

Renovation and Restoration of Historic Structures

Since its inception, the Building Authority has financed several projects to restore historical structures including the State House, Old Barracks Museum, War Memorial, Thomas Edison State College Townhouses, and the Pinelands Commission Headquarters. Descriptions of the projects are as follows:

State House Complex Improvements

Project Cost: \$144,885,978

In May 1987, the Building Authority Chairman was named to oversee the restoration and renovation of the legislative portion of the State House and the State House Annex.

During 1988, design work on the State House portion of the project was completed. Construction contracts for work on the Legislative State House were awarded in 1989 and 1990, with completion in the fall of 1991.

Restoration of the Annex began in late 1992 and was completed in February, 1995.

In 1991, the Legislature authorized further improvements to the State House Complex including more extensive restorations of the annex, construction of a structural parking garage, and installation of a roof-top plaza and landscaped park at the rear of the complex.

State House Annex

The Annex renovations were completed and closed-out in December 2002.

State House Garage and Plaza

A design/build contract for the Garage Plaza was awarded in late 1998. By August 1999, the Plaza design was approved and included construction of a plaza, park and fountain. A granite paver system to match the existing hardscape in the Capitol Complex was installed and the



existing garage roof system was reinforced by providing new flashing, replacing the roof membrane and expansion joints, and installing a concrete overlay.

Most of the structural work was accomplished and early in 2000, the granite curbing was completed. The fountain sculpture, part of a separate arts inclusion contract, was erected that summer. The plaza was landscaped, and work on the granite pavers and fountain was completed by the fall. The plaza park and fountain were officially dedicated during a celebration in October 2000.

In December 2003, repairs were needed to eliminate water infiltration at the ventilation towers, elevator lobby, plaza skylights and expansion joints. The project was advertised and awarded that summer. In November, the team planned the demolition and reinstallation of the four ventilation towers and elevator lobby. During 2005, new ice and water shields, and replacement roof panels were installed on all ventilation towers and elevator shafts. During the course of this project, it was discovered that the roofing membrane in the expansion joints needed repair in order to eliminate water infiltration into the garage. By March 2007, detail and elevation drawings were completed, and the contract was awarded in June 2007. By October 2007, significant progress was made, and early testing of the area indicated that the water infiltration problem greatly improved, but not entirely eliminated. In 2008, extensive testing was conducted, and the source of the problem was determined. By June 2008, the expansion joists were fixed.

State House Annex Entablature

During the winter of 1996, a section of the cornice or entablature assembly on the State House Annex fell from the building. A preliminary study revealed that the break down was the result of the freeze-thaw process. Since this issue was not part of the original project scope, additional funding to perform a more detailed investigation of the cornice was sought and approved by the Building Authority in January 1998. Given that the Authority delivered several projects under budget, the cost for the repairs was funded from residual balances.

During removal of some cornice stones, the contractor discovered that underlying



dentil stones were cracked and the roof needed to be replaced. In 2000, the consultant conducted extensive tests and took several cores from portions of the roof and issued a report on the condition of the roof slab. The final report indicated a possible deterioration of the existing concrete slab, particularly on the West Wing.

A scope of work was developed to contract with an independent engineer to conduct a structural investigation and develop design documents for the roof slab renovation and replacement project. This project was funded and administered under a separate State project.

Remediation repairs began in July 2001 and were completed by January 2002.

State House Dome Restoration

Project Cost: \$7,527,756

The New Jersey State House is the second oldest State House in continuous legislative use in the United States. The cupola and lantern, which sit on top of the gilded dome, rise 145 feet from ground level. This makes the State House dome the most visible structure in Trenton as well as the most important symbol of the State's capital. Since its reconstruction in 1889, the dome had not undergone any significant structural repairs. Exterior caulking was done in 1989 as a temporary attempt to prevent leaking and water penetration. The most recent gilding and painting of the dome and drum had occurred in 1972, but inadequate surface preparation and inferior materials resulted in the initial flaking of the surface within ten years.

The State House dome was in obvious need of repair. The gold gilding had failed, leaving an unsightly discolored surface, paint on the cast iron was chipped and rust was prevalent throughout. Water leaking from the dome ruined the rotunda walls.

A consultant was hired to investigate the causes of the dome problems, recommend solutions and estimate the cost of repairs. A final report of findings, recommendations and cost was issued in December 1996. The report recommended, among other repair and restorations items, the complete disassembly, repair and reassembly of the exterior cast iron of the drum and cupola, structural reinforcement of the 24 webbed columns of the dome's frame, replacement of all copper cladding on the dome and cupola roofs, the regilding of all copper cladding,



repainting and regilding of all of the interior finishes of the rotunda, and the repair of stained glass windows. The project report and Legislative approval for the project was received in June 1997.

Due to the magnitude of the dome and the necessary repairs, a complex network of scaffolding was required. Placement of the scaffolding footings were completed in the fall of 1997. Once the scaffolding footings were in place, the steel structure took approximately three months to assemble and remained in place for the duration of the project.

Removal of existing copper on the Dome was completed in July and the cast iron removal was completed in August 1998. The cast iron pieces were transported to a foundry in Alabama for refinishing. By late February 1999, the cast iron pieces were reinstalled and the wood sheathing under the copper dome was replaced. New copper replaced the old, worn copper and the regilded cupola was reinstalled on top of the dome.

The interior finishes were repaired and refinished including the plastering, painting, regilding of the metal railings and refinishing of the stone work. The stained glass windows were restored at an off-site location and reinstalled.

In May 1999, the gilding of the exterior dome and the refinishing of the Great Seal were complete. Disassembly of the scaffolding began in June 1999. The Dome Dedication Celebration was held on July 8, 1999.

The project was completed significantly under budget and on schedule.



**Thomas Edison State College Townhouses
Restoration and Renovation
Project Cost: \$14,294,056**

This project included renovating six historic townhouses located at 105-115 West State Street, adjacent to Thomas Edison State College. Building exteriors were restored to reflect the original 19th Century appearance and the interiors were converted to modern office space for Thomas Edison State College personnel. A new addition connects the townhouses and the Kelsey Building.

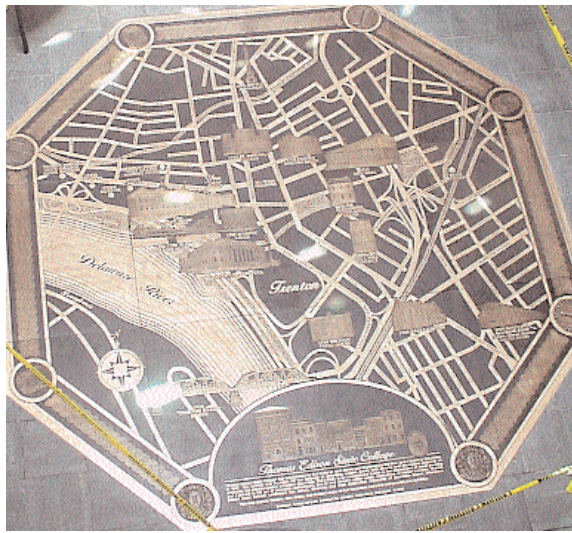
The project was substantially completed in October 1999. College personnel moved into the facility in November 1999. By late 2002, all DCA code requirements were satisfied and Certificates of Approval were received.

The NJBA had initiated repairs to the antique wood clock at the Kelsey Building because of its severe state of deterioration and potential hazard to passing pedes-



trians. The clock was refurbished by an antique clock consultant to its original detail and splendor and, once again, proudly adorns the Kelsey Building facade.

The NJBA pursued several art initiatives for the college through the New Jersey Council of the Arts. In September 2003, a vibrant glass sculpture was suspended from the atrium ceiling. Another project included the fabrication of bronze floor inlays depicting significant structures, landmarks and personalities of



historic Trenton. These beautiful plaques and tiles were set in the atrium and great hall in the spring of 2004.

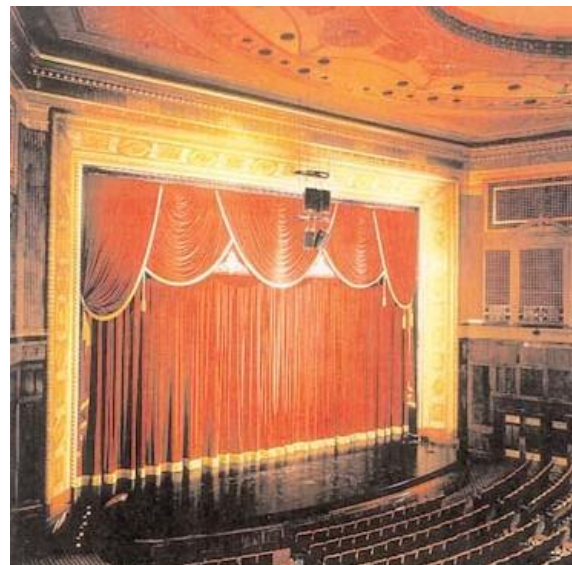
In 2005, three problematic conditions were addressed. The first project included refinishing the exterior windows and doors and was completed by spring.

Other projects focused on water infiltration into the basement and ice formation on the power conduits, gutters, downspouts and storm drains during the winter months. To alleviate these problems, new sewer lines and de-icing equipment were installed. The project was put out to bid in September 2005 and completed by March 2006.

Old Barracks Museum Restoration
Project Cost: \$6,623,237

The objective of this project was to complete the restoration of the Old Barracks Museum including archeological investigation and work on the interior of the Barracks, the roof, porches, parade ground and stockade fence. This project was completed on time and under budget in December 1998. Contract closeout was completed in early 2001.

To ensure the integrity of the Old Barracks structure and mechanical systems, a deferred maintenance and capital improvement plan was completed for the museum. In 2006, the structure and building systems were assessed, and the need for preventative maintenance, immediate repairs, and long-term service requirements were noted.



War Memorial Restoration
and Renovation Project Cost:
\$33,586,014

The objective of this project was to renovate and historically restore the War Memorial as a multi-use auditorium and performing arts center.

All the major interior and exterior work was completed in 1998 and a Temporary Certificate of Occupancy was issued that December.

The Authority sponsored "Hard Hat" concert was the first concert held in the refurbished theater. Craftsmen, their families and all who assisted in completing the renovation of the War Memorial were invited to attend this free concert.

The Governor's State of the State message was held in mid-January 1999 after



which the building was rededicated to all war veterans. The grand reopening was held in March 1999.

In early 2001, an additional balcony railing was added in the auditorium as requested by the Building Authority Board for public safety. Later that year, the Building Authority approved sound and lighting upgrades for the theater. The first set of design plans were developed by February of 2003. Plan modifications continued through the year and addressed issues related to the safeguarding of seating areas already compliant with the Americans with Disabilities Act (ADA) and to keep this seating available for use during construction of the new sound monitoring and mixing stations. By March 2004, the plans were approved and included new a new sound system throughout the theater, a permanent in-house sound-mixing station, and a system to control lighting from both the balcony and stage areas. Rewiring for the new sound and light systems began in July 2004 and the entire project was completed by end of October 2004.



Pinelands Commission Renovations
Project Cost: \$2,002,646

The objective of this project was to renovate and repair the Pinelands Commission Headquarters located in Pemberton Township while maintaining its historical value. The project required interior and exterior renovation of four buildings on the property. Improvements included upgrades to correct technical problems, improve functional operations and address code, safety and environmental issues in all buildings. All utilities including heating, air conditioning, electrical, plumbing, and telecommunications were updated. Walkways compliant with the Americans with Disabilities Act (ADA) were installed throughout the property.

The first two floors of the farmhouse were completely renovated and the exterior of the building, including windows, were restored to state historic specifications. A new roof completed the renovation.

The carriage house was structurally reinforced and painted. The windows were restored and a new tile bathroom was added.

The barn was converted into office space which required the installation of a bathroom, heating and air conditioning systems, a security access system, and a telecommunication system. The barn roof was also replaced during the renovation.

Finally, the outhouse was converted into storage space.

Construction began in September 2004 and in just over a year, Pinelands Commission employees occupied all three buildings. By mid-year 2006, the project was closed-out.

