# PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

## 1.2 SUMMARY

A. Section includes traffic coatings for the following applications:
   1. Pedestrian traffic at building balconies and as indicated on Drawings.

B. Related Requirements:
   1. Section 018113 “Sustainable Design Requirements.”
   2. Section 096723 "Resinous Flooring" for fluid-applied, high-performance resinous flooring that does not serve as a waterproofing membrane with integral wearing surface.

## 1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

## 1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.
   1. Include installation instructions and details, material descriptions, dry or wet film thickness requirements, and finish.

B. Sustainable Design Submittals: Refer to Section 018119 “Sustainable Design Requirements.”

C. Shop Drawings: For traffic coatings.
   1. Include details for treating substrate joints and cracks, flashings, deck penetrations, and other termination conditions that are not included in manufacturer's product data.

D. Samples for Verification: For each type of exposed finish, prepared on rigid backing.
   1. Provide stepped Samples on backing to illustrate buildup of traffic coatings.

## 1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Field quality-control reports.

C. Sample Warranty: For manufacturer's warranty.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For traffic coatings to include in maintenance manuals.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

B. Mockups: Build mockups to set quality standards for materials and execution.
   1. Build mockup for each traffic coating and substrate to receive traffic coatings.
   2. Size: 200 sq. ft. of each substrate to demonstrate surface preparation, joint and crack treatment, thickness, texture, color, and standard of workmanship.
   3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
   4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.8 FIELD CONDITIONS

A. Environmental Limitations: Apply traffic coatings within the range of ambient and substrate temperatures recommended in writing by manufacturer. Do not apply traffic coatings to damp or wet substrates, when temperatures are below 40 deg F, when relative humidity exceeds 85 percent, or when temperatures are less than 5 deg F above dew point.
   1. Do not apply traffic coatings in snow, rain, fog, or mist, or when such weather conditions are imminent during the application and curing period. Apply only when frost-free conditions occur throughout the depth of substrate.

B. Do not install traffic coating until items that penetrate membrane have been installed.

1.9 WARRANTY

A. Manufacturer's Warranty: Manufacturer agrees to repair or replace traffic coating that fails in materials or workmanship within specified warranty period.
   1. Failures include, but are not limited to, the following:
      a. Adhesive or cohesive failures.
      b. Abrasion or tearing failures.
      c. Surface crazing or spalling.
      d. Intrusion of water, oils, gasoline, grease, salt, deicer chemicals, or acids into deck substrate.
   2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain traffic coatings from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. Material Compatibility: Provide primers; base coat, intermediate coat, and topcoat; and accessory materials that are compatible with one another and with substrate under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

B. Coefficient of Friction (COF): Coating shall meet Dynamic COF value of 0.42 when measured per the DCOF AcuTest in accordance with ANSI A137.1-12.

2.3 TRAFFIC COATING

A. Manufacturers: Subject to compliance with requirements, provide products from the following:
   1. Gaco Western (Basis-of-Design)
   2. Urethane Polymers International, Inc.
   3. Neogard Construction Coatings; A division of Jones-Blair Company.
   4. BASF Corporation Construction Systems
   5. Or Equal.

B. Basis-of-Design Products: GW-14-U61 by Gaco Western.

C. Traffic Coating: Manufacturer's standard, traffic-bearing, seamless, three-coat, polyaspartic polyuria hybrid, cold liquid-applied, elastomeric, water-resistant membrane system with integral wearing surface for pedestrian traffic.

D. LEED Material (inside the weatherproofing system and applied on-site): Refer to Division 01 Section “Sustainable Design Requirements” for additional product requirements.

E. Sealer: Liquid, 100-percent solids, two-component sealer as recommended in writing for substrate and conditions by traffic-coating manufacturer.
   1. Material: GacoFlex E-5990 Epoxy Sealer by Gaco Western, or equal.

F. Base Coats: Polyaspartic polyuria hybrid two-component, fast cure coating.
   1. Thicknesses: Minimum film thickness as recommended in writing by manufacturer for substrate and service conditions indicated.
   2. Material: GacoFlex U61 Series by Gaco Western, or equal.

G. Topcoat: Polyaspartic polyuria hybrid two-component, fast cure coating.
   1. Thicknesses: Minimum film thickness as recommended in writing by manufacturer for substrate and service conditions indicated, measured excluding aggregate.

2. Aggregate Content: As recommended in writing by traffic-coating manufacturer for substrate and service conditions indicated and as required to achieve slip-resistant finish.
3. Color: As selected by Architect from manufacturer's full range.
4. Material: GacoFlex U61 Series by Gaco Western, or equal.

H. Aggregate: Manufacturer's standard aggregate for each use indicated of particle sizes, shape, and minimum hardness recommended in writing by traffic-coating manufacturer.

I. VOC Content: Comply with LEED and current SCAQMD requirements.

2.4 ACCESSORY MATERIALS

A. Joint Sealants: As specified in Section 079200 "Joint Sealants" and manufacturer's recommendations.

B. Flashing and Joint Reinforcing Fabric: Non-staining sheet material recommended in writing by traffic-coating manufacturer.
1. Materials: GacoFlex 66B Polyester Tape and CacoFlex NF-621 Neoprene Sheet Flashing by Gaco Western, or equal.
2. Include all related material required for flashing drains, base angles, base plates and other similar items.

C. Adhesive: Contact adhesive recommended in writing by traffic-coating manufacturer.

D. Miscellaneous Accessories: All items incorporated into this system shall be compatible with and approved by the coating manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for maximum moisture content, surface smoothness, and other conditions affecting performance of traffic-coating work. Substrates shall comply with manufacturer's written requirements.

B. Verify that substrates are visibly dry and free of moisture.
1. Test for moisture content by method recommended in writing by traffic-coating manufacturer.

C. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of traffic-coating work.

D. Proceed with installation only after unsatisfactory conditions have been corrected.
   1. Begin coating application only after substrate construction and penetrating work have been completed.
   2. Begin coating application only after minimum concrete-curing and -drying period recommended in writing by traffic-coating manufacturer has passed and after substrates are dry.
   3. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Clean and prepare substrates according to manufacturer's written instructions to produce clean, dust-free, dry substrate for traffic-coating application. Remove projections, fill voids, and seal joints if any, as recommended in writing by traffic-coating manufacturer.

B. Priming: Unless manufacturer recommends in writing against priming, prime substrates according to manufacturer's written instructions.
   1. Limit priming to areas that will be covered by traffic-coating material on same day. Reprime areas exposed for more time than recommended by manufacturer.

C. Sealing: Seal the entire area scheduled to receive coating including all vertical or sloping surfaces. Comply with manufacturer’s written instructions.

D. Schedule preparation work so dust and other contaminants from process do not fall on wet, newly coated surfaces.

E. Mask adjoining surfaces not receiving traffic coatings to prevent overspray, spillage, leaking, and migration of coatings. Prevent traffic-coating materials from entering deck substrate penetrations and clogging weep holes and drains.

F. New concrete shall have cured a minimum of 28 days in accordance with ACI 308.

G. Concrete Substrates: Mechanically abrade surface to a uniform profile acceptable to manufacturer, according to ASTM D 4259. Do not acid etch.
   1. Remove grease, oil, paints, and other penetrating contaminants from concrete.
   2. Remove concrete fins, ridges, and other projections.
   3. Remove laitance, glaze, efflorescence, curing compounds, concrete hardeners, form-release agents, and other incompatible materials that might affect coating adhesion.
   4. Remove remaining loose material to provide a sound surface, and clean surfaces according to ASTM D 4258.

3.3 TERMINATIONS AND PENETRATIONS

A. Prepare vertical and horizontal surfaces at terminations and penetrations through traffic coatings and at expansion joints, drains, and sleeves according to ASTM C 1127 and manufacturer's written instructions.

B. Provide sealant cants at penetrations and at reinforced and nonreinforced, deck-to-wall butt joints.

C. Terminate edges of deck-to-deck expansion joints with preparatory base-coat strip.

D. Install sheet flashings at deck-to-wall expansion and dynamic joints, and bond to deck and wall substrates according to manufacturer's written recommendations.

3.4 JOINT AND CRACK TREATMENT

A. Prepare, treat, rout, and fill joints and cracks in substrates according to ASTM C 1127 and manufacturer's written recommendations. Before coating surfaces, remove dust and dirt from joints and cracks according to ASTM D 4258.
   1. Comply with recommendations in ASTM C 1193 for joint-sealant installation.

B. Apply reinforcing strip in traffic-coating system where recommended in writing by traffic-coating manufacturer.

3.5 TRAFFIC-COATING APPLICATION

A. Apply traffic coating according to ASTM C 1127 and manufacturer's written instructions.

B. Apply coats of specified compositions for each type of traffic coating at locations as indicated on Drawings.

C. Start traffic-coating application in presence of manufacturer's technical representative.

D. Verify that wet-film thickness of each coat complies with requirements every 100 sq. ft. .

E. Uniformly broadcast and embed aggregate in each coat indicated to receive aggregate according to manufacturer's written instructions. After coat dries, sweep away excess aggregate.

F. Apply traffic coatings to prepared wall terminations and vertical surfaces to height indicated; omit aggregate on vertical surfaces.

G. Cure traffic coatings. Prevent contamination and damage during coating application and curing.

3.6 FIELD QUALITY CONTROL

A. Inspections: Coordinate and a minimum of five (substrate, detail work, base coat/granule application, top coat application and final) inspections by an approved manufacturer's representative as required to obtain warranty. Identified defects must be promptly corrected.
   1. Traffic-Coating Inspection: Arrange for traffic-coating manufacturer's technical personnel to inspect membrane installation on completion.
      a. Notify Owner 48 hours in advance of date and time of inspection.

B. Waterproofing will be considered defective if it does not pass tests and inspections.

C. Prepare test and inspection reports.

3.7 PROTECTING AND CLEANING

A. Protect traffic coatings from damage and wear during remainder of construction period.

B. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION