COUNTY OF ALAMEDA

ADDENDUM No. 2

to

Project No. 14030A

for

Santa Rita Jail Accessibility Retrofit Upgrades

November 21, 2017

Contract Document Clarifications and/or Modifications

DUE DATE FOR SEALED BIDS IS NOW DECEMBER 11, 2017, NO LATER THAN 2:00PM

This County of Alameda, General Services Agency (GSA) Addendum has been electronically issued to potential bidders via e-mail. E-mail addresses used are those in the County's Small Local Emerging Business (SLEB) Vendor Database or from other sources. If you have registered or are certified as a SLEB, please ensure that the complete and accurate e-mail address is noted and kept updated in the SLEB Vendor Database. This Addendum will also be posted on the GSA Contracting Opportunities website located at http://www.acgov.org/gsa/purchasing/bid_content/ContractOpportunities.jsp.

I. Contract Documents, Division 02 - Specifications

The following specification sections replace the prior corresponding specification sections and are attached to this Addendum:

A. Document 09 96 03 Special Coatings.

II. Responses to written questions from bidders submitted by November 17, 2017, 2:00PM.

Q1) PLEASE CLARIFY the intent of sheets G0.4 and G0.5 that contain Barrier Matrix. Note that some of the room numbers listed on the matrix to not match cells numbers being shown on the plans.

A1) Room numbers indicated on sheets G0.4 and G0.5 are indicative of existing room numbers in the existing facility. An example would be ITR Central Core space identifies a room with a leading designator number "1" (e.g. #1518) where the actual room field verified on site is labeled without the "1" (e.g. #518 or #518A). The designator number "1" is consistent with all Central Core spaces.
Clarification: Sheet G0.4 Barrier Matrix lists OPHU Room #1122 but is denoted on plan as Holding Rm #1123. New work at OPHU Holding room consist of re-use of existing space to a public restroom (Now room #1123).
Barrier Matrix listed on sheet G0.5 does not reference cell numbers or dorm numbers but instead refers to cell and dorm bundles as a typical.
Room numbers for living area and dining room areas as shown on G0.5 may not show all room numbers but list the space as a "typical" barriers for those areas.
Room numbers for living and dining room areas for both cell and dorm scope of work shown accurately on floor plans sheets A1-1.2 through A1-35.2.

Q2) During the pre-bid conference, the Architect mentioned that some scopes may not be able to see without colors. When we open up pdf drawings, the dining rooms in Housing Units 1, 6, 7, 8, 21, 23, 24 show some red dashed lines tables on the demo plans, PLEASE CONFIRM that these dining rooms should be included in the scopes even though these do not have a call-out balloon. Also, PLEASE CONFIRM if these dining rooms are the only areas that would be included in the scopes even they are not being "shaded" or have call-out balloons.

A2) Red dashed lines indicate scope of work for demolition and/or modification. Housing Units 1, 6, 7, 8, 21, 23 reference detail 43/A2.4 for "typical" scope of work for dining areas at cellunits. Unit 24 is a hybrid unit (half -dorm/ half-cell); Dorm Dining 133 call out reference indicates "sim" scope of work to 43/A2.4.
Dining areas shown with red dashed lines shown without call out references for both demolition and new work are included in the scope of work.
As indicated in the Legend Notes, shaded areas indicate barrier removal for cells and dorm housing.
Scope of work at auxiliary areas indicated by red-dashed lines and call-out references for both typical demolition and new work.

Q3) Upon review the plans, it seems that there are some framing, drywall, floor patching and electrical work, but it doesn't seem to have specifications for these work. PLEASE CLARIFY.

A3) See DOCUMENT 01 73 29 CUTTING AND PATCHING.

Q4) In reference to the existing detention hardware we are assuming after removing the existing hardware and reinstalling it in new location any hardware left as stock to owner can be reused at opening's that may not be operational once we attempt to install in new doors and frames. Any other existing detention hardware will be turned over to the owner or disposed if necessary. Please verify.

A4) Correct.

Q5) Two specification sections were issued with the bid documents for Specification Section 08 71 63 Detention Door Hardware. It appears after review the only difference is paragraph 3.04 Security Hardware Schedule in each one. One specification states to "replace any hardware that is found to be unusable" and the other states "TBD". Need clarification.

A5) Replace any hardware that is found to be unusable and "TBD" are similar in that in each condition the hardware that may be found to be unusable is to be determined (TBD) in the field by the Contractor and the Owner.

Q6) At the Pre-bid walk thru it appears the existing hardware is all Folger Adam products, the detention door hardware specification lists Southern Folger as acceptable manufacturer for products and also shows for each type of products in the actual description RR Brinks products. We are assuming if existing hardware is not functioning and there is not adequate stock from the removal of existing hardware, RR Brinks is an acceptable manufacturer as well since it would meet the specification "as an equal product" in paragraphs 2.02A, 3.03A & 2.04A. Please confirm.

A6) Some existing hardware is Brinks and other hardware is either Southern Folger or Folger Adam. Hinges, stops and other non-locking or non-electrified hardware may be by any of the listed companies (insofar as existing hardware cannot be used).

Q7) Detention Hardware Specification 08 71 63 calls for spare parts in Paragraph 1.06 Maintenance. We are assuming this would not be a requirement for this project since all hardware is existing. Also keys and key control system in paragraph 2.05. Please confirm.

A7) The following specification language is deleted:
DETENTION DOOR HARDWARE, SECTION 08 71 63:
PART 1, 1.06, A.
PART 2, 2.05.

Q8) At sobering cell detail 41/A2. 1 and 44/A2.1 shows a blow up detail 34/G0.3 which is a floor mounted bench, however, in the same detail of plan there is a section cut 22/A3.1 typ. which details a wall mounted bench condition. This also occurs at other cells and holding rooms. Need clarification on type of bench.

A8) Detail 34/G0.3 call out the reference criteria that needs to be met per California Accessibility /CBC code requirements and are diagrammatic only. Section cut referencing detail 22/A3.1 is accurately shown for all conditions shown on plan where wall mounted accessible bench seating is required.

Q9) There are several electrical items being relocated as well as the detention hardware, i.e. intercoms, call buttons, electric locks, etc. There is no electrical specifications or documents of existing runs. Will the verification of existing wiring and conduit along with any new wiring

and conduit be by the Owner, as well as verification and integrating to existing headend and controls. Need Clarification.

A9) **Electrical work shown for relocation of call buttons, controls and lighting will be a reuse of existing electrical runs. All work should be field verified by the Contractor as facility as-built drawings are not available.**
Additional material needed for extension and relocation of barrier elements noted to match existing work is the responsibility of the Contractor.

Q10) At enlarged plan 24/A2.2 at elevation 14C it calls for a custom metal shroud without a detail we are assuming detail 34/A3.1 should be used. Please confirm.

A10) **Detail shown at 34/A3.1 is similar to the custom metal shroud at elevation 14C. The custom shroud required for relocation of electrical control switch at detention light will use similar material with an anti-ligature slope design at head of shroud. Custom shroud will differ in size (approx. 4" W, 1.75"-2"D, 7'5"L- actual dimensions to be verified in field) relative to conduit run and repositioned detention grade push button control. Contractor to submit shop drawing(s) of final design of custom metal shroud(s) for fabrication approval.**

Q11) Are toilet paper holders required at plan detail 41/A2.5 and 21/A2.5, no barrier note is listed assuming they are required per the elevation 31A and 1A. Please confirm.

A11) **Toilet room #114 was not noted in the barrier list due to reconfigure of space because of adjacent room redesign. A non-detention toilet paper dispenser is required at plan detail 41/A2.5 and indicated as TPH with reference note to detail 34/G0.2 for typical mounting heights. See specifications for product information.**
Plan detail 21/A2.5 requires a detention grade toilet paper holder per detail 55/G0.2
A barrier did not exist for the existing TP holder at this location, so therefore, not listed as such.

Q12) At housing unit 24 after reviewing the matrix it seems to require a new hot station security enclosure in dayroom 134 per detail 54/ A3.1 since these are not shown in the enlarged plan of the dayroom work detail 42/A2.4. Are these required in dayrooms? It seems to indicate on the overall plans of housing units, however, this also occurs in housing unit 25/dayroom 135, housing unit 34/dayroom 135 and housing unit 35/dayroom 134. Need Clarification.

A12) **Existing hot water spigots will be replaced with a hot water beverage station as shown at living areas per enlarged plan detail 44/A2.3 at all cell units where scope of work indicated.**
Existing hot water spigots do not exists in the cell unit dayroom areas (42/A2.4).
Existing hot water spigots will be replaced with a hot water beverage station as shown at Dining area per enlarged partial plan 22/A2.4 at all dorm units where scope of work indicated with reference to detail 54/A3.1. Confirmation: Dorm Unit 25 (new work graphically not shown on floor plan), Unit 34 and Unit 35 will have hot water beverage enclosures at dining area as shown. Clarification: All call out reference at dorm units dining areas listed above and all other dorm units should read call out 22/A2.4 for new work and call 23/A2.4 for demo work.

Q13) Need clarification for dorm doors A1-A24, 25, A1-B24, 25, F1-A33, 34, 35, F1-B33, 34, and 35 as it lists on detention door schedule on sheet A3.2 door openings are only 2'-0 ½" width, and should these be the minimum of 3 '-0"? Need clarification.

A13) **Error noted on door schedule. All doors noted above should be 3'-0" in width.**

Q14) The phasing plan AS 1.1 shows the different phases by housing unit. Will a detailed schedule of sequencing and completion dates be provided? Information we are looking for is, for example, will the whole housing unit be available or will they be in sub phases per dayroom, living area and dining area? How many days per building or sub phase will be available? Please confirm or provide if available.

A14) The schedule of construction phases and the required completion dates is provided in DOCUMENT 00 11 16 NOTICE TO BIDDERS – ATTACHMENT 3 – PROJECT PROPOSED PHASING PLAN & SCHEDULE. The entire housing unit or building pod will be vacant and available for the contractor to complete the work required.

Q15) Can a location be provided for our site trailer for storage of materials; there is a laydown area by housing unit 22 for the Med. /Min. and would we be able to have a container in this location? What area will be available for the max. Unit area? Need verification.

A15) The site trailer, a storage container, nor a laydown area near housing unit 22, cannot be located inside the courtyard of the jail facility. The Contractor's site trailer and Contractor's storage container (as needed by the Contractor) will need to be located in the front parking lot on the Broder Blvd. side of the jail facility. In addition, the County will provide opportunities for the Contractor to efficiently move/deliver materials into the vacated housing unit for construction by truck on/in the courtyard side of the jail facility as coordinated under certain events/times acceptable to the County and the Sheriff.

Q16) Typically the DLR Architect usually provides a list of approved Detention Equipment Contractors. Is there a list of approved Detention Equipment Contractors to be used for the project?

A16) The following "Detention Equipment Contractors" are approved to perform general detention work requirements:

1. **CML RW Security, Erie, CO: Phone 720-466-3650**
2. **Cornerstone Detention Products, Inc., Decatur, AL: Phone No.: 256-355-2396**
3. **ISI Detention Contracting, San Antonio, TX: Phone No.: 210-495-5245**
4. **Universal Security Products, San Ramon, CA: Phone No.: 510-785-8222**

Q17) Please provide typical site photos for specific areas receiving upgrades.

A17) See the Drawings for photos of scope of work areas receiving upgrades.

Q18) Please provide site photos of all existing door hardware to be reused.

A18) See the Drawings and Specifications for existing door hardware to be reused.

Q19) Please confirm there is no electrical scope of work pertaining to the project.

A19) Electrical scope of work consists of re-use and re-routing of existing only. There will be no new electrical runs.

Q20) Please confirm there is no communications scope of work pertaining to the project.

A20) Call boxes and communication devices noted on plans as barriers are based on accessibility height code requirements. Scope of work will consist of relocating mounting height of communication device.

Q21) Please confirm there is no electronic safety and security integration scope of work to the project.

A21) Confirmed, there is no electronic safety and security upgrades scope for this project. This type of work will be in separate and future County project.

Q22) For Specification Section 09 96 03 – Special Coatings, Part 2 Products, all paragraphs: we request for substitution or acceptance for the following specified products:

	SPECIFICATION/SPECIFIED PRODUCT:	PROPOSED SUBSTITUTION:
1.	Primecoat Prime Guard High build Epoxy Wall system 5130; Prime Guard 1530; Manufacturer: Prime Coat Coating Systems	DecoFloor ™ Seamless Shower Coating System; DFL – 950; Manufacturer: Gold Metal Construction Corp.
2.	Prime Coat Systems; High build 100% Solids – 3coat Wall & Ceiling system using PC 630; PC310, PC200, PC 400, & PC 499	DecoFloor ™ Seamless Shower Coating System by Gold Medal Construction Corp.

A22) The DecoFloor product substitutions request is denied for this project. It is not an equivalent product and does not have approved applicator. See revised Section 09 96 03 which now includes minimum warranty requirements for the specified product(s).

Q23) During the pre-bid conference, we had an impression that the Addendum 1 will include a plan for staging areas. We would like to know how big of this area is and where would it be located at. Can you PLEASE INDICATE that? Also, we would like to know if it is allowed to have top-opened debris box(es) on site. Can you PLEASE CONFIRM that?

A23) Staging space will be available at the far end of the west parking lot off of Broder Blvd. While exact dimensions are not available, it can be assumed that at least a third (or more) of that section of the parking lot can be made available. Open top debris boxes can be used in non-secured areas (staging area). Debris boxes cannot be left in secured areas of the jail facility.

Q24) We assumed that each working area, including the outdoor yards, will be secured during each period of the working hours. PLEASE CONFIRM no temporary fencing or separation barriers (besides dust control barriers) would be required within the secured working areas for this project.

A24) **Correct.**

Q25) PLEASE SPECIFY the noise and light limits regulations for this project.

A25) **While none are specified, after hours work in some areas of Phase 1A may require some noise coordination.**

Q26) The phasing plans clearly indicate the working units / areas of each phase. We assumed that all units (or buildings) within each phase and the entire units would be un-occupied during construction. However, during pre-bid conference, we had an impression that not all the cells, dining halls, dorms, or opened-areas would not be available for the entire period of each

phase. PLEASE CLARIFY the availability of the working areas of each phase because we need to determine the number of remobilizations and the quantity of temporary dust barriers required for each phase.

A26) During construction only one housing unit per phase will be available at a time. It is possible that a second unit may be made available in a separate area of the facility but it will not be of the same inmate classification level.

Q27) Please clarify which areas and or phases we are able to stage our materials and tools without having to log in and out on a daily basis.

A27) **If this question pertains to a construction lay-down area, then once the Contractor takes possession of the vacant housing unit they will be able to leave their tools and equipment in the housing unit locked overnight without having to check in and check out these tools/equipment.**

Q28) Please provide phasing completion dates as stated on site visit.

A28) **The completion dates for all phases of work are provided in DOCUMENT 00 11 16 – ATTACHMENT 3 – PROJECT PROPOSED PHASING PLAN AND SCHEDULE.**

Q29) Will a second site visit be available for subcontractors to walk the site?

A29) GSA announced to all attendees at the Mandatory Pre-Bid Conference on November 8, 2017 that a second site visit on November 13, 2017 at 10:00AM would take place. The second site visit was held on November 13, 2017 at 10:00AM and there were no attendees. Please refer to Addendum 1.

Q30) Specification Section 01 35 13 Special Project Procedures is missing, please provide specification section 01 35 13.

A31) There is no missing 01 35 13 Special Project Procedures document in this bid package, this section is intentionally not included.

End of Addendum No. 2

SECTION 09 96 03 - SPECIAL COATINGS

PART 1 GENERAL

1.01 SUMMARY

A. This Section includes surface preparation and application of special coating systems for inmate showers on the following substrates:

1. Interior Substrates:

a. Concrete, vertical and horizontal surfaces.
b. Concrete masonry units (CMU).

1.02 SUBMITTALS

A. Product Data: For each type of product indicated including generic description, technical data, surface preparation, and application instructions.

B. Color Samples: Full range of manufacturer's standard colors.

C. Samples for Verification: For each type of coating system and in each color and gloss of finish coat indicated.

1. Submit Samples on rigid backing, 8 inches square.
2. Step coats on Samples to show each coat required for system.
3. Label each coat of each Sample.
4. Label each Sample for location and application area.

D. Qualification Data: For Installer and Manufacturer.

1.03 QUALITY ASSURANCE

A. Single-source Responsibility: Coatings and coating application accessories to be products of a single manufacturer.

B. Installer's Qualification: Furnish list of projects using materials specified for this project that applicator has furnished during the past five years. Include the following:

1. Letter of training certification from the manufacturer/distributor stating that contractor is an approved installer of the products specified in this Section.
2. Submit written description of the contractors' experience with the specified material over the last five (5) years. Include job size (in square feet) and complexity of projects. List a minimum of five (5) projects with different Owners giving contact names and phone numbers.
3. Submit resume of the key person(s) who will be performing the actual work and list a minimum of five (5) projects with different Owners giving contact names and phone numbers that this key person has performed work for.

C. Manufacturer's Qualifications: Specializing in manufacture of coatings with minimum of ten years successful in-service performance.

D. Walkway Auditor: Certified by CPAA or NFSI to test bonded abrasive polished concrete floors for dynamic and static coefficient of friction according to ANSI B101.1 and B101.3.

E. Coefficient of Friction: Achieve following coefficient of friction by field quality control testing in accordance to the following standards:

1. ANSI B101.3 Wet Dynamic Coefficient of Friction - Achieve a minimum of 0.42 for floor surfaces.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained between 65 deg F and 90 deg F or as recommended by product manufacturer.

1. Maintain containers in clean condition, free of foreign materials and residue.

2. Remove rags and waste from storage areas daily.

1.05 PROJECT CONDITIONS

A. Environmental Limitations: Comply with resinous flooring manufacturer's written instructions for substrate temperature, ambient temperature, moisture, ventilation, and other conditions affecting resinous flooring application including the following:

1. Maintain ambient air temperature between 65°F and 85°F.

2. Concrete substrate shall be properly cured for a minimum of 28 days prior to installing the specified system.

B. General Condition of Substrates: Prepare and clean substrates in accordance with manufacturer's written instructions for substrate indicated. Provide clean, dry, and neutral pH substrate for resinous floor/wall application.

C. Concrete Floors: New Construction

1. Allow all new concrete to dry a minimum of 28 days.
2. Provide sound concrete surfaces free of laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil, and other contaminants incompatible with resinous flooring.
3. Profile sound surfaces for proper adhesion. For thin-film coatings and floors under 1,000 sf or with limited access: Diamond grind to expose concrete matrix and profile concrete floor surfaces to a classification of ICRI CSP2. For all other floor systems: Shot blast all concrete floor surfaces to a classification of ICRI CSP5.

D. Concrete Floors: Existing

1. Floor tile, caulk, mastics, terrazzo basins and other floor finishes shall be damage to the substrate, avoiding gouging and creating a non-uniform substrate.
2. Properly clean/sanitize all surfaces to eliminate any surface contaminants.
3. Pre-patch any imperfections, recessed areas, cracks, etc. with manufacturer's recommended 100% solids epoxy patching material to provide an even and uniform surface. All patching shall be struck smooth and be flush with the surface of the substrate.
4. Profile sound surfaces for proper adhesion. For thin-film coatings and floors under 1,000 sq.ft. or with limited access: Diamond grind to expose concrete matrix and profile concrete floor surfaces to a classification of ICRI CSP2. For all other floor systems: Shot blast all concrete floor surfaces to a classification of ICRI CSP5.
5. Visually inspect shot blasted or grinded surfaces to make sure that profiled aqueous tri-odium phosphate (TSP) or other de-greasing agent as recommended by the coatings manufacturer. Rinse and dry all floor surfaces scheduled to receive high performance floor system finish prior to commencement of resinous flooring application.
6. Remove and legally dispose of all debris and contaminants produced by the demolition and surface preparation process. Steel media resulting from the blast, vacuum, or stiff bristle broom.

E. Concrete Walls and Ceilings, Existing Block:

1. Abrasive Blast or mechanically abrade surfaces to achieve an ICRI CSP2 or ICRI CSP3 anchor profile for coating.
2. When tile removal is required remove all tile, mastics and other surface contaminants down to sound substrate.
3. Previously painted/coated surfaces shall be fully removed down to sound substrate.
4. Pre-patch any imperfections, recessed areas, cracks, etc. with manufacturer's recommended 100% solids epoxy patching material to provide an even and uniform surface. All patching shall be struck smooth and be flush with the surface of the substrate.

F. Lighting: Proper lighting is required for installation. When possible lighting shall simulate permanent lighting conditions during resinous floor/wall application.

G. Close spaces to traffic during resinous coatings application and for not less than 48 hours after application, unless manufacturer recommends a longer period.

H. Airborne contamination: Resinous systems shall not be applied in areas where dust or other airborne particulate matter is being generated.

1.06 WARRANTY

A. Manufacturer alone shall furnish a single, written warranty covering 100% of the material and labor costs protecting the Owner from delamination and product failure caused by defective product or defective installation for a period of 5 years from date of installation. Joint warranties between manufacturer and installer not accepted.

1. Issuance of warranty shall be a condition contingent on the receipt of final payment to the Installer.

2. Extent of warranty shall be limited to the repair or replacement of defective surfaces at no cost to the Owner including both material and installation costs associated with any repairs or replacement of defective product or defective installation. The warranty shall not include any remedy for defects caused by abuse, improper maintenance, change of use or operation, moisture migration from the back side of coating system or by normal wear, tear and usage or structural movement of building structure.

PART 2 PRODUCTS

2.01 SPECIAL COATINGS, GENERAL

A. Material Compatibility: Provide materials for use within each coating system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.

2.02 MANUFACTURERS

A. Basis of Design Manufacturer: Prime Coat Coating Systems; Seamless Shower System 5130.

2.03 PERFORMANCE REQUIREMENTS

A. Cove Base: 2 inch cant.

B. System:

1. Walls: 60 mils minimum.
2. Thickness: Floors: 1/8th inch minimum.

C. VOC's: in compliance with EQ 4.2, less than 100 g/l.

D. Compressive Strength Minimum: 11,700 p.s.i. (ASTM D-695)

E. Tensile Strength Minimum: 3,900 p.s.i. (ASTM D-638)

F. Hardness minimum: 83-88 (ASTM D-2240/Shore D Durometer)

G. Abrasion Resistance Minimum: 0.03 gm/1000 revolutions (ASTM D-4060 Taber Abrader.)

H. Integrated Anti-microbial shall be resistant to the following: FUNGI BACTERIA,

Alternavia tenuis Aerobacter aerogenes, Alternaria brassiciola Bacillus cereus, Aspergillus clavatus Bacillus subtilis, flavus Desulfovibrio desulfuricans, niger Ecterobacter sp., oryzae Klebsiella pneumoniae, terreus Lactobicalli sp., ustus Micrococcus sp., versicolor Proteus sp. Aureobasidium (Pullularia) pullulans Pseudomonas aeruginosa, Candida guilliermondii S. typhimurium, lipolytica S. typhosa, pelliculosa, Salmonella choleraesuis, tropicalis Shigella sp., Chaetomium globosum Staphylococcus aureus, Cladosporium resinae Staphylococcus epidermidis, Epidermophyton sp. Streptococcus faecalis, Helminthosporium, gramineum Streptococcus pyogenes, Memnoniella echinata, Mucorracemosus. ACTINOMYCETES, Mytothecium verrucaria, Streptomyces rubrireticuli, Penicillium citrinum, Streptoverticillium reticulum, Penicillium islandueum, Thermoactionomyces vulgaris, expansum, funiculosum, lilacinum, luteum, piscarium, variabile, Rhizopus nigricans, Scopulariopsis brevicaulis, Spicaria violacea, Trichophytonmentagrophytes.

2.04 MATERIALS

A. Wall and Ceilings Coating:

1. Spray applied chopped strand fiberglass and Kevlar reinforcement, 100% solids, accelerated aliphatic amine cured epoxy system.

2.05 COMPONENTS

A. Moisture Mitigation Primer:

1. Resin: 100% solids epoxy.
2. Application Method: brush and roller applied.
3. Minimum Installed Thickness: 8 mils per coat.
4. Number of coats: 2.
5. Product: Prime Coat Coating Systems; PC 101 Barrier Coat.

B. Floor Base Coat:

1. Resin: 100% solids plural component Bisphenol A epoxy.
2. Application method: Broadcast silica.
3. Minimum Installed Thickness: 20 mils.
4. Number of coats: 1.
5. Product: Prime Coat Coating Systems; PC 310 with broadcasting aggregate PCA 322.

C. Primer/Block Filler:

1. Resin: 100% solids penetrating epoxy primer/filler.
2. Application method: spray, roller, or brush.
3. Minimum Installed Thickness: 8-10 mils over concrete and non-porous surfaces; 12-16 mils over CMU and other porous surfaces.
4. Number of coats: 1.
5. Product: Prime Coat Coating Systems; PC 630.

D. Fiberglass and Kevlar Reinforced Body Coat:

1. Location: Shower surfaces, ceilings, walls, and floor and cove base.
2. Resin: 100% solids Fiberglass and Kevlar reinforced epoxy.
3. Application method: 45:1 air-powered airless spray w/gravity-fed hopper.
4. Reinforcement: Chopped strands of fiberglass and Kevlar.
5. Minimum Installed Thickness: 45 mils.
6. Number of coats: 1.
7. Product: Prime Coat Coating Systems; PC 200.

E. Top Coat:

1. Location: Shower surfaces, ceilings, walls, and floor and cove base.
2. Resin: 100% solids Bisphenol A chemically resistant epoxy.
3. Application method: Roller or spray.
4. Minimum Installed Thickness: 8-10 mils.
5. Antimicrobial: Integrated into topcoat.
6. Type: pigmented
7. Floor Finish only: to meet ADA requirements by broadcasting PCA 337 into floor topcoat to achieve proper slip resistant texture.
8. Product: Prime Coat Coating Systems; PC 400 with PC 499 anti-microbial.

2.06 ACCESSORY MATERIALS

A. Patching and Fill Material: Resinous product of resinous flooring manufacturer.

B. Joint Sealants: Formulated by resinous flooring manufacturer for type of service and joint condition indicated.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.

1. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:

a. Concrete: 5 percent.
b. Masonry: 5 percent.
c. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
d. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
e. Coating application indicates acceptance of surfaces and conditions.

B. Concrete Floor Slabs-on-Grade Substrates:

1. Smooth troweled dense finish concrete that shall have been properly cured not less than 28 days after placement.
2. Employ a radio frequency moisture meter to determine that residual uncombined moisture content of concrete slab is less than 5 percent by weight. Conduct ASTM F1869 to further record the Moisture Vapor Emission Rate. Do not apply high performance floor coatings to floor slabs that exceed 5 percent moisture content or 3 pounds per 1,000 square feet per 24 hours unless approved by the material manufacturer.
3. Prepare all concrete floor surfaces per SSPC-SP13/NACE 6.
4. Remove and legally dispose of all debris and contaminants produced by the surface preparation process.

C. CMU Substrates: Remove efflorescence and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.

1. Verify mortar joints are struck clean and filled tightly to avoid gaps or holes and provide a uniform appearance.
2. Remove mortar spatter, protruding mortar edges and other excessive mortar.
3. Grind rough edges smooth.
4. Clean CMU as specified.
5. Verify all surfaces are clean, dry and free of contaminants prior to installing coating system.

3.02 PREPARATION

A. Comply with manufacturer's written instructions and recommendations applicable to substrates indicated.

B. Remove plates, machined surfaces, and similar items already in place that are not to be coated. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and coating.

1. After completing coating operations, reinstall items that were removed; use workers skilled in the trades involved.

C. Clean substrates of substances that could impair bond of coatings, including dirt, oil, grease, and incompatible paints and encapsulants.

D. Concrete Wall and Ceiling Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not coat surfaces if moisture content or alkalinity of surfaces to be coated exceeds that permitted in manufacturer's written instructions.

1. Prepare surfaces in accordance with manufacturer’s instructions, SSPC-SP13/NACE 6 and ICRI 03732.
2. Surface to be clean, dry and free of contaminants prior to installing coating system.

3.03 APPLICATION

A. Apply special coatings according to manufacturer's written instructions and approved submittals.

1. Use applicators and techniques suited for coating and substrate indicated.

B. Moisture Mitigation Primer: Apply to surfaces at grade in areas subject to high levels of hydrostatic pressure where an effective moisture vapor barrier is not in place to prevent excessive moisture vapor drive through the concrete slab.) Apply two full coats of primer at 8 mils per coat. After first coat, inspect to see if any areas were missed or skipped. Spot prime those areas and apply second full coat.

C. Primer/Flexible Membrane: On surfaces at or below grade where moisture vapor transmission is not an issue, apply one full coat of primer at 6-8 mils wet film thickness being sure to pull material up wall the distance of the specified cove base. On surfaces above grade or over occupied spaces apply one full coat of flexible membrane in lieu of primer at 30 mils wet film thickness being sure to pull the material up the wall the distance of the specified cove base. Allow primer/membrane coat to cure.

D. Cove Base: Trowel apply cove base and threshold by using a mixture of 100% solids epoxy PC 310 and aggregates PCA 322 to make mortar system, and allow to set.

E. Floor Base Coat: Pour on floor in a bead, squeegee apply, backroll. Apply at 20 mils wet film thickness, or 80 square feet per mixed gallon. While Base Coat is wet, broadcast aggregate into base coat to rejection and allow to dry. Sweep off/vacuum up excess aggregate.

F. Primer/Filler Coat: Apply one coat at 12-16 mils wet film thickness on CMU and 10-12 mils wet film thickness on non-porous surfaces. Allow to dry tack free.

G. Fiberglass and Kevlar Reinforced Body Coat: Apply to previously primed floors, walls and ceilings with a 45:1 air-powered airless spray rig with gravity-fed hopper and cure. Minimum thickness of 45 mils required on walls and floors. Minimum of 15-20 mils on ceilings.

H. Final Finish/Glaze Coat: After fiberglass and kevlar reinforced body coat is fully cured, abrade surfaces to remove exposed fiberglass and other imperfections. Mix PC 400 with PC 499 Additive and apply to all surfaces, walls, ceilings and floors at a minimum of 8 mils to wall and ceiling surfaces and 10-12 mils on floor surfaces. Broadcast and back-roll PCA 337 slip resistant additive into final floor finish encapsulating the slip resistant additive to achieve ADA requirements.

I. Finished Work Requirements:

1. Curtaining on face not permitted.
2. Damage to finished surfaces caused by other than coating contractor shall be repaired to acceptable condition by coating contractor under cost

reimbursement by Contractor.

3.04 FIELD QUALITY CONTROL

A. Manufacturer's Field Service:

1. Manufacturer will send qualified technical representative to Project site for the following purposes:

a. Coordinate schedule, environmental requirements, and pre-installation work with other trades.
b. Advise Installer's personnel of procedures and precautions for use of flooring materials.
c. Attend moisture testing and other testing procedures with Architect, Owner's Representative, and Contractor.
d. Observe field mockups with Architect, Owner's Representative, and Contractor.
e. Ascertain that each component of resinous flooring system is being installed in accordance with manufacturer's directions.
f. Maintain log of environmental conditions, work procedures, testing procedures, and protection measures to be included in job site file submittal.
g. Manufacturer's representative shall be on site throughout entire product installation including all of the above, all surface preparation and product installation.

B. Field Testing: Engage a qualified walkway auditor to perform field testing to determine if polished concrete floor finish complies with specified static coefficient of friction.

1. ANSI B101.3 for dynamic coefficient of friction

3.05 CLEANING AND PROTECTION

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

B. After completing coating application, clean spattered surfaces. Remove spattered coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

C. Protect work of other trades against damage from coating operation. Correct damage by cleaning, repairing, replacing, and recoating, as approved by Architect, and leave in an undamaged condition.

D. At completion of construction activities of other trades, touch up and restore damaged or defaced coated surfaces.

3.06 COLOR SCHEDULE

A. SC-1:

1. As selected by Architect from manufacturer's complete line of standard colors.

B. SC-2:

1. As selected by Architect from manufacturer's complete line of standard colors.

END OF SECTION