



Globally Proven  
Construction Solutions

# BREVARD COUNTY SARNO WASTE TRANSFER STATION

## Project Snapshot - L&M™ EMERYTOP 400™



Orlando-based Cornerstone Construction Services (CCS) is a concrete contractor that has been subcontracted to provide concrete services at many of Central Florida's leading institutions, including the City of Orlando, Orange County Public Schools, Walt Disney World, Sea World, and The Kennedy Space Center. The construction group also has years of experience working in waste transfer stations and heavy-duty industrial applications.

### Situation

Several years ago, Cornerstone and Neel-Schaffer, the engineering firm on the Brevard County waste transfer station project, met to discuss the transfer station floor's condition. It was in deteriorating shape and in need of serious attention. Neel-Schaffer contacted Alejandro Luna, the LATICRETE technical sales rep for southern Florida, and Luna drove the L&M EMERYTOP 400 design spec on Zone 2 (8,300 ft<sup>2</sup>) at Brevard. Subsequently, CCS submitted a hard bid and was awarded the project.

Waste transfer stations contain some of the harshest chemical and abrasion conditions for a concrete floor one can find. After performing preliminary analysis work on the existing transfer station floor, the Cornerstone crew saw that the chemicals from the waste and the impact from the heavy machinery ground the surface down as much as 3 to 4 inches, nearing the rebar in some areas.

### Challenge

To prepare the existing surface, the CCS crew milled and abraded the concrete. Wherever higher elevations were present, the CCS crew shotblast the floor to continue the proper prep.

After milling down the prepared concrete surface, the CCS crew applied L&M EPOBOND epoxy primer to bind the soon-to-be-placed EMERYTOP 400 floor topping to the existing milled substrate. L&M EPOBOND ensures a good, tight bond between the existing surface and the soon-to-be-applied topping.

#### ENGINEERING FIRM

Neel-Schaffer  
2301 Lucien Way # 300  
Maitland, FL 32751

#### CONCRETE CONTRACTOR:

Cornerstone Construction Services  
Orlando, FL

#### OWNER:

Brevard County, Florida



## Brevard County Waste Transfer Project Data:

### SURFACE SIZE:

8,300 ft<sup>2</sup> (Zone 2);

8,600 ft<sup>2</sup> (Zone 3)

### POUNDS OF EMERYTOP 400 PLACED:

500,000 lbs. at 2 to 4 inch thickness

8,600 ft<sup>2</sup> (Zone 3)

### WASTE MOVED PER DAY:

600 tons



## A LATICRETE Solution

After the EPOBOND cured, the CCS crew was ready to apply the EMERYTOP 400. The team ordered concrete ready mix trucks to Brevard County's site. They began by loading several Supersacks (3,000 lbs of material) of L&M EMERYTOP 400 into the back of the ready mix trucks for on-site mixing. As soon as the mix sequence transpired, the pouring and placing began. The CCS crew worked in this fashion with other ready mix trucks until all 8,600 ft<sup>2</sup> of Zone 2 was covered with the fresh topping.

While placing the topping, the concrete crew applied L&M E-CON, a concrete finishing treatment, onto the new surface in order to prevent crusting and to aide its placement. Finally, the crew applied L&M DRESS & SEAL WB 30, a high solids, water-based curing and sealing compound to the freshly placed EMERYTOP 400 for it to properly hydrate and cure.

Cornerstone gave Brevard County management a 3 year warranty on their new floor, and turned over Zone 2 in August 2013.

Once Zone 2 was complete, the CCS crew began working on Zone 3, approximately 8,600 sq ft of transfer station floor space. Zone 3 took as much if not worse impact and abrasion than Zone 2 did, with some areas down approximately 4 inches in elevation. Cornerstone followed nearly the exact same EMERYTOP 400 installation method as they did on Zone 2 with the exception of extending the product with granite to thicken the mix and cover those high elevations of up to 4 inches. Zone 3's installation went without a hitch and the CCS crew turned over this portion of the floor in December 2014.

To watch the EMERYTOP 400 product be mixed, placed, and cured at Brevard County's Sarno waste transfer station, visit: <https://www.youtube.com/watch?v=ODnIEbe3Eo>

## OUTCOME:

Brevard County pushes over 600 tons of waste per day across their EMERYTOP 400 floors. The CCS crew had placed wear indicator bars approximately 10 feet on center during the last installation, so Brevard County management can measure floor wear at just about any place within the new surface. A few years after the install, as of early 2017, the wear indicators only showed 1/8" in wear for both Zones 2 and 3, impressive given how active this waste transfer station is.

Brevard County Management and the Neel-Schaffer team are thrilled with how well the EMERYTOP 400 floor is holding up to the 600 tons of daily waste pushed across the floors.

Zone 4 is the next phase due for a resurfacing, approximately 8,300 ft<sup>2</sup>. The Cornerstone crew looks forward to working with Neel-Schaffer and Brevard County management in another successful EMERYTOP 400 installation in the near future.