

## US SPEC PROJECT PROFILE

# Interstate 25 Bridge Maintenance

**Location:** Denver, CO

**Date of Completion:** 2023

**US SPEC Products:** Transpatch Concrete



The Colorado Department of Transportation teamed up with prime contractor ABCO Contracting to provide preventative bridge maintenance on bridges located in Adams County, Colorado. This project includes the removal and replacement of bridge expansion devices, concrete repairs to the existing bridge deck, bridge wall repairs, polyester concrete overlays and concrete panel repairs on the roadway approaching the bridges.

The goals of the project included:

- Increasing the overall longevity of the bridges' service life by replacing bridge expansive devices.
- Providing greater safety for the traveling public with necessary bridge repair operations.
- Creating smoother, more enjoyable travel paths for motorists from roadway improvements and polyester concrete overlays.

ABCO Contracting used approximately 6,500 bags of Transpatch Concrete for this project. This contractor has used Transpatch Concrete for 10+ years with great success. The product performs consistently from project to project. When mixed, it has a consistency that aids in easier placement but still has the rapid setting properties required to get the repairs open to traffic without causing costly delays.



US SPEC's Transpatch Concrete is a polymer modified, rapid setting, rapid hardening, full depth concrete repair material. It offers superior resistance to freeze/thaw conditions, de-icing salts, petroleum products and other chemicals prevalent on concrete roadways. US SPEC Transpatch is on the Colorado DOT approved Products List and has also been evaluated by the National Transportation Product Evaluation Program (NTPEP).

Transpatch Concrete was used for repairs on the concrete decks and bridge expansion joint device replacements. Any areas that showed deterioration needed to be addressed before applying any overlay, whether it be asphalt or polyester concrete. A sound substrate is key to a long-lasting repair. The spalled areas are saw cut to define the perimeter and the area is mechanically abraded until all unsound material is removed. The repair mortar is then applied. The rapid setting nature of Transpatch Concrete allowed these repairs to be completed quickly.

Bridge expansion joints are vital to bridge construction. These devices allow the concrete to expand and contract without causing undo

stress on the concrete structure. It is normal for these devices to wear out over time and require replacement. If a expansion joints fails it could cause damage to the structure. The devices are anchored to the structure and Transpatch Concrete is a vital part of this process. Transpatch Concrete's fluid characteristics aid in easy placement to encapsulate the reinforcing steel and anchors.

