



AMAZON FULFILLMENT AND DISTRIBUTION CENTERS

Project Type:

Commercial

Application:

Tilt-up patching, structural repairs

Location:

Houston, Texas and St. Peters, MO

Project Dates:

Houston: 2016 – 2017

St. Peters: July 19 – Aug 23, 2018

Project Size:

Houston: 855,000 sq. ft.,

St. Peters: 800,000 sq. ft.

Project Owner:

Amazon

Contractor:

Samuel Express Tilt Patch Inc.

Products:

Rapid Set® Cement All®, Mortar Mix, WunderFixx®

All tilt-up construction projects require patch work after the concrete panels have been erected. This is because there will be imperfections and pinholes on the outer side of walls, which must be patched prior to painting. These vertical repairs typically take place during the middle up to the end of tilt-up projects, once the panels are cured and just before the building is painted.

Samuel Express Tilt Patch has built a reputation in the tilt-up industry for fast, high-quality patch work. The contractor uses Rapid Set products—Cement All, Mortar Mix and WunderFixx Concrete Patching Compound—for many of its projects and in all types of weather conditions.

In both locations – the Amazon Fulfillment Center, St. Peters and the Amazon Distribution Center, Houston – the contractor used Mortar Mix to repair spalling and bug holes and Cement All to fill spalls larger than ½ inch as well as fastener holes left behind by drilled-in formwork. WunderFixx was used for cosmetic pinhole repairs and to coat larger areas for a smooth appearance.

The repair materials were mixed via bucket and drill and applied by trowel. Repaired areas were water cured and finished with a steel trowel. The patched areas were sanded down for an ultra-smooth finish and ready for painting roughly three hours later.

In Missouri, work was sometimes performed during high heat (90-degree Fahrenheit), which required the contractor to maintain SSD (saturated surface-dry) conditions. The contractor also found that if the repair material must be applied more than ½-inch thick, thus making it a structural repair and not a cosmetic repair, it was best to use Rapid Set Mortar Mix instead of WunderFixx.

In Houston, during the year-long project, 200 bags of product (one pallet of Mortar Mix for the walls, four pallets of WunderFixx, and 45 bags of Cement All) were used to complete tilt-up patching on the 855,000-square-foot building (roughly the size of 14 football fields) before it opened in July 2017.