

DISCOVERY · RECOVERY · ON TIME

27,000 Pounds of Failing Mortar. Hard Monday-Midnight Deadline. We Hit It.

Original scope was a Hybri-Flex MQ overlay. Once we opened the floor, we found something else entirely — and got it fixed properly without missing the production restart.

FEATURED PROJECT Production Staging Area 2 · Confidential Food Manufacturing Facility · 1,700 SF

The Failure Hidden Under the Floor — and How We Made the Deadline Anyway

Confidential Food Manufacturing Facility · General Contractor: **EIM Consulting** · Completed June 15, 2026

1,700 SQUARE FEET	27,000 lbs FAILING MORTAR REMOVED	275 hrs CREW MAN-HOURS	On Time 5 AM TUESDAY PRODUCTION
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THE CHALLENGE

The substrate underneath the substrate.

The original scope called for a Hybri-Flex MQ system installed over existing coatings — a planned overlay on a working floor. Once our crew started prep, we discovered the previously-installed epoxy mortar that had been pitching the floor to the drain was saturated with water, brittle, and actively delaminating. The mortar varied from 0 to 5 inches thick across the room and weighed approximately 27,000 pounds. Sanitation was scheduled to enter the room Monday at midnight to clean for a 5 AM Tuesday production restart. The deadline could not move.

OUR APPROACH

Stop. Call it in. Fix it properly.

We stopped work, brought EIM Consulting on site, and presented two options: a band-aid that hid the failure under the new system, or a proper recovery that removed the failing mortar, re-prepped the slab, and re-pitched to drain. EIM chose proper. We mobilized a 6–8 person crew running back-to-back long shifts, ran demolition hammers to remove the 27,000 lbs of mortar, profiled with the Von Arx scarifier, and shot-blasted as the final substrate prep. 275 man-hours later, the floor was poured, cured, and turned over to sanitation by midnight Monday.

► THE OUTCOME

Hybri-Flex MQ system installed over a properly prepped substrate. Failing mortar discovered, fully removed, and replaced — not hidden. Production restarted on schedule. The kind of recovery a self-performed contractor with owned equipment can execute on the spot.

WHY IT MATTERED

"The band-aid option would have looked the same on day one. It would have failed within a year — and the next failure would have happened during production. EIM made the right call, and we had the crew, the equipment, and the schedule discipline to execute it without missing the restart."

Equipment, prep sequence, and finished floor

EQUIPMENT & PREP METHOD

DEMOLITION Demolition Hammers Used to break out and remove 27,000 lbs of saturated, delaminating epoxy mortar — 0" to 5" variable thickness across the 1,700 SF footprint.	PROFILING Von Arx Scarifier Heavy-duty scarifier deployed to remove residual mortar bond, aggressive coating remnants, and laitance — establishing the primary substrate profile.	FINAL PREP Shot Blast Final substrate preparation by shot blast to achieve the manufacturer-specified CSP profile for Hybri-Flex MQ adhesion. Clean, sound, profile-ready slab.
CREW STRUCTURE 6–8 Person Crew · 275 Hours Single crew working back-to-back long shifts to recover the unexpected scope expansion and hold the original Monday midnight handover.	DUST CONTROL HEPA Extraction HEPA-extracted scarifying and shot blasting throughout. Full OSHA 29 CFR 1926.1153 Table 1 silica compliance during all prep operations.	SELF-PERFORMED Topcoat Crew · Owned Equipment Discovery, change-order coordination, demo, prep, and installation all self-performed. No subs, no rentals — the reason we could move fast enough to hit the deadline.

EXECUTION SEQUENCE

1 Mobilize & Prep Start. Crew on site for planned overlay scope. Initial substrate evaluation begins.	2 Failure Discovered. Saturated, brittle, delaminating epoxy mortar identified across the footprint. Work stopped.
3 EIM On-Site Decision. Band-aid vs. proper recovery presented. EIM authorized proper. Change order executed.	4 Demolition. Demolition hammers run to remove 27,000 lbs of failing mortar. Slab exposed.
5 Scarify. Von Arx scarifier removes residual bond and laitance to clean, sound substrate.	6 Shot Blast. Final preparation to manufacturer-specified CSP for Hybri-Flex MQ adhesion.
7 Install Hybri-Flex MQ. Full system buildup — primer, base broadcast, grout coats, topcoat. Floor re-pitched to drain.	8 Turn Over to Sanitation. Cured floor handed off Monday midnight. 5 AM Tuesday production restart hit.

THE FINISHED FLOOR

Finished floor photo (replace with site image)	Cove base detail (replace with site image)	Demo / recovery photo (replace with site image)
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SYSTEM CROSS-SECTION

3/8" Total Build · Slab to Topcoat

L5Cryl-a-Top 301 Topcoat

L4Cryl-a-Top 301 Grout Coat

L3Cryl-a-Top 201 Grout Coat + Q11 Quartz

L2Poly-Crete SL + Q11 Quartz Broadcast

L1Poly-Crete SL Primer

SUBSTRATEShot-Blasted Concrete · Manufacturer-Specified CSP

FINISHED BUILD3/8" nominal

PERIMETER DETAIL

Integral Urethane Cement Cove Base

Urethane mortar cove base installed at the perimeter and around equipment bases as a hand-troweled radius transition between floor and wall. Creates a seamless, sanitary detail with no joint between floor and wall to harbor bacteria, water, or product residue.

SANITATION CRITICAL

No floor-wall joint. No 90° corner. Cleanable under CIP, hot-water washdown, and routine sanitation cycles.

LAYER SCHEDULE

LAYER	PRODUCT	FUNCTION	COVERAGE / THICKNESS
01	Poly-Crete SL Primer	Substrate primer — bonds to shot-blasted concrete	Per manufacturer TDS
02	Poly-Crete SL with Q11 Quartz Broadcast	Urethane cement base body · Quartz broadcast to refusal	Per manufacturer TDS
03	Cryl-a-Top 201 Grout Coat with Q11 Quartz	First grout coat · Secondary aggregate broadcast	Per manufacturer TDS
04	Cryl-a-Top 301 Grout Coat	Encapsulates broadcast aggregate · Levels surface profile	Per manufacturer TDS
05	Cryl-a-Top 301 Topcoat	Final wear surface · Chemical and sanitation resistance	Per manufacturer TDS

SYSTEM PERFORMANCE

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THERMAL SHOCK

Withstands boil-out, steam washdown, and freezer/refrigerated transitions per manufacturer TDS.

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USDA / FDA

Food-contact compliant per Sherwin-Williams High Performance Flooring published specifications.

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CHEMICAL RESISTANCE

Rated for dilute acids, caustic cleaners, and common food-processing sanitizers per manufacturer TDS.

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GREEN CONCRETE BOND

Poly-Crete SL bonds to 7-day-old concrete — accommodates aggressive construction schedules.

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SLIP RESISTANCE

Q11 quartz broadcast establishes slip-resistant texture meeting food-processing requirements per manufacturer spec.

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SANITATION CYCLES

CIP, hot-water washdown, and quat/chlorinated sanitation compatible per manufacturer published TDS.

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RETURN TO SERVICE

Fast-cure Cryl-a-Top 301 finish enables rapid handoff to sanitation per manufacturer cure schedule.

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INTEGRAL COVE BASE

Hand-troweled urethane mortar cove at perimeter — seamless transition for sanitary cleanability.

SPEC REFERENCE

All coverage rates, cure schedules, chemical resistance values, and thermal exposure tolerances per current Sherwin-Williams High Performance Flooring Technical Data Sheets. Hybri-Flex MQ system installed by trained Topcoat Services USA employees following manufacturer-published procedures and OSHA 29 CFR 1926.1153 Table 1 silica compliance during substrate preparation.