

# ADDENDUM

# Project No.: 2301109 Project: New Castle CSC Athletic Facilities

Addendum No: 3 Date: 04-16-2024

# TO: ALL BIDDERS OF RECORD

ADDENDUM NO. 3, to Drawings and Specifications dated 03-13-2024, for the New Castle CSC Athletic Facilities for New Castle Community Schools; as prepared by ELEVATUS Architecture, 111 E. Wayne Street, Suite 555, Fort Wayne, IN 46802

This ADDENDUM shall hereby be and become a part of the Contract Documents the same as if originally bound thereto.

The following clarifications, amendments, additions, revisions, changes, and modifications change the original Contract Documents only in the amount and to the extent hereinafter specified and set forth in this ADDENDUM.

Each Bidder shall acknowledge receipt of this ADDENDUM on the Bid Form.

# PROJECT MANUAL:

### ITEM NO. 1.01 - PROJECT MANUAL, 00 01 10, Table of Contents

A. Re-issue specification section in its entirety to included specifications changed below.

### ITEM NO. 1.02 - PROJECT MANUAL, 00 73 00, Supplementary Conditions

- A. Re-issue specification section in its entirety with changes below.
  - a. Remove paragraph 3.5.4 in its entirety.
  - b. Revise paragraph 9.8.7 to read "...liquidated damages of \$1000 per calendar day..."

### ITEM NO. 1.03 - PROJECT MANUAL, 07 27 29, Air Barrier Coatings

A. Re-issue specification section in its entirety with changes below:
a. Removed ABAA licensing requirement from paragraph 1.6.A Installer Qualifications.

## ITEM NO. 1.04 - PROJECT MANUAL, 09 29 00, Gypsum Board

A. Re-issue specification section in its entirety with changes below. Add Quikstix as an acceptable product for Drywall Grid Ceilings.

### ITEM NO. 1.05 - PROJECT MANUAL, 09 67 23, Resinous Flooring

- A. Re-issue specification section in its entirety with changes below.
  - a. Revise specification section to include product information under Part 2 Manufacturers.

### ITEM NO. 1.06 - PROJECT MANUAL, 10 21 13.17, Phenolic Toilet Compartments

A. Re-issue specification section in its entirety with changes below.
a. Add Hadrian Inc. as an acceptable manufacturer.

# ITEM NO. 1.07 - PROJECT MANUAL, 32 12 17, Synthetic Surfacing

A. Issue specification section in its entirety for Synthetic Track Surfacing.

# **DRAWINGS:**

# ITEM NO. 1.08 – DRAWING NO. A-311 Wall Sections & Details

A. Revision to drawing 6/A-311 for clarity and constructability purposes.

# ITEM NO. 1.09 - Civil Addendum

A. Refer to attached Civil Addendum

Submitted By:

Samuel R. Schaust, AIA



#### cc: 🗆 File:

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- □ Owner:
- □ Contractor:
- Consultant:
- □ Consultant:



# New Castle CSC Athletic Facilities

Addendum #3 Date: 04/16/2024

This addendum is issued as a supplement to the plans and specifications and shall be considered an integral part of the same.

<u>ltem:</u> 1.	<u>Sheet:</u> C-211	<u>Description:</u> Revised layout note #2. Removed reference to landscape drawing. No landscape drawing. See specifications for lawns and grasses.
2.	C-211	Revised layout note #2. Removed reference to landscape drawing. No landscape drawing. See specifications for lawns and grasses.
3.	C-513	Sheet C-513 resubmitted. Unsure what occurred during printing, but it replicated a wrong sheet. C-513 is Site Erosion Control Details.
4.	C-611	Detail #7/C-611 was adjusted to match sheet C-211. Site Layout Plan. Assume $\frac{1}{2}$ " of surfacing until further coordination.
5.	C-211/C-411	REMOVE FROM SCOPE: All work and materials including demolition, stone, drainage, artificial turf surface, earthwork/subgrade, and perimeter curbing for Endzone D-Caps. All work within D-Zone area will be handled in a separate contract, direct between owner and MOTZ Group.
6.	C-212/C-412	REMOVE FROM SCOPE: Remove stone, subdrainage, and artificial turf surface for practice field from project scope. This will be handled in a separate contract, direct between owner and MOTZ Group. <u>Contractor to include</u> earthwork to subgrade elevation and perimeter curbing. This subgrade elevation will then need to be approved and turned

over to MOTZ Group.

## 00 01 10 - TABLE OF CONTENTS

### TITLE PAGE

00 01 10 Table of Contents. ..Revised for Addendum #3

# FACILITY CONSTRUCTION SUBGROUP

00 10 00	Notice to Bidders
00 21 13	Instructions to Bidders
00 25 13	Pre-Bid Conference
00 41 01	Contractor's Bid Form for Public Works
	Indiana State Board of Accounts Form 96 (Rev. 2013)
00 43 00	Supplemental Bid Proposal Form
00 43 10	Bidder's Checklist
00 43 15	Escrow Agreement
00 43 25	Substitution Request Form
	AIA A101, 2017 Edition, Standard Form of Agreement Between Owner and Contractor
00 50 00	AIA Document A101 Attachment
00 72 00	General Conditions
	AIA A201, 2017 Edition, General Conditions of the Contract for Construction
00 73 00	Supplementary Conditions

### **DIVISIONS 01: GENERAL REQUIREMENTS**

	01 11 00	Summary of Work
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- 01 21 00 Allowances
- 01 23 00 Alternates
- Substitution Procedures 01 25 00
- 01 25 13 Substitution Request Form
- Project Coordination 01 31 13
- Project Meetings 01 31 19
- 01 33 00 Submittals
- 01 41 19 **Project Work Rules**
- 01 45 00 Quality Control and Testing Laboratory Services
- Temporary Facilities 01 50 00
- 01 56 00
- Temporary Protection Products, Materials, and Equipment 01 60 00
- Project Closeout 01 70 00
- Cutting and Patching 01 73 29
- Construction Cleaning 01 74 13
- 01 95 00 Indemnification and Release for CAD Information

# **DIVISION 02: EXISTING CONDITIONS (Not Used)**

# **DIVISION 03: CONCRETE**

03 30 00	Cast in Place Concrete
03 35 10	Concrete Floor Sealers

### **DIVISION 04: MASONRY**

04 05 13	Mortar
04 05 16	Masonry Grout
04 05 23	Masonry Accessories
04 22 00	Unit Masonry

### **DIVISION 05: METALS**

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00 00 01 - 1 Addendum #2 - 4/2/2024 Addendum #3 – 4/16/2024

05 12 00	Structural Steel Framing
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- 05 21 00 Steel Joist Framing
- 05 31 00 Steel Decking
- 05 40 00 **Cold-Formed Metal Framing**

## **DIVISION 06: WOOD, PLASTICS, AND COMPOSITES**

06 10 00 Rough Carpentry

#### **DIVISION 07: THERMAL AND MOISTURE PROTECTION**

- 07 21 00 **Building Insulation**
- 07 22 00 Roof and Deck Insulation
- 07 26 10 Underslab Vapor Retarder
- .....Revised for Addendum #3 Air Barrier Coatings......Re Single Pass Continuous Insulation Cladding Support System 07 27 29
- 07 42 10
- **Composite Building Panels** 07 46 43
- Fully Adhered TPO Sheet Roofing 07 54 00
- 07 62 00 Flashing and Sheet Metal
- Sealants and Caulking 07 92 00

### **DIVISION 08: OPENINGS**

08 11 00	Steel Doors a	and Frames

- 08 31 00 Access Doors and Frames
- 08 33 23 **Overhead Coiling Doors**
- 08 71 00 Door Hardware
- 08 80 00 Glazing

# **DIVISION 09: FINISHES**

09 29 00	Gypsum Board	Revised for Addendum #3
09 51 13	Acoustical Panel Ceilings	
09 65 19	Rubber Cove Base	
09 67 23	Resinous Flooring	.Revised for Addendum #3
09 91 00	Painting	

### **DIVISION 10: SPECIALTIES**

10 14 00	Identifying Devices
10 21 13.17	Phenolic Toilet CompartmentsRevised for Addendum #3

10 28 13 **Toilet Accessories** 

### DIVISIONS 11 - 19: (NOT USED)

### **DIVISION 20: MECHANICAL**

- 20 05 00 **Common Mechanical Work Results**
- **Basic Piping Materials And Methods** 20 05 03
- 20 05 13 Motors For Mechanical Equipment
- 20 05 23 **General Duty Valves**
- 20 05 29 Mechanical Hangers And Supports
- 20 05 48 Vibration Controls
- 20 05 53 Mechanical Identification
- 20 07 00 Mechanical Insulation

# **DIVISION 21: (NOT USED)**

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### **DIVISION 22: PLUMBIING**

- 22 11 16 Domestic Water Piping
- 22 11 19 Domestic Water Piping Specialties
- 22 13 16 Sanitary Drain And Vent Piping And Storm Drain Piping
- 22 13 19 Sanitary And Storm Waste Piping Specialties
- 22 34 00 Fuel-Fired Water Heaters
- 22 40 00 Plumbing Fixtures

# **DIVISION 23: HEATING, VENTILATING AND AIR CONDITIONING**

- 23 05 93 Testing, Adjusting And Balancing
- 23 09 00 HVAC Instrumentation and Controls
- 23 09 93 Sequence of Operation
- 23 11 23 Facility Natural Gas Piping
- 23 23 00 Refrigerant Piping
- 23 31 13 Metal Ducts
- 23 33 00 Duct Accessories
- 23 34 23 Hvac Power Ventilators
- 23 37 13 Diffusers, Registers And Grilles
- 23 37 23 HVAC Gravity Ventilators
- 23 51 23 Flues and Vents
- 23 55 33.16 Gas-Fired Unit Heaters
- 23 73 33.16 Indoor, Indirect, Gas-Fired Heating And Ventilating Units
- 23 81 26 Split-System Air Conditioners

# DIVISION 24 & 25: (NOT USED)

# **DIVISION 26: ELECTRICAL**

26 00 01	Basic Electrical Requirements
26 00 02	Common Work Results For Electrical
26 00 03	Temporary Light and Power
26 00 09	Secondary Electrical Service Outline
26 05 26	Grounding And Bonding For Electrical Systems
26 05 29	Hangers And Supports For Electrical Systems
26 05 33	Raceways And Fittings
26 05 43	Underground Ductbanks
26 05 53	Electrical Identification
26 09 23	Occupancy Sensor Lighting Controls
26 09 43	Relay Lighting Controls
26 21 01	Conductors And Cables
26 22 13	Low Voltage Transformers
26 23 00	Enclosed Switches and Circuit Breakers
26 24 16	Panelboards
26 27 25	Boxes And Enclosures
26 27 26	Wiring Devices
26 28 13	Fuses
26 30 00	Motors And Motor Controllers
26 33 23	Small Inverter Systems
26 43 13	Surge Protective Devices
26 51 00	Lighting Equipment
26 51 13	Luminaire List

New Castle CSC Athletic Facilities New Castle,Indiana

26 51 26	Sports Lighting
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26 52 00 Emergency Lighting Equipment

### **DIVISION 27: COMMUNICATION**

- 27 00 00 Communications
- 27 05 26 Grounding and Bonding for Communication Systems
- 27 05 28 Pathways for Communication Systems
- 27 05 29 Hangers and Supports for Communication Systems
- 27 05 43 Underground Pathways and Structures for Communication Systems
- 27 05 44 Sleeves and Sleeve Seals for Communication Pathways and Cabling
- 27 05 53 Identification for Communication Systems
- 27 11 16 Communication Racks, Frames, and Enclosures
- 27 13 23 Communications Optical Fiber Backbone Cabling
- 27 15 13 Communications Copper Horizontal Cabling
- 27 51 23 School Intercommunications System

# DIVISIONS 28 THRU 30: (NOT USED)

# **DIVISION 31: EARTHWORK**

- 31 10 00 Site Demolition
- 31 20 00 Site Earthwork
- 31 30 00 Soil Erosion and Sediment Control

# **DIVISION 32: EXTERIOR IMPROVEMENTS**

32 12 16 Bituminous Concrete Pavement

32 13 13	Portland Cement Concrete Pavement
32 18 22	Synthetic Surfacing
32 31 13	Chainlink Fences and Gates
32 92 00	Lawns and Grasses

# **DIVISION 33: UTILITIES**

33 05 00	Site Utility Piping

- 33 11 16 Site Water Distribution
- 33 31 14 Sanitary Sewer System
- 33 41 00Storm Drainage System

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### SECTION 00 73 00 - SUPPLEMENTARY CONDITIONS

### SUPPLEMENTARY CONDITIONS

The following supplements modify, change, delete from, or add to the "General Conditions of the Contract for Construction," AIA Document A201-2017 edition. Where an Article of the General Conditions is modified or a Paragraph, Subparagraph, or a Clause thereof is modified or deleted by these supplements, the unaltered provisions of that Article, Paragraph, Subparagraph, or Clause shall remain in effect.

#### ARTICLE 1 - GENERAL PROVISIONS

#### 1.1 BASIC DEFINITIONS

1.1.1 Add the following sentence of this Subparagraph to read as follows:

The Contract Documents will also include Lien Waiver, Partial Waiver, Notice to Bidders, Instructions to Bidders, Addenda and its attachments, and any other documents specifically agreed by the parties to be included in the Contract Documents. Bonds as covered in the Instructions to Bidders shall be considered a part of the Contract Documents.

- 1.1.3 (Add the following sentence to the end of the Subparagraph) "...The Contractor acknowledges and agrees that the Contract Documents are sufficient to provide for the completion of the Work and include Work, whether or not shown or described, which reasonably may be inferred to be required or useful for the completion of the Work in accordance with applicable laws, codes, and customary standards of the construction industry."
- 1.1.9 (Add the following) MISCELLANEOUS DEFINITIONS
  - .1 The term "product" as used herein includes materials, systems, and equipment.
  - .2 The term "supplier" as used herein, includes a firm or organization furnishing or delivering products directly to the jobsite, and because of such direct delivery, could be construed under the lien laws of the State in which the work is being performed as having lien rights against the funds due the Contractor. Suppliers of material and equipment, delivering to Contractor or Subcontractor on an open account basis and not having lien rights on the Work, will not be considered suppliers within the meaning of the Contract Documents.
  - .3 A bidder selected to enter into a Contract with the Owner for Work included under the bidder's proposal is termed an "Awardee," until such time as he is awarded a Contract and becomes the Contractor.
  - .4 Where "complete" is used, it shall mean "complete with connections, supports, attachments and incidental items necessary for a finished and properly operating assembly or installation."
  - .5 Where "drawing" is used, it shall mean plans and detail drawings, both large and small scale, furnished by the Architect and Engineer for the purpose of showing the Work to be done.
  - .6 The term "furnish" to supply (only) to another party for their use of installation, including cost of delivery and unloading at the jobsite.
  - .7 The term "install" to distribute, uncrate, assemble, and fix into the intended final positions, the installer to provide all miscellaneous hardware and supplies required to anchor and support securely, clean-up, and dispose of rubbish.
  - .8 The term "connect" to bring service(s) to point of installation and make final connections to the service(s) to the installed equipment, and to provide miscellaneous auxiliary appurtenances necessary to make operable for its intended use.

- .9 The term "provide" to furnish, install, and connect complete.
- .10 The term "or equal" means an equal approved in writing by the Architect at least 10 days prior to bid receipt, and listed in an Addendum.
- .11 The term "Contractor" refers to the Prime Contractor that has the direct contract with the Owner. Any person providing work on the Project other than the Prime Contractor is a "Subcontractor."

#### 1.2 CORRELATION AND INTENT OF THE CONTRACT DOCUMENTS

- 1.2.4 (Add) "If there should be a conflict between two or more of the Contract Documents, the following order of interpretation shall apply:
  - .1 The terms and conditions as set forth in the Bidding Requirements, including legal advertisement thereof, shall have full force and effect until such time as the Standard Form of Agreement between Owner and Contractor is executed between the Owner and the Awardee.
  - .2 Where there is a conflict between the Bidding Requirements and the Contract Documents, the Contract Documents shall govern.
  - .3 Where requirements specifically set forth in AIA A101, 2007 ed., Standard Form of Agreement Between Owner and Contractor are in conflict, AIA A201, 2007 ed., General Conditions of the Contract for Construction shall govern.
  - .4 Where there is conflict between the requirements of the General Conditions of the Contract and the Supplementary Conditions, the requirements of the Supplementary Conditions shall govern, except where the requirements set forth in the Supplementary Conditions are contrary to law, in which case the legal requirements shall govern. The General Conditions of the Contract shall take precedence over other Contract Documents.
  - .5 Where there is conflict between the Drawings and Specifications and conflict within the Drawings or within the Specifications, the conflict, where applicable, shall be resolved by providing better quality or greater quantity as provided in the Supplementary Conditions, Clause 3.2.4.
- 1.2.5 (Add) "It is the intent of the Contract Documents to accomplish a complete and first-grade installation in which there shall be installed new products of the latest and best design and manufacturer, and workmanship shall be thoroughly first class, executed by competent and experienced workmen.
  - .1 Details of preparation, construction, installation, and finishing encompassed by the Contract Documents shall conform to the best practices of the respective trades, and that workmanship, construction methods, shall be of first class quality so as to accomplish a neat and first class finished job.
  - .2 Where specific recognized standards are mentioned in the Specifications, it shall be interpreted that such requirements shall be complied with.
  - .3 The intent of the Contract Documents is to include all labor, equipment, and materials necessary for the proper and timely execution and completion of the Work, even though such labor, equipment, materials are not expressly included in the Contract Documents.
  - .4 The Contract Documents are complimentary, and what is required by one will be as binding as if required by all.
  - .5 The Contractor will be required to perform all parts of the Work, regardless of whether the parts of the Work are described in Sections of the Contract Documents applicable to other trades."

#### ARTICLE 2: OWNER

### 2.2 INFORMATION AND SERVICES REQUIRED OF THE OWNER

- 2.2.2 (Add the following to the first sentence) "...,including those charges and costs related to zoning changes, environmental impact statements, and similar requirements related to use of the site."
- 2.2.3 (Replace with the following) "The Owner shall not be responsible for furnishing surveys (unless required for the execution of the Work and requested by the Contractor in writing) or other information as to the physical characteristics of, legal limitations of, or utility locations for the Project site, but as necessary for the Work, shall furnish or cause to be furnished to the Contractor a legal description of the project site, which shall not constitute one of the Contract Documents. The Contractor shall confirm the location of each utility; shall relocate or dispose of each on-site utility and shall cap each utility as required by the Work or the Specifications. The Contractor shall not be entitled to additional compensation resulting from its failure to confirm the location of the site utilities or existing structures prior to the opening of its bid."

#### 2.3 OWNER'S RIGHT TO STOP THE WORK

2.3.1 (Add the following text to the end of the Subparagraph) "This right shall be in addition to, and not in limitation of, the Owner's rights under Paragraph 13.4.

#### PART 3: CONTRACTOR

### 3.2 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR

- 3.2.5 (Add) "Where there is a conflict in or between the Drawings and Specifications, the Contractor shall be deemed to have estimated on the more expensive way of doing the Work and the larger quantity required. Only changes or interpretations covered by Addenda or written from the Architect will be permitted during construction of the Work. The Contractor shall perform no portion of the Work at any time without Contract Documents or where required, received Shop Drawings, Product Data, or Samples for such portion of the Work.
- 3.2.6 (Add) "Before ordering material or performing any Work, the contractor shall verify all measurements at the Project site. Any differences between dimensions on the Drawings and actual measurements shall be brought to the Architect's attention for consideration before the Work proceeds. Where actual measurements require more material and work than the Drawings call for, such material and Work shall be supplied at the cost of the Contractor. No extra compensation will be allowed because of difference between actual measurements and dimensions indicated on the Drawings. The Contractor shall assume full responsibility for accuracy of measurements obtained at the work site."
- 3.2.7 (Add) "Mechanical and Electrical Drawings are diagrammatic only. Actual work involved shall be installed from received Shop Drawings with all measurements obtained at the Project Site by the Contractor.
- 3.2.8 (Add) "Dimensions which are lacking from the Drawings shall be obtained from the Architect or field verified. In no case will the Contractor assume that the Drawings are scaled."

### 3.3 SUPERVISION AND CONSTRUCTION PROCEDURES

- 3.3.1 (Add last sentence) "Additional provisions pertaining to coordination are included in Division 1, General Requirements."
- 3.5 WARRANTY

- 3.5.1 (Add) "In addition to any other warranties, guarantees, or obligations set forth in the Contract Documents or applicable as a matter of law and not in limitation of the terms of the Contract Documents, the Contractor warrants and guarantees that:
  - .1 The Owner will have good title to the Work and materials and equipment incorporated into the Work will be new.
  - .2 The Work and materials and equipment incorporated into the Work will be free from defects, including defects in the workmanship or materials.
  - .3 The Work and equipment incorporated into the Work will be fit for the purpose for which they are intended.
  - .4 The Work and materials and equipment incorporated into the Work will be merchantable.
  - .5 The Work and materials and equipment incorporated into the Work will conform in all respects to the Contract Documents.
- 3.5.2 (Add) "The Contractor shall, upon completion of the Work, assign to the Owner all warranties obtained or obtainable by, the Contractor from manufacturers and suppliers of equipment and materials incorporated into the Work by written instrument of assignment in a form acceptable to the Owner.
- 3.5.3 (Add) "For a period of one year from the date of final completion and acceptance of the Work by the Owner, as evidenced by the date of the Substantial Completion, the Contractor warrants to the Owner all movable windows, apparatus, machinery, mechanical and electrical equipment. For the same period, the Contractor warrants to Owner to make good, at his own expense, any defects, shrinkages, warpages or other faults in Work required under this Contract arising out of defective materials or workmanship, ordinary wear and tear excepted."
- 3.5.4 (Add) "As part of the above warranty, it is expressly understood and agreed that the Contractor warrants that the Contractor's portion of the Work shall be waterproof and weatherproof in every respect for a period of two (2) years from the Date of Substantial Completion."
- 3.5.5 (Add) "The Contractor warrants and represents to the Owner that the Drawings and Specifications for the Work are suitable and adapted for said Work, and guarantees the sufficiency of said Drawings and Specifications for their intended purpose and agrees that it will perform said construction work and complete same to the entire satisfaction of the Owner and Architect."
- 3.5.6 (Add) "In addition to all of Contractor's warranties and obligations to correct defective Work provided by law or as set forth in any of the Contract Documents, the Contractor agrees, upon notice from Owner or Architect, immediately to repair, restore, correct and cure, at Contractor's expense, all defects and omissions in workmanship and materials and all failures to comply with the Contract Documents which appear within one (1) year from the Date of Substantial Completion. Contractor shall pay for, and if requested, correct, repair, restore and cure any damage or injury, whenever the same shall occur or appear, resulting from any defects, omissions or failure in workmanship and materials, and indemnify, hold harmless, and defend Owner against any and all claims, losses, costs, damages and expenses, including attorney's fees, suffered by Owner as a result of such damage or injury, whenever such damage or injury shall occur or appear."
- 3.5.7 (Add) "The foregoing guarantees and warranties shall not shorten any longer warranty or liability period provided for by law or in the plans, drawings or specifications or otherwise received from Contractor or any subcontractor, material supplier or manufacturer of Contractor nor supersede the terms of any liability for defective Work, but shall be in addition thereto, and shall be in addition to all manufacturer's and factory warranties."
- 3.5.8 (Add) "All guarantees or warranties upon any Work, labor, materials, or equipment by any subcontractor or material supplier of Contractor shall be deemed made by Contractor to Owner. All guarantees and warranties shall survive Owner's final acceptance of the Project. Neither the acceptance of any of the Work by Owner, in whole or in part, nor any payment, either partial or final, by Owner to Contractor, shall constitute a waiver by Owner of any claims against Contractor for defects in the Work, whether latent or

apparent, and no such payment or acceptance of the Work by Owner shall release or discharge Contractor or Contractor's surety from any such claims for breach of such warranties."

#### 3.6 TAXES

3.6.1 Owner is exempt from local, state, and federal taxes and shall not be responsible for any taxes levied on the Contractor. Refer to Section 01 11 00 for additional requirements relating to taxes

#### 3.9 SUPERINTENDENT

3.9.1 (Add the following sentence) "The Superintendent shall be satisfactory to the Architect and the Owner, and the Architect and Owner shall have the right to require the Contractor to remove a Superintendent and replace with a Superintendent who is satisfactory to the Architect and Owner. The Contractor shall not replace the Superintendent without the consent of the Architect and Owner, except with another Superintendent who is satisfactory to the Architect and Owner."

#### 3.12 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

Delete this Paragraph in its entirety. Refer to Section 01 33 00 - Submittals, for provisions on this subject. References to Paragraph 3.12 elsewhere in the Contract Documents shall read as referring to that Section in the Specifications.

# 3.13 USE OF SITE

Delete this Paragraph in its entirety. Refer to Section 01 33 00 01300 - Submittals, for provisions on this subject. References to Paragraph 3.13 elsewhere in the Contract Documents shall read as referring to that Section in the Specifications.

### 3.19 (Add the following) NON-INTERFERENCE

3.19.1 (Add) The Contractor shall perform Work so as not to interfere with the Owner's ongoing activities and so as not to create any hazards to the Owner's employees or members of the public using the Owner's property.

### ARTICLE 4: ARCHITECT

- 4.1 GENERAL
- 4.1.1 (Add) "...The term "Architect," "Architect/Engineer," or "Engineer" as used herein means the Architect or his authorized representative."
- 4.2 ADMINISTRATION OF THE CONTRACT
- 4.2.4 Delete the last sentence in its entirety.
- 4.2.7 Delete this Subparagraph in its entirety. Refer to Specification Section 01 33 00 01300 Submittals, for provisions on the subject. References to subparagraph 4.2.7 elsewhere in the Contact Documents shall read as referring to that Section in the Specifications.
- 4.2.11 (Add to the end of the first sentence) "...referring specifically to this Subparagraph 4.2.11."

#### ARTICLE 5: SUBCONTRACTORS

### 5.2 AWARD OF SUBCONTRACTORS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

- 5.2.1 (Delete the first sentence of this Subparagraph and substitute the following) "The Contractor shall furnish to the Architect in writing the names of the persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each of the principal portions of the Work, in accordance with the requirements under Specification Section 01300, Submittals, in a form acceptable to the Architect, for review by the Owner and the Architect.
- 5.2.4 (Add the following sentence at the end of this Subparagraph) "...The Owner may require the Contractor to change a Subcontractor or Sub-subcontractor previously approved, and, if at such time the Contractor is not in default under this Agreement, the Contract sum shall be increased or decreased by the difference in the cost resulting from the change."

#### 5.3 SUBCONTRACTUAL RELATIONS

- 5.3.1 (Add) ... "Not withstanding the provisions of Subparagraph 5.3.1, any part of the Work performed for the Contractor by a Subcontractor or its Sub-subcontractor shall be pursuant to a written Subcontract between the Contractor and such Subcontractor (or the Subcontractor and its Sub-subcontractor at any tier). Architect will assume no responsibility for reviewing, monitoring, or verifying activities or relationships involving a Subcontractor or its Sub-subcontractor."
- 5.3.2 (Add) "The Contractor shall not enter into a subcontract, contract agreement, purchase order, or other arrangement ("Arrangement") for the furnishing of portions of the materials, services, equipment or Work with a party of entity if such party to entity is an Affiliated Entity (as defined below), unless such Arrangement has been approved by the Owner of such affiliation relationship and details relating to the proposed Arrangement. The term "Affiliated Entity" means an entity related to or affiliated with the Contractor or with respect to which the Contractor has direct or indirect ownership or control, including, without limitation, an entity owned in whole or part by the Contractor.

### ARTICLE 6: CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

### 6.1 OWNER'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

6.1.5 (Add) "Refer to Specification Section 01010 - Summary of the Work, for provisions concerning the administrative responsibilities of the Prime Contractor."

### 6.2 MUTUAL RESPONSIBILITY

- 6.2.4 Delete the word ... "wrongfully" ... in this Subparagraph.
- 6.2.6 (Add) "If any such other Contractor initiates legal or other proceedings against the Owner on account of damage alleged to have been caused by the Contractor, the Owner shall notify the Contractor, who shall defend such proceedings at its own expense, by counsel reasonably acceptable to the Owner, and if judgment or award against the Owner arises therefrom, the Contractor shall pay or satisfy it and shall reimburse the Owner for attorneys' fees and court or other costs which the Owner has incurred over and above those paid for directly by the Contractor."

#### ARTICLE 7: CHANGES IN THE WORK

- 7.2 CHANGE ORDERS
- 7.2.2 (Replace with the following) "Methods used in determining adjustments to the Contract Sum shall be those listed in Subparagraph 7.3.3."

# 7.3 CONSTRUCTION CHANGE DIRECTIVES

- 7.3.3 (Delete Clause .4 from Subparagraph 7.3.3 and add the following Clauses)
  - 7.3.3.4 An itemized cost breakdown for each change required as provided in Subparagraph 7.3.7.
  - 7.3.3.5 (Add) "The cost of the Contractors overhead and profit on any Change Order shall be:
    - .1 For extra Work completed by the Contractor with his own labor, 10 percent (10%) shall be added as the allowance for overhead and profit.
    - .2 For extra Work completed by Subcontractors of the Contractor, 5 percent (5%) shall be added as the allowance for overhead and profit.
    - .3 For Work deleted which would have been completed by Subcontractors of the Contractor, 10 percent (10%) shall be credited to the Owner as the allowance for overhead and profit.
    - .4 For Work deleted which would have been completed by Subcontractors of the Contractor, 5 percent (5%) shall be credited to the Owner by the Contractor as the allowance for overhead and profit."
- 7.3.7 (Change the last phrase in the first sentence) "...an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount." ... to read ... "a fixed percentage fee as provided in Clause 7.3.3.5 for profit and overhead."
- 7.3.8 (Revise the last sentence of Subparagraph 7.3.8 to read as follows) ... "When both additions and deletions are involved in any one change, the allowance for overhead and profit shall be figured on the basis of net increase or decrease, if any."
- 7.3.10 (Add the following sentence at the end of the subparagraph) "When either the Owner or the Contractor disagree with the determination made by the Architect concerning adjustments in the Contract Sum and Contract Time, such disagreement shall be resolved in the manner set forth in Article 15 Claims and Disputes."
- 7.3.11 (Add) "In order to facilitate checking of quotations for extras or credits, proposals, (except those so minor that their propriety can be seen by inspection), shall be accompanied by a complete itemization of costs including labor, materials, and Subcontractors. Labor and materials shall be itemized in the manner prescribed above. Where major cost items are Subcontracts, they shall be itemized also. In no case will a change involving over \$500 be approved without such itemization. The Contractor shall submit same to the Architect within 14 days after receipt of proposal request."

### ARTICLE 8: TIME

#### 8.1 DEFINITIONS

8.1.2 (Delete and replace with the following) "The date of commencement of the Work is the effective date established in the Agreement or the date established in the Notice to Proceed given by the Owner or Architect."

#### 8.3 DELAYS AND EXTENSION OF TIME

8.3.1 (Delete and replace with the following) "If the Contractor is delayed at any time in its progress of the Work by one of the delays for which an extension of time is permitted and gives the Architect written notice specifically describing the delay within 48 hours of its commencement, the date for the Substantial Completion of the Work will be extended by Change Order for such reasonable time as the Architect may determine. The failure to give such notice will constitute an irrevocable waiver of the contractor's right to seek an extension of the time for completion will be delays caused by the i) Architect, or the Owner, ii) physical damage to the Project over which the Contractor has no control, iii) labor disputes beyond the

control of the Contractor, and iv) unusually severe weather conditions not reasonably anticipated (temperature, rain, or other precipitation within a range of twenty percent (20%) of normal amounts for the time of the year covered by the Agreement shall not be considered unusually severe weather conditions). Extensions of time will only be granted pursuant to the procedures for Change Orders set forth in the General Conditions. The Contractor agrees not to make claims for compensation for delays or acceleration in the performance of the Work resulting from acts or failure to act by the Owner, the Architect, or the employees, agents, or representatives of the Owner, or the Architect and agrees that such claim shall be fully compensated by an extension of time to complete the Work, regardless of when granted."

8.3.4 (Add) "If in the opinion of the Architect the Work is behind where it is supposed to be in the Project Time Schedule or it is likely that the Work will not be substantially complete by the applicable date for Substantial Completion, the Contractor upon written notice from the Architect and without additional cost or compensation will increase its work force and, if requested by the Architect, work such overtime to make up for the delay. Should the Contractor fail to increase its work force, work overtime, or proceed to make up for the delay to the satisfaction of the Architect or the Owner, the Architect or the Owner, in addition to other remedies under this Agreement and other Contract Documents, will have the right to cause other Contractors to work overtime and to take whatever other action is deemed necessary to avoid delay in the Substantial Completion of the Work and of the Project, and the cost and expense of such overtime and other action will be borne by the Contractor and may be set off against sums due the Contractor."

### ARTICLE 9: PAYMENTS AND COMPLETION

### 9.2 SCHEDULE OF VALUES

Delete this Paragraph in its entirety. Refer to Specification Section 01 33 00 01300 - Submittals, for provisions on this subject. References to Paragraph 9.2 elsewhere in the Contract Documents shall read as referring to that Section in the Specifications.

### 9.3 APPLICATIONS FOR PAYMENT

- 9.3.1 Delete this Subparagraph, Clauses 9.3.1.1 and 9.3.1.2, and substitute the following) "Applications for payment shall be made at approximately 30 day intervals in accordance with the dates established in the Standard Form of Agreement Between Owner and Contractor. At least 15 days before each progress payments falls due, the Contractor shall submit to the Architect, in quintuplet, an itemized Application for Payment, supported by such data sustaining the Contractor's right to payment as the Owner, or the Architect may require. The form of Application for Payment shall be AIA Document G702 Application and Certification for Payment, supported by AIA Document G703 Continuation Sheet. No other forms of Application for Payment will be acceptable. Continuation Sheet G703 shall be prepared the same as in the Schedule of Values submitted by the Contractor. Contractor's payment will be made within thirty (30) days after the Contractor's payment application is approved by the Architect. The Contractor will only be paid as described in the Owner-Contractor Agreement.
- 9.3.1.1 (Add) "Contractor shall submit with each monthly Application for Payment, 1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the previous Application, was submitted and the Owner or his property might in any way be responsible, have been paid or otherwise satisfied, and 2) release or waivers of liens arising out of the Contract from each Subcontractor, materialmen, supplier, and laborer of the Contractor in the form of Partial Lien Waiver provided with the Contract Documents or such other form as may be approved by the Architect and Owner, and 3) City of Claims Form available from the city Clerk's office located in
- 9.3.2 (To this Subparagraph, add the following) "Payment to Contractor for materials stored off site is discouraged. Where circumstances indicate that the Owner's best interest is served by off-site storage, the Contractor shall make written request to the Architect for approval to include such material costs in his next progress payment. The Contractor's request shall include the following information:

- .1 A list of the fabricated materials consigned to the project (which shall be clearly identified), giving the place of storage, together with copies of invoices and reasons why materials cannot be delivered to the site.
- .2 Certification that items have been tagged for delivery to the project and that they will not be used for another purpose.
- .3 A letter from the Bonding Company indicating agreement to the arrangements and that payment to the Contractor shall not relieve either party or their responsibility to complete the facility.
- .4 Evidence of adequate insurance covering the material in storage, which shall name the Owner as additionally insured.
- .5 Costs incurred by the Architect to inspect material in off-site storage shall be paid by the Contractor.
- .6 Subsequent pay requests shall itemize the materials and their cost which were approved on previous pay requests and remain in off-site storage
- 9.3.3 (Replace with the following) "The Contractor warrants the title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment and is free and clear of all liens and encumbrances. The Contractor will indemnify the Owner and the Owner's property from any liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors or their Sub-subcontractors, regardless of tier, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials, equipment, services or supplies relating to the Work, and from all cost and expenses, including attorneys' and consultants' fees incurred by the Owner in evaluating or defending against such liens, claims, security interests or encumbrances.
- 9.3.4 (Add) "Partial payments to the Contractor for labor performed under either a unit or lump sum price Contract shall be made at the rate of 90 percent (90%) of the Contract Sum.
  - .1 When the payment is made on account of materials or equipment not yet incorporated into the Project, such materials and equipment will become the property of the Owner; provided that if such materials or equipment are stolen, destroyed, or damaged before being fully incorporated into the Project, the Contractor will be required to replace them at its own expense, if not covered by builder's risk policy.
  - .2 At the time the Work is fifty percent (50%) complete, the Contractor may request that no further retainage be withheld from future progress payments. If such request is approved by the Owner, and if the manner of completion and the Work and its progress are and remain satisfactory to the Architect, and in the absence of good and sufficient reasons, the Architect will, on presentation by the Contractor of Consent of Surety (use AIA G707A), authorize any remaining partial payments to be paid in full."
- 9.3.5 (Add) "Partial or full payment to the Contractor(s) for material, equipment, or work in place shall not start the warranty period, refer to Division 1, Specification Section 01 60 00."
- 9.3.6 (Add) "An escrow amount shall be established in a financial institution, and an escrow agent, selected by Owner at time Contracts are executed. The establishing of an operation of the escrow account shall be in compliance with the requirements of Indiana Code 36-1-12-14.
  - .1 The escrow agent shall promptly invest escrowed principal in such obligations as shall be selected by the escrow agent in its discretion.
  - .2 The escrow agent shall hold the escrowed principal and income until receipt of notice from the Owner and the Contractor, or the Contractor and Subcontractor, specifying the portion or portions of the escrowed principal to be released from the escrow and to whom such portion or portions are to be released. Upon receipt of such notice the escrow agent shall promptly remit the designated

portion of escrowed principal and the same proportion of then escrowed income.

- .3 The escrow agent shall be compensated for its services as the parties may agree in an amount not to exceed 50 percent of the escrowed income of the escrow amount.
- .4 See paragraph 9.10.3 for provisions of retainage in escrow and final payment.

#### 9.4 CERTIFICATES FOR PAYMENT

- 9.4.1 (Change text) ... "seven days" ... to read ... "fifteen days".
- 9.5 DECISIONS TO WITHHOLD CERTIFICATION
- 9.5.1 (Delete Clauses .1 through .7 and replace with the following)
  - .1 The Contractor is in default of the performance of any of its obligations under the Contract Documents, including, but not limited to: failure to provide sufficient skilled workers; work, including equipment or materials, which is defective or otherwise does not conform to the Contract Documents; failure to conform to the Project Time Schedule; or failure to follow the directions of or instructions from the Architect or Owner.
  - .2 The Contractor is in default of the performance of any of its obligations under another Contract, which it has with the Owner.
  - .3 The filing of the third party claims or reasonable evidence that third party claims have been or will be filed.
  - .4 The Work has not proceeded to the extent set forth in the Application for Payment.
  - .5 Representations made by the Contractor are untrue.
  - .6 The failure of the Contractor to make payments to its Subcontractors, materialmen, or laborers.
  - .7 Damage to the Owner's property or the property of another Contractor or person.
  - .8 The determination by the Architect that there is a substantial possibility that the Work cannot be completed for the unpaid balance of the Contract Sum.
  - .9 Liens filed or reasonable evidence indicating the probable filing of such liens with respect to the Project."
- 9.5.4 (Add) "Contractor's application for a payment shall reflect an equal percentage amount (within 2-3 percent) for labor and materials for Work completed. The Architect may adjust applications where labor exceeds materials or where materials exceed labor quantities in the Work completed columns."
- 9.5.5 (Add) "If the Contractor disputes a determination by the Architect with regard to Certificate of Payment, and during any related dispute resolution, litigation, or other proceeding, the Contractor nevertheless shall continue to execute the Work as described in the Contract Documents."

# 9.7 FAILURE OF PAYMENT

- 9.7 (Change text) Each time "seven" appears in this Subparagraph, replace with "fourteen".
- 9.8 SUBSTANTIAL COMPLETION

- 9.8.1 (After ... "Contract Documents" ... insert the following) "...and when all required occupancy permits, if any, have been issued..."
- 9.8.2 (Add the following at the end of this Subparagraph) "...The time fixed by the Architect for the completion of all items on the list accompanying the Certificate of Substantial Completion shall not be greater than 14 days. The Contractor shall complete items on the list within such 14 day period. If the Contractor fails to do so, the Owner in its discretion may perform the Work by itself or others and the cost thereof shall be charged against the Contractor. If more than one inspection by the Architect for the purpose of evaluating corrected work is required by the subject list of items to be completed or corrected, it will be performed at the Contractor's expense.
  - .1 At the time the Architect commences the Substantial Completion Inspection, if the Architect discovers excessive additional items requiring completion or correction, the Architect may decline to continue the inspection, instructing the Contractor as to the general classification of deficiencies which must be corrected before the Architect will resume the Substantial Completion Inspection. If the Contractor fails to pursue the Work so as to make it ready for Substantial Completion Inspections and develop a list of items to be completed or corrected. This list of items shall be furnished to the Contractor who shall proceed to correct such items within 7 days. The Architect will conduct additional inspections. The Architect will involve the Owner for 1) The cost of inspections between the termination of the initial Substantial Completion Inspection or review after the 7 day period established for the completion of the list by the Contractor. The Contractor shall reimburse the Owner for such cost, and the Owner may offset the amounts payable to the Architect for such services from the amounts due the Contractor under the Contract Documents."
- 9.8.6 (Add) "The Contractor shall fully complete all Work under its Contract within fourteen (14) days of receiving a Certificate of Substantial Completion with attached list of items required to be completed or corrected. Failure to do so may serve as cause for the Owner to declare the Contractor in default and terminate the Contractor pursuant to Paragraph 14.2 of these Supplementary General Conditions."
- 9.8.7 (Add) "If Final Completion is not achieved within the allowable contract time, the contractor is subject to liquidated damages of \$2000 per calendar day past the stated Final Completion date, excluding federally or state recognized holidays."
- 9.8.8 (Add) Substantial Completion Date: 2/14/2025
- 9.8.9 (Add) Final Completion Date: 2/28/2025
- 9.9 PARTIAL OCCUPANCY OR USE
- 9.9.4 (Add) "Agreements as to the acceptance of the Work not complying with the requirements of the Contract Documents shall be in writing."
- 9.10 FINAL COMPLETION AND FINAL PAYMENT
- 9.10.2 (Add the following to the end of this Subparagraph) "...The Contractor shall furnish such evidence as may be necessary to show that any out-of-state subcontractor or supplier has fully met the requirements of payment of taxes as established in any law of the State or local subdivision thereof which may be in effect at the time of final payment. The Owner will require the submission of such proof or evidence before final payment will be approved or made. The following must be submitted to the Architect before approval of final payment:
  - .1 Affidavit of payment as required under this Paragraph shall be in the form of AIA Document G706 Contractor's Affidavit of Payment of Debt and Claims.

- .2 Release of liens as required under this Paragraph shall be in the form of AIA Documents G706A -Contractor's Affidavit of Release of Liens, or as may otherwise be reasonably requested or required to comply with Indiana law.
- .3 Consent of Surety as required under this Paragraph shall be in the form of AIA Document G707 -Consent of Surety Company to Final Payment.
- .4 Submit releases and final unconditional waivers of lien from major subcontractor and supplier.
- .5 Submit certification stating that no materials containing asbestos were incorporated into the Work."
- .6 Submit certification that all punch list items have been completed."
- 9.10.3 (Add the following to the end of this Subparagraph) "...Final Payment, constituting the unpaid balance of the Contract Sum, shall be paid to the Contractor in full, including retainage or escrowed principal and escrowed income by the escrow agent, no less than 61 days following the date of Substantial Completion. If at that time there are remaining uncompleted items, an amount equal to 200 percent of the value of each item as determined by the Architect shall be withheld until said items are completed, and a Final Certificate of Payment issued by the Architect."

# ARTICLE 10: PROTECTION OF PERSONS AND PROPERTY

### 10.1 SAFETY PRECAUTIONS AND PROGRAMS

- 10.1.2 (Add) "In the event the Contractor encounters on the site material reasonably believed to the asbestos or polychlorinated biphenyl (PCB), which results in exposure after the use of any permissible personal protective equipment that exceeds limits established by the Governmental agencies having jurisdiction over exposure to asbestos or PCB, the Contractor shall immediately stop Work in the area affected and report the condition to the Owner in writing. Thereafter, the Contractor shall not resume Work until such time testing of the affected area by a qualified consultant hired by the owner confirms that exposure after the use of any permissible personal protective equipment is within permissible limits.
- 10.2 SAFETY OF PERSONS AND PROPERTY
- 10.2.1 After "take" in line 1 of this subparagraph add "all".

### 10.4 EMERGENCIES

10.4.1 (Add) "Nothing in this paragraph shall be construed as relieving the Contractor from the cost and responsibility for emergencies covered hereby, which with normal diligence, planning, and the close supervision of the Work as required under the Contract, could have been foreseen or prevented. The General Contractor shall provide the Owner and Architect a list of names and telephone numbers of the designated employees for each Subcontractor to be contacted in case of emergency during non-working hours. A copy of the list will also be displayed on the jobsite."

### ARTICLE 11: INSURANCE AND BONDS

- 11.1 CONTRACTOR'S LIABILITY INSURANCE
- 11.1.1 (First line following the word "maintain", modify as follows): "... in a company or companies with ratings of no less than A- as determined by A.M. Best Company licensed to do business in the jurisdiction in which the project is located and to which the Owner has no reasonable objection ..."

- 11.1.2 (Add the following Clauses) "The Contractor's Insurance required by subparagraph 11.1.1 shall be written for not less than the following, or greater if required by law:
  - .1 Workers' Compensation:
    - a. State: Statutory
    - b. Applicable Federal (e.g., Longshoremen's): Statutory
    - c. Employer's Liability: Statutory
  - .2 Commercial General Liability Insurance, including Contractual Liability Insurance against the liability assumed hereinabove, and including Contractors' Protective Liability Insurance if the Contractor sublets to another all or any portion of the Work, with the following minimum limits:

Bodily injury (including death) and property damage with a combined single limit of \$5,000,000.00.

.3 Comprehensive Automobile Liability Insurance covering any auto used in connection with the Work, with the following minimum limits:

Bodily injury (including death) and property damage with a combined single limit of \$5,000,000.00.

"Each of the foregoing minimum limits will be reduced to \$1,000,000.00 where contract sum initially is less than \$500,000.00. The Contractor shall maintain the foregoing coverage for not less than one (1) year after the Date of Substantial Completion. The foregoing policy limits may be provided in conjunction with an umbrella policy." The following shall be listed as additional insured:

- .1 The Owner, its employees and staff.
- .2 The Architect, its employees, its consultants and their employees.

"The Contractors Commercial Liability insurance shall be written on an occurrence basis."

- 11.1.3 (Add the following to the end of this subparagraph) "Within two (2) business days of a request from the Owner or the Architect, the Contractor will provide the Owner with true copies of any insurance policies under which the coverages required herein are provided. Certificates of Insurance shall be submitted on the latest edition of AIA Form G705 or Accord form as acceptable to the Architect."
- 11.1.5 (Add) Contractor's commercial general liability insurance shall include all major divisions of coverage and be on a comprehensive basis including:
  - .1 Premises-Operations 9including X-C/U as applicable).
  - .2 Independent Contractors' Protective.
  - .3 Products and Completed Operations.
  - .4 Personal Injury Liability, coverages A, B, and C, with Fellow Employee Exclusion deleted.
  - .5 Contractual including specified provision for Contractor's obligations under Paragraph 3.18.
  - .6 Owned, non-owned and hired motor vehicles.
  - .7 Broad Form Property Damage including Completed Operations.
  - .8 Stopgap liability for \$100,000.00 limit.
- 11.1.6 (Add) "The Contractor shall require all Subcontractors to provide Workers' Compensation. Comprehensive General Liability, and Automobile Liability Insurance with the same minimum limits specified herein."+-

## 11.3 PROPERTY INSURANCE

11.3.1 (Delete the phrase "without optional deductibles" at the end of the first sentence in this subparagraph. Add the following at the end of this subparagraph): "The amount of any self insurance or deductible will not

#### exceed \$1,000.00 without the written approval of the Contractor."

11.3.1.1 (Add sub-subparagraph)

".1 The property insurance purchased by the Owner shall be in the form as indicated and provide such coverage as selected by the Owner. The Owner will make the policy available for inspection and copying by the Contractor. This insurance is not intended and will not cover machinery, tools, and equipment which will not be a permanent part of the project. The Contractor shall bear the entire risk of loss with respect to such machinery, tools, and equipment.

- 11.3.1.3 (Add) "The Contractor shall be responsible for any minimum deductible or self insurance up to \$1,000.00 per claim. Above such limit, the Owner shall be responsible.
- 11.3.1.4 Delete
- 11.3.6 (Delete first sentence and replace with the following) "The Owner shall maintain copies of the insurance it is required to purchase and maintain hereunder at its offices and shall permit the Architect or the Contractor to inspect the policies during normal business hours and upon reasonable advance written notice..."
- 11.3.9 (After "reach" in third sentence delete the remainder of this sentence and replace with the following) ..."or if the Parties are unable to reach agreement, by litigation in the Common Pleas Court."
- 11.3.10 Delete the last sentence.

#### ARTICLE 12: UNCOVERING AND CORRECTION OF WORK

#### 12.2 CORRECTION OF WORK

- 12.2.1 (Replace this Subparagraph with the following) "Within 48 hours after written notices from the Architect, or the Owner (except such period shall be 7 days when notice is given after final payment) that the work does not conform to the Contract Documents, or immediately upon oral notice, if the nonconformance constitutes a threat to the safety of persons or property, the Contractor, without waiting for the resolution of disputes that may exist i) shall commence to correct such nonconformance, ii) shall thereafter use its best efforts to where an extension of time is granted in writing by the Owner, shall complete necessary corrections so that the nonconformance is eliminated to the satisfaction of the Architect, and the Owner within 7 days of such notice. The Contractor shall bear all costs of correcting the nonconformance, including additional testing and inspections and additional service fees of the Architect. The notice provided for in this Subparagraph 12.2.1 may be given at any time. It is the intent that the obligations under this Subparagraph 12.2.1 shall complete final completion and final payment."
- 12.2.6 (Add) "If the Contractor fails to correct nonconforming Work as provided in Subparagraph 12.2, the Owner may correct it in accordance with Paragraph 2.4. If the Subcontractor does not proceed with correction of such nonconforming Work as provided in Subparagraph 12.2.1, the Owner may remove it and store the salvageable materials or equipment at the Contractor's expense." ...
- 12.3 ACCEPTANCE OF NONCONFORMING WORK
- 12.3 (Add the following sentence to the end of this subparagraph) "...The acceptance of nonconforming Work by the Owner shall be by written Change Order, signed by the Owner's authorized representative. No person has authority to accept nonconforming work except pursuant to such written Change Order."

### ARTICLE 13: MISCELLANEOUS PROVISIONS

13.5 TESTS AND INSPECTIONS

- 13.5.1.1 (Add) "Refer to Specification Section 01 45 00 Quality Control and Testing Laboratory Services for additional provisions on this subject."
- 13.5.4 (Delete this Subparagraph in its entirety and replace with the following) "Certificates of inspection, testing, or approval, as required by Paragraphs 13.5.1 or 13.5.2, shall be secured by the Contractor using an independent agency, subject to the approval of the Architect, and Owner. The independent agency shall complete field work, testing, and prepare the test reports, logs, and certificates promptly; and deliver the required number of copies directly to the Architect."
- 13.6 INTEREST

Delete this Paragraph in its entirety. References to Paragraph 13.6 elsewhere in the Contract Documents shall also be deleted.

#### ARTICLE 14: TERMINATION OR SUSPENSION OF THE CONTRACT

- 14.1 TERMINATION BY THE CONTRACTOR
- 14.1 (Delete Subparagraphs 14.1.1., 14.1.2, and 14.1.3 and replace the following)
- 14.1.1 "Events of Default; each of the following constitutes an event of default of the Contractor:
  - .1 The failure of the Contractor to perform its obligation under the Contract Documents or under the Contract Documents pertaining to other agreement which the Contractor may have with the Owner and to proceed to commence to correct such failure within 48 hours after written notice thereof from the Owner, or the Architect or such lesser time as is provided in the Contract Documents, or ii) thereafter to use its best efforts to correct such failure to the satisfaction of the Owner, or, iii) except where an extension of time is granted in writing by the Owner, to correct such failure within 30 days after written notice thereof.
  - .2 The failure of the Contractor to pay its obligations as they become due, or the insolvency of the Contractor."
- 14.1.2 "Owner's Remedies; upon the occurrences of an event of default the Owner will have the following remedies, which will be cumulative:
  - .1 To order the Contractor to stop the Work or part of it, in which case the Contractor will do so immediately;
  - .2 To perform through others all or part of the Work remaining to be done and to deduct the cost thereof from the unpaid of the Contract Price;
  - .3 To terminate this Agreement and take possession, for the purpose of completing the Work or part of if, materials, equipment, scaffolds, tools, appliances, and other items belonging to or possessed by the Contractor, of which the Contractor hereby transfers and assigns to the Owner for such purpose, and to employ a person or persons to complete the Work, including the Contractor's employees, and the Contractor will not be entitled to receive further payment until the Work is completed;
  - .4 Other remedies which the Owner may have at law or in equity or otherwise under the Contract Documents."
- 14.1.3 "Payments Due Contractor: If the unpaid balance of the Contract Sum exceeds the cost of finishing the Work, including compensation of the Architect's additional services and costs, expenses, or damages

incurred by the Owner as a result of the event of default, including attorney's fees and the administrative expensive of the Owner's staff, such excess will be paid by the Contractor. If such costs exceed the unpaid balance, the Contractor will pay the difference to the Owner. The amounts to be paid by the Owner or the Contractor will be certified by the Architect, and such certification will be final determination of the amount owed, except for sums coming due thereafter. The obligations under this Subparagraph will survive the termination of this Agreement."

### 14.2 TERMINATION BY THE OWNER FOR CAUSE

- 14.2.1 (Replace with the following) "The Contract may be terminated by the Owner in whole or in part without cause and for its convenience on three (3) days written notice to the Contractor. In the event of such termination for convenience, the Contractor shall be compensated for that portion of the contract sum earned to the date of termination, but Owner shall not be liable for any additional or other consequential damages. Such entitlement of Contractor shall constitute Contractor's sole and exclusive remedy and recover, and in no event shall the Contractor be entitled to recover anticipated profits and overhead on unperformed Work by reason of such termination for convenience."
- 14.2.5 (Add) "Owner shall have the right to terminate the Contract at any time upon three (3) days' written notice to contractor in the event Owner is unable to obtain or maintain financing for the portion of the Work as yet unfinanced or uncompleted. Owner shall be obligated to pay Contractor that portion of the Contract Sum earned to the date of termination, but Owner shall not be liable for any additional or other consequential damages."
- 14.2.6 (Add) "The occurrence of any labor dispute, work stoppage, strike (including sympathetic strike), slow down, picketing, or any other activity directly or indirectly attributable to Contractor's employees, either caused by them or resulting from their employment on the Project which interrupts, interferes with or delays the Work of Contractor or other separate contractors shall constitute a breach of Contract. In such event, the Owner shall have the right, in addition to any other rights and remedies provided by this Contract or the Contract or by law, following two (2) days' written notice to the Contractor, to terminate this Contract or any part thereof for all or any portion of the Work, and for purpose of completing the Work, to enter upon the premises and take possession in the same manner, to the same extent, and upon the same terms and conditions as set forth in Subparagraph 14.2.3."
- 14.2.7 (Add) "If termination of the Contract is effectuated by Owner for cause resulting from Contractor's failing to substantially perform in accordance with the terms of the Contract, and it is subsequently found or determined in legal proceedings that the Contractor was not in substantial breach of the Contract by failure to perform in accordance with its terms, or that such failure was caused through fault of the Owner, then such termination shall be deemed to be a termination for convenience pursuant to Subparagraph 14.2.1, and the Contractor's remedy and recovery as against the Owner shall, in such case, be limited to the payments provided by such Subparagraph 14.2.1."
- 14.2.8 (Add) "With fixed and agreed liquidated damages provided in the Contract, if the Owner terminates for cause the Contractor's right to proceed, the resulting damage to the Owner will consist of such liquidated damages until such reasonable time as may be required for final completion of the Work, together with any increased cost and expenses, including attorneys' fees, occasioned or incurred by Owner in completing the Work."

# ARTICLE 15: CLAIMS AND DISPUTES

15.1.1 (Add to the end of Subparagraph 15.1.1) "...The Contractor shall not knowingly (as "knowingly" is defined in the Federal False Claims Act, 31 USC Section 3729 et seq.) present or cause to be presented a false or fraudulent Claim. As a condition precedent to making a Claim, the claim shall be accompanied by an affidavit sworn to before a notary public or other person authorized to administer oaths in the State of and executed by an authorized representative of the Contractor, which states that:

The Claim which is submitted herewith complies with Subparagraph 15.1.1 of the Supplementary General

Conditions, which provides that the Contractor shall not knowingly present or cause to be a false or fraudulent Claim."

#### 15.3 MEDIATION

Delete this Paragraph in its entirety. This Paragraph does not apply to this Project. References to Paragraph 4.5 and mediation elsewhere in the Contract Documents shall also be deleted and are not applicable for this Project.

#### 15.4 ARBITRATION

Delete this Paragraph in its entirety. This Paragraph does not apply to this Project. References to Paragraph 4.6 and arbitration elsewhere in the Contract Documents shall also be deleted and are not applicable for this Project.

#### ARTICLE 16: (Add the following) EQUAL OPPORTUNITY

#### 16.1 POLICIES OF EMPLOYMENT

- 16.1.1 The Contractor shall not discriminate against employee or applicant for employment because of race, religion, color, sex, or national origin. The Contractor shall take affirmative action to insure that applicants are employed, and that employees are treated during employment without regard to their race, religion, color, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices forth the policies of non-discrimination.
- 16.1.2 The Contractor shall in solicitations or advertisements for employees placed by them or on their behalf, state that qualified applicants will receive consideration without regard to race, religion, color, sex, or national origin.

END OF SECTION 00 73 00

# SECTION 07 27 29 - AIR BARRIER COATINGS

# PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

A. Drawings and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section includes non-permeable air-barrier coatings.
- B. Non-permeable air barrier coating shall be used at exterior wall construction consisting of CMU.

### 1.3 DEFINITIONS

- A. Air-Barrier Material: A primary element that provides a continuous barrier to the movement of air.
- B. Air-Barrier Accessory: A transitional component of the air barrier that provides continuity.
- C. Air-Barrier Assembly: The collection of air-barrier materials and accessory materials applied to an opaque wall, including joints and junctions to abutting construction, to control air movement through the wall.

#### 1.4 PRE-INSTALLATION MEETINGS

- A. Pre-installation Conference: Conduct conference at Project site.
  - 1. Review air-barrier requirements and installation, special details, mockups, air-leakage and bond testing, air-barrier protection, and work scheduling that covers air barriers.

# 1.5 SUBMITTALS

- A. All items and accessories specified in this Section shall be submitted as a single package as practicable. Separate submittals for each system or product may not be acceptable.
- B. Do not submit MSDS or SDS sheets with the product data submittal. Architect is not responsible for review of this information. Submittals that include MSDS or SDS data sheets may be returned as rejected.
- C. Product Data: For each type of product.
- D. Include manufacturer's written instructions for evaluating, preparing, and treating substrate; technical data; and tested physical and performance properties of products.
  - 1. Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."
- E. Shop Drawings: For air-barrier assemblies.

- F. Show locations and extent of air barrier. Include details for substrate joints and cracks, counterflashing, penetrations, inside and outside corners, terminations, and tie-ins with adjoining construction.
  - 1. Include details of interfaces with other materials that form part of air barrier.
- G. Qualification Data: For Installer. Include list of ABAA-certified installers and supervisors employed by the Installer, who work on Project.
- H. Product Certificates: From air-barrier manufacturer, certifying compatibility of air barriers and accessory materials with Project materials that connect to or that come in contact with the barrier.
- I. Product Test Reports: For each air-barrier assembly, for tests performed by a qualified testing agency.

### 1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.
  - 1. Installer shall be licensed by ABAA according to ABAA's Quality Assurance Program and shall employ ABAA-certified installers and supervisors on Project.

### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Remove and replace liquid materials that cannot be applied within their stated shelf life.
- B. Protect stored materials from direct sunlight.

#### 1.8 FIELD CONDITIONS

- A. Environmental Limitations: Apply air barrier within the range of ambient and substrate temperatures recommended by air-barrier manufacturer.
  - 1. Protect substrates from environmental conditions that affect air-barrier performance.
  - 2. Do not apply air barrier to a damp or wet substrate or during snow, rain, fog, or mist.

## PART 2 - PRODUCTS

### 2.1 MATERIALS, GENERAL

- A. Source Limitations: Obtain primary air-barrier materials and air-barrier accessories from single source from single manufacturer.
- B. VOC Content: 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24) and complying with VOC content limits of authorities having jurisdiction.
- C. Low-Emitting Materials: Air barriers shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

### 2.2 PERFORMANCE REQUIREMENTS

- A. General: Air barrier shall be capable of performing as a continuous vapor-retarding air barrier and as a liquid-water drainage plane flashed to discharge to the exterior incidental condensation or water penetration. Air-barrier assemblies shall be capable of accommodating substrate movement and of sealing substrate expansion and control joints, construction material changes, penetrations, and transitions at perimeter conditions without deterioration and air leakage exceeding specified limits.
- B. Air-Barrier Assembly Air Leakage: Maximum 0.04 cfm/sq. ft. of surface area at 1.57 lbf/sq. ft., when tested according to ASTM E 283.

#### 2.3 VAPOR-PERMEABLE, AIR-BARRIER COATING

- A. Vapor-Permeable, Air-Barrier Coating: Synthetic acrylic membrane.
  - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. "ExoAir 230" and "ExoAir 110AT" by Tremco, Beachwood, OH
    - b. "Perm-A-Barrier VPL" and "Perm-A-Barrier Detail Membrane" by GCP Applied Technologies, Cambridge, MA
    - c. "Air-Shield LMP" by W.R. Meadows, Hampshire, IL
    - d. "Barritech VP" by Carlisle, Carlisle, PA
  - 2. Physical and Performance Properties:
    - a. Air Permeance: Maximum 0.004 cfm/sq. ft. of surface area at 1.57-lbf/sq. ft. pressure difference; ASTM E 2178.
    - b. Vapor Permeance: Minimum 5.7 perms; ASTM E 96/E 96M.
    - c. Ultimate Elongation: Minimum 500 percent; ASTM D 412, Die C
    - d. 44 48 mils WFT on ext sheathing 21 25 mils DFT on ext sheathing

#### 2.4 NON-PERMEABLE, AIR-BARRIER COATING

- A. Non-Permeable, Air-Barrier Coating: Synthetic acrylic membrane
  - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
    - a. "ExoAir 130" and "ExoAir 110AT" by Tremco, Beachwood, OH
    - b. "Perm-A-Barrier NPL 10/NPL 10 LT" and "Perm-A-Barrier Detail Membrane" by GCP Applied Technologies, Cambridge, MA
    - c. "Air-Shield LM" by W.R. Meadows, Hampshire, IL
    - d. "Barritech NP" by Carlisle, Carlisle, PA
  - 2. Physical and Performance Properties:
    - a. Air Permeance: Maximum 0.004 cfm/sq. ft. of surface area at 1.57-lbf/sq. ft. pressure difference; ASTM E 2178.
    - b. Vapor Permeance: Minimum 5.7 perms; ASTM E 96/E 96M.
    - c. Ultimate Elongation: Minimum 500 percent; ASTM D 412, Die C
    - d. 66 70 mils WFT on CMU 31 35 mils DFT on CMU

#### 2.5 ACCESSORY MATERIALS

- A. General: Accessory materials recommended by air-barrier manufacturer to produce a complete airbarrier assembly and compatible with primary air-barrier material.
- B. Primer: Liquid waterborne or solvent-borne primer recommended for substrate by air-barrier material manufacturer.
- C. Termination Mastic: Air-barrier manufacturer's standard cold fluid-applied elastomeric liquid; trowel grade. In accordance with the manufacturer's written installation instructions.

# PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance of the Work.
  - 1. Verify that substrates are sound and free of oil, grease, dirt, excess mortar, or other contaminants.
  - 2. Verify that concrete has cured and aged for minimum time period recommended by air-barrier manufacturer.
  - 3. Verify that concrete is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
  - 4. Verify that masonry joints are flush and completely filled with mortar.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 SURFACE PREPARATION

- A. Clean, prepare, treat, and seal substrate according to manufacturer's written instructions. Provide clean, dust-free, and dry substrate for air-barrier application.
- B. Mask off adjoining surfaces not covered by air barrier to prevent spillage and overspray affecting other construction.
- C. Remove grease, oil, bitumen, form-release agents, paints, curing compounds, and other penetrating contaminants or film-forming coatings from concrete.
- D. Remove fins, ridges, mortar, and other projections and fill honeycomb, aggregate pockets, holes, and other voids in concrete with substrate-patching membrane.
- E. Remove excess mortar from masonry ties, shelf angles, and other obstructions.

#### 3.3 JOINT TREATMENT

A. Concrete and Masonry: Prepare, treat, rout, and fill joints and cracks in substrate according to ASTM C 1193 and air-barrier manufacturer's written instructions. Remove dust and dirt from joints and cracks complying with ASTM D 4258 before coating surfaces.

# 3.4 TRANSITION STRIP INSTALLATION

- A. General: Install strips, transition strips, and accessory materials according to air-barrier manufacturer's written instructions to form a seal with adjacent construction and maintain a continuous air barrier.
  - 1. Coordinate the installation of air barrier with installation of roofing membrane and base flashing to ensure continuity of air barrier with roofing membrane.
  - 2. Install strip on roofing membrane or base flashing so that a minimum of 3 inches of coverage is achieved over each substrate.
- B. Connect and seal exterior wall air-barrier material continuously to roofing-membrane air barrier, concrete below-grade structures, floor-to-floor construction, exterior glazing and window systems, glazed curtain-wall systems, storefront systems, exterior louvers, exterior door framing, and other construction used in exterior wall openings, using accessory materials.
- C. Wall Openings: Prime concealed, perimeter frame surfaces of windows, curtain walls, storefronts, and doors. Apply so that a minimum of 3 inches of coverage is achieved over each substrate. Maintain 3 inches of full contact over firm bearing to perimeter frames with not less than 1 inch of full contact.

# 3.5 AIR-BARRIER COATING INSTALLATION

- A. General: Apply air-barrier coating to form a seal with strips and transition strips and to achieve a continuous air barrier according to air-barrier manufacturer's written instructions. Apply air-barrier coating within manufacturer's recommended application temperature ranges.
- B. Air-Barrier Coatings: Apply a continuous unbroken air-barrier coating to substrates according to the following thickness. Apply an increased thickness of air-barrier coating in full contact around protrusions such as masonry ties.
  - 1. Vapor-Retarding, Air-Barrier Coating: Total dry film thickness as recommended by the manufacturer.
  - 2. Apply additional coats as needed to achieve void- and pinhole-free surface.
- C. Apply strip and transition strip according to air-barrier manufacturer's written instructions.
- D. Do not cover air barrier until it has been tested and inspected by Contractor's testing agency.
- E. Correct deficiencies in or remove air barrier that does not comply with requirements; repair substrates and reapply air-barrier components.

### 3.6 FIELD QUALITY CONTROL

- A. Testing Agency: Contractor will engage a qualified testing agency to perform tests and inspections.
- B. Inspections: Air-barrier materials, accessories, and installation are subject to inspection for compliance with requirements. Inspections may include the following:
  - 1. Continuity of air-barrier system has been achieved throughout the building envelope with no gaps or holes.
  - 2. Continuous structural support of air-barrier system has been provided.
  - 3. Masonry and concrete surfaces are smooth, clean, and free of cavities, protrusions, and mortar droppings.
  - 4. Site conditions for application temperature and dryness of substrates have been maintained.
  - 5. Maximum exposure time of materials to UV deterioration has not been exceeded.
  - 6. Surfaces have been primed, if applicable.

- 7. Laps in strips and transition strips have complied with minimum requirements and have been shingled in the correct direction (or mastic has been applied on exposed edges), with no fishmouths.
- 8. Strips and transition strips have been firmly adhered to substrate.
- 9. Compatible materials have been used.
- 10. Transitions at changes in direction and structural support at gaps have been provided.
- 11. Connections between assemblies (air-barrier and sealants) have complied with requirements for cleanliness, surface preparation and priming, structural support, integrity, and continuity of seal.
- 12. All penetrations have been sealed.
- C. Tests: As determined by Contractor's testing agency from among the following tests:
  - 1. Adhesion Testing: Air-barrier assemblies will be tested for minimum air-barrier adhesion of 30 lbf/sq. in. according to ASTM D 4541 for each 600 sq. ft. of installed air barrier or part thereof.
- D. Air barriers will be considered defective if they do not pass tests and inspections.
  - 1. Apply additional air-barrier material, according to manufacturer's written instructions, where inspection results indicate insufficient thickness.
  - 2. Remove and replace deficient air-barrier components for retesting as specified above.
- E. Repair damage to air barriers caused by testing; follow manufacturer's written instructions.
- F. Refer to Article 1.7, Quality Assurance, herein.

## 3.7 CLEANING AND PROTECTION

- A. Protect air-barrier system from damage during application and remainder of construction period, according to manufacturer's written instructions.
  - 1. Protect air barrier from exposure to UV light and harmful weather exposure as required by manufacturer. If exposed to these conditions for more than 30 days, remove and replace air barrier or install additional, full-thickness, air-barrier application after repairing and preparing the overexposed membrane according to air-barrier manufacturer's written instructions.
  - 2. Protect air barrier from contact with incompatible materials and sealants not approved by airbarrier manufacturer.
- B. Clean spills, stains, and soiling from construction that would be exposed in the completed work using cleaning agents and procedures recommended by manufacturer of affected construction. C. Remove masking materials after installation.

### END OF SECTION

# SECTION 09 29 00 - GYPSUM BOARD

# PART 1 - <u>GENERAL</u>

### 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Non-load-bearing steel framing members.
  - 2. Gypsum board

### 1.2 DEFINITIONS

A. Gypsum Board Construction Terminology: Refer to ASTM C11 and GA-505 for definitions of terms related to gypsum board assemblies not defined in this Section or in other referenced standards.

### 1.3 ASSEMBLY PERFORMANCE REQUIREMENTS

A. Sound Transmission Characteristics: For gypsum board assemblies indicated to have STC ratings, provide materials and construction identical to those of assemblies whose STC ratings were determined per ASTM E 90 and classified per ASTM E 413 by a qualified independent testing agency.

#### 1.4 SUBMITTALS

- A. All gypsum board products and accessories specified in this Section shall be submitted as a single package as practicable. Separate submittals for each system or product may not be acceptable.
- B. <u>Do not submit MSDS or SDS sheets with product data submittal.</u> Architect is not responsible for review of this information as practicable. Submittals that include MSDS or SDS data sheets may be returned as rejected.
- C. Product certificates signed by manufacturers of gypsum board assembly components certifying that their products comply with specified requirements.
- D. Product data for each type of product specified, including wall boards, metal studs, deflection track, and other shapes, fasteners, and finishing materials.

### 1.5 QUALITY ASSURANCE

- A. Materials or operations specified by reference to the published specifications of a manufacturer or other published standards shall comply with the requirements of the standards listed.
  - 1. Standards include ASTM C840 and GA216.
- B. Refer to "Recommended Specification on Levels of Gypsum Board Finish" as published by the Gypsum Association (and AWCI/CISCA/PDCA) for finish levels required herein.
- C. Fire-Test-Response Characteristics: Where fire-rated gypsum board assemblies are indicated, provide materials and construction identical to those of assemblies tested for fire resistance per ASTM E 119 by an independent testing and inspecting agency acceptable to authorities having jurisdiction.

- 1. Fire Resistance Ratings: As indicated by reference to GA File Numbers in GA-600 "Fire Resistance Design Manual" or to design designations in UL "Fire Resistance Directory" or in the listing of another testing and inspecting agency acceptable to authorities having jurisdiction.
- D. Single-Source Responsibility for Steel Framing: Obtain steel framing members for gypsum board assemblies from a single manufacturer.
- E. Single-Source Responsibility for Panel Products: Obtain each type of gypsum board and other panel products from a single manufacturer.
- F. Single-Source Responsibility for Finishing Materials: Obtain finishing materials from either the same manufacturer that supplies gypsum board and other panel products or from a manufacturer acceptable to gypsum board manufacturer.

# 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original packages, containers, or bundles bearing brand name and identification of manufacturer or supplier.
- B. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes. Neatly stack gypsum panels flat to prevent sagging.
- C. Handle gypsum board to prevent damage to edges, ends, and surfaces. Do not bend or otherwise damage metal corner beads and trim.

### 1.7 PROJECT CONDITIONS

- A. Environmental Conditions: Establish and maintain environmental conditions for applying and finishing gypsum board to comply with ASTM C 840 and with gypsum board manufacturer's recommendations.
- B. Room Temperatures: For non-adhesive attachment of gypsum board to framing, maintain not less than 40 deg F For adhesive attachment and finishing of gypsum board, maintain not less than 50 deg F for 48 hours prior to application and continuously after until dry. Do not exceed 95 deg F when using temporary heat sources.
- C. Ventilation: Ventilate building spaces, as required, for drying joint treatment materials. Avoid drafts during hot dry weather to prevent finishing materials from drying too rapidly.

### PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Steel Framing and Furring:
    - a. Clark Dietrich Metal Framing, Inc., Westchester, OH
    - b. Telling Industries, Willoughby, OH
    - c. Craco Manufacturing, York, SC
    - d. MRI Steel Framing, LLC, Hinsdale, IL
    - e. Marino\Ware, East Chicago, IN
    - f. MBA Metal Framing, Libertyville, IL
    - g. The Steel Network, Inc., Durham, NC

- 2. Gypsum Board and Related Products:
  - a. Georgia-Pacific Corp. Atlanta, GA
  - b. CertainTeed Gypsum, Valley Forge, PA
  - c. Fry Reglet; Alpharetta, GA
  - d. Pittcon Industries, Riverdale, MD
  - e. United States Gypsum Company, Chicago, IL
  - f. National Gypsum Co., Charlotte, NC
- 3. Non-Rated Deflection Track:
  - a. "Max-Track" by Clark Dietrich, Westchester, OH
  - b. "True-Action Slotted Track" by Telling Industries, Willoughby, OH
  - c. "Slotted Slip Track" by Craco Mfg, York, SC
  - d. "Slotted Track" by MRI Steel Framing, LLC, Hinsdale, IL

# 2.2 FRAMING COMPONENTS FOR SUSPENDED CEILINGS

- A. Provide components of sizes indicated but not less than that required to comply with ASTM C 754 for conditions indicated.
- B. Wire for Hangers and Ties: ASTM A 641, Class 1 zinc coating, soft temper.
  - 1. Tie wire shall be 18 gauge galvanized annealed wire.
  - 2. Hanger wire shall be 8 gauge galvanized annealed wire.
- C. Hanger Rods: Mild steel and zinc-coated or protected with rust-inhibitive paint.
- D. Flat Hangers: Mild steel and zinc-coated or protected with rust-inhibitive paint.
- E. Angle-Type Hangers: Angles with legs not less than 7/8 inch wide, formed from 0.0635-inch-thick galvanized steel sheet complying with ASTM A 446 Coating Designation G90, with bolted connections and 5/16-inch-diameter bolts.
- F. Channels: Cold-rolled steel, 0.05980-inch-minimum thickness of base (uncoated) metal and 7/16-inch-wide flanges, and as follows:
  - 1. Carrying Channels: 1-1/2 inch deep, 475 lb per 1000 feet, unless otherwise indicated.
  - 2. Furring Channels: 7/8 inch deep, 325 lb per 1000 feet, unless otherwise indicated.
  - 3. Finish: G-90 hot-dip galvanized coating per ASTM A 525 for framing for exterior soffits and where indicated.
- G. Steel Rigid Furring Channels: ASTM C 645, hat-shaped, depth of 7/8 inch, and minimum thickness of base (uncoated) metal as follows:
  - 1. Thickness: 0.0329 inch, unless otherwise indicated.
  - 2. Protective Coating: G40 hot-dip galvanized coating per ASTM A 525.

# H. CONTRACTOR'S OPTION (DRYWALL GRID):

- 1. Steel framing components for suspended gypsum board ceilings may be drywall grid as follows in lieu of the carrying and furring channels as specified above:
  - a. "Frameall Flat Drywall Grid" <u>and "QuikStix Drywall Grid"</u> by Armstrong World Industries
  - b. or equal by USG.

- 2. Consists of pre-engineered drywall main beams and drywall cross tees as required for room, ceiling height and configuration.
- 3. Provide all items and accessories as required for a complete installation in every respect.
- 4. <u>This system is preferred over the carrying channels, furring channels and other hangers as</u> <u>specified above.</u>

### 2.3 GYPSUM BOARD PRODUCTS

- A. Provide gypsum board of types indicated in maximum lengths available to minimize end-to-end butt joints.
  - 1. Thickness: Provide gypsum board 5/8 inch thick to comply with ASTM C 840 for application system and support spacing indicated.
- B. Gypsum Wallboard: ASTM C 36 and as follows:
  - 1. Type: Type X at all locations. (Provide Type C at ceilings).
  - 2. Edges: Tapered.
  - 3. Thickness: 5/8 inch, unless otherwise noted.
  - 4. Type: WR or MR gypsum board as may be indicated.

### 2.4 JOINT TREATMENT MATERIALS

- A. Provide joint treatment materials complying with ASTM C 475 and the recommendations of both the manufacturers of sheet products and of joint treatment materials for each application indicated.
- B. Joint Tape for Gypsum Board: Paper reinforcing tape, unless otherwise indicated.
- C. Setting-Type Joint Compounds for Gypsum Board: Factory-packaged, job-mixed, chemical-hardening powder products formulated for uses indicated.
  - 1. There setting-type joint compounds are indicated as a taping compound only or for taping and filling only, use formulation that is compatible with other joint compounds applied over it.
  - 2. For prefilling gypsum board joints, use formulation recommended by gypsum board manufacturer for this purpose.
  - 3. For filling joints and treating fasteners of water-resistant gypsum backing board behind base for ceramic tile, use formulation recommended by the gypsum board manufacturer for this purpose.
  - 4. For topping compound, use sandable formulation.

# 2.5 MISCELLANEOUS MATERIALS

- A. Provide auxiliary materials for gypsum board construction that comply with referenced standards and recommendations of gypsum board manufacturer.
- B. Steel drill screws complying with ASTM C 1002 for the following applications:
  - 1. Fastening gypsum board to steel members less than 0.03 inch thick.
  - 2. Fastening gypsum board to gypsum board.
- C. Steel drill screws complying with ASTM C 954 for fastening gypsum board to steel members from 0.033 to 0.112 inch thick.
- D. Corrosion-resistant-coated steel drill screws of size and type recommended by board manufacturer for fastening cementitious backer units.

### PART 3 - EXECUTION

### 3.1 EXAMINATION

A. Examine substrates to which gypsum board assemblies attach or abut, installed hollow metal frames, cast-in-anchors, and structural framing with Installer present for compliance with requirements for installation tolerances and other conditions affecting performance of assemblies specified in this Section. Do not proceed with installation until unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Ceiling Anchorages: Coordinate installation of ceiling suspension systems with installation of overhead structural assemblies to ensure that inserts and other provisions for anchorages to building structure have been installed to receive ceiling hangers that will develop their full strength and at spacing required to support ceilings.
  - 1. Furnish concrete inserts and other devices indicated to other trades for installation well in advance of time needed for coordination with other construction.

### 3.3 INSTALLING STEEL FRAMING, GENERAL

- A. Steel Framing Installation Standard: Install steel framing to comply with ASTM C 754 and with ASTM C 840 requirements that apply to framing installation.
- B. Install supplementary framing, blocking, and bracing at terminations in gypsum board assemblies to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction. Comply with details indicated and with recommendations of gypsum board manufacturer.
- C. Isolate steel framing from building structure to prevent transfer of loading imposed by structural movement. Comply with details shown on Drawings, or if not shown, use vertical sliding slide clip application or use of deflection track and plate track two-piece system, or slip-joint with U-channel.
  - 1. There building structure abuts ceiling perimeter or penetrates ceiling.
  - 2. There partition framing and wall furring abut structure, including steel beams, steel joists, at bottom of roof decks and floor decks, except at floor.
    - a. Provide slip-type joints as detailed to attain lateral support and avoid axial loading.
  - 3. Rated Deflection Track: Top runner manufactured to allow partition heads to expand and contract with movement of the structure while maintaining continuity of fire-resistance-rated assembly indicated.
    - a. SLP-TRK by Slip Track Systems
    - b. Snap Track by Totle Steel Solutions
    - c. Slotted Stud by Steeler Inc.
- D. Do not bridge building expansion and control joints with steel framing or furring members. Independently frame both sides of joints with framing or furring members as indicated.
- E. Provide all required accessories for a complete installation in every respect.

# 3.4 INSTALLING STEEL FRAMING FOR SUSPENDED CEILINGS

- A. Suspend ceiling hangers from building structural members and as follows:
  - 1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structural or ceiling suspension system. Splay hangers only where required to miss obstructions and offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
  - 2. There width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with the location of hangers required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards.
  - 3. Secure wire hangers by looping and wire-tying, either directly to structures or to inserts, eyescrews, or other devices and fasteners that are secure and appropriate for substrate, and in a manner that will not cause them to deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
  - 4. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eyescrews, or other devices and fasteners that are secure and appropriate for structure as well as for type of hanger involved, and in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
  - 5. Do not support ceilings directly from permanent metal forms. Furnish cast-in-place hanger inserts that extend through forms.
  - 6. Do not attach hangers to steel deck tabs.
  - 7. Do not attach hangers to steel roof deck. Attach hangers to structural members.
  - 8. Do not connect or suspend steel framing from ducts, pipes or conduit.
- B. Sway-brace suspended steel framing with hangers used for support.
- C. Install suspended steel framing components in sizes and at spacings indicated but not less than that required by the referenced steel framing installation standard.
  - 1. Wire Hangers: 0.1620-inch (8-gage) diameter, 4 feet o.c.
  - 2. Carrying Channels (Main Runners): 1-1/2 inch, 4 feet o.c.
  - 3. Rigid Furring Channels (Furring Members): 16 inches o.c.
- D. Installation Tolerances: Install steel framing components for suspended ceilings so that cross-furring members or grid suspension members are level to within 1/8 inch in 12 feet as measured both lengthwise on each member and transversely between parallel members.
- E. Wire-tie or clip furring members to main runners and to other structural supports as indicated.
- F. For exterior soffits, install cross-bracing and additional framing to resist wind uplift according to details on Drawings.

# 3.5 APPLYING AND FINISHING GYPSUM BOARD, GENERAL

- A. Gypsum Board Application and Finishing Standards: Install and finish gypsum panels to comply with ASTM C 840 and GA-216.
- B. Install ceiling board panels across framing to minimize the number of abutting end joints and avoid abutting end joints in the central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.
- C. Install gypsum panels with face side out. Do not install imperfect, damaged, or damp panels. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.
- D. Locate both edge or end joints over supports, except in ceiling applications where intermediate supports or gypsum board back-blocking is provided behind end joints. Position adjoining panels so that tapered edges abut tapered edges, and field-cut edges abut field-cut edges and ends. Do not place tapered edges against cut edges or ends. Stagger vertical joints over different studs on opposite sides of partitions. Avoid joints at corners of framed openings where possible.
- E. Attach gypsum panels to steel studs so that the leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.
- F. Attach gypsum panels to framing provided at openings and cutouts.
- G. Do not attach gypsum panels across the flat grain of wide-dimension lumber including floor joists and headers. Instead, float gypsum panels over these members using resilient channels or provide control joints to counteract wood shrinkage.
- H. Form control joints and expansion joints at locations indicated and as detailed, with space between edges of adjoining gypsum panels, as well as supporting framing behind gypsum panels. Provide control joints spread not more than 30 feet on center in partitions. Not more than 50 feet on center in gypsum board ceilings.
  - 1. Control Joint: Apply over face of gypsum board where specified. Cut to length with a finetoothed hacksaw (32 teeth per inch). Cut end joints square, butt together and align to provide neat fit. Attach control joint to gypsum board with fasteners spaced 6 inches o.c. maximum along each flange. Remove plastic tape after finishing with joint compound or veneer finish.
    - a. Leave a ½ inch continuous opening between gypsum boards for insertion of surfacemounted joint.
    - b. Interrupt wood floor and ceiling plates with a ½ inch gap, wherever there is a control joint in the structure.
    - c. Do not attach gypsum board to steel studs on one side of control joint.
    - d. Provide separate supports for each control joint flange.
    - e. Provide an adequate seal and an additional layer of Type "X" gypsum board behind control joints where sound or fire ratings are prime considerations.
- I. Cover both faces of steel stud partition framing with gypsum panels in concealed spaces (above ceilings, etc.), except in chase walls that are braced internally.
  - 1. Except where concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.
  - 2. Fit gypsum panels around ducts, pipes, and conduits.
  - 3. Where partitions intersect open concrete coffers, concrete joists, and other structural members projecting below underside of floor/roof slabs and decks, cut gypsum panels to fit profile formed by coffers, joists, and other structural members; allow ¼ to ½ inch-wide joints to install sealant.
- J. Isolate perimeter of non-load-bearing gypsum board partitions at structural abutments, except floors, as detailed. Provide ¼ inch to ½ inch-wide spaces at these locations and trim edges with U-bead edge trim where edges of gypsum panels are exposed. Seal joints between edges and abutting structural surfaces with acoustical sealant.
- K. Space fasteners in gypsum panels according to referenced gypsum board application and finishing standard and manufacturer's recommendations.

### 3.6 GYPSUM BOARD APPLICATION METHODS

A. Single-Layer Application: Install gypsum wallboard panels as follows:

- 1. On ceilings, apply gypsum panels prior to wall/partition board application to the greatest extent possible and at right angles to framing, unless otherwise indicated.
- 2. On partitions/walls, apply gypsum panels vertically (parallel to framing), unless otherwise indicated, and provide panel lengths that will minimize end joints.
- 3. On partitions/walls, apply gypsum panels horizontally (perpendicular to framing), unless parallel application is required for fire-resistive-rated assemblies. Use maximum-length panels to minimize end joints.
- B. Single-Layer Fastening Methods: Apply gypsum panels to supports as follows: Fasten with screws.

#### 3.7 FINISHING GYPSUM BOARD ASSEMBLIES

- A. Apply joint treatment at gypsum board joints (both directions); flanges of corner bead, edge trim, and control joints; penetrations; fastener heads, surface defects, and elsewhere as required to prepare gypsum board surfaces for decoration and levels of gypsum board finish indicated.
- B. Prefill open joints, rounded or beveled edges, and damaged areas using setting-type joint compound.
- C. Apply joint tape over gypsum board joints and to trim accessories with concealed face flanges as recommended by trim accessory manufacturer and as required to prevent cracks from developing in joint compound at flange edges.
- D. Levels of Gypsum Board Finish: Provide the following levels of gypsum board finish per GA-214.
  - 1. Level 4: Joints and interior angles shall have tape embedded in joint compound and three separate coats of joint compound applied over joints, angles, fastener heads, and accessories. Joint compound shall be smooth and free of tool marks and ridges. Note: Prepare surface to be coated with a primer/sealer prior to the application of final finishes. This finish level shall be used where textured finishes, wall coverings, and painted finishes are to be applied.

#### 3.8 CLEANING AND PROTECTION

- A. Promptly remove any residual joint compound from adjacent surfaces.
- B. Provide final protection and maintain conditions, in a manner suitable to Installer that ensures gypsum board assemblies remain without damage or deterioration at time of Substantial Completion.

END OF SECTION

### SECTION 09 67 23 - RESINOUS FLOOR COATING

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Furnish all necessary materials, labor and equipment required to prepare designated floor areas and install a resinous floor coating, as specified herein and as indicated on the Drawings.

#### 1.2 SUBMITTAL

- A. All resinous floor coatings and accessories specified in this Section shall be submitted as a single package as practicable. Separate submittals for each system or product may not be acceptable.
- B. Do not submit MSDS or SDS sheets with product data submittal. Architect is not responsible for review of this information. Submittals that include MSDS or SDS data sheets may be returned as rejected.
- C. Product Data: Submit manufacturer's specification or specific products of the resinous flooring, including physical properties and performance properties and all tests described herein. Each individual component of the system will be evaluated on the basis of these standards. For any of the tests not listed in the manufacturer's standard nationally published data, the manufacturer must supply the missing data from an independent test laboratory tested according to the referenced standard. Manufacturer's standard color chart shall also be submitted and must afford the Architect color selection from at least 12 standard colors.
- D. <u>The industrial resinous flooring contractor shall submit a 6" x 6" system sample for verification</u> <u>purposes and finish texture approval.</u>
- E. Contractor Experience: The industrial resinous specialist shall furnish a list of three (3) projects using either specified material or another material pre-approved for this project that they have installed during the last five (5) years. Information shall include project name, square footage, contract name with owner's address and phone number. Also, the industrial resinous flooring specialist shall furnish resumes detailing the experience of key project personnel including supervisors and technicians.
- F. Submit warranty as specified herein.
- G. Submit pre-installation meeting minutes.

#### 1.3 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Obtain resinous flooring materials from a single manufacturer.
- B. Applicator's Qualifications: Installation shall be performed by an industrial resinous flooring specialist with skilled mechanics having not less than three (3) years of satisfactory experience in the application of the type and complexity of system as specified in this section. The industrial resinous flooring specialist shall be approved in writing by the manufacturer of the resinous flooring as specified herein.
- C. Submit warranty as specified herein.
- D. SSPC-SP 13/NACE 6 Surface Preparation of Concrete.

- E. <u>Conduct a pre-installation meeting at the project site prior to installation of resinous floor coating.</u> Review the environmental requirements, protection of surfaces not scheduled to be coated, surface preparation, application methods and concerns, repair requirements, field quality control, cleaning, protection of completed flooring, one year inspection and coordination with other work.
  - 1. Attendees:
    - a. Owner (not mandatory)
    - b. Architect
    - c. CM (if applicable)
    - d. Contractor and Installing contractor
  - 2. Agenda
    - a. Review manufacturer's written instructions for substrate preparation and environmental conditions affecting resinous flooring installation.
    - b. Review details of integral cove bases.
    - c. Review manufacturer's written instructions for installing resinous flooring systems.
    - d. Review protection measures for adjacent construction and installed flooring, floor drainage requirements, curbs, base details, and so forth.

#### 1.4 MATERIAL DELIVERY, HANDLING AND STORAGE

- A. Primary system materials shall be delivered in the manufacturer's undamaged, unopened containers. Each container shall be clearly marked with the following:
  - 1. Product Name
  - 2. Manufacturer's Name
  - 3. Component designation (A or B, etc.)
  - 4. Ratio of component mixture
- B. Provide equipment and personnel to handle the materials by methods which prevent damage.
- C. The industrial resinous flooring specialist shall promptly inspect all direct jobsite deliveries to assure that quantities are correct and that materials comply with requirements and are not damaged.
- D. The industrial resinous flooring specialist shall be responsible for all materials furnished by him, and he shall replace, at his own expense, all such material that is found to be defective in manufacturing or that has become damaged in transit, handling or storage.
- E. Store materials in accordance with manufacturer's instructions, with seals and labels intact and legible.

#### 1.5 JOB CONDITIONS

- A. The industrial resinous flooring specialist shall visit jobsite prior to beginning the application of the resinous flooring to evaluate substrate condition, including substrate moisture content, and the extent of repairs required, if any. Concrete subfloors shall be tested to verify that the moisture content of the substrate doors do not exceed that as recommended by the manufacturer.
- B. The industrial resinous flooring specialist should exercise care during surface preparation and system application to protect surrounding substrates and surfaces, as well as in place equipment. The industrial resinous flooring specialist shall use his discretion as to the physical means used for preparation and protection. Any costs incurred for resultant damage from negligence or inadequate protection shall be the sole responsibility of the industrial resinous flooring specialist.
- C. Subfloor tolerances are specified in Section 03 30 00. All drains in the installation area must be working and raised or lowered to the actual finish elevation of the resinous flooring system.

- D. Job area shall be free of other trades during floor installation, and for a period of 24 hours upon completion.
- E. Where natural ventilation is inadequate, provide ventilation by use of fans or other devices.
- F. Maintain lighting at a minimum uniform level of 50-60 foot candles in all areas where resinous flooring system is being installed. It is the recommendation of the Designer that permanent lighting be in place and working during the installation.

#### 1.6 WARRANTY

- Α. The industrial resinous floor specialist shall furnish a standard guarantee of the resinous flooring for a period of one (1) year after installation. This labor guarantee shall include loss of bond and wearthrough in the concrete substrate, through normal wear and tear.
- Β. The manufacturer shall warrant that the product meets all published standards.

#### PART 2 - PRODUCTS

#### 2.1 ACCEPTABLE MANUFACTURERS

- Α. Products of the following manufacturers are approved provided compliance with all technical requirements as specified herein:
  - 1. Tnemec Company, Kansas City, MO
  - 2. Sherwin-Williams, General Polymers Corp., Cincinnati,

#### MATERIALS 2.2

#### Α. Primer:

1.

- Tnemec Series 201, "Epoxoprime", two component, 96% solids, penetrating polyamine cured 1 resinous primer.
  - Recommended Dry Film Thickness: 6.0 to 8.0 mils per coat: or as otherwise a. recommended by the manufacturer.
- b. Number of Components: Two (2) Sherwin-Williams, Resuprime 3579" epoxy primer / binder resin, 96% solids, penetrating 2. polyamine cured resinous primer.
  - Recommended Dry Film Thickness: 6.0 to 8.0 mils per coat; or as otherwise a. recommended by the manufacturer.
  - Number of Components: Two (2) b.
- Resinous Flooring (for Janitor Room only): Β.
  - Tnemec Series 237 "Power Tread", resinous coating system, two component, 100% solids (mixed).
    - Recommended Dry Film Thickness: 8.0 to 16.0 mils per coat; or as otherwise a. recommended by the manufacturer. b.
      - Number of Components: Two (2).
  - Sherwin-Williams Resuftor 3561 broadcast laminated epoxy coating system, two component, 2. 100% solids (mixed).
    - Recommended Dry Film Thickness: Minimum 3/16". Requires two broadcast <u>a</u>. applications at 3/32" each or applied as a slurry.
    - b Number of Components: Two (2)
    - Color: Grav c.

**Resinous Flooring:** C.

- 1. <u>Themec Series N222, "Deco-Tread", broadcast laminated epoxy coating system, three</u> component, 100% solids (mixed), guartz filled polyamine epoxy.
  - a. Recommended Dry Film Thickness: Minimum 1/8". Requires two broadcast applications at 1/16" each or applied as a slurry.
  - b. Number of Components: Three (3). Two liquid and one-color quartz.
  - c. Quartz Broadcast: Decorative quartz, multi-colored appearance.
- 2. Sherwin-Williams, Resuftor 3561 broadcast laminated epoxy coating system, three component, 100% solids (mixed), guartz filled polyamine epoxy.
  - a. Recommended Dry Film Thickness: Minimum 1/8". Requires two broadcast applications at 1/16" each or applied as a slurry.
  - b. Number of Components: Three (3). Two liquid and one-color quartz.
  - c. Quartz Broadcast: Decorative quartz, multi-colored appearance.
- D. Sealer Coat:

b.

b

- 1. Tnemec Series N284, "Deco-Clear", two component, 86% solids, polyamine resinous.
  - a. Recommended Dry Film Thickness: 16.0 to 20.0 mils per coat; or as otherwise recommended by the manufacturer.
    - Number of Components: Two (2).
- 2. Sherwin-Williams Resuftor 3746 High Performance Epoxy, two component, 98% solids, polyamine epoxy.
  - a. Recommended Dry Film Thickness: 16.0 to 20.0 mils per coat; or as otherwise recommended by the manufacturer.
  - b. Number of Components: Two (2).

#### E. Glaze Coat:

- 1. Tnemec Series 285, "Satinglaze", two component, 92% solids, polyamine resinous.
  - a. Recommended Dry Film thickness: 4.0 to 6.0 mils, per coat; or as otherwise recommended by the manufacturer.
    - Number of Components: Two (2).
- 2. Sherwin-Williams, Resuftor 3746 High Performance Epoxy, two component, 98% solids, polyamine epoxy.
  - a. Recommended Dry Film Thickness: 8.0 to 10.0 mils per coat; or as otherwise recommended by the manufacturer.
  - 2.b. Number of Components: Two (2).

#### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Install all items at thicknesses and in strict accordance with the manufacturers written installation instructions.
- B. Provide all items as required for a complete and watertight installation in every respect.
- C. Coordinate installation of floor drains with the Division 22 plumbing contractor.
- D. Provide 4" high integral coved bases.
- E. General: Apply components of resinous coating system according to manufacturer's written instructions to produce a uniform, monolithic wearing surface at the specified thickness.
  - 1. Coordinate application of components to provide optimum adhesion of resinous floor/wall system to substrate and intercoat adhesion.
  - 2. At substrate control, isolation, and expansion joints, provide joint as necessary in resinous flooring in compliance with manufacturer's directions and engineering details for each joint type.

F. Sawcut resinous flooring directly over control joints and expansion joints in concrete slab on grade substrate. Fill sawcuts with self-leveling traffic grade sealant as specified in Section 07 92 00.

#### 3.2 CURING

- A. Cure resinous flooring components according to manufacturer's written instructions. Prevent contamination during curing processes.
  - 1. Temperatures shall be maintained at 70°F 80°F if at all possible.
  - 2. Water leaks must be prevented as they will compromise component's ability to set properly; water drips may compromise or stain finishes.
  - 3. Steam or any airborne contamination will adversely affect curing.

#### 3.3 CLEANING

- A. Work area shall be left clean with all trash, equipment, and leftovers removed.
- B. Floor and walls may be cleaned prior to final inspection, providing complete curing has taken place. Refer to Product Data Sheets for curing information for each product. Generally, non-chlorinated detergents should be used for the first month after curing is complete.
- C. For optimum coating performance and cleanability, manufacturer recommends the use of liquid soaps to prevent caking on resinous surfaces caused by bar soaps.
- D. Follow manufacturers written installation instructions.

#### 3.4 PROTECTION

A. Protection from damage and wear during the construction process is recommended. Comply with manufacturer's recommendations for protective materials and their method of application. Remove temporary protection prior to final inspection. Protection from welding, impact from heavy tools and other abuse is anticipated, the contractor doing the work shall take extra care in protecting the floor with impact resistance and if necessary, flame-resistant coverings. Removal of any temporary or protective material is not the responsibility of the Installer.

END OF SECTION

### SECTION 10 21 13.17 - PHENOLIC TOILET COMPARTMENTS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. The Work of this Section includes solid phenolic toilet compartments, urinal screens and accessories indicated on Drawings, schedules, and in these Specifications.
  - 1. Refer to Drawings for location, size, and quantity required.
- B. Styles of toilet compartments include:
  - 1. Floor-anchored, overhead-braced.
  - 2. "No-Site" design.
- C. Styles of urinal screens include:
  - 1. Wall-hung with support post.
- D. Coordinate cut-outs required for Owner furnished toilet accessories; refer to Section 10 28 13.

#### 1.2 SUBMITTALS

- A. All phenolic toilet compartments and accessories specified in this Section shall be submitted as a single package as practicable. Separate submittals for each system or product may not be acceptable.
- B. Do not submit MSDS or SDS sheets with product data submittal. Architect is not responsible for review of this information. Submittals that include MSDS or SDS data sheets may be returned as rejected.
- C. Product data for materials, fabrication, and installation including catalog cuts of anchors, hardware, fastenings, and accessories. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for toilet compartments.
- D. Shop Drawings for fabrication and erection of toilet compartment assemblies not fully described by product Drawings, templates, and instructions for installation of anchorage devices built into other Work.
  - 1. Include plans, elevations, sections, details, and attachment details.
  - 2. Show locations of cutouts for compartment-mounted toilet accessories.
  - 3. Show locations of centerlines of toilet fixtures.
  - 4. Show locations of floor drains.
  - 5. Show ceiling grid, ceiling-mounted items, and overhead support or bracing locations, if applicable.
- E. Samples of full range of colors for each type of unit required. Submit 6-inch-square samples of each color and finish on same substrate to be used in Work, for color verification after selections have been made.
  - 1. Include Samples of hardware and accessories involving material and color selection.
- F. Product Schedule: For toilet compartments, prepared by or under the supervision of supplier, detailing location and selected colors for toilet compartment material.

#### 1.3 QUALITY ASSURANCE

- A. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication, where possible, to ensure proper fitting of Work. However, allow for adjustments where taking of field measurements before fabrication might delay Work.
- B. Coordination: Furnish inserts and anchorages which must be built into other Work for installation of toilet compartments and related items. Coordinate delivery with other Work to avoid delay.

#### 1.4 ACCESSIBILITY REQUIREMENTS

A. Toilet compartments shall be provided to conform with the Americans With Disabilities Act Accessibility Guidelines (ADAAG) and State and Local Regulations. These requirements supersede Technical Specifications in this Section.

#### 1.5 WARRANTY

- A. Manufacturer's Warranty: Units shall be provided with manufacturer's standard warranty indicating that products are and will remain free of material and manufacturing defects, and shall not warp for indicated period of time.
  - 1. Warranty Period: Twenty-five (25) years from Date of Substantial Completion.
- B. Special Manufacturer's Warranty: Provide manufacturer's standard form in which manufacturer agrees to repair or replace products that fail in materials or workmanship during the following period after substantial completion:
  - 1. Phenolic LT Toilet Partitions: Against delamination: 5 years.

#### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Acceptable Manufacturers
  - 1. "Series 400 Sentinel" by Bradley Corp., Menomonee Falls, WI
  - 2. "Sierra Series SCRC" by Bobrick Washroom Accessories, Clifton Park, NY.,
  - 3. "Standard Privacy Series, No-Sight" by Metpar Corp., Westbury, NY;
  - 3.4. "Phenolic Toilet Partition" by Hadrian Inc., Burlington, Ontario, CN

### 2.2 PERFORMANCE REQUIREMENTS

- A. Surface-Burning Characteristics: Comply with ASTM E84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
  - 1. Flame-Spread Index: 75 or less.
  - 2. Smoke-Developed Index: 450 or less.
- B. Regulatory Requirements: Comply with applicable provisions in the U.S. Architectural & Transportation Barriers Compliance Board's ADA-ABA Accessibility Guidelines for Buildings and Facilities and ICC A117.1 for toilet compartments designated as accessible.

#### 2.3 MATERIALS

- A. Provide materials which have been selected for surface flatness and smoothness. Exposed surfaces which exhibit pitting, seam marks, roller marks, stains, discolorations, telegraphing of core material, or other imperfections on finished units are not acceptable.
- B. Solid Phenolic Panels: NEMA LD-3 solid phenolic core with melamine laminate veneer material. Colors as selected by the Architect.
- C. Panel Face Sheets: 1/8 inch decorative Phenolic sheets.
  - 1. Phenolic materials shall be impact and scratch resistant. Anti-bacterial coating and non-porous surface to reduce spread of germs.
  - 2. Impact Resistant: ASTM D2794.
  - 3. Scratch Resistant: ASTM D6578.
- D. Panel Core: face sheets laminated to a foam core, and edge banded with extruded aluminum profiles.
- E. Anchorage and Tapping Reinforcement:
  - 1. Concealed Anchorage Reinforcement: Minimum 0.108 inch (12 gage), galvanized steel sheet.
  - 2. Concealed Tapping Reinforcement: Minimum 0.0785 inch (14 gage), galvanized steel sheet.
- F. Pilaster Shoes and Caps: ASTM A 167, latest edition, Type 302/304 stainless steel, not less than 3 inches high, 0.0396 inch thick (20 gage), finished to match hardware.
- G. Stirrup Brackets: Manufacturer's standard design for attaching panels to walls and pilasters, solid stainless steel with No. 4 finish.
- H. Hardware and Accessories: Manufacturer's standard design, heavy duty operating hardware and accessories of solid stainless steel.
- I. Overhead Bracing: Continuous extruded aluminum, anti-grip profile, with clear anodized finish.
- J. Anchorages and Fasteners: Manufacturer's standard exposed fasteners of stainless steel, chromium-plated steel, or brass, finished to match hardware, with theft-resistant-type heads and nuts. For concealed anchors, use hot-dip galvanized, cadmium-plated, or other rust-resistant protective-coated steel.
- K. Door, Panel, Urinal Screens, and Pilaster Construction: Solid phenolic-core panel material with melamine facing on both sides fused to substrate during panel manufacture (not separately laminated), and with eased and polished edges. Provide minimum 3/4-inch- thick doors and pilasters and minimum 1/2-inch-thick panels.
- L. Pilaster Shoes and Sleeves (Caps): Formed from stainless steel sheet, not less than 0.031-inch nominal thickness and 3 inches high, finished to match hardware.
- M. Pilaster Construction:
  - 1. Provide pilaster with floor feet with mechanical adjustment for leveling.
    - a. Adjustable floor feet shall maintain panels 3.9 inches above finished floor.
    - b. Adjustable floor feet shall maintain panels 9 inches above finished floor for accessible stalls..
- N. Urinal-Screen Post: Manufacturer's standard post design of 1-3/4-inch- square, aluminum tube with satin finish with shoe and sleeve (cap) matching that on the pilaster.
- O. Urinal-Screen Construction: Matching toilet compartment panel construction.

- 1. Urinal-Screen Feet: Manufacturer's standard floor feet design with panel matching the pilaster and secured to wall with continuous bracket.
- P. Brackets (Fittings):
  - 1. Stirrup Type: Ear or U-brackets, clear-anodized aluminum polished stainless steel
  - 2. Full-Height (Continuous) Type: Manufacturer's standard design; clear-anodized aluminum polished stainless steel

#### 2.4 HARDWARE AND ACCESSORIES

- A. Hardware and Accessories: Manufacturer's <u>heavy-duty</u> operating hardware and accessories.
  - 1. Hinges: Manufacturer's minimum 0.062-inch-thick stainless steel continuous, spring-loaded type, allowing emergency access by lifting door. Mount with through-bolts.
  - Latch and Keeper: Manufacturer's heavy-duty surface-mounted cast-stainless steel latch unit designed to resist damage due to slamming, with combination rubber-faced door strike and keeper, and with provision for emergency access. Provide units that comply with regulatory requirements for accessibility at compartments designated as accessible. Mount with throughbolts.
  - 3. Coat Hook: Manufacturer's heavy-duty combination cast-stainless steel hook and rubbertipped bumper, sized to prevent in-swinging door from hitting compartment-mounted accessories. Mount with through-bolts.
  - 4. Door Bumper: Manufacturer's heavy-duty rubber-tipped cast-stainless steel bumper at outswinging doors and in-swinging doors. Mount with through-bolts.
  - 5. Door Pull: Manufacturer's heavy-duty cast-stainless steel pull at out-swinging doors that complies with regulatory requirements for accessibility. Provide units on both sides of doors at compartments designated as accessible. Mount with through-bolts.
- B. Overhead Bracing: Manufacturer's standard continuous, extruded-aluminum head rail with antigrip profile and in manufacturer's standard finish.
- C. Anchorages and Fasteners: Manufacturer's standard exposed fasteners of stainless steel, finished to match the items they are securing, with theft-resistant-type heads. Provide sex-type bolts for throughbolt applications. For concealed anchors, use stainless steel, hot-dip galvanized-steel, or other rustresistant, protective-coated steel compatible with related materials.

#### 2.5 FABRICATION

- A. Furnish standard doors, panels, screens, and pilasters fabricated for compartment system. Furnish units with cutouts, drilled holes, and internal reinforcement to receive partition-mounted hardware, accessories, and grab bars, as indicated.
- B. Door Dimensions: Unless otherwise indicated, furnish 24-inch-wide in-swinging doors for ordinary toilet stalls and 32-inch-wide (clear opening) out-swinging doors for stalls equipped for use by handicapped.
- C. Overhead-Braced Compartments: Furnish galvanized steel supports and leveling bolts at pilasters as recommended by Manufacturer to suit floor conditions. Make provisions for setting and securing continuous, extruded, aluminum, antigrip, overhead bracing at top of each pilaster. Provide shoe at each pilaster to conceal supports and leveling mechanism.
- D. Wall-Hung Screens: Furnish panel units in sizes indicated, of same construction and finish as partition system panels.
- E. Urinal-Screen Posts: Provide manufacturer's standard corrosion-resistant anchoring assemblies with leveling adjustment nuts at bottoms of posts. Provide shoes and sleeves (caps) at posts to conceal anchorage.

F. Door Size and Swings: Unless otherwise indicated, provide 24-inch- wide in-swinging doors for standard toilet compartments and 36-inch- wide out-swinging doors with a minimum 32-inch- wide clear opening for compartments designated as accessible.

#### 2.6 FINISH

- A. Colors as selected by the Architect from the manufacturer's standard color line.
- B. Refer to Finish Legend on drawings for color selection.

#### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Comply with manufacturer's recommended procedures and installation sequence. Install compartment units rigid, straight, plumb, and level. Provide clearances of not more than 1<sup>/</sup><sub>2</sub> inch between pilasters and panels, and not more than 1 inch between panels and walls. Secure panels to walls with not less than two stirrup brackets attached near top and bottom of panel. Locate wall brackets so that holes for wall anchorages occur in masonry or tile joints. Secure panels to pilasters with not less than two stirrup brackets located to align with stirrup brackets at wall. Secure panels in position with manufacturer's recommended anchoring devices.
- B. Overhead-Braced Compartments: Secure pilasters to floor and level, plumb, and tighten installation with devices furnished. Secure overhead brace to each pilaster with not less than two fasteners. Hang doors and adjust so that tops of doors are parallel with overhead brace when doors are in closed position.
- C. Screens: Attach with anchoring devices as recommended by manufacturer to suit supporting structure. Set units to provide support and to resist lateral impact.

#### 3.2 ADJUST AND CLEAN

- A. Hardware Adjustment: Adjust and lubricate hardware for proper operation. Set hinges on in-swinging doors to hold open approximately 30 degrees from closed position when unlatched. Set hinges on out-swinging doors (and entrance swing doors) to return to fully closed position.
- B. Clean exposed surfaces of partition systems using materials and methods recommended by manufacturer, and provide protection as necessary to prevent damage during remainder of construction period.

END OF SECTION 10 21 13.17

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## SECTION 32 18 22 - SYNTHETIC SURFACING

#### PART 1 - <u>GENERAL</u>

#### 1.1 SUMMARY

- A. Provide synthetic surfacing Work as specified herein. Work includes, but is not limited to, the following:
  - 1. Surfacing of running track and field event areas.
  - 2. Sealing of synthetic surfacing.
  - 3. Painting of lines and numerals.
- B. Provide continuous and competent supervision of Work included under this Section.
- C. Related Work Specified Elsewhere
  - 1. Excavation, filling, grading, and compaction of subgrade under running track and field areas is included under the Work of Section 31 20 00
  - 2. Asphalt binder/leveler course and subbase for running track and field event areas in included under the Work of Section 32 12 16

#### 1.2 SUBMITTALS

- A. Product Data: Manufacturer's specifications and installation instructions. Include data substantiating that materials comply with specified requirements. Indicate that installer has received copy of manufacturer's instructions.
- B. Documents in Regard to Warranty
  - 1. Letter from manufacturer of all materials attesting to the warranty length and limits, signed by an officer of the organization.
  - 2. Letter of Warranty from Installation Contractor for the time period and conditions noted under "Warranty."
  - 3. Submit documents prior to request for Final Payment.
- C. Manufacturer Qualifications: Provide documentation from track surface manufacturer of having been in business for the last five years under the same name.
- D. Provide certified statement in writing, listing the overall quality of rubber (total pounds of granules or strands), tack coat/primer, and latex binder (total gallons) delivered to the job site and used for track surfacing. Copy of shipping invoices shall be included with this statement. Submit prior to request for Final Payment.
- E. Layouts for Running Track (Metric) and Field Events
  - 1. Submit Shop Drawings to show the tracks and fields event layouts, including metric lane markings, passing zones, start and finish lines, and other markings required in accordance with The National Federation of State High School Association's High School Track and Field Rules and Records. These Drawings shall be reviewed by the Architect; then will be sent to the Owner for his comments and approval.

- 2. The layout of the track and field events shall conform with the above Shop Drawings. Upon completions of striping and layout Work, the Contractor shall submit to the Architect an "As Built Drawing" prepared by a licensed surveyor or certifying that all points and layouts shown on the approved shop drawing are located where required. This Drawing shall show the surveyor's name, address, and surveyor's license number. The cost of this Work shall be included in the Contractor's bid.
- 3. Submit color samples for line marking paint. Colors to be selected by Architect.
- F. Samples: 3-inch by 3-inch of exact surface to be installed.
- G. Provide Owner with written instructions for the track use and maintenance requirements in accordance with the Warranty.

#### 1.3 QUALITY ASSURANCE

- A. Installation of synthetic surfacing must be performed by a Contractor who has a minimum of 5 years experience in the field and can demonstrate successful completion of similar projects.
- B. A representative of the Manufacturer of the synthetic material shall be at the jobsite during performance of the Work to assist and advise the asphalt plant in establishing the proper mix and to assist and advise the Contractor on all phases of the synthetic surfacing installation.

#### 1.4 TESTING

- A. The Owner reserves the right to submit representative samples of the synthetic track surface to an independent testing lab at any time during the length of the Warranty to determine the chemical composition and performance characteristics. Tests will be made to confirm compliance with the Contract Documents and the manufacturer's specification of the track system.
- B. The Owner will be responsible for paying for all initial testing of the synthetic surfacing. If surface is found to be acceptable, the Owner will bear the cost of replacing the core sample areas. Any section found not to be in compliance shall be removed and replaced at the expense of the Contractor. Further testing of the surface that has been replaced will be done by an independent testing lab at the direction of the Owner and at the expense of the Contractor.
- C. Samples shall be taken every 1000 square yards. Sample size: approximately 6-inches square. Actual samples removed for testing shall not be reinstalled. Follow manufacturer's specifications for replacing surfacing within the test core areas.

#### 1.5 WARRANTY

- A. The Contractor hereunder guarantees the Work against defective materials or Workmanship for a period of one five years from Date of Substantial Completion and acceptance by the Owner.
  - 1. Maintenance and re-surfacing at the end of 5 years shall be included as a part of this guarantee and shall be stated as such on guarantee form.

#### 1.6 PROJECT CONDITIONS

- A. Do not begin track and field events Work before completion of final grading and surfacing.
- B. No part of construction involving track products shall be conducted during a rainfall or when rainfall is imminent or unless both ambient and materials temperature are at least 50 degrees F. (10 degrees C.) and rising.

- C. After a rainfall, sufficient time shall be given to allow the surface to dry before resuming Work. Surface shall be dry, as well as clean, since moisture on the surface on hot days can turn to steam or vapor. If moisture is trapped under an application of material, blisters may occur.
- D. The facilities shall not be used for a minimum period of 1 week after completion of construction.
- E. Heavy equipment or vehicles of any kind should not be allowed on the surface for a minimum of 4 weeks, after which time, only where protected with Track Crossing Mats.
- F. No vehicles of any kind, including bicycles, should be allowed on the track surface. Maintenance equipment can cross the track, but only where protected.
- G. Runners should not wear spikes longer than 1/8 inch (pyramid or pin). Longer spikes will accelerate the wear of the surface and possibly tear it. Care should be taken to monitor the footwear of visiting athletes.
- H. Where football players, cheerleaders and other athletes cross or perform on the track there should be a protective Track Crossing Mat.
- I. The track should be kept clean of dirt and silt. A vacuum, blower, or water flush can be used to accomplish this.
- J. Control vegetation 6 to 8 inches from all surfaced areas.
- K. Maintain proper drainage; keep swales and catch basins clear of silt and turf build-up.

#### PART 2 - PRODUCTS

#### 2.1 GENERAL

A. Conform to manufacturer's current specification. The surfacing system shall be complete and consist of components, blended and mixed in the prescribed manner, placed and installed with the recommended equipment to provide the best finished product available from the manufacturer.

#### 2.2 MANUFACTURERS

- A. Subject to compliance with the Contract Documents, provide products by one of the following:
  - 1. Plexitrac System by California Products Corporation, Cambridge, MA
  - 2. Reflex-1 by Leslie Coatings Inc., Indianapolis, Indiana
  - 3. Reece Speed-Flex L 400 System by Reece Seal Coating, Inc, Indianapolis, IN
  - 4. Premium 240 Latex Track System by K&M Asphalt Sealing Maintenance, Inc, Ossian, IN
- B. Products of other manufacturers will be considered for acceptance provided they equal or exceed the material requirements and functional qualities of the specified product. Requests for Architect's approval and complete technical data for evaluation must be received at least 10 days prior to bid due date. Additional approved manufacturers will be issued by addendum.

#### 2.3 MATERIALS

- A. System Description
  - 1. 3/8-inch thick minimum depth

- 2. Color:
  - a. Selected by Architect
- 3. Installation:
  - a. One tack coat of latex binder or asphalt emulsion
  - b. Minimum four layers of SBR rubber granules or stranded rubber bound with latex binder
  - c. "Overspray" top layer of latex binder
- B. Shall conform to manufacturer's current specification. The surfacing system shall be complete and consist of components, blended and mixed in the prescribed manner, placed and installed with the recommended equipment to provide the best finished product available from the manufacturer.
- C. Product Description
  - 1. Binder/Primer:
    - a. Asphalt Emulsion: Slow setting emulsified asphalt that complies with Specification M208-72 of the American Association of State Highway and Transportation Officials test methods as prescribed in AASHTO T-59. Use only on tack coat and bottom layer of rubber with four layer system. Do not mix asphalt emulsion with latex binder.
    - b. Latex Binder: Provide type of latex binder as recommended by the manufacturer in the case that the manufacturer recommends a binder other than the #4125 and #4170 listed below.
    - c. System (Rates given are minimum. Follow manufacturer's recommendations if additional binder is required.):
      - 1) Tack Coat/Primer: Install at a minimum rate of .05 gallons per square yard.
        - a) Asphalt emulsion
        - b) #4125 SBR latex binder by California Products
      - 2) Over first layer of rubber, install one of the following at a rate of .07 gallons per pound of rubber in a square yard:
        - a) Asphalt emulsion
        - b) #4125 SBR latex binder by California Products
        - c) Acrylic Latex Binder
      - 3) Over remaining layers of rubber granules, install one of the following at a rate of .07 gallons per pound of rubber in a square yard:
        - a) #4170 SBR latex binder with U.V. inhibitor in top layer
        - b) Acrylic Latex Binder
      - 4) "Overspray" layer is to be at a rate of .1 gallon square yard. Provide SBR latex binder with U.V. inhibitors or acrylic latex binders.
      - 5) Overall minimum quantity of binder: .73 gallons per square yard
    - d. Overall quantities listed are to be used for the purpose of setting a minimum acceptable quantity to be used in the Project and noted in the Certification Statement signed by the Contractor. Estimate the total quantity of latex binder required and provide total encapsulation of rubber particles to an overall depth of 3/8-inch minimum. The total quantity of materials should be based on each manufacturer's recommended rates, if the rates exceed those listed above. Field verify all quantities. The Owner will not be responsible for additional expense for provisions of additional materials beyond the quantities listed above.

- 2. Rubber:
  - a. Minimum pounds per square yard: 11.5 overall.
  - b. Provide one of the following systems or combination of strand and granule to achieve specified depth and density.
  - c. Granules:
    - 1) 1-3 mm on bottom three layers
    - 2) 0.5-1.5 on top layer
  - d. Stranded Rubber (Srtanulated), properly ground and graded:
    - 1) Course (bottom layer): #98500 (58500) by Spartan Enterprises
    - 2) Medium (middle two layers): #98438 (58438) by Spartan Enterprises
    - 3) Fine (top layer): #98722 (58722) by Spartan Enterprises
  - e. Overall quantities listed are to be used for the purpose of setting a minimum acceptable quantity to be used in the Project and noted in the Certification Statement signed by the Contractor. Estimate the total quantity of latex binder required and provide total encapsulation of rubber particles to an overall depth of 3/8-inch minimum. The total quantity of materials should be based on each manufacturer's recommended rates, if the rates exceed those listed above. Field verify all quantities. The Owner will not be responsible for additional expense for provisions of additional materials beyond the quantities listed above.
- D. Line Marking Paint: 100 percent acrylic latex type, unless different type is recommended by surfacing manufacturer. The use of traffic, oil, alkyd, or solvent vehicle type pants is prohibited.

#### PART 3 - EXECUTION

#### 3.1 INSTALLATION OF SURFACING

- A. Before the surfacing is applied, the running track and field events surface shall be cleaned of dirt and debris. Prepare surface by applying primer if required by manufacturer.
  - 1. Start of Work means acceptance of asphalt substrate.
- B. Strictly adhere to manufacturer's written instructions for mixing, transporting, spreading, and compaction resilient latex material.
- C. Utilize only installation equipment and procedures that are recommended by surfacing manufacturer.
- D. Do not begin track and field events Work before completion of final grading and surfacing.
- E. No part of construction involving track products shall be conducted during a rainfall or when rainfall is imminent or unless both ambient and materials temperature are at least 50 degrees F. and rising.
- F. After a rainfall, sufficient time shall be given to allow the surface to dry before resuming Work. Surface shall be dry, as well as clean, since moisture on the surface on hot days can turn to steam or vapor. If moisture is trapped under an application of material, blisters may occur.
- G. The facilities shall not be used for a minimum period of 1 week after completion of construction.
- H. Heavy equipment or vehicles of any kind should not be allowed on the surface for a minimum of 4 weeks, after which time, only where protected with Track Crossing Mats.

- I. Maintain proper drainage, keep swales and catch basins clear of silt and turf build-up.
- J. Install in strict accordance with manufacturers written installation instructions.

#### 3.2 LINE MARKING OF RUNNING TRACK AND FIELD EVENTS

- A. Striping shall be carefully completed so lines are uniformly applied, straight, and with even edges. Colors shall be as shown on the Drawings or as selected by the Architect.
- B. Lines and other markings shall receive 2 coats of paint, amount as recommended by the manufacturer. Paints shall be used directly from original containers and absolutely no thinning shall be allowed.

#### 3.3 MAINTENANCE AND RESURFACING

- A. Repair defects in synthetic surfaces cased by delamination, peeling, chalking, or raveling.
- B. Restore high use areas of the synthetic surfaces that are showing wear to bring the surface up to the original specified thickness.

#### 3.4 FIELD QUALITY CONTROL

- A. The finished surfaces shall be tested for compliance with the Contract Documents.
- B. Testing Method:
  - 1. Test cuts shall be removed in the Owner's presence.
  - 2. All test cuts shall be made a minimum of 6-inches from the surface's edge.
  - 3. The test cuts shall be examined for thickness and weight by an independent test lab.
  - 4. In the event the specified minimums are not reached, install additional materials until minimums are achieved.
  - 5. Repair areas where test cuts were made.

END OF SECTION















	UTILITY NOTES:
	BASE BID:COORDINATE CONNECTION WITH THE UTILITY COMPANY AND BUILDING D
	BASE BID:1.5" WATER LINE.
	BASE BID:1.5" CORPORATION STOP.
	BASE BID:1.5" CURB STOP AND BOX.
	BASE BID:FOR REFERENCE ONLY: GAS (BY UTILITY COMPANY).
	BASE BID:SANITARY SEWER CONNECTION TO EXISTING MANHOLE PER DETAIL #2/C-
	BASE BID:STORM ROOF DRAIN. SEE BUILDING PLANS FOR EXACT ROOF DRAIN LOCA
]	INSTALL 30" CONCRETE STRUCTURE TO REPLACE EXISTING. EXTEND CONDUITS AS NECESSARY. COORDINATE WITH OWNER.
]	COORDINATE LOCATION OF STORM STRUCTURE SO CASTING IS NOT PLACED IN STOTURF AREA.
]	BASE BID:CONTRACTOR TO VERIFY EXISTING INVERT PRIOR TO ORDERING STRUCT CONNECT TO PROPOSED STRUCTURE WITH WATERTIGHT CONNECTION.
	FOR REFERENCE ONLY- MOTZ GROUP TO FULLY DESIGN AND INSTALL SYNTHETIC T SUBDRAINAGE. NOT A PART OF OF THIS CONTRACT. COORDINATE WITH MOTZ.
]	FOR REFERENCE ONLY- MOTZ GROUP TO FULLY DESIGN AND INSTALL SYNTHETIC T SUBDRAINAGE AND TIE INTO PROPOSED STORM. NOT A PART OF OF THIS CONTRAC COORDINATE WITH MOTZ.
]	FOR REFERENCE ONLY- MOTZ GROUP TO FULLY DESIGN AND INSTALL SYNTHETIC TO SUBDRAINAGE AND TIE INTO PROPOSED STORM. NOT A PART OF OF THIS CONTRACT OR DERING STORM STRUCTURES COORDINATE ALL INVERTS FOR SUBDRAIN OUTFAMOTZ. COORDINATE WITH MOTZ.
Ĵ	4" SUBDRAIN 1.0% MIN. PER DETAIL #7/C-612.
	4" SUBDRAIN IN LONG JUMP PIT PER DETAIL #10/C-611.
[] _	FOR REFERENCE ONLY- MOTZ GROUP TO FULLY DESIGN AND INSTALL SYNTHETIC T SUBDRAINAGE AND TIE INTO PROPOSED STORM. NOT A PART OF OF THIS CONTRAC COORDINATE WITH MOTZ.
]	BASE BID: INSTALL (2) 4" CONDUITS WITH PULL STRINGS FOR COMMUNICTION LINES COORDINATE WITH ELECTRICAL PLANS AND OWNER.
	PRIOR TO ORDERING PROPOSED STRUCTURE. FIELD VERIFY AND MATCH INVERT EI MATERIAL AND SLOPE. EXTEND AND CONNECT EXISTING 6" PVC STORM PIPE TO PR STRUCTURE. PROVIDE PROPER FITTINGS FOR CONNECTION SEAL WATERTIGHT. CO EXISTING TO REMAIN 4" HDPE PIPES TO PROPOSED STRUCTURE. COORDINATE WIT ANY DISCREPANCY.
l	CORE DRILL INTO EXISTING STRUCTURE. SEAL WATER TIGHT.
]	ALTERNATE "D" ZONE: <u>FOR REFERENCE ONLY-</u> MOTZ GROUP TO FULLY DESIGN AND SYNTHETIC TURF SUBDRAINAGE. NOT A PART OF OF THIS CONTRACT. COORDINATE
]	ALTERNATE "D" ZONE: <u>FOR REFERENCE ONLY-</u> MOTZ GROUP TO FULLY DESIGN AND SYNTHETIC TURF SUBDRAINAGE. NOT A PART OF OF THIS CONTRACT. COORDINATE MOTZ TO TIE SUBDRAIN INTO TRUNK LINE.
]	REMOVE AND REPLACE EXISTING STORM SEWER AS REQUIRED TO INSTALL PROPO STRUCTURE. PROVIDE WATERTIGHT CONNECTION. INCLUDE BYPASS PUMPING AS I
2	

# PROPOSED LEGEND.

$\overline{\mathbf{O}}$	STORM INLET / MANHOLE		STOR
0	SANITARY/STORM CLEANOUT	SD SD SD SD SD SD SD	SUBD
X	GATE VALVE		ADS "/ DRAIN
Ř	FIRE HYDRANT	SA SA SA SA SA SA	SANIT
$\square$	LIGHT POLE	w w w w w w	WATE
		GAS GAS GAS GAS GAS GAS	GAS L

# WATER MAIN NOTES:

- 1. WATER TO BE SUPPLIED BY THE CITY OF NEW CASTLE WATER UTILITY
- 2. WATER MAINS SHALL BE INSTALLED ACCORDING TO CITY OF NEW CASTLE STANDARDS AND SPECIFICATIONS.
- 3. THE WATER MAIN IS TO BE INSTALLED WITH A MINIMUM COVER OF 5'-0"
- 4. WHERE SANITARY AND/OR STORM SEWER(S) AND WATER MAIN CROSS, ONE FULL LENGTH OF WATER MAIN SHOULD BE CENTERED OVER THE SANITARY AND/OR STORM SEWER, AND THE VERTICAL DISTANCE TO BE A MINIMUM OF 18 INCHES. WHERE WATER LINES AND SEWER CROSS AND THE CLEARANCE CANNOT BE MAINTAINED, THE SEWER MUST BE CONSTRUCTED OF WATERWORKS GRADE DUCTILE IRON PIPE WITH MECHANICAL JOINTS OF SDR 21 PVC PRESSURE SEWER PIPE WITH COMPRESSION FITTINGS WITHIN TEN FEET OF THE WATER LINE.
- 5. WHERE A WATER MAIN CROSSES UNDER A SEWER, THE MAIN SHALL USE 22° ELBOWS TO MINIMIZE THE LENGTH OF WATER MAIN INSTALLED IN EXCESS OF 5.0 FEET COVER.
- 6. THE MINIMUM HORIZONTAL DISTANCE BETWEEN THE WATER MAIN AND THE STORM OR SANITARY SEWER MAIN IS 10.0 FEET.
- 7. ALL TEES, CROSSES, BENDS, AND ELBOWS EXCEEDING 11  $\frac{1}{2}$  ° SHALL BE RESTRAINED.
- 8. WATER SERVICE TO BE DUCTILE IRON TO MEET BUILDING, MECHANICAL, AND LOCAL UTILITY REQUIREMENTS AND CODES. FOR MATERIAL AND JOINTS.
- 9. ALL PIPE JOINTS SHALL BE IN ACCORDANCE WITH ANSI SPECIFICATIONS OF A21.11 (AWWA C-111).
- 10. ALL MATERIALS ARE CERTIFIED IN ACCORDANCE WITH THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) NATIONAL SANITATION FOUNDATION (NSF) INTERNATIONAL STANDARD 61.
- 11. ALL WATER MAINS AND THEIR ACCESSORIES SHALL BE INSTALLED AND PRESSURE AND LEAK TESTED IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF AWWA STANDARD C600-93, C602-89, C603-90, C605-94, OF C606-87
- 12. THE CONTRACTOR SHALL GUARANTEE THE INSTALLATION FOR ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.
- 13. ALL WORK TO CONFORM TO STATE AND LOCAL PLUMBING BACKFLOW PREVENTION CODES AND THE SPECIFICATIONS OF THE CITY OF NEW CASTLE WATER UTILITY. PER STATE CODE, BACKFLOW DEVICES ARE TO BE TESTED UPON INSTALLATION AND THEN PERIODICALLY THEREAFTER. SUBMIT COPIES OF TESTS TO THE ITY ENGINEERING DEPARTMENT.
- 14. VACUUM BREAKERS MUST BE INSTALLED ON ALL EXISTING OR PROPOSED HOSE BIBBS, MOP/SERVICE SINKS, WALL/YARD HYDRANTS.
- 15. ALL PIPE SHALL BE INSTALLED ACCORDING TO SPECIFICATIONS AND PIPE TRENCH DETAIL #1/C-612.

NOTE: PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES AND THE END OF END SECTIONS/TRASH RACKS UNLESS OTHERWISE NOTED.

NOTE: ADJUST ALL EXISTING MANHOLES, VALVES, HYDRANTS AND HANDHOLES TO PROPOSED GRADES.

NOTE: CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AS REQUIRED BY STATE AND LOCAL AUTHORITIES.

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1 2 3	4	5	6	7	8
				E-DOWN STRAP	
			FLOW DE-WATERING BAG SPOUT		
			DAG SI COT WATER PUMP DE-WATERING BAG FILTERED		
			WATER	N VIEW	DE-WATERING
			AGGREGATE OR STRAW		
		SEC	IDERLAY FOR ADDED FLOW		
			EFFICIENCY OF 80% OF TOTAL SUSPEN DE-WATERING BAG SHOWN) THE DEVICE SHALL BE MADE OF A NON THE MINIMUM REQUIREMENTS OF THE	NDED SOLIDS (TSS) (D N-WOVEN FABRIC MEE E FOLLOWING TABLE A	ETAIL OF DANDY TING OR EXCEE ND BE
			CONSTRUCTED SPECIFICALLY FOR TH DE-WATERING PIPES AND HOSES. REPLACE THE UNIT, OR EMPTY SEDIM SEDIMENT OR WHEN FLOW RATE IS GI RE-SPREAD SEDIMENT FROM BAG ON-	ENT, WHEN THE BAG I REATLY REDUCED.	S HALF FULL OF
			ACCORDANCE TO LOCAL, STATE AND	FEDERAL REQUIREME	NTS.
			PHYSICAL PROPERTY GRAB TENSILE STRENGTH GRAB TENSILE ELONGATION	TEST METHOD ASTM D 4632 ASTM D 4632	MINIMUM VAI 200 LBS. 50
			PUNCTURE STRENGTH APPARENT OPENING SIZE (AOS)	ASTM D 4632 ASTM D 4833 ASTM D 4751 ASTM D 4491	120 LBS. #80 U.S. SIE 95 GAL/MIN/S
			De-Watering Bag		ອວ GAL/MIN/S



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10

SLOPE	HORIZONTAL
GRADIENT	SPACING BETWEEN
(H:V)	ROLLS (FT.)
< 6:1	50
6:1 <b>-</b> 4:1	25
>4:1 < 2:1	17
2:1 < 1:1	10
≧1:1	5

THE SPACING GUIDELINE MAY REQUIRE MODIFICATION DUE TO VARIATION IN SOIL TYPE.





∽ 9" TO 12" DIA. SEDIMAX-FR™ 18" TO 24" x 1"Ø STAKE @ 4'-0" O.C. MAX. STAPLE - SPACED PER - MANUFACTURER'S

SPECIFICATIONS 12" APRON

4'-0" O.C. MAX. ► \_ 18" TO 24" x 1"Ø STAKE GRADE  $\leftarrow$   $\leftarrow$   $\leftarrow$   $\leftarrow$   $\leftarrow$   $\leftarrow$   $\leftarrow$   $\leftarrow$   $\leftarrow$   $\leftarrow$ 9" TO 12" DIA. SEDIMAX-FR™ SIDE VIEW



- 2. STOCKPILED SOIL SHOULD BE TEMPORARILY SEEDED OR COVERED WITH A TARP IF IT IS TO BE LEFT INACTIVE FOR SEVEN (7) DAYS OR MORE.
- 3. IF FENCE FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES
- INEFFECTIVE, REPLACE THE AFFECTED PORTION IMMEDIATELY. 4. REMOVE DEPOSITED SEDIMENT WHEN IT REACHES HALF THE HEIGHT OF THE
- FENCE AT ITS LOWEST POINT OR IS CAUSING THE FABRIC TO BULGE.
- 5. AVOID UNDERMINING THE SILT FENCE DURING THE REMOVAL OF DEPOSITED SEDIMENT.
- 6. REMOVE THE SIGN, SILT FENCE, AND SEDIMENT DEPOSITS AFTER THE SOIL IS RE-DISTRIBUTED. BRING THE DISTURBED AREA TO GRADE AND STABILIZE.

# Temp. Soil Stockpile Area





