



ATLAS PIERS
OF ATLANTA, INC.



Quick-Trip Quick-Job

Creative Tieback Application Secures Drain Despite Rain

Ellenwood, Georgia

COMMERCIAL PROJECT OF THE YEAR FINALIST

Atlas Piers of Atlanta was contacted by the Quick-Trip Construction Department to design build a repair of an approximately 135-foot long section of corrugated metal pipe (CMP), a detention pond storm drain that repeatedly rose out of the ground during heavy rainfalls.



Atlas proposed to the owner to use a series of 32 ECP Helical Piles installed in pairs serving in tension as tiedowns for the drain pipe sections. After approving the concept, loads were calculated by Mr. Harold Rankin P.E. of Randall Paulson Engineering. The tiedown and connection design was done by Mr. Bob Turton P.E. of Oakhurst Geotechnical Services.

The original pipe sections were removed and the base foundation soil was graded and prepared to accommodate adequate fall. 32 ECP 1-1/2" Helical Anchors with an 8-10-12 flight configuration were installed to provide 35 kips of ultimate capacity in tension. The helical anchors were installed in pairs, opposite of each other, and secured to the CMP sections using an inverted ECP 1-1/2" galvanized transition assembly and a 5/16" galvanized chain shackle. Custom cut sections of polymer corrugated drain pipe were used as a bearing pad between the CMP and the chain. The project was completed by 4 men in 3 days.



The team faced plenty of issues throughout the project, like how coordination between the owner, architect, structural engineer, geotechnical engineer, general contractor, grading contractor, and civil construction teams proved to be difficult.



The weather was also an issue. The detention ponds filled up within 5 minutes of any rain event. Access was difficult and the machinery got stuck easily. Getting permits was difficult because the inspector was unfamiliar with the technology leading to skepticism toward the Atlas team. The process of going from concept to construction was rushed by the owner and general contractor because the rest of the project was on hold until Atlas's work was complete.

In an effort to gain support, the Atlas team emphasized to the owner and general contractor that their scope was critical to the continuation of the entire project. Atlas initiated daily pre-construction meetings to ensure all parties understood their role in helping the atlas team complete their scope quickly. They also pre-planned for any weather events, which proved paramount to their success. The other contractors also shared their equipment so that machines stuck in the mud could be recovered quickly. Also, special attention was required to educate the city inspector on the technology being used and an expeditor was retained to facilitate securing the permit.



Atlas Piers of Atlanta installers:
Hollis Myers, Gavin Sarver, David Sanchez, Alan Garcia.



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