17595 S Tamiami Trail Phone (239) 590-0263 Fort Myers, Florida 33908 FAX (239) 590-0281 www.lcm.com Number 1156

Creciente Condominium Association, Inc.

SPECIFICATIONS for Exterior Tile Resurfacing at Unit Balconies

PART 1 PREPARATION AND WATERPROOFING

1.1 SUMMARY

- Prior to the installation of new tile at unit 1.1.1 balconies, surfaces shall be properly prepared and waterproofed. Scope of work includes, but is not limited to:
- Removal of existing finish material(s) if applicable. 1.1.2
- Proper surface preparation prior to any remedial work 1.1.3 including concrete spall repair at floor slab, columns and walls.
- Proper installation of waterproofing membrane on 1.1.4 concrete floor slab.
- Proper installation of the tile surface. 1.1.5
- All work shall be done in strict accordance with 1.1.6 manufacturers' specifications. Manufacturers' warranties shall be issued at completion of job.

1.2 **SUBMITTALS**

1.2.1 Product Data

- Submit complete list of products proposed for 1.2.1.1 use.
- Indicate manufacturer, brand name, quality, 1.2.1.2 and type for each surface to be finished. Indicate VOC rating and compliance with applicable regulations.
- Indicate manufacturer's instructions regarding 1.2.1.3 mixing, surface preparation and application. Include application rates, film thickness and required primers.
- Intent of Contractor to use products specified 1.2.1.4 does not relieve him from responsibility of submitting product list.

1.3 DELIVERY, STORAGE AND HANDLING

1.3.1 Deliver materials to project site ready-mixed in original containers with labels intact; labels bearing manufacturer's name, paint type, color and recommended installation and reducing procedures.

1.3.2 Storage and handling:

- 1.3.2.1 Store materials in location acceptable to Owner and at the atmospheric conditions specified by the product manufacturer.
- 1.3.2.2 Maintain neat, clean conditions in storage area. Remove rags and waste materials at end of each day's work.
- 1.3.2.3 Close containers at end of day's work. Leave no materials open.

1.4 PROJECT/SITE CONDITIONS

1.4.1 Environmental requirements:

- 1.4.1.1 Comply with manufacturer's product data as to environmental conditions under which materials may be applied.
- 1.4.1.2 Apply no materials in spaces where dust is being generated.
- 1.4.1.3 Comply with applicable VOC regulations.

1.5 OUALITY ASSURANCE

1.5.1 Applicable standards, as referenced herein:
Environmental Protection Agency (EPA), volatile organic compounds (VOC) standards as required by local codes and regulations.

1.6 PATCHING CRACKS

- 1.6.1 All hairline cracks less than 1/16" shall be filled with crack filler in strict accordance with manufacturer's written specifications.
- 1.6.2 All cracks greater than 1/16" shall be routed open, dusted clean and filled with an approved, one part urethane sealant and tooled to insure proper adhesion and aesthetic appearance. A detailed coat of elastomeric patching compound shall be applied over the repair. Crack shall be bridged approximately two (2) inches on both sides and center crowned directly over crack, approximately 1/16" to allow for thermal movement. Crack shall be bridged approximately two (2) inches on both sides with material compatible with cementitious mortar manufacturer's specifications.

1.7 Concrete Spall Repair

- 1.7.1 Sound concrete deck and columns of all mastic material.
- 1.7.2 Where concrete spalls are found excavate and repair complying with international Concrete Repair Institute (ICRI) and industry standards.
- 1.7.3 Remove all loose, cracked, and/or deteriorated caulking from doors, and other wall penetrations.
- 1.7.4 Apply a complete and continuous bead of an approved, one part sealant to the perimeter of all doors, and other penetrations. Tool sealant in a professional manner to assure adhesion, present a professional appearance, and to form a water tight seal.

1.8 MEMBRANE INSTALLATION

- 1.8.1 Form a cove joint at the exterior wall to slab joint using Vulkem #922, two-part Urethane Sealant.
- 1.8.2 Apply a prime coat of Vulkem #171 primer to the entire deck surface including the vertical slab edge where accessible and 4" up wall surfaces.
- 1.8.3 Apply one (1) coat of Vulkem #350 Urethane Waterproof Membrane to the entire deck surface including the vertical slab edge where accessible and 4" up wall surfaces.
- 1.8.4 Apply one (1) coat of Vulkem #351 Urethane Top Coat to the entire horizontal deck surface w/aggregate where tile floor will not be installed or may be installed at a later date.
- 1.8.5 Color selections of top coat shall be made by the Owner from manufacturer's standard colors. Allow a minimum of thirty (30) days for color selection after start of work. Contractor is advised that more than one color may be selected and colors may vary from unit to unit.
- 1.8.6 Apply uniformly in continuous film with voids, pinholes or sags, and with even distribution of aggregates.

1.9 WARRANTY

1.9.1 All products used shall be covered by manufacturer's maximum warranty program for product application.

Details shall be spelled out with the submittal of all bids.

1.10 CRAFTSMANSHIP

1.10.1 All work shall be done in accordance with specifications. 1.10.2 All work subject to inspection and approval of Owner.

PART 2 TILE INSTALLATION

2.1 GENERAL

- 2.1.1 This document specifies the THIN-SET MORTAR, GROUT, AND INSTALLATION OF TILE AT INDIVIDUAL UNIT BALCONIES OVER AN APPROVED WATER PROOFING MEMBRANE.
- 2.1.2 Where this specification varies with published installation instructions of the product manufacturer, the more restrictive instructions shall apply.

2.2 DESCRIPTION OF WORK

- 2.2.1 Tile includes ceramic surfacing units made of clay or other ceramic surfacing units.
- 2.2.2 Types of tile work in this section include the following:
 - 2.2.2.1 Glazed floor tile
 - 2.2.2.2 Unglazed ceramic mosaics
 - 2.2.2.3 Unglazed paver tile
 - 2.2.2.4 Unglazed quarry tile

2.3 QUALITY ASSURANCE

- 2.3.1 Installation System Manufacturer: single source responsibility and specializing in installation systems/adhesives/mortars and grouts, with ten (10) years minimum experience and ISO 9001 certification and shall submit a list of three (3) similar installations, each having a minimum of five (5) years service and within twenty (20) miles of the Creciente.
- 2.3.2 Installer qualifications: company specializing in installation of ceramic tile, mosaics, pavers, and trim units with five (5) years minimum documented experience with installations of similar scope, materials and design.

2.4 REFERENCE STANDARDS

- 2.4.1 AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI-current edition)
 - 2.4.1.1 American National Standard Specifications for the Installation of Ceramic Tile.
- 2.4.2 TILE COUNCIL OF AMERICA (TCA)
 - 2.4.2.1 Tile Council of America Ceramic Tile: The Installation Handbook (current edition).

2.4.3 AMERICAN SOCIETY for TESTING & MATERIALS (ASTM - current edition).

2.5 MAINTENANCE DATA

2.5.1 Submit recommended maintenance including cleaning methods and solutions, stain removal methods, polishes and waxes.

2.6 WARRANTY

- 2.6.1 Contractor shall warrant work to be in accordance with this specification and free from faults and defects in materials and workmanship for a period of three (3) years. Submit warranty signed and countersigned by installer and manufacturer.
- 2.6.2 Manufacturer of installation systems, adhesives, grouts and mortars shall provide a comprehensive non pro-rated written three (3) year warrantee against defective products which covers replacement materials and labor costs for demolition, tile accessories, and installation systems. Submit warranty signed and countersigned by the installer and manufacturer.

2.7 DELIVERY, STORAGE AND HANDLING

- 2.7.1 Store ceramic tile and installation system materials in a dry location; Prevent chipping, breakage, and contamination.
- 2.7.2 Protect additives, from freezing or overheating in accordance with manufacturer's instructions. Store at room temperature when possible.

2.8 PROJECT/SITE CONDITIONS

2.8.1 Maintain surface temperature between 60 to 90 degrees F during installation of mortars and grouts.

2.9 EXTRA MATERIALS STOCK

2.9.1 At Unit Owner's request, upon completion furnish 5% minimum additional tile and trim shape of each type, color, pattern and size used. Furnish extra stock of installation mortar, grouts, adhesives and accessories.

2.10 PRODUCTS, GENERAL

- 2.10.1 NSI standard for ceramic tile: Comply with ANSI A137.1 American National Standard Specification for all types of and grades of tile indicated.
- 2.10.2 All materials shall be delivered to the job site in the original, unopened, containers with the manufacturer's identification on each package. The addition of water

or other materials not approved in writing by the manufacturer will not be permitted.

2.10.3 Installation system including mortar and grout shall be provided as a single source system.

2.10.4 ACCEPTABLE MANUFACTURERS PRODUCTS

- 2.10.4.1 Products listed in this section have been reviewed and found to provide adequate bond and flexibility with the Mameco waterproofing system. It shall be the tile installer's responsibility to determine and assure that all products used are compatible with the tile to be installed, and the location.
- 2.10.4.2 Epoxy Thin-set Mortar maximum 1/4" and Grout: Mapei Kerapoxy 410.
- 2.10.4.3 Cementitious Thin-set Mortar maximum 1/4" and Grout: Mapei Kerabond with Keralastic additive.

2.11 INSPECTION

- 2.11.1 Examine surfaces to receive tile work and conditions under which tile will be installed.
- 2.11.2 Do not proceed with tile work until surfaces and conditions comply with tile installation standard.
- 2.11.3 Where necessary to provide positive drainage, fill in depressions, bird-baths and other areas of negative slope.

2.12 INSTALLATION

2.12.1 MORTAR

- 2.12.1.1 Install tile in strict accordance with mortar and tile manufacturer's written instructions.
- 2.12.1.2 Insure all tiles are installed with 100% mortar bed.

2.12.2 GROUT

- 2.12.2.1 Install grout in strict accordance with grout and tile manufacturer's written instructions. Width of grout joint shall not be less than 1/36 of the greatest dimension of individual tiles (length or width) or 1/8", whichever is greater.
- 2.12.2.2 Install soft/expansion joints at perimeter and at all changes in plane of floor, at all

- columns and at all posts and other interruptions of tile.
- 2.12.2.3 Install soft/expansion joints, in place of grout, at no more than eight feet (8'-0) spacing in each direction.
- 2.12.2.4 Provide 1/2" to 3/4" wide space, for drainage, between edge of tile and bottom of screen enclosures, sliding glass door tracks, and other appurtenances installed at the outer edge of balconies, lanai, walkways, and decks.

2.13 CLEANING AND PROTECTION

2.13.1 Cleaning

- 2.13.1.1 Upon completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.
- 2.13.1.2 Clean excess mortar from surface as work progresses. Perform cleaning while mortar is fresh and before it hardens on surface.
- 2.13.1.3 Remove grout haze in accordance with grout manufacturer. Do not use acids for cleaning.

2.13.2 PROTECTION

- 2.13.2.1 Prevent wheel and foot traffic from using newly tiled floors for at least 72 hours after installation.
- 2.13.2.2 Where temporary use of new floors in unavoidable, supply large, flat boards or plywood panel for walkways over kraft paper.
- 2.13.2.3 Protect work so that it will be without any evidence of damage or use at time of acceptance.

END OF SPECIFICATION