

# SUPERSTRUCTURE

## A New Era of Teaching and Research

at The George Washington University

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**CLARK**  
CONSTRUCTION



# OLD IS NEW. NEW IS OLD.

**W**ELCOMES TO THE NEW SUPERSTRUCTURE. We've redesigned our signature publication for the first time since it debuted in 1983. This new magazine format allows us to better highlight our clients' projects and provide more information about delivering work safely, sustainably, and efficiently.

Superstructure's look may be new, but our company's values, priorities, and dedication are well established. How we balance and blend the old and the new is this edition's recurring theme.

In this issue we introduce Pulse, a new platform for preconstruction services. This application combines our front-end services and mobile technology to provide clients with instant access to project information. This is a new technology, but one borne of our long-held commitment to provide our clients with superior service.

For decades, we have asked ourselves "How can we ensure that our workforce goes home safe every day?" We have answered that old question with several new safety practices

over the past few years, and are proud of the results published in these pages. The question is old, the solutions are new, and our dedication to safety remains unchanged.

This old/new dynamic also is visible in our work. New building construction opportunities return us to the Pacific Northwest and Denver for the first time in years. While

*Our company's values, priorities, and dedication are well-established.*

on an Atkinson job site in Renton, WA, the dynamic is more literal. The team is replacing an antiquated bridge over the Cedar River with a new structure, while dodging passing Boeing 737s as they work.

At 109 years old, we are proud of our history and experience. But our success lies in embracing new technologies and practices. The old and the new.

Enjoy the new Superstructure. ■

## SUPERSTRUCTURE

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# SUPERSTRUCTURE

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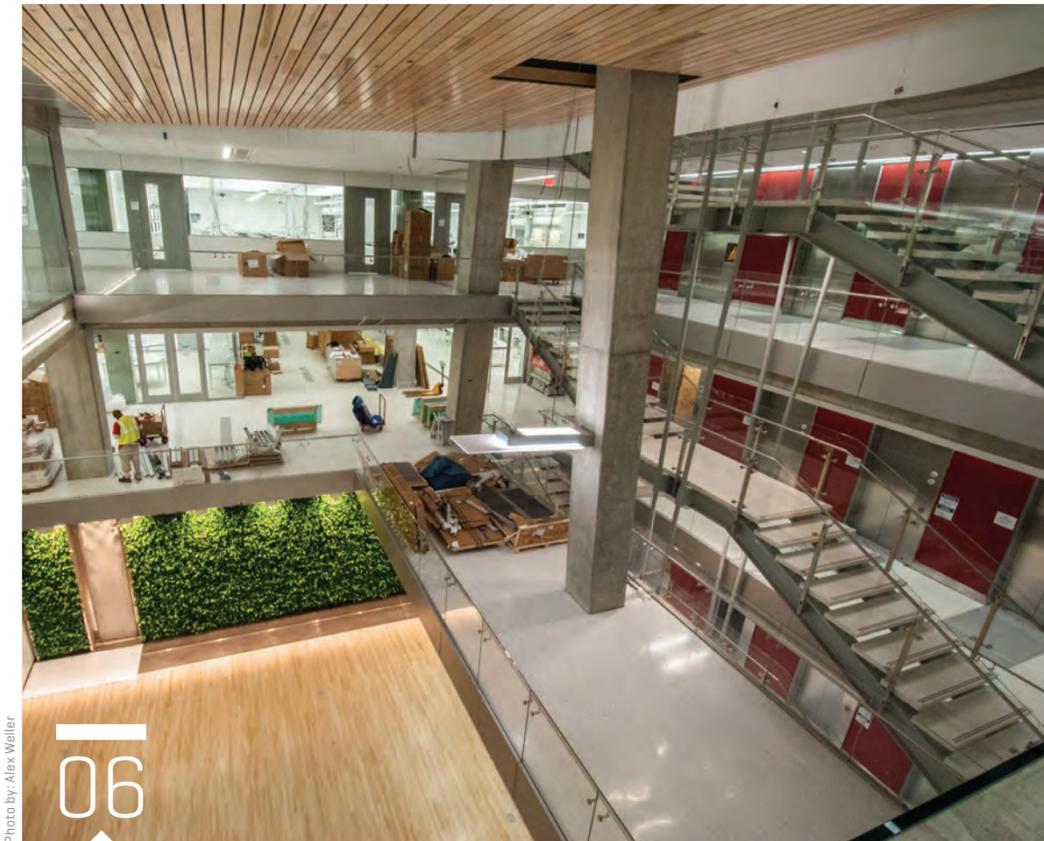


Photo by: Alex Weller

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A 25-foot ficus tree rises in the south atrium of The George Washington University Science and Engineering Hall.

Photo by: Hoachlander Davis Photography

### CONNECT WITH US

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Photo by: Rendering courtesy of GDA Architects

# Clark Expands Presence in Denver and Seattle

Though Clark has maintained a presence in the Pacific Northwest and Colorado through Atkinson, new work brings the company back to these markets as a general building contractor.

## The Confluence

Nearly two decades after completing the Denver Central Library, a Clark project team is returning to Denver to build the Confluence, a 34-story luxury apartment building just northwest of downtown. The Confluence, named for its location near the intersection

of Cherry Creek and the South Platte River, was awarded to Clark by PM Realty Group and National Real Estate Advisors.

The project team will construct the 34-story residential tower—the tallest apartment building in the city—as well as an additional six-story residential tower connected by a fifth-floor pool deck. A three-level, below-grade parking deck will be constructed below both towers using a secant pile wall earth retention system. The first 25 levels of the tower will contain studio, one bedroom, and two bedroom

The Confluence will be the tallest apartment building in Denver.

luxury units, while the top nine floors will be comprised of large penthouse units with upgraded finishes and direct elevator access. The façade of both buildings will be comprised of curtain wall and metal panels.

In addition to the 288-unit complex, the team will fit out a leasing office and amenity spaces, including a fitness center, conference room, aquatic lounges adjacent to the pool deck, a dog grooming studio, and an outdoor yoga lawn. The scope of work includes adding new hardscape and landscape elements that will connect the residential property with the adjacent Confluence Park

Construction is underway and substantial completion is slated for April 2017.

GDA Architects, Dallas, is the project architect. Additional project partners include Blum Consulting Engineers of Dallas, MEP engineer and Brockett/Davis/Drake of Dallas, structural engineer.

## VA Puget Sound Healthcare System Seattle Division Building 101 MHR Facility

A decade after completing the 14-gate South Terminal Concourse at Seattle-Tacoma International Airport, Clark Construction is returning to the Pacific Northwest. A Clark team recently worked on a project for Boeing in Renton, WA, and the U.S. Department of Veterans Affairs has awarded the company a \$108 million contract to build the VA Puget Sound Healthcare System, Seattle Division Building 101 Mental Health and Research (MHR) Facility in Seattle.

The seven-story MHR building will include 203,000 square feet of space dedicated to mental health services and research, as well as administrative offices. The facility also will contain laboratory space with standard equipment. The building will be comprised of blast-protected curtain wall and metal panel façade. The scope of work also includes tying existing utilities into the new building, extensive civil grading, and hardscaping.

Stantec, San Francisco, is the architect and mechanical engineer. Additional project partners includes The Design Partnership, Oakland, architect; Degenkolb Engineers, Seattle, structural engineer; and Sparling, Lynwood, WA, electrical engineer. ■

## New Contracts

Across the country, and in a variety of markets, Clark Construction Group, and our subsidiaries, have recently been selected to deliver a number of new projects. This quarter, our new work includes:

### GOVERNMENT

#### Hillsborough Public Safety Operations Complex

Construction of an 85,000 square-foot building that will consolidate several public safety functions

**Location:** Tampa, FL

**Company:** Clark Construction Group

**Client:** Hillsborough County

**Architect:** Dewberry

**Contract Amount:** \$26 million

**Delivery Method:** Design-Build

**Completion:** Summer 2016



Rendering courtesy of Dewberry

### TRANSPORTATION

#### Western Bus Maintenance Facility

Construction of a three-building secure storage and maintenance facility for 118 buses

**Location:** Manassas, VA

**Company:** Clark Civil

**Client:** Potomac and Rappahannock Transportation Commission

**Architect:** Wendel

**Contract Amount:** \$26 million

**Completion:** Spring 2017

### MONUMENTAL

#### Museum of the Bible

Renovation of a historic brick building to house a 430,000 square-foot museum space

**Location:** Washington, D.C.

**Company:** Clark Construction Group

**Client:** Museum of the Bible, Inc.

**Architects:** SmithGroup JJR, The PRD Group, C&G Partners, BRC Imagination Arts

**Contract Amount:** \$237 million

**Completion:** Fall 2017



Rendering courtesy of Wilson Architects

### EDUCATION

#### Vanderbilt University Engineering & Science Building

Construction of a 240,000 square-foot laboratory and research building

**Location:** Nashville, TN

**Company:** Clark/Parent, A Joint Venture

**Client:** Vanderbilt University

**Architect:** Wilson Architects

**Contract Amount:** \$88 million

**Completion:** Summer 2017

#### San Diego State University Engineering Interdisciplinary Sciences Building

Construction of a 90,000 square-foot building with teaching labs and research space

**Location:** San Diego, CA

**Company:** Clark Construction Group

**Client:** San Diego State University

**Architect:** AC Martin

**Contract Amount:** \$77 million

**Completion:** Winter 2018

### CIVIL

#### Gallows Road Improvements

Road widening and infrastructure improvements near the client's Inova Fairfax Hospital campus

**Location:** Fairfax, VA

**Company:** Shirley Contracting

**Client:** Inova Health Care Services

**Contract Amount:** \$7.4 million

**Completion:** Summer 2015

### AVIATION

#### LAX T5 Delta Sky Club Renovation

Renovation of Delta's Sky Club at Los Angeles International Airport

**Location:** Los Angeles, CA

**Company:** Clark Construction Group

**Client:** Delta Air Lines, Inc.

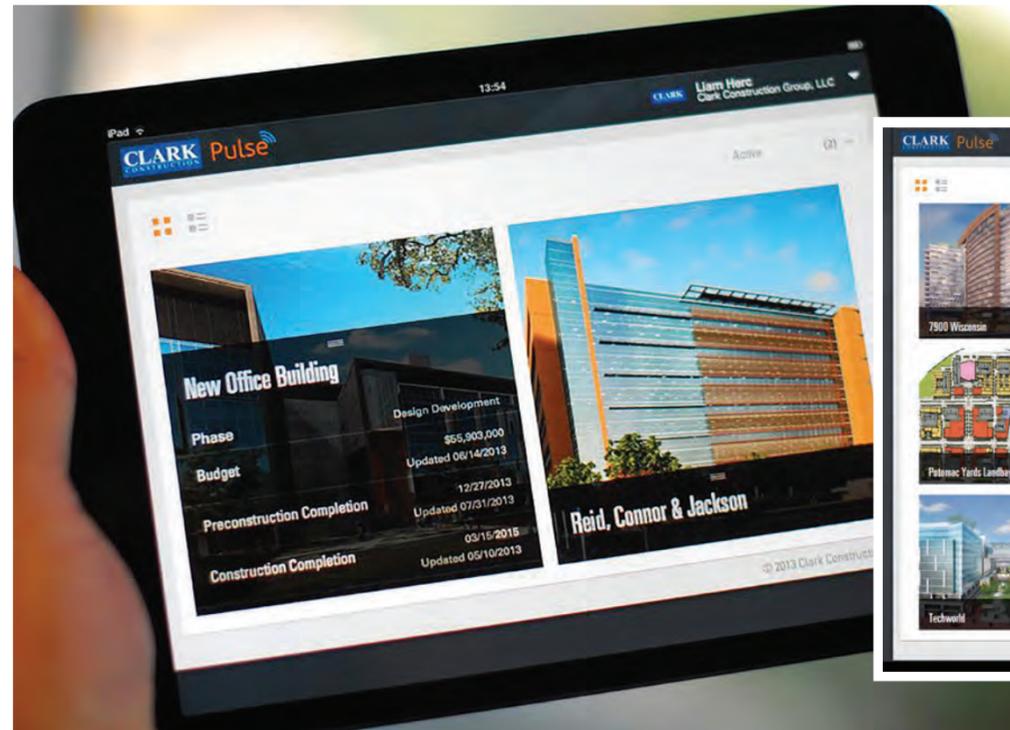
**Architect:** Corgan Associates, Inc.

**Contract Amount:** \$1.3 million

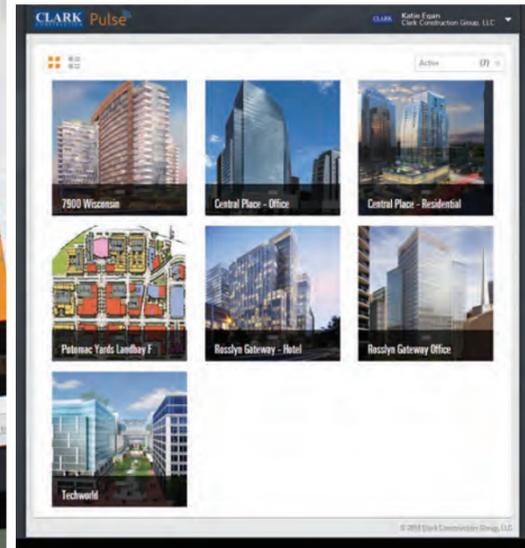
**Completion:** Spring 2015



Rendering courtesy of Museum of the Bible



Available through a secure Internet connection, Pulse provides immediate access to real-time project data.



## Pulse Improves Efficiency During Preconstruction

Careful planning is the foundation of a successful project. By working with our clients from a project's earliest stage, we can frequently find cost and schedule savings and make adjustments to any potential logistical or budget constraints. Preconstruction engagement often also accelerates the transition from design to construction and increases certainty that the finished product matches our clients' vision. Given each project's unique development factors, diverse product options, and data-intensive deliverables, the preconstruction engagement process can be quite complex.

With these factors in mind, we have transformed our approach to preconstruction service through a new proprietary platform—Pulse. Pulse was developed by Clark's Research and Development team in coordination with our preconstruction experts, and is now in use on more than 100 projects. Pulse is available through a secure Internet connection on

any computer or mobile device, and provides immediate access to project cost data, preconstruction plans, construction schedules, project documents/deliverables, and other management tools. The system is fully customizable to meet the needs and constraints of every project. All project stakeholders, including clients,

*"Pulse makes life easy. It is very user-friendly and helps us tremendously when analyzing projects."*

Jim Klein, Vice President and Construction Executive, The JBG Companies

designers, and consultants, can have ready access to decision-driving documents, action items, and other vital information. One popular feature gathers data from Clark's database of comparable projects for quick reference and comparison of key cost metrics.

Pulse's content accessibility allows project partners to spend less time coordinating information and more time focusing on the project's greatest needs, including collaborating on how to move forward as an integrated team.

As we introduce Pulse to more clients across the country, the response is positive. Jim Klein, Vice President and Construction Executive with The JBG Companies has worked on 20 projects with Clark, including seven that utilize Pulse. The application "makes life easy," he says. "Pulse is very user-friendly and helps us tremendously when analyzing projects." Of particular value, Klein notes, is having the most up-to-date data available and the ability to assign tasks to Clark project team members.

While our clients have expressed consistent enthusiasm for Pulse as a preconstruction

platform, we are continuing to keep an eye on the future. Our team is currently exploring extending Pulse to the construction phase, providing a single, central platform for delivery of high-level project information throughout the development life-cycle. ■

## Safety Success: Initiatives Reduce Incidents

A year ago, a review of our safety performance revealed that hand injuries accounted for nearly one-quarter of all jobsite incidents. Our statistics also revealed that a disproportionate amount of incidents involved employees with less than 90 days of experience. We put two new initiatives in place to specifically address these issues and they have made our jobsites undeniably safer for the entire workforce. ■



### HAND PROTECTION

In the first full year that our mandatory hand protection policy was in place lost-time hand injuries were cut in half.



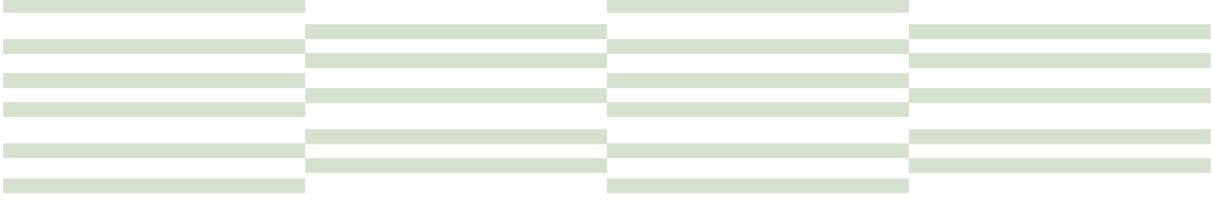
**50% FEWER**  
LOST-TIME HAND INJURIES

### FROM NEW TO BLUE

Following the introduction of our From New to Blue program that places particular emphasis on workers in their first 90 days, incidents involving new employees fell by two-thirds. In addition, of all From New to Blue participants, just one percent were involved in a recordable incident and none experienced a lost-time injury.

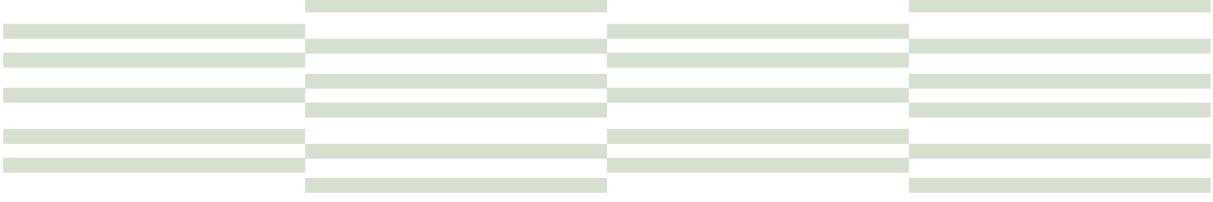
TOTAL INCIDENT RATE  
**DOWN**  
**68%**

**ZERO**  
LOST  
TIME  
INCIDENTS



# A NEW ERA OF TEACHING AND RESEARCH BEGINS

**at The George Washington University**



January signaled more than the start of a new semester at The George Washington University; it ushered in a new era of scientific research and teaching on the school's Foggy Bottom campus. The university's approximately 500,000 square-foot Science and Engineering Hall opened to students on January 12, doubling the available space for a mix of disciplines and unifying researchers that were previously spread across a dozen locations.

Entrance to The George Washington University Science and Engineering Hall in Washington, D.C.'s Foggy Bottom neighborhood (opposite).

Photo by: Alex Weller



Photo by: Hochlander Davis Photography

Open hallways ring one of the Science and Engineering Hall's atria [above]. A collaborative lab space [right].



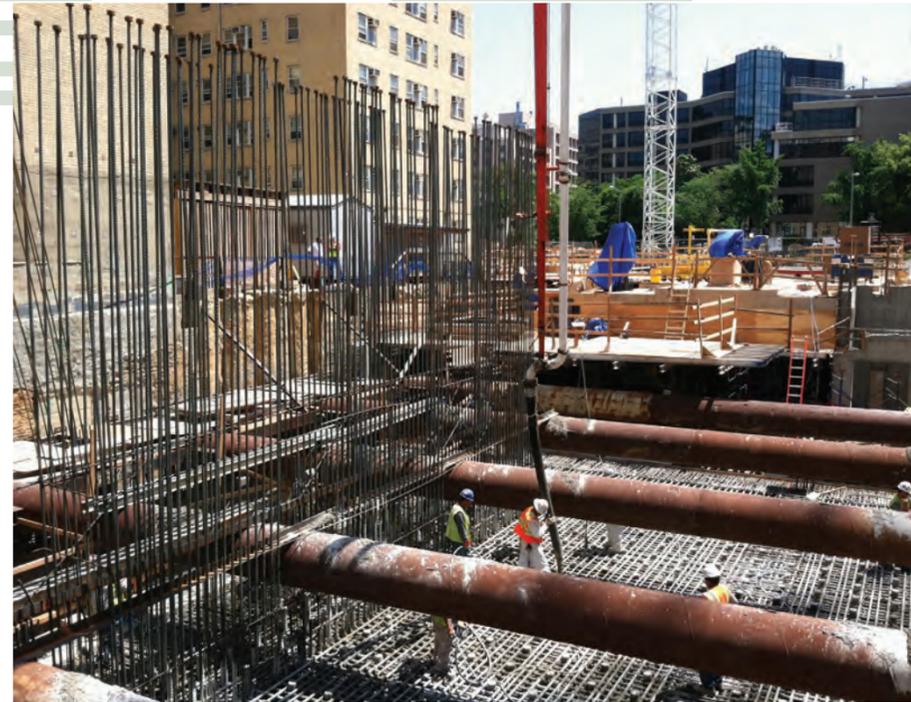
Photo by: Alex Wellier

**Clark, with architect Ballinger,** delivered the state-of-the-art facility that is designed and built to serve the university's immediate and long-term needs. The building includes specialized research spaces including a greenhouse, clean room, imaging suites, machine shops, aquatics suite, and a three-story high bay materials lab with a structural strong wall and strong floor.

The Science and Engineering Hall encourages interdisciplinary partnerships and collaboration through "research neighborhoods" that locate laboratories and office space for multiple disciplines adjacent to each other around a central atrium and monumental staircase. Many research and teaching spaces for faculty and students are open and on display for observation. To enhance wayfinding, the building's various areas are color coded by location. Teaching and research labs are flexible and can adapt as the university's needs change over time.

Targeting LEED® Gold certification, the Science and Engineering Hall has abundant natural light that pours in through heat-strengthened insulating glass and a terra cotta rainscreen façade. The natural light promotes plant life inside the building. The south atria have two 25-foot ficus trees, the west atria have two 18-foot broadleaf lady palms, and the north atria and B1 level have lush green walls of climbing ivies.

Ballinger also served as the project's structural, mechanical, plumbing, and electrical engineer. Boston Properties was the university's consulting project manager. ■

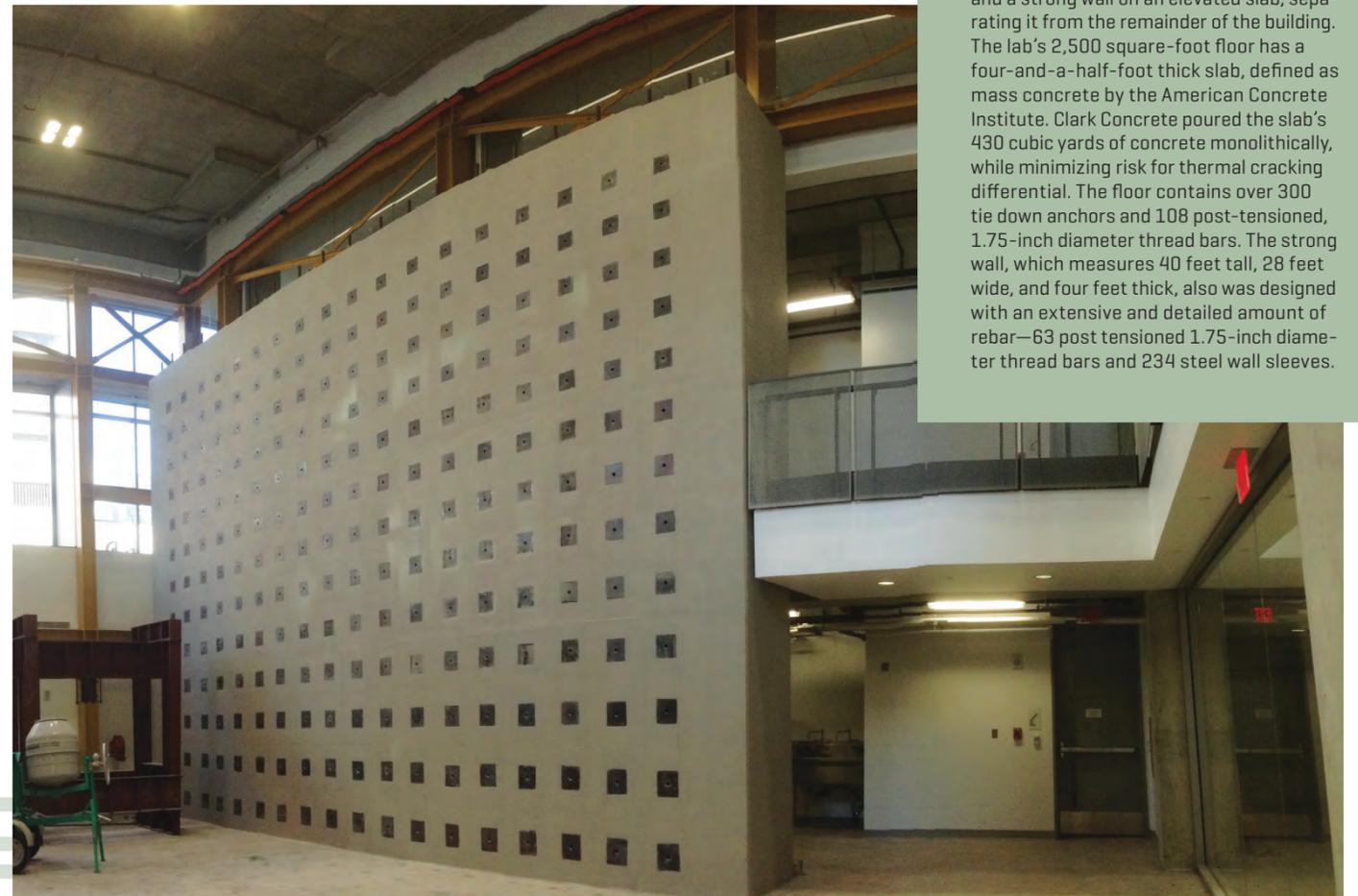


The strong wall and strong floor of the high bay lab allow students and researchers to conduct tests on large materials.

### High Bay Laboratory

One of the most unique—and prominent—spaces in the Science and Engineering Hall is the three-story high bay laboratory. Within this space, students and faculty can test strengths of and conduct research on large-scale materials, including how certain structures respond to seismic activity. Transparent glass at the ground level allows building visitors to observe ongoing tests.

Building a space to accommodate the loads of the lab's large-scale materials required a large-scale effort from Clark Concrete, our self-perform cast-in-place concrete group. The lab has a strong floor and a strong wall on an elevated slab, separating it from the remainder of the building. The lab's 2,500 square-foot floor has a four-and-a-half-foot thick slab, defined as mass concrete by the American Concrete Institute. Clark Concrete poured the slab's 430 cubic yards of concrete monolithically, while minimizing risk for thermal cracking differential. The floor contains over 300 tie down anchors and 108 post-tensioned, 1.75-inch diameter thread bars. The strong wall, which measures 40 feet tall, 28 feet wide, and four feet thick, also was designed with an extensive and detailed amount of rebar—63 post tensioned 1.75-inch diameter thread bars and 234 steel wall sleeves.



Using the principles of Lean Construction, the CHCF Stockton team maintained a fast-paced schedule while putting \$3 million of work in place each day.

Photo by: HDR

# Embracing Continuous Improvement Through Lean

By Kris Manning

**O**NE OF THE STRENGTHS OF OUR ORGANIZATION is consistently delivering value to our clients, as they define it. We take pride in listening to our clients' definition of satisfaction while efficiently managing our business so that our trade partners have an opportunity to succeed. We strive to continuously improve our client service, subcontractor relations, and jobsite performance and have recently embraced Lean Construction

principles and behaviors as a means to further enhance our services.

The Lean Construction philosophy stems from the objectives of a lean production system—to maximize value and minimize waste through continuous improvement. Lean Construction takes those principles and applies them to specific techniques at all phases of a project's delivery. True to the nature of Lean, this journey is an iterative process marked by incremental improvements



Lean Construction was essential to successfully delivering CHCF Stockton and the ARTIC projects.

within a jobsite or a shared services group. We measure the success of this journey through process improvement and creating standard work practices to maximize efficiency.

Our Lean Construction efforts began within our Western Region but now Lean principles, behaviors, and tools are being embraced across our organization. Whether collaborating with a

client and design team during the Target Value Design process or with our subcontractors in a Last Planner System® (LPS) session, we continue to seize opportunities to learn from our partners and apply Lean principles and behaviors into daily operations. This philosophy has allowed us to exceed performance expectations on multiple projects.

Lean is no longer an initiative or simply the application of lessons learned within Clark. It is becoming a core business strategy that helps shape our culture and deliver greater

value to our clients. We embrace the results of our Lean culture in areas of safety, quality, productivity, collaboration, and respect for the opinion of all team members. This culture also will standardize work flow for our trade partners, allowing them to be more productive while fostering an environment conducive to understanding the root cause of problems in order to avoid them in the future.

### LEAN SUCCESS IN ACTION

#### CHCF Stockton

The Clark/McCarthy joint venture faced a significant challenge in delivering the 1.1 million square-foot California Health Care Facility, Stockton in just 24 months. Guided by three key partnership concepts—commitment, communication, and humility—the team devised several process innovations to maintain the project schedule.

Throughout the project, the team used Short Interval Production Schedules (SIPS) with the foremen, but recognized the need to get trade partner feedback to fully inform their schedule as they increased production to placing \$3 million of work each day. With 18 weeks left in the project, the team adopted the Last Planner System, a production planning system developed by the Lean Construction Institute to produce predictable work flow and rapid learning.

To implement LPS, the team of 70 foremen from 20 trade partners assembled in one room and pulled 18 weeks of work in just one day. Utilizing all elements of the system, including milestones, phase pull, make-ready work, weekly work plan, and learning, the team developed a schedule together based upon commitments made by the foremen (the “last planners”) and Clark. In order to determine the root cause of the promises not met, the team meticulously tracked Percent Promises Complete (PPC) and completed a Variance Analysis daily.

Committing to LPS and incorporating the feedback of each of the project’s trade partners allowed the team to make up four weeks of work and successfully deliver CHCF Stockton on time.

#### ARTIC

One of the most complicated aspects of delivering the Anaheim Regional Transportation Intermodal Center (ARTIC) was installing

two tunnels beneath active double track rail lines. The segmented precast tunnels were installed in halves and the client allocated four 68-hour windows to single-track train traffic to accommodate the operation.

To maximize the efficiency of the weekend work, our team sought to eliminate three specific areas of waste—wasted motion of employees, wasted time handling materials, and wasted time waiting for a supporting function to complete. Additionally, to ensure continuous improvement over subsequent windows of work, we used the Plan/Do/

Check/Adjust (PDCA) approach common in Lean Construction.

- **PLAN:** Through detailed planning sessions, we developed an hour-by-hour schedule, color-coded by trade responsibility.
- **DO:** As the team experienced challenges in the first weekend, but completed all required work in 64 of the 68 hours allocated.
- **CHECK:** After each weekend of work, the team reviewed the operation to identify the root cause of any variations or activities that did not add value.
- **ADJUST:** The following weekend’s work plan was adjusted based on the results of the check phase.

By eliminating different types of waste and following the PDCA approach, our team completed the final weekend of work in just 48 hours. ■

*True to the nature of Lean, this journey is an iterative process marked by incremental improvements within a jobsite or a shared services group.*



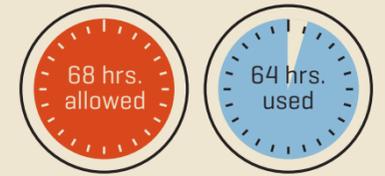
Kris Manning is a Vice President in our Western Region and leader of our Clark Civil West Business Unit. He is the chair of the Lean Construction Institute’s Community Practice in Los Angeles and a member of the group’s National Standards Committee.



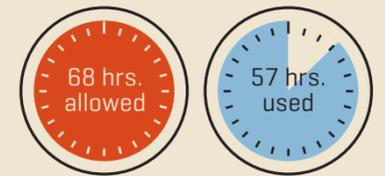
The PDCA approach led to a 30 percent efficiency improvement in four weekends of work.

## PLAN-DO-CHECK-ADJUST AT ARTIC

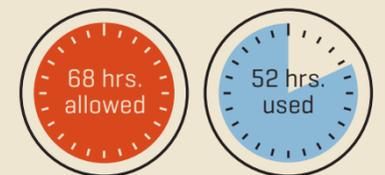
**WEEKEND 1:**  
Baseline Operation



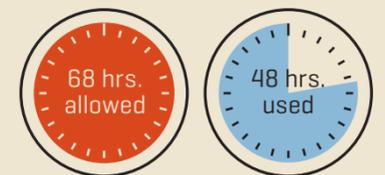
**WEEKEND 2:**  
11% Improvement



**WEEKEND 3:**  
19% Improvement



**WEEKEND 4:**  
25% Improvement



# FIRST BOEING PLANES

## ROLL ALONG ATKINSON'S REPLACEMENT BRIDGE



The first Boeing 737 crosses Atkinson's new Cedar River bridge.

**O**N DECEMBER 10, a handful of Atkinson employees paused as a Boeing 737 crossed through their project site. The event marked a significant milestone for a team that spent the past two years working on a replacement bridge for newly-built planes to cross the Cedar River.

Originally constructed in 1944, the bridge allows the aerospace company to tow its 737 airplanes over the mouth of the Cedar River, near Lake Washington. Boeing transports the planes from its assembly plant to the flight line at nearby Renton Municipal Airport where they are prepared for flight. The bridge, which has carried nearly 15,000 Boeing airplanes over the years, is the only avenue for planes to travel to the airport for delivery to their customers.

With the original bridge at the end of its lifespan, Boeing contracted Atkinson to install a temporary bridge for immediate use, build a new permanent bridge, and demolish the original, all without disrupting the flow of airplanes across the river. Even during construction, planes crossed the bridge nearly every day; crews were to move equipment and clear debris for the planes' transit on two hours' notice. Adding to the project's complexity, Atkinson's team could only perform work at or below the water line between June 1 and August 15 due to salmon spawning in the river below.

The unique schedule restrictions forced Atkinson's team to adjust their schedule, dividing the project into three seasons of work. During the initial season, they erected



the temporary bridge to handle immediate airplane crossings. The following season, the team worked around the clock to demolish the original bridge and construct the replacement in the existing footprint. Four months after the second season ended, the first plane crossed the new structure.

The third and final season is underway. Atkinson is removing the temporary bridge, and will soon restore parts of the river bank and landscape the area around the newly constructed bridge. The full project is on target for a December 2015 substantial completion. ■



### C3M POWER SYSTEMS' NEW WORK PORTFOLIO

#### West Virginia University Personal Rapid Transit Systems

Installation of automated train control and upgraded fare collection systems in an operational transit system

**Location:** Morgantown, WV  
**Client:** Thales Transport and Security

**Contract Amount:** \$4.6 million  
**Completion:** November 2016

#### Cincinnati Streetcar Systems

Rail system installation for a 3.6 mile stretch of the Cincinnati Streetcar Project

**Location:** Cincinnati, OH  
**Client:** Messer/Prus/Delta Railroad JV  
**Contract Amount:** \$10 million  
**Completion:** March 2016

# C3M POWER SYSTEMS

## FORMED TO SERVE GROWING TRANSPORTATION MARKET

**C**LARK HAS FORMED A NEW ENTITY, C3M POWER SYSTEMS, LLC, to self-perform power and systems construction, reconstruction, and maintenance in the transportation market. The new company will be headquartered in Prince George's County, MD, and will compete for transportation projects across the country. C3M Power Systems will work on projects for Clark companies, as well as directly with transit agencies and for other civil contractors.

C3M Power Systems' areas of expertise include electrical, traction power, overhead catenary, and communications and signaling systems for heavy rail, light rail, streetcar, Class 1 freight rail, and bus transit systems. As a

full-service provider of transportation system work, C3M will allow Clark to better serve clients in the transportation sector and enable the company to pursue new opportunities in the civil marketplace. Clark is currently the nation's 15th-largest mass transit and rail contractor, as ranked by *Engineering News-Record*.

C3M Power Systems' senior leadership has more than 100 combined years of industry experience. They are joined by support staff, and a crew of skilled electricians who have delivered some of the most technically-challenging light rail and mass transit projects in the region. ■

*"Our team has the resources and proven industry experience to serve as a trusted partner for transportation clients across the country."*

Mark Ketchel, C3M Senior Vice President





Photo by: Rien Van Rijthoven

## HOW TO REACH FOR PLATINUM

Any type of project can earn LEED Platinum with the right team and a solid strategy

**LEED Platinum certification is a coveted status** in sustainable circles. Projects that are LEED Platinum certified are widely considered the greenest in the world.

Platinum is also an elite status. Just six percent of all LEED projects—about 1,650—have earned at least 80 of the total 110 points to claim the Platinum designation. Most of these projects are in the United States, with the greatest number in California and the greatest concentration, per capita, in Washington, D.C.

A majority of LEED Platinum projects are commercial office buildings, including the first-ever Platinum certified project, which Clark delivered in 2000. But in our experience, nearly any project team can strive for Platinum. We have delivered 15 Platinum projects—nearly 10 percent of our green portfolio

—for a range of industries and a variety of locations.

Earning LEED Platinum certification is ambitious but achievable. Here are some tips and expectations on reaching for Platinum, based on our experience:

### Commit Early

Making the decision to pursue Platinum early makes a statement about your project and your values—and also will allow more time to strategize and plan a cost-effective leading-edge sustainability approach.

### Assemble the Right Team

Experience and integration matter. Developer, designer, and builder should work together from a project's earliest stages and pursue every possible credit. Having the general contractor on board early will help clarify first costs and will ensure timely feedback from subcontractors and vendors during the design process.

### Start with the Platinum Baseline

There are many creative ways to earn Platinum certification,

Equal parts office building and mission critical data center, California ISO's headquarters used a photovoltaic solar panel array and numerous water-saving features to earn Platinum certification.

but nearly all highly-sustainable buildings share these features:

- High-performance glazing
- High-efficiency equipment
- Enhanced commissioning
- 40 percent or greater water efficiency
- 30 to 50 percent greater energy efficiency

### Evaluate Credit Payback

Not all LEED credits are created equal and, since Platinum certification requires more than 80 points, not all credits offer a high return on investment. After the obvious credits are accounted for, a client should review remaining credits with the team and evaluate the cost/benefit of reaching for Platinum. While some credits may not offer a high payback, many clients consider Platinum certification its own reward.

### Building Type and Location Matter—But Don't Disqualify

There is a reason that many Platinum certified projects are urban core and shell office buildings; proximity to public transportation and other amenities earns automatic credits while the more finishes and fixtures you add to a property, the more challenging sustainability becomes. But that doesn't limit the type of project that can earn Platinum. We have worked on residential, mass transit, and mission critical projects that have each found ways to maximize sustainability.

### Not All LEED Rating Systems are Created Equal

Most find that the earlier versions of LEED are easier to achieve higher certification levels. If a project team registered the project in an earlier version (i.e., LEED 2009), stick with it for a faster and more affordable path to Platinum. ■



Photo by: David Joel Photography

## CHICAGO SMALL BUSINESSES READY TO GROW

### Inaugural class graduates from Chicago Strategic Partnership Program

#### Increased opportunities

await the graduating class of Clark's inaugural Chicago Strategic Partnership Program. Sixteen small business owners and executives completed the 20-week program, which provided comprehensive training on the development, management, growth, and transformation of their respective companies in the construction industry.

The graduates' efforts were recognized during a ceremony at the University Club in February. Clark Chicago's program Co-Director Javid Aboutorabi, along with Senior Vice President David Trolan and City of Chicago Director of Public Affairs, Cathy Kwiatkowski, spoke at the event, congratulating the graduates and encouraging them to grow their businesses and take on projects of increased size and scope. Representatives from the City Colleges of Chicago, Metropolitan

Pier and Exposition Authority, Cook County, University of Illinois-Chicago, and the Hispanic-American Construction Association attended the ceremony and networked with the program graduates.

Developed in 2006 by Clark, in coordination with the Tuck School of Business at Dartmouth College, the Strategic Partnership Program is an intensive, executive MBA-style program consisting of weekly courses that offer

*“Through this Strategic Partnership Program, I have grown as a leader in my company.”*

Marco A. Romero, *President, iBuilders Corp*  
2015 Strategic Partnership Program Graduate

the tools and strategies for small business owners to build capacity, identify opportunities, and succeed in today's competitive construction environment. Clark employees and industry experts work with program participants to review the fundamentals of project management, marketing and business development, estimating, purchasing, scheduling, basic accounting and financial reporting, bonding and insurance

The 16 graduates of Clark's inaugural Chicago Strategic Partnership program with program Co-Directors Javid Aboutorabi (far left) and Jeanna Wallace (front row, third from left).

requirements, safe work practices, and how to read and understand blueprints. The program culminates with a capstone project requiring teams of students to submit a comprehensive response to and bid for a Request for Proposal and presentation to a team of Clark executives.

“The program was very beneficial and instructive to me. I graduated with my Construction Management degree and I can tell you that there is nothing better than having experienced personnel from the field teaching the courses,” said program graduate Marco A. Romero, President of iBuilders Corp. “Through this Strategic Partnership Program, I have grown as a leader in my company. With the help of my mentor and this program, I've put to practice what we have been learning.”

Since its inception, 350 small business owners and executives have completed the Strategic Partnership Program. The graduates' companies have been awarded nearly 500 contracts on Clark projects, totaling \$664 million. The Strategic Partnership Program is currently offered in Boston, Chicago, San Francisco, Southern California, Washington, D.C., and on major Clark jobsites across the country. ■

# COLUMBIA HEIGHTS CUP A SUCCESS FOR DC SCORES

Neither rain nor cold could keep dozens of Washington, D.C., area companies, including the Clark Blue Devils team, off the pitch for the Columbia Heights Cup. This annual soccer tournament doubles as a fundraiser for DC SCORES.

While Clark's team didn't secure the championship, the squad was integral to raising \$8,000 for DC SCORES, which sponsors after-school programs for children in disadvantaged areas of Washington, D.C. The

organization promotes physical fitness, self-expression, and a sense of team through a unique combination of soccer, poetry, and community service activities.

Clark has had a long-term partnership with DC SCORES and recently donated \$25,000 to the organization as part of our philanthropy program. DC SCORES was selected from a number of organizations whose programs demonstrate significant impact in the local community. ■

The Clark Blue Devils soccer team poses after a day of competition.



## SUSTAINABILITY COMMITTEE LENDS EXPERTISE TO D.C. SCHOOL



The D.C. Green Schools Challenge, a partnership between the District government and the U.S. Green Building Council, initiated the Spring to Savings competition to bring real-world sustainability experience to local classrooms. Two dozen D.C. elementary schools were paired with green building professionals to find ways to save energy and increase efficiency. At the end of the month-long endeavor, the school with the largest energy reduction would be crowned the winner.

Four of Clark's sustainability committee members teamed up with Janney Elementary School for the challenge. The team first established an energy baseline for

Office Engineer Sheryl Owen reviews energy-saving procedures with Janney Elementary students.

the school's consumption. Next, the mentors educated the students about energy usage and popular strategies to decrease usage throughout the day and during the upcoming winter break.

Over the next few weeks, Janney Elementary students posted notes on light switches as reminders to turn them off when rooms were empty. They also unplugged equipment that was not in use and distributed energy-reduction tips to teachers. The Clark mentors advised building management staff on ways to reduce overall energy costs, including a simple method of changing the HVAC system's start time.

The students' efforts were good enough to earn fourth place in the challenge. More importantly, they reduced their energy by 13.2 percent and, during winter break, energy was reduced by nearly 25 percent. ■

## HOSPITAL CORPSMEN MEMORIAL REDEDICATED AT CAMP PENDLETON

A reconstructed memorial to Navy Hospital Corpsmen stands proudly at Marine Corps Base Camp Pendleton once again, with an assist from a Clark joint venture team. The Hospital Corpsmen Memorial was formally rededicated in late 2014 during a ceremony at Naval Hospital Camp Pendleton.

The sculpture was originally constructed by Raul Avina, a Marine injured in the Battle of Iwo Jima who received a Purple Heart for his service. He created the monument at the age of 73, which took him two years to complete. It was originally dedicated at Camp Pendleton in 1983.

When the base's new Naval Hospital was completed last year, attempts to relocate the monument to its new location failed. While moving the sculpture, it fractured in a number of places. Clark/McCarthy, the hospital's joint venture design-build team, used photographs, renderings, and pieces from the original structure to rebuild the memorial.

Avina's original concrete figures were re-cast in bronze with a dark patina applied to protect against the weather and sun. The monument, which serves to honor the service and sacrifices of Navy Hospital Corpsmen everywhere, now stands at the end of the hospital's Medal of Honor Mall. ■



Clark Western Region President and CEO, Richard Heim (right), with Navy officials at the Hospital Corpsmen Memorial rededication ceremony.

## GOING RED

This winter we temporarily ditched "Clark blue" to support the American Heart Association's National Wear Red Day. Heart disease is one of the leading causes of death for women across the country. Our project teams and office staff wore red to raise awareness and encourage others to take actions to live a longer, healthier life. ■



Clark employees on the Los Angeles U.S. Courthouse (top), in our Irvine, CA, office (far left), and the Highland Hospital Acute Tower Replacement project in Oakland celebrate National Wear Red Day.



Photo by Bernard André Photography

Clovis Community Hospital

# 2014 PLATINUM SAFETY AWARD

## Winners Announced

Clark's Safety Recognition Program honors project teams that meet our high standards for safety and foster a safe work environment. Each quarter, we recognize teams that have established a superior safety culture and have zero lost-time incidents, zero liability incident claims, and a recordable incident rate below our internal goal. If a project earns gold-level safety recognition each quarter, it is eligible for the platinum honor. We are proud to award 2014 Platinum Safety Awards to the following projects:

- Clovis Community Hospital
- The Hotel at 400 E Street
- Highland Hospital Acute Tower Replacement
- Tom Bradley International Terminal Renovation, Apron, & Concourse Demolition
- Ventura County Medical Center Hospital Replacement Wing
- Camden NoMa
- Hall of Justice
- Los Angeles U.S. Courthouse
- MDTA I-95 Travel Plazas
- 601 Mass Avenue



Photo by Victor Wushetto Photography

Hall of Justice

## CRAFTSMANSHIP HONORED ON MID-ATLANTIC REGION PROJECTS

The Washington Building Congress recognized the high-quality work of Clark Foundations, Clark Concrete, and our subcontractors with a dozen 2015 Craftsmanship Awards. Honored work includes:

### ARCHITECTURAL MILLWORK

**The White House Visitor Center**  
Worcester Eisenbrandt, Inc.

**The Woodley**  
Christman Mid-Atlantic Constructors

### CAST-IN-PLACE CONCRETE

**National Museum of African American History and Culture**  
Clark Concrete



**The George Washington University Science and Engineering Hall**  
Clark Concrete

### HVAC-SHEET METAL

**South Campus Electrical Utility Plant Building 9861**  
The Poole & Kent Corporation/  
Stromberg Metal Works, Inc.

### MASONRY, EXTERIOR STONE

**The George Washington University Science and Engineering Hall**  
Calvert Masonry, Inc.

### POWER GENERATION, DISTRIBUTION, AND SWITCHGEAR

**The George Washington University Science and Engineering Hall**  
Mona Electric Group, Inc.

### SPECIAL CONCRETE FINISHES

**CityCenterDC**  
ATS Studio

### SPECIAL CONSTRUCTION FUEL SYSTEMS

**South Campus Electrical Utility Plant Building 9861**  
The Poole & Kent Corporation/  
Tanks Direct

### UNDERPINNING FOUNDATIONS AND EXCAVATIONS

**600 Massachusetts Avenue**  
Clark Foundations

**The George Washington University District House**  
Seaboard Foundations, Inc.

### MISCELLANEOUS METAL FABRICATION

**CityCenterDC – Gateway Media Arch (Jewel Box)**  
TSI Architectural Metals



# THE WAY WE WERE

Superstructure debuted in January 1983. In that inaugural issue, readers were introduced to CEI Construction, Inc., a nationwide family of construction and engineering companies. In a letter to readers, President and Chairman A. James Clark wrote that no matter where in the country they operated, each company was committed to providing clients with a consistent and high "standard of excellence." Our organizational structure has changed in the past 32 years, but our commitment to our clients remains the same. Today, Clark Construction Group, and subsidiaries Shirley Contracting and Atkinson Construction, have a similar nationwide reach and are proud to carry on the standards of excellence that Mr. Clark wrote about three decades ago. ■

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Published by  
CEI Construction, Inc.

# Superstructure



CEI Construction, Inc. Board of Directors: (left to right) A.S. (Mack) McLaughlin, Jr.; Jack L. Morris, A. James Clark, Chairman; Richard V. Caruso.; Lawrence C. Nussdorf

## CEI Construction, Inc. Builds Washington, D.C.

\$664,250,000 Underway

Downtown sections of major cities throughout the United States are changing. Washington, D.C. is no exception. Recently, the Mayor's Downtown Committee, appointed by D.C. Mayor, Marion S. Barry, Jr., in 1981, released its recommendations to create a "living downtown" in a report titled, *Downtown D.C.: Recommendations for the Downtown Plan*. The committee, which consists of community entrepreneurs, developers, architects, preservationists, planners, lawyers and residents, recommended a mix of construction projects over the next 10 to 15 years. These include office buildings, hotels, retail stores and transportation improvements. If current performance is any measure, CEI Construction, Inc., will play an ever increasing role in the development of Washington. Two of CEI's Washington-based subsidiaries, The George Hyman Construction Company and OMNI Construction, Inc., currently have \$664,250,000 in construction contracts underway in Washington, D.C., alone.

## Introducing— The CEI Superstructure

**A message from the President—**  
This is the premier issue of *The CEI Superstructure*, CEI Construction, Inc.'s new publication for clients and friends of its many subsidiaries.

*The CEI Superstructure*, published quarterly, will bring you information about CEI Construction, Inc., the nationwide family of engineering and construction companies which forms one of the nation's largest construction corporations.

The name CEI Construction, Inc. may be new to you, but chances are you work with one or more of our subsidiaries every day. They are: The George Hyman Construction Company; Wrenn-Wilson Construction Company; OMNI Construction, Inc.; HRW Systems, Inc.; Clark-Morris Company, Inc.; Clark-Kenith, Incorporated; The A.J. Clark Company, Inc.; and Clark-Fitzpatrick, Incorporated. An introduction to each

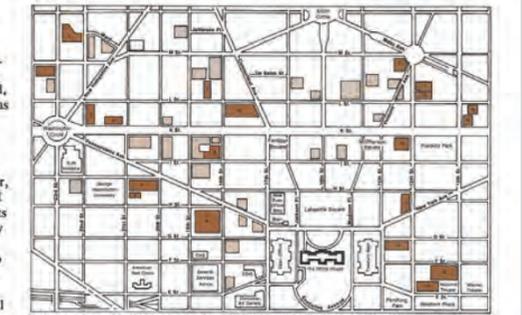
can be found on the following pages. CEI Construction, Inc., headquartered in Bethesda, Maryland, was established December 31, 1981, as the holding company for Clark Enterprises, Inc.'s family of construction companies. Each CEI company has its own identity and uniquely personal approach. However, there is consistency among every CEI Construction, Inc. company—that lets clients know whichever CEI company they choose will provide the same standard of excellence that has led to over 75 years of growth and service. I hope you will find reading this publication enjoyable, and that it will become a valuable source of information for you.

*A.J. Clark*  
A.J. Clark  
President and Chairman

## CEI Ranked In Top 10 Twice in 1982

CEI Construction, Inc. was ranked seventh and eighth in the nation among general contractors by two major industry publications in

1982—*Building Design and Construction*, and *Engineering News-Record*.  
(continued on pg. 2)



### CEI Construction, Inc. Projects Under Construction in Downtown Section of Washington, D.C.

NO.	Project Name	Company
1	Square 37	Hyman
2	1255 23rd Street Office Building	Hyman
3	K22 Apartment and Office Building	OMNI
4	McGregor Building	Hyman
5	2000 Pennsylvania Avenue Office Building	Hyman
6	The George Washington University National Law Center	Hyman
7	1819 L Street Office Building	OMNI
8	International Square Phase III	Hyman
9	World Bank Building	Hyman
10	Washington Square	Hyman
11	One Thomas Circle Office Building	OMNI
12	1400 K Street Office Building	OMNI
13	1401 New York Avenue Office Building	OMNI
14	Metropolitan Square	Hyman
15	J. W. Marriott Hotel	Hyman
16	National Place Office Building	Hyman
17	1111 14th Street Office Building	OMNI
18	1401 and L Street Office Building	OMNI
19	1220 L Street Office Building	OMNI
20	1275 K Street Office Building	OMNI
	Judiciary Center Office Building	OMNI
	Defense Intelligence Analysis Center	Hyman
	French Chancery	Hyman
	U.S. News & World Report Headquarters	OMNI
	The Union Labor Life Insurance Co. Headquarters	Hyman
	Capitol Place	Hyman
	1330 Connecticut Avenue Office Building	Hyman



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Montgomery College Bioscience Education Center

Photo by: Jeff Goldberg of Esto Photographers

**REGIONAL OFFICES**

*Bethesda, MD  
Chicago, IL  
Houston, TX  
Irvine, CA  
San Antonio, TX  
San Diego, CA  
San Francisco, CA  
Seattle, WA  
Tampa, FL*

**SUBSIDIARIES**

*Shirley Contracting Company  
Lorton, VA*

*Guy F. Atkinson Construction  
Golden, CO  
Irvine, CA  
Renton, WA*

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