

SECTION 07112 - WATERPROOFING AND DAMPROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. CMU wall dampproofing (behind Stucco finish).
 - 2. Elevator pit waterproofing.
 - 2. Planter waterproofing.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 3 Section "Cast-in-Place Concrete" for concrete placement, curing, and finishing.
 - 2. Division 7 Section "Sheet Metal Flashing and Trim" for sheet metal flashings.
 - 3. Division 7 Section "Joint Sealants" for joint sealant materials and installation.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Provide waterproofing that prevents the passage of liquid water under hydrostatic pressure and complies with requirements as demonstrated by testing performed by an independent testing agency of manufacturer's current sheet membrane.

1.4 SUBMITTALS

- A. General: Submit each item in this Article according to the Conditions of the Contract and Division 1 Specification Sections.

- B. Product Data for each type of waterproofing specified, including manufacturer's written instructions for evaluating, preparing, and treating substrate, technical data, and tested physical and performance properties.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer who is licensed or approved by waterproofing manufacturer as qualified to install manufacturer's waterproofing.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in original packages with seals unbroken, labeled with manufacturer's name, product, date of manufacture, and directions for storage.
- B. Store materials in their original undamaged packages in a clean, dry, protected location and within temperature range required by waterproofing manufacturer. Protect stored materials from direct sunlight.

1.7 PROJECT CONDITIONS

- A. Environmental Conditions: Apply waterproofing within range of ambient and substrate temperatures recommended by waterproofing manufacturer. Do not apply waterproofing to a damp or wet substrate.
 - 1. Do not apply waterproofing in snow, rain, fog, or mist.
- B. Maintain adequate ventilation during preparation and application of waterproofing materials.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
- B. Products: Subject to compliance with requirements, provide one of the following:

1. Bitumen modified, liquid applied, single component, elastomeric waterproofing membrane system:
 - a. Elasto-Deck B.T., Pacific Polymers, Garden Grove, CA (800) 888-8340 - for planter liner.
 - b. Ironite polymer cement system, Coaster Waterstops - elevator pit.
Crystalline - elevator pit.
 - c. Hydrocide 700, Sonneborn Waterproofing Systems - CMU walls (behind stucco finish) exterior walls.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions under which waterproofing systems will be applied, with Installer present, for compliance with requirements. Do not proceed with installation until unsatisfactory conditions have been corrected.
 1. Do not proceed with installation until after minimum concrete or mortar curing period recommended by waterproofing manufacturer.
 2. Verify substrate is visibly dry and free of moisture. Test for capillary moisture by plastic sheet method according to ASTM D 4263.
 3. Notify Architect in writing of anticipated problems using waterproofing over substrate.

3.2 SURFACE PREPARATION

- A. Clean, prepare, and treat substrate according to manufacturer's written instructions. Provide clean, dust-free, and dry substrate for waterproofing application.
- B. Mask off adjoining surfaces not receiving waterproofing to prevent spillage affecting other construction.
- C. Remove grease, oil, bitumen, form release agents, paints, and other penetrating contaminants from concrete.
- D. Remove fins, ridges, mortar, and other projections and fill honeycomb, aggregate pockets, holes, and other voids.
- E. Prepare, fill, prime, and treat joints and cracks in substrate. Remove dust and dirt from joints and cracks according to ASTM D 4258.
- F. Prepare, treat, and seal vertical and horizontal surfaces at terminations and penetrations through waterproofing and at drains and protrusions.

3.3 PROTECTING AND CLEANING

- A. Protect waterproofing from damage and wear during application and remainder of construction period according to manufacturer's written instructions.
- B. Protect installed insulation from damage due to ultraviolet light exposure, physical abuse, and other causes. Provide temporary coverings where insulation will be subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.
- C. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 07112

SECTION 07210 - BUILDING INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Concealed building insulation.
 - 2. Exposed building insulation.

1.3 SUBMITTALS

- A. General: Submit each item in this Article according to the Conditions of the Contract and Division 1 Specification Sections.
- B. Product Data for each type of insulation product specified.

1.4 QUALITY ASSURANCE

- A. Single-Source Responsibility for Insulation Products: Obtain each type of building insulation from a single source with resources to provide products complying with requirements indicated without delaying the Work.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Protect insulation materials from physical damage and from deterioration by moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering insulation products that may be incorporated in the work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide insulation products by one of the following:
 - 1. Glass-Fiber Insulation:
 - a. CertainTeed Corporation.
 - b. Owens-Corning Fiberglas Corporation.
 - c. Dow Building Products

2.2 INSULATING MATERIALS

- A. General: Provide insulating materials that comply with requirements and with referenced standards.
- B. Walls R-19, unfaced, FS-25 batt insulation (at stud walls at windows)
- C. Ceiling Sound Insulation, Sound Attenuation Batts (SABs)
500 3 1/2" E-405 Mounting Type

PART 3 - EXECUTION

3.1 INSTALLATION OF GENERAL BUILDING INSULATION

- A. Apply insulation units to substrates by method indicated, complying with manufacturer's written instructions. If no specific method is indicated, bond units to substrate with adhesive or use mechanical anchorage to provide permanent placement and support of units.
- B. Set vapor-retarder-faced units with vapor retarder to warm side of construction, unless otherwise indicated. Do not obstruct ventilation spaces, except for firestopping.

1. Tape joints and ruptures in vapor retarder, and seal each continuous area of insulation to surrounding construction to ensure airtight installation.

3.2 PROTECTION

- A. General: Protect installed insulation and vapor retarders from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION 07210



SECTION 07320 - PAN AND COVER CLAY ROOF TILE

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. Provide all labor, materials, and equipment to install the specified clay tile over the prepared substrate as specified herein and as shown on the drawings.

1.02 DELIVERY, STORAGE AND HANDLING

- A. Store tile with secure coverings to avoid damage from construction debris. Remove damaged or unsuitable material from the job site.

1.03 SUBMITTALS

- A. Submit samples and products literature for all products listed.

PART 2 - PRODUCTS

2.01 PRODUCT DESCRIPTION

- A. Tapered Spanish tile comprises pans and tapered covers (match existing profile on existing connected buildings). Tapered Spanish tile is 16" long; covers are 7" wide (measured at butt of tile). The average number of pieces per square for the Tapered Missions cover/tapered pan combination is 234, and the average weight per square is 1,440 lbs. Match tile color on front panels of existing gymnasium building.
- B. Manufacturer: Ludowici Roof Tile, Inc.
4757 Tile Plant Road, P. O. Box 69
New Lexington, OH 43764
Phone (800) 917-8998
Fax (610) 341-7940

2.02 TECHNICAL DATA

- A. Roof Tile must be an incombustible, vitrified tile with a low moisture absorption rate and a high breaking strength. Clay tile roof tiles must meet or exceed the Grade 1 requirements of ASTM C1167-96.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Contractor and the Roofing Sub-contractor to verify deck and surface is clean and smooth, free of depressions, waves, or projections.
- B. Verify roof openings, curbs, pipes, sleeves, ducts, or vents through the roof are solidly set, treated wood nailing strips are in place.
- C. If applicable, verify all specifications related to Metal Deck installation have been followed prior to beginning installation of insulation.
- D. Beginning installation means acceptance of substrate.

3.02 PROTECTION

- A. Protect the roof clay tile in areas that will receive possible traffic.
- B. All workmen shall wear clean, soft rubber-soled shoes for any application work where they may be walking on tile in place.

3.03 INSTALLATION

- A. Follow the detailed installation instructions, including diagrams, provided by Ludowici. Highlights of those instructions are as follows:

Flashings: When roofs intersect other roofs, parapet walls, flashings are required. 1/32" copper is the minimum flashing weight and temper. Flashing lighter than 1/32" (equivalent to 20 ga) not permitted.

Underlayment: On standard slopes, cover all decks with a Siplast 20 PR nailed-on modified bitumen membrane as the waterproofing underlayment. Apply waterproofing underlayment according to the application instructions provided with the product. Proper underlayment installation is critical for a watertight roof. Mop on 30 lb building felt as top layer for "walk" control of workman installing tile roof.

All hips, valleys and ridges must be covered with waterproofing underlayment.

Fasteners: Corrosion resistant fasteners are required. Nails must be copper ring shank, 11 gage, at least 1-3/4" long with 3/8" head. Screws must be brass or stainless, No. 8 or No. 9 flathead Phillips or square drive. Wire-tying with solid copper (16 gauge) must be used on non-nailable surfaces. Clips shall be used due to hurricane prone area.

Plywood Deck: Three-quarter inch (3/4") plywood (ADA) approved roof decking.

Pan and Cover Tile Application: Roof deck must be clean, smooth and dry. Horizontal and vertical lines must be chalked on the felt to guide application. Pan and cover tile exposures vary widely for each type and size.

Approximate ranges are applied at an average length exposure between 10" and 15-3/8"; an average width exposure for pans between 2" and 5-1/2"; and an average width exposure for covers between 6-1/2" and 8". Center-to-center dimensions range from 9" to 12".

Hip and ridge stringers will be installed where necessary. Wood stringers will serve as a nailer board and to support the cover tile. Tile installation will start by using an eave closure tile laid flush with the eave. The starting course begins with the right detached gable rake or rolled rake tile (match existing detail) and then a full cover tile laid into a pan. Pans will be laid between stringers with covers then placed over and fastened into the stringers. Succeeding courses will continue this pattern, usually worked in a diagonal pattern up the roof. (The laid tight application method uses field cutting or factory cut short covers (3"), placing the top edge of the covers abutting the pan's bottom edge in the succeeding course so that all covers lay tight to the pan.) A top fixture is to be used to fill the void area between the field and ridge cover. Mitered pieces will be used in valley and hip areas. Hip and ridge coverings are applied after field tiles. A multitude of standard and custom accessories are available.

Inspect the application from the ground after 75-100 tiles have been installed.

3.04 AVAILABILITY AND WARRANTY

Ludowici Roof Tile has sales representatives throughout the United States. Call 1-800-917-8998. Submit completed 2-yr Guarantee.

Provide a 75-year limited warranty including 20 years of Prime Protection which provides 100% of the replacement cost of defective tiles, including labor, tear-off and disposal, in the event the defect occurs within 20 years of installation.

END OF SECTION

ROOF MAINTENANCE GUARANTEE

Owner: The Roman Catholic Congregation of St. Charles Borromeo
Msgr. Harry J. Bugler, Pastor
P. O. Box 428
Destrehan, LA 70047

Whereas _____

Address _____

Telephone (____) _____, hereby called the "Roofing Contractor", has performed roofing and flashing in accordance with the Contract Documents. (hereinafter called the "Work") under a Contract with the Owner.

Name of Project: Msgr. John N. Phuc Education Center Final Phase
13396 River Road, Destrehan, Louisiana

St. Charles Borromeo Parish

Name and Type of Buildings:
Bus Drop-off and connecting canopy arcade.

Types of Roof Decks:
Wood

Total Roof Areas: _____sf _____sf

Date of Acceptance: _____ Guarantee Period: 2 Years

Date of Expiration: _____

AND WHEREAS the Roofing Contractor has contracted to guarantee said work against water entry from faulty or defective materials and workmanship for the designated Guarantee period:

NOW THEREFORE the Roofing Contractor guarantees, subject to the terms and conditions herein set forth, that during the Guarantee Period he will at his own cost and expense make or cause to be made with approved procedures and materials such repairs to or replacements of said work resulting from water entry or faults or defects of said Work as are necessary to correct faulty and defective work and as are necessary to maintain said Work in watertight conditions and further to respond on or within two (2) working days upon written notification of leaks or defects by the Owner. Furthermore, he will at his own cost and expense maintain the roof for (2) years after acceptance, in accordance with the current edition of the Roof Maintenance Manual published by the Roofing Industry Educational Institute. The roof shall be inspected a minimum of twice each year, and a report prepared documenting the conditions observed at each inspection. These inspections shall be made once during the months of April or May and once during the months of September and October. Two copies of each report shall be forwarded to the Owner.

This guarantee is made subject to the following terms and conditions:

1. Specifically excluded from this guarantee are damages to the Work, other parts of the building and building contents caused by: A) Lightning, windstorm (includes hurricanes and tomados), hailstorm, earthquakes and other unusual phenomena of elements; B) fire; C) structural failures causing excessive roof deck, edgings and related roof components movement. When the Work has been damaged by any of the foregoing causes, the Guarantee will be null and void until such damage has been repaired by the Roofing Contractor, and until the cost and expense thereof has been paid by the Owner or another responsible party so designated.