SECTION 07 14 00
FLUID APPLIED WATERPROOFING

PART 1 GENERAL

1.1 RELATED DOCUMENTS
- A. The provisions of the General Conditions, Supplementary Conditions, and the Sections included under Division 1, General Requirements, are included as a part of this Section.

1.2 SECTION INCLUDES
- A. The Work required under this Section consists of fluid applied waterproofing and related items necessary to complete the Work, including:
- B. Fluid applied rubberized asphalt membrane waterproofing
- C. Cant strips
- D. Protective covering

1.3 REFERENCES
- A. ASTM C836/C836M – Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course
- B. ASTM D412 – Standard Test Methods for Vulcanized rubber and Thermoplastic Elastomers - Tension
- C. ASTM D624 – Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomer
- D. ASTM D746 – Standard Test Method for Brittleness Temperature of Plastic and Elastomers by Impact
- E. ASTM D822 – Standard Practice for Filtered Open-Flame Carbon Arc Exposures of Paint and Related Coatings
- F. ASTM D1004 – Standard Test Method for Tear Resistance (Graves Tear) of Plastic Film and Sheeting
- G. ASTM D2240 – Standard Test Method for Rubber Property - Durometer Hardness
- H. ASTM D3468 – Standard Specification for Liquid-Applied Neoprene and Chlorosulfonated Polyethylene Used in Roofing and Waterproofing
- I. ASTM E96/E96M – Standard Test Methods for Water Vapor Transmission of Materials
- J. NRCA (National Roofing Contractors Association) - Waterproofing Manual
- K. FBC - Florida Building Code

1.4 PERFORMANCE REQUIREMENTS
- A. Waterproofing System: A system capable of resisting water head pressure and from allowing moisture migration into interior of the building

1.5 SUBMITTALS FOR REVIEW
- A. Section 01 33 00 - Submittals Procedures
- B. Product Data: Provide data for surface conditioner, flexible flashings, joint cover sheet, and joint and crack sealants with temperature range for application of waterproofing membrane.
- C. Shop Drawings: Indicate special joint or termination conditions and conditions of interface with other materials, if applicable.
- D. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.

1.6 SUBMITTALS AT PROJECT CLOSEOUT
- A. Section 01 77 11 - Contract Closeout
- B. Warranty: Submit completed manufacturer warranty forms in Owner's name and registered with manufacturer.

1.7 QUALITY ASSURANCE

A. Perform Work in accordance with NRCA Waterproofing Manual.
B. Waterproofing Manual Manufacturer: Company specializing in waterproofing membrane with minimum 5-years of experience
C. Applicator: Company specializing in performing the work of this section with minimum 5-year documented experience and approved by manufacturer.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Maintain ambient temperatures above 40° F for 24 hours before and during application and until liquid or mastic accessories have cured.

1.9 WARRANTY

A. Section 01 77 00 - Contract Closeout
B. Correct defective Work within a five-year period after Date of Substantial Completion.
C. Provide 5-year manufacturer warranty for waterproofing failing to resist penetration of water.
D. For warranty repair work, remove and replace materials concealing waterproofing.

PART 2 PRODUCTS

2.1 MEMBRANE COMPOUND MATERIAL

A. Waterproofing Membrane: Elastomeric rubberized asphaltic compound, hot poured, quick setting

2.2 ACCESSORIES

A. Surface Conditioner: Compatible with membrane compound; as required by membrane manufacturer
B. Elastic Flashings: Neoprene as recommended by membrane manufacturer
C. Joint Cover Sheet: Elastic sheet material designed for and compatible with membrane
D. Cant Strips: Pre-molded composition material.
E. Joint and Crack Sealant: As required by membrane manufacturer.
F. Back-up Material: Butyl rod
G. Counter Flashings: Mil finish aluminum.

2.3 PROTECTIVE MATERIALS

A. Separation Sheet: Sheet polyethylene, minimum 6-mil thick

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 01 31 00 – Project Management and Coordination: Verify existing conditions before starting work
B. Verify substrate surfaces are free of frozen matter, dampness, loose particles, cracks, pits, projections, penetrations, or foreign matter detrimental to adhesion or application of waterproofing system.
C. Verify that substrate surfaces are smooth, free of honeycomb or pitting, and not detrimental to full contact bond of waterproofing materials.
D. Verify items, which penetrate surfaces receiving waterproofing, are securely installed.

3.2 PREPARATION

A. Protect adjacent surfaces not designated to receive waterproofing.
B. Clean and prepare surfaces to receive waterproofing in accordance with manufacturer's instructions; vacuum substrate clean.
C. Do not apply waterproofing to surfaces unacceptable to manufacturer or applicator.

D. Seal cracks and joints with sealant materials using depth to width ratio as recommended by sealant manufacturer.

3.3 APPLICATION

A. Maintain ambient temperatures above 40° F for 24 hours before and during application and until liquid or mastic accessories have cured.
B. Apply surface conditioner at a rate recommended by manufacturer.
   1. Protect conditioner from rain or frost until dry.
C. Apply 12" wide strip of joint cover sheet over cracks, non-working joints, and expansion joints over 1/16" but not exceeding ½" in width.
D. At expansion joints from ½" to 1" in width, loop cover sheet down into joint between 1¼" and 1¾".
   1. Extend sheet 6" on either side of expansion joint.
E. Center cover sheet over crack or joints. Roll sheet material onto ⅛" coating of waterproofing material
   1. Apply second coat over sheet extending minimum of 6" beyond sheet edges.
   2. Apply this procedure to expansion joints between horizontal and vertical surfaces.
F. Apply waterproofing material in accordance with manufacturer's instructions.
G. Extend membrane over cants and up intersecting surfaces at membrane perimeter minimum 6" above horizontal surface for first ply and 6" at subsequent plies laid in shingle fashion.
H. Install cant strips at inside corners.
I. Apply extra thickness of waterproofing material at corners, intersections, angles and over joints.
J. Seal items protruding to or penetrating through membrane and install counter flashing membrane material.
K. Extend waterproofing material and flexible flashing into drain clamp flange.
   1. Apply adequate coating of liquid membrane to assure clamp ring seal.
   2. Coordinate with drain installation.
L. Install membrane flashings and seal into waterproofing material.
M. Conform to NRCA - Waterproofing Manual drawing details.

3.4 FIELD QUALITY CONTROL

A. Section 01 40 00 - Quality Control: Field inspection, testing, adjusting, and balancing
B. On completion of membrane installation, dam installation area as directed by A/E in preparation for flood testing.
C. Flood to minimum depth of one-inch with clean water; after 48 hours, verify no leaks with A/E.
D. If leaking is found, remove water, patch leaking areas with new waterproofing materials as directed by A/E; repeat flood test.
   1. Repair all damage to building caused by the leak.
E. When area is proven watertight, drain water, and remove dam.

3.5 PROTECTION OF FINISHED WORK

A. Section 01 77 00 - Contract Closeout: Protecting installed work.
B. Do not permit traffic over unprotected or uncovered membrane.
C. After membrane has cooled, apply separation sheet, and lap joints to ensure complete coverage.

END OF SECTION