

EXCITING NEWS FROM OUR INTERNATIONAL NETWORK OF CONTRACTORS!

Foundation Supportworks® Receives Product Evaluation Reports from the IAPMO Uniform Evaluation Service

Foundation Supportworks®, Inc. has announced the issuance of Research Report RR25990 from the City of Los Angeles, confirming compliance of its HP288 Helical Pile System with the 2014 Los Angeles City Building Code. Evaluation of the Foundation Supportworks helical pile system followed product design and testing in accordance with AC358, Acceptance Criteria for Helical Pile Systems and Devices. AC358 is the only published standard for establishing system capacities for helical foundations.

“Product evaluation is a critical step in getting systems accepted for use in various markets,” said Jeff Kortan, director of engineering for Foundation Supportworks. “By applying for and now having a Los Angeles Research Report, alongside evaluation reports from the ICC Evaluation Service, Inc. and the Canadian Construction Materials Centre, Foundation Supportworks has again demonstrated our commitment to providing high-quality products that satisfy a standardized testing and certification process. Bottom line, these reports assure customers, design professionals and code officials that these products will perform as indicated.”

Foundation Supportworks also received an evaluation report for the PP288 Push Pier System. The report (ER-289) was published by the IAPMO Uniform Evaluation Service (UES). It provides an independent third-party evaluation that confirms conformance of the system to the latest building codes, including the 2015 IBC.

The group of companies that make up the IAPMO have been involved in product recognition in building product listings and evaluation reports for over 70 years. Their evaluation reports are widely trusted by contractors, inspectors, building officials and design professionals across the country.

Foundation Supportworks offers a complete line of deep foundation products for both new

construction and for remedial repair of existing structures. The Foundation Supportworks product lines include helical pile, helical anchor and helical soil nail systems, push pier systems, polyurethane injection systems, as well as other supplemental support systems. Their international network of contractors consists of some of the most sophisticated foundation experts in the world.

Foundation Supportworks is committed to being the leading manufacturer of helical foundation systems and hydraulically-driven push pier systems and is proud to now have reached these important milestones in verifying code compliance of their products.

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As an authorized Foundation Supportworks dealer, JES is proud to install their high-performance products in homes and businesses throughout Virginia, Maryland and Washington, D.C.



KUDOS CORNER

Earlier this month, our commercial team installed helical piles for a pump station expansion in Virginia Beach, Va. Upon completion, we received a brief note of appreciation from the third party engineer: “The installation went well—you have a great crew!”

JES
Foundation Solutions
New Construction ★ Retrofit ★ Repair

FOUNDATION *View*



Happy National Engineers Week!

The level of skill, accuracy and willpower required to transform a mere blueprint into a tangible work of art can only be delivered by a masterful mind. Engineers, whose contributions are reflected in every aspect of society, must be acknowledged for continually pushing boundaries and helping to move the country forward.

National Engineers Week (often referred to as EWeek) emphasizes education and diversity as a means of strengthening the engineering profession. Established in 1951 by the National Society of Professional Engineers, it has evolved into a formal coalition of over 120 schools, community organizations, corporations, government agencies and engineering groups. This year, National Engineers Week will be observed during Feb. 22-28. The week long celebration recognizes the myriad ways engineers make a difference while reinforcing the importance of STEM education and careers.

To all the engineers out there, thank you. Your work matters.

CASE STUDY

Short Pump Town Center Elevator Addition

Dire predictions have often accompanied any mention of U.S. shopping malls in recent years, but Short Pump Town Center, located in western Henrico County, Va., is proof that if you revamp it, they will come.

In a quest to maintain its reign as the Richmond area's top-performing mall, Short Pump Town Center decided to undergo a multi-million dollar renovation project aimed at enhancing customer experience. A redesigned walkway, heated pavilions, new fountains, an outdoor fireplace and a glass elevator adorn the central courtyard, offering shoppers a combination of charm and convenience.

The Challenge

Renovations to the two-level, open-air mall included a new elevator adjacent to the existing outdoor foundation. The elevator was situated between two existing columns supporting the second-level walkway. The pit for the elevator required excavations about six feet below existing surface grade. The excavations were immediately adjacent to an exterior corner of each column footing and extended several feet below the bottom of the footings. The pit excavation was approximately eleven feet by eleven feet to facilitate construction. To ensure the structural performance of the existing column footings was not compromised during construction of the elevator pit, JES was contracted to provide temporary footing underpinning.



ABOVE: An elevator pit is prepared to house the car and hoistway.

LEFT: (top) The crew assembles at the general construction site of the new elevator. (bottom) A push pier bracket is connected to the existing foundation.



The Solution

In order to stabilize the existing footings and provide added edge support during excavation and other general construction activities, JES installed two underpinning piers on the exposed corner of each footing. The piers consisted of the Foundation Supportworks Model PP288 Push Pier Systems with retrofit (side-loading) brackets. Each pier was driven to acceptable bearing material to provide an allowable working load of 20 kips each. The piers were driven to depths of 45 feet to 50 feet. Actual depth was based on driving pressures and load correlation charts. Once the pier installation was complete, the bracket was bolted to the footing at two points using a three-fourths inch epoxy anchor bolt. Based on data provided by the project structural engineer, the load on the existing columns was 56 kips and 81 kips. In this regard, the allowable load rating for each pier was considered more than adequate to support the edge of the footing in the event of isolated or localized soil sloughing associated with excavations, or other minimal loss of lateral soil support. Installation drive pressure was monitored by JES engineering and crew personnel using a pressure gauge and visual inspection.



Above: The elevator shaft nears completion.

Left: (top) The push pier system is positioned and ready for installation. (middle) A push pier is hydraulically-driven to load bearing soil. (bottom) The crew monitors the installation drive pressure.

JES PROJECT ENGINEER

David Stinnette, P.E.

STRUCTURAL ENGINEER

Shenberger & Associates, Inc.

GEOTECHNICAL ENGINEER

ECS Mid-Atlantic

GENERAL CONTRACTOR

Graycor

LET'S DO LUNCH!

Hungry for knowledge? As a registered continuing education provider with the Engineering Registered Continuing Education Program (RCEP), the American Institute of Architects (AIA) and their Continuing Education System (CES), the American Society of Home Inspectors (ASHI), and the Virginia Association of Realtors (VAR), we provide free continuing education classes, seminars and "lunch & learns" to engineers, architects, home inspectors, real estate agents, property managers and insurance adjusters.

During our "lunch & learn" presentations, we educate the professional community about common commercial and residential foundation problems, crawl space design and moisture management issues as well as basement waterproofing. We delve into causes, symptoms and solutions while attendees enjoy a free lunch.

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OUR PUSH PIERS ARE UPLIFTING

Benefits

- Can be installed during any season
- Accesses greater depths than other choices
- Prevents further settlement
- Corrosion-resistant
- No heavy equipment required
- Below-grade (not visible after installation)
- Protects property value

Recently evaluated by the IAPMO Uniform Evaluation Service (see cover story), the Foundation Supportworks push piers installed by our international network of contractors, are engineered for long-term performance. It's a geotechnical reality: all structures experience settlement at one time or another. Changes in the soil or ground beneath a building tend to cause most cases of foundation settlement and can lead to structural damage if not properly addressed.

Instead of losing valuable property and architectural treasures to foundation failure, preserving a building's structural integrity can be a cost-effective alternative. Our push piers are recommended for common settlement problems and can be used to restore homes and buildings to level. Although there are other options for correcting settlement, such as foundation replacement, which is costly, disruptive and ineffective, installing push piers is the proven way to permanently stabilize failing or sinking foundations. Hydraulically-driven steel tube sections pushed through heavy-duty steel foundation brackets toward competent soils, will give any structure a lift.

If you'd like to book a JES expert to speak at your company or industry meeting, go to www.jeswork.com/professional-resources/speakers-bureau.aspx.

EDITOR *Shirell Hairston* DESIGNER *Austin Jacobs*

The mid-Atlantic's premier engineered solution expert for foundation repair, new construction deep foundation installation, crawl space moisture management and basement waterproofing.

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- Helical Piles
- Tie - Backs
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- Polyurethane Injections
- Basement Waterproofing
- Crawl Space Moisture Management
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