

The Engineered

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# ADVANTAGE

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Dear Friends:

Warmer weather is here. First, we all revel in the beauty of the southern landscape with stunning dogwoods and azaleas in bloom. Then, before you realize, the heat of the summer is upon us. Think southern ice tea, baseball, children splashing in the pool, sitting in a rocking chair on a front porch under a fan and one of my favorites,

homemade churned ice cream! Simple pleasures are simply the best!

Sometimes we become so caught up in our day to day business and so focused on our objectives that we miss the simple pleasures. It's difficult to slow down, to "stop and smell the roses" when we have projects to complete. But this spring and summer, I'm challenging myself to be deliberate about taking out time to appreciate things more.

In this issue of the Atlas Advantage, we are highlighting the installation of a beautiful cross in the middle of a lake in front of the Georgia Baptist Convention Headquarters in Duluth. We were called in to assist Brasfield and Gorrie with the underpinning of the structure. Talk about a breathtaking image! If you are ever on Sugarloaf Parkway at dawn or at sunset, you might want to stop your car and take time out to appreciate the view. (And, if you are led to pray, please remember our troops in Iraq and other places around the globe.)

There's so much to be thankful for in our world. We installed MICRO PULLDOWN® piles under Ken's Food Distribution Center in McDonough recently. Ken's Foods supplies many of our area grocery stores. While that may not seem exciting, it's all the support tasks that uphold the conveniences of our modern society.

Modern conveniences are missed when you travel to other places around the world. But there are other treasures to find, new adventures and new friends. I've had the opportunity to meet so many selfless volunteers as I've been privileged to be a part of several archeological digs in Israel. An update on our recent finds and a word of praise for the volunteers is part of this issue's Accolades section. (This is the section where we like to spotlight good deeds, so please let us know if you or your associates have good news to report. Simply e-mail me at wayne@atlaspiers.com .)

In conclusion, I want to make sure all of you, our valued customers, know how much you are appreciated. I encourage you to give us a call and let us buy you and your staff lunch as part of our "lunch and learn" program. It's always a sincere pleasure to hear from you.

Wayne Farris  
Owner/Founder, Atlas Piers of Atlanta, Inc.

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Front Cover Photo:

Atlas Piers of Atlanta crews work to prepare a solid foundation in the lake bed in front of the new Georgia Baptist Convention Headquarters. Eight helical piers were installed at the site to support a massive cross sculpture. (See article on pages 4 & 5.)



# A Special Order Solution Supports The Modern Food Chain



As a major producer and packager of some of the nation's most delicious sauces, toppings and salad dressings, Ken's Foods is a respected part of the modern "food chain." The company includes both retail grocery products and food service divisions. Production and packaging capabilities range from single serve pouches up to massive orders of 400 gallons.

The history of Ken's Foods is an inspiring study of American entrepreneurship and "carpe diem." In 1941, Ken and Florence Hanna of Framingham, Mass. opened Ken's Steakhouse restaurant. They served their marvelous steaks with salad – and of course, the salad needed a great salad dressing. Pretty soon, the Italian salad dressing they created began to gain as much notoriety as their steaks. Frank and Louise Crowley, friends of Ken and Florence, saw the promise in the

salad dressing. They created Ken's Foods in their kitchen in 1958 to bottle and sell salad dressing based on the steakhouse recipe.

Over the years, Ken's Foods began to create additional condiments, all with high quality ingredients and "made from scratch" sensational flavor. The company produces and packages more than 400 dressings and sauces today. (Actor Paul Newman has even brought his own original recipes to Ken's Foods and requested the company produce and bottle them.)

Ken's Foods plants, located in Marlborough, Massachusetts; Las Vegas, Nevada; and McDonough, Georgia, are recognized by regulatory groups as three of the most advanced and automated in the nation. For quality assurance, Ken's Foods' personnel create, test and package Ken's Foods products under the strictest safety guidelines. Because of

these stringent guidelines and the increased demand for their products, Ken's Foods had specific requirements when the company expanded its plant in McDonough, Georgia to include a new 50,000-square-foot cooler.

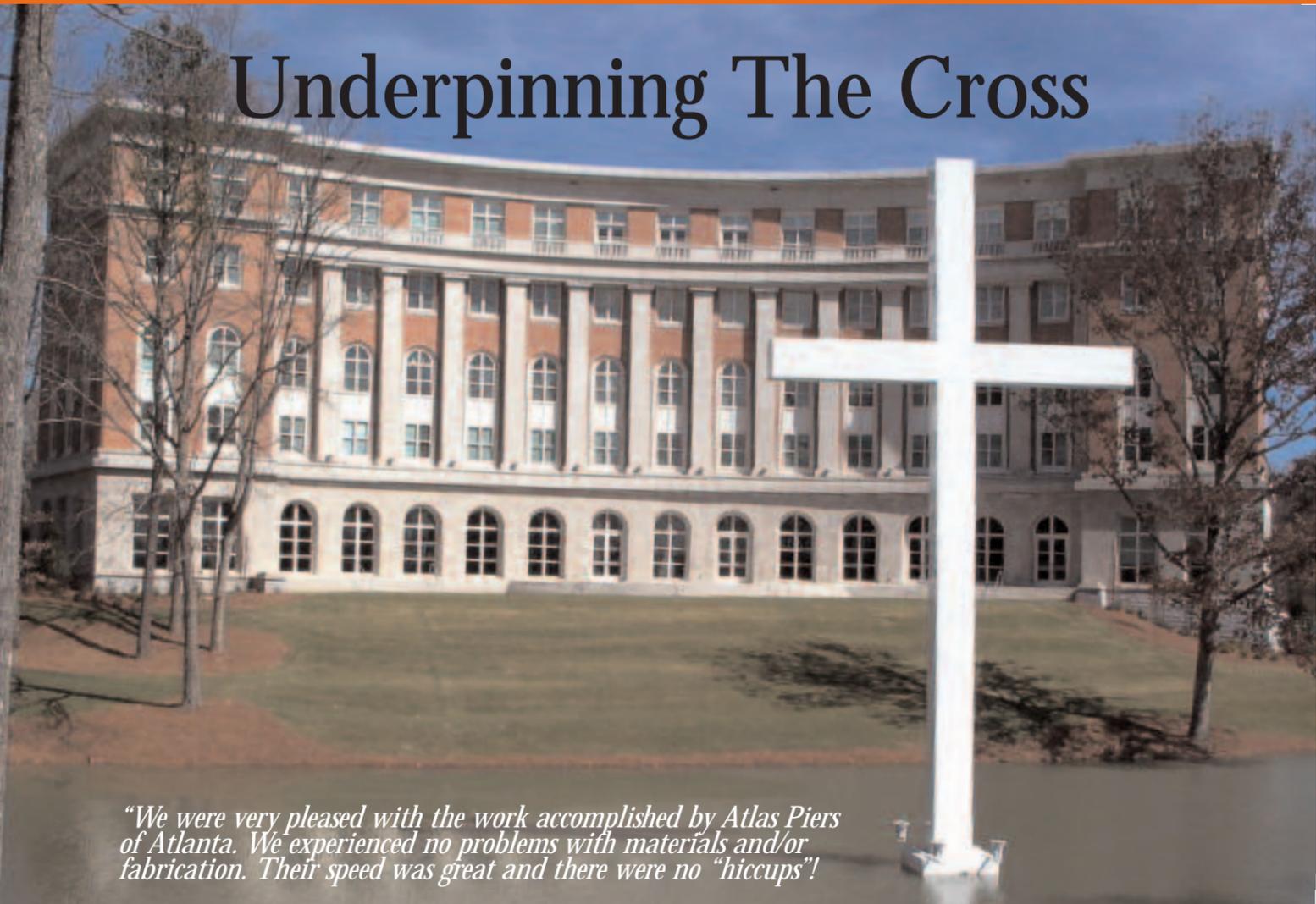
To do the job, Ken's Foods hired O'Neal, Inc., an employee-owned consulting firm that provides comprehensive services which include facility and strategic planning, engineering and architectural design, construction management, commissioning and start-up, and validation services to major industrial clients worldwide.

According to David Papageorge, Construction Project Manager for O'Neal, Ken's Foods had an interesting dilemma; they needed to expand their facility without losing highly-needed cooler space.

"Ken's Foods needed larger cooler capacity to meet increased demands for their products but we faced a chal-

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# Underpinning The Cross



*"We were very pleased with the work accomplished by Atlas Piers of Atlanta. We experienced no problems with materials and/or fabrication. Their speed was great and there were no "hiccups"!"*

Atlas Piers of Atlanta, as a foundation support specialist, works for both residential and commercial clients. Mostly when you think about that kind of work, you might visualize crews working to shore up large buildings on marginal soils or to underpin homes with sinking slabs and cracks in the walls. And you would be correct. But on occasion, calls come in with more unique and sometimes even unusual requests.

According to Chad Costello, Vice President of Atlas Piers of Atlanta, the company has worked on Fiberoptic Communication facilities.

But Costello says that by far, one of the most unique inspiring and gratifying jobs recently was underpinning a massive cross in a man-made lake in front of the new Georgia Baptist Convention Headquarters at 6405 Sugarloaf Parkway in Duluth.

"When we were contacted to bid on this job we were determined to be a part of this project. This underpinning job was special because we are a company of Christian people and the cross is the symbol of our faith.

The Georgia Baptist Convention broke ground on the new facility, slated to include offices for 180 Atlanta-based staff members, in Gwinnett County in 2004. The Convention named James Seibert, of Seibert and Son, Inc., as project manager. Brasfield and Gorrie, the company who recently completed the Georgia Aquarium, would serve as General Contractor and Palmer Engineering would provide the civil and structural engineering designs.

According to Wes Kelley, project manager for Brasfield and Gorrie, the cross, made of a steel frame with an aluminum skin, now stands 55 feet above the lake's water surface. The horizontal arms span 21 feet in length.

"It was part of the owner's vision that the cross would appear to be floating in the lake. The structure would be a tribute to portray what they stand for," added Kelley.

As the leading contributor to Southern Baptist mission causes, the Georgia Baptist Convention shares in the ministry of more than 10,000 missionary families in over



160 nations of the world. The Convention offices serve 3,543 Southern Baptist churches representing 1,375,417 members across the state.

"We have a great heritage, but our greatest days are ahead, and the most efficient facility possible is needed for these future years," stated J. Robert White, executive director of the Georgia Baptist Convention.

In August, 2005, Palmer Engineering set forth the engineering objectives for the massive cross which would stand as sentinel in front of the five-story headquarters building. The guidelines included the pile cap geometry and the loading conditions. The first task would be to drain the man-made lake in front of the headquarters before construction commenced.

The top of the lake bed was at an elevation of 1,000 feet. Based on boring logs submitted by SEA (Sailors Engineering Associates), the strata below varied at different elevations. From 1,000 to 970 feet there was loose, sandy silt, from 970 to 950 feet was a medium dense sand that still contained some silt, and from 950 feet to EOB (end of boring) the borings showed very dense sand. Groundwater

was observed at 995 feet in at least one of the borings.

One of the services provided by Atlas Piers of Atlanta to engineering firms is the recommendations of an on-staff engineer seasoned in all aspects of foundation support. This provides an additional expert opinion to corroborate the engineering strategy before final designs.

Costello called on Don Deardorff, Senior Engineer at Atlas Systems, and a 14 year veteran in foundation technology, to provide recommendations to Atlas Piers of Atlanta. These would be submitted to Palmer Engineering for review.

According to Deardorff, an L-pile analysis was performed using the soil strata taken from the boring with the worst soil conditions, along with a 15 foot transition to a 30 foot long pier section installed to a depth of 45 feet. Findings showed that:

- For a fixed head condition, the design lateral load created an allowable deflection of 0.4 inches.
- Providing the design lateral load applied to the pile was no more than 4 kip, the piers would perform satisfactorily.
- Groundwater should be assumed at 4 feet above the lakebed surface.

■ The depth of suitable bearing strata was estimated at approximately 50 feet below the proposed top of the pier elevation.

■ Galvanized materials were recommended based on the soil conditions of the site.

■ A safety factor of 2 to 1 was achieved.

■ Given a design load of 25 kips compression, 6 kips in tension and 4 kips laterally, the ultimate load is 50 kips compression, 12 kips in tension and 8 kips laterally.

Deardorff recommended new construction helical piers for the job. But his best advice of all was simply stated, "in all cases, a qualified engineer who is familiar with the actual soil conditions and all applicable rules, regulations, etc., must develop the final design in order to ensure that the owner's needs (which include compliance with all applicable rules) are met.

A total of eight helical piers were installed to an average depth of 50 ft. to achieve the required 8,500 ft. lbs. of torque.

## A Special Order Solution, continued



*continued from page 3*

challenge in that, the existing footings needed to be reinforced to support the new loads imposed by the new structure. Using conventional techniques, this would have meant simply increasing the size of the existing spread footing on both sides of a precast panel. However, the existing cooler resided on the inside of the pre-cast panels. Ken's couldn't relinquish the space for construction. Atlas Piers of Atlanta was able to install the deep underpinning support system that was needed without impacting operations inside the operating plant," stated Papageorge.

Based on soil borings from Qore Property Services and the engineering objectives, Wayne Farris, President of Atlas Piers, determined that a special order product was needed to meet the specific objectives of the job.

"Not only did we require

compression, but we needed lateral force to accomplish the proper underpinning. We had concerns about lateral shear requiring a unique solution," explained Farris.

Atlas Piers of Atlanta used helical micro PULLDOWN® piles to facilitate rapid installation with maximum strength. The helical micro PULLDOWN® piles included a 1.75" SQ bar new construction helical at the center spine with a surrounding 6" poured grout column. A special order 6" steel sleeve was placed on the upper five feet of the pier to add resistance to any lateral movement.

At the end of approximately two days of work by Atlas Piers of Atlanta foremen and crews, pier logs showed a total of 13 customized helical Micro PULLDOWN® piles were used and installed to depths ranging from 19 to 40 feet in requiring torque of up to 8,000-ft. lbs. Best of all, Atlas Piers of Atlanta offered

O'Neal, Inc. and Ken's Foods the engineered solution that their project required.

"Atlas Piers of Atlanta did an excellent job to meet our schedule. They were able to do the helical pier installation in two days on-site so we could proceed to erect steel. Basically, the entire interaction, from my first phone call to completion occurred in a mere two week window," added Papageorge.

Ken's Foods was able to continue to meet its established quotas without interference throughout construction. The delivery of a unique, customized solution by Atlas Piers helped ensure the "food chain" experienced no interruptions and consumers continued to enjoy its modern convenience.

## Finding Priceless Treasure



(Top Left) Farris holds a small quartz cylindrical seal dating back to the Temple of Solomon (early Iron Age) that was found in the 2005 dig. The seal, now on display at the Israel Museum, features relief graphics used to imprint decorations on ancient clay pots.

(Center, 1-r) Terry Tellignan of Texas, a key volunteer and friend, with Farris, who supervised shoring.

(Top Right) An area 7 x 5 x 10 meters was exposed for work to avoid tunneling. The group unearthed an ancient 15,000 gallon cistern and a round room with sloped walls.

**M**any entertaining books and films are centered on a quest for buried treasure. This plot both intrigues and satisfies our thirst for adventure. Sometimes the treasure is not gold or silver, but priceless, ancient artifacts.

In the Holy Land of Israel, archaeological digs offer the prospect of uncovering historical structures and artifacts that are significant to various religions. With the potential to dispel or confirm historical facts written in accounts in scriptures, these artifacts and the search for them, can be a means to divide or unite people of various faiths.

Wayne Farris, founder and president of Atlas Piers of Atlanta, Inc., has been fortunate to have been an integral part of several archeological digs at the site of the Garden Tomb sanctioned by the Israeli Antiquities Authority. He has experienced the anticipation, the exhaustion and the exhilaration of the hunt for buried treasure. According to Farris, who has participated in four such digs to date, the artifacts found, while significant, are not the most important part of the process.

"From my perspective, the inner journey, both in spiritual and self-revelation, along with the friendships forged in the process are more priceless than the artifacts themselves. To have the

opportunity to work along side people from all over the world, people who have volunteered and funded these digs themselves, who have a passion for the truth, is the most satisfying part of my involvement."

It is these volunteers and friends, that Farris wishes to acknowledge in this Atlas Advantage ACCOLADES. Through their devotion and struggles, this group of individuals, have unearthed not only structures and artifacts of historical importance, but have uncovered treasure more priceless: the ability for people to set aside their differences and selflessly work together toward a common goal of importance for all mankind.

# Continuing Education “With A Bite”



Learning can be enjoyable and satisfying – especially when you host a “lunch and learn” presented by Atlas Piers of Atlanta. Why not take advantage of a complimentary lunch to satisfy your appetite while you boost your knowledge of foundation support?

That’s what we call “continuing education with a bite.” We do mean it literally! Join the lunch bunch today by calling Karen at Atlas Piers of Atlanta at 770.740.0400 or e-mail your request to [karen@atlaspiers.com](mailto:karen@atlaspiers.com).

We not only look forward to meeting new customers, but wish to see many of our valued

clients again this year. Due to last year’s merger with The A.B. Chance Company, we have a lot of exciting news regarding our new product lines. (The products highlighted in the article about Ken’s Foods on page three is only one of the many benefits of the merger.)

Additionally, we have recently received our new comprehensive Atlas and A.B. Chance technical manual. We are eager to present each of you a copy of the new manual for your reference library at your “lunch and learn.” Of course, we also look forward to having the opportunity to share all the benefits of our new product line.

*Chad Costello of Atlas Piers of Atlanta makes a presentation at a “lunch and learn.” We invite you to join the many notable engineers, architects, general contractors and builders who have participated in hosting an event for their staff.*

This new comprehensive tech manual provides invaluable information for foundation support specifications. And, as always, we are here to support you. (A pun but true!) Give us a call today and we will be happy to assist you in bidding projects.

We are more than ever, your design/build underpinning contractor: Atlas Piers of Atlanta, Inc.

**Call About Our New Comprehensive Atlas/A.B.Chance Tech Manual  
To Learn The Benefits Of Our New Product Lines!**