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– Ben O’Dell , Wolf Trap Farm Park

## FILENE CENTER, WOLF TRAP – NATIONAL PARK FOR THE PERFORMING ARTS

### ETERNA-SEAL® OVER COPPER

**Background:** “Located in America’s National Park for the Performing Arts, Wolf Trap’s majestic Filene Center provides the Washington D.C. metropolitan area with a magical outdoor venue for world class performances of every genre.”

This high profile facility receives the attention it deserves, particularly when water infiltration through the copper roof began to adversely affect operations. Managed in conjunction with the National Parks Service, stopping leaks disbursed over 40,000 square feet of aged copper roof required a real team effort, consisting of Thomas E. Fields, Architect; Walter Hsu, owner HSU Development Company; Ben O’Dell of Wolf Trap Farm Park; Shawn Claypoole, Project Manager, Houck Services, Inc., selected roofing contractor, and Rich Franklin of TRUCO, Inc., who supplied the roof restoration system and warranty.

**Challenge Presented:** The Filene Center roof is composed of copper panels soldered together to form a watertight copper sheath. The vertical seams were covered with batten plates to create an architectural look more pleasing than a flat, soldered roof. The roof design also included multiple levels, which created flashing and drainage concerns not normally found on metal roofing projects. The challenge was to find a system flexible enough to accept the roof movement; tough enough to resist the weather conditions that assaulted the first roof; and attractive enough to retain the aesthetically pleasing appearance of aged copper.

**Issues Identified:** A thorough inspection of the roof area by TRUCO, Inc., Ben O’Dell and Thomas E. Fields revealed that the soldered seams were opening randomly across the roof. Non-functional batten strips installed primarily for aesthetical reasons hid these seam splits. Due to the design of the building, there were many valley areas where water built up, adversely affecting the flashings and weakened seams.

A restoration system had to be chosen that would perform a number of complicated tasks simultaneously. First, the system had to accept the movement over the moving joints. Secondly, it had to adhere tenaciously to the aged copper surface. Thirdly, it had to resist the pressure of accumulated water in the valleys. Fourth, it had to replicate the appearance of aged copper. This required a “patina” green coloring of the coating materials. Fifth, the system had to come with a long-term labor and material warranty. Finally, the system had to satisfy the budget requirements of the project.

**Product Identified:** TRUCO’s technical representative on the project- Rich Franklin- helped to create specifications that called for the removal of the batten strips and a complete power washing of the surface, using Tru-Clean detergent to prepare the aged copper surface. Once the roof was clean and dry, a heavy duty TRUCO system was installed consisting of TRUCO’s RH-53 polyester membrane set in TRUCO’s # 2150 Tru-Ply Primer/adhesive. By doing this, all seams and flashings were completely sealed with a flexible,

well-adhered membrane. Once this application cured sufficiently, a viscous coat of TRUCO Central Park Green #7141 Super Seam Sealer was applied to completely seal the membrane. This was followed by two coats of Central Park Green #7140 Eterna Seal Just Super, which were installed over the entire area, completely sealing the entire system. The fabric-reinforced system satisfied all of the performance and aesthetic requirements of the project.

**Outcome:** Once the work was completed by the highly skilled technicians of Houck Services, Inc., TRUCO inspected the project and issued a ten year labor and material warranty to Mr. O’Dell of the Wolf Trap Farm Park. The project came in under budget, as specified. The Filene Center retained its pleasing appearance above the roof line and was completely watertight.

**Testimonial:** “This was a difficult, high profile project that needed to be done right. TRUCO’s excellent restoration system and technical advice, combined with Houck Service’s professionally skilled labor and “can do” attitude resulted in a project that was pleasing to Thomas E. Fields, Architect; HSU Development; The National Parks Service and Wolf Trap Farm Park. Experienced team work resulted in a job well done.” Ben O’Dell, Wolf Trap Farm Park.

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