CENTURION STONE SPECIFICATIONS

THIS SPECIFICATION GUIDE IS INTENDED TO BE USED IN THE PREPARATION OF SPECIFICATION FOR A PARTICULAR PROJECT OR AS THE BASIS OF AN OFFICEMASTER SPECIFICATION. IN EITHER CASE IT SHOULD BE EDITED TO MEET ACTUAL CONDITIONS AND NEEDS. LOCAL BUILDING CODES IN THE AREA OF CONSTRUCTION MAY REQUIRE ALTERING THE SPECIFICATIONS TO THEIR CODES.

THIS SPECIFICATION IS WRITTEN TO COVER CENTURION STONE MANUFACTURED STONE VENEER AND ACCESSORY TRIM ITEMS.

PART 1.1 – GENERAL:

A. SECTION INCLUDES: Portland Cement based manufactured stone veneer and accessory trim items.

B. RELATED SECTIONS:

1. Substrate wall framing and sheating.
2. Flashing and perimeter sealing at opening and wall protrusions.
3. Masonry installation items.
4. Metal lath and fasteners

SPECIFIC NOTE: REFER TO CENTURION STONES INSTALLATION MANUAL AND FLASHING INSTRUCTION SHEETS. ADD OR DELETE AS REQUIRED FOR SPECIFIC PROJECT.

1.2 SUBMITTALS:

A. **PRODUCT DATA:** For each type of product indicated.

MANUFACTURES'S LITERATURE:

A-1. MATERIALS DESCRIPTION AND INSTALLATION INSTRUCTIONS.

A-2. TEST REPORTS CERTIFIED TEST REPORTS ON PSI, ABSORPTION, SHEAR BOND, FLEX AND R&K INSULATION FACTORS IF REQUIRED.

A-3. SAMPLES TO INCLUDE: ACTUAL SCALE PIECES OF VENEER UNITS SHOWING SIZE RANGE AND COLOR SELECTION AND TEXTURES OF PIECES TO BE USED. (MINIMUM SAMPLE SIZE 3FT. X 3FT.)

A-4. SHOP DRAWINGS SHOWING INSTALLATION OF PRODUCT.

A-5. MANUFACTURES INSTALLATION INSTRUCTIONS

A-6. QUALIFICATION: PROOF OF MANUFACTURE QUALIFICATIONS, YEARS IN MANUFACTURING, LENGTH OF WARRANTIES, EVALUATION REPORTS ON PRODUCTS MINIMUM OF 3 YEARS MANUFACTURING EXPERIENCE IN MANUFACTURED STONE VENEER PRODUCTION.

A-7. MAINTENANCE INSTRUCTIONS/SPE-

CIAL WARRANTIES

A-8. Obtain architects approval on sample

1.3 QUALITY ASSURANCE:

A. **INSTALLER QUALIFICATIONS:** A qualified installer who employs experienced stonemasons and stone fitters with manufactured stone veneer experience. Minimum of 1 year experience in manufactured stone veneer installation.

1.4 REFERENCES:

A. Building code applicable to project site.
B. (ANSI) AMERICAN NATIONAL STANDARDS INSTITUTE
1. ANSIA 118.4 Specifications for latex-portland cement mortar.

C. (ASTM) AMERICAN SOCIETY FOR TESTING AND MATERIALS.

1. ASTM C144 Specification for aggregate for masonry mortar.
2. ASTM C207 Specification for hydrated lime for masonry purposes.
3. ASTM C39 Testing for compressive strength
4. ASTM C248 Flexural strength
5. ASTM C847 Specification for metal lath.
6.ASTM C226 Specification for asphalt-saturated organic felt.
7. ASTM 979 Specifications for pigments for integrally colored concrete.
8. ASTM C91 & C150 Standard for Portland and Masonry Concrete
9. ASTM C482 Bond Strength

D. UNIFORM BUILDING CODE (UBC)

1. UBC Standard NO 15-5 for water absorption
2. UBC Standard NO 14-1 Kraft waterproof building paper.

1.5 DELIVERY STORAGE AND HANDLING

A. Store cementitious materials on elevated platforms, under cover and in a dry location. Avoid exposure to moisture.
B. Store aggregates so they can be maintained and contamination avoided.
C. Store masonry accessories including metal items, to prevent corrosion and accumulation of dirt and oil.
D. Ordering comply with manufacturers ordering instructions and lead time requirements to avoid construction delays.
E. **DELIVERY:** Deliver materials in manufacturers original, undamaged containers with identification labels in tact.
F. Follow manufacturers recommendations on handling and unloading of trucks and stone storage.
G. The contractor shall check the materials upon delivery to site to assure that proper material has been received.
H. The contractor shall prevent excessive mud, wet cement, and like material, which may affix themselves, from coming in contact with the material.

1.6 ENVIRONMENTAL REQUIREMENTS:

A. Consult local building codes for cold weather construction requirements when air temperature is 40 degrees F or below (AC1530.1/ASCE6/TMS602)
B. Protect material from rain, moisture and freezing temperatures, prior to and for 48 hours after comple-

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tion of work.
C. Consult local building codes for hot weather construction requirements, stone materials and wall surface may be dampen to reduce wall temperature before applying stone veneer. (ACT 530.1/ASCE6/ TMS602)
D. Allow no construction activity on opposite side of wall during installation and for 48 hours after completion of work.
E. Protect surfaces of windows and door frames and similiar products with painted and integral finishes, from mortar droppings.
F. Turn scaffold boards near the wall on edge at end of each day to prevent rain from splashing mortar and dirt on completed stone masonry.

1.7 WARRANTY

A. MANUFACTURES WARRANTY: SUBMIT FOR OWNERS ACCEPTANCE MANUFACTURES WARRANTY NOTE: CENTURION STONE PRODUCTS ARE COVERED UNDER A 50 YEAR WARRANTY FROM DATE OF PURCHASE WHEN INSTALLED IN ACCORDANCE WITH MANUFACTURES INSTRUCTIONS.
B. Project requirement warranties: refer to project warranty provisions and conditions of contract and specify terms.

1.8 COORDINATION

A. Advise installers of other work specific requirements for placement of flashing and similiar items to be built into stone masonry.

PART 2 PRODUCTS

2.1 A. CENTURION STONE PRODUCTS, 7201 COCKRILL BEND BLVD, NASHVILLE, TN 37209
TEL: 615-256-6694
FAX: 615-726-1795
WWW.CENTURIONSTONE.COM
B. **(_____ VENEER)** VENEER TYPES AS SHOWN ON DRAWING
C. SUBSTITUTIONS: NO SUBSTITUTIONS PERMITTED

1. Products claiming to be the same or equal should meet or exceed the following specifications.

2.2 MANUFACTURED STONE VENEER

CENTURION STONE VENEERS ARE USED INTERIOR AND EXTERIOR ON BOTH RESIDENTIAL AND COMMERCIAL PROJECTS. THE VENEER CAN BE APPLIED ON METAL OR WOOD FRAMING AS WELL AS OVER MASONRY WALLS. CENTURION STONE VENEER IS CAST IN MOLDS MADE FROM NATURAL STONE BY MASTER MOLD CRAFTSMAN WHO SELECT CHOICE PIECES FOR THEIR SIZE SHAPE AND TEXTURES.

A. **VENEER UNITS:** CENTURION STONE IS MANUFACTURED USING A UNIQUE PROCESS OF CASTING A MIX DESIGN OF ALL NATURAL MATERIALS CONSISTING OF PORTLAND CEMENTS, SAND, LIGHTWEIGHT AGGREGATES AND IRON OXIDE COLORS, INTO MOLDS THAT PRODUCT THE LOOK AND FEEL OF NATURAL STONE. THE AVERAGE THICKNESS OF OUR PATTERNS RANGE FROM 1 ½”

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TO 2 1/2" DEPENDING ON PATTERN WITH THE FOLLOWING MIX DESIGN RESULTS

B. PHYSICAL PROPERTIES:

1. COMPRESSIVE STRENGTH: 7849 PSI
2. SHEAR BOND (ADHESION STRENGTH): 160
3. WATER ABSORPTION: 11%
4. FREEZE-THAW TEST: .13
5. THERMAL RESISTANCE: R-.44 – K4.D33
6. DENSITY: 93 PCF
7. SHIPPING WEIGHTS: 7 ½ TO 12 LBS SQ FT

C. PACKAGING: Packaging to be in corragated packaging with set amounts in each package (box). Centurion packaging is one of the best in the industry with 8 individual boxes on a wood pallet with a water resistant wrapper around the 8 boxes. The package can be moved easily with a tow motor and then by individual boxes on the job site. **SPECIFIER NOTE: IF SUBSTITUTIONS ARE PERMITTED THEY SHOULD MEET OR EXCEED THE ABOVE REQUIREMENTS AND SUBMIT THE TEST RESULTS ON THEIR PRODUCTS.**

D. MOISTURE BARRIER: ASTM D226 NO. 15 Non-performed asphalt saturated felt. UBC Standard NO. 14-1 Kraft waterproof building paper.

E. METAL LATH/REINFORCING: (ASTM C847 Galvanized expanded metal lath) (ASTM C847 Painted expanded metal lath) (1 INCH Galvanized steel, 18 guage woven wire mesh complying with code agency requirements)

2.3 MORTAR:

1. PORTLAND CEMENT: ASTM C150 TYPE I OR MASONRY CEMENT TYPE S, ASTM C91 SAND: ASTM C144 NATURAL OR MANUFACTURED SAND
2. HYDRATED LIME: ASTM C207, TYPE S
3. PIGMENT: ASTM C979 MINERAL OXIDE PIGMENTS (USE ONLY PIGMENTS WITH A RECORD OF SATISFACTORY PERFORMANCE IN STONE MASONRY MORTAR)
4. LATEX ADDITIVE: A BONDING AGENT SERVING AS REPLACEMENT FOR PART OR ALL OF GAGING WATER (WHEN INSTALLING DRY STACK SERIES OF STONE)
5. COLD WEATHER ADMIXTURE: NONCHLORIDE, NONCORROSIVE, ACCELERATING ADMIXTURE WITH ASTM C494/C494M, TYPE C.
6. LOADER: POTABLE
7. SEALER: IF REQUIRED (NOT NECESSARY WITH CENTURION STONE) WATER BASED SILANE OR SILOXANE MASONRY SEALER

2.4 FLASHING

A. METAL FLASHING: Provide metal flashing complying with (SMACNA'S Architectural sheet metal manual) (DIVISION 7 Section sheet metal flashing and trim)

B. Tapes/Rubber flashing

PART 3 EXECUTION:

3.1 EXAMINATION

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A. Verification of site conditions: Examine surfaces indicated to receive stone veneer with installer present, for compliance with requirements for installation tolerance and other conditions affecting performance.

B. Examine substrate to verify that wall framing, sheathing, flashing and weather resistant sheathing paper are installed correctly and installation will result in a weatherproof covering.

C. Notify contractor in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. PROTECTION: Protect adjacent work from contact with mortar.

B. SURFACE PREPARATION: Prepare substrate in accordance with manufacturers instructions for the type of substrate being covered.

C. Clean dirty or stained stone surface by removing soil stains and foreign materials before setting. **USE ONLY MILD CLEANING COMPOUNDS THAT CONTAIN NO CAUSTIC OR HARSH MATERIALS OR ABRASIVES.**

3.3 INSTALLATION

NOTE: WHEN APPLYING STONE IN HOT OR DRY WEATHER THE WALL AND BACK OF EACH PIECE SHOULD BE MOISTENED WITH A FINE SPRAY OF WATER TO PREVEN EXCESSIVE OBSORPTION OF MOISTURE FROM THE MORTAR. APPLICATIONS SHOULD BE PROTECTED FROM FREEZING SINCE FROZEN MORTAR WILL NOT SET UP PROPERLY UNDER FREEZING CONDITIONS.

A. SETTING OF STONE VENEER

Perform necessary field cutting and trimming as stone is set, use power saws to field cut stones.

1. Sort stone before they are set for size, width and heights, colors relating to asthetic effects and discard unsuitable pieces.
2. Work out of several boxes to ensure color variations are uniformly blended throughout job
3. Alternate long and short corner pieces
4. Maintain uniform mortar joints in grouped patterns ½” TO ¾” in width. When installing the dry stack series of stone patterns, the stone is set tight against each other with no mortar joint allowed.

B. MORTAR JOINTS

1. Grout all joints uniformly and fill with grouting bag. Allow grout to set up to crumbly consistency. Rake and brush joints to a smooth and consistant finish acceptable to architect.
2. EXCESS MORTAR: Clean excessive mortar form stones face as work procedes. Do not allow mortar to set up on face of units. Clean and finish joints per manufacturers instructions.

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3.4 ADJUSTING AND CLEANING

ADJUSTING

A. Damaged units should be replaced with new units during construction.
B. Broken chipped stained or otherwise damaged stone may be repaired if methods and results are approved by architect.
C. Remove and replace defective joints
D. Replace stone in a manner that results in stone masonry matching approved samples and mockups.

CLEANING

A. REFERENCE SECTION 14 under Manufacturer's Installation Instructions
B. Remove any protective covering from adjacent work.
C. If cleaning is required clean work with a soluton of granulated household detergent and water solution using soft bristle brush. Rinse with clean water. Allow 24 hours for work to set up before cleaning.
D. **DO NOT USE A WIRE BRUSH FOR CLEANING. DO NOT CLEAN USING ACID OR ACID BASED PRODUCTS. DO NOT CLEAN WITH HIGH PRESSURED WASHER. DO NOT USE DE-ICING CHEMICALS IN AREAS NEXT TO VENEER**

E. **SCUFFING:** SCUFFING MAY OCCUR IN SHIPPING OR HANDLING OF STONE VENEER. SCUFFING OCCURS IN NATURAL STONE AND SOME MAY OCCUR IN MANUFACTURED STONE VENEER MOST SCUFF MARKS CAN BE ELIMINATED BY THE ABOVE CLEANING PROCESS.

F. **EFFORESCENCE:** CLEAN AREA WITH WATER AND STIFF BRISTLE BRUSH, AND RINSE. ON DIFFICULT AREAS CLEAN BY USING 1 PART HOUSEHOLD VINEGAR TO 5 PARTS WATER. RINSE THOROUGHLY.

3.5 EXCESS MATERIALS AND WASTE

A. **EXCESS STONE:** Stack excess stone where directed by owner.

B. **EXCESS MASONRY WASTE:** Remove from job site waste that connot be used as fill and legally disposed of off owner's property.

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