



Architects □ Engineers □ Planners

**January 25, 2010**

**Rockingham County Animal Facility**

**Wentworth, NC**

**EDA Project No. 2008409.00**

**ADDENDUM NO. 1**

The following addendum supersedes all previous information and does hereby become part of the contract documents.

**Specifications:**

1. Section 07311 – Fiberglass Singles to be included in this project.
2. Section 07460 – Siding – revised specification to be included in this project.
3. Section 08800 – Glazing to be included in this project.
4. Section 09510 – Acoustical Ceilings to be included in this project. Section 09511 to be omitted.
5. Section 09660 – Resilient Tile Flooring/Sheet Vinyl to be included in this project.
6. Section 10500 – Lockers – to be omitted from this project.
7. Section 13122 – Metal Buildings – to be omitted from this project.

**END OF ADDENDUM NO. 1**

## **SECTION 07311 - FIBERGLASS SHINGLES**

### **PART 1 - GENERAL**

#### **1.1 SUMMARY**

- A. Section Includes:
  - 1. Asphalt shingle roofing.
  - 2. Ridge vent.
- B. Related Documents:  
Division 0 – Bidding and General Conditions, Division 1 – General Requirements, all applicable provisions in the technical specification sections of Divisions 2 through 16 and applicable drawings apply to this section.
- C. Related Sections:
  - 1. Flashing and sheet metal: Division 7.

#### **1.2 SUBMITTALS**

- A. Product data.
- B. Samples: For selection, submit manufacturer's entire range of shingle colors and textures.

#### **1.3 WARRANTY**

- A. Provide manufacturer's standard forty year shingle warranty. (minimum)
- B. Provide ten year 90 mph wind warranty.

### **PART 2 – PRODUCTS**

#### **2.1 MANUFACTURERS**

- A. Asphalt Shingles:
  - 1. Products of the following manufacturers provided they comply with requirements of the contract documents, will be among those considered acceptable (or equal):
    - a. CertainTeed Corporation.
    - b. GAF Building Materials Corporation.
    - c. Owens Corning

#### **2.2 MATERIALS**

- A. Asphalt Shingles: Mineral-surfaced, self-sealing, glass fiber base. (Similar to Certainteed Landmark TL)
  - 1. Comply with ASTM D 3462,.
  - 2. Fire resistance: Class A, UL labeled.
  - 3. Wind resistance: 90 mph.
  - 4. Style: Architectural Profile shingle; 40 year minimum, wood shake appearance.
  - 5. Color: As selected by Architect, after contract award, from manufacturer's standard colors.

6. Fungus-resistant shingles: Furnish shingles with manufacturer's standard treatment which prohibits fungus spore growth on shingle surface.
  7. Provide factory prefabricated ridge shingles which match field shingles.
  8. 340 lbs. Per square minimum.
- B. Underlayment: Asphalt-saturated organic roofing felt, ASTM D 226, No. 15 unperforated, Type I, 36" wide rolls. (minimum 2 layers)
1. Provide UL-listed material approved for use in roofing assembly to achieve specified fire rating.
- C. Asphalt Plastic Cement: ASTM D 4586, fibrated asphalt cement, asbestos free.
- D. Fasteners: Use nails or staples at contractor's option.
- E. Nails: 11 or 12 gage, aluminum or hot-dipped galvanized, with barbed shanks, minimum 3/8 inch diameter head, length as necessary to penetrate through sheathing, or 3/4 inch into solid decking.

## PART 3 – EXECUTION

### 3.1 EXAMINATION

- A. Review substrate to receive shingles for obstructions, loose sheathing, or voids in sheathing. Repair or replace unacceptable work which may affect proper material installation.

### 3.2 PREPARATION

- A. Remove projections and debris from substrate before starting installation; lay sheet metal over minor voids and nail to substrate.
- B. Coordinate shingle installation with flashing and other work integral with shingles.

### 3.3 INSTALLATION

- A. Install shingles in accordance with shingle manufacturer's instructions or NRCA's "The NRCA Steep Roofing Manual, 4<sup>th</sup> Edition, 1996", whichever is more restrictive, and per instructions for high wind conditions.
- B. Double Layer Underlayment: Apply two layers of felt horizontally over substrate, with 2 inch minimum side laps and 4 inch minimum end laps. Secure with roofing nails until shingles are installed.
- C. Flashing: Install the following types of flashing to conform with installation details and instruction of "The NRCA Steep Roofing Manual".
1. Drip edge: integral with aluminum wrap at fascia: see drawings.
- D. Shingles:
1. Coursing – roof: Install shingles in accordance with "The NRCA Steep Roofing Manual".

2. Pattern: As recommended by the shingle manufacturer for the type of shingles specified.

END OF SECTION 07311

## **SECTION 07460 -SIDING**

### **PART 1 GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Fiber cement lap siding, panels, single, trim, fascia, moulding and accessories.
- B. Factory-finished fiber cement lap siding, panels, single, trim, fascia, moulding and accessories.

#### **1.2 RELATED SECTIONS**

- A. Section 05400 - Light Gage Metal Framing: Wall framing and bracing.
- B. Section 06100 - Rough Carpentry: Wood framing and bracing.
- C. Section 06100 - Rough Carpentry: Sheathing.
- D. Section 07210 - Insulation: Exterior wall insulation.

#### **1.3 REFERENCES**

- A. ASTM D3359 - Standard Test Method for Measuring Adhesion by Tape Test, Tool and Tape.
- B. ASTM E136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750 degrees C.

#### **1.4 SUBMITTALS**

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
- C. Shop Drawings: Provide detailed drawings of atypical non-standard applications of cementitious siding materials which are outside the scope of the standard details and specifications provided by the manufacturer.
- D. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- E. Verification Samples: For each finish product specified, two samples, minimum size 4 by 6 inches (100 by 150 mm), representing actual product, color, and patterns.

#### **1.5 QUALITY ASSURANCE**

- A. Installer Qualifications: Minimum of 2 years experience with installation of similar products.
- B. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

1. Finish areas designated by Architect.
2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
3. Refinish mock-up area as required to produce acceptable work.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store siding on edge or lay flat on a smooth level surface. Protect edges and corners from chipping. Store sheets under cover and keep dry prior to installing.
- C. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

#### 1.7 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

#### 1.8 WARRANTY

- A. Product Warranty: Limited product warranty against manufacturing defects.
  1. HardiePlank lap and HardiPanel vertical siding for 50 years.
  2. HardieSoffit panels for 25 years.
  3. Artisan lap siding for 30 years.
  4. HardieShingle siding for 30 years.
  5. HardieTrim boards for 10 years.
- B. Finish Warranty: Limited product warranty against manufacturing finish defects.
  1. When used for its intended purpose, properly installed and maintained according to Hardie's published installation instructions, James Hardie's ColorPlus finish with ColorPlus Technology, for a period of 15 years from the date of purchase: will not peel; will not crack; and will not chip. Finish warranty includes the cost of labor and material.
- C. Workmanship Warranty: Application limited warranty for 2 years.

### PART 2 PRODUCTS

#### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: James Hardie Building Products, Inc., which is located at: 26300 La Alameda Suite 400 ; Mission Viejo, CA 92691; Toll Free Tel: 866-274-3464; Tel: 949-367-4980; Email: [request info \(info@jameshardie.com\)](mailto:info@jameshardie.com); Web: [www.jameshardiecommercial.com](http://www.jameshardiecommercial.com)
- B. Substitutions: Certainteed, Nicheha or approved equal.
- C. Requests for approval of equal substitutions will be considered in accordance with provisions of Section 01600.

#### 2.2 SIDING

- A. Code Compliance Requirement for Materials:
  1. National Evaluation Report No. NER 405 (BOCA, ICBO, SBCCI, IBC, IRC).

2. City of Los Angeles, Research Report No. 24862.
  3. Metro Dade County, Florida Acceptance No. 07-0418, 04.
  4. US Department of Housing and Urban Development Materials Release 1263d.
  5. California DSA PA-019.
  6. City of New York M EA 223-93-M.
  7. Florida State Product Approval FL889.
  8. Non-asbestos fiber-cement siding where required to be non-combustible shall be tested in accordance with ASTM E136.
- B. Lap Siding: HardiePlank Lap as manufactured by James Hardie Building Products, Inc.
1. Type: Select Cedarmill 7-1/4 inches (184 mm) with 6 inches (152 mm) exposure.
- C. Trim:
1. HardieTrim boards as manufactured by James Hardie Building Products, Inc.
  2. Artisan Accent trim as manufactured by James Hardie Building Products, Inc.

## 2.3 FASTENERS

- A. Wood Framing Fasteners:
1. Wood Framing: 4d common corrosion resistant nails.
  2. Wood Framing: 6d common corrosion resistant nails.
  3. Wood Framing: 8d box ring common corrosion resistant nails.
  4. Wood Framing: 0.089 inch (2.2 mm) shank by 0.221 inch (5.6 mm) head by 2 inches (51 mm) corrosion resistant siding nails.
  5. Wood Framing: 0.093 inch (2.4 mm) shank by 0.222 inch (5.6 mm) head by 2 inches (51 mm) corrosion resistant siding nails.
  6. Wood Framing: 0.093 inch (2.4 mm) shank by 0.222 inch (5.6 mm) head by 2-1/2 inches (64 mm) corrosion resistant siding nails.
  7. Wood Framing: 0.091 inch (2.3 mm) shank by 0.221 inch (5.6 mm) head by 1-1/2 inches (38 mm) corrosion resistant siding nails.
  8. Wood Framing: 0.091 inch (2.3 mm) shank by 0.225 inch (5.7 mm) head by 1-1/2 inches (38 mm) corrosion resistant siding nails.
  9. Wood Framing: 0.121 inch (3 mm) shank by 0.371 inch (9.4 mm) head by 1-1/4 inches (32 mm) corrosion resistant roofing nails.
  10. Wood Framing: No. 11 gauge 1-1/4 inches (32 mm) corrosion resistant roofing nails.
  11. Wood Framing: No. 11 gauge 1-1/2 inches (38 mm) corrosion resistant roofing nails.
  12. Wood Framing: No. 11 gauge 1-3/4 inches (44 mm) corrosion resistant roofing nails.

## 2.4 FINISHES

- A. Factory Finish:
1. Product: ColorPlus Technology by James Hardie.
  2. Definition: Factory applied finish; defined as a finish applied in the same facility and company that manufactures the siding substrate.
  3. Process:
    - a. Factory applied finish by fiber cement manufacturer in a controlled environment within the fiber cement manufacturer's own facility utilizing a multi-coat, heat cured finish within one manufacturing process.
    - b. Each finish color must have documented color match to delta E of 0.5 or better between product lines, manufacturing lots or production runs as measured by photospectrometer and verified by third party.

4. Protection: Factory applied finish protection such as plastic laminate that is removed once siding is installed
  5. Accessories: Complete finishing system includes pre-packaged touch-up kit provided by fiber cement manufacturer. Provide quantities as recommended by manufacturer.
- B. Factory Finish Color for Trim, Soffit and Siding Colors: (Color selection to be made after bid)
1. Alpine Frost JH50-10
  2. Arctic White JH10-20
  3. Autumn Tan JH20-20
  4. Boothbay Blue JH70-20
  5. Chestnut Brown JH80-30
  6. Cobble Stone JH40-10
  7. Countrylane Red JH90-20
  8. Evening Blue JH70-30
  9. Frosted Green JH60-20
  10. Harris Cream JH80-10
  11. Heathered Moss JH50-20
  12. Iron Gray JH90-30
  13. Khaki Brown JH20-30
  14. Light Mist JH70-10
  15. Monterey Taupe JH40-20
  16. Mountain Sage JH50-30
  17. Navajo Beige JH30-10
  18. Parkside Pine JH60-30
  19. Sail Cloth JH20-10
  20. Sandstone Beige JH30-20
  21. Soft Green JH60-10
  22. Timber Bark JH40-30
  23. Traditional Red JH90-10
  24. Tuscan Gold JH80-20
  25. Woodland Cream JH10-30
  26. Woodstock Brown JH30-30

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If framing preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- C. Nominal 2 inch by 4 inch (51 mm by 102 mm) wood framing selected for minimal shrinkage and complying with local building codes, including the use of water-resistive barriers or vapor barriers where required. Minimum 1-1/2 inches (38 mm) face and straight, true, of uniform dimensions and properly aligned.
  1. Install water-resistive barriers and claddings to dry surfaces.
  2. Repair any punctures or tears in the water-resistive barrier prior to the installation of the siding.
  3. Protect siding from other trades.
- D. Minimum 20 gauge 3-5/8 inch (92 mm) C-Stud 16 inches maximum on center or 16 gauge 3-5/8 inches (92 mm) C-Stud 24 inches (610 mm) maximum on center metal framing complying with local building codes, including the use of water-resistive barriers and/or vapor barriers where required. Minimum 1-1/2 inches (38 mm) face

and straight, true, of uniform dimensions and properly aligned.

1. Install water-resistive barriers and claddings to dry surfaces.
2. Repair any punctures or tears in the water-resistive barrier prior to the installation of the siding.
3. Protect siding from other trades.

### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

### 3.3 INSTALLATION - HARDIEPANEL SIDING

- A. Install materials in strict accordance with manufacturer's installation instructions.
- B. Block framing between studs where HardiePanel siding horizontal joints occur.
- C. Place fasteners no closer than 3/8 inch (9.5 mm) from panel edges and 2 inches (51 mm) from panel corners.
- D. Allow minimum vertical clearance between the edge of siding and any other material in strict accordance with the manufacturer's installation instructions.
- E. Maintain clearance between siding and adjacent finished grade.
- F. Specific framing and fastener requirements refer to Tables 2 and 3 in National Evaluation Service Report No. NER-405.
- G. Factory Finish Touch Up: Apply touch up paint to cut edges in accordance with manufacturer's printed instructions.
  1. Touch-up nicks, scrapes, and nail heads in pre-finished siding using the manufacturer's touch-up kit pen.
  2. Touch-up of nails shall be performed after application, but before plastic protection wrap is removed to prevent spotting of touch-up finish.
  3. Use touch-up paint sparingly. If large areas require touch-up, replace the damaged area with new pre-finished siding. Match touch up color to siding color through use of manufacturer's branded touch-up kits.

### 3.4 INSTALLATION - HARDIETRIM BOARDS

- A. Install materials in strict accordance with manufacturer's installation instructions. Install flashing around all wall openings.
- B. Fasten through trim into structural framing or code complying sheathing. Fasteners must penetrate minimum 3/4 inch (19 mm) or full thickness of sheathing. Additional fasteners may be required to ensure adequate security.
- C. Place fasteners no closer than 3/4 inch (19 mm) and no further than 2 inches (51 mm) from side edge of trim board and no closer than 1 inch (25 mm) from end. Fasten maximum 16 inches (406 mm) on center.
- D. Maintain clearance between trim and adjacent finished grade.
- E. Trim inside corner with single board.
- F. Outside Corner Board: For 3/4 inch (19 mm) trim only. Install single board of outside

corner board then align second corner board to outside edge of first corner board.  
Do not fasten HardieTrim board to HardieTrim board.

- G. Outside Corner Board: For 1 inch (25 mm) and 1-1/2 inches (38 mm) trim only. Pre-build corners by fastening trim together with 16 ga. corrosion resistant finish nail 1/2 inch (13 mm) from edge spaced 16 inches (406 mm) apart, weather cut each end spaced minimum 12 inches (305 mm) apart.
- H. Allow 1/8 inch gap between trim and siding.
- I. Seal gap with high quality, paint-able caulk.

### 3.5 FINISHING

- A. Finish unprimed siding with a minimum one coat high quality, alkali resistant primer and one coat of either, 100 percent acrylic or latex or oil based, exterior grade topcoats or two coats high quality alkali resistant 100 percent acrylic or latex, exterior grade topcoat within 90 days of installation. Follow paint manufacturer's written product recommendation and written application instructions.
- B. Finish factory primed siding with a minimum of one coat of high quality 100 percent acrylic or latex or oil based exterior grade paint within 180 days of installation. Follow paint manufacturer's written product recommendation and written application instructions.

### 3.6 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

## **SECTION 08800 - GLAZING**

### PART 1 -General

#### 1.1 Summary

- A. Work included in this section includes:
  - 1. All glass as shown on drawings
- B. Work related includes:
  - 1. Fiberglass doors (Section 08100)
  - 2. Aluminum doors and frames (Section 08120)
  - 3. Steel doors and frames (Section 08111)

#### 1.2 Standards

- A. Install glazing with dry glazing system.
- B. Glazing Standard: Comply with FGMA "Glazing Manual" and "Sealant Manual".
- C. Safety Glazing Standard: Comply with ANSI Z97.1 and testing requirements of 16 CFR Part 1201 for category II materials.
- D. Fire Resistance Rated Wire Glass: Provide UL-labeled and listed products, identical with those tested per ASTM E 163 (UL 9).
- E. Insulating Glass Certification Program: Provide insulating glass units complying with requirements indicated which are permanently marked with certification label of the following inspecting and testing agency:
  - 1. Insulating Glass Certification Council.
- F. Preconstruction Sealant-Substrate Tests: Submit glass and glazing substrate materials to manufacturer of glazing sealants for testing to determine if primers are required and for sealant compatibility.

#### 1.3 Submittals: Submit shop drawings on dry glazing systems with physical sample 6" long.

- A. Comply with requirements of section 01340.
- B. See 2.1 for manufacturers.

### PART 2 - Products

#### 2.1 Acceptable Manufacturers:

- A. LOF, Libby-Owens-Ford Co.
- B. PPG Industries, Inc.
- C. CE, Combustion Engineering, Inc.
- D. Guardian Industries

## 2.2 Glazing schedule:

### A. Float Glass:

1. Shall be 1/4" thick, clear float glass.
2. Float glass shall meet the requirements of Federal Specification DD-G-451D.
3. Glass to be tempered where shown on drawings.

### B. Insulated Glass: Low E glass

1. 1" insulated glass shall be 2 pieces of clear 1/4" glass separated by air space. 5/8" insulated glass shall be two pieces of clear 3/6" thick glass separated by a desiccant and hermetically sealed with a structural sealant.
2. Insulating glass shall be assembled by the glass manufacturer.
3. Insulated glass shall meet the requirements of Federal Specification DD-G-451D.
4. Glass to be tempered where noted on drawings.

### C. Laminated Glass

1. Shall be clear laminated glass, 1/4" thick with clear vinyl interlayer.
2. Laminated glass shall meet the requirements of Federal Specification DD-G-451d, 1977; American National Standards Institute (ANSI) Z97.1, 1975; and Consumer Product Safety Commission 16 CFR-1201.

### D. Tempered Glass

1. Provide tempered glass where required by code.

## 2.3 Glazing System

- A. Windows - glazing system shall be dry glazing as recommended by window manufacturer. Submit shop drawings and sample of proposed system per section 01340.
- B. Fixed glass in Hollow Metal Frames and Doors shall be wet glazed with silicone sealant, color to match finish. Submit shop drawings and sample of proposed system per section 01340.

## 2.4 Setting Blocks

- A. Neoprene or EPDM with a Shore A durometer hardness of 85, 0.1" per sq. ft. of glass supported, or min. of 4" in length. Lead blocks may only be used for single float glass.

## PART 3 - Execution

### 3.1 Fabrication

#### A. Clearance between glass face and frame:

1. 3/16" glass = 1/9" min.
2. 1/4" glass = 1/8" min.
3. 5/8" insulated - 1/8" min.

#### B. Clearance between glass edge and frame:

1. 3/16" glass = 3/16" min.
2. 1/4" glass = 1/4" min.
3. 5/8" insulated = 1/8" min.

- C. Bite (Outer edge of glass to inner edge of frame):
  - 1. 3/16" glass = 5/16" min.
  - 2. 1/4" glass = 3/8" min.
  - 3. 5/8" insulated = 1/2" min.

### 3.2 Installation

- A. Meter frame shall not be in contact with installed glass.
- B. Setting blocks: Lites larger than 6 sq. ft., and all glass thicker than 1/8", shall be installed on 2 setting blocks at the bottom quarter points.
- C. Edge Blocks: In dry glazing systems, one 3" neoprene edge block shall be installed in each jamb, allowing 1/8" space between edge block and glass edge.
- D. Watershed: Glass shall be installed in frames with sealant forming a 1/16" watershed, both sides.
- E. Glass shall be installed clean, free of chips, cracks, scratches, blemishes, oil, dirt, stains or visible waves or distortions.
- F. All glass shall be cleaned immediately prior to final inspection.

### 3.3 Performance

- A. System to provide for expansion and contraction within system components caused by a cycling temperature range of 170 F degrees without causing detrimental effects to system or components.
- B. Design and size members to withstand dead loads and live loads caused by pressure and suction of wind acting normal to plane of wall as calculated in accordance with the requirements of the N. C. Building Code, and as measured in accordance with ANSI/ASTM E330.
- C. Limit air infiltration through assembly of 0.06 cu. ft./min./sq. ft. of assembly surface area, measured at a reference differential pressure across assembly of 0.3 inches water gage, measured in accordance with ANSI/ASTM E283.
- D. System to accommodate, without damage to system or components, or deterioration of perimeter seal: movement within system; movement between system and perimeter framing components; dynamic loading and release of loads; and deflection of structural support framing.
- E. Maintain continuous air and vapor barrier throughout assembly primarily in line with inside pane of glass.
- F. Maintain: Vapor seal with Interior Atmospheric Pressure of One Inch (25 mm) sp, 72 degrees F (22 degrees C), 40 percent RH: no failure.

END OF SECTION 08800

## **SECTION 09510 – ACOUSTICAL CEILINGS**

### **PART 1 - GENERAL**

#### **1.1 DESCRIPTION**

- A. Work included: Provide acoustical ceilings where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.
- B. Related work:
  - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

#### **1.2 QUALITY ASSURANCE**

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

#### **1.3 SUBMITTALS**

- A. Comply with pertinent provisions of Section 01340 Submittals and Substitutions - Division #1.
- B. Product Data: Within 45 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
  - 1. Materials list of items proposed to be provided under this Section. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
  - 2. Shop Drawings in sufficient detail to show suspension, layout, lateral restraint, installation, anchorage, and interface of the work of this Section with the work of adjacent trades.
  - 3. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.

#### **1.4 PRODUCT HANDLING**

- A. Comply with pertinent provisions of Section 01620 - Division #1.

#### **1.5 EXTRA STOCK**

- A. Deliver to the Owner for his use in future modifications, an extra stock of approximately 10% of each type of acoustical material installed, packaging each type of material separately, distinctly marked, and adequately protected against deterioration.

## **PART 2 – PRODUCTS**

### **2.1 “T” GRID SYSTEM**

- A. Provide a complete system of supporting members, anchors, wall cornices, adapters for light fixtures and grilles, and accessories of every type required for a complete suspended “T” Grid System of the arrangements shown on the Drawings, in color or colors selected by the Architect from standard colors of the approved manufacturer, and complying with pertinent requirements of Underwriter’s Laboratories, Inc., and the governmental agencies having jurisdiction.
- B. Acceptable products:
  - 1. Armstrong 15/16” exposed tee grid system – white.
  - 2. Equal products by Chicago Metallic or Donn are acceptable.

### **2.2 ACOUSTICAL CEILING PANELS**

- A. Acceptable products:
  - 1. SAT: Armstrong Cortega Square Lay-in 24 x 24 x 5/8”, white
  - 2. SAT MR: Armstrong Random Fissured 2908 Square Lay-in 24 x 24 x 5/8”, white
  - 3. Equal products by USG or approved equals.

### **2.3 OTHER MATERIALS**

- A. Provide other material, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

## **PART 3 – EXECUTION**

### **3.1 SURFACE CONDITIONS**

- A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

### **3.2 INSTALLATION - GENERAL**

- A. Except as modified by requirements of governmental agencies having jurisdiction, recommendations of the manufacturer as approved by the Architect, or specific directions of the Architect, install in accordance with ASTM C636 and the pertinent UL Design Requirements.
- B. Lateral bracing:
  - 1. Provide lateral bracing as required by pertinent codes and regulations.
  - 2. Secure lateral bracing to structural members. Secure at right angles to the direction of the partition and four ways in large ceiling areas.
- C. Provide hold-down clips for ceiling boards only when so required by governmental agencies having jurisdiction.

- D. Make all grid level within a tolerance of one in 1000 and straight within a tolerance of one in 1000.

### 3.3 INSTALLATION OF ACOUSTICAL MATERIALS

- A. "T" Grid System: Install acoustical ceiling boards so linearity of facing is as directed by the Architect.

### 3.4 CLEANING UP

- A. In addition to other stipulated requirements for cleaning, completely remove fingerprints and traces of soil from the surfaces of grid and acoustical materials, using only those cleaning materials recommended for the purpose by the manufacturer of the material being cleaned.

END OF SECTION 09510

## **SECTION 09660 - RESILIENT TILE FLOORING/SHEET VINYL**

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Vinyl Composition Tile
  - 2. Commercial Sheet Vinyl
  - 3. Vinyl Base

#### 1.2 SUBMITTALS

- A. Comply with the requirements of section 01340.
- B. Product Data: Submit technical data from each manufacturer of resilient products required.
- C. Initial Samples: Submit manufacturer's standard color selection samples for resilient products required, including all available colors and patterns.

#### 1.3 PROJECT CONDITIONS

- A. Environmental Requirements: At least 48 hours prior to beginning work, move resilient flooring materials to areas of installation and maintain at minimum 70 degrees F until 48 hours after completing installation and at minimum 55 degrees F thereafter.
- B. Sequencing: Do not begin installation of resilient flooring products until painting has been completed for each area.
- C. Existing Conditions: Do not install resilient flooring on concrete substrates until testing has been conducted to assure that moisture levels are acceptable.

#### 1.4 MAINTENANCE

- A. Extra Materials: At time of completing installation, deliver stock of maintenance materials to the owner. Furnish products matching those actually installed, packaged for storage and clearly labeled.
- B. Resilient tile: 1 carton of each variety installed.
- C. Vinyl base: 10 feet of each variety installed.

### PART 2 - PRODUCTS

#### 2.1 VINYL COMPOSTION TILE

- A. Standard: FS SS-T-312, Type IV; 12 inches by 12 inches.

- B. Manufacturers: Products of the following manufacturers, provided they comply with requirements of the contract documents, will be among those considered acceptable:
  - 1. Armstrong World Industries, Inc.
  - 2. Azrock Industries Inc.
  - 3. Congoleum
  - 4. Tarkett, Inc.
- C. Composition 1: Free of asbestos.
- D. Gage: 1/8 inch.

## 2.2 COMMERCIAL SHEET VINYL

- A. Standard: ASTM F 1303-90, Type 11, Grade1, 6 foot width minimum
- B. Manufacturer: Products of the following manufacturers, provided they comply with the requirements of the contract documents, will be among those considered acceptable:
  - 1. Armstrong World Industries, Inc.
  - 2. Congoleum Corporation
  - 3. Azrock Industries, Inc.
  - 4. Tarkett
- C. Gage: .080 inches thick color throughout body.

## 2.3 RESILIENT BASE MATERIALS

- A. Vinyl Wall Base: FS SS-W-40, Type II, and as follows:
  - 1. Manufacturers: Products of the following manufacturers, provided they comply with requirements of the contract documents, will be among those considered acceptable:
    - a) Flexco Company.
    - b) Johnsonite, Inc.
    - c) The R. C. Musson Rubber Company.
- B. Height: 4 inches.
- C. Style: Standard toe base.
- D. Corners: Preformed or molded units matching base in color and finish.

## 2.4 MISCELLANEOUS ACCESSORIES

- A. Resilient Edge Strips: Solid rubber or vinyl edging, in tapered or rounded profile, nominally 1 inch in width and 1/8 inch in thickness.
- B. Color: Matching flooring.
- C. Adhesive: Type recommended by manufacturer of resilient product for specific substrate conditions.

## 2.5 COLORS AND PATTERNS

- A. Provide colors and patterns of resilient flooring materials as selected by the architect from manufacturer's standard product line.

## PART 3 - EXECUTION

### 3.1 GENERAL INSTALLATION REQUIREMENTS

- A. Comply with manufacturer's published recommendations for installation in each area, extending resilient flooring into spaces which are partially concealed. Cut and fit tightly to fixtures, pipes, and other obstructions, as well as to walls and partitions.
- B. Tightly adhere resilient flooring to substrate with no open joints or cracks, and without raised or blistered areas. Spread adhesive evenly, so that final installation will be without telegraphed markings from adhesive or substrate.
- C. Verify conditions ready to receive all work of this section. Do not proceed until unsatisfactory conditions are corrected.

### 3.2 TILE INSTALLATION

- A. Layout: Establish center of each space and lay tile from center point, so tiles at each edge will be not less than 1/2 tile and equal in width.
- B. Matching: In each space, use tiles from same production run, and lay tiles in same sequence as removed from cartons. Discard broken, chipped, or otherwise damaged tiles.
- C. Lay tile square to room axis.
- D. Lay tile to achieve monolithic appearance, with pattern in all tiles oriented in same direction.

### 3.3 INSTALLATION OF RESILIENT BASE

- A. Apply resilient base securely in locations indicated, using maximum lengths available.

### 3.4 INSTALLATION OF MISCELLANEOUS ACCESSORIES

- A. Resilient Edge Strips: At locations shown on drawings, or where otherwise required to protect edge of resilient flooring, install resilient edge strips securely with recommended adhesive, to achieve tightly butted joint.

### 3.5 CLEANING

- A. Initial Cleaning: Remove excess and waste materials promptly, and sweep or vacuum clean resilient flooring as soon as installation has been completed in each area. After adhesive has had adequate time to set, mop each area with damp mop and mild detergent.

- B. Final Cleaning: Remove scuff marks, excess adhesive, and other foreign substances, using only cleaning products and techniques recommended by manufacturer of resilient products. The contractor shall provide final waxing and buffing at the completion of the project.
- C. Provide Owner with manufacturer's standard cleaning procedures.

END OF SECTION 09660