

2019 ACE AWARDS

Category 11: Best Building Project
General Contractor (Over \$70 Million)

Wyoming Capitol Square

PROJECT NARRATIVE

Project Overview

It is true, good things do come to those who wait. The Wyoming Capitol Square project was and is a labor of love for many people. The endeavor started in 2003 to raise funds for this ambitious \$300 Million project and after over a decade of planning and four years of construction, the dream is now a reality with the restoration of the Capitol building, renovation and expansion of the attached Herschler Building and a new below grade Central Utility Plant (CUP).

The project team of HDR (designer), CSHQA (historical consultant) and JE Dunn Construction (contractor) worked in partnership with the State of Wyoming and their owner's rep, MOCA, to unlock the past and restore the Capitol to its original grandeur and position the Wyoming Capitol Square complex for the future.

The original Capitol broke ground in 1886, four years prior to becoming a state in 1890. The State of Wyoming has often been ahead of the times, not only with the planning and construction of a Capitol prior to statehood, but also by being the first state to allow women to vote. The 100+ year capitol building restoration project was truly a project 'for the people.'

During previous renovations of the Capitol building, maintenance crews had to work around crumbling concrete and disintegrating pipes and wires that predated World War II hanging loose in the wall. Throughout the process of this most recent construction and restoration, workers discovered historic items previously covered up by years of paint, bricks and other changes that were made to create more space as the Legislature grew. These items included hand-painted murals on vault doors, windows infilled by brick, and original paint from when the Capitol opened. These discoveries were treated with great care and respect to honor the integrity of the original building as they were brought back to life.

Great care and respect was extended to all components of the Wyoming Capitol Square project, from the accommodation of State employees within the Herschler Building during its renovation and expansion to the careful relocation and replacement of the CUP, every element was executed with precision.

Solutions of Special Projects

A prominent feature on the Cheyenne skyline, the Capitol building is a three and one-half story structure had seen many renovations and remodels in its 133-year lifetime. This first full scale restoration in the Capitol's history required structural repairs, improvements to life safety and accessibility, and historical restoration of hidden or damaged finishes. The project team evaluated approaches that help accomplish each of these vital needs while maintaining as much usable square footage as possible. One innovative approach involved moving as many MEP systems below grade as possible. In order to do so, existing rubble, masonry and concrete footings were repaired, and the team coordinated and installed over 600 micropiles with shotcrete foundations to stabilize existing foundations and allow MEP systems to run below footings without destabilizing them. This foundation work allowed the project to establish new structural mechanical shafts as well as two added stair shafts.

Following the completion of the foundation work, special prefabricated ductwork and electrical/plumbing systems were installed below the new slab and run to the new structural shafts. Remaining MEP systems were carefully coordinated and, where necessary, channeled into existing walls that were structurally repaired.

This collaborative design and construction allowed the project team to simultaneously add modern amenities and remove invasive MEP equipment, while restoring original ceiling heights and historic finishes.

Excellence in project execution and management/team approach

Over the course of the four-year Capitol Square project approximately 3,900 people were employed to work on its various components, two-thirds of whom were residents of Wyoming. On a project this complex, the overall teaming approach was an integral part in maintaining excellent project execution. From the onset, the team collectively embraced the guiding principle to do what was best for the project.

Not only were we required to accommodate a massive construction crew, the project also required ongoing accommodations for over 300 State employees on-site during construction within the Herschler Building. Thus the Herschler project was phased in such a way that allowed for half of the building remain occupied while the other half was demolished and then rebuilt along with the addition and new CUP. Once the first phase was complete employees moved into the new half, while construction commenced on the 2nd phase which included demolition of the

existing CUP. Extra precautions including night and weekend work were needed for critical ties to both the structure, mechanical and electrical systems. Through careful coordination of all project team members this was completed without impacts to State operations.

Construction innovations/state-of-the-art advancement

Preservation of a historic building, restoration of a contemporary but failing building, , and construction of a brand new CUP (brought on-line mid-project prior to decommissioning the existing CUP) – all while allowing the State to continue some ongoing operations created unique challenges. Challenges which could not have been overcome without the commitment to innovation by our trade partners and the development of innovative solutions by all team members.

- Replacement and repair of the Capitol’s original sandstone, required the reopening of the original quarry where the building’s stone was mined, in Rawlins, Wyoming, which had been closed for over 100 years! In doing so we were able to provide the exact same stone as used in the original construction.
- The aggressive nature our phased schedule, and the performance issues of the original façade of the Herschler building necessitated a new enclosure that would meet the schedule requirements, while ensuring that the highest quality standards were met. From the early planning stages it was determined that a prefabricated enclosure would accomplish both of these tasks, which we successfully completed in partnership with our trade partner.
- Construction of the new CUP also benefited from prefabrication as it was critical to expedite it and seamlessly transition it into service without impacting State operations. Ultimately the CUP equipment and main piping were prefabricated offsite while the equipment was fabricated and piped on framed plates that were set into final position in the field.

As a contractor that prides itself on innovation, we realize that innovation could not be possible without the partnership without our trades.

Environmental/Safety

Trade partners were involved at all levels of the project. They had representatives attend weekly WYOSHA meetings to discuss their work and potential hazards. Other trades volunteered and assisted during all hands safety meetings to discuss different topics or provide comments about learning experiences from other jobs. This engagement and buy-in of the trade partners was key to having a safe and successful project from start to finish.

The safety theme continued from the jobsite into the community as JE Dunn became an annual sponsor of the Wyoming Safety Summit. This involvement helped people in the community and around the State understand the value that JE Dunn places on safety. Further, many of the Wyoming based contractors that JE Dunn partnered with had never worked on a project of this magnitude, so enhancements to their safety cultures were needed. The positive changes witnessed over the course of the project was astounding. Some of them who had previously struggled with the safety requirements ended up winning safety awards for their participation and daily safety conduct. A few have even begun working with third-party safety companies in order to continue improving their company's safety culture.

Excellence in client service and/or contribution to the community

Spending four years together to bring the Capitol complex back to life has created a sustaining bond among all of the team members. Mike O'Donnell, Wyoming Capitol Square Renovation Coordinator states, "Two of the more notable JE Dunn accomplishments on the project were maintaining two-thirds of its workforce and trade partners as Wyoming residents (a political necessity) and being a critical donator of labor and materials to a Fallen Warrior Memorial located across the street from the Capitol complex." The Fallen Warriors Memorial honors all Wyoming Veterans who have died in service to the State and Nation. The Memorial was struggling for funding, JE Dunn and trade partners stepped up and donated foundation work to help ensure it would move forward to completion.

As for the Wyoming Capitol Square, "The project is believed to be the largest in Wyoming history and is an enduring symbol of the State of Wyoming," said O'Donnell.

Wendy Madsen, Special Projects Manager with the Wyoming Legislative Service office states, "JE Dunn has been an integral partner with the State of Wyoming from the inception of the Capitol Square Project through the wildly successful grand opening on Wyoming's Statehood Day, July 10, 2019. I had the pleasure of working with their staff for the last several years in my role as the Special Projects Manager for the Wyoming Legislature. They were able to bring this massive and iconic project in on time and on budget, while restoring Wyoming's crown jewel to her former glory and also ensuring the People's House will be functional for the next century."









