

Specifications

PCHA Chuck Robert Gymnasium Floor Replacement Phenix City, Alabama

January 22, 2024

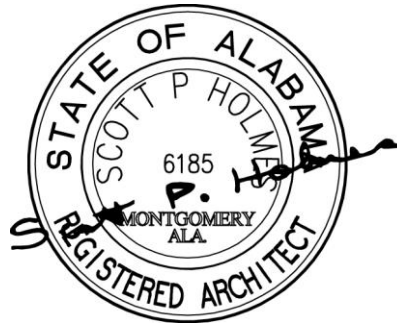


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Project No. 2015-028.23

PCHA Chuck Robert Gymnasium Floor Replacement

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SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Work by Owner.
 - 4. Work under separate contracts.
 - 5. Access to site.
 - 6. Coordination with occupants.
 - 7. Work restrictions.
 - 8. Specification and drawing conventions.
 - 9. Miscellaneous provisions.

1.3 PROJECT INFORMATION

- A. Project Identification: RCHA Chuck Robert Gymnasium Floor Replacement Phenix City, Alabama.
 - 1. Project Location: 100 16th St. Phenix City, Alabama, 36867.
- B. Owner: Housing Authority of the City of Phenix City, 200 16th St. Phenix City, Alabama, 36867.
 - 1. Owner's Representative: Carly Weddle, 200 16th St. Phenix City, Alabama, 36867.
- C. Architect: Hecht Burdeshaw Architects, Inc.; 8 - 11th Street, Suite 300; Columbus, Georgia 31901-2415.
- D. WORK COVERED BY CONTRACT DOCUMENTS
- E. The Work of Project is defined by the Contract Documents and consists of the following:
 - 1. The project is a flooring replacement of approximately 6,600 square feet and includes painting striping and custom logo on flooring. Additionally, there are three alternates:
 - Alternate 1: Replacing the existing light fixtures with new LED fixtures
 - Alternate 2: Painting of all interior walls withing the project scope
 - Alternate 3: Alternate flooring product.

See section 012300 – Alternates for further information.

F. Type of Contract:

1. Project will be competitively bid to qualified General Contractors.

1.4 WORK BY OWNER

- A. General: Cooperate fully with Owner so work may be carried out smoothly, without interfering with or delaying work under this Contract or work by Owner. Coordinate the Work of this Contract with work performed by Owner.
- B. Owner-Furnished Products: Owner will furnish, for installation and/or interconnection by Contractor, products which may be identified on the Drawings and in the Specifications as Owner-Furnished / Contractor-Coordination.

1.5 ACCESS TO SITE

- A. General: Contractor shall have full use of Project site for construction operations during construction period. Contractor's use of Project site is limited only by Owner's right to perform work or to retain other contractors on portions of Project.
- B. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- C. Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 1. Limits: Confine construction operations to work to portions of the site as agreed to by the General Contractor, Architect, and Owner before work begins.

1.6 COORDINATION WITH OCCUPANTS

- A. Owner Limited Use of Completed Areas of Construction: Owner reserves the right to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such activity does not interfere with completion of the Work. Such placement of equipment shall not constitute acceptance of the total Work.

1.7 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.

- B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Architect, Construction Manager and Owner not less than two (2) days in advance of proposed utility interruptions.
 - 2. Obtain Architect's, Construction Manager's and Owner's written permission before proceeding with utility interruptions.

- C. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
 - 1. Notify Architect, Construction Manager and Owner not less than two (2) days in advance of proposed disruptive operations.
 - 2. Obtain Architect's, Construction Manager's and Owner's written permission before proceeding with disruptive operations.

- D. Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.

- E. Employee Identification: Provide identification tags for Contractor personnel working on Project site. Require personnel to use identification tags at all times.

- F. Employee Screening: Comply with Owner's requirements for drug and background screening of Contractor personnel working on Project site.
 - 1. Maintain list of approved screened personnel with Owner's representative.

- G. Prohibited Clothing and Displays (including graphics on vehicles):
 - 1. Displays, including graphic and/or verbiage, of tobacco, illegal drugs, alcoholic beverages, firearms, improper (profane or obscene) language or gestures is prohibited on project site.

1.8 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 - 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.

- B. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

- C. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 - 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 - 2. Abbreviations: Materials and products are identified by abbreviations and scheduled on Drawings.
 - 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

1.9 COOPERATION IN EXECUTING THE WORK

- A. The Contractor, and his representatives, shall cooperate with the Architect, and his representatives, in any way possible to ensure the proper execution of all phases of the work, the quality of the Work, and the fast and easy flow of ideas, suggestions, instructions, and other forms of communication.
- B. The Contractor shall promptly notify the Architect of any problems arising from the Work for which the Architect's decision or instructions are required.
- C. The Contractor does not have the right to alter in any way the requirements of the Contract Documents; however, he is encouraged to make timely suggestions concerning the execution of the Work and is required to question and bring to the Architect any items of the Work, which he feels are improper.
- D. The Contractor is responsible for ensuring that his subcontractors properly coordinate their work and cooperate with each other to the fullest. If the Contractor and subcontractors or two or more subcontractors have work to be installed in the same location, they shall cooperate with one another to ensure that each has made provisions for the other's work. This is particularly the case with mechanical, electrical and fire protection systems and expressly applies to the provisions of Subpart 1.03 "Accessibility for Maintenance" following.
- E. If the Contractor or the Architect feels it to be advisable, either may initiate a preconstruction conference to discuss job conditions and progress. The Architect, Contractor and all major subcontractors shall be represented at this conference should it be called.

1.10 CERTIFICATION OF LINES AND LEVELS

- A. The Contractor shall employ a licensed surveyor to locate the building on the site and to establish the building's dimensions, elevations, and angles.
- B. The Contractor shall furnish the Architect with certification from the surveyor that the lines and levels of the building are established in accordance with the drawings.
- C. The surveyor selected for the above purpose shall be subject to the approval of the Architect.

1.11 DISCREPANCIES IN DRAWINGS AND SPECIFICATIONS

- A. All errors or discrepancies that may be discovered in the Drawings and Specifications shall be promptly reported to the Architect for correction.

1.12 TIMELY ORDERING OF MATERIALS

- A. It shall be the sole responsibility of the Contractor to order any and all materials in such a timely manner as to receive shipment of materials on the job or to his warehouse at or before the appropriate time for incorporation into the work. Should the Contractor fail to make such timely order and force substitution of another material not, in the Architect's opinion, exactly equal to that specified, the following steps shall be taken:

1. A change order will be executed allowing substitution of the alternate material. No verbal authorization will be binding.
2. The change order will issue a credit to the contract in an amount equal to the sum of the cost of the available material plus Contractor's overhead and profit.
3. An add will be included in the change order for the cost of the substituted material, plus Contractor's overhead and profit, for providing substituted material. This add, however, may not exceed the credit issued in 2. above,

- B. There will be no exceptions to, or reversals of, the above stated procedure except as follows:

1. Architect is notified in writing during bid period that specified material is not available within the time span allotted by progress of the work,

Or

2. Proof is presented to the Architect that material in question was ordered by Contractor or material supplier within 30 calendar days of issuance of "Notice to Proceed."

1.13 USE OF HAZARDOUS PRODUCTS

- A. Asbestos:

1. No products or materials containing asbestos in any form shall be used in the work of this contract.
2. If any product used in this work is found to contain asbestos after it has been installed, it shall be promptly and completely removed in strict conformance with EPA guidelines and regulations and at no cost to the Owner or Architect or the agencies of either.
3. This Paragraph supersedes any other provision of these Documents which may inadvertently call for or allow a material or product containing asbestos.
4. A letter certifying that no materials containing asbestos have been used in the construction shall be provided by the Contractor as part of the closeout documents.

- B. Lead Based Paints:

1. No products or materials containing lead based paints in any form shall be used in the work of this contract.

C. Tobacco Products:

1. No tobacco products shall be used on property.

1.14 DRESS CODE

- A. No shirts or hats displaying tobacco, alcoholic beverage, firearms, or improper language will be allowed on the jobsite.

1.15 FEDERAL CLEAN WATER ACT COMPLIANCE

- A. The Contractor shall comply with the Federal Clean Water Act. With the exception of the State and Local N.O.I.'s (which will be initiated and paid for by the Contractor) the Contractor shall be responsible for all necessary licenses, permitting, monitoring and other incidental work required.

1.16 PROJECT MEETINGS

- A. Project meetings are to be as deemed necessary by architect.

1.17 PRE-BID MEETING

- A. Pre-bid meeting will be held.

END OF SECTION 011000

SECTION 012100 - ALLOWANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements governing allowances.
 - 1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. If necessary, additional requirements will be issued by Change Order.
- B. Types of allowances include the following:
 - 1. Lump-sum allowances.
- C. Related Sections include the following:
 - 1. Division 01 Section "Contract Modification Procedures" for procedures for submitting and handling Change Orders for allowances.
 - 2. Divisions 02 through 49 Sections for items of Work covered by allowances.

1.3 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise Architect of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. At Architect's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.

1.4 SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.
- B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 COORDINATION

- A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.6 LUMP-SUM ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials ordered by Owner under allowance and shall include taxes, freight, and delivery to Project site.
- B. Unless otherwise indicated, Contractor's costs for receiving and handling at Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by Owner under allowance shall be included as part of the Contract Sum and not part of the allowance.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.3 SCHEDULE OF ALLOWANCES

- A. Allowance No. One (1): Include as part of the base bid the lump sum of \$10,000.00 (Ten thousand dollars) for general contingency.

END OF SECTION 012100

SECTION 012300 - ALTERNATES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if the Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate the alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into the Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of the alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.

- D. Schedule: A Schedule of Alternates is included at the end of this Section. Specification Sections referenced in the schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATE

A. Alternate No. 1: _____

- Delete work associated with replacing existing light fixtures with new LED light fixtures.

Add/Deduct \$_____

B. Alternate No. 2: _____

- Delete work associated with painting interior walls, doors and door frames shown on sheet A2.0.

Add/Deduct \$_____

C. Alternate No. 3: _____

- Delete requirement for installing VS-1 flooring and associated painted striping and replace with VCT-1, VCT-2 and VCT-3 flooring with VCT striping and laser cut custom VCT logo.

Add/Deduct \$_____

END OF SECTION 012300

SECTION 096513 - RESILIENT BASE AND ACCESSORIES

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. Resilient base.
 - 2. Resilient molding accessories.
- B. Related Sections:
 - 1. Division 09 Section "Resilient Multi-Purpose-Sport Flooring" for resilient Sheet flooring and accessories.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For each type of product indicated.
- C. Product Schedule: For resilient products.

1.4 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics: As determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.
- B. Mockups: Provide resilient products with mockups specified in other Sections.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended

by manufacturer, but not less than 50 deg F (10 deg C) or more than 90 deg F (32 deg C).

1.6 PROJECT CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F (21 deg C) or more than 95 deg F (35 deg C), in spaces to receive resilient products during the following time periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.
- B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F (13 deg C) or more than 95 deg F (35 deg C).
- C. Install resilient products after other finishing operations, including painting, have been completed.

1.7 EXTRA MATERIALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Furnish not less than 10 linear feet (3 linear m) for every 500 linear feet (150 linear m) or fraction thereof, of each type, color, pattern, and size of resilient product installed.

PART 2 - PRODUCTS

2.1 RESILIENT BASE

- A. Resilient Base:
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include the following:
 - a. Allstate Rubber Corp.; Stoler Industries.
 - b. Armstrong World Industries, Inc.
 - c. Burke Mercer Flooring Products; Division of Burke Industries, Inc.
 - d. Endura Rubber Flooring; Division of Burke Industries, Inc.
 - e. Estrie Products International; American Biltrite (Canada) Ltd.
 - f. Flexco, Inc.

- g. Johnsonite.
- h. Mondo Rubber International, Inc.
- i. Musson, R. C. Rubber Co.
- j. Nora Rubber Flooring; Freudenberg Building Systems, Inc.
- k. PRF USA, Inc.
- l. Roppe Corporation, USA.
- m. VPI, LLC; Floor Products Division.

B. Resilient Base Standard: ASTM F 1861.

C. Colors, Size and Patterns: See finish schedule for all base types, size, color, etc.

2.2 RESILIENT TRANSITIONS

A. Resilient Transition:

- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include the following:
 - a. Allstate Rubber Corp.; Stoler Industries.
 - b. Armstrong World Industries, Inc.
 - c. Burke Mercer Flooring Products; Division of Burke Industries, Inc.
 - d. Endura Rubber Flooring; Division of Burke Industries, Inc.
 - e. Estrie Products International; American Biltrite (Canada) Ltd.
 - f. Flexco, Inc.
 - g. Johnsonite.
 - h. Roppe Corporation, USA.

B. Slip Resistance: ASTM D 2047 - Exceeds Federal Standards and ADA recommendations of .5 for flat surfaces

C. Colors and Product: See finish schedule for all transition types, color, etc.

2.3 INSTALLATION MATERIALS

A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by manufacturer for applications indicated.

B. Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated.

C. Stair-Tread-Nose Filler: Two-part epoxy compound recommended by resilient tread manufacturer to fill nosing substrates that do not conform to tread contours.

- D. Metal Edge Strips: Extruded aluminum with mill finish of width shown, of height required to protect exposed edges of tiles, and in maximum available lengths to minimize running joints.
- E. Floor Polish: Provide protective liquid floor polish products as recommended by resilient stair tread manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.
- B. Concrete Substrates for Resilient Stair Treads and Accessories: Prepare according to ASTM F 710.
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
 - 3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer.
 - 4. Moisture Testing: Perform tests recommended by manufacturer and as follows. Proceed with installation only after substrates pass testing.
 - a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with installation only after substrates have 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.

- b. Perform relative humidity test using in situ probes, ASTM F 2170. Proceed with installation only after substrates have maximum 75 percent relative humidity level measurement.
- C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.
- D. Do not install resilient products until they are same temperature as the space where they are to be installed.
 - 1. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
- E. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

3.3 RESILIENT BASE INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient base.
- B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
- C. Install resilient base in lengths as long as practicable without gaps at seams and with tops of adjacent pieces aligned.
- D. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
- E. Do not stretch resilient base during installation.
- F. On masonry surfaces or other similar irregular substrates, fill voids along top edge of resilient base with manufacturer's recommended adhesive filler material.
- G. Preformed Corners: Install preformed corners before installing straight pieces.
- H. Job-Formed Corners:
 - 1. Outside Corners: Use straight pieces of maximum lengths possible. Form without producing discoloration (whitening) at bends.
 - 2. Inside Corners: Use straight pieces of maximum lengths possible.

3.4 RESILIENT ACCESSORY INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient accessories.

- B. Resilient Stair Accessories:
 - 1. Use stair-tread-nose filler to fill nosing substrates that do not conform to tread contours.
 - 2. Tightly adhere to substrates throughout length of each piece.
 - 3. For treads installed as separate, equal-length units, install to produce a flush joint between units.

- C. Resilient Molding Accessories: Butt to adjacent materials and tightly adhere to substrates throughout length of each piece. Install reducer strips at edges of carpet and resilient floor covering that would otherwise be exposed.

3.5 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protection of resilient products.

- B. Perform the following operations immediately after completing resilient product installation:
 - 1. Remove adhesive and other blemishes from exposed surfaces.
 - 2. Sweep and vacuum surfaces thoroughly.
 - 3. Damp-mop surfaces to remove marks and soil.

- C. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.

- D. Cover resilient products until Substantial Completion.

END OF SECTION 096513

SECTION 096566 - RESILIENT MULTI-PURPOSE/SPORT FLOORING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Sheet vinyl resilient multi-purpose/sport flooring.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Manufacturer Certifications:
 - 1. Provide certification that accurately identifies the Original Equipment Manufacturer (OEM) of flooring furnished for this project including manufacturer's name, address and factory location.
 - a. Suppliers of Private-Label flooring for this project must identify themselves as such and fully disclose the OEM information listed above.
 - b. All "manufacturer" requirements in these specifications must be complied with by the OEM, including warranties, certifications, qualifications, product data, test results, environmental requirements, performance data, etc.
 - 2. Provide ISO 9001 certification for the OEM of the specified products.
 - 3. Provide ISO 14001 certification for the OEM of the specified products.
- C. Laboratory Test Results:
 - 1. Provide certification of testing per ASTM F2772-11 and the product being furnished complies with the ASTM Indoor Sport Floor Classification specified for this project. Third-party certification required; sales literature is not sufficient.
- D. Shop Drawings: Showing installation details and locations of borders, patterns, game lines, locations of floor inserts and seams.
- E. Samples:
 - 1. Color Chart: Manufacturer's color chart for selection of available colors.
 - 2. Product Samples: Sample of each type, color, and pattern of flooring indicated, Provide samples of same thickness and material specified. Minimum sample size: 6 inches by 8 inches.

1.3 INFORMATIONAL SUBMITTALS

A. Qualification Data:

1. For a qualified resilient flooring Manufacturer.
2. For a qualified resilient flooring Installer.

1.4 CLOSEOUT SUBMITTALS

A. Submit three copies of the following:

1. Manufacturer maintenance instructions.
2. Manufacturer material warranty.
3. Installer installation warranty.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. ISO 9001 Certified.
2. ISO 14001 Certified.
3. At least ten years active experience in the manufacture and marketing of indoor resilient multi-purpose flooring.
4. A provider of authorized installer training.

B. Installer Qualifications:

1. At least five years experience in the installation of resilient multi-purpose flooring.
2. Experience on at least five projects of similar size, type and complexity as this project.
3. Employer of workers for this Project who are competent in techniques required by manufacturer for resilient multi-purpose flooring installation indicated.

C. Fire Test Characteristics: As determined by testing identical products according to ASTM E 648, Class 1, by a qualified testing agency acceptable to authorities having jurisdiction.

D. Safety and Performance Properties: Comply with ASTM F 2772-11 Performance Level Class 2 for force reduction, ball bounce, vertical deformation and surface friction.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store flooring and installation materials in protected dry spaces, with ambient temperatures maintained within range recommended by manufacturer, but not less than 55 deg F (13 deg C) nor more than 85 deg F (29 deg C).
- B. Store the indoor resilient surfacing rolls in an upright position on a smooth flat surface immediately upon delivery to Project.

1.7 FIELD CONDITIONS

- A. Product Installation:
 - 1. Maintain temperatures during installation within range recommended by manufacturer, but not less than 65 deg F (18 deg C) in spaces to receive flooring 48 hours prior, during and 48 hours after installation.
 - 2. After installation, maintain temperatures within range recommended by manufacturer, but not less than 55 deg F (13 deg C) or more than 85 deg F (29 deg C).
 - 3. Prohibit traffic during flooring installation and for at least 48 hours after flooring installation.
- B. Install flooring only after other finishing work, including painting and overhead work, has been completed.

1.8 WARRANTY

- A. Special Limited Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace sports flooring that fails within specified warranty period.
 - 1. Material warranty must be direct from the product manufacturer.
 - a. Material warranties from private label distributors are not valid.
 - 2. Failures include, but are not limited to, the following:
 - a. Material manufacturing defects.
 - b. Failure due to substrate moisture exposure not exceeding 95% relative humidity (RH) when tested according to ASTM F2170
 - 3. Warranty Period: 15 years from date of Substantial Completion.
- B. Special Limited Warranty: Installer's standard form in which installer agrees to repair or replace flooring that fails due to poor workmanship or faulty installation within the specified warranty period.
 - 1. Warranty Period: 1 year from date of Substantial Completion.

1.9 COORDINATION

- A. Coordinate layout and installation of flooring with other gymnasium equipment.

PART 2 - PRODUCTS

2.1 SHEET VINYL MULTI-PURPOSE FLOORING

- A. Basis-of-Design Manufacture: Subject to compliance with requirements, provide Gerflor RECREATION 45 Multi-purpose flooring installed with Gerflor's full-spread adhesive.
- B. Prior-Approved Manufacturers: Subject to compliance with all the requirements of this specification, including full-spread adhesive coverage.

Substitution Limitations:

- 1. All other manufacturers: Submit formal substitution request prior to bid in accordance with Section 012500 - "Substitution Procedures".
 - 2. Approval by Architect of other manufacturers does not relieve Contractor of responsibility to provide products which comply with all requirements of this specification including full-spread adhesive coverage.
- C. Product Description: ASTM Class 2 Foam-backed sheet vinyl flooring designed for fully adhered multi-purpose applications.
 - 1. Overall Thickness: Not less than 0.18 inch (4.5 mm).
 - 2. Wear-Layer Thickness: Not less than 0.04 inch (1.0 mm)
 - 3. Backing: closed cell foam with reinforced fiberglass grid.
 - 4. Seaming Method: Heat welded.
 - 5. Adhesive Method:
 - a. Full-spread adhesive coverage to completely adhere flooring to substrate.
 - b. Complete adhesive coverage to eliminate the possibility of gaps or space between the slab and flooring material where moisture could accumulate and create an environment conducive to mold growth.
 - c. Flooring to be fully adhered to the concrete slab in all locations eliminating the possibility of waves or wrinkles forming caused by the floor shifting, moving or by rolling loads displacing it.
 - 6. Traffic-Surface Texture: Wood visual shall have wood grain embossed texture for a genuine wood appearance and Solid colors to have "pebbled" embossed texture for an attractive appearance.

7. Bacteriostatic and Fungicidal Treatment: Manufacturer's factory-applied permanent treatment throughout the flooring material which can improve indoor air quality and reduce asthma and allergy risks associated with bacterial and mold growth.
 - a. Basis-of-Design Product: Gerflor Sanosol
8. Applied Finish: Manufacturer's, factory-applied, permanent and UV-cured.
 - a. No-Wax finish: Published product literature identifying factory applied finish as, "No-Wax-Just clean and rinse"
 - b. Basis-of-Design Product: PUR Protect.
9. Field-Applied Finishes: None required and not allowed.
10. Roll Size:
 - a. Roll Width: Rolls to be a minimum width of 59 inches (1.5 m) wide.
 - b. Roll Length:
 - 1) Wood visual rolls to be a minimum length of 86 feet, 6 inches (26.4 m) to minimize the number of end-seams.
 - 2) Solid color rolls to be a minimum length of 67 feet, 3 inches (20.5 m) to minimize the amount of waste if accent colors are selected for borders, keys or center circle.
11. Color and Pattern:
 - a. As selected by Architect from manufacturer's full range of colors/patterns.
 - b. Wood pattern shall accurately simulate the true visual appearance of natural wood strip flooring.
 - 1) Pattern shall replicate random-length stock by simulating non-uniform board lengths.
 - 2) Wood pattern shall not include a dark line simulating edges or ends of individual boards.
 - 3) Surface texture shall simulate realistic wood grain and not be raised or "pebbled" embossing.

D. Performance Criteria:

1. ASTM F 2772-11 Indoor Sport Floor Standard:
 - a. Provide certification of compliance for the four ASTM F2772 Indoor Sport Floor Standard performance categories:
 - 1) Shock Absorption/Force Reduction:

- a) Class C2 (22% to 33%). Pass
- 2) Ball Bounce:
 - a) Minimum 90%: Pass
- 3) Surface effect/Coefficient of Friction:
 - a) Between 80-110: Pass
- 4) Vertical deformation:
 - a) Maximum 3.5mm: Pass
- 2. Static Load Limit/Residual Indentation: ASTM F1303; Pass Static Load Resistance requirement of less than 0.005 inch of residual indentation as tested per ASTM F 970 at prescribed test load of 175 p.s.i.
- 3. Sound Insulation: EN ISO 717; 17 dB.
- 4. Fire Performance: ASTM E 648; Greater than 0.45 W/cm², Class 1.
- 5. Surface Maintenance Requirements: No-wax surface requiring only cleaning and rinsing.
- 6. Slab Moisture Design Tolerance: Maximum relative humidity (RH) of 95% when tested according to ASTM F 2170.

2.2 ACCESSORIES

- A. Trowelable patching compound for standard slab surface preparation: Latex-modified, hydraulic-cement-based formulation provided by flooring manufacturer.
 - a. Basis-of-Design Product: GerPatch, Gerflor's patching compound.
 - b. Slab moisture tolerance: Same slab moisture tolerance as the adhesive.
- B. Adhesives: Water-resistant type recommended by athletic flooring manufacturer for substrate and conditions indicated.
 - 1. Basis-of-Design Product: Gerflor Gerfix Spray Adhesive.
 - a. Moisture Resistance Limit: 95% relative humidity (RH) when tested according to ASTM F 2170
 - b. Coverage Type: Full-spread application for 100% coverage.
- C. Heat Welding Rod: As supplied by indoor resilient flooring manufacturer. Color shall blend with resilient flooring color.
- D. Game-Line and Marker Paint: Complete system including primer, compatible with flooring and recommended by flooring and paint manufacturers.

- E. Satin Anodized Aluminum Threshold by Flooring Manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify the Following:

1. The area in which the indoor resilient flooring will be installed is dry, weather-tight and in compliance with specified requirements.
2. Permanent heat, lighting and ventilation systems are installed and operable.
3. Other work, including overhead work, that could cause damage, dirt, dust or otherwise interrupt installation has been completed or suspended.
4. No foreign materials or objects are present on the substrate and that it is clean and ready for preparation and installation.
5. Tests to verify that the moisture evaporative rate or substrate relative humidity is within the specified ranges.
6. The concrete slab surface pH level is within the specified range.
7. The concrete slab surface deviation is no greater than 3/16 inch within 10 feet (3.2 mm within 3 m) when measured according to ASTM E 1155.
8. The concrete slab complies with ACI 302.2R for concrete design including use of a low-permeance vapor barrier directly beneath the concrete subfloor with sealed penetrations.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written recommendations to ensure proper adhesion of resilient flooring system.
- B. Concrete Substrates: Prepare according to ASTM F 710.
 1. Verify that substrates are dry and free of sealers, curing compounds and other additives. Remove coatings and other substances that are incompatible with adhesives using mechanical methods recommended by manufacturer.
 2. Alkalinity Testing: Perform pH testing according to ASTM F 710. Proceed with installation only if pH readings are between 7.0 and 8.5.
- C. Moisture Testing: Perform ASTM F 2170 relative humidity test and proceed with installation only after substrates have maximum relative humidity (RH) of 95%.

- D. Use Gerflor's GerPatch trowelable concrete based patching compound with the same moisture vapor tolerance as the adhesive to fill depressions, holes, cracks, grooves or other irregularities in substrate.
- E. Place flooring and installation materials into spaces where they will be installed at least 48 hours before installation. Install flooring materials only after they have reached the same temperature as space where they are to be installed.
- F. Sand the surface of the concrete slab.
- G. Sweep and then vacuum substrates immediately before installation. After cleaning, examine substrate for moisture, alkaline salts, grit, dust or other contamination. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 SHEET MULTI-PURPOSE FLOORING INSTALLATION

A. General:

1. Comply with resilient flooring manufacturer's installation instructions.
2. Take necessary precautions to minimize noise, odors, dust and inconvenience during installation.
3. Fit flooring neatly and tightly to vertical surfaces, equipment anchors, floor outlets, and other interruptions of floor surface.
4. Extend flooring into toe spaces, door reveals, closets, and similar openings unless otherwise indicated.

B. Lay out flooring as follows:

1. Minimize number of seams and place them inconspicuous areas.
2. Locate seams as shown on approved Shop Drawings

C. Adhered Flooring: Attach products to substrates using a full-spread of adhesive applied to substrate to comply with adhesive and flooring manufacturer instructions.

D. Vinyl Sheet Flooring Seams: Finish seams to produce surfaces flush with adjoining flooring surfaces. Comply with ASTM F 1516. Rout joints and use heat welding rod to permanently and seamlessly fuse sections together.

3.4 GAME LINES AND LOGOS

A. Lay out game lines and logos to comply with rules and diagrams published by National Federation of State High School Association for the sports activities indicated.

B. Mask flooring at game lines and logos, and apply paint of color indicated to produce clean, sharp and distinct edges.

3.5 CLEANING AND PROTECTION

- A. Perform the following operations after completing resilient flooring installation:
 - 1. Remove marks and blemishes from flooring surfaces.
 - 2. Sweep and then vacuum flooring.
 - 3. Damp-mop flooring to remove soiling.
- B. Protect flooring from abrasions, indentations, and other damage from subsequent operations and placement of equipment, during remainder of construction period.

END OF SECTION

SECTION 099123 - INTERIOR PAINTING

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. This Section includes surface preparation and the application of paint systems on the following interior substrates:
 - 1. Concrete masonry units (CMU).
 - 2. Steel.
 - 3. Galvanized metal.
 - 4. Gypsum board.
- B. Related Sections include the following:
 - 1. Division 05 Sections for shop priming of metal substrates with primers specified in this Section.
 - 2. Division 08 Sections for factory priming windows and doors with primers specified in this Section.
 - 3. Division 09 painting Sections for special-use coatings.
 - 4. Division 09 Section "Exterior Painting" for surface preparation and the application of paint systems on exterior substrates.
- C. All fire and/or smoke barriers or walls shall be effectively and permanently identified with signs or stenciling above a decorative ceiling and/or in concealed spaces with letters a minimum of two (2) inches high on a contrasting background spaced a maximum of twelve (12) feet on center with a minimum of one per wall or barrier. The hourly rating shall be included on all rated barriers or walls. Suggested wording, "(__) Hour Fire and Smoke Barrier – Protect All Openings".
 - 1. Required for one hour rated wall and two hour rated walls.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Initial Selection: For each type of topcoat product indicated.
- C. Product List: For each product indicated, include the following:
 - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 - 2. Printout of current "MPI Approved Products List" for each product category specified in Part 2, with the proposed product highlighted.
- D. Moisture Testing: Provide written results of moisture testing as defined in Article 3.1.B prior to installation of paint.

1.4 QUALITY ASSURANCE

- A. MPI Standards:
 - 1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
 - 2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.
- B. Mockups: Apply benchmark samples of each paint system indicated and each color and finish selected to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Architect will select one surface to represent surfaces and conditions for application of each paint system specified in Part 3.
 - a. Wall and Ceiling Surfaces: Provide samples of at least 100 sq. ft. (9 sq. m).
 - b. Other Items: Architect will designate items or areas required.
 - 2. Apply benchmark samples after permanent lighting and other environmental services have been activated.
 - 3. Final approval of color selections will be based on benchmark samples.
 - a. If preliminary color selections are not approved, apply additional benchmark samples of additional colors selected by Architect at no added cost to Owner.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F (7 deg C).
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.

1.6 PROJECT CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.

1.7 EXTRA MATERIALS

- A. Furnish extra materials described below that are from same production run (batch mix) as materials applied and that are packaged for storage and identified with labels describing contents.
 - 1. Quantity: Furnish an additional 5 percent, but not less than 1 gal. (3.8 L) of each material and color applied.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include the following:
 - 1. Benjamin Moore & Co.
 - 2. ICI Paints.
 - 3. Porter Paints.
 - 4. PPG Architectural Finishes, Inc.
 - 5. Sherwin-Williams Company (The).

2.2 PAINT, GENERAL

A. Material Compatibility:

1. Provide materials for use within each paint 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. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

B. Colors: As selected by Architect from manufacturer's full range.

2.3 BLOCK FILLERS

A. Interior/Exterior Latex Block Filler: MPI #4.

1. VOC Content: E Range of E2 and/or E3.

2.4 METAL PRIMERS

A. Alkyd Anticorrosive Metal Primer: MPI #79.

1. VOC Content: E Range of E1 and/or E2.

B. Quick-Drying Alkyd Metal Primer: MPI #76.

1. VOC Content: E Range of E1, E2 and/or E3.

C. Waterborne Galvanized-Metal Primer: MPI #134.

1. VOC Content: E Range of E1, E2 and/or E3.
2. Environmental Performance Rating: EPR 1, EPR 2 and/or EPR 3.

2.5 PRIMERS/SEALERS

A. Interior Latex Primer/Sealer: MPI #50.

1. VOC Content: E Range of E1, E2 and/or E3.
2. Environmental Performance Rating: EPR 1, EPR 2 and/or EPR 3.

2.6 LATEX PAINTS

- A. High-Performance Architectural Latex (Low Sheen): MPI #138 (Gloss Level 2).
 - 1. VOC Content: E Range of E1, E2 and/or E3.
 - 2. Environmental Performance Rating: EPR 4, EPR 5 and/or EPR 6.
- B. High-Performance Architectural Latex (Eggshell): MPI #139 (Gloss Level 3).
 - 1. VOC Content: E Range of E2 and/or E3.
 - 2. Environmental Performance Rating: EPR 5 and/or EPR 6.
- C. High-Performance Architectural Latex (Semigloss): MPI #141 (Gloss Level 5).
 - 1. VOC Content: E Range of E1, E2 and/or E3.
 - 2. Environmental Performance Rating: EPR 5, EPR 6 and/or EPR 7.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - 1. Masonry (Clay and CMU): 12 percent.
 - 2. Gypsum Board: 12 percent.
- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
 - 1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.

- B. Remove plates, machined surfaces, and similar items already in place that are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
 - 2. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
- C. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers as required to produce paint systems indicated.
- D. Concrete Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. Steel Substrates: Remove rust and loose mill scale. Clean using methods recommended in writing by paint manufacturer.
- F. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.
- G. Gypsum Board Substrates: Do not begin paint application until finishing compound is dry and sanded smooth.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions.
 - 1. Use applicators and techniques suited for paint and substrate indicated.
 - 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 - 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.

- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- E. Painting Mechanical and Electrical Work: Paint items exposed in equipment rooms and occupied spaces including, but not limited to, the following:
 - 1. Mechanical Work:
 - a. Uninsulated metal piping.
 - b. Uninsulated plastic piping.
 - c. Pipe hangers and supports.
 - d. Tanks that do not have factory-applied final finishes.
 - e. Visible portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets.
 - f. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
 - g. Mechanical equipment that is indicated to have a factory-primed finish for field painting.
 - 2. Electrical Work:
 - a. Switchgear.
 - b. Panelboards.
 - c. Electrical equipment that is indicated to have a factory-primed finish for field painting.

3.4 FIELD QUALITY CONTROL

- A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure at any time and as often as Owner deems necessary during the period when paints are being applied:
 - 1. Owner will engage the services of a qualified testing agency to sample paint materials being used. Samples of material delivered to Project site will be taken, identified, sealed, and certified in presence of Contractor.
 - 2. Testing agency will perform tests for compliance with product requirements.
 - 3. Owner may direct Contractor to stop applying paints if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying-paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, 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 painted surfaces.

3.6 INTERIOR PAINTING SCHEDULE

A. CMU Substrates:

- 1. High-Performance Architectural Latex System: MPI INT 4.2D.
 - a. Prime Coat: Interior/exterior latex block filler; MPI 4.
 - b. Intermediate Coat: High-performance architectural latex matching topcoat; MPI 139, 141.
 - c. Topcoat: High-performance architectural latex (eggshell) (semigloss); MPI 139, 141.

B. Steel Substrates:

- 1. High-Performance Architectural Latex System: MPI INT 5.1R.
 - a. Prime Coat: Alkyd anticorrosive metal primer; MPI 79.
 - b. Intermediate Coat: High-performance architectural latex matching topcoat; MPI 141.
 - c. Topcoat: High-performance architectural latex (semigloss); MPI 141.

C. Steel Substrates:

- 1. High-Performance Architectural Latex System: MPI INT 5.3M.
 - a. Prime Coat: Waterborne galvanized-metal primer; MPI 134.
 - b. Intermediate Coat: High-performance architectural latex matching topcoat; MPI 141.
 - c. Topcoat: High-performance architectural latex (semigloss); MPI 141.

D. Gypsum Board Substrates:

1. High-Performance Architectural Latex System: MPI INT 9.2B.
 - a. Prime Coat: Interior latex primer/sealer; MPI 50.
 - b. Intermediate Coat: High-performance architectural latex matching topcoat; MPI 138, 139.
 - c. Topcoat: High-performance architectural latex (low sheen) (eggshell); MPI 138, 139.

END OF SECTION 099123