



McGill Restoration Acts as True Partner while Restoring U.S. Bank Building

U.S. Bank and McGill Restoration have a history of effective partnerships on unique projects. The Lincoln, NE location is one great example of planning to create cost effective solutions for major restoration projects. After that successful project, U.S. Bank engaged McGill Restoration for another unique concrete project in Helena, MT.

THE CHALLENGE **Planning Out of State and Across Multiple Budget Cycles**

A piece of corroded steel dislodged from the Helena U.S. Bank parking garage, creating cause for concern. After inspecting the structure, it was determined the parking garage waterproofing membrane was compromised and water intrusion was causing serious damage to the concrete and structural steel. Without quick intervention, section loss of steel was imminent and the structure would require costly repairs and rebuilding.



SCOPE OF WORK REQUIRED

The parking structure required extensive restoration to structural steel and concrete. The overhead structural joists required concrete restoration, and the steel i-beams and supports underneath were corroding. Fixing both elements would be necessary to preserve structural integrity to the garage and the bank branch on the top deck. Additionally, the root cause of top deck leaking meant a new slab and waterproofing membrane would need to be installed.

COST DISTRIBUTION ACROSS MULTIPLE BUDGET CYCLES

McGill Restoration is dedicated to working within budget constraints while seeking the most cost-effective solutions. This project would span multiple budget cycles with winter and spring scheduling to reduce costs. Planning the work required careful consideration of budget allotments while prioritizing work through multiple phases.





OUT-OF-STATE LOCATION

McGill Restoration is Nebraska based and works throughout the Midwest. Helena, Montana was a farther distance and that meant the home base shop would not be accessible for quick changes to equipment and specialty needs. In order to complete the work, the team would need to plan for every detail, build an off-site strategy and ship out equipment and crew members. Precision was essential for a successful completion of this project.

AVOIDING BANK SHUTDOWNS

U.S. Bank in Helena serves the State of Montana accounts along with a large number of other businesses requiring cash flow. Shutting down for the duration of work was not an option and at a minimum, the bank was required to stay open for drop-off service. Setting up to maintain employee access and drop-box operations were essential requirements for the bank.



THE SOLUTION Restoration from the Ground Up

The pre-planning phase was exceptionally intensive to compensate for the lower margin for error. McGill Restoration met with U.S. Bank property managers to cover every detail and guide a successful restoration effort. Knowing that adjustments to strategy would be more difficult, the planning phase received extra hours to account for every possible scenario.

EXTENSIVE PLANNING AND CREW SELECTION

Planning determined the best approach was a ground-up, phased solution that prioritized the immediate structural issues. Materials were sourced and packaged with equipment and ultimately shipped to the job site. Crew members were chosen based on skills, experience and availability for travel.

THE CORE CREW AND SUPPORT CONSISTED OF:

- ✓ Estimator / Project Manager
- Engineering Firm: Walker Engineering
 Safety Manager
- ✓ Superintendent
 ✓ On-site Foreman

 Three Crew Members (two concrete restoration craftsmen, and one blasting and coating specialist)

WITH ALL THE PLANNING IN PLACE AND SUPPLIES SHIPPED TO THE LOCATION, THE CREW ARRIVED TO COMPLETE THE FOLLOWING WORK:

- 1. Repair concrete on overhead structural joists
- 2. Blast and recoat all structural steel below deck
- 3. Apply penetrating sealer to top deck for temporary water mitigation
- 4. Install new top deck and waterproofing membrane in second phase of budget cycle (spring 2023)

Our team immediately began prepping and setting up equipment and made a game plan to manage access and create an acceptable work environment.





MANAGING FRIGID CONDITIONS

The Montana winter was very cold and the wind chill presented challenges. Generator diesel lines were actually freezing, making it difficult to run equipment. Our crew assembled an outdoor shelter to house and run equipment to avoid the threat of damage from CO₂. Blocking the wind and adding a layer of insulation meant they could continue working without interruptions from frozen fuel lines.

BATTLING BACK AGAINST CORROSION

Arguably the biggest threat to this parking garage was corroding steel. Intensive sandblasting (SSPC10) was done to completely remove corroded elements and anything close to section loss was repaired or replaced. Integrity was returned to structural steel and after the sandblasting, a new coating was applied to protect against future corrosion.





RESTORING STRUCTURAL MASONRY

Columns, beams and overhead joists all suffered from years of water damage. The McGill Restoration concrete specialists removed spalled and failing concrete and restored them to renew the structural value while creating a pleasing aesthetic. With the steel and concrete restored, the project was on track for completion on time and within budget.

PENETRATING SEALER FOR TEMPORARY WATER MITIGATION

The final piece of the project required water mitigation from the top deck. As the root problem for long-term damage, doing this correctly and sealing off water entry were extremely important. It was also scheduled as the last phase to span a new budget cycle and schedule for post-winter.

The crew had completed the concrete and steel restoration in the parking garage during winter and they returned in the spring after the threat of winter weather had passed. A penetrating sealer was applied to mitigate water entry until the full top deck would be replaced in the 2023 phase of work.



THE RESULT

U.S. Bank Helena Parking Structure Receives New Life

Before engaging McGill Restoration, the Helena U.S. Bank parking structure was deteriorating from ongoing water entry. After working through the planning phases and implementing a successful phased approach, the structure was restored from the bottom to top. In phase one (winter 2021) concrete and steel structural elements were rehabilitated. In phase two (spring 2021) a penetrating sealer was installed on the top deck as a temporary waterproofing solution. Phase three is scheduled for Spring 2023 when McGill Restoration will return and complete a full replacement of the waterproofing membrane and top deck.

U.S. Bank Helena remained operational and had a full reopening. The parking structure was restored and made available again for customers and general parking in the downtown Helena area.



Want to Work with McGill Restoration?

Do you have a project that needs unique solutions? Call our team to learn how McGill Restoration can bring your project to life.

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