

# WORRIED THAT YOU HAVEN'T DONE EVERYTHING YOU NEED TO DO TO KEEP YOUR HOME PROTECTED?

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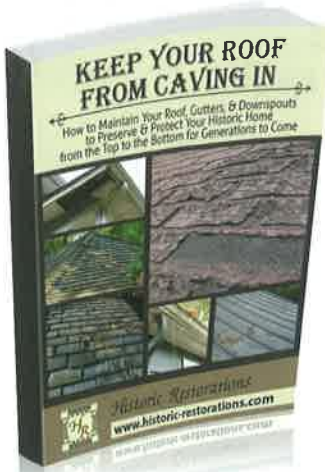
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**What no self-respecting roof would be without**

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## What's Inside ...

**THE CLOWN**  
THAT CRASHED OUR  
PRESERVATION CIRCUS



**THE WINDOW TEST RESULTS**  
YOU HAVE TO SEE TO BELIEVE



HOW YOU  
INSTALL  
**GIANT 22' DOORS**

MEET THE  
LAVISH...

**BEAUX ARTS**

**PRESERVATION SPOTLIGHT**  
"NEW" ARTIST IN  
AN ANCIENT ART



### Historic Restorations

*A traditional approach to whole house restoration*

341 East Liberty Street, Building #2, Lancaster, PA 17602

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WILMINGTON PUBLIC LIBRARY

Photo Courtesy of EDiS Company



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# Preservation in Progress: CHANCERY ANNEX OF THE UNITED ARAB EMIRATES



Rendering by ACG Architects

We are currently working on a window replacement project at the United Arab Emirates building in Washington D.C. Built in 1912 in the Beaux-Arts style, the embassy is part of the former grounds of the National Bureau of Standards in Cleveland Park that became a high-security enclave just outside of Embassy Row. This enclave houses 18 embassies in historic buildings from the late 18th Century through the early 20th Century in an eclectic mix of Queen Anne, Georgian Revival, Tudor Revival, Beaux-Arts, and other styles. For this project, our windows were required to undergo testing procedures we haven't gone through before. We found the experience so interesting that we're highlighting the results here. (Don't worry - we'll highlight our work on the building in a future newsletter, and you can learn about the Beaux-Arts style in another spot in this newsletter.)

## The Results

	OUR FIXED WINDOW	R15 STANDARDS (Min. Residential Requirements)	OUR DOUBLE-HUNG WINDOW	R15 STANDARDS (Min. Residential Requirements)
Positive Design Pressure	<b>+65.16 psf</b>	15psf	<b>+25.06 psf</b>	15 psf
Air Infiltration	<b>&lt;0.01 cfm/ft<sup>2</sup></b>	0.3 cfm/ft	<b>0.13 cfm/ft<sup>2</sup></b>	0.3 cfm/ft <sup>2</sup>
Water Penetration Resistance	<b>12.11 psf</b>	2.86 psf	<b>3.76 psf</b>	2.86 psf
Operating Force			<b>28lbf</b>	30 lbf
Uniform Load Structural Test Pressure	<b>97.74 psf</b>	22.5 psf	<b>37.59 psf</b>	22.5 psf

### WHAT DID DANIELLE THINK?

This was my first time experiencing the testing process and the whole thing was really interesting to me. They force the product through conditions I have never experienced in "real life" (which makes me wonder exactly what situations they are making the windows qualify for?).

our fixed window surpassed all the testing and actually withstood F5 hurricane forces!! (And yes, we were there to witness those forces... behind safety glass of course.)

our single-hung window performed well enough to earn the rating we "had" to achieve, but they stopped the testing at that point and did not push it to the limits like they did with the fixed sash because the window (understandably) did experience water infiltration at one point. (Hey, it opens, so it's got moving parts - you kinda have to expect it. Especially when there is a wall of sprinkler heads spraying water on it from every direction.)

Since you can only get a rating as good as the lowest test, they stopped the other tests when they passed the point they needed to for the rating we were required to have. It was kind of disappointing.

I would have liked to have seen the single-hung pushed to its limits as well. But we construct them the same way as the fixed sash, so I would assume the single-hung would have performed as well on the structural tests as the fixed sash if they had

### FACTORS THAT MAKE OUR WINDOWS PERFORM BETTER

- ◆ **TRADITIONAL JOINERY**  
Traditional methods of joining wood create a more stable joint that lasts longer because it can expand and contract with moisture and temperature changes
- ◆ **QUALITY WOOD**  
We use mahogany because it is stronger and more stable, less prone to warping and seasonal expansion and contraction, and offers extra moisture resistance
- ◆ **"GORILLA GLUE"**  
Gorilla Glue is a waterproof, polyurethane glue that expands to fill gaps as it dries helping us get not only a stronger bond, but also more moisture resistance
- ◆ **SOLID WOOD CONSTRUCTION**  
Our windows are made from solid wood and not a composite wood material that is less durable and more prone to rot and structural failure

### AND MOIRA'S THOUGHTS?

Danielle was feeling under the weather that day, sick and surely contagious. But none of us could convince her to stay home, so we headed out to the National Certified Testing Laboratories in York, PA. (Hoping we weren't setting a pandemic in motion with her germs.)

Two windows were going to be tested for air leakage, water leakage, and how much air pressure they could withstand structurally. To test the windows, they clamped them to a large plexi-glass wall. This structure was surrounded by a plastic box that was taped at the seams to eliminate any outside air flow from impacting the tests.

For the air leakage, forced air was directed at the window to measure how much air leaked through the window to the other side. When they tested the damp-water penetration resistance mechanical spraying devices sprayed water at the windows in 5-minute cycles, with one minute between cycles for the wood to rest, that increased in pressure with each cycle until the window reached its fail point and water would fall over the lip of the sash. During this test the window was constantly monitored by a testing technician who viewed the window from the back side of the testing wall where he visually inspected the joints for water penetration during the testing with a flashlight.

The last test was the structural load test and this was definitely my favorite. Sensors were applied to various points on the sash to measure movement. Both positive and negative pressure were increased substantially in cycles. This test was simulating the kind of forces a window would experience during a hurricane and as the pressures were increased in each cycle you could visibly see the bowing of the window. As it neared its fail point you could hear the cracking of the wood.

# Greetings & News

We ended our summer here at Historic Restorations with a bang... our Preservation Circus in late August. We really enjoyed hosting it and all our guests raved about how much they enjoyed being there for it, so we're calling it a huge hit. Penelope's "reviewing" it from her perspective in her column this month (and we hear she took lots of pictures).

Penelope was a hit herself at the Circus, and she's lucky she was because she pulled a naughty prank and showed up in a clown costume even though clowns had specifically been banned. (We are a bit worried that all the fan mail she is receiving is going to her head, but it does help keep her motivated to keep her deadlines. We just hope it doesn't turn her into too much of a diva.)

Penelope is quite inquisitive and very observant (especially when there are treats involved - she has mastered sitting very still if she THINKS a treat might be involved). Whenever we are ready to give her a lesson in historic preservation, we just pull out the treat bag and we have her complete and utter attention. At least for as long as we have that bag in our laps...

In this month's newsletter we are highlighting the recent testing our windows underwent to see whether or not they met the LEED standards that a project we're currently working on required we meet.

It was an interesting experience and one I'm not likely to forget any time soon. I mean, when you experience testing that involves machines that open and close doors, giant wrecking balls, and a huge propeller system - it kind of makes an impact on you. (Even though none of our windows were lucky enough to experience those particular tests.)

Our windows were tested for air infiltration, structural integrity, and water infiltration. And despite the fact that I was sick and trying my hardest NOT to contaminate the world, I am glad I went to see the actual testing as it was done. (I think some of our guys wanted to go and were a bit jealous of me - well, not of the being sick part - because they wanted to see the wrecking ball in action.)

The results shocked us and weren't at all what we expected. So you might want to sit down when you read over them...

But before you sit down, grab yourself a pumpkin spice latte, a piece of pumpkin pie or pumpkin bread, or whatever pumpkin flavored food it is you enjoy this time of year and celebrate the arrival of fall with me!

As always, if you have any questions or need anything just let me know.



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## PS: DON'T MISS OUR NEXT BIG HAPPENING!

Join Us (Virtually) on October 22nd at 7 pm EDT for tips on planning your project from the comfort of home! (See our Events column for more details.)



## EVENTS

### Harvest Days

October 11th and 12th

A culmination of a year's worth of hard work, this event offers a variety of demonstrations, exhibits, music and activities centered around the theme of the fall harvest. For more info call 717.569.0401 or visit: [landisvalleymuseum.org](http://landisvalleymuseum.org).

### Hands on History Day

October 16th

Step back in time and experience chores, historic crafts, a one room school house lesson, hands-on activities, a horse-drawn wagon ride, and more at the Landis Valley Museum. For more info call 717.569.0401 or visit: [landisvalleymuseum.org](http://landisvalleymuseum.org).

### History Walk & Talk Tour

October 18th

The tour will focus on buildings that contributed to Lancaster's economic growth in the 1800's, including a few tobacco warehouses, the Brunswick Hotel, the Fullon theatre, the S.R. Moss Cigar Factory, Keppel's Wholesale Confectionary, Moxie House, the Sehner-Ellicott-von Hess house, and others. For more info visit: [hptrust.org](http://hptrust.org) or call 717.291.5861.

## WE'RE HAVING A GOOGLE HANGOUT!

October 22nd, 6pm

Just because we are preservationist doesn't mean we ignore technology and we have been figuring out ways to use it to help you. We are hosting a Google Hangout to provide you with tips on planning your project with an opportunity to ask questions and have us answer them. For more info contact Danielle at 717.291.4688 or [dkeperling@historic-restorations](mailto:dkeperling@historic-restorations).

### "Lincoln as Philosopher Statesman"

Thursday, October 23, 4:30pm - 6pm

President James Buchanan's Wheatland is hosting nationally recognized scholar Joseph Gornicri, Ph.D. For more info visit: [lancasterhistory.org](http://lancasterhistory.org) or call 717.397.4633.

### Mansion Ghost Tours

October 31st

The Historical Society of Dauphin County  
For more info visit: [dauphincountyhistory.org](http://dauphincountyhistory.org).



# Preservation Spotlight

## NEW ARTIST IN AN ANCIENT ART

Stained glass has been around for thousands of years. Stained glass, as most of us think of it, has been around for hundreds of years. Stained glass artist Michael Bovie has been around much less, but he is undoubtedly making his mark on this ancient art.

One of the craftsmen working on the United Arab Emirates restoration project alongside Historic Restorations, Lancaster Stained Glass Designs was contracted to restore sidelights and gilding on the main entranceway.

This is exactly the kind of challenge Bovie thrives on, "No two jobs are ever the same, so nothing is ever boring and in the end I get the satisfaction of bringing something back that was so badly damaged, restoring it to its original grandeur," the craftsman says.

Bovie's favorite project so far was a piece commissioned from Lancaster Stained Glass designs by Mount St. Mary's University in Maryland to pay homage to one of their alumni, a founding father of modern stained glass by the name of John LaFarge. LaFarge invented opalescent glass – the milkier stained glass that uses streaks of color to add movement and texture to the piece. Before creating the stained glass piece, Bovie researched LaFarge and his techniques in depth, including a trip to Boston where he utilized unprecedented access to information and LaFarge's works at several churches to help him design the piece commissioned by Mount St. Mary's.



While typically not quite as extensive or involved, Bovie's historical restoration work does usually involve research in resource books and online sources into the history of stained glass techniques, artists, and their styles. Bovie enjoys bringing this deeper level of detail and craftsmanship into his work with historical restorations.

The oldest glass Bovie has worked on is right here in Lancaster County, stained glass from the early 1800's on a church in Little Britain Township, though Lancaster Stained Glass Designs is commissioned for both new stained glass pieces and historical restoration pieces. Bovie works primarily in the South Central PA region, but has travelled all over the Eastern Seaboards states making and remaking art history.

So exactly how does one end up making art history? Thirty years ago, a friend cajoled Michael Bovie into taking a short stained glass class at a local studio. This class turned out to be life-changing for Bovie and within one year Lancaster Stained Glass Designs was born and has been growing ever since. From his studio in Manheim Township, Bovie says stained glass is the ideal art for him because it utilizes both his "art head" during the design creation process and his "tech head" during the actual creation of the stained glass project.

More information about stained glass craftsman Michael Bovie and his company Lancaster Stained Glass Designs can be found at their website: [lancastersgd.com](http://lancastersgd.com)

**B** "Beaux-Arts" was originally a french term meaning "fine arts" or "beautiful arts", but in the late 1800's it came to refer to a specific style of Parisian-influenced architecture in the U.S. A style of archicture that can be summed up with two words...

**E** Massive and grandiose.

**A** Marrying the classical design elements of largesse and symmetry from the Greek and Roman architectural traditions with the elaborate ornamentation from the Renaissance design ideas, Beaux-Arts became synonymous with larger-than-life, over-the-top architectural identified by the following elements:

- U**
- Constructed with stone
  - Balustrades
  - Balconies
  - Columns
  - Cornices
  - Pilasters
  - Triangular pediments
  - Lavish decorations (swags, medallions, flowers, and shields)
  - Grand stairway
  - Large arches
  - Symmetrical façade
  - Main entrances are the center of the main facade
- X**
- A**
- R**
- T**
- S**



# Preservation in Progress

## WILMINGTON PUBLIC LIBRARY

We recently completed a restoration project of some truly massive doors at the Wilmington Public Library in Delaware. The library was built in 1922 with the bold shapes and lavish ornaments of the Art Deco style popular at that time.

We restored a pair 22'6" tall, 10-panel White Oak and Mahogany pocket doors. The doors were 4" thick, 4'6" wide each, and badly distressed from years of use and lack of maintenance. The biggest challenge on this project was getting these giants off. Obviously this was not your ordinary door removal. To see just how tricky the removal process was, watch a video of the removal at: <http://bit.ly/1riG1tL>

Once we hauled the mammoth doors back to the shop, we set to work restoring them with five guys at workstations around the doors.



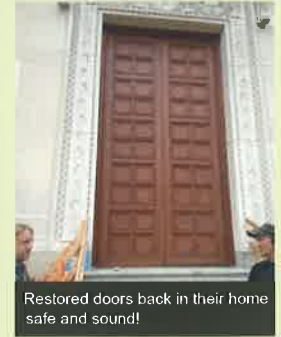
Chuck looks a little nervous about getting the doors back on



Getting the doors off the truck was the easy part



It took some fancy footwork to get the doors back on without damaging all our hard work!



Restored doors back in their home safe and sound!

“YOU WOULD HAVE THOUGHT IT WAS A CATHEDRAL IN ROME OR SOMETHING” - Chuck

## PRESERVATION CIRCUS

I'm still so excited from our Preservation Circus that I can hardly sit still. There were so many people and Mommy tells me I was the star of the show! It was so much fun... there were tons of people, good music that kept my tail wagging, kids running around, and these cute popcorn cupcakes my Mommy wouldn't let me eat. Grandpa made his amazing BBQ (don't tell Daddy but I had some too), which everybody loved. Although my Aunt Layla sneaked too many hot dogs and ended up with an upset stomach. I heard Grandma say we collected 50lbs of food for the food bank!!! Mommy gave lots of tours of the shop and Daddy answered lots of questions about historic preservation (I helped when he got stuck). And the kids ate lots of popcorn.

I think it was such a huge success that I'm going to have to start planning another party already! (Maybe I'll do a pirate theme next... arrgggh!!!)



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Danielle Keperling