

THE ENGINEERED

SPRING, 2005

# ADVANTAGE

A photograph of a construction site. In the foreground, a yellow CASE backhoe loader is positioned on reddish-brown soil. A worker wearing a white hard hat, sunglasses, and a light-colored t-shirt is seated in the operator's cab. The backhoe's arm is extended. In the background, there is a large, grey concrete retaining wall with orange spray-painted markings. Several steel reinforcement bars (rebar) are visible, some lying on the ground and others embedded in the wall. The scene is set against a backdrop of green trees.

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## INTRODUCING: THE ENGINEERED ADVANTAGE

In developing this publication, Atlas Piers of Atlanta hopes to foster a stronger bond between our company and our clients in the construction industry. As foundation support and repair specialists, we offer architects, engineers, contractors and home builders - engineered solutions with superior strength and endurance - upholding the Atlas name. It is our sincere wish, that through communication, professionalism and first-class customer service, we will become your preferred partner when you are in need of foundation support advice, products and installation.

For more than fifteen years, we have served the commercial, industrial, and residential markets with honesty, integrity, and the highest quality of materials and workmanship. Each of our systems is engineered to provide measured support, therefore eliminating the guesswork often associated with other techniques.

It is our mission to serve you, our clients, with your best interests at heart, even if it means diagnosing the problem and eliminating our services. We do this because it is our ultimate desire to glorify God in all that we do, in our professional life as well as our personal.



**Top Left:** Chad Costello, Wayne Farris, Kelly Kelly, Butch Kirk, Todd Adair, Merritt Anthon, Kimberly Clevenger, Phillip Garrison, Ron Keener  
**Bottom Left:** Raul Martinez, Juan Ramirez, Hector Ramirez, Pedro Ramirez, Honorio Ramirez, Carlos Rojas

*Wayne Farris* *Chad Costello* *Kimberly Clevenger* *Phillip Garrison* *Ron Keener*  
*Chad Costello* *Butch Kirk* *Pedro Ramirez* *Raul Martinez*  
*Ally Garcia* *Kelly Kelly* *Hector Ramirez* *Carlos Rojas*

## THE ENGINEERED ADVANTAGE

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### A Symbol Of Invincible Strength

According to Greek mythology, Atlas was a Titan diety who incurred the wrath of Zeus, leader of the gods of Mount Olympus. Atlas and other Titans had opposed Zeus, the god of sky and thunder, in a bitter battle for leadership, that lasted for a decade. In most accounts, when the Titans lost the war, Zeus forced Atlas to hold the heavens on his shoulders for eternity. Other legends say Atlas was required to hold both the heavens and the earth. Because of the divine ability required to hold this weight, Atlas has become a symbol of invincible strength and endurance.





## ATLAS ACCOLADES - UPLIFTING NEWS

The dictionary defines an accolade as an acknowledgment or expression of praise. Because we at Atlas Piers of Atlanta believe there is a great deal of overlooked good news in the world, we are dedicating this page to share it with you. From inspiring stories in our featured *Atlas Accolade Award* to amusing anecdotes, you'll find news to make you smile and uplift your spirits.

**And the first Atlas Accolade Award goes to...**

The passengers on American Airlines Flight #866 from Atlanta to Chicago that gave their first-class seats to military personnel returning from Iraq this past year. (We wish we had the names to acknowledge each individually.)

According to various news reports, a businessman seated in first class on the flight offered to trade his first-class seat with a serviceman seated in coach. The act of respect motivated other passengers seated in first-class to follow his lead. All eight military passengers were soon seated in the best seats in the airplane for their flight to Chicago. The soldiers were flying home for two weeks of leave from Iraq.

Atlas congratulates the passengers for this inspiring act that hopefully will encourage others to do everything possible to show gratitude for the sacrifices made by our American service men and women. We sincerely thank both those heroically serving to uphold our freedom and those Americans who graciously acknowledge them in word and deed. We continue to pray for the safe return of all Americans serving in foreign lands.

### Joke of the Month

A man is dining in a fancy restaurant and there is a gorgeous brunette sitting at the next table. He has been checking her out since he sat down, but lacks the nerve to talk to her. Suddenly she sneezes, and her glass eye comes flying out of its socket towards the man. He reflexively reaches, grabs it out of the air, and hands it back. "I am so sorry," the woman says as she pops her eye back in place. "Let me buy your dinner to make it up to you," she says. They enjoy a wonderful dinner together. They talk, they laugh, she shares her deepest dreams and he shares his. She listens and she pays for everything as promised. "You know," he says, "you are the perfect woman. Are you this nice to every guy you meet?" "No," she replies... You just happened to catch my eye!"

### Quote of the Month

"The only competition worthy of a wise man is with himself." ----Anna Brownell Jameson

We encourage you to contribute to ATLAS ACCOLADES, this section of the The Engineered ADVANTAGE, which is distributed to the construction industry in Atlanta. Simply e-mail your good news entitled "In Box for Atlas Accolades" to: [Kelly@AtlasPiers.com](mailto:Kelly@AtlasPiers.com). Nominations for the Accolade Award are welcome.



**Preparing for final pass of shot-crete.**

## The Sweet Sound Of Silence

The sound of a pile driver might be like a symphony to some in the construction business - especially if it's the beginning of a big job. But to most, loud construction noises are annoying and the constant pounding and jarring could irritate homeowners living nearby.

When you are working on commercial structures, such as churches and schools, usually located in close proximity to residences, a valid concern is how your work impacts residents. Not only is it imperative to prevent any structural damage to nearby homes, but it's important not to interfere with quality of life.

This was one challenge presented, among others, to Charles Baxter, Project Manager for Gay Construction, when awarded the contract to build a new addition to Temple Sinai, a Jewish Synagogue located on Dupree Road, off Powers Ferry Road in North Atlanta.

"The property owners, whose home was adjacent to Temple Sinai, were apprehensive. They were anxious not only about the noise levels, but about what vibrations from pile driving could do to their home," explained Baxter.

Baxter opted to take a different route to accomplish his goal, one that would prove to speed up the construction timetable, and keep the neighbors happy. He hired Atlas Piers of Atlanta to shore and underpin Temple Sinai's existing one-story building to ensure its structural integrity, while earth was excavated to allow for construction of the basement or first level of a new, adjacent two-story addition.

According to Wayne Farris, owner of Atlas Piers of Atlanta, "The installation of our products doesn't require pile driving. Our technique is an engineered approach including a unique hydraulic system that utilizes continuous pressure to limit noise and vibrations. It is much safer for on-site and nearby structures."

Atlas Resistance Piers were used to support the footings, while tie-backs and soil nails were installed at intervals to prevent the earth from moving laterally. An additional advantage for the contractor was that the job's shot-crete finishing served as the back face for his forms, saving time and money.

**Hydraulic gauge readings show necessary torque for proper support.**



# Vibration-Free Shoring Protects Structure

At the Temple Sinai job, off-site vibration monitors were set up at the neighboring residence. That way, homeowners next door to the job site could have daily readings on what was happening during the earth moving activities. They were reassured that the structural integrity of their property wasn't being jeopardized in any way.

"The Atlas system went in quicker than we anticipated and the work was completed faster than if we had arranged for a pile-driving crew to come in and do the job," added Baxter.

"Everything turned out great. The homeowners were happy. And yes, we would use Atlas Piers of Atlanta again in the future," concluded Baxter.

Farris adds, "This job included challenges. For example, partially weathered rock on site required us to pre-drill to install the soil nails. Throughout the process, we offered consulting by Atlas Systems Chief Engineer, Dr. Kraft. Engineers find him to be a team player and he is an integral part of our service. Combine his expertise with Atlas superior products and you have a major advantage. Our engineered products provide measure support, normally within a 2:1 factor of safety, thus eliminating guesswork."



Backhoe being used for soil nail installation.

**"The Atlas system went in quicker than we anticipated and the work was completed faster than if we had arranged for a pile driving crew to come in and do the job."**

**Charles Baxter,  
Project Manager,  
Gay Construction Inc.,  
Atlanta, GA**



Work completed and site ready for Gay Construction to begin footing preparation.

# ATLAS SUPPORTS SPORTS RETAILER



**Large commercial building now secure with 57 Atlas Piers.**

## Job Specifications:

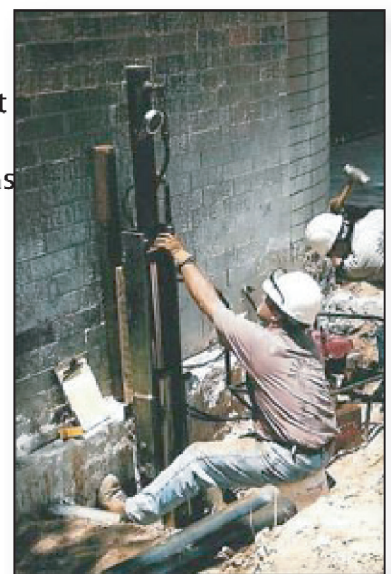
<b>Pier Depth(s):</b>	38 to 49 feet
<b>Avg. Drive Force:</b>	60,000 pounds
<b>Lift Force:</b>	20,000 pounds
<b>Ultimate Capacity:</b>	85,000 pounds
<b>Factor of Safety:</b>	2.90:1 to 3.11:1 (working) 4.25:1 (ultimate)
<b>Cost Savings:</b>	\$100,000.00

In this area of the country with its hilly terrain, many buildings are constructed on sloping lots. To provide a level surface for building, fill materials are used. When these materials are not compacted properly, major foundation problems can occur, as one local sports retailer experienced. Over time, uncompacted fill under the retailer's building consolidated, causing it to settle. Soon, the structure started to show signs of distress. Cracks and masonry misalignments began to appear in the exterior walls.

Soil borings revealed that suitable bearing strata occurred at 40 to 45 feet but engineers had another problem. There was a sewer line located 20 feet directly below the footing. Drilling concrete piers would be impossible and relocating the sewer line uneconomical.

The engineers called on Atlas Piers of Atlanta to help stabilize the structure. Fifty-seven Atlas Resistance Piers made of galvanized steel, were installed to secure the building. Not only did Atlas Resistance Piers provide superior structural support and allow for quick completion of the job, this was the most cost effective solution. Atlas saved the owner \$100,000 over the next bidder. Each Atlas Resistance Pier was driven to a force greater than required to support the structure and the structure was successfully underpinned.

Shoring operations are often reactive for repairs as in the case of the sports retailer, but they can also be a proactive part of construction or renovation. A large, telecommunications company recently utilized Atlas Piers to secure their newly purchased commercial building so they could excavate underneath the structure. In the photo to the right, Atlas workers install piers to bridge the excavated site and secure the building. This allowed the telecommunications company to be able to install the large amounts of cabling necessary for their operations safely underneath, while the structural integrity of their new building remained sure.



**Workers install Atlas Piers to stabilize telecommunications building for large cabling installation underneath.**

**To obtain a complimentary technical manual on mini CD and a corporate brochure from Atlas Piers of Atlanta, contact [Kelly@AtlasPiers.com](mailto:Kelly@AtlasPiers.com).**

# WHO SAYS THERE'S NO FREE LUNCH?



**Chad Costello, of Atlas Piers of Atlanta, Inc., presents engineered solutions to foundation challenges in a Lunch & Learn.**

Atlas Piers of Atlanta invites you to lunch - on us! From small to large groups, we regularly entertain Atlanta's premier architectural and engineering firms, builders and contractors, while presenting exciting new information regarding innovative state-of-the-art techniques being implemented across the country in our field. For architects and engineers, we offer an additional incentive to participate as you earn continuing education credit. As a host company, you will also receive valuable technical information for your firm's reference library. Take advantage of this opportunity today by calling Kelly at 770.740.0400.

Special thanks to the following companies who have hosted an Atlas Piers' "lunch and learn":

- |                                    |                                   |                                       |
|------------------------------------|-----------------------------------|---------------------------------------|
| ■ AMEC                             | ■ Cross Engineering, Inc.         | ■ Norton, Schmidt & Warden Engineers  |
| ■ ASD, Inc.                        | ■ Dougherty Schroeder & Assoc.    | ■ Nova Engineering                    |
| ■ ATC Associates                   | ■ Eagle Engineering               | ■ Phillips Partnership PC             |
| ■ ATS                              | ■ Foley Design Assoc. Architects  | ■ R.J. Griffin & Company              |
| ■ Alex Roush Architects, Inc.      | ■ Foreman Seeley Fountain, Inc.   | ■ Rosser International                |
| ■ Alhberg Engineering, Inc.        | ■ Gallet & Associates of GA       | ■ Scott Johnson                       |
| ■ B & E Jackson & Associates       | ■ Goode Van Slyke Architects, LLC | ■ Sedki & Russ Engineers, Inc.        |
| ■ Barry Levin & Associates         | ■ Greenberg Farrow Architects     | ■ Sizemore Group                      |
| ■ Bellamy Brothers, Inc.           | ■ Harris Fritz & Associates       | ■ Skanska USA                         |
| ■ Bennett & Pless, Inc.            | ■ Harrison Design Associates Ltd. | ■ Southern A & E, LLC                 |
| ■ Brittingham & Associates         | ■ J. W. Robinson & Associates     | ■ Stan Lindsey & Associates           |
| ■ Brock Green Architects           | ■ John Portman & Associates       | ■ Starzer Brady Fagan & Assoc.        |
| ■ Browder & Leguizamon & Assoc.    | ■ KSI Structural Engineers        | ■ TVS & Associates                    |
| ■ CGLS Architects                  | ■ Lyman Davidson Dooley           | ■ Uzan & Case Engineers               |
| ■ Clark Patterson Associates       | ■ Moma Architecture, Inc.         | ■ Wakefield Beasley Assoc. Architects |
| ■ Corcoran Nelson Nardone & Assoc. | ■ Merrick                         | ■ Willett Engineering Company         |
|                                    | ■ Nannis & Associates             |                                       |



## Congratulations On New Contracts!

**Brasfield and Gorrie, LLC**  
*St. George Village C.C.R.C.,  
DeKalb Medical Center*

**Felker Construction Company, Inc.**  
*Pleasant Grove United Methodist Church*

**Gay Construction Company**  
*Temple Sinai*

**New South Construction Company, Inc.**  
*Atlanta International School*

**Nicholson Services**  
*The Brickworks*

**Piedmont Construction, LLC**  
*Parkview High School*

**Skanska USA Building, Inc.**  
*Wellstar Douglasville Hospital*

**Turner Construction Company**  
*Bishop's Hall, Emory University*

**WE CAN CHANGE HISTORY!**