

## PROJECT PROFILE

# PAVESTONE<sup>®</sup>

IMPROVING YOUR LANDSCAPE™



## CONCRETE PAVERS

ANDREW H. WILSON CHARTER SCHOOL – NEW ORLEANS, LA

### CASE STUDY

Andrew H. Wilson Charter School was one of the many schools hit hard by Hurricane Katrina in August of 2005. The original school building was designed by local architect E. A. Christy in 1909. Nearly 100 years later, during Hurricane Katrina, the school received approximately two feet of water on the first floor and sustained substantial roof damage. The heavy damage from the storm and deferred maintenance qualified Andrew H. Wilson School to be chosen as one of five Quick Start Schools for the New Orleans Recovery School District.

- Client: Andrew H. Wilson Charter School
- Landscape Architect: HMS Architects
- Paver Contractor: Castle Rock Pavers
- Application: Stormwater runoff reduction and quality improvement. On site stormwater infiltration.
- Pavers:
  - Eco-Priora™ 8cm Silvershell, Limestone, Terra Cotta color
  - Holland 8cm River Red color
- Square Footage: 9,000





Photo by Alysha H. Jordan

## MASTER PLANNING

HMS Architects, a New Orleans architectural firm, was picked to design the new school building. Part of the new design included a new courtyard or playground for the children. The original goal for the courtyard was to have a system in place that would clean the water and recharge the soil. A 12,000 gallon rainwater collection tank with underground percolation systems and detention areas was installed to help reduce rain water run-off.

The architects originally considered permeable asphalt paving, but since none of their team had worked with it before, they decided to go with an innovative and proven technology — permeable interlocking pavers. Long term design life was a concern. According to research, permeable pavers last up to three times that of asphalt paving. The decision was made to proceed with permeable pavers.



*Charles B. Montgomery, AIA, ASLA, Principal of HMS Architects, said, “we evaluated how we could define the space for various activities for elementary students, such as checkers and various games, then decided that the interlocking pavers were a better choice for designing patterns into the courtyard. The design team felt it needed to activate the space by giving it some patterns so it did not seem so monumental. It is attractive to look at when empty, but when the kids are playing on it the courtyard comes alive.”*



## THE CHALLENGES

Castle Rock Pavers was contracted to install just over 9,000 square feet of permeable pavers for the courtyard. Susanne Drygalla, owner of Castle Rock, immediately saw that this project required a good drainage solution. Drygalla explained, "There was a big school courtyard that they wanted to pave entirely except for four planters that were installed. When you get four inch per hour rains in Louisiana, there was no way they could drain it using typical interlocking concrete pavers. The paved area carried not only surface drainage from the surrounding site but also had downspouts from the roof discharging storm water as well." This additional discharge added to the drainage issues and the area did not have enough fall to effectively drain.



*When asked what advice she would give contractors when doing a permeable paving job, Drygalla replied, "When you get a job, get the specifications and visit the site. Always remember that you live in the land of Murphy's Law. What can go wrong will go wrong, so just try to preempt it by doing your homework concerning the project specifications."*

*Susanne Drygalla recommends visiting the jobsite in person well in advance of any work being done, so you can properly assess the drainage situation which is critical on a project.*

## THE SOLUTION

By installing Pavestone's Eco-Priora™ permeable pavement and the additional swales, the drainage problem was resolved. There were some very steep slopes that made grading the project difficult in areas, but the contractor was successful in obtaining the required results. When heavy rains flooded that area of the city shortly after the installation of the permeable pavers, the Wilson campus courtyard drained perfectly. This assured everyone involved that the permeable paver solution was the right choice. The whole area around the school was flooded, but their courtyard had no flooding problems whatsoever.

## ADVICE FOR CONTRACTORS

Study what materials are being specified for the project, and make sure that these materials will work for the particular jobsite area. A contractor must anticipate potential problems ahead of time to be certain that the project remains on schedule once started. Contractors are more likely to have issues that could have been prevented with a site visit before the bid submittal. In an economy where price is a big factor and the lowest bid gets the contract, a contractor must be

confident that all potential issues are covered in the bid.

## DESIGN

The nice thing about the Wilson job is that it is a designed job and is not merely functional, it's also aesthetic. There are checker boards made out of pavers and other games for the kids to play on. Even though it is a drainage application, you still have all of these pretty designs with pavers. It shows that functionality and attractiveness do not oppose each other. This was a decorative paving job that turned into a drainage application – all of which was still attractive.

## LEED®

Andrew H. Wilson Charter School was awarded LEED® Gold Certification by United States Green Building Council that includes 40 specific green measures to minimize electricity and energy usage by enhancing natural light and allowing for efficient heating and cooling strategies, as well as reducing water run-off which was achieved from the use of a permeable paving system.



Permeable interlocking pavers are an attractive and functional drainage solution

# ANDREW H. WILSON CHARTER SCHOOL



## THE PAVERS

### Eco-Priora™



The unique Eco-Priora™ joint profile allows surface water to infiltrate into the pavement and its sub-layers. With initial permeability average flow rates of over 100 inches per hour, the Eco-Priora product, even with extended use, will still meet the majority of current stormwater management plans.

### Holland Stone



With the renown durability of interlocking pave stones, Holland Stone offers the old world charm of a simple paver shape. The rectangular shape can be installed in a number of fascinating patterns to produce simple or intricate designs.



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