

## **Utilities Created Design Challenges**

When old fences reach their design life, they begin to look rundown or may even be falling over. This was the case for Marston Slopes Residents in Lakewood, Colorado. The Marston Slopes Development once had an old wooden fence



that had been in place for years. Both Highway 44 and Highway 121 border the development and have steadily grown in traffic volume over the years, to a point where vehicle noise had become a problem for the residents. The Marston Slopes Homeowners Association (HOA) looked for a solution to provide security, reduce traffic noise, and look appealing to the traffic driving by. Allan Block Fence stood out from the rest and exceeded all their expectations.

The overall fence layout would span nearly 2,000 linear feet (610 m) and be 8 ft (2.4 m) tall along the roadways to provide sound abatement and security for the residents. One problem with a fence system running such a long distance and along a roadway, is that many utilities intersected the layout or ran parallel with the fence. This was a major concern for the project since the utilities would dictate where the footings for the fence system could be placed.

The structural engineer that was hired for the fence design decided to use multiple types of footings under the AB Fence posts in order to safely install the product, while allowing post spacing to be maximized which saved the client time and money. Slaton Brothers, who is a Certified Allan Block Contractor was awarded the fence project. They brought years of experience to the table by already being a Certified Allan Block Fence Installer. Since many of the utilities ran so close to the wall, Slaton Brothers used a concrete form to segregate in the utilities that ran near the wall so that future utility work and new runs could be done without disturbing the stability of the new fence. The site had limited construction and staging space, therefore, Slayton Brothers had to install the AB Fence in a highly efficient manner. Utilizing offsite storage and having the AB Manufacturer - Basalite - deliver the AB Fence product each day from their local yard, kept the project moving smoothly.



With the versatility of the AB Fence to encompass multiple types of footings and the experience level of the contractor, the Marston Slopes project was a huge success and is now a major focal point for the Home Owners Association.





As the Engineer, you can require that contractors must be trained and certified by the local manufacturer or equivalent accredited organization. Allan Block and NCMA have certification programs that are accredited. Identifying when advanced certification levels are appropriate based on complexity and criticality of project application may ensure the project is completed with the upmost quality.

## Versatility of AB Fence

Each project is unique in regards to the site constraints and project scope. With most projects, unforeseen details come up as the project moves forward that the engineer and contractor need to adapt to in order to keep the project on time and within budget. The AB Fence system has reinforced bond beams that transfer the load to the post. The posts are fully reinforced with a full footing that transfers the load below the ground surface. Typically, the footing is a standard reinforced pile foundation, but many sites may not allow the full depth to work. As seen on the Marston Slopes project, utilities did not allow a standard pile foundation. To reduce the depth of the footing, spread footings were used which did not disrupt the utilities while keeping the layout of the fence the same. A cantilever footing was used during the construction of the University of Arkansas football practice fields which can be read about in Issue 23. Although spread footings and piles are two of the main

types of footings that are used in construction, the overall versatility of the AB Fence system allows any footing to be used as long as you exceed the maximum moment due to the applied wind loads.

Since most fence projects run along nearby roadways, site constraints due to right of ways or property lines are almost always something to look out for on a project. This is another way AB Fence sets itself apart from other products, since the reinforced bond beams can be precast off site, and trucked in as needed saving valuable site space. Not only does casting the bond beams off site increase efficiency in the field, but it also allows the contractor to control the environment that the bond beams are created. This gives a higher quality and care to the installation process that elevates the look of the final product. Using a segmental block system keeps the amount of stocked product on site to a minimum which allows a working site in tight spaces. If you have a site that is in a rural environment or you require minimal vegetation disturbance, then the AB Fence system could be an option due to the minimal amount of machinery required for construction.



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With the segmental block panel system, the contractor has the ability to do many unique applications to add more function and appeal to the fence. Just a few of the options that have been done in the past are sandblasting images into the block to add accents to the fence, installing custom signage to bring additional appeal to the site, or adding fogged glass for more architectural appeal. The Marston Slopes project had a precast sign created that allowed the installer to place the sign within the AB Fence system. This allowed the installer to create a final product that was a perfect fit in the fence system. The overall versatility of the AB Fence system gives the designer and installer the ability to create a unique product that sets itself apart from all other applications.





### Allan Block Certified Contractor Course

The Allan Block Contractor Certification Program is designed to give contractors the proper training and tools to ensure top quality retaining walls and AB Fence projects are built. As a leader in the industry, Allan Block Corporation has developed these tools and training programs to help contractors get the knowledge and the resources they need. With the help of our vast network of trained Allan Block representatives, thousands of professionals have already taken advantage of our installation training, technical support, and the many tools we have available to help them plan, design and build with Allan Block products.

This three-stage program blends the details of wall or fence design and the experience of construction to help us define each contractor's individual level of ability and service. This on-going certification program has also helped us provide a better understanding of how and why stackable structures work so well.

As with the Marston Slopes project, the unique site required the increased experience level of a Certified AB Fence Installer to streamline the construction and ensure the highest level of installation was achieved.



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# Allan Block Technical Newsletter - 3rd Qtr 2015

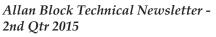
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### **AB** Contractor Certifications

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