**MANUFACTURER’S GUIDE SPECIFICATION**

Section 07 14 16 – Cold Fluid-Applied Waterproofing

**REINFORCED WATERPROOFING SYSTEM**

\*\* NOTE TO SPECIFIER \*\*

**Specifier's Notes** are in red font. Delete from final document.

Revise this Section by deleting and inserting text to meet Project’s specific requirements.

**Reinforced** cold fluid-applied sheet waterproofing can be used on both vertical and horizontal structural foundation walls and decks. Applicable for below-grade foundation walls, tunnels, balconies, split slabs, plaza decks, parking decks and bridges. Do not use when membrane exposed to continuous sunlight. Not recommended for pond and tank liner applications except for between slab applications. Good for interior applications such as bathrooms, kitchens, mechanical, rooms and laboratories.

PART 1 – GENERAL

1. RELATED DOCUMENTS
   1. All Contract Documents, including General and Supplementary Conditions, and Division 1 General requirements, apply to this section.
2. SUMMARY
   1. Section includes complete waterproofing system, preparation of substrate, and prefabricated drainage composite system to prevent passage of liquid water into building structure. Compatible with common construction materials such as concrete, concrete masonry units (CMUs), metal, wood (pressure-treated and fire-treated), rigid insulation and insulated concrete forms (ICFs). Includes protection.

\*\* NOTE TO SPECIFIER \*\* Include rigid board insulation as required.

1. SYSTEM DESCRIPTION
   1. Waterproofing system includes:
      1. Verification of Waterstop in construction joints.

\*\* NOTE TO SPECIFIER \*\* Although waterstop is specified in 03 15 00, it is a critical prerequisite for waterproofing warranty and performance.

* + 1. Substrate preparation repair mortars, cants/fillet, crack filler and joint treatment.
    2. 100%-solids-content, cold-liquid-applied elastomeric waterproofing membrane; single coat application at 60 or 90 mils.
    3. 100%-solids-content, cold-liquid-applied elastomeric waterproofing membrane; reinforced two-coat application at 120 mils.
    4. Accessory components: sealants.
    5. Protection board
    6. Pre-fabricated protection and drainage composite sheet
    7. Pre-fabricated drainage base
    8. Drainage accessories
    9. Rigid insulation board
    10. Testing and inspection

1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* 1. Section 01 82 00 - Facility Substructure Performance Requirements
  2. Section 02 30 00 - Subsurface Investigation
  3. Section 02 32 00 - Geotechnical Investigations
  4. Section 03 15 00 – Concrete Accessories
  5. Section 03 30 00 – Cast-In-Place Concrete
  6. Section 04 20 00 – Unit Masonry
  7. Section 07 06 00 - Schedules for Thermal and Moisture Protection
  8. Section 07 11 00 – Dampproofing
  9. Section 07 13 00 - Sheet Waterproofing
  10. Section 07 21 13 - Board Insulation
  11. Section 07 26 16 - Below-Grade Vapor Retarders
  12. Section 07 60 00 – Flashing and Sheet Metal
  13. Section 07 92 00 – Joint Sealants
  14. Section 07 95 00 – Expansion Control
  15. Section 22 13 00 - Facility Sanitary Sewerage (Penetrations)
  16. Section 22 14 00 - Facility Storm Drainage (Penetrations)
  17. Section 26 05 33.13 - Conduit for Electrical Systems (Penetrations)
  18. Section 26 05 43 - Underground Ducts and Raceways for Electrical Systems (Penetrations)
  19. Section 31 23 00 - Excavation and Fill
  20. Section 31 41 00 – Shoring
  21. Section 33 46 00 - Subdrainage
      1. Section 33 46 13 - Foundation Drainage
      2. Section 33 46 16 - Subdrainage Piping
      3. Section 33 46 19 - Underslab Drainage
      4. Section 33 46 23 - Drainage Layers
      5. Section 33 46 26 - Geotextile Subsurface Drainage Filtration

1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete Reference Standards not required in Part 2 Product Performance Properties American Society for Testing and Materials International (ASTM)

* 1. ASTM C578 – Specification for Preformed, Cellular Polystyrene Thermal Insulation
  2. ASTM C836 – Standard Specification for High Solids Content, Cold Liquid Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course
  3. ASTM D2697 – Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings
  4. ASTM D2370 – Standard Test Method for Tensile Properties of Organic Coatings
  5. ASTM E96 – Standard Test Methods for Water Vapor Transmission of Materials
  6. ASTM C661 – Standard Test Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer
  7. ASTM D2240 – Standard Test Method for Rubber Property—Durometer Hardness
  8. ASTM D5385 – Standard Test Method for Hydrostatic Pressure Resistance of Waterproofing Membranes
  9. ASTM C794 – Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants
  10. ASTM C1522 – Standard Test Method for Extensibility After Heat Aging of Cold Liquid-Applied Elastomeric Waterproofing Membranes
  11. ASTM D4263 – Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method
  12. ASTM D4491 – Test Methods for Water Permeability of Geotextiles by Permittivity
  13. ASTM D4716 – Test Method for Constant Head Hydraulic Transmissivity (In-Place Flow) of Geotextiles and Geotextile Related Products
  14. ASTM D4833 – Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products
  15. ASTM D5957 – Guide for Flood Testing Horizontal Waterproofing Installations
  16. ASTM E154 – Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover

1. ACTION SUBMITTALS
   1. Product Data: Manufacturer’s product data, installation instructions and details.
   2. Samples: Representative samples of the following:
      1. Free Film Membrane: 2" x 3" (5 x 7.5 cm)
      2. Expanding Waterstop: 3" (7.5 cm)
      3. Protection Course: 2" x 3" (5 x 7.5 cm)
      4. Drainage Composite Sheet: 4" x 4" (10 x 10 cm)
      5. Drainage Composite Base Drain: 6" (15 cm)
2. INFORMATION SUBMITTALS
   1. Waterproofing Manufacturer’s Sample Warranty
   2. Sustainability Submittals:
      1. Provide VOC content of all components.
      2. LEED Submittal: Documentation of materials, recycled content and location of manufacturer.
   3. Material Certificates: Certification that waterproofing system and components, drainage and protection materials comply with specified performance characteristics and physical requirements and are supplied by single-source manufacturer.
   4. Contractor Certificate: Approved Applicator status with waterproofing material Manufacturer.
   5. Site Condition Reports: Indicate ambient and substrate surface temperatures, relative humidity and dew point, wind velocity and precipitation during application.
3. QUALITY ASSURANCE
   1. Installer Qualifications to:
      1. Have minimum three (3) years of experience in type of work required by this section.
      2. Comply with manufacturer's warranty requirements.
      3. Be approved applicator as determined by waterproofing/drainage system manufacturer.
      4. Attend necessary job meetings. Provide competent and full-time supervision, experienced mechanics, all materials, tools, and equipment necessary to complete, in acceptable manner, the membrane installation.
   2. Manufacturer Qualifications:
      1. Capable to supply all components of complete waterproofing system.
      2. Minimum of five (5) years of experience in manufacturing of waterproofing systems.
      3. Capable of providing product and technical support representation during construction, approving an acceptable applicator, and suggesting appropriate installation methods.
      4. ISO 9001-2000 Certified Organization.
      5. ISO 14001-2004 Certified Environmental Management Organization.
   3. Pre-Installation Conference:
      1. Establish procedures to maintain required working conditions.
      2. Coordinate this work with related and adjacent work and trades.
      3. Verify plumbing floor drains are two-stage drains with 3" (7.5 cm) flange and clamping ring to receive waterproof membrane.
      4. Review special project details.
      5. Verify with Architect and Contractor that waterproofing and waterstop details comply with waterproofing manufacturer's current installation requirements and recommendations.
      6. Attendees should include representatives for Owner, Architect, Quality Assurance, General Contractor, Waterproofing Contractor, Waterproofing Manufacturer, Concrete Contractor, Excavating/backfill Contractor and MEP contractors if MEP work penetrates waterproofing.
      7. Give minimum five (5) days’ notice to Owner, General Contractor and Manufacturer prior to commencing work. Immediately notify parties of changes in work schedule.
   4. Independent Inspection: Owner provided independent inspection service to monitor waterproofing material installation. Inspection to include:
      1. Compliance with project contract documents.
      2. Compliance with manufacturer’s published literature and site-specific details.
      3. Produce reports and digital photographs documenting each inspection. Make reports available in timely manner to Contractor, Waterproofing Installer, Waterproofing Material Manufacturer and Architect.
      4. Substrate examination at beginning of waterproofing installation, at periodic intervals during waterproofing installation and at final inspection.
      5. Flood testing where applicable.
      6. Electric field vector mapping where applicable.
      7. Authorization to proceed prior to concrete or backfill placement against the waterproofing.
   5. Mock-up:

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Area designated by Architect will be considered Mock-up.
    2. Prepare and clean a minimum 4' x 4' (1.22 x 1.22 m) area of each substrate material type and project condition.
    3. Demonstrate methods, products and tools to prepare acceptable substrate meeting membrane manufacturer’s installation instructions
    4. Install cold-liquid-applied waterproofing, reinforcement for reinforced systems only, protection board or drainage composite and accessories.

1. PRODUCT DELIVERY, STORAGE AND HANDLING
   1. Delivery: Deliver materials in factory-sealed and factory-labeled packaging. Sequence material deliveries to avoid work delays and minimize on-site storage. Follow manufacturer's instructions, recommendations and material safety data sheets for material handling and storage.
   2. Storage: Do not double-stack pallets during shipping or storage. Protect waterproofing materials from moisture, excessive temperatures and sources of ignition. Cover the stored material on the top and all sides while on-site, allowing for adequate ventilation. Protect material from construction operation, weather, excessive temperatures and prolonged sunlight.
   3. Store and manage hazardous materials in accordance with Section 01 35 29.06 - Health and Safety Requirements and Section 01 35 43 - Environmental Procedures. Remove damaged material from site and dispose of it in accordance with applicable regulations.
2. PROJECT CONDITIONS
   1. Substrate Condition: Proceed with work only when substrate construction and preparation work are complete and are acceptable for waterproofing application. All structural, plumbing, electrical and mechanical work to be under or penetrating through the waterproofing should be completely secured in proper position prior to waterproofing system installation. Substrate preparation should comply with waterproofing manufacturer’s guidelines.
   2. Submit written report to General Contractor of substrate surface defects and work prepared by other Trades that adversely affect quality or dimensions of waterproofing work.
   3. Weather Conditions: Perform work only when existing and forecasted weather conditions are within Manufacturer’s guidelines. Those guidelines include but are not limited to:
      1. Do not apply waterproofing materials in areas of standing or active water; or over snow, ice or frost.
      2. Timely remove standing water caused by precipitation or ground water seepage to maintain acceptable site conditions.
   4. Schedule work so the membrane will not be exposed for longer than recommended by Manufacturer.
3. WARRANTY
   1. Waterproofing System Warranty: Waterproofing Manufacturer to provide sample of [five (5)], [ten (10)], [fifteen (15)], [twenty (20)] year warranty, including waterproofing system requirements. Issuance of Manufacturer's Waterproofing Warranty requires the following:

\*\* NOTE TO SPECIFIER \*\* Delete warranty period not required.

* + 1. Waterproofing System products and drainage composite products provided by single manufacturer.
    2. Installation of waterproofing products, prefabricated drainage composite and all appropriate system accessories are installed by a Manufacturer's Approved Applicator in full accordance with manufacturer’s recommendations, installation instructions, specifications and details.
    3. Concrete Accessories: Waterstop installed in concrete cold construction joints, formed construction joints, isolation joints and penetrations is required by Cold-Fluid-Applied Warranty.

\*\* NOTE TO SPECIFIER \*\* Verify that Spec Section 03 15 00 includes Waterstop required for Sheet Waterproofing Warranty to be in full effect.

PART 2 – PRODUCTS

1. MANUFACTURER
   1. Materials: Obtain waterproofing system including all components and accessories from single manufacturer to ensure material compatibility.
   2. Acceptable Manufacturer: MAPEI Corporation, 1144 E. Newport Center Drive, Deerfield Beach, FL 33442, USA. Toll-Free Tel.: 1-888-365-0614. Fax: 954-246-8805. Email: [TechServiceRequests@mapei.com](mailto:TechServiceRequests@mapei.com). Web: [www.mapei.us](http://www.mapei.us).
   3. Acceptable Manufacturer: MAPEI Inc., 2900 Francis-Hughes, Laval, QC, H7L 3J5, Canada. Toll-Free Tel.: 1-800-361-9309. Fax: 450-901-0196. Email: [TServicesCA@mapei.com](mailto:TServicesCA@mapei.com). Web: [www.mapei.ca](http://www.mapei.ca).
2. COLD-FLUID-APPLIED WATERPROOFING
   1. Planiseal CR1: Primary waterproofing membrane shall be Planiseal CR1 cold-fluid-applied elastomeric membrane, manufactured by MAPEI Corporation, which is a fast-curing, 100%-solids, single-component, moisture-cure, coal-tar-free, polyether waterproofing membrane. Apply in a 120-mil-thick reinforced system (60 mils of Planiseal CR1 and 60 mils of reinforcing fabric).
3. COLD-FLUID-APPLIED WATERPROOFING PERFORMANCE PROPERTIES
   1. Color Green
   2. Solids content – ASTM D2697 100%
   3. High solids content – ASTM C836 Pass
   4. VOCs (Rule #1113 of California’s SCAQMD) 44 g per L\*
   5. Tensile strength – ASTM D2370 130 psi (0.90 MPa)
   6. Elongation – ASTM D2370 350% minimum
   7. Water vapor transmission rate – ASTM E96,

Water Method 0.76 perms

* 1. Water vapor transmission rate – ASTM E96,

Inverted Water Method 0.95 perms

* 1. Extensibility after heat – ASTM C1522 Pass
  2. Low-temperature flexibility – ASTM C836 No cracking
  3. Low-temperature crack-bridging – ASTM C1305 No cracking
  4. Shore “A” hardness – ASTM C661 35
  5. Hydrostatic pressure resistance – ASTM D5385 231 feet (70.4 m)
  6. Minimum application temperature 40°F (4°C)
  7. Approximate curing time, at 70°F (21°C) and 2 hours for skinning over; 24 hours   
     50% relative humidity for initial set; 72 hours for full cure
  8. Rain-resistant, at 70°F (21°C) and 50% relative After 2 hours  
     humidity
  9. Required curing time for concrete substrates 3 days

1. WATERPROOFING ACCESSORIES
   1. Concrete Repair Mortars & Coating:
      1. MAPEI Planitop X or XS for vertical repair: One-component, fast-setting, vertical and overhead repair mortar to be shrinkage-compensated, fiber-reinforced, polymer-modified and containing a corrosion inhibitor. Mix with MAPEI Planicrete AC acrylic latex admixture diluted with water.
      2. MAPEI Planiseal 88 for surface preparation: One-component, polymer-modified, cementitious coating.
      3. MAPEI Mapecem Quickpatch mixed with MAPEI Planicrete UA additive for horizontal repair.
   2. Reinforcement Fabric: MAPEI LMR Fabric: Calendered, spunbond, nonwoven, polyester fabric weighing 1.18 oz. per sq. yd. (40 g per m2)
   3. Sealants:
      1. MAPEI Mapeflex P1: One-component, elastomeric, moisture-cure, polyurethane sealant and adhesive
      2. MAPEI Mapeflex P2 NS: Two-component, elastomeric, chemical-cure, polyurethane sealant and adhesive
   4. Backer Rod: Closed-cell polyethylene foam rod

\*\* NOTE TO SPECIFIER \*\* Coordinate with 07920 Joint Sealants

* 1. Flexible Waterproo­fing Tape for Movement Joints: MAPEI Mapeband TPE 170 and Mapeband TPE 325. Highly durable and flexible band tape used to waterproof expansion and other dynamic joints.  Mapeband TPE 170 can be used for joints up to 2" (5 cm) wide and subject to movement of up to 7/32" (5.5 mm), and Mapeband TPE 325 can be used for joints up to 4" wide and subject to movement of up to 13/32" (10.5 mm).  Anchor with MAPEI Planibond AE high-strength, two-part, non-sag, epoxy anchoring gel.
  2. Exposed Waterproofing: MAPEI Planiseal 88 one-component, polymer-modified, cementitious damp-proofing coating. Mix with MAPEI Planicrete AC diluted with water.
  3. Waterstop: MAPEI Idrostop 25 or Idrostop B25 hydrophilic expandable, pre-formed, flexible rubber strip for watertight construction.
  4. Waterstop Adhesive: an MS-Polymer-Based Adhesive supplied in cartridges used for the attachment of MAPEI Idrostop 25 or Idrostop B25 to the substrate.

\*\* NOTE TO SPECIFIER \*\* Coordinate with Section 03150 – Concrete Accessories

* 1. Protection Course:
     1. MAPEI Mapecover 810 rigid, lightweight, extruded polystyrene (XPS), fanfold protection board

\*\* NOTE TO SPECIFIER \*\* Mapecover 810 is used to protect MAPEI waterproofing membranes on vertical below-grade foundations. Delete if Drainage Composite is used.

1. PROTECTION AND DRAINAGE COMPOSITE SHEET – PREFABRICATED
   1. General: MAPEI Mapedrain prefabricated drainage composite sheet to promote positive drainage. It is a high-strength, high-flow, prefabricated drainage composite with filter fabric. The three-dimensional polypropylene drainage core has geotextile adhered to one side to allow water passage while restricting soil particles.

\*\* NOTE TO SPECIFIER \*\* Select appropriate drain for the application

* 1. MAPEI Mapedrain 35 for horizontal applications, with high compressive strength and flow rates. Has backer film to prevent potential “die cutting” of a waterproofing membrane installed behind drainage composite.
     1. Woven filter fabric allows concrete to be poured directly on top of the drainage composite
     2. Compressive strength per ASTM D1621: 21,000 psf (1 005 kN/m2)
     3. Flow rate per ASTM D4491: 60 gal/min/ft2 (2 460 L/min/m2)
     4. Flow (hydraulic gradient = 1) per ASTM D4716: 23 g/min/ft (286 L/min/m)
     5. Core thickness: 0.40" (10.16 mm)
  2. MAPEI Mapedrain 25 for vertical applications, with high compressive strength and flow rates. Has backer film to prevent potential “die cutting” of a waterproofing membrane installed behind drainage composite.
     1. Geotextile fabric non-woven
     2. Compressive strength: 15,000 psf (718 kN/m2)
     3. Flow rate per ASTM D4491: 140 gal/min/ft2 (5 704 L/min/m2)
     4. Flow (hydraulic gradient = 1) per ASTM D4716: 21 g/min/ft (260 L/min/m)
     5. Core thickness: 0.40" (10.16 mm)

1. DRAINAGE COMPOSITE BASE DRAIN – PREFABRICATED
   1. MAPEI Mapedrain TD Drainage Composite to promote positive drainage.
   2. 1" (2.5 cm) thick x 12" (30 cm) by 165' (50.3 m) roll base drain composite designed to collect water from sheet composite drainage and then discharge the water to proper sump system or gravity to daylight.
   3. Compressive strength: 9,500 psf (455 kN/m2)
   4. Water flow rate: 30 g/min/ft (372 L/min/m)
   5. Thickness: 1" (2.5 cm)
   6. Use MAPEI base drain accessory connectors and outlets as required.
2. BOARD INSULATION: Extruded-polystyrene board insulation complying with ASTM C578.
   1. Type IV, 25 psi (173 kPa) minimum compressive strength.

\*\* NOTE TO SPECIFIER \*\* EXECUTION contains work sections pertaining to multiple substrates with vertical and horizontal construction. Therefore, PART 3 should be edited to only include work sections specific to the job site conditions required on the project.

PART 3 – EXECUTION

1. SUBSTRATE INSPECTION AND CONDITIONS
   1. Examine conditions of substrates and other conditions affecting work of this section with waterproofing Installer, General Contractor and Owner’s Independent Inspector present. Notify General Contractor, in writing, of defects in substrate preventing installation of waterproofing. Do not proceed with work until defects in substrate are corrected and acceptable for waterproofing installation and comply with manufacturer's recommendations.
   2. Substrates to receive waterproofing must be clean and free of voids, protrusions and surface irregularities.
   3. Related work: Verify that waterstop is installed in vertical and horizontal concrete construction cold-pour joints and around penetrations, structural members, and tie-rod form holes that extend through the wall.
   4. Chemical additives: Verify that ready-mix additives are compatible with waterproofing.
   5. Curing compounds: Concrete should be cured by the water-curing method. Curing compounds may adversely affect adhesive bond of self-adhered sheet waterproofing membrane. Verify that curing compounds of pure sodium silicate type or clear resin-based materials are without waxes, oils or pigments, and are compatible with waterproofing.
   6. Form release agents must not transfer to concrete. Remove forms as soon as possible from below horizontal slabs to prevent moisture entrapment. Excess moisture could result in blistering of waterproofing.
   7. Mechanically remove from the substrate any curing compounds and form release agents that adversely affect adhesion of waterproofing.
   8. Prepare substrate surfaces to accept waterproofing system per requirements of membrane Manufacturer and as directed by Architect.
   9. Apply waterproof membrane only in dry weather, when ambient and substrate temperatures are above 40°F (4°C).
2. PREPARATION
   1. Remove contaminants such as dirt, debris, oil, grease, wax, cement laitance, or other foreign matter that will impair or negatively affect performance of waterproofing and drainage system.
   2. Protect adjacent work areas and finish surfaces not receiving waterproofing from damage or contamination from waterproofing products spillage and overspray during installation operations.
   3. New concrete should be cured for a minimum of 3 days and must be dry before waterproofing membranes are applied.
   4. Protect waterproofing from direct sunlight immediately after installation.
3. GENERAL INSTALLATION GUIDELINES
   1. Comply with contract documents and manufacturer's product data, including product application and installation instructions and details. Cold-fluid-applied waterproofing can be applied to concrete, metal, wood, insulated wall systems and masonry surfaces.
   2. Maintain adequate ventilation during preparation and application of waterproofing materials.
   3. Cap off all exposed fabric at the end of each day.
   4. Apply protection board or drainage composite over work installed each day.
   5. Inspect cold-fluid-applied waterproofing before covering with protection board or drainage composite. Repair damaged or inadequate areas as necessary.
   6. Protect cold-fluid-applied waterproofing on vertical and horizontal applications with immediate application of drainage composite sheet or protection board.
4. DETAILING/FLASHING
   1. All detailing and flashing shall be completed prior to installation of field waterproofing membrane.
   2. All detailing and flashing shall be installed per manufacturer’s standard details.
5. APPLICATION OF COLD-FLUID-APPLIED WATERPROOFING
   1. Ensure deck is ready to receive cold-fluid-applied waterproofing membrane in accordance with published literature.
   2. Apply first layer of cold-fluid-applied waterproofing membrane evenly to a minimum thickness of 60 mils to form a continuous monolithic coating.
   3. Apply reinforcing fabric and fully embed into first layer of cold fluid applied waterproofing. Overlap reinforcing fabric approximately 1" to 2" (2.5 to 5 cm), ensuring that the cold-fluid-applied waterproofing bleeds completely through both layers.
   4. Apply second layer of cold-fluid-applied waterproofing membrane over the reinforcing fabric to a minimum thickness of 60 mils, providing a total thickness of 120 mils.
6. PROTECTION
   1. Protection course: Cover waterproofing with protection course following curing of waterproofing and prior to installation of backfill or overburden.
   2. On vertical applications, install protection or drainage composite sheet as soon as possible to avoid damage from other trades, construction materials or backfill.
   3. For horizontal applications, use drainage composite. Install protection as soon as possible to avoid damage from other trades, construction materials or backfill.
   4. Protect completed waterproofing assembly from subsequent construction activities. Protect waterproofing materials from exposure to UV light for a period in excess of that acceptable to waterproofing manufacturer; replace overexposed materials.
7. BACKFILL/OVERBURDEN
   1. Install backfill or overburden as soon as possible according to project requirements. Use care during backfill operation to avoid damage to waterproofing system. Follow generally accepted industry practices for backfilling and compaction. Backfill should be added and compacted in lifts from 6" to 24" (15 to 61 cm).
8. CLEANUP
   1. In areas where adjacent finished surfaces or work are contaminated by waterproofing material, immediately notify General Contractor and trade responsible for area. Consult manufacturer of surfaces for cleaning advice and conform to their recommendations and instructions. Remove all tools, equipment and remaining product on-site. Dispose of debris and damaged product in accordance with applicable regulations.
   2. Maintain work area in a neat and workmanlike condition. Remove empty cartons and rubbish from site daily.
   3. Repair or replace defaced or disfigured finishes caused by work of this section.

END OF SECTION 07 14 16