

2004 AIA MT
Merit Award



Montana State Capitol Renovation/Restoration

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The restoration of the Montana State Capitol in Helena reflects Montana's commitment to preserving and maintaining our historical treasures. Constructed between 1899 and 1902, the original Capitol reflected the influence of the 1893 Columbian Exposition, whose classical buildings had launched a movement in architecture known as the "American Renaissance". In 1915 the Capitol was expanded to its present size with the addition of the east and west wings.

Throughout the century, heavy use and the evolution of government functions took their toll on the original design integrity of the building. Then, in 1959, an earthquake near Yellowstone Park raised concerns about the structural vulnerability of the building. In response to this concern, an extensive seismic upgrade was undertaken in the mid-1960's during which the building was almost completely gutted. This project was viewed as an opportunity to "modernize" the building rather than restore it and more history was lost.

As the Capitol approached its centennial anniversary, the Montana State legislature authorized funding for a major restoration project. An architectural firm was selected in 1995 to design and manage the project which included the following areas of work: (1) address the deterioration of the exterior envelope, (2) provide comprehensive upgrades to the building's systems (mechanical, electrical, and technology), (3) reorganize the internal functions to be more compatible with the historic architecture, (4) arrange public access functions to be more directly accessible to the Rotunda, and (5) restore the original detailing and authenticity that were lost through insensitive remodeling.

Restoration work began in 1996 with a comprehensive restoration of the exterior envelope. The original 1902 portion of the building was completely clad in sandstone. The stone repair work included consolidation and cleaning and patching with a restoration mortar material. Five hundred feet of the original sandstone cornice had to be removed due to excessive decay and was replaced with cast concrete that matched the sandstone. The Capitol's outer wings that were clad with granite showed little effects from time and weather. Following the masonry restoration, the exterior was treated with

breathable sealer to protect from further damaging moisture. The anodized aluminum windows installed in the 1960's were removed and replaced with historically accurate custom wood windows. The "rose" window over the north entry stair was also replaced with a matching reproduction. Restoration of the exterior envelope was completed with the repair of the existing historic skylights and the installation of a new membrane roof system complete with copper flashing.

On the interior, a primary goal was to return the major public spaces to their original grandeur. Since most of the original finishes and details had been covered up or lost through the years, considerable historical research and forensic analysis was required.

The central Rotunda underwent a full-scale transformation. Careful examination of historical records and accurate placement of color ensured a very authentic transformation back to the original. The Rotunda arches in the fourth floor were also fitted with new custom rosette lamps.

Public corridors on all floors were also restored to their original appearance, using historic photographs as reference. The ornate stenciled patterns and colors of the original plaster walls were accurately reproduced. On the floors, new mosaic tile to match the original colors and patterns covered the terrazzo. On the first floor, gently curved mahogany beams were reproduced and installed to the ceiling down both east and west corridors, while cast plaster cornices were used centrally around the heavily columned areas. New corridor doors were designed to be all historically accurate and custom built to match the original detailing, including the casting of the Montana State Seal on the replacement brass doorknobs.

The most dramatic change occurred with the restoration of the barrel vault skylight over the Grand stair adjacent to the Rotunda. Previous seismic repairs and overcrowding in the building had resulted in the removal of the 50-foot stained glass element and the infill of a floor slab to create a conference room. The slab was removed to restore the opening for the barrel vault. One curved section of the original vault was found and used to recreate the exact profiles, details and dimensions of the wood support structure. Additionally, 56 of the 90 original stained glass panels were still intact and were used to not only develop the patterns for the missing panels, but to also layout and size the vaulted frame openings. At the spring point of the vault, a new plaster cornice was cast and installed around its perimeter.

The desire to subdivide the old Law Library, a grand two-story space, into flexible hearing rooms with acoustical privacy created a special challenge. Folding partitions were installed under a decorative beam, which rested just below the base of the historical murals lining the upper wells of the room. A continuous glass panel provided closure from beam to ceiling and created an acoustical barrier, while maintaining visual continuity of the original stained glass ceiling.

The existing chandelier from the Senate Chamber was dismantled during the restoration and used to cast a new matching chandelier for the Supreme Court Chamber, which is located just opposite the Rotunda from the Senate Chamber. Following the removal of inappropriate fluorescent lighting in both chambers, a new stained glass ceiling was recreated from an original salvaged piece and installed in the Senate Chamber while repairs were made to the stained glass ceiling in the Supreme Court Chamber.