

Aggregates Make History at George Washington's Mount Vernon



By Libby Pritchard
NSSGA, Director of Safety Policy

ROADS, BRIDGES AND BUILDINGS are some of the first things that come to mind when we think about the role of aggregates in infrastructure. But at Mount Vernon, the historic home of President George Washington, aggregates are sourced by Vulcan Materials and play a critical and unique role in preserving one of America's most important structures.

Mount Vernon, located in northern Virginia 20 miles south of Washington, D.C., is a National Historic Landmark that spans 500 acres and is home to 20 original structures and more than 30 building reconstructions and replicas. Out of all the important structures, the undisputed most valuable and inspiring is the mansion itself.

In addition to being the home of our nation's first father, the mansion also has the distinction of being built to Washington's exact specifications, which the keepers of Mount Vernon still follow to this day.



IMAGES COURTESY OF MOUNT VERNON

View of the Kolas painting crew applying Ottoson's oil paint and sand-casting the S elevation of the Mansion.



View of several aquia sand samples received from Vulcan Sand.



Detail view of painter demonstrating sand-casting on the Mansion's S elevation cornice.

"We know the exact effect Washington wanted for his home because in the mid-1790s he wrote a series of letters giving orders to workers about the process," explained Thomas Reinhart, director of preservation at George Washington's Mount Vernon.

The process Reinhart is talking about is called sand painting. Sand painting is when paint is thickly applied to the exterior of the home

then coated with generous amounts of sand before the paint dries. This process was used on the mansion to give it the appearance of stone even though the home is built from wood. Restoring and maintaining Mount Vernon to Washington's specifications is critical to Reinhart and his team. However, as they prepared to restore the mansion's exterior, they ran into a problem: the local sand

used in the 18th century to coat the mansion was gone.

"Sand is the critical element in driving the final color of the house," said Reinhart. "So, finding just the right sand was essential in maintaining America's most important home as its builder intended."

The bar for finding that sand was set very high. Before searching for the perfect match, restoration

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ABOVE: View of Kolas painter Manuel Murcia casting sand (first coat).

ABOVE RIGHT: Close-up view after the first coat of sand was thrown on the wet paint.

experts analyzed sand from the cellar of the mansion used during initial construction and looked at it under a microscope to better understand the color, size and granularity they needed.

Next came the daunting task of finding a needle in a haystack—or rather, a grain of sand on a beach. Thankfully, fate in the form of Vulcan stepped in.

For years, Vulcan had supplied materials to Mount Vernon like pea gravel, which maintained the walking trails used by roughly one million visitors each year. So, when Denise Gilliam, sales and marketing specialist with Vulcan, heard that Mount Vernon needed highly specialized sand, she stepped up to the plate.

“I was determined to find the sand that was going to work,” said Gilliam.

She and her team at Vulcan started collecting samples from various quarries across the east coast, to send to Mount Vernon for testing and hoping for a match. Not only did they have to match the color and grade, there also had to be around 200 tons available for Mount Vernon to use in the future.

After months of samples from over 80 quarries, a site called Wolman in Seaford, Delaware, came through. The sand from Wolman was a fantastic

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match to the original sand used when the mansion was built, largely because it was from the same geologic deposit.

Thanks to the diligence of Gilliam and the Vulcan team, George Washington's mansion at Mount Vernon will continue to be preserved to the founding father's standards. But more than just a home will be maintained. The relationship between Mount Vernon, Vulcan and the aggregates industry remains strong.

Since the 1990s, Vulcan has supported the historic site and their philanthropic partnership continues to this day through a formal business sponsorship, which started in 2019.

"It's not just about selling the product," said Tammy Eddy, corporate giving officer at George Washington's Mount Vernon. "Vulcan went above and beyond to make this happen. They could have easily said no—it's too much work, or this won't happen—but they stuck with it and it's incredibly meaningful."

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Vulcan too, finds significance beyond just sand and gravel in their partnership.

"There isn't a more important structure in the United States than Mount Vernon," said Glenn Cobb, manager of government affairs and community relations with Vulcan. "Being able to support what's going on there is of huge importance to us and they've been a super partner."

Partnerships like these where the industry comes together with the community to support a meaningful goal is what the aggregates industry is all about. The industry and materials make community success stories like this possible. Sometimes it's providing crushed stone for our schools, neighborhoods or playgrounds. Other times it's the materials that stabilize our riverbanks, protect us from floods or purify the water coming out of our taps. In this case, aggregates and the dedicated people in the industry serve the entire U.S. by helping to preserve the home of our founding father just the way he wanted it for generations to come.

"It took a lot of trouble and a lot of hard work to do this. But once we finished the west front of the house and you see the sun rays hit it—it's more beautiful than I've ever seen it," said Reinhart. "The sand was worth every effort that was made because the house just glows when the sun hits it. I imagine that it's a sight Washington himself enjoyed every evening and would be proud of today." ■



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