

May 20, 2019

ADDENDUM NO. 1

- RE: Concrete Floor Slab Replacement For Greenbrier Hall New River Community and Technical College Lewisburg, West Virginia West Virginia Higher Education Policy Commission Architect's Job No. 18045
- TO: Prospective Bidders
- FROM: ZMM, Inc. Architects and Engineers

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents.

ATTACH THIS ADDENDUM TO THE FRONT COVER OF THE PROJECT MANUAL AND ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE SPACE PROVIDED ON THE BID FORM.

PART 1 - INFORMATION FOR BIDDERS

A. Pre-Bid Meeting Sign-In Sheet is attached to this Addendum.

PART 2 - BIDDERS' QUESTIONS AT PRE-BID MEETING

Question No. 1: Has the existing floor tile and mastic been tested for hazardous materials?

- *Response No. 1 Response: No. The flooring was installing in the mid-1990s. The Owner will have the flooring and mastic tested.*
- Question No. 2: Will fuel burning equipment be allowed to be used inside the building, or will the use of all electric equipment be required?
 - Response No. 2 Response: Fuel burning equipment will be permitted to be used inside of the building, however the contractor must provide supplemental mechanical ventilation to remove fumes and carbon monoxide.
- Question No. 3: Can the bid form be restructured to include all work as base bid and include deductive alternates in lieu of additive alternates?
 - *Response No. 3 Response: No. The bid form has been revised and is included in this addendum and the alternates will be additive.*

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- Question No. 4: If under slab conduit or piping is encountered and damaged as a result of the removal of the concrete floor slab, who is responsible to repair / replace the damaged under slab utilities?
 - *Response No. 4 Response: The contractor is responsible to protect and repair/replace any damaged under slab conduit or utility.*

Question No. 5: Is the concrete floor slab thickness known?

- Response No. 5 Response: A Geotech report was conducted by American Geotech. The Geotech report noted existing slab thickness varying from 2" – 5" thick with overlay varying from 0.25" – 2" thick. The report is available to all bidders. Request the report from ZMM and the bidder must sign a release form prior to receiving the Geotech report.
- Question No. 6: Is the HVAC work part of this scope of work?
 - *Response No. 6 Response: There is some HVAC work as part of this project scope as shown in the Contract Documents.*
- Question No. 7: Is there a limit on the hours of construction?
 - *Response No.* 7 *Response: No. The Owner has assumed the work will be performed during the normal work hours.*
- Question No. 8: What if contaminants or hazardous materials are encountered under the floor slab?
 - *Response No. 8 Response: The Owner will have any hazardous materials removed under a separate contract.*

PART 3 - QUESTIONS SUBMITTED BY BIDDERS

- Question No. 1: Referring to Sheet A541 Partition Details, Sheet A541 General Note 3 & Specification section 054000 Cold-Formed Metal Framing: Are we to bid cold formed engineered framing or light gauge metal framing for the partition walls?
 - Response No. 1 Response: Interior non-load-bearing partition wall framing is specified in Section 054000.
- Question No. 2: Referring to Sheet MP130: Shall the Mechanical Scope of Work identified on this Sheet to be included in each Add Alternate # 1-4?
 - Response No. 2 Response: Yes. See sheet G040 for Alternate designations.
- Question No. 3: Referring to Sheet E151: Shall the Electrical Scope of Work identified on this Sheet to be included in each Add Alternate # 1-4?

Response No. 3 Response: Yes, for sheets E110 & E151. See sheet G040 for Alternate designations.

- Question No. 4: Referring to Sheet E151: Are we to include the (3) each new receptacles as noted with Keyed Note 3 in the Base Bid or with the Add Alternate # 3?
 - *Response No. 4 Response: Include with Alternate Bid #3.*

- Question No. 5: Referring to Sheet G040 Life Safety & Security Phasing Plan: The Phase 1 & Phase 2 Temporary Wall indicates the Contractor may be limited to a entry and egress from Exit "A". Will the Contractor be given any other ports of entry and exit for the material removal and replacement?
 - Response No. 5 Response: Contractor will have full entry access to Exit "A' and will be limited to this entry for construction operations. Temporary window removal would be acceptable on an as needed basis, as long as the building is secured daily and pests and wildlife and kept out of the building.
- Question No. 6: Referring to Specifications: Will a Resilient Tile Flooring & Resilient Base & Accessories Specification be provided?
 - Response No. 6 Response: Yes, it is included with this addendum.
- Question No. 7: Referring to Sheet A211 Finish Plan Schedule PT-1 Walls: For clarification are all the walls to be painted per Base Bid & each individual Add Alternate? For clarification are the door frames to be painted per Base Bid & each individual Add Alternate? Assuming any Scope of Work identified on the common wall of the corridor is to be included in Base Bid. Is this correct?
 - Response No. 7 Response: Base bid shall include all new finishes (including paint) in the Corridor. Painting of Corridor walls and door frames in base bid is only on the Corridor side of the partition. Each alternate will have painting as part of the alternate on the interior of each space.
- Question No. 8: Referring to Sheet A110 Demolition Plan & Sheet A110: There are walls being identified for removal on Sheet A110 and new walls being identified on Sheet A131. Will the ceilings be affected by this work and if so could a Ceiling Plan be provided?
 - Response No. 8 Response: See sheet G040 for Alternate designations. Ceilings are not affected by the wall removal. Walls shown to be demolished terminate at the bottom of lay-in acoustical grid ceilings, terminate approximately 1'-0" below lay-in acoustical grid ceilings, or terminate into the bottom of a gypsum board bulkhead / soffit.
- Question No. 9: Sheet A110 Demolition Plan Note 4 The note states the building will be occupied during renovations. The renovations will be noisy. Will the Contractor be requested to work premium hours due to the construction noise?
 - *Response No. 9 Response: No. The Owner has assumed the work will be performed during the normal work hours.*
- Question No. 10: Sheet A110 Demolition Plan Note 6 For clarification it is anticipated the concrete slab removal, excavation of materials should in no way should impact the structural integrity of any non-load bearing and load bearing walls are per the investigation of the Structural Engineer of Record. Is this correct?
 - Response No. 10 Response: It is anticipated that the slab removal will not impact the structural integrity of the building. We are assuming the floor slab is keyed into the exterior masonry wall so saw-cutting the floor slab along the exterior wall is shown for this reason.
- Question No. 11: Referring to Sheet A131 Detail 2 Section: Is it the intent to construct a low wall the entire length of the wall or just behind where the proposed unit heaters will be installed?

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- Response No. 11 Response: The intent is to replace the existing low walls behind the units. Most of the walls are continuous and not just located behind the units. This is reflected on the floor plan.
- Question No. 12: Referring to Bidding Documents 00300: The Bid Form does not match the associated Work referenced in Section 012300 "Alternates. Will a new Bid Form be provided?

Response No. 12 Response: Yes, it is provided with this addendum.

Question No. 13: Referring to Sheet G040 Life Safety & Phasing Plan: Could clarification on the Handicap Entrance be provided?

Response No. 13 Response: Exit 'B' will be the only ADA access into and out of the building during construction. This entrance must be maintained.

PART 4 - CLARIFICATIONS

A. Contractor shall provide a 6' high chain-link temporary fencing to protect a pedestrian path from the ADA parking spaces into the building. The fencing can be moved and reconfigured as needed during construction. Provide temporary signage marking ADA entry points around the construction area.

PART 5 - CHANGES TO SPECIFICATIONS

- A. REPLACE Form of Proposal dated 05/06/19 with Form of Proposal dated 05/17/19 as attached to this Addendum.
- B. ADD the following Specification Sections as attached to this Addendum:
 - 1. Section 096513 "Resilient Base and Accessories".
 - 2. Section 096159 "Resilient Floor Tile".

PART 6 - CHANGES TO DRAWINGS

- A. Sheet A211 Finish Plan Schedule Refer to Detail No. 3 Classroom Typical Floor Pattern and note this pattern is for all Classrooms scheduled to receive new VCT.
- B. Sheet A541 Partition and Stair Details Refer to General Note No. 3: Revise minimum stud gauge to 20 unless noted otherwise.

END OF ADDENDUM

Attachments:	Pre-Bid Meeting Sign-In Sheet	1 page
	Form of Proposal dated 05/17/19	6 pages
	Section 096513 "Resilient Base and Accessories"	5 pages
	Section 096519 "Resilient Floor Tile"	4 pages



PRE-BID MEETING SIGN-IN SHEET

New River CTC Floor Replacement #18045 May 17, 2019 @ 10:00a.m.

PLEASE PRINT
NAME. Phis DOZIER
FIRM: Danhill Construction Co.
ADDRESS: PO-BOX 685
CAULES BRIDGE, W.U. 25085
PHONE: 304-632-1600 FAX: 304-632-1501
EMAIL: Cdozier33 Pyphos. com
BIDDING CONTRACT FOR:
NAME: PENNER DAVIS
FIRM: AStech CORP
ADDRESS: 3400 FAlcond De
Charlestor UN 25312
PHONE: 304342-0545 FAX:
EMAIL: AStoch 50@ Hot mail. Com
BIDDING CONTRACT FOR:
NAME: Austin King
FIRM: Ageten Construction Co.
ADDRESS: 1200 St. Rt. 34
Auricane, by 25526
PHONE: 304-343- 5400 FAX:
EMAIL: AKENG @ AGSTEN CONSTRUCTION. COM
BIDDING CONTRACT FOR: 6
NAME: PARC DOVE
FIRM: SHOPE CONSTRUCTION CO.
ADDRESS: 1325 BLUEFIELD LE
BUSEFIELD, WIN 24701
PHONE Star Skiller AX: Sol-302 - 944
EMAIL: BID & SHOPERD-LOK
BIDDING CONTRACT FOR:

PLEASE PRINT

NAME: DERRICK SEAN	25
FIRM: FOSTER SUPPLY	
ADDRESS: Po Box 488	
Scott Depot v	NV 25560
PHONE: 304-553-6565	FAX: 304-755-8280
EMAIL: decars @ fiste	vsupply, com
BIDDING CONTRACT FOR:	Suppler
NAME:	
FIRM:	
ADDRESS:	
PHONE:	FAX:
EMAIL:	
BIDDING CONTRACT FOR:	
NAME:	
FIRM:	
ADDRESS:	
PHONE:	FAX:
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BIDDING CONTRACT FOR:	
NAME:	
FIRM:	
ADDRESS:	
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PHONE:	FAX:
EMAIL:	
BIDDING CONTRACT FOR:	



Concrete Floor Slab Replacement For Greenbrier Hall New River Community and Technical College

May 17, 2019

SECTION 00300 – FORM OF PROPOSAL

BID TO THE OWNER:	Community and Technical College System of West Virginia 1018 Kanawha Boulevard, East, Suite 700 Charleston, WV 25301
PROJECT:	RFB No. 19128 Concrete Floor Slab Replacement for Greenbrier Hall New River Community and Technical College Lewisburg, West Virginia
Bidder's Name:	

The undersigned, hereinafter called "Bidder," being familiar with and understanding the Bidding Documents, and also having examined the site and being familiar with all local conditions affecting the Project, hereby proposes to furnish all labor, material, equipment, supplies and transportation, and to perform all Work in accordance with the Bidding and Contract Documents within the time set forth below for the sum of:

BASE BID: \$

(Amount to be shown in both words and numbers. In the event of a difference between the written amount and the number amount, the written amount shall prevail.)

ALTERNATES:

The stated Base Bid is subject to the following additions or deductions for Alternates which the Owner may select. ('Provide' means 'furnish and install.' Include in bids below all related coordination and modification requirements associated with the Work of each Alternate.) Reference Section 012300 "Alternates".

Add-Alternate Bid No. 1 - To provide that portion of demolition and replacement construction for Classroom 112 designated as Alternate No. 1 as indicated on Drawings and as specified. If Alternate Bid No. 1 is accepted,

ADD the sum of:

(\$_____).

(\$_____).

Add-Alternate Bid No. 2 - To provide that portion of demolition and replacement construction for Office 110 and Massage Therapy 110A designated as Alternate No. 2 as indicated on Drawings and as specified. If Alternate Bid No. 2 is accepted,

ADD the sum of:	

Add-Alternate Bid No. 3 - To provide that portion of demolition and replacement construction for Classroom 109 and Classroom 109A designated as Alternate No. 3 as indicated on Drawings and as specified. If Alternate Bid No. 3 is accepted,

ADD the sum of:		
	(\$).	
Add-Alternate Bid No. 4 - To provide that portion of demolition a Corridor 111, Treatment Room Nos. 111A, 111B, 111C, and Ste Alternate No. 4 as indicated on Drawings and as specified. If Alternate	and replacement construction for orage 111C1 designated as ternate Bid No. 4 is accepted,	
ADD the sum of:		
	(\$).	
Add-Alternate Bid No. 5 - To provide that portion of demolition and replacement construction for Exterior Stairs at Exit 'E' designated as Alternate No. 5 as indicated on Drawings and as specified. If Alternate Bid No. 5 is accepted,		
ADD the sum of:		
	(\$).	

UNIT PRICES:

The contract sum shall be subject to the following Unit Prices for quantities which may be increased or decreased from the stated allowances. These Unit Prices include all materials, shipping, installation, tax, and contractor markup. Unit Prices may be stipulated in figures only. Provide means to provide and install. Replace means to remove existing, and to provide and install new item. Reference Section 012100 "Allowances".

Unit Price No. 1

For removal of unsatisfactory soil, disposal off-site, and replacement with satisfactory aggregate fill material. If the actual amount differs from the stated allowance,

ADD or DEDUCT \$ /Cubic Yard

SUBSTANTIAL AND FINAL COMPLETION OF THE WORK

The Bidder, if successful and awarded a contract, will receive a notice to proceed from the Owner on or before June 14, 2019 and agrees that all Work will start from date of Notice to Proceed and that the Work will be Substantially Complete in within 85 consecutive calendar days. Bidder also agrees to achieve Final Completion within 30 days thereafter. The Work is to be completed in phases as indicated on Drawings.

RESPECTFULLY SUBMITTED:

SIGNATURE:	Signature in Ink	DATE:
NAME:	Please Type or Print	Corporate Seal if Applicable
TITLE:		_
BIDDERS NAME: BIDDERS ADDRESS:		
TELEPHONE:		
EMAIL: CONTRACTOR"S LICENSE NO.:		

CONTRACTOR'S LICENSE

West Virginia Code §21-11-2 requires that all persons desiring to perform contractual work in West Virginia must be duly licensed. The West Virginia Contractor's Licensing Board is empowered to issue the contractor's license. Application for a contractor's license may be made by contacting the West Virginia Department of Labor, 1900 Kanawha Boulevard, East, Charleston, West Virginia 25305. Telephone: (304) 558-7890. West Virginia Code §21-11 requires any prospective Bidder to include the contractor's license number on their Bid. Successful Bidder will be required to furnish a copy of their contractor's license prior to issuance of a Purchase Order/Contract.

AFFIDAVITS (on the following pages) – TO BE SUBMITTED WITH BID

- PURCHASING AFFIDAVIT: West Virginia code §5A-3-10A states that no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than \$1000 in the aggregate. Please include purchasing affidavit to the bid.
- DRUG-FREE WORKPLACE CONFORMANCE AFFIDAVIT: This affidavit must be submitted with the Bid to comply with West Virginia Code §21-1D-5. Failure to include this affidavit to the bid shall result in disqualification of the Bid.

CERTIFIED DRUG-FREE WORKPLACE REPORT

In accordance with West Virginia Code §21-1D-7b, no less than once per year, or upon completion of the project, every contractor shall provide a certified report to the public authority which let the contract. That report must include each of the items identified in the Required Report Content section of the Certified Drug-Free Workplace Report Coversheet.

DISCLOSURE OF INTERESTED PARTIES TO CONTRACTS

Pursuant to West Virginia Code §6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of \$1 million or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

The Disclosure Form is available at the following URL: <u>http://www.ethics.wv.gov/Pages/forms.aspx</u>

VENDOR REGISTRATION AND DISCLOSURE STATEMENT

The successful Bidder must be a registered vendor with the West Virginia Department of Administration, Purchasing Division, prior to receiving a contract/purchase order. Vendor registration information is available at the following URL: http://www.state.wv.us/admin/purchase/vrc/wv1.pdf

LIQUIDATED DAMAGES

The Owner will suffer financial loss if the Work is not Substantially Complete within the Contract Time following the date established for commencement of the Work in the notice to proceed and/or purchase order. As liquidated damages, and not as a penalty, the Contractor and the Contractor's surety shall be liable for and shall pay the Owner the sum of Five Hundred Dollars (\$500.00) per day until Substantial Completion is achieved.

For each calendar day of delay in achieving Final Completion, the Contractor shall be liable for and shall pay half the amount of liquidated damages stated above, plus any additional fees of the Architect and the Architect's consultants that may accrue. Allowances may be made for delays due to shortages of materials and/or energy resources, subject to proof by documentation, and for delays due to strikes or other delays beyond the control of the Contractor. All delays and any claim for extension of Contract Time must be properly documented in accordance with the General Conditions of the Contract for Construction, AIA Document A201-2017, and the State of West Virginia Supplementary Conditions to AIA Document A201-2017.

ADDENDA ACKNOWLEDGMENT

The undersigned hereby acknowledges receipt of the following Addenda and has taken the information contained therein into full consideration in the formulation of this Bid.

Addenda	No. 1
Addenda	No. 1

No. 2 _____

No. 3

Failure to acknowledge receipt of each Addendum may be cause for rejection of the Bid.

SIGNATURE: ______ DATE: ______

FORM O	OF PROPOSAL
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Signature in Ink

LIST OF PROPOSED SUBCONTRACTORS (To Be Completed and Submitted with Bid)

List as designated below the proposed subcontractor for each major branch of work for this bid. Also, provide the subcontractor's license number as required by the West Virginia Contractors Licensing Act. If the branch of work is to be completed solely by the Bidder/Contractor, so indicate. If the acceptance of an alternate bid changes a subcontractor, indicate by notation below. The Bidder/Contractor may be requested to change an unsatisfactory subcontractor. The Bidder/Contractor is responsible for selecting or changing subcontractors. The Owner and Architect/Engineer may indicate their concerns about any entity listed which they have reason to believe past experience indicates that poor performance may be expected. The Bidder/Contractor has full responsibility for satisfactory execution of all work in accordance with the Contract Documents. Any change of proposed subcontractors shall be at no additional cost to the Owner, as the Bidder/Contractor has full responsibility for execution of the work. Bidder/Contractor shall have up to two hours after the bid opening to make adjustments if necessary. Owner will suffer loss should Contractor change from those listed beyond the two-hour time stipulated. Please email adjustments/modifications to Chief Procurement Officer at rich.donovan@wvhepc.edu.

Add Items as required.

1.	Contractor Mobilization	
2.	Selective Demolition	
3.	New Concrete Floor Slab	
4.	Exterior Concrete	
5.	Interior Partition Construction	
6.	Interior Door Installation	
7.	Floor Finishing	
8.	Electrical Work	
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		

END OF FORM OF PROPOSAL

May 17, 2019

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 Resilient base.
 - 2. Resilient flooring 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 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.
- D. Product Schedule: For resilient base and accessory products. Use same designations indicated on Drawings.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- 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.

1.5 QUALITY ASSURANCE

- A. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Coordinate mockups in this Section with mockups specified in other Sections.

1.6 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).

1.7 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 time 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 PERFORMANCE REQUIREMENTS

- A. FloorScore Compliance: Resilient base and stair accessories shall comply with requirements of FloorScore certification.
- B. Low-Emitting Materials: Flooring system shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

2.2 THERMOSET-RUBBER BASE

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Johnsonite; A Tarkett Company Basis Of Design.
 - 2. Armstrong World Industries, Inc.
 - 3. Flexco.
 - 4. Mondo America Inc.
 - 5. 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 flooring .
- C. Thickness: 0.125 inch (3.2 mm).
- D. Height: 4 inches (102 mm) .
- E. Lengths: Coils in manufacturer's standard length .
- F. Outside Corners: Preformed .
- G. Inside Corners: Preformed .
- H. Colors: Matching existing rubber base unless noted otherwise.

2.3 TRANSITION STRIP

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Schluter Reno TK Basis of Design
 - 2. Roppe Corporation, USA.
 - 3. VPI Corporation.
 - 4. Transition strip products as manufactured by resilient flooring manufacturer.
- B. Description: Floor finish transition strip.
 - 1. Provide transition from ¹/₄ inch to 1/8 inch for carpet-to-resilient flooring.
 - 2. Provide transition from 3/8 inch to 1/8 inch for ceramic tile-to-resilient flooring.
 - 3. Provide transition from 3/8 inch to $\frac{1}{4}$ inch for ceramic tile-to-carpet.
 - 4. Transition strip configuration to feature receiver slots on both sides of saddle strip.
- C. Finish: Anodized Aluminum.

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.
 - 1. Adhesives shall have a VOC content of 50 g/L or less except that adhesive for rubber stair treads shall have a VOC content of 60 g/L or less.
 - 2. Adhesives shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

- C. Metal Edge Strips: Extruded aluminum with mill finish of width shown, 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 stairtread 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 they are the same temperature as the 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.

3.4 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 exposed 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. Floor Polish: Remove soil, visible adhesive, and surface blemishes from resilient stair treads before applying liquid floor polish.
 - 1. Apply two coat(s).
- E. Cover resilient products subject to wear and foot traffic until Substantial Completion.

END OF SECTION

SECTION 096519 - RESILIENT FLOOR TILE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes the following:
 - 1. Vinyl composition floor tile.
 - 2. Product, Color, and Pattern selections as indicated on Drawings.
- B. Related Section: Section 096513 for resilient wall base, reducer strips and other accessories installed with resilient floor tile.

1.2 SUBMITTALS

- A. Samples for Verification: Full-size units of each color and pattern of floor tile required.
- B. Bond and Moisture Test Reports: Verify compliance with ASTM F 710 and manufacturer's recommendations.
- C. Maintenance Data: For each type of floor tile to include in maintenance manuals.

1.3 QUALITY ASSURANCE

- A. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 1.
 - 1. Review methods and procedures related to floor tile installation including:
 - 2. Review delivery, storage, and handling procedures.
 - 3. Review concrete slab conditions including results of bond and moisture testing.
 - 4. Review ambient conditions and ventilation procedures.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Store floor tile 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 or more than 90 deg F. Store floor tiles on flat surfaces.

1.5 PROJECT CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 90 deg F, in spaces to receive floor tile 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 or more than 90 deg F.
- C. Close spaces to traffic during floor tile installation, and for 48 hours after floor tile installation.
- D. Install floor tile after other finishing operations, including painting, have been completed.

1.6 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. Floor Tile: Furnish 1 box for every 50 boxes or fraction thereof, of each type, color, and pattern of floor tile installed.

PART 2 - PRODUCTS

2.1 VINYL COMPOSITION FLOOR TILE

- A. Products: Subject to compliance with requirements, provide products meeting the following:
 - 1. Tile Standard: ASTM F 1066, Class 2, through-pattern tile.
 - 2. Wearing Surface: Smooth.
 - 3. Thickness: 0.125 inch.
 - 4. Size: 12 by 12 inches.
 - 5. Colors and Patterns: As indicated on Drawings.
- B. Reference Drawings for product selections.

2.2 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 floor tile and substrate conditions indicated.
 - 1. Use adhesives that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):
 - a. Vinyl Composition Floor Tile Adhesives: Not more than 50 g/L.
- C. Floor Polish: Provide protective liquid floor polish products as recommended by 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 floor tile.
- 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: Prepare according to ASTM F 710. Perform moisture condition and adhesive bond tests in each major area, minimum 1 per 1,000 square feet, prior to installation.
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Moisture Testing: 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. in 24 hours.
 - 3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
 - 4. Do not proceed with work until results of moisture test and bond test are acceptable.
- 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 floor tiles until they are same temperature as space where they are to be installed. 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 FLOOR TILE INSTALLATION

- A. Comply with manufacturer's written instructions for installing floor tile.
- B. Lay out floor tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.
 - 1. Lay tiles in pattern indicated on Drawings or, if not indicated, square with room axis.

- C. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.
 1. Lay tiles with grain direction alternating in adjacent tiles (basket-weave pattern).
- D. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces.
- E. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.
- F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent, nonstaining marking device.
- G. Adhere floor tiles to flooring substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

3.4 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protection of floor tile.
- B. Perform the following operations immediately after completing floor tile 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 floor tile products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Floor Polish: Remove soil, visible adhesive, and surface blemishes from floor tile surfaces before applying liquid floor polish.
 - 1. Apply two coats.
- E. Sealers and Finish Coats: Remove soil, visible adhesive, and surface blemishes from resilient terrazzo floor tile surfaces before applying liquid cleaners, sealers, and finish products.
 - 1. Sealer: Apply two base coats of liquid sealer.
 - 2. Finish: Apply three coats of liquid floor finish.
- F. Cover floor tile until Substantial Completion.

END OF SECTION