



Cathedral Stone® Products, Inc.

The leader in scientific masonry restoration

## **GUIDELINE FOR WRITING SPECIFICATIONS WHEN USING**

# **CSP Bio-Cleaner**

### **Select Relevant Section**

### **Division 4900 – Masonry Restoration and Cleaning**

#### **Part 1 – GENERAL**

##### **1.1 RELATED DOCUMENTS**

- A. Work of this section shall be governed by the Contract Documents. Provide materials, labor, equipment, and services necessary to furnish, deliver, and install all work of this section as shown on the drawings, as specified herein, and/or as required by job conditions.

##### **1.2 SUMMARY OF WORK**

- A. This section includes, but is not limited to the following:
  - a. Stain and dirt removal by chemicals from historic surfaces including limestone, sandstone, marble, unpolished granite, terra cotta, concrete, brownstone and brick. Mock-ups will determine the most appropriate method.
- B. Protection of metals, glass, and other adjacent building materials during all other work activities in the related sections below.
- C. Visual Requirements:
  - a. Maintain aesthetic or historic qualities of Project by protecting Work designated to remain.

##### **1.3 REFERENCE**

- A. Manufacturer's specifications and instructions.

##### **1.4 SUBMITTAL**

- A. Submit each item in this Article according to the Conditions of the Contract and Division 1 Specification Sections.
- B. Product Data: Submit manufacturer's specifications and installation instructions for products used including finishing materials and methods.
- C. Submit manufacturer's technical data sheet for product indicated including recommendations for their application and use.

- D. Submit a work plan describing capture, storage, and disposal as required and/or governed by any and all local, state, and/or federal laws, codes, and regulations.
- E. Samples: Provide sample installation of product. Locations per the owner or owner's representative's directions.

## **1.5 QUALITY ASSURANCE**

- A. Mock-ups: Prepare sample of CSP Bio-Cleaner on the appropriate substrate indicated. See 1.6 Test Panels.
- B. Provide at least one person who shall be present at all times during the execution of the work of this section, who shall be thoroughly familiar with the specified requirements, and the materials and methods needed for their execution, and who shall direct all work performed under this section.
- C. Provide adequate numbers of workers skilled in the necessary crafts and properly informed of the specialized methods and materials to be used in this work.

## **1.6 TEST PANELS**

- A. The Contractor shall arrange for providing test panels. Minimum size of test panels should be a 4 ft. by 4 ft. area. Manufacturer's application instructions shall be followed. Allow test panel to dry for 3 to 7 days before inspection. Keep test panels available for comparison throughout the cleaning project.
- B. Contractor shall prepare a written report detailing results of testing including but not limited to description of methods employed, materials, thickness of cleaner applied, dwell times and other elements of the test procedures as defined above.
- C. Each test panel must be clearly labeled, charted and photographed.
- D. Approved test panels will become a part of the Work, and serve as the quality standard for similar type work on this project.
- E. Notify the owner's representative seven (7) days in advance of the dates and time when the test panels will be installed.

## **1.7 PROJECT/SITE CONDITIONS**

- A. Contractor shall be responsible for protecting all existing materials such as wood, doors, windows, flashings, glass, roofing, and all other existing materials not intended to be treated.
- B. Contractor shall be responsible for the repair of all damaged adjacent materials due to the execution of the work at no additional expense to the owner. Repairs shall be made by qualified mechanics skilled in the type of repairs required, to the satisfaction of the owner's representative.
- C. Protect adjacent areas and surfaces not being treated with barriers suitable for the product being used. Appropriate care should be taken at air intakes, air conditioning vents and similar openings that may come in contact with the product.
- D. Take appropriate precautions to avoid harm to building occupants, pedestrians and nearby property.
- E. Safety: For any number of reasons it is essential to maintain a high degree of worker and occupant safety while working with a chemical solution.

## **PART 2 – PRODUCTS**

### **2.1 MATERIALS**

#### A. CSP Cleaners

- a. CSP Bio-Cleaner should be used in their undiluted form. No acids, bases, caustics, solvents or other agents should be added. Products should be applied to limestone, sandstone, unpolished granite, terra cotta, concrete, brownstone, brick and other masonry surfaces. Acceptable products are available through Cathedral Stone Products. Tel: 410-782-9150; fax: 410-782-9155.

#### B. Miscellaneous Equipment

- a. Natural bristle brush
- b. Paint roller
- c. Airless sprayer
- d. Clean rags
- e. Latex gloves
- f. Eye and skin protection
- g. Garden hose with running water supply
- h. Pressure washer using 600 to 1200 psi
- i. Soft bristle scrub brush

## **PART 3- EXECUTION**

### **3.1 PREPRATION**

- A. Follow instructions provided by the manufacturer (See Data Sheet).
- B. Work only in sections that can easily be cleaned in a single shift.
- C. Substrate and any repairs must be fully cured prior to cleaning.
- D. Clearly mark area to be cleaned.
- E. Protect adjacent material when applicable with tape, drop cloths, paper, plastic or other means.
- F. Remove any loose particulate.
- G. To ensure even application of the CSP Cleaner make the substrate damp with clean water.

### **3.2 GENERAL APPLICATION of CSP BIO-CLEANER**

- A. Follow instructions provided by the manufacturer (See Data Sheet).
- B. Clearly mark or identify the time of application and dwell time.
- C. Apply cleaner using a brush, roller, or airless sprayer to the desired thickness. Thicknesses of cleaner on test patches will determine appreciate thickness.
- D. Leave cleaner on substrate only as long as determined acceptable in the mock-ups and approved by the owner or their representatives.
- E. If the approved dwell time has elapsed and a stain or blemish persists use a soft bristle scrub brush to agitate the area.

- F. Apply a small amount of CSP Bio-Cleaner to the brush then scrub the area again to facilitate in the removal of the stain if necessary.

### **3.3 REMOVAL of masonRE CLEANERS**

- A. Follow instructions provided by the manufacturer (See Data Sheet).
- B. Begin at the top of each section and pressure wash the cleaner and residue off the substrate. Use appropriate pressure as determined in the mock-up.
- C. Pressure wash should be performed at a pressure which will not damage the substrate yet provide adequate removal of cleaner and residue.
- D. Be sure all of the cleaner and residue are washed off the substrate.
- E. Exercise caution during cleaning operations to avoid wind drift of materials to adjacent properties, persons, or cars below. Schedule cleaning operations for times or days when risk to pedestrians or vehicles is at a minimum.
- F. Use only methods and materials determined during testing phase and approved by owner's representative. Clean surface to degree accepted by owner's representative. Do not permit cleaning to continue if methods and materials employed results in any permanent damage to surfaces.
- G. Contractor shall reclaim, characterize and dispose of all waste and residue used in conjunction with this project in accordance with applicable laws. Disposal sites shall be approved by the owner's representative.

### **3.4 CLEAN UP**

- A. During the work, remove from the site discarded cleaning and coating materials, rubbish, cans and rags at the end of each workday.
- B. Upon completion of work, remove all protective coverings and coatings, and clean window glass and other spattered surfaces. Remove spattered coatings by proper methods as recommended by manufacturer, using care not to damage adjacent surfaces.

## **PART 4 – CONTRACTOR QUALITY CONTROL**

### **4.1 QUALITY CONTROL**

- A. The implementation of a Contractor Quality Control Program does not relieve the Contractor from the responsibility to provide work in accordance with the Contract Documents, applicable codes, regulations, and governing authorities. The Contractor Quality Control Program shall include, but not be limited to, the elements herein. These elements are provided only as a minimum starting point for the Contractor to use to generate the complete Contractor's Quality Control Program. Conform to all applicable provisions of Section 01400 CONTRACTOR QUALITY CONTROL.

END OF SECTION 07/20/16