

COUNTY OF BERKS

Purchasing Department

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Kelly A. Laubach, CPPB, Director of Contracts and Procurement

NOTICE TO BIDDERS

Amendment #5 Issued on May 22, 2023

Re: Invitation to Bid #23-12-GR

<p>This Amendment should consist of a total of 81 pages. If you have not received this Amendment in its entirety, please contact the County of Berks Purchasing Department at (610) 478-6168.</p>

The County hereby amends the above noted Invitation to Bid (ITB) as indicated herein. All other details of the ITB remain unchanged. Language that is underlined denotes that which has been added. Language that has been stricken denotes that which is hereby removed.

Where conflict exists between these responses and information in the original ITB package, the responses shall prevail.

Clarification 1

Division 00 – Section Twenty-Three – Davis-Bacon Prevailing Wage Rates

As of the date of this Amendment #5, the prevailing wage rate determination dated 04/07/2023 found in Section Twenty-Three: Davis-Bacon Prevailing Wage Rates is current and shall be used

Division 01 – Section 011200 – Multiple Contract Summary

Q2: Is cleaning of the new ductwork system required?

A2: As per Division 01 – Section 011200, Multiple Contract Summary, Clause 1.10.C.c, the HVAC Contractor shall provide testing and cleaning of distribution systems and equipment and final inspection.

Clarification 3

Division 09 – Section 096600 – Resinous Matrix Terrazzo Flooring

Section 096600 – Resinous Matrix Terrazzo Flooring has been added and indicates the types of transition strips that are acceptable for terrazzo flooring.

Clarification 4

Division 09 – Section 096813 – Tile Carpeting

2.1 CARPET TILE

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Interface, LLC; “Silver Linings Collection”, or similar product and pattern by Interface, LLC, or a comparable product by one of the following:
 - 1. Mannington Mills, Inc. – “Exchange 2 Collection” or similar product and pattern.
 - 2. Or approved equal.
- B. Color: As selected by Architect from manufacturer's full range.
- C. Pattern: Match Architect's samples.
 - 1. Multiple patterns from specified collection may be selected.
 - 2. See drawings for Room patterns.
- D. Fiber Content: 100 percent nylon 6, 6.
- E. Pile Characteristic: Tufted, textured loop pile.
- F. Backing System: GlasBac Tile, or approved equal.
- G. Size: 24 by 24 inches or standard sizes.

Division 32 – Section 321373 – Concrete Paving Joint Sealants

Q5: What product is used to seal the concrete?

A5: Information on the product to be used for concrete sealing is found in Division 32, Section 321373, Concrete Paving Joint Sealants, Clause 2.2.

Clarification 6

Schedule of Drawings – Amendment #3

The following sheets are hereby modified:

- Sheet AD-101 - Demolition Plans: Revised to include details for reinstallation of the existing condenser unit and pads.

Use Schedule of Drawings – Amendment #5 in place of Schedule of Drawings – Amendment #3.

Schedule of Drawings – Amendment #5 – Sheet A-105 – Roof Plan

- Q7:** Is the GC to relocate existing equipment curbs/rails and duct rails with the Mechanical Contractor laying out new proposed installed location?
- A7:** Refer to Sheet A-105, Roof Plan, in Schedule of Drawings – Amendment #5, Keynote 23.01.02 for detail on the roof curbs.

Schedule of Drawings – Amendment #5 – Sheet A-105 – Roof Plan

- Q8:** Is the Roof cutting, patching, and blocking the responsibility of the General Contractor for HVAC demolition and new work?
- A8:** Refer to Sheet A-105, Roof Plan, in Schedule of Drawings – Amendment #5, General Sheet Note 3 for detail on roof penetrations and patching.

Schedule of Drawings – Amendment #5 – Sheet A-201 – Elevations

- Q9:** Where is the GFRC trim to be placed?
- A9:** As per Sheet A-201, Elevations, in Schedule of Drawings – Amendment #5, the GFRC caps are at the tops of the piers as indicated on wall sections 3/A302 and 2/A303. The masonry stone veneer as detailed in Keynote 4.43.01 is to receive a manufactures standard wainscot sill as shown on detail 8/A501.

Schedule of Drawings – Amendment #5 – Sheet A-601 – Schedules

- Q10:** Does the bid need to be in Sargent (locks, exit devices and cores), or can we submit with alternate locks and exit devices?
- A10:** As per Sheet A-601, Schedules, in Schedule of Drawings – Amendment #5, General Hardware Note 8, Sargent keyed cores are to be used. Other manufactures may be used for the hardware itself so long as they accept the specified cores.

Schedule of Drawings – Amendment #5 – Sheet A-603 – Partition Types

- Q11:** The wall types on Sheet A-603 seem to show multiple layers of some type of drywall but there are no callouts to describe what is needed.
- A11:** As per Sheet A-603, Partition Types, in Schedule of Drawings – Amendment #5, all walls shall have one layer of 5/8” gypsum board as referenced in Key Notes 09, Finishes. The additional layers shall be in accordance with the finish schedule referenced in the drawings.

Schedule of Drawings – Amendment #5 – Sheet A-704 – Finish Plan

- Q12:** Which drawing is dictating the finish schedule for flooring?
- A12:** The finish schedule is found on Sheet A-704, Finish Plan, in Schedule of Drawings- Amendment #5.

Schedule of Drawings – Amendment #5 – Sheet H-100 – First Floor HVAC Plan

- Q13:** Where is the proposed hot water piping to be extended from for the four existing unit heaters in the proposed Feds Office Suite?
- A13:** Hot water piping is existing in space near the existing unit heater locations referenced on Sheet H-100, First Floor HVAC Plan, in Schedule of Drawings – Amendment #5.

Schedule of Drawings – Amendment #5 – Sheet H-100 – First Floor HVAC Plan

- Q14:** The relocation of the dust collector includes 300' of plastic pipe plus fittings. What size should be used?
- A14:** Eight inch (8") pipe is used for the relocation of the dust collector as referenced in Sheet H-100, First Floor HVAC Plan, in Schedule of Drawings – Amendment #5.

Schedule of Drawings – Amendment #5 – Sheet H-100 – First Floor HVAC Plan

- Q15:** Is the hot water coil located within RTU 7/8/9 or ductwork?
- A15:** The hot water coil is located in the ductwork for the RTUs referenced in Sheet H-100, First Floor HVAC Plan, in Schedule of Drawings – Amendment #5.

Schedule of Drawings – Amendment #5 – Sheet H-100 – First Floor HVAC Plan

- Q16:** There is no hot water piping shown to the rooftop units. What size piping is required to each RTU and where is the piping extended from?
- A16:** As per Sheet H-100, First Floor HVAC Plan, in Schedule of Drawings – Amendment #5, there is no hot water piping to the rooftop units.

Schedule of Drawings – Amendment #5 – Sheet H-100D – HVAC Demo Plan

- Q17:** The existing demolition and new work drawings do not show any chilled water piping/system. The AHU schedule indicates CHW cooling coils. Is the CHW applicable? Will existing CHW piping drawings be provided?
- A17:** As per Sheet H-100D, HVAC Demo Plan, and addressed in Amendment #2, Question 20, the existing chilled water and hot water piping/system shall be retained.

Schedule of Drawings – Amendment #5 – Sheet H-101 – Mezzanine Level HVAC Plan

- Q18:** Where is the hot water piping to be provided from for RTU-7/8/9 and what size is required for the hot water coils?
- A18:** Refer to Sheet H-101, Mezzanine Level HVAC Plan, in Schedule of Drawings – Amendment #5.

Schedule of Drawings – Amendment #5 – Sheet H-200 – HVAC Roof New Work Plan

- Q19:** The existing AHU's 1-5 within the building are indicated to have existing CHW and HHW piping, what is the pipe sizes to be extended to the new rooftop air handlers?
- A19:** The pipe sizing of the AHU's as listed on Sheet H-200, HVAC Roof New Work Plan, on Schedule of Drawings – Amendment #5, shall range from 1" to 3" depending on the AHU. The actual sizes shall be field verified by the Contractor.

Should you have any questions regarding this Amendment, please contact George Rodrigues, Contract Manager, via phone at (610) 478-6168 ext. 6270 or via email at grodrigues@countyofberks.com.

SECTION 096600 - RESINOUS MATRIX TERRAZZO FLOORING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Thin-set, epoxy-resin terrazzo flooring and base.
- B. Related Requirements:
 - 1. Section 079200: "Joint Sealants" for sealants installed with terrazzo.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Include terrazzo installation requirements. Include plans, sections, component details, and relationship to other work.
- C. Samples: For each exposed product and for each color and texture specified.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Material certificates.
- C. Preinstallation moisture-testing reports.

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance data.

1.7 QUALITY ASSURANCE

A. Installer Qualifications:

1. Engage an installer who is a contractor member of NTMA.
2. Engage an installer who is certified in writing by terrazzo manufacturer as qualified to install manufacturer's products.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. NTMA Standards: Comply with NTMA's written recommendations for terrazzo type indicated unless more stringent requirements are specified.
- B. Low-Emitting Materials: Flooring system shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

2.2 EPOXY-RESIN TERRAZZO

- A. Epoxy-Resin Terrazzo: Comply with NTMA's "Terrazzo Specifications and Design Guide" and manufacturer's written instructions for matrix and aggregate proportions and mixing.
 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. General Polymers Corporation; Terrazzo 1100.
 - b. Key Resin Company; Key Epoxy Terrazzo.
 - c. Master Terrazzo Technologies LLC; Morricite.
 - d. Quadrant Chemical Corporation; Quadset Epoxy Terrazzo.
 - e. TEC Specialty Construction Brands, Inc.; Tuff-Lite Epoxy Terrazzo.
 - f. Terrazzo & Marble Supply Companies; Terroxy Resin Systems.
 - g. Or approved equal.
 2. Thickness: 1/4 inch (6.4 mm) nominal.
 - a. To finish flush with adjacent existing surface.
 3. Formulated Mix Color and Pattern: As selected by Architect from NTMA thin-set terrazzo plates.
- B. Materials:
 1. Flexible Reinforcing Membrane: Manufacturer's resinous membrane for substrate-crack preparation and reflective-crack reduction.
 - a. Reinforcement: Fiberglass scrim.
 2. Primer: Manufacturer's product recommended for substrate and use indicated.

3. Epoxy-Resin Matrix: Manufacturer's standard recommended for use indicated and in color required for mix indicated.
 - a. Physical Properties without Aggregates:
 - 1) Hardness: 60 to 85 per ASTM D 2240, Shore D.
 - 2) Minimum Tensile Strength: 3000 psi (20.7 MPa) per ASTM D 638 for a 2-inch (51-mm) specimen made using a "C" die per ASTM D 412.
 - 3) Minimum Compressive Strength: 10,000 psi (6.9 MPa) per ASTM D 695, Specimen B cylinder.
 - 4) Chemical Resistance: No deleterious effects by contaminants listed below after seven-day immersion at room temperature per ASTM D 1308.
 - (a) Distilled water.
 - (b) Mineral water.
 - (c) Isopropanol.
 - (d) Ethanol.
 - (e) 0.025 percent detergent solution.
 - (f) 1.0 percent soap solution.
 - (g) 10 percent sodium hydroxide.
 - (h) 10 percent hydrochloric acid.
 - (i) 30 percent sulfuric acid.
 - (j) 5 percent acetic acid.
 - b. Physical Properties with Aggregates: For resin blended with Georgia white marble, ground, grouted, and cured per requirements in NTMA's "Terrazzo Specifications and Design Guide"; comply with the following:
 - 1) Flammability: Self-extinguishing, maximum extent of burning 1/4 inch (6.35 mm) per ASTM D 635.
 - 2) Thermal Coefficient of Linear Expansion: 0.0025 inch/inch per deg F (0.0025 mm/mm per 0.5556 deg C) for temperature range of minus 12 to plus 140 deg F (minus 24 to plus 60 deg C) per ASTM D 696.
4. Aggregates: Comply with NTMA gradation standards for mix indicated and contain no deleterious or foreign matter.
 - a. Hardness: Ha-10, minimum per ASTM C241.
 - b. Abrasion and Impact Resistance: Less than 40 percent loss per ASTM C 131.
 - c. 24-Hour Absorption Rate: Less than 0.75 percent.
 - d. Dust Content: Less than 1.0 percent by weight.
5. Finishing Grout: Resin based.

2.3 STRIP MATERIALS

- A. Thin-Set Divider Strips: L-type angle, 1/4 inch (6.4 mm) deep.
 - 1. Material: White-zinc alloy.
 - 2. Top Width: 1/8 inch (3.2 mm).
- B. Control-Joint Strips: Separate, double L-type angles, positioned back to back, that match material and color of divider strips and in depth required for topping thickness indicated.
- C. Accessory Strips: Match divider-strip width, material, and color unless otherwise indicated. Use the following types of accessory strips as required to provide a complete installation:
 - 1. Base-bead strips for exposed top edge of terrazzo base.
 - 2. Edge-bead strips for exposed edges of terrazzo.

2.4 MISCELLANEOUS ACCESSORIES

- A. Strip Adhesive: Epoxy-resin adhesive recommended by adhesive manufacturer for this use.
 - 1. Adhesives shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- B. Anchoring Devices:
 - 1. Strips: Provide mechanical anchoring devices or adhesives for strip materials as recommended by manufacturer and required for secure attachment to substrate.
- C. Patching and Fill Material: Terrazzo manufacturer's resinous product approved and recommended by manufacturer for application indicated.
- D. Joint Compound: Terrazzo manufacturer's resinous product approved and recommended by manufacturer for application indicated.
- E. Resinous Matrix Terrazzo Cleaner: Chemically neutral cleaner with pH factor between 7 and 10 that is biodegradable, phosphate free, and recommended by sealer manufacturer for use on terrazzo type indicated.
- F. Sealer: Slip- and stain-resistant, penetrating-type sealer that is chemically neutral; does not affect terrazzo color or physical properties; is recommended by sealer manufacturer; and complies with NTMA's "Terrazzo Specifications and Design Guide" for terrazzo type indicated.
 - 1. Surface Friction: Not less than 0.6 according to ASTM D 2047.
 - 2. Acid-Base Properties: With pH factor between 7 and 10.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Clean substrates of substances, including oil, grease, and curing compounds, that might impair terrazzo bond. Provide clean, dry, and neutral substrate for terrazzo application.
- B. Concrete Slabs:
 - 1. Provide sound concrete surfaces free of laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil, and other contaminants incompatible with terrazzo.
 - a. Shot-blast surfaces with an apparatus that abrades the concrete surface, contains the dispensed shot within the apparatus, and recirculates the shot by vacuum pickup.
 - b. Repair damaged and deteriorated concrete according to terrazzo manufacturer's written instructions.
 - c. Use patching and fill material to fill holes and depressions in substrates according to terrazzo manufacturer's written instructions.
- C. Verify that concrete substrates are dry and moisture-vapor emissions are within acceptable levels according to manufacturer's written instructions.
- D. Preinstallation Moisture Testing:
 - 1. Moisture Testing: Perform tests indicated below:
 - a. Moisture-Vapor-Emission Test: Maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. (1.36 kg of water/92.9 sq. m) in 24 hours when tested according to ASTM F1869 using anhydrous calcium chloride.
 - b. Relative Humidity Test: Maximum 75 percent relative humidity measurement when tested according to ASTM F2170 using in-situ probes.
 - c. Test Method: Test for moisture content by method recommended in writing by terrazzo manufacturer. Proceed with installation only after substrates pass testing.
 - 2. Proceed with terrazzo installation only after concrete substrates pass moisture testing.
- E. Moisture-Vapor-Emission-Control Membrane: Install according to manufacturer's written instructions.
 - 1. Install on concrete substrates that incorporate lightweight aggregates.
 - 2. Install concrete substrates that fail preinstallation moisture testing.
- F. Substrate-Crack-Suppression Membrane: Install to isolate and suppress substrate cracks according to manufacturer's written instructions.
 - 1. Prepare and prefill substrate cracks with membrane material.
 - 2. Install membrane at substrate cracks to produce full substrate coverage in areas to receive terrazzo.

3. Reinforce membrane with fiberglass scrim.

G. Protect other work from water and dust generated by grinding operations. Control water and dust to comply with environmental protection regulations.

1. Erect and maintain temporary enclosures and other suitable methods to limit water damage and dust migration and to ensure adequate ambient temperatures and ventilation conditions during installation.

3.2 EPOXY-RESIN TERRAZZO INSTALLATION

A. Comply with NTMA's written recommendations for terrazzo and accessory installation.

B. Place, rough grind, grout, cure grout, fine grind, and finish terrazzo according to manufacturer's written instructions and NTMA's "Terrazzo Specifications and Design Guide."

C. Installation Tolerance: Limit variation in terrazzo surface from level to 1/4 inch in 10 feet (6.4 mm in 3 m); noncumulative.

D. Ensure that matrix components and fluids from grinding operations do not stain terrazzo by reacting with divider and control-joint strips.

E. Delay fine grinding until heavy trade work is complete and construction traffic through area is restricted.

G. Primer: Apply to terrazzo substrates according to manufacturer's written instructions.

H. Strip Materials:

1. Divider and Control-Joint Strips:

- a. Locate divider strips in locations indicated.
- b. Install control-joint strips back to back directly above concrete-slab control joints.
- c. Install control-joint strips with 1/4-inch (6.4-mm) gap between strips, and install sealant in gap.
- d. Install strips in adhesive setting bed without voids below strips, or mechanically anchor strips as required to attach strips to substrate, as recommended by strip manufacturer.

2. Accessory Strips: Install as required to provide a complete installation.

3.3 REPAIR

A. Cut out and replace terrazzo areas that evidence lack of bond with substrate. Cut out terrazzo areas in panels defined by strips and replace to match adjacent terrazzo, or repair panels according to NTMA's written recommendations, as approved by Architect.

3.4 CLEANING AND PROTECTION

A. Cleaning:

1. Remove grinding dust from installation and adjacent areas.
 2. Wash surfaces with cleaner according to NTMA's written recommendations and manufacturer's written instructions; rinse surfaces with water and allow them to dry thoroughly.
- B. Sealing:
1. Seal surfaces according to NTMA's written recommendations.
 2. Apply sealer according to sealer manufacturer's written instructions.
- C. Protection: Provide final protection and maintain conditions, in a manner acceptable to Installer, that ensure that terrazzo is without damage or deterioration at time of Substantial Completion.

END OF SECTION 096623