



Superstructure

Clark to Lead Coast Guard Headquarters Design-Build Team

WASHINGTON, D.C. – The U.S. General Services Administration selected **Clark Design/Build, LLC** to lead the design and construction of the U.S. Coast Guard Headquarters in Washington, D.C. The \$435 million, 1.2 million square-foot facility will be constructed on the west campus of the former St. Elizabeth's hospital site in the city's Anacostia neighborhood. This project is the first phase of the Department of Homeland Security's consolidation and relocation to southeast Washington, D.C.

The new U.S. Coast Guard Headquarters campus will feature an 11-story office building for 3,860 employees, a separate central utility plant, and two seven-story parking garages. In addition to core and shell construction, Clark will complete the headquarters building's interior fit-out, including audio/visual and telecommunications systems, and security features.

There is a 120-foot change in elevation on the 176-acre project site and the headquarters building's design takes advantage of the natural topography. Below an entry courtyard at the site's highest location, the headquarters building consists of linked, cascading quadrangles, clad in red brick, schist stone, glass, and metal, constructed into the hillside. The building's wings further break down the scale of the massive facility, and allow for greater penetration of natural daylight to internal areas.



U.S. Coast Guard Headquarters, Washington, D.C. (Rendering courtesy of Perkins + Will)

The headquarters building's interior space relies on modular planning elements and includes enclosed offices

and work stations. These work areas are designed for maximum flexibility and can be reorganized as needed.

The building will be divided into various zones both interior and exterior,

continued on p. 2

VA Selects Clark for \$72 Million Syracuse VA Medical Center Project

SYRACUSE, N.Y. – The U.S. Department of Veterans Affairs has awarded **Clark Construction Group, LLC**, a \$72 million contract for the Syracuse VA Medical Center Spinal Cord Injury/Disease (SCI/D) Center Addition in Syracuse, N.Y. The project will add more than 160,000 square feet to the medical center, and includes extensive renovations to the existing facilities.

The project consists of three major phases of work: site preparation and enabling, new facility construction, and renovations to existing medical spaces.

The largest component of the project is the construction of a new, six-story, 30-bed, 140,000 square-foot tower, which will replace an existing structure onsite and provide operating

rooms and space for spinal cord injury treatment. The cast-in-place concrete tower's exterior will feature a red-orange brick façade to match the existing site architecture, as well as glass and glazing elements and custom metal panels. A roof terrace, surrounded by an ornamental glass railing system and covered by a decorative metal panel canopy, will sit on top of the tower.

Adjoining the tower, Clark will construct a three-story, 20,000 square-foot structure to house the SCI therapeutic pool area. Though the pool building has a precast concrete frame and will be erected separately from the tower, it will attach to the tower and link to an existing parking garage. Each floor of this new building will tie

into the existing medical center at key break-through points, allowing staff easy access to the new SCI/D Center.

In addition to the new construction, Clark will perform over 40,000 square feet of renovations on multiple floors of the existing hospital to remove asbestos and reconfigure the space for inpatient and outpatient SCI functions. The renovations will occur adjacent to an active inpatient/outpatient surgical hospital, but will not inhibit day-to-day operations.

The site preparation and enabling phase involves the abatement and demolition of two existing buildings. Earthwork and site utility operations will follow the demolition, including sequencing and coordinating between

existing utilities and new services. Additional sitework includes roadway improvements, adding new walkways, and installing site lighting.

Construction of the Syracuse VA Medical Center Spinal Cord Injury/Disease Center Addition began in November and completion is expected in June 2012.

QPK Design of Syracuse, N.Y., is the project architect. Other project partners include John P. Stopen Engineering Partnership, Syracuse, N.Y., structural engineer; RAM-TECH Engineers PC, Syracuse, N.Y., MEP engineer; and Nadaskay and Kopelson Architects, Morristown, N.J., hospital consultant.

Design-Build Effort to Create Naval Consolidated Brig Miramar

SAN DIEGO – The Naval Facilities Engineering Command Southwest awarded **Clark Construction Group – California, LP**, a \$27.7 million design-build contract for the Naval Consolidated Brig Miramar, a 99,000 square-foot regional confinement facility at the U.S. Marine Corps Air Station Miramar.

The Naval Consolidated Brig Miramar is a multi-story structure comprised of concrete masonry units with precast concrete cells. The Clark project team will design and construct a new Level 1 facility for 120 male service members and a Level 2 facility for 80 female service members who are awaiting trial or serving sentences up to seven years. The brig's design will allow for flexible configurations in order to accommodate divisions by gender, sentence length, disciplinary status, and special program or treatment needs.

The brig will house a dining hall and areas for administrative functions, storage and logistical support, recreational and educational activities, and health

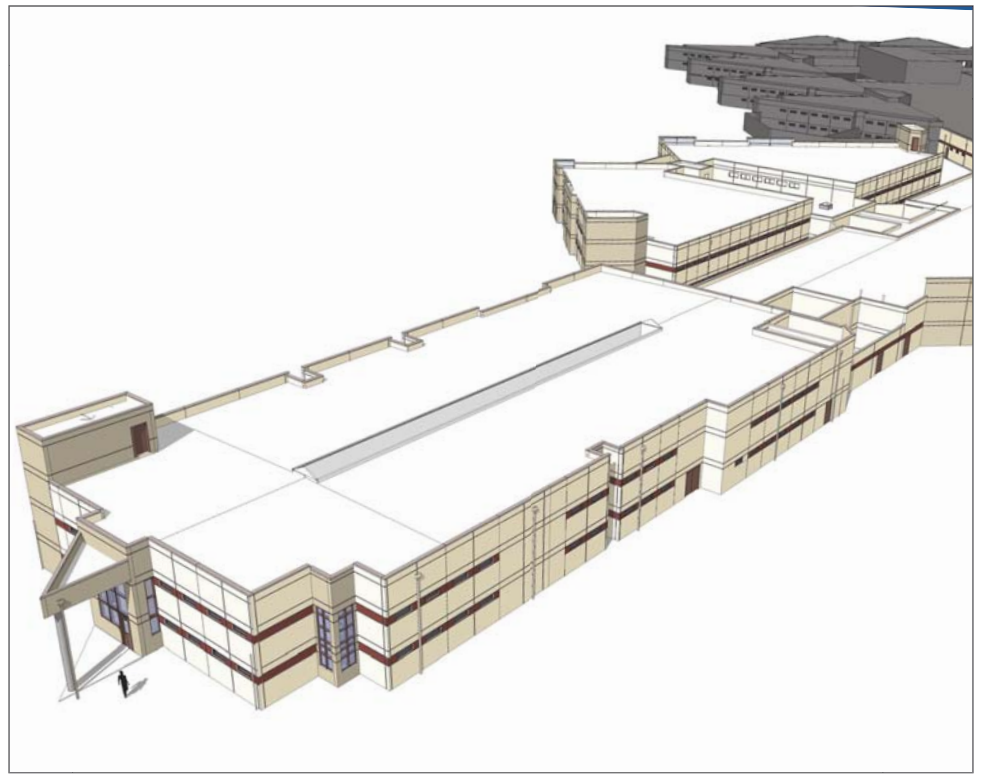
services, in addition to a new prisoner industries and maintenance facility. Clark's scope of work also includes the design and construction of a new parking lot and access road, security fencing and lighting, utility systems, and an emergency generator.

The project will be designed to achieve LEED® Silver certification and to meet the military's Anti-Terrorism/Force Protection standards.

Upon completion, the Naval Consolidated Brig Miramar will absorb prisoners from other correctional facilities scheduled for closure due to the 2005 Base Realignment and Closure Act.

The project design and construction began last fall and completion is scheduled for February 2011.

KMD Architects of San Francisco is the project architect. Additional project partners include Flores Lund Consultants, San Diego, structural and civil engineer; ELEN Consulting, Inc., San Diego, electrical consultant; and McParlane & Associates, San Diego, mechanical consultant.



Naval Consolidated Brig Miramar, San Diego (Rendering courtesy of KMD Architects)

Virginia Tech Research Facility to Northern Virginia

ARLINGTON, Va. – The Virginia Polytechnic Institute and State University (Virginia Tech) is building a research facility in the Ballston area of Arlington, Va. This location will provide Virginia Tech researchers and scholars in Ballston, Blacksburg, and other sites in the Mid-Atlantic region better access to scientific communities, and industry and government agencies that tackle trans-disciplinary, complex problems important to the nation's future. **Clark Construction Group, LLC**, was awarded the contract to build the 144,000 square-foot facility at 900 North Glebe Road.

Clark is responsible for core and shell construction of the project, which includes six stories of office and re-

search space, one story of retail space, and three levels of below-grade parking. Additionally, Clark will construct a 6,600 square-foot public plaza south of the building.

The Virginia Tech Research Facility will feature a skin of pre-cast concrete, curtain wall, and punched windows. The building's main lobby will showcase dolomite limestone, also known as "Hokie Stone" - a material commonly used on Virginia Tech's Blacksburg campus.

The building's owner, VTRI, LLC, expects the project to achieve LEED® Silver certification.

The new building will be a hub for computational research and will house centers that include the Virginia Tech Advanced Research Institute (ARI), the

Virginia Bioinformatics Institute (VBI), and the Center for Geospatial Information Technology (CGIT).

Construction on the project began in fall 2009 with completion scheduled for spring 2011.

Cooper Cary, Inc., of Alexandria, Va., is the project architect. Additional project partners include The JBG Companies, Chevy Chase, Md., development manager; Uniwest Construction, Falls Church, Va., construction manager; TOLK, Inc., Fairfax, Va., mechanical engineer; Structura, Rockville, Md., structural engineer; Bowman Consulting, Chantilly, Va., civil engineer; and Gensler, Washington, D.C., interior design specialist.



Virginia Tech Research Facility, Arlington, Va. (Rendering courtesy of Cooper Cary, Inc.)

Clark to Lead Coast Guard Headquarters Design-Build Team *continued*

marked by terrain-based coloration.

The U.S. Coast Guard Headquarters project is being designed for LEED® Silver certification. The headquarters building is designed with its major axis running East/West to minimize solar heat gain and maximize the opportunity for daylight harvesting. The building will feature an expansive green roof and a vegetative wall panel system in the courtyard. High-efficiency mechanical and electrical systems will be installed, and the project team will incorporate regional and low-emitting building materials when possible. Additionally, the construction of wet ponds, bioswales, step pools, and a signature water feature at the site's lowest elevation will assist with stormwater management.

Site plan preparation on the U.S. Coast Guard Headquarters began in February 2010 and completion is scheduled for fall 2012.

HOK, Inc., WDG Architecture, and McKissack and McKissack, all of Washington, D.C., are Clark's design partners on the project. Other project partners include Girard Engineering, Falls Church, Va., mechanical engineer; Cagley & Associates, Rockville, Md., structural engineer; and Loiderman Soltesz Associates, Inc., Rockville, Md., civil engineer.

Clark and Atkinson Partner on San Ysidro LPOE Pedestrian Bridge



San Ysidro LPOE Pedestrian Bridge, San Diego (Rendering courtesy of ATCHAIN)

SAN YSIDRO, Calif. – The combined general building and heavy civil expertise of **Clark Construction Group – California, LP**, and affiliate **Atkinson Contractors – LP** will be critical in constructing an 806-foot-long pedestrian bridge at the San Ysidro Land Port of Entry (LPOE). Located on Interstate 5 between San Diego and Tijuana, Mexico, the San Ysidro LPOE is the nation's busiest land port. More than 50,000 vehicles and 25,000 pedestrians pass through Customs and Border Protection (CBP) facilities at the port each day.

The \$11.5 million East-West Pedestrian Bridge project, awarded to Clark by the General Services Administration, will span 30 lanes of highway traffic and CBP operations areas. The bridge is designed to meet new security measures and will better serve the port's pedestrian traffic. Operating as an internal joint venture, Clark and Atkinson will rely on past experiences on California Department of Transportation projects and their knowledge of local traffic patterns to erect the bridge while the highway below remains active.

The East-West Pedestrian Bridge is the first phase of the GSA's planned expansion and renovation of the San Ysidro LPOE. Construction of the bridge began in December and is scheduled for completion in May 2011.

AECOM of Orange, Calif. is the project architect.

Déjà Vu at San Ysidro Site

While taking photographs and video at the San Ysidro project site, Atkinson and Clark stumbled onto some unexpected company history. In a sidewalk next to a highway off-ramp on the project's west side, they came across a piece of concrete stamped "Guy F. Atkinson Co. Contractors" and dated February 2, 1973.

The concrete is likely from one of five 1970s-era Atkinson projects. The Company had three different roadway contracts extending from E Street in Chula Vista, Calif., south to the Mexican border, and two contracts for work on I-805 extending north from the border. All five projects were completed by January 1975.

Atkinson promoted its experience working with the California Department of Transportation and knowledge of the local area when pursuing the project. This discovery provides concrete evidence.

The project team will salvage and save the concrete marker for posterity.

Expanded Tyser Tower Opens at Maryland's Byrd Stadium

COLLEGE PARK, Md. – When the Maryland Terrapins football team took the field on September 12, it marked more than the start of a new football season. The Terrapins' home opener also was the debut of Byrd Stadium's expanded Tyser Tower press box and spectator facility. Built by **Clark Construction Group, LLC**, Tyser Tower has nearly tripled in size, to 98,000 square feet, and now features amenities that will benefit the university, the athletic department, television and radio broadcasters, working media, and spectators.

Slated to open in September 2010, the renovation and expansion of Tyser Tower was completed one year ahead of the original schedule.

Clark's scope of work included completely renovating the existing 33,000 square-foot Tyser Tower and flanking the facility with twin five-story additions. Tyser Tower now contains 68 suites, a 214-seat President's Lounge, several Americans with Disabilities Act-compliant spectator seats, and provides cover for 701 new spectator seats on the Concourse level. A fully-enclosed

fifth level serves as a working press area with accommodations for 148 journalists, facilities for home and visiting coaches, public address, scoring, and statistician personnel, as well as radio and television booths with high-definition broadcast capabilities.

Shortly after being selected to perform the \$41.7 million expansion and renovation, Clark proposed expediting the design and construction schedules in order to deliver the new facility in

continued on p. 6

Expansion, Process Improvements Underway at Howard County Water Reclamation Plant

SAVAGE, Md. – **Clark/US, LLC**, a joint venture between Clark Construction Group, LLC, and Ulliman Schutte Construction, has begun the Little Patuxent Water Reclamation Plant Addition No. 7 – ENR Expansion and Improvements project in Howard County, Md. Awarded under a \$92 million contract in 2009, the project will increase the plant's ability to treat wastewater before it is released into the Little Patuxent River, which flows into the Chesapeake Bay.

The project's scope includes several portions designed to improve the plant's overall performance and better remove harmful nutrients from processed wastewater. The Clark/US team will upgrade existing facilities for wastewater screening, disinfection and post-aeration, bio-solids and de-watering, and existing final clarifiers. The project also includes providing new tertiary denitrification and effluent polishing filters with filter feed, backwash, backwash return, and chemical feed facilities.

The plant will be expanded to include new facilities for state-of-the-art equipment that will remove greater amounts of nitrogen and phosphorus from wastewater. Upon completion, the Little Patuxent River Water Reclamation Plant will remove 37,000 pounds of suspended solids, 4,730 pounds of nitrogen, and 965 pounds of phosphorus every day. The plant's capacity will increase to 29 million gallons of water per day.

Clark/US LLC began the expansion and improvements under an Early Start Agreement last summer. Completion is expected in summer 2012.

PBS & J Corporation of Beltsville, Md., is the project's design engineer.



Tyser Tower, University of Maryland Byrd Stadium, College Park, Md. (Photo by Hoachlander Davis)

GRAEF: Clark Construction's Partner in the Midwest and

Successful projects are often the result of strong partnerships between a project's key team members. For nearly 15 years, Clark and structural engineering firm GRAEF have worked together on projects throughout the Midwest and in New York. The success of these projects is due, in part, to the relationship forged between the two firms - a relationship built on trust, open communication, and shared goals.

Since being founded as Graef, Anhalt, Schloemer and Associates in 1961, GRAEF has grown from a three-man structural engineering shop to a 300-employee, full-discipline engineer-

“improving the physical environment for the benefit of society in a sustainable manner.” To do this, the company has adopted a philosophy of becoming a trusted advisor and partner to its clients. From GRAEF's senior leadership down, every employee understands that their company's success demands a strong partnership with every client. By listening to and understanding clients' needs and concerns, GRAEF builds trusting relationships that help project teams overcome the most challenging and technically-complex problems. By partnering with, rather than simply working for, their clients, GRAEF has helped design, construct, and operate facilities, infrastructure, and transportation systems throughout the United States.

GRAEF's impact can be seen across its home state. The company played a major role in iconic Wisconsin projects, including the 2000 redevelopment of Lambeau Field, home of the Green Bay Packers, and the internationally-acclaimed Milwaukee Art Museum addition. GRAEF has been the lead designer on several projects for Wisconsin's Department of Transportation and on projects at universities across the state.

There is no better example of GRAEF's approach to partnering than the relationship the firm has maintained with Clark over the years. Collaboration between the two companies began in the mid-1990s, when GRAEF joined the Cream City Associates team that designed and built the 680,000 square-foot Midwest Airlines Center in Milwaukee. Since then, Clark and GRAEF have collaborated on several substantial projects, including ongoing construction at Naval Station Great Lakes.

GRAEF's Partnerships with Clark Construction

**Midwest Airlines Center
Milwaukee
Completed: 1998 (phase I),
2000 (phase II)**

The \$170 million Midwest Airlines Center was designed and constructed by the Clark-led Cream City Associates.

From GRAEF's senior leadership down, every employee understands that their company's success demands a strong partnership with every client.

ing and planning firm. Though GRAEF started and found initial success in Wisconsin and the upper Midwest, the company has expanded to eight offices in four states and has earned several national and international awards honoring their engineering innovations. GRAEF has collaborated with Clark on some of the more substantial and notable projects in the Milwaukee-based company's 49-year history.

From its five Midwestern offices, as well as locations in Phoenix, Orlando, and Fort Myers, Fla., GRAEF provides clients with a range of expertise, including structural, civil, transportation, mechanical, electrical, and plumbing engineering. In addition, the company's wide variety of private and government clients can take advantage of GRAEF's community planning, landscape design, industrial architecture, commissioning/LEED®, and environmental services.

GRAEF sees its core purpose as



Camp John Paul Jones, Naval Station Great Lakes (Photo courtesy of GRAEF)

GRAEF was part of the D-4 design team, and provided structural engineering services and worked with the project's civil engineering consultant. With an elevated exhibit floor and loading dock that spans one of Milwaukee's busiest streets, the Midwest Airlines Center required complex and innovative design.

Southeast Wisconsin's premier conference center and exhibition hall features a mixed structural system of steel and precast concrete. In addition to spanning a city street, the exhibit floor also sits on top of a column-free, 3,500-seat ballroom. In all, the exhibit floor's structure spans 140 feet and carries a 350-pound-per-square-foot live load.

**Camp John Paul Jones
Naval Station Great Lakes
Completed: 2006**

Some partnerships are born from years of collaboration and shared experiences. Others, like the Camp John Paul Jones at Naval Station Great Lakes north of Chicago, are less formal. A chance meeting between GRAEF and Clark vice presidents led to GRAEF becoming the civil and site engineer for this \$200 million project. Working with the Clark/Blinderman/Knight (CBK) project team, GRAEF designed all of the site utilities and infrastructure that turned a 49-acre, par-3 golf course into a bustling training facility for thousands of Navy recruits. The firm also developed a unique underground stormwater and filtration system that provided additional usable green space for the Navy and was a critical component of the project proposal.

In addition to extensive underground work, including a steam distribution system for heating and cooling, GRAEF designed roads, sidewalks, lighting, and electrical distribution systems, building pads, and a new water tower and booster station for the campus-style development. The company's structural group designed a new, two-span railroad bridge to connect Camp John Paul Jones to nearby Camp Porter. Clark installed the structural columns and constructed the bridge components adjacent to the active rail line. After much coordination, Clark removed the tracks, installed the bridge

and reinstalled the tracks, with only one day of service disruption.

**Processing Day Barracks
Camp Moffett,
Naval Station Great Lakes
Completed: 2006**

GRAEF's relationship with Clark at Naval Station Great Lakes strengthened on the Processing Day Barracks project. New Navy recruits spend the first 72 hours of their service in the barracks, receiving instructions, supplies, and shelter before continuing on to basic training.

GRAEF designed the utilities, roads, grading, a new sanitary lift station, and all the other site development necessary for the new building. The firm, with project architect M+W Zander, also designed a new central "spine," where recruits drive on to the campus and are exposed to the Navy environment through banners and naval artifacts.

**Wheeler Sack Army Airfield
Barracks Expansion
Fort Drum, New York
Completed: 2007**

Most partners from the Naval Station Great Lakes projects, including GRAEF and Clark, reunited on this military installation project in the far northern edge of New York. This army base, home of the 10th Mountain Division, received an \$82 million makeover, including the construction of a number of new facilities. As civil and site engineer, GRAEF designed building pads, roads, surface parking, a water treatment facility, and a 1,000,000-gallon elevated water tower to serve the sprawling site.

**McCormick Place West Expansion
Chicago
Completed: 2007**

The \$850 million McCormick Place West Expansion was one of the largest projects in Clark's history. As part of the Mc4West design-build team, GRAEF provided structural engineering services in association with Walter P Moore and lead architect/engineer Epstein.

Among the items that GRAEF designed for the project was a 100,000



Midwest Airlines Center, Milwaukee (Photo courtesy of GRAEF)

Beyond for Over a Decade

square-foot elevated loading dock facility for trucks entering the 2.5 million square-foot facility. The structure included large, post-tensioned concrete girders that support massive truck loads and cantilever as much as 38 feet over the Stevenson Expressway. GRAEF engineers also designed many of the revisions to the existing McCormick Place South Hall, as well as a bridge over Martin Luther King Drive to connect the South Hall with the new West Hall.

Camp Porter Barracks & Infrastructure Naval Station Great Lakes Completion: 2010 (expected)

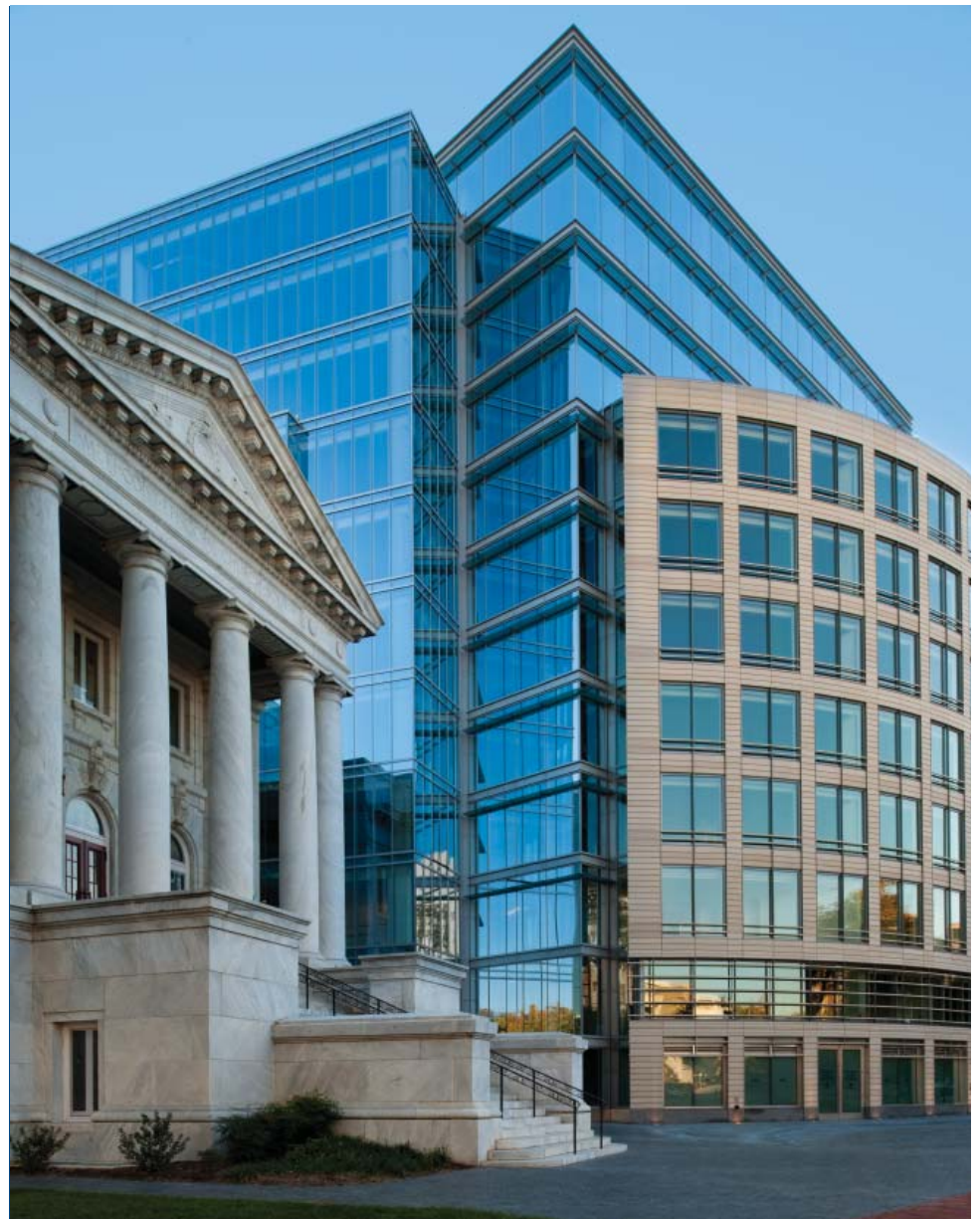
GRAEF and Clark's partnership continues on the \$187 redevelopment of Camp Porter at Naval Station Great

Lakes. GRAEF is providing complete civil and site engineering services for the 125-acre site, as well as structural engineering services for three new recruit barracks, a visitor center, a small arms training center, a new entry control facility, and an 850-car parking structure. The firm is providing commissioning services, as the project team works toward earning LEED® certification.

Camp Porter, a large part of the Recruit Training Command at Naval Station Great Lakes, is being completely redeveloped through this project. The scope of work includes the demolition of 14 buildings and constructing new roads, parking, utilities, and stormwater management systems, which requires complex and involved site engineering. The intricate phasing of the project required close collaboration of the design and construction teams.



McCormick Place West Expansion, Chicago (Photo courtesy of REALVIEWS by Cesar Russ)



901 K Street, Washington, D.C. (Photo by Maxwell MacKenzie)

901 K Street Opens in D.C.

WASHINGTON, D.C. – **Clark Construction Group, LLC**, completed construction of Carr Properties' 901 K Street. The trophy-class, 260,000 square-foot building rises 12 stories on a triangular-shaped site between K Street and Massachusetts Avenue in northwest Washington, D.C. A five-story atrium connects 901 K Street with the adjacent Mount Vernon Place United Methodist Church.

Facing K Street, 901 K Street features street-level retail with an all-glass curtain wall system above. Along the building's Massachusetts Avenue façade, which faces nearby residential community, 901 K Street has warm terra cotta colors, specifically designed to match the color palette of the surrounding neighborhood. Three glass and stainless steel entrance canopies lead visitors to a lobby adorned with polished Ambarino marble, Peribonka granite, and honey-colored maple wood wall and ceiling panels. The building's unique shape allows tenants to build as many as six corner offices on some levels.

901 K Street stands out for its high-quality finishes, unique building materials, and sustainable elements. In late 2009, the project was honored with an Award of Merit in Mid-Atlantic Construction magazine's "Best of 2009" awards program.

Not only are 901 K Street's finishes luxurious, but some of its building materials are very unique in the Washington, D.C. market. The building has a terra cotta rain screen façade, one of the first major applications of this material in the region. Though Clark had used a small application of terra cotta at the 55 M Street project, the 901 K Street project team had to pioneer new means and methods for working with the material.

901 K Street was designed to achieve LEED® Gold certification from the U.S. Green Building Council. The building's curtain wall system allows natural light to shine into more than 60 percent of the interior spaces, and affords expansive views of downtown Washington, D.C. Additional sustainable elements include green roofs, energy-efficient lighting and mechanical systems, and increased ventilation. During construction, the Clark project team recycled more than 75 percent of all construction waste and selected low-emitting and recycled building materials.

SmithGroup, of Washington, D.C., is the project architect. Additional project partners include Girard Engineering, PC, Falls Church, Va., MEP engineer; Smislova, Kehnemui & Associates, P.A., Rockville, Md., structural engineer; and Wiles Mensch Corporation, Washington, D.C., civil engineer.

Projects Honored for Design-Build Excellence

Two Clark projects were honored by the Design-Build Institute of America (DBIA) for design-build excellence. The projects were honored during the DBIA's conference, held in November in Prince George's County, Md.

Pacific Beacon earned the highest honor in the DBIA's National Design-Build Project Awards competition, a Design-Build National Award, in the Public Sector, Over \$15 Million category. The 1.2 million square-foot residential community at Naval Base San Diego is the Navy's first Public/Private Ventures Program design-build project for unaccompanied military housing. Clark Construction, working with Clark Builders Group, took advantage of the design-build delivery method to save the project significant money in the planning stages and complete the project three months ahead of schedule. Pacific Beacon also was one of four projects nominated for the DBIA's "Best Overall Project" award.

The Brentwood Shop Expansion earned a Design-Build Excellence Award in the Rehabilitation/Renovation/Restoration category. Clark installed three new service and inspection train tracks through the center of the Brentwood Shop, the primary maintenance facility for Washington, D.C. Metro trains. Despite cutting a 60-foot by 450-foot hole to accommodate the construction, the facility's 24-hours-a-day operations were never interrupted.

Renovation of 1200 Nineteenth Street Gives D.C. Another Premier Address

WASHINGTON, D.C. – Three additional stories of office space and a new curtain wall façade are among the numerous improvements awaiting tenants at 1200 Nineteenth Street in Washington, D.C. **Clark Construction Group, LLC**, recently completed an 18-month renovation and modernization of the 45-year-old building for owner Hines, the international real estate firm. For the duration of the project, even as the eight stories above were being gutted, 1200 Nineteenth Street's four street-level retail tenants remained operational.

The first step in the modernization and renovation of 1200 Nineteenth Street was the complete demolition of the building's top eight floors, down to the structural core. The project team demolished and gutted approximately 210,000 square feet of office space, using internal ventilation shafts and carefully placed trash chutes to safely remove waste. The building's existing mechanical, electrical, and plumbing systems were also removed.

Beginning with the demolition period, the Clark project team took several measures to ensure that 1200 Nineteenth Street's four street-level retail

tenants remained fully operational and that nearby pedestrians remained safe. Dedicated walkways with overhead protection were erected and positioned along the perimeter of the building on 19th and M Streets. The only disruption to the street-level retailers was a planned storefront glass replacement, which affected each tenant for just two weeks.

Clark added three stories and 92,000 square feet of office space to the project. A glass curtain wall system was installed on all four sides of the building. Each of the building's four elevators was extended to the new office floors, and a fifth elevator was added to the penthouse roof deck. New, efficient mechanical, electrical, and plumbing systems were installed.

The newly renovated structure features approximately 30,000 square feet of office space on each level, floor-to-ceiling windows, and a 5,000 square-foot roof deck overlooking downtown Washington, D.C.

Hines is seeking LEED® Platinum certification under the U.S. Green Building Council's LEED for Core & Shell Rating System. In addition

to installing an expansive green roof, the project team recycled or otherwise diverted from landfills 88 percent of all construction waste. The project's structural steel consists of 95 percent recycled content as does more than 40 percent of the curtain wall. In all, 36 percent of the project's materials, based on cost, were recycled content, and 27 percent were produced, harvested, or extracted within a 500-mile radius.

Clark's efforts in building 1200 Nineteenth Street were recognized when the project earned a Washington Contractor Award from the Associated General Contractors of Metropolitan Washington, D.C., in the Restoration/Renovation category.

SmithGroup, of Washington, D.C., is the project architect. Additional project partners include Thornton Tomasetti, Washington, D.C., structural engineer; TOLK Inc., Fairfax, Va., MEP engineer; Lee + Papa and Associates, Washington, D.C., landscape architect; Delon Hampton & Associates, Chartered, Washington, D.C., civil engineer; and Harmon, Inc., Glen Burnie, Md., curtain wall subcontractor.



Expanded Tyser Tower Opens at Maryland's Byrd Stadium *continued*

time for the 2009 football season. Clark worked with subcontractors from the project's earliest stages to adhere to the aggressive schedule. Key design packages were fast-tracked so that early trades could begin work while the balance of the design was completed.

The existing Tyser Tower was not designed to carry the structural loads required by the new exterior seats. The Clark team relied on a structural support system common in bridges to

erect the new seating areas. Comprised of 3.5-inch diameter rods, the support system is connected to massive steel frames located under the fifth floor. These rods hang down from the frames to support new tiered seating platforms below them on the fourth and third floors.

Tyser Tower remained operational during the 2008 football season. The project team took extensive measures to ensure the safety of the nearly

50,000 fans who attended seven Maryland home football games while construction operations were underway.

The renovation and expansion of Tyser Tower was named "Best Sports Project" of 2009 by Mid-Atlantic Construction magazine.

The Tyser Tower expansion and renovation is another chapter in the long-standing relationship between Clark and the University of Maryland. The company has completed several projects

for the University's athletic department, including the original Tyser Tower structure, the Byrd Stadium Expansion, and Football Team Building.

Heery International of Atlanta was the project architect and the mechanical and electrical engineer. Additional project partners include AB Consultants, Inc., Lanham, Md., civil engineer; and ReStl Designers, Inc., Washington, D.C., structural engineer.



Pictured left: Tyser Tower's new brick and precast exterior gives the stadium a modern look.

Pictured right: The expanded facility features amenities that will benefit the university, the athletic department, television and radio broadcasters, working media, and spectators.

(Photos by Hoachlander Davis)

Extensive Mock-Ups and Stakeholder Feedback are Key at New Clinical Building

When complete in 2011, The Johns Hopkins Hospital's New Clinical Building (NCB) will redefine the hospital's existing campus and become one of the nation's most state-of-the-art medical facilities. The NCB, comprised of two connecting towers with 560 inpatient beds, is envisioned as a 100-year hospital – a facility that will remain functional and relevant into the 22nd century. The hospital was designed with maximum flexibility and adaptability in anticipation of the inevitable changes in specialty medicine.

Constructing a 1.5 million square-foot, \$700 million hospital to stand for a century takes careful planning, patience, and precision. And, to ensure that every component of the new facility – from the operating rooms to the maintenance equipment – is built correctly, the Clark/Banks, A Joint Venture project team, in conjunction with the owner and the design team, led by Perkins + Will, has established an extensive mock-up program.

All large-scale construction projects rely on mock-ups to evaluate quality and constructability, but at the NCB, more than façades and finishes are being pre-built. By the end of the project, the Clark/Banks team will have built more than 100 off-site or in-place mock-ups. Everything from the mechanical systems to medical equipment will be built or installed and evaluated to the satisfaction of the owner, stakeholders, and end-users.

Owner and End-User Evaluations

By involving the owner and their medical professionals in the mock-up process, the construction team has been able to anticipate potential haz-

ards and conflicts, and minimize revisions in the field.

Full-size operating rooms were constructed in the basement of a nearby parking garage, allowing a team of surgeons and nurses to tour the spaces and give their feedback. While members of the Clark/Banks project team are experienced healthcare contractors, they are not licensed medical professionals. Giving the doctors and nurses full access to the mock-ups allowed these end-users a chance to evaluate their future work spaces and offer their unique perspective on usability.

While manipulating a movable boom, a member of the medical staff noticed that in certain positions, it obscured other critical components of the operating room. The location of the equipment was revised to eliminate these conflicts.

It wasn't until they could stand inside the operating room that members of the project team noticed another conflict: the original design of the rooms' ceilings could collect dust and threaten the sterile environment. A re-design alleviated this potential hazard.

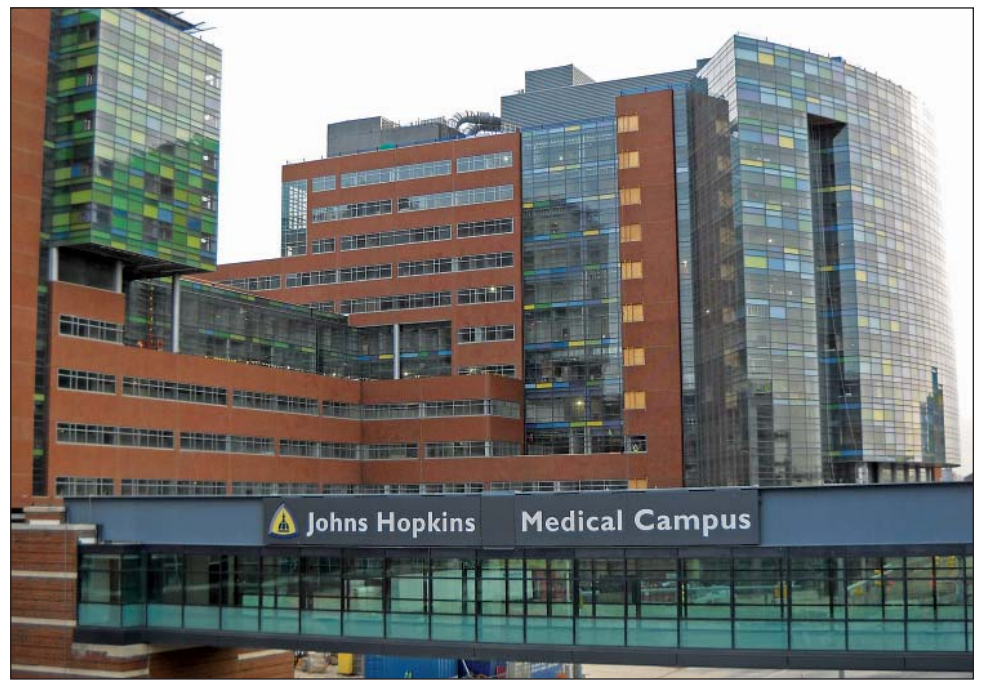
The owner's feedback of the mock-ups also proved invaluable. Johns Hopkins Hospital representatives have been engaged throughout construction and play a critical role in customizing spaces for their employees. In a patient room mock-up, the hospital's emergency "Code Blue" button was discovered to be in a position that could not be easily accessed by nursing staff. Though the placement met original design specifications, the owner noted that the button was too high for most of their nurses to reach. Working with the owner to better understand the end-users' demographics has allowed Clark/Banks to provide a more practical and functional work environment.

In-Wall System Mock-Ups

The Clark/Banks project team relied on multi-dimensional Building Information Modeling (BIM) designs to mock-up the project's numerous systems. BIM helped the project team catch early conflicts, and the models were essential when constructing the system mock-ups.

Beyond the standard mechanical, electrical, and plumbing systems, the NCB requires additional piping for the medical gas wall outlets, which include a combination of oxygen, nitrogen, medical air, medical vacuum, carbon dioxide, nitrous oxide, waste, and instrument air. Computer simulations can diagnose possible problems, but properly planning for each of these systems required several in-wall mock-ups to ensure that each could work properly and without obstruction. Again, the project team invited stakeholders and end-users to evaluate these mock-ups.

While reviewing the systems in an operating room, the hospital's Facilities Department staff had difficulty reaching the HEPA filter next to a medical gas boom. This conflict did not appear



Johns Hopkins New Clinical Building, Baltimore

on a BIM model, and could have compromised the hospital's maintenance program. The project team redesigned a metal support, to allow easy access to the HEPA filter.

Design Flexibility

Not only is the NCB designed to provide state-of-the-art healthcare well into the next century, it also is designed to provide emergency medical services in the event of a natural disaster or terrorist attack. The hospital will include a redundancy of systems and ample backup power to continue operating in emergency situations. In addition, nearly every space was developed for multiple purposes. The project team, working with the owner and end-users, is evaluating the NCB's mock-ups for transformability and usability. Every patient room is capable of becoming a de facto oper-

ating room and the neonatal intensive care unit can be used to isolate patients with SARS or other highly-contagious conditions. Open spaces near the ambulance bays can be easily converted to operating spaces or triage areas. By eliminating conflicts, and confirming usability and transformability, the mock-ups are essential to ensuring the facility is prepared for the worst case scenario.

The Clark/Banks project team is working quickly, but meticulously, to create a hospital that will become the "front door" for Hopkins' main medical campus. The new facility will redefine how patients receive care at one of the nation's leading hospitals, and will have a lasting effect on the surrounding community for decades to come. The project's careful planning, owner and stakeholder involvement, and detailed mock-up program are essential components to the New Clinical Building's success.



Each of the NCB's operating rooms has up to 16 medical gas lines. In-wall system mock-ups ensured that each line worked properly and was without obstruction.



Operating room mock-up under construction at the New Clinical Building.

People

Bryan Steingard Promoted to Vice President



BETHESDA, Md. – **Clark Construction Group, LLC**, is pleased to announce that Bryan Steingard has been promoted to Vice President.

Mr. Steingard joined Clark as MEP coordinator and project manager in 1996 and worked on several projects in the Washington, D.C. area, including Georgia Avenue/Petworth Metro station, GSA Federal Building, Avion Lakeside, and Latham & Watkins. Following his promotion to senior project manager in 2002, Mr. Steingard worked in the Pre-construction Department before joining Clark Foundations on the Mount Vernon Square station Modifications project. Promoted to project executive in 2005, Mr. Steingard led Clark's efforts at 425 3rd Street, SW – Capitol View in Washington, D.C., and Overlook Towers in Herndon, Va. Mr. Steingard is currently responsible for the one million square-foot Waterfront project in southwest Washington, D.C. When that project is complete, he will assume a leadership role in the U.S. Coast Guard Headquarters Building project.

Prior to joining Clark, Mr. Steingard spent four years with Westinghouse Savannah River Company in Aiken, S.C., and two years with BDM Federal in Germantown, Md., serving as an operations engineer and technical consultant on several major projects related to the Department of Energy's environmental management programs.

Mr. Steingard holds a bachelor's degree in mechanical engineering from Lehigh University. He is an instructor at Clark Corporate University and was a member of the Project Management Steering Committee. He also sits on the Board of Advisors for the Montgomery County Business Roundtable for Education.

Phil Sheridan Promoted to Vice President



BETHESDA, Md. – **Clark Civil** is pleased to announce that Phil Sheridan has been promoted to Vice President.

A professional engineer with more than 25 years of design and construction experience, Mr. Sheridan has been instrumental in the completion of numerous infra-

structure and design-build projects in the Washington, D.C. area. In his new position, Mr. Sheridan will assume a leadership role in Clark Civil's pursuit of transit, airport, energy, and water/wastewater treatment plant projects.

Mr. Sheridan joined Guy F. Atkinson Construction in 1996 as a project manager. Over the next five years, he worked on a number of major tunneling and excavation projects, including the Central Artery Tunnel, the Charles River Cable Stay Bridge, and the Bath Iron Works Land Level Transfer Facility. In 2001, Mr. Sheridan transferred to Clark as a senior project manager and the following year assumed the role of senior project/design manager on the Washington Metropolitan Area Transit Authority (WMATA)'s Largo Town Center and Morgan Boulevard station projects.

As a project executive, Mr. Sheridan was responsible for design management and construction of several WMATA projects, including the Ballston-MU station East End Elevators and Passageway, the Brentwood Shop Expansion, and the Navy Yard Metro West Entrance Modifications projects. He currently leads Clark Civil's efforts in the ICC Constructors (IC3) joint venture on Contract C of the Intercounty Connector project.

Mr. Sheridan earned a bachelor's degree in civil engineering from Worcester Polytechnic Institute and has completed a construction management program at Northeastern University. He holds Professional Engineer's licenses in Massachusetts and Maryland. Mr. Sheridan is the President of the Mid-Atlantic Region of the Design-Build Institute of America (DBIA) and he sits on the DBIA's National Conference Planning Committee and Design-Build in Transportation Conference Committee.

David Watts Promoted to Vice President and Director of Safety



BROOMFIELD, Colo. – **Guy F. Atkinson Construction** is pleased to announce that David Watts has been promoted to Vice President and Director of Safety.

Mr. Watts joined Atkinson in 2005 as Corporate Safety Manager, overseeing the safety efforts of all business units and regions. Under his guidance, Atkinson has developed successful processes that have engaged all employees and established a culture of safety within the organization. Over the past four years, Mr. Watts has helped communicate safety as a core Atkinson value and had a primary role in reducing the company's recordable and lost-time incident rates.

Mr. Watts began his career in safety as a site safety manager with Gust K. Newberg Construction Company,

working on projects in Virginia, Maryland, and Pennsylvania. He later led safety efforts for heavy civil contractor Tutor-Saliba Corporation and served as director of health and safety for WDC Exploration and Wells. Additionally, Mr. Watts has experience in the insurance industry, and specialized in safety and loss control while working for brokerage firm Willis Coroon.

Mr. Watts honorably served seven years in the United States Navy. He has been a certified OSHA Construction Safety and Health Instructor since 1988. Mr. Watts is a member of the American Society of Safety Engineers and holds an executive certificate in safety management from that group.

Jeff Roth Joins Atkinson as CFO



BROOMFIELD, Colo. – Jeff Roth has joined **Guy F. Atkinson Construction** as Vice President and Chief Financial Officer.

Mr. Roth has more than 25 years of experience in finance and accounting in the construction and real estate industries. In his most recent position, senior vice president and CFO of real estate developer Allete Properties, Mr. Roth was responsible for all financial aspects of the business, including capital management, treasury and financing, tax planning, forecasting, and budgeting.

In 2004, Mr. Roth was recruited to be the Vice President of Finance for the start-up Fort Myers division of a national homebuilder. In that role, he oversaw the division's financial and business planning, as well as pricing, forecasting, budgeting, reporting, and cost control. From 2000 to 2004, Mr. Roth was Vice President and CFO of the Mid-Atlantic Division of a general contracting firm. Prior to that, he spent 12 years with an international construction firm. Mr. Roth began his financial career in 1984 as an audit manager with a major international accounting and consulting firm.

Mr. Roth earned a bachelor's degree in accounting from Rider University in Lawrenceville, N.J. He is a certified public accountant and a member of several industry groups.

Did you know that pdf versions of Clark's Superstructure newsletter are available to read or download online? If you would like to view the current edition of our newsletter online, simply visit the "News" section of our website: clarkconstruction.com



Clark Construction Group, LLC
7500 Old Georgetown Road
Bethesda, MD 20814
(301) 272-8100
www.clarkconstruction.com

Regional Offices
216 South Jefferson Street, Suite 502
Chicago, IL 60661
(312) 474-5500

2502 N. Rocky Point Drive, Suite 200
Tampa, FL 33607
(813) 636-4422

6720 Via Austi Parkway, Suite 150
Las Vegas, NV 89119
(702) 362-3001

Clark Construction Group - California, LP
575 Anton Blvd., Suite 100
Costa Mesa, CA 92626
(714) 429-9779

7677 Oakport Street, Suite 1040
Oakland, CA 94621
(510) 430-1700

525 B Street, Suite 250
San Diego, CA 92101
(619) 578-2650

Guy F. Atkinson Construction, LLC
11001 W. 120th Avenue, #310
Broomfield, CO 80021
(303) 410-2542
www.atkn.com

600 Naches Avenue, S.W., Suite 120
Renton, WA 98055
(425) 255-7551

27422 Portola Parkway, Suite 250
Foothill Ranch, CA 92610
(949) 855-9755

Shirley Contracting
8435 Backlick Road
Lorton, VA 22079
(703) 550-8100
www.shirleycontracting.com

Clark Concrete Contractors
7500 Old Georgetown Road
Bethesda, MD 20814
(301) 272-8100

Clark Foundations/Clark Civil
7500 Old Georgetown Road
Bethesda, MD 20814
(301) 272-8110

Clark Real Estate Advisors
7500 Old Georgetown Road
Bethesda, MD 20814
(301) 272-8100

Clark Construction International
7500 Old Georgetown Road
Bethesda, MD 20814
(301) 272-8100

Clark Residential
7500 Old Georgetown Road
Bethesda, MD 20814
(301) 272-8100

Edgemoor Real Estate Services
7500 Old Georgetown Road
Bethesda, MD 20814
(301) 272-2910

Superstructure is published quarterly by Clark Construction Group, LLC, one of the nation's largest providers of construction services.

For more information, contact:
Eric Fulton or Kimberly Wood in
Corporate Communications.

Email: eric.fulton@clarkconstruction.com
or kimberly.wood@clarkconstruction.com