final design, about 75 percent of the facility receives daylight, a figure achieved by using prismatic skylights and carefully placed vertical glazing. An automatic dimming mechanism further reduces the dependence on electric lights. The air distribution system involved the construction of a raised access floor that carries mechanical and electrical lines alongside air-handling ducts, leaving the roof’s visually striking structural truss system unencumbered. The underfloor system gives each workspace an individually adjustable air diffuser to help control comfort levels. Less-obvious overtures toward sustainability include the use of products low in volatile organic compounds and high in regional, recycled content.

Inside and out, water conservation was a design priority. Efficient fixtures and dual-flush-value toilets are expected to cut water usage by 30 percent. On the building’s east side, a former loading zone was turned into a landscaped sealer that serves both as a security barrier and as a “bioretention facility” to catch and treat 19 percent of
the stormwater runoff from the hard-surfaces areas of the site. The plantings are indigenous, drought-tolerant, and watered by a low-volume drip-irrigation system.

As significant as its sustainability achievements is the inventive quality of the design, which renders the building a completely new experience while preserving its industrial aesthetic. The depth of the effort is exemplified by a luminous glass curtainwall façade that marks the main entrance on the north. This new façade follows the original geometry of the building and perfectly displays its massive wood trusswork while helping bring natural light deep into the interior.
CENSUS BUREAU HEADQUARTERS
SUITLAND, MARYLAND

SUSTAINABILITY | WORKPLACE ENVIRONMENT

Sustainability informs nearly every aspect of the nearly 1.5-million-square-foot Census Bureau headquarters in Suitland, Maryland. Its siting, massing, materials, and resource conservation emerge as a holistic effort to set an example of environmentally responsive design at an unusually large scale. And in many ways, the building’s green orientation works in tandem with strategies that make the building a superlative workplace for as many as 6,000 employees.

The building was designed to achieve a Silver rating in the LEED program. It was positioned to take advantage of solar gain and shaped long and low to keep it from imposing visually on the landscape of an adjacent woodland preserve and the Suitland Parkway. Much of the building has a “wood wall” over its prescriptive curtainwall—thousands of bent oak blades fastened vertically to integrate the building into the landscape and serve as sunshades during the day. Parking garages use soy-based natural camouflage. Surrounding the building are inviting landscaped areas, and on top of the building are four green roofs to reduce thermal loads and capture rainwater.

The workspaces within the headquarters are designed to help attract and retain employees who might otherwise join the private sector. People have generous views of the landscape. Narrow floor plates maximize daylight in all work areas and, in combination with a dimming system, reduce the use of electricity. Underfloor air delivery allows employees to control the flow and temperature of air in workspaces.

The social life of the workplace is enhanced by the presence of a main interior “street” traversing the building at the main level and offering access to amenities such as the cafeteria, credit union, fitness center, daycare center, and auditorium. On the upper-office floors, interiors are organized around two-story community “support nodes” staggered between various floors along the length of the building. Organizationally, departments are stacked vertically among floors to increase interaction and chance encounters among people from disparate divisions.
BANNISTER FEDERAL COMPLEX – ATRIUM
KANSAS CITY, MISSOURI

INTERIOR DESIGN | WORKPLACE ENVIRONMENT

What began as an effort to bring natural light into an office building became a catalyst to transform the space and the social life of the workplace itself. This project lies within the Bannister Federal Complex, a 1940s warehouse that includes 18,000 square feet of offices for the Federal Supply Service. The architects aimed to bring light into the heart of an otherwise dark building through a new 3,200-square-foot atrium. The solution evolved into a light well with a “light machine” to bring daylight into the structure along a main north-south hallway and direct it toward adjoining office spaces to multiply its benefit. It is a strategy developed to encourage collaboration and improve productivity, an approach that could beneficially be repeated in other areas of the vast Bannister complex.

The design creates four openings in the roof, leaving specific beams in place as lateral supports. Within the new openings is a steel framework built to support the skylight frame and glass, an installation that is sloped to self-clean and that uses low-e glass to reduce heat as natural light enters the space. The light machine captures the direct light, then reflects and diffuses it in ways that push it further into adjacent interior spaces, such as through a lightwell system integral to the atrium’s interior storefront façade.

The installation also introduces color—bright purples, greens, blues, and pinks. This is accomplished as one section of the light machine includes a series of shingled dichroic glass panels whose transparency and hues change as they are viewed from different angles and receive light from various directions. This central element is transformed with the times of day and the seasons, helping to create a sense of place—an environment that delights users with its vitality as the hours and the months pass.
While preserving the openness and availability of natural light within the adjacent office space, there was also a need for privacy. The design inserts a cabinet along the entire 90 feet of the entry façade between the office space and the atrium. This cabinet serves as a library, screen, and seating counter all at once. Atop the cabinet are acrylic rods projecting straight upward, which have colored LED lights within to provide accent illumination. Some of the acrylic rods are clear; others are filled with the same dichroic film specified for the atrium panels, providing a visual link back to the larger space.
In developing a design for the mechanical systems for the new U.S. Patent & Trademark headquarters in Alexandria, Virginia, a leased campus of 2.5 million square feet, the engineer faced two major constraints. The first was to implement a mechanical plan for the campus that would allow each of six separate buildings to operate together or be taken offline as self-contained systems, in the event of a lease to another tenant in the future. The developer also wanted to complete each building as if it were a stand-alone facility to allow tenants to occupy the offices in phases.

To cool the campus, the engineer designed decentralized but interconnected chiller plants with variable primary pumping and plant optimization controls to increase energy efficiency while allowing for a possible phased exit for each building from the loop. The loop itself was routed through pedestrian walkways to avoid deep excavation. Under the configuration, any building’s chiller plant can feed the campus loop. Also, individual chiller plants can serve their particular building, the whole campus, or any portion needed during scheduled maintenance, unforeseen failure, or increased cooling demands.

The connections among each building in the campus loop eliminated the standard need for system redundancy in each individual plant, further reducing costs. Each plant can be operated at its peak efficiency to feed the central loop. The maximized use of variable frequency drives on air, water, and refrigerant systems also reduced energy consumption—and operating costs—substantially. To ensure optimum air quality and the maximum recovery of energy in the exhaust air stream, the engineer specified enthalpy recovery ventilators. In these many details, the design underscores the importance of planning for flexibility and systems integration.
This mechanical systems replacement project, part of the Fritz Lanham Federal Building modernization, is notable for its painstaking attention to logistics combined with performance-driven decision-making. The designers developed solutions that make the building more comfortable and cost-effective while keeping the project within budget.

In an effort to achieve the greatest possible value, the designer recommended an early scope change. Originally, the job called for replacing major components on 21 central air-handlers for the building. Without adding cost, the designer determined that fully replacing the units themselves would be more efficient.

To reduce energy consumption, a multi-zone configuration was revised to a configuration using variable-speed drives and variable-volume air delivery. To avoid placing equipment above ceilings in tenant spaces, a hybrid design placed dampers between the supply plenum and the ductwork that was being retained. A pressure sensor in the supply-air plenum, controls the fan speed, which is further refined by automatically polling the position of the volume dampers to set the pressure appropriately.

Components were detailed in collaboration with the air-handler manufacturers to be field-assembled and brought into the building with minimum disruption. During the project, the designer had to deal with asbestos and lead and prompted TSA to repair loose or disconnected flexible ducts. The main duct to bring in outside air was moved to the north side of the building to avoid exhaust from a parking garage next door. The designer also modified construction documents to change the three-way valves that had been specified to two-way valves, a substitution that reduced initial costs by $335,000 as well as promising even more savings during operation.
These two volumes reflect the importance of historic preservation within GSA and help to describe GSA’s leadership role in this field. The books provide historical context for the agency’s current building inventory and report on its condition. They showcase successful preservation projects with a rich array of photographs. They also offer guidance for future projects and establish a structure to self-assess stewardship practices with reference guides, case studies, evaluation tools, and other resources.

The first volume, Growth, Efficiency and Modernism: GSA Buildings of the 1950s, 60s and 70s, at 116 pages, takes stock of the modern buildings in the agency’s portfolio as part of an effort to raise awareness of their significance and to develop evaluation methods for their eligibility as part of the National Register of Historic Places. The book’s design features colors and typography that call to mind the modernist era: metallic silver, gray, and black inks create a chromelike look accompanied by clean sans serif styles. The restrained cover type is stamped in silver foil. Photographs for the book were converted to black and gray duotones. The individual case studies stand apart from the main text through the use of a different type and page format and a solid silver backdrop. The book’s evaluation form for buildings appears as a two-sided checklist that is bound to the back of the book, easily folding out for photocopying.

The second volume, Extending the Legacy: GSA Historic Building Stewardship, elaborates the ways in which the agency is integrating its portfolio and stewardship strategies while fulfilling GSA’s reporting obligations under the Preserve America Executive Order. The challenge of this volume’s design was to make a complementary but visually distinct companion to the first volume. The book includes a set of “success stories,” mirroring the case studies of the other volume, highlighting stewardship challenges. It also contains a complete inventory of GSA’s historic buildings. The typography and paper choice are the same as the first volume but there are subtle changes in chapter headings, color, and column grids.
This 144-page book presents key design principles and 13 case studies from the GSA’s WorkPlace Program. The WorkPlace staff consults within federal agencies to optimize the design of new offices to the work that will be done in those spaces. Across a range of government jobs, the goal is to enhance productivity and worker satisfaction with human-centered strategies that leverage communications and creativity. WorkPlace Matters extends the Guiding Principles for Federal Architecture to office design, helping client agencies achieve individual effectiveness, organizational strength, sound financial management, and the efficient use of space.

The book discusses design challenges faced by various agencies and different types of work environments. Among the settings profiled are offices in the Department of Justice and the Department of Veterans Affairs, a ranger station at Grand Teton National Park, and space for managers of the nuclear site in Hanford, Washington.

In its well-organized design, the book expresses the diversity of these work settings and solutions. An introductory section, printed with a cream-colored background, describes the organization and fundamental themes of the publication, including methods and tools put to use in various situations. The case studies are highlighted with different color fields, giving each a distinctive identity that customers, managers, and designers can easily reference and compare as they study and apply the ideas and standards outlined in WorkPlace Matters. The colors also enliven the layout and pace of the storyline and help integrate the photos, charts, and drawings that illustrate each chapter.
The Center for Drug Evaluation and Research is the largest building in a new Food and Drug Administration headquarters campus on the former 130-acre site of a Navy research center in White Oak, Maryland, north of Washington, DC. The facility is a major component of a five-phase joint venture between Heery International and Tsushima Construction Corporation, the team responsible for the entire planning, design, and construction effort. The project is notable because, during construction, the foundations were redesigned and a basement level was added to the program and still, the Center was completed on time and on budget.

Continuous, open communication proved crucial to this success, a process that began with a formal two-day partnering session involving GSA, the construction manager, the architect, general contractor, and all subcontractors. Weekly meetings of the entire design and construction team provided a forum to address emerging challenges. In addition, a member of each stakeholder group served on a leadership panel that met monthly to discuss pending issues. Representative teams also handled conflicts and change orders. Special software was used to track requests for information, change orders, and the budget, as well as to monitor progress and contractor billings.

Coordination was especially complex because the programming and design of the building had been assigned to two separate design firms, and a third company was responsible for the construction and delivery of infrastructure and utilities. To ensure that design elements and intentions were consistent, constructability reviews were held at the 15, 35, 75, and 100 percent stages of construction document completion before bids were taken.

This thorough approach proved essential when the original caisson foundation system had to be changed to spread footings, and the client requested that a basement be added beneath two wings that were already under construction. Each of these unexpected events was efficiently managed by exacting controls. Impressively, the Center was finished on schedule and without cost overruns.
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