General scope of work

1. Coordination of schedule between the unit, contractor, and project manager.
2. Coordination of work areas for phases I and II.
3. Most all equipment can and will be disconnected and relocated by the unit staff including washer, dryer, and ice machine.
4. Contractor shall be responsible for working around the breathing air machine (unless it can be cautiously lifted in some fashion), eye wash / shower and double basin sink.
5. If the alternate is accepted, it will be done with one of the two phases of work.
6. Unit to move all equipment out of phase I work area into phase II work area.
7. Contractor to grind, polish, fill voids and seal phase I work area.
8. Unit to move all equipment out of phase II and back into phase I work area.
9. Contractor to grind, polish fill voids and seal phase II work area.
10. Contractor to clean up each phase prior to turning it back over to the unit.
11. Unit to return all equipment back into the appropriate spaces as needed.

Notes

12. Contractor shall have full access to both the garage bay area room 136 as well as room 130 as needed.
13. If needed to maintain clean storage areas (the other phase of the space), contractor shall provide temporary dust barrier.
14. Contractor to seal all voids in expansion joints, cracks, spalling etc. as needed. Extent of sealing to be discussed on site during contractor site visit.
15. See attached specification for grinding, crack and void sealant as well as overall sealant when complete.
16. No grinding shall be done on the slope by the east overhead door.
17. It is strongly recommended that contractor visit the site prior to bidding. Please contact the project manager. See below for contact information.
18. It is intended that all work will be completed this calendar year.
19. Bids due to Dave Umland by the end of March please. Email copies preferred.
20. Call project manager with any questions.

Dave Umland
(c) 515-313-8096
david.e.umland.nfg@army.mil

SECTION 03 35 11
CONCRETE FLOOR FINISHES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface treatments for concrete floors and slabs.

B. Liquid densifiers and hardeners.

C. Clear penetrating sealers.

1.02 RELATED REQUIREMENTS

A. Section 03 30 00 - Cast-in-Place Concrete: Finishing of concrete surface to tolerance; floating, troweling, and similar operations; curing.

1.03 ADMINISTRATIVE REQUIREMENTS

A. Coordinate the work with concrete floor placement and concrete floor curing.

1.04 SUBMITTALS

A. Product Data: Manufacturer's published data on each finishing product, including information on compatibility of different products and limitations.

B. Maintenance Data: Provide data on maintenance and renewal of applied finishes.

1.05 PREINSTALLATION CONFERENCE

A. Preinstallation Conference: Conduct conference at Project site.

1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect, and Owner's Representative of scheduled meeting dates.

1.06 QUALITY ASSURANCE

1.07 MOCK-UP

A. For coatings, construct mock-up area under conditions similar to those that will exist during application, with coatings applied.

B. Locate where directed.

C. Provide mockup to establish aggregate exposure class and appearance level.

D. Mock-up may remain as part of the work.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in manufacturer's sealed packaging, including application instructions.

1.09 FIELD CONDITIONS

A. Maintain light level equivalent to a minimum 200 W light source at 8 feet above the floor surface over each 20-foot square area of floor being finished.

B. Do not finish floors until interior heating system is operational. Do not finish floors until interior heating system is operational.

C. Maintain ambient temperature of 50 degrees F minimum.

PART 2 PRODUCTS

2.01 DENSIFIERS AND HARDENERS

A. Liquid Densifier/Hardener: Penetrating chemical compound that reacts with concrete, filling the pores and dustproofing; for application to concrete after set or as otherwise recommended by manufacturer.
   1. Composition: silicate and siliconate polymers..
   2. Use at areas noted on drawings to receive SC-D.
   3. Products:
      a. Curecrete Distribution, Inc; Ashford Formula: www.curecrete.com/#sle.
      b. L&M Construction Chemicals, Inc, a subsidiary of Laticrete International, Inc; SEAL HARD: www.lmcc.com/#sle.
      c. TK Products; TK-Floor Hardener and Densifier 5329..
      d. Substitutions: See Section 01 60 00 - Product Requirements.

2.02 COATINGS

A. Low Gloss Clear Coating: Transparent, non-yellowing, water- or solvent-based coating.
   1. Composition: Acrylic polymer-based.
   2. Nonvolatile Content: 25 percent, minimum, when measured by volume.
   3. Use at areas noted on drawings to receive SC-1.
   4. Products:
      a. Concrete Sealers USA; TS202: www.concretesealersusa.com/#sle.
      b. L&M Construction Materials; Dress & Seal WB 25: laticrete.com.
      c. . Advanced Floor Products; RetroGuard; www. retroplatesystem.com.
      d. Substitutions: See Section 01 60 00 - Product Requirements.

2.03 EXPANSION JOINT FILLER

A. Expansion joint filler material with “tear-off” strips where joint is intended to be filled with sealant. These strips help ensure a consistent, correct joint depth. Joints must be primed as required by the sealant manufacturer. Acceptable products:
   1. Expansion Strips by “Reflectix” http://www.reflectixinc.com/
   2. Cellu-Cushion EXP 200 by “Sealed Air” https://sealedair.com/
   3. 1000 Series Expansion Board Caps by “BoMetals, Inc.” http://bometals.com/

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that floor surfaces are acceptable to receive the work of this section.

B. Verify that flaws in concrete have been patched and joints filled with methods and materials suitable for further finishes.

3.02 PREPARATION

A. Alkalinity:
   1. Test Method: Measure pH according to method indicated in ASTM F 710.
   2. Acceptable Results: pH between 8 and 10.

B. Moisture Vapor Transmission Rate:
   1. Test Method: Perform anhydrous calcium chloride test according to ASTM F 1869.
   2. Acceptable Results: Not more than 5 pounds per 1000 square feet in 24 hours.

C. Relative Humidity:

1. Test Method: Perform relative humidity test using in situ probes according to ASTM F 2170.
2. Acceptable Results: Not more than 75 percent.

D. Clean dirt, dust, oil, grease, and other contaminants that interfere with penetration or performance of specified product from surfaces. Use appropriate concrete cleaners approved by the concrete surface treatment manufacturer where necessary.

E. Repair, patch and fill cracks, voids, defects, and damaged areas in surface as approved by the Architect. Allow repair materials to cure completely before carrying out additional work, grinding or product application.

F. For all existing surfaces that are to receive new coatings; remove all paint coatings, striping, dirt, oils, etc. complete. Surface to be free of any markings, residues or remnants that would impede application of new coatings. Prep surfaces by grinding, sand or bead blasting followed by polishing as required to provide acceptable finishes surface for final coating complying with ACI 302 1R or equal. Coordinate with all manufacturer's requirements for preparation of surfaces.

3.03 GENERAL

A. Apply materials in accordance with manufacturer's instructions.

3.04 COATING APPLICATION

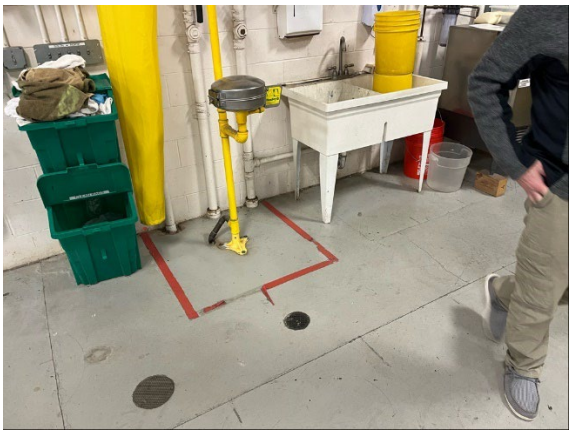
A. Verify that surface is free of previous coatings, sealers, curing compounds, water repellents, laitance, efflorescence, fats, oils, grease, wax, soluble salts, residues from cleaning agents, and other impediments to adhesion.

B. Protect adjacent non-coated areas from drips, overflow, and overspray; immediately remove excess material.

C. At concrete surfaces indicated to be sealed, but not polished, provide the following:
1. Confirm that concrete slab is acceptable to concrete floor finish manufacturer for application of hardener. Apply hardener/densifier in accordance with manufacturer's instructions. Allow to dry per manufacturer's instructions prior to applying enhancing sealer.
2. Apply two coats of enhancing sealer after hardener/densifier has dried per manufacturer's instructions.
3. Once enhancing sealer is dry, burnish after each coat using a high speed burnisher in accordance with manufacturer's instructions.
4. At Substantial Completion, apply and burnish two additional coats of enhancing sealer to all sealed floor areas.

END OF SECTION

East overhead door



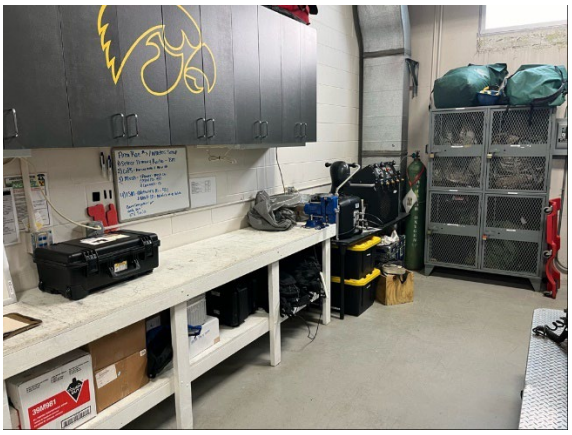
Eye wash and double basin sink

East wall north

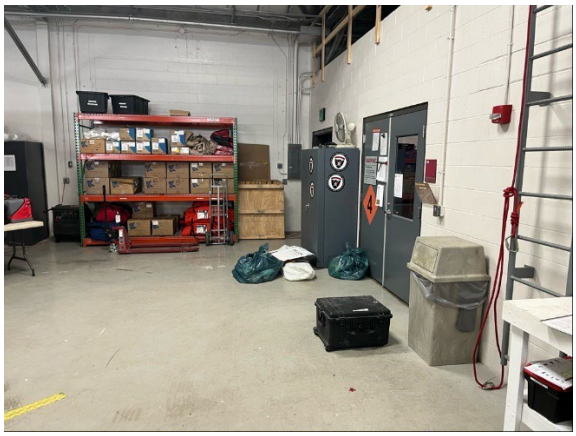
North wall center

North wall east end

West wall north of door



Northeast corner



Northwest corner

North door into hallway

Breathing air machine.

West door into west addition

West wall south end

West wall south end

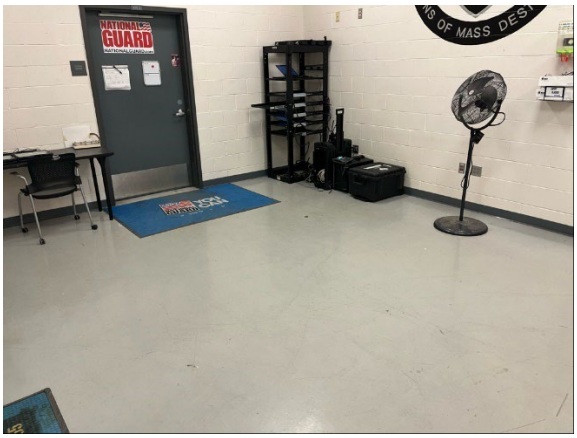
South wall center

South wall washer dryer, ice machine

East wall south end

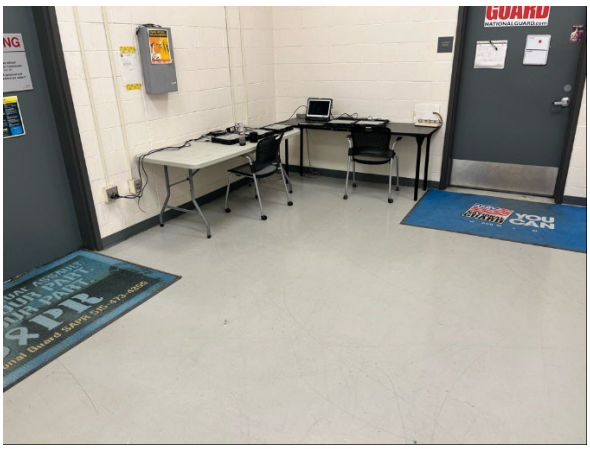
East wall south of overhead door

East overhead door

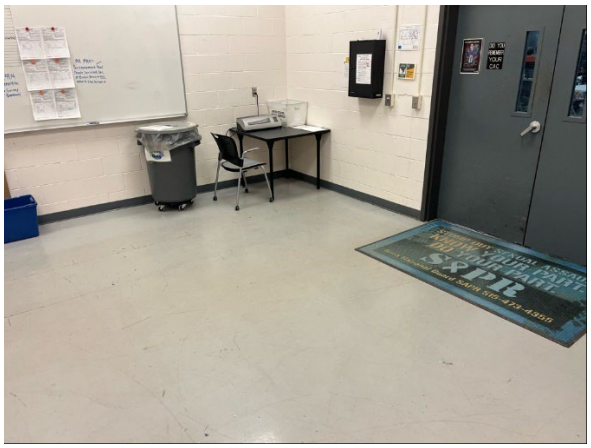


Alternate east door

Alternate south door



Alternate northeast corner



Alternate northwest corner

Alternate southwest corner

Door between base bid and alternate