SECTION 071900 – WATER REPELLENTS

PART 1 GENERAL

1.1 SUMMARY

Provide labor, materials, equipment and supervision necessary to complete the application of product to the existing prepared substrate.

1.2 SYSTEM DESCRIPTION

The products shall meet or exceed the following performance standards:

Base		Aqueous
pH		11.2
Percent solids by weight		51 percent
Viscosity	ASTM D562	95 - 105 KU – paint paddle
Density of liquid coatings	ASTM D1475	9.4 pounds per gallon
Drying time		1 hour at 65 degrees F – dry to touch
Fungus resistance	Fed. Spec. TT-P-19D	No growth
Accelerated weathering – QUV	ASTM G154	2000 hours – UV-B cycled with condensation- no effect
Hiding power of coating at 5 mils.	ASTM D2805	Excellent
Water penetration and leakage	ASTM E514	100 percent reduction
Water vapor transmission	ASTM D6490	96 percent water vapor transmission
Water vapor transmission – procedure B	ASTM E96	75 perms
Heat stability	ASTM C932	Pass – 2 weeks at 120 degrees F
Mud cracking at 10 mils.		None

1.3 SUBMITTALS

A. Manufacturer's current product data bulletin.

B. The trained applicator shall prepare a test panel of the repair installed on the actual building as a submittal for approval of proper application and adhesion.

C. The trained applicator shall submit to the specifier a list of five projects that he has completed within the last five years, exhibiting the applicator's skills. The list shall include project name, location and description of work and completion date.

1.4 QUALITY ASSURANCE

Products shall be installed by a trained applicator with a minimum of five years' experience and meet the requirements of the specifier.

1.5 DELIVERY, STORAGE & HANDLING

A. Deliver all products and all accessories in original labeled, sealed, and undamaged containers or bundles.

B. Store all products in accordance with manufacturer's printed instructions.

C. Handle products in accordance with manufacturer's printed instructions.

1.6 PROJECT/SITE CONDITIONS

All products shall be applied at substrate and ambient temperatures of 45 degrees F or above. A minimum temperature of 45 degrees F shall be maintained 24 hours after completion of work. Protect products from weather and other damage for a period of 24 hours after installation. Do not apply products to frozen surfaces.

1.7 SCHEDULING

The work requires close coordination with related sections and trades.

PART 2 PRODUCTS

2.1 MANUFACTURERS

The following manufacturers are approved for the project.
Conproco

2.2 MATERIALS

A. M3P: A completely inorganic mineral silicate paint that provides long-term protection and enhanced aesthetics to structures.

B. Color: _____

PART 3 EXECUTION

3.1 EXAMINATION

A. Installation shall be performed strictly in accordance with manufacturer's current product data bulletin.

B. Examine substrates and conditions under which materials will be installed. Do not proceed with installation until unsatisfactory conditions are corrected.

C. Coordinate installation with adjacent work to ensure proper sequence of construction. Protect adjacent areas and landscaping from contact due to mixing, handling, and application of materials.

D. Apply a test sample to determine suitability. A white surface film after 12 hours of curing indicates the substrate is too dense for proper penetration or a previous treatment impeding absorption has been applied.

3.2 SURFACE PREPARATION

A. Prior to application of products, inspect the substrate for proper cleaning and treatment of structural cracks, texture differences, damage, etc. Work shall not proceed until unsatisfactory conditions are corrected.

B. All substrates must be sound and free from loose debris, oils, paints, sealers, form treatments or any substances that would interfere with proper penetration.

C. Prepare surface to sandpaper-like texture (Concrete Surface Profile 3) by mechanical abrasion or water blasting. Typical preparation method is high pressure water blasting. Refer to ICRI Surface Preparation Guide 03732 for information about Concrete Surface Profile.

D. Chemical cleaners may be used to remove stains and surface contaminants. If chemical cleaners are used, the surface must be neutralized prior to application of M3P.

E. Allow surface to dry completely. New concrete must be cured 14 days before application. A dry surface is necessary to allow maximum penetration.

F. Adjacent surfaces should be protected from spatter or over spray (use masking tape and polyethylene film).

G. Do not apply M3P to horizontal surfaces.

3.3 APPLICATION

A. Priming

1. Apply Primex (priming treatment) with low-pressure spray, roller or brush. Coverage will vary with the absorption rate of the substrate.

2. For best results when spray applying, apply beginning at the bottom of the structure and work towards the top.

3. Allow 12 hours for Primex to react with the substrate before applying M3P. A white film on the surface after 12 hours indicates the substrate is either too dense for proper penetration or a previous treatment such as a water repellent has been applied.

B. Mixing

1. No additives of any kind shall be added to any of the products.

2. Mix until homogeneous. Do not use high-speed mixers or over mix as this will entrain excess air.

3. Mix pails from different batches when an entire surface is visible.

C. Application

1. Apply M3P with roller, brush or spray. The undiluted M3P should be applied at a rate of 5 mils wet. Do not exceed 10 mils wet as a thicker application can result in mud cracking.

2. One application is usually sufficient when the substrate has been pre-treated with Primex. Allow 12 hours curing between applications.

3. Substrates with greater porosity and texture may require a second application.

4. A test application is strongly recommended to determine coverage and suitability of final appearance.

5. For roller applications, use a 3/8 to 1/2 inch synthetic nap roller depending on texture of substrate. For spray applications, use an airless sprayer with 0.017 – 0.021 tip.

6. Work to pre-determined break points in the structure.

7. Maintain a wet edge.

8. In most cases M3P will be applied without dilution. However, the opacity of M3P can be altered to meet the aesthetic requirements of the project by adding Primex up to 1 part M3P to 6 parts Primex.

D. Curing

1. Protect all surfaces against wet or damp weather conditions for at least 24 hours after application.

3.4 CLEANING

A. Material left over at the job site by the approved applicator shall be removed.

B. Clean tools, equipment and adjacent areas with soap and water before material dries. M3P and Primex are highly alkaline.

C. Clean all metal and glass surfaces immediately to prevent permanent discoloration.

D. Any foreign material resulting from the work of the approved applicator shall be removed.

END OF SECTION 071900