BECKER MORGAN GROUP

ARCHITECTURE ENGINEERING

ADDENDUM 02
TO CONTRACT DOCUMENTS

Date: 09/26/18

To: Bidders

From: Becker Morgan Group, Inc.

Copies: State of Delaware, Office of Management and Budget
Division of Facilities Management

Project: **Delaware veterans Home Addition & Renovations**
Milford, Delaware

Project Number: BMG Project No. 2005017.06
State Contract No. 2-14-54V02
VA FAI Contract No. 10-002

Subject: **ADDENDUM NO. 02**

NOTICE: Attention is called to the following item(s), effective as of the date above, which shall be added to, deleted from, or changed in the contract documents dated 9/17/18 – Issue for Bid, and any previously issued addenda, thereby incorporating these items into the contract.

RFI's
(Italicized questions still pending)
(Shaded questions answered in previous Addenda)

	Delmarva Veteran Builders RFI 1
Item	Description
1	Q: At pre-bid meeting, consideration was proposed for consolidation of Sub Contractor list under DE Code Title 29, section 6962 (d)(10) as follows – please advise if any update. 1. Sitework 2. Concrete 3. Masonry 4. Structural Steel 5. CFMF 6. Roofing 7. Flooring 8. Foodservice 9. HVAC 10. Plumbing 11. Electrical 12. Fire Protection A: See revised Sub Contractor List per Spec Section 004100 Bid Form-2017, Addendum No. 1, dated 9/21/18.
2	Q: At pre-bid meeting, consideration was proposed for delaying bid-due time later in day – please

	advise if any update. A: Bids are due at 11:30am on Tuesday, October, 9, 2018	
	Delmarva Veteran Builders RFI 2	
Item	Description	
1	Q: Is it assumed the only required affidavit for Drug Testing at bid will be from the General Contractor or will each subcontractor be required to submit affidavit as well? A: Only General Contractor affidavit for Drug Testing is required to be submitted with bid.	
	Delmarva Veteran Builders RFI 3	
Item	Description	
	Q: Provide specification for resinous flooring and base. A: Resinous Flooring noted on Drawing A105 to be Vinyl Sheet Flooring, spec section 096516, see revised drawing A105, Addendum 01, dated 9/21/18.	
	Guardian Environmental Services RFI 1	
Item	Description	
1	Q: On door schedule, it calls out for doors 1172D/1 and 1172D/2 to be HM. On the door hardware schedule, it calls out for these doors and frames to be aluminum. I see no other aluminum doors listed anywhere and there is a spec for aluminum doors and frames. Are these aluminum or HM? Please advise. A: Doors 1172D/1 and 1172D/2 to be HM doors.	
	Richard Y. Johnson RFI 1	
Item	Description	
1	Q: Drawing A105-Finish Floor Plan: In the finish schedule and legend it lists "resinous flooring", however, the specifications do not include a section for this material. Please advise. A: Resinous Flooring to be Vinyl Sheet Flooring, spec section 096516, see revised drawing A105, Addendum 01, dated 9/21/18.	
	Conventional Builders RFI 1	
Item	Description	
1	Q: Drawing A105 Finish Schedule reference specifications HPC 099600, can specifications be issued? A: See Spec Section 099600 – High-Performance Coatings, Addendum No. 2, dated 9/26/18.	
2	Q: Drawing A401 calls for acrylic wall panels, can specification be issued? A: See Spec Section 060660 – Plastic Fabrications, Addendum No. 2, dated 9/26/18.	
3	Q: Drawing A401 detail 2, calls for a SS-1 Top Cap, what material is SS-1? A: SS-1 is spec'd in Spec Section 123661.16, please refer to that section for material.	
4	*Q: Drawing A401 detail 2, shows decorative columns, can a specification be issued? How do these columns attach? Details are needed.* *A:*	
5	Q: Drawing A401 detail 2, shows box trim at radius walls; can details be issued showing material and attachments? A: Base for Detail 2/A401 to be RB-2; see revised Spec Section 096513 – Resilient Base and Accessories, date 9/26/18.	
6	Q: Specification 068200 composite trim, it appears all soffit and trim on exterior of building are metal. Where are composite trim used? A: Spec 068200 Composite Trim is for the faux wood truss located in the Private Dining.	
7	Q: Drawing A402 detail 11, is showing crown molding. Will this be part of the case work? A: Yes, crown molding is part of the case work.	
8	Q: Drawing A303 shows 6x6 posts, can details be issued on bottom attachment? Also will the 6x6 be treated or PVC? Will the 4x4 at top of 6x6 be treated as well?	

	A: The attachment for the 6x6 PT posts are shown on 1/S101, Simpson Strong Tie ABU66's. The 6X6 pots and the 4x at top of 6x6 to be treated wood.	
9	Q: Drawing A402 shows wood trusses at 33' inside dimension of room is 33', what supports the truss? A: See Spec Section 068200 Composite Trim for the product data of the faux wood truss.	
10	Q: Will exterior wall require spray foam and blue skin? A: For weather resistive barrier, basis of design is Tyvek Commercial Wrap per spec section 072500-2.1. For continuous insulation, 1" rigid insulation, per spec section 072100-2.1	
11	Q: Drawing A101 at new site wall, can a foundation drawing be issued? A: The foundation wall (Site Wall) detail is 6/S501. Site wall is documented on architectural and civil plans for layout.	
12	Q: Will the site wall be in the base bid? A: Yes, site wall is in the base bid.	
13	Q: Drawing A201 detail 8, can a specification be issued for aluminum fence? A: See Spec Section 323119 - Decorative Metal Fences and Gates	
	Delmarva Veteran Builders RFI 4	
Item	Description	
1	Q: Confirm finish floor material for new walk-in cooler/freezer and provide spec as needed. A: See spec section 114000-3.6 – Item #4	
	Richard Y. Johnson RFI 2	
Item	Description	
1	Q: Section 1,2,3 on A303 and Sections 1,2 on A304 and Detail 7 on A504 indicated FRT plywood sheathing. However, Section 1,2 on A302 indicate plywood sheathing. Should these areas be FRT plywood as well? A:Yes, Section 1 and 2 on A302 to be FRT plywood sheathing.	
2	Q: On Elevation drawings A201, a wood trellis is called out. There is a specification 066030 Exterior PVC Pergolas provided. Should the "wood trellis" be "exterior PVC"? A: No, Wood Trellis to be PT wood, painted. Delete spec section 066030 Exterior PVC Pergolas.	
3	*Q: Is there a Specification for the square "Decorative Columns" as indicated on A401 and A402?* *A:*	
	Guardian Environmental Services RFI 2	
Item	Description	
1	Q: It appears there are some discrepancies on the door schedule compared to the elevations. Door Type A is shown on the elevation to have no glazing, however several Type A doors within the door schedule are scheduled to have glazing. Also, they are commented as existing to remain. If they are existing to remain, do these doors require glazing and hardware, or are they already glazed? Doors 1151B/1 and 1151C/1 are schedule to have tempered glass and insulated glass on fire rated doors, where other doors with fire ratings are scheduled to receive fire glass. Please advise the correct type of door and glazing for these doors. A: If door is noted "EXISTING TO REMAIN", these doors do not require new glazing or new hardware; Door is to remain as is. Doors 1151B/1 and 1151C/1 to have no glazing. They will be Door Type 'A'.	
	Richard Y. Johnson RFI 3	
Item	Description	
1	Q: Detail 4/a401 indicates "Acrylic Wall Panels" and Section 7/A402 indicates "Acrylic Wall Panels" with "Single Point Supports". Are there specifications/model numbers for these	

	materials? A: See Spec Section 060660 – Plastic Fabrications, Addendum No. 2, dated 9/26/18.	

PROJECT MANUAL CHANGES:

Item	Description
1	Spec Section 000110 – Table of Contents: Division 06 – Wood, Plastic, and Composites, Add "060660 Plastic Fabrications 4". Division 06 – Wood, Plastic, and Composites, Delete "062030 Exterior PVC Pergolas 10". Division 09 – Finishes, Add "099600 High-Performance Coatings 6".
2	Spec Section 060660 – Plastic Fabrications: Add Spec Section 060660 – Plastic Fabrications, dated 9/26/18, Addendum No. 2
3	Spec Section 099600 – High-Performance Coatings: Add Spec Section 099600 – High-Performance Coatings, dated 9/26/18, Addendum No. 2
4	Spec Section 062030 – Exterior PVC Pergolas: Delete Spec Section 062030 Exterior PVC Pergolas in its entirety.
5	Spec Section 096513 – Resilient Base and Accessories: Delete Spec Section 096513 – Resilient Base and Accessories in its entirety, Substitute revised Spec Section 096513 – Resilient Base and Accessories, date 9/26/18.

DRAWING CHANGES:

Item	Description
1	Drawing A401 – Interior Elevations: Elevation 2; Delete 'WB-2' in its entirety, Substitute with 'RB-2'.
2	Drawing A501 – Wall Types and Door and Window Types and Schedule: Door Schedule; Delete 'TEMP', 'FG', or 'IG' at all Type 'A' Doors, Substitute with '-'.

CHANGES TO ADDENDA

Item	Description
	NONE

<u>LIST OF ATTACHMENTS</u>

Item	Description	
1	060660 – Plastic Fabrications	9/26/18
2	096513 – Resilient Base and Accessories	9/26/18
3	099600 – High-Performance Coatings	9/26/18

END OF ADDENDUM 02

cc: All attendees

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SECTION 06 06 60 – PLASTIC FABRICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the Plastic Fabrications located in Secondary Dining Room 1151D.

1.3 SUBMITTALS

A. General: Submit the following in accordance with conditions of contact and Division 1 specification section 01 33 00 "Submittal Procedures".

B. Product Data: Submit manufacturer's product data; include product description, fabrication information, and compliance with specified performance requirements.

C. Submit product test reports from a qualified independent 3rd party testing agency indicating each type and class of panel system complies with the project performance requirements, based on comprehensive testing of current products. Previously completed test reports will be acceptable if for current manufacturer and indicative of products used on this project.

1. Test reports required are:
   a. Rate of Burning (ASTM D 635)
   b. Self-Ignition Temperature (ASTM D 1929)
   c. Density of Smoke (ASTM D 2843)
   d. Flame spread and Smoke developed testing (ASTM E 84)
   e. Room Corner Burn Test (NFPA 286)

D. Shop Drawings: Include plans, elevations, sections, panel dimensions, details, and attachments to other work.

E. Samples for Initial Selection:

1. Submit minimum 2-inch by 2-inch samples. Indicate full color, texture and pattern variation.

F. Samples for Verification:

1. Submit minimum 4-inch by 4-inch sample for each type, texture, pattern and color of solid plastic fabrication.

G. Maintenance Data: Submit manufacturer's care and maintenance data, including care, repair and cleaning instructions. Include in Project closeout documents.

1.4 QUALITY ASSURANCE

A. Manufacturers Qualifications

1. Materials and systems shall be manufactured by a company continuously and regularly employed in the manufacture of specified materials for a period of at least five (5) consecutive years and which can show evidence of those materials being satisfactorily used on at least six (6) projects of similar size, scope and location. At least three (3) of the projects shall have been successful for use five (5) years or longer.
2. Manufacturer must offer a documented reclaim process that will take back, at the manufacturers cost, panels that are at their end-of life cycle.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver Plastic Fabrications, systems and specified items in manufacturer's standard protective packaging.

B. Do not deliver Plastic Fabrications, system, components and accessories to Project site until areas are ready for installation.

C. Store materials in a flat orientation in a dry place that is not exposed to exterior elements.

D. Handle materials to prevent damage to finished surfaces. Provide protective coverings to prevent damage or staining following installation for duration of project.

E. Before installing Plastic Fabrications, permit them to reach room temperature.

1.6 PROJECT CONDITIONS

A. Environmental Limitations: Do not install Solid Polymer Fabrications until spaces are enclosed and weatherproof, and ambient temperatures and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

1.7 WARRANTY

A. Manufacturer's Special Warranty on Plastic Fabrications: Manufacturer's standard form agreeing to repair or replace units that fail in material or workmanship within the specified warranty period.

B. Warranty Period: 2 year after the date of substantial completion.

C. The warranty shall not deprive the owner of other rights or remedies the Owner may have under other provisions of the Contract Documents, and is in addition to and runs concurrent with other warranties made by the Contractor under the requirements of the Contract Documents.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design Products: Subject to compliance with requirements, provide Varia Ecoresin as manufactured by 3form, Inc. Contact Elizabeth Baldoni (917)923-9977 or equivalent product approved by architect prior to bidding.

2.2 ACRYLIC WALL PANELS (AWP-1) PRODUCTS

A. Varia™ produced from ecoresin™ Sheet

1. Engineered polyester resin
2. Sheet Size: Maximum 4' x 10'
3. Thickness: Minimum 3/8"
4. Texture: Wave Price group C
5. Color: To be selected by Architect from manufacturer's full range
6. Surface finish: manufacturer's standard
7. Edge Sealing: not required
8. UV Protection: Required

B. Interlayer Materials: Compatible with polyesters and bonding process to create a monolithic sheet of material when complete.

C. Sheet minimum performance attributes:

1. Rate of Burning (ASTM D 635). Material must attain CC1 Rating for a nominal thickness of 1.5 mm (0.060 in.) and greater.
2. Self-Ignition Temperature (ASTM D 1929). Material must have a Self-ignition temperature greater than 650°F.
3. Density of Smoke (ASTM D 2843). Material must have a smoke density less than 75%.
4. Flame spread and Smoke developed testing (ASTM E 84). Material must be able to meet a level of Class A (Flame spread less than 25 and smoke less than 450) at thickness of 1".
5. Room Corner Burn Test (NFPA 286). Material must meet Class A criteria at ¼" thickness as described by the 2003 *International Building Code*.
6. Extent of Burning (UL 94). Must submit UL card.
7. Impact strength. Minimum impact strength test as measured by ASTM D 3763 of 20 ft. lbs. (for durability, shipping, installation, and use).
8. Safety Glazing. Material must attain a Class A impact rating in accordance with ANSI Z97.1-2004 at 1/8" thickness.
9. UPITT Test for Combustion Product Toxicity: Product must be recorded as "not more toxic than wood".
10. Dynamic environmental testing (ASTM standards D 5116 and D 6670). Panels must not have detectable VOC off-gassing agents and must be have Greenguard™ Indoor Air Quality certified.

2.3 FABRICATION

A. General: Fabricate Plastic Fabrications to designs, sizes and thicknesses indicated and to comply with indicated standards. Sizes, profiles and other characteristics are indicated on the drawings.

B. Comply with manufacturer's written recommendations for fabrication.

C. Machining: Acceptable means of machining are listed below. Ensure that material is not chipped or warped by machining operations.

1. Sawing: Select equipment and blades suitable for type of cut required.
2. Drilling: Drills specifically designed for use with plastic products.
3. Milling: Climb cut where possible.
4. Routing

5. Tapping

2.4 MISCELLANEOUS MATERIALS

A. General: Provide products of material, size, and shape required for application indicated, and with a proven record of compatibility with surfaces contacted in installation.

B. Hardware: Source hardware and panels from same manufacturer. Use 3form, Inc. Hidden Point Support. Hidden Point Support inserts shall be factor installed. Provide number of attachments per panel as recommended by the manufacturer.

C. Cleaner: Type recommended by manufacturer.

D. Fasteners: Use screws designed specifically for plastics. Self-threading screws are acceptable for permanent installations. Provide threaded metal inserts for applications requiring frequent disassembly such as light fixtures.

E. Bonding Cements: May be achieved with solvents or adhesives, suitable for use with product and application.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions where installation of Plastic Fabrications will occur, with Installer present, for compliance with manufacturer's requirements. Verify that substrates and conditions are satisfactory for installation and comply with requirements specified.

3.2 INSTALLATION

A. General: Comply with manufacturer's written instructions for the installation of Plastic Fabrications.

B. Manufacturer's shop to fabricate items to the greatest degree possible.

C. Utilize fasteners, adhesives and bonding agents recommended by manufacturer for type of installation indicated. Material that is chipped, warped, hazed or discolored as a result of installation or fabrication methods will be rejected.

D. Install components plumb, level and rigid, scribed to adjacent finishes, in accordance with approved shop drawings and product data.

E. Form field joints using manufacturer's recommended procedures. Locate seams in panels so that they are not directly in line with seams in substrates.

3.3 CLEANING AND PROTECTION

A. Protect surfaces from damage until date of substantial completion. Repair work or replace damaged work, which cannot be repaired to Architect's satisfaction.

End of Section 06 06 60

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. Thermoset-rubber base.
2. Thermoplastic-rubber base.
3. Vinyl base.
4. Rubber molding accessories.
5. Vinyl molding accessories.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For each exposed product and for each color and texture specified, not less than 12 inches (300 mm) long.

C. Samples for Initial Selection: For each type of product indicated.

D. Samples for Verification: For each type of product indicated and for each color, texture, and pattern required in manufacturer's standard-size Samples, but not less than 12 inches (300 mm) long.

E. Product Schedule: For resilient base and accessory products. Use same designations indicated on Drawings.

1.4 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials, from the same product run, 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.

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 FIELD 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 periods:

1. 48 hours before installation.
2. During installation.
3. 48 hours after installation.

B. After installation and 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.

PART 2 - PRODUCTS

2.1 THERMOSET-RUBBER BASE RB-1

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Flexco.
2. Johnsonite; a Tarkett company.
3. Roppe Corporation, USA.

B. Product Standard: ASTM F 1861, Type TS (rubber, vulcanized thermoset), Group I (solid, homogeneous).

1. Style and Location:
   a. Style B, Cove: Provide in areas with resilient floor coverings.

C. Thickness: 0.125 inch (3.2 mm).

D. Height: 4 inches (102 mm).

E. Lengths: Cut lengths 48 inches (1219 mm) long or coils in manufacturer's standard length.

F. Outside Corners: Job formed or preformed.

G. Inside Corners: Job formed or preformed.

H. Colors: To be selected from manufacturer's full range of standard offering.

2.2 THERMOSET-RUBBER BASE RB-2

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:

1. Flexco.
2. Johnsonite; a Tarkett company.
3. Roppe Corporation, USA.

B. Product Standard: ASTM F 1861, Type TS (rubber, vulcanized thermoset), Group I (solid, homogeneous).

1. Style and Location:
   a. Basis of Design: Johnsonite Mandalay, Straight: Provide at half wall.

C. Thickness: 0.375 inch (9.52 mm).

D. Height: 6 inches (15.24 mm).

E. Lengths: Cut lengths 48 inches (1219 mm) long or coils in manufacturer's standard length.

F. Colors: 08 Icicle.

G. Flexibility: Shall not show cracks or fatigue when bent around a ¼" diameter.

2.3 RUBBER MOLDING ACCESSORY

A. Description: Rubber reducer strip for resilient floor covering, transition strips.

B. Locations: Provide rubber molding accessories at changes in floor covering material.

C. Colors and Patterns: To be selected from manufacturer's full range of standard offering.

2.4 INSTALLATION MATERIALS

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

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

C. Metal Edge Strips: Extruded aluminum with mill finish, nominal 2 inches (50.8 mm) wide, of height required to protect exposed edges of flooring, and in maximum available lengths to minimize running joints.

D. Floor Polish: Provide protective, liquid floor-polish products 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.

1. 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.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

1. Installation of resilient products indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.

B. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.

C. Do not install resilient products until materials are the same temperature as space where they are to be installed.

1. At least 48 hours in advance of installation, move resilient products and installation materials into spaces where they will be installed.

D. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient products.

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 practical 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. Inside Corners: Use straight pieces of maximum lengths possible and form with returns not less than 6 inches (152 mm) in length.

a. Cope corners to minimize open joints.

3.4 RESILIENT ACCESSORY INSTALLATION

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

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

3.5 CLEANING AND PROTECTION

A. Comply with manufacturer's written instructions for cleaning and protecting resilient products.

B. Perform the following operations immediately after completing resilient-product installation:

1. Remove adhesive and other blemishes from surfaces.
2. Sweep and vacuum horizontal surfaces thoroughly.
3. Damp-mop horizontal 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 subject to wear and foot traffic until Substantial Completion.

END OF SECTION 096513

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SECTION 099600 - HIGH-PERFORMANCE COATINGS

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 surface preparation and the application of high-performance coating systems on the following substrates:

1. Interior Substrates:
   a. Gypsum board.

B. Related Requirements:
1. Section 099123 "Interior Painting" for general field painting.

1.3 DEFINITIONS

A. MPI Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.

B. MPI Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.

C. MPI Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product. Include preparation requirements and application instructions.

1. Include printout of current "MPI Approved Products List" for each product category specified, with the proposed product highlighted.
2. Indicate VOC content.

B. Samples for Initial Selection: For each type of topcoat product indicated.

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

1. Submit Samples on rigid backing, 8 inches (200 mm) square.
2. Apply coats on Samples in steps to show each coat required for system.
3. Label each coat of each Sample.

4. Label each Sample for location and application area.

D. Product List: Cross-reference to coating system and locations of application areas. Use same designations indicated on Drawings and in schedules. Include color designations.

1.5 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Coatings: 5 percent, but not less than 1 gal. (3.8 L) of each material and color applied.

1.6 QUALITY ASSURANCE

A. Mockups: Apply mockups of each coating system indicated 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 coating system.

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. Final approval of color selections will be based on mockups.

a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Architect at no added cost to Owner.

3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 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.

1.8 FIELD CONDITIONS

A. Apply coatings only when temperature of surfaces to be coated and ambient air temperatures are between 50 and 95 deg F (10 and 35 deg C).

B. Do not apply coatings 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.

C. Do not apply exterior coatings in snow, rain, fog, or mist.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Behr Process Corporation.
2. Benjamin Moore & Co.
3. PPG Paints.
4. Sherwin-Williams Company (The).

B. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products listed in the Exterior High-Performance Coating Schedule or Interior High-Performance Coating Schedule for the coating category indicated.

2.2 HIGH-PERFORMANCE COATINGS, GENERAL

A. MPI Standards: Products shall comply with MPI standards indicated and shall be listed in its "MPI Approved Products Lists."

B. Material Compatibility:

1. Materials for use within each paint system shall be 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, products shall be recommended in writing by topcoat manufacturers for use in paint system and on substrate indicated.
3. Products shall be of same manufacturer for each coat in a coating system.

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

2.3 SOURCE QUALITY CONTROL

A. Testing of Coating Materials: Owner reserves the right to invoke the following procedure:

1. Owner will engage the services of a qualified testing agency to sample coating materials. Contractor will be notified in advance and may be present when samples are taken. If coating materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.

2. Testing agency will perform tests for compliance with product requirements.
3. Owner may direct Contractor to stop applying coatings if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying coating materials from Project site, pay for testing, and recoat surfaces coated with rejected materials. Contractor will be required to remove rejected materials from previously coated surfaces if, on recoating with complying materials, the two coatings are incompatible.

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 the Work.

B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
   1. Gypsum Board: 12 percent.

C. Gypsum Board Substrates: Verify that finishing compound is sanded smooth.

D. Verify suitability of substrates, including surface conditions and compatibility, with existing finishes and primers.

E. Proceed with coating application only after unsatisfactory conditions have been corrected.

   1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

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

B. Remove hardware, covers, plates, and similar items already in place that are removable and 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.

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

   1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce coating systems indicated.

3.3 APPLICATION

A. Apply high-performance coatings according to manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual."

1. Use applicators and techniques suited for coating and substrate indicated.
2. Coat surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, coat surfaces behind permanently fixed equipment or furniture with prime coat only.
3. Coat backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
4. Do not apply coatings over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.

B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of the same material are to be applied. Tint undercoats to match color of finish coat, but provide sufficient difference in shade of undercoats to distinguish each separate coat.

C. If undercoats or other conditions show through final coat, apply additional coats until cured film has a uniform coating finish, color, and appearance.

D. Apply coatings to produce surface films without cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, or other surface imperfections. Produce sharp glass lines and color breaks.

3.4 FIELD QUALITY CONTROL

A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test coatings for dry film thickness.

1. Contractor shall touch up and restore coated surfaces damaged by testing.
2. If test results show that dry film thickness of applied coating does not comply with coating manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with coating manufacturer's written recommendations.

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 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 to work of other trades 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.

3.6 INTERIOR HIGH-PERFORMANCE COATING SCHEDULE

A. Gypsum Board Substrates (HPC-1):

1. Epoxy System:

a. Prime Coat: Primer sealer, latex, interior.

1) Basis of Design: Sherwin Williams ProMar 200 Zero VOC Interior Latex Primer, B28W2600, at 1.0 mils dry, per coat.

b. Intermediate Coat: Epoxy, matching topcoat.
c. Topcoat: Epoxy, eggshell.

1) S-W Pro Industrial Waterbased Catalyzed Epoxy Eggshell, B73-360 Series, at 2.0 to 4.0 mils (0.051 to 0.102 mm) dry, per coat.

END OF SECTION 099600