SPECIFICATIONS
MODERRA MORTARLESS MASONRY VENEER

PART 1: GENERAL

1.01 Section Includes

A. Product description and definitions.

B. Constructing base ledge for concrete wall units.

C. Installing modular concrete units.

1.02 Applicable Standards for Specifications

American Society for Testing and Material (ASTM)
ASTM: C-90 Hollow Load-bearing Masonry Units
ASTM: C-140 Sampling and Testing Concrete Masonry Units
ASTM: C-145 Solid Load-Bearing Concrete Masonry Units

American Society for Testing and Materials (ASTM)
ASTM: A-525 Standard Specification for Zinc-Colored Sheet
ASTM: A-36 Standard Specification for Structural Steel

American Society for Testing and Materials (ASTM)
ASTM B-221 Aluminum Alloy Extrusion Bars
ASTM B-136 Stain Resistance of Anodic Coating on Aluminum

American Society for Testing and Materials (ASTM)
ASTM D 698

1.03 Delivery, Storage and Handling

A. Moderra concrete unit

1. Contractor shall check the units upon delivery to ensure proper materials have been received.

2. Contractor shall prevent excessive mud, wet cement, epoxy, and like materials from coming in contact with and affixing to the units.

3. Contractor shall protect the units from damage (i.e. cracks, chips, and spalls.) Damaged units shall be evaluated for usage in the wall according to ASTM: C-90 (1981 Rev.) and ASTM: C-145-75 (1981 Rev.)

B. Aluminum Material

1. Contractor shall check proper material quantities have been received.

2. Contractor shall check for bent, warping, or scratching of the H-Channel.

C. Galvanized Material

1. Contractor shall check proper material quantities have been received.

2. Contractor shall check for bent, warping, or scratching of the galvanized material.

PART 2: Products

2.01 Definitions

A. Moderra Concrete Unit – a concrete siding unit, as manufactured by a licensed Moderra producer, machined from Portland cement, water, and aggregates.

B. Corner-Block – For perfect 90 degree corners, manufactured by a licensed Moderra producer, machined from Portland cement, water and aggregates.

C. Sill Block – a concrete sill sloped at 8 degrees to shed moisture to the outside of the wall, manufactured by a licensed Moderra producer, machined from Portland cement, water and aggregates.

D. H-Channel

1. H-Channel – Interlocks into the vertical side of Moderra unit. It provides an interlocking system between two separate blocks.

2. H-Channel – Ensure for proper alignment and provide a ¾" airspace.

3. H-Channel – Attaches the Moderra unit to the wall.

E. Trim Beam – Aluminum beam, used to finish at doors and windows, provides a ¾" airspace.

F. Atmospheric Gasket – Designed into the concrete Moderra units to provide a moisture seal.

G. Screws – Screws attach H-Channel or Moderra bracket to wall. Screw size to meet minimum requirement of local building codes. For suggested fasteners details consult the Moderra installation instructions.

H. Moderra Tie – Metal tie that attaches the Moderra unit to the wall. Tie attaches on the top of the Moderra unit in the atmospheric gasket.

I. Moderra Bracket

1. Moderra Bracket – Interlocks into the vertical side of Moderra unit. It provides an interlocking system between two separate blocks.

2. Moderra Bracket – Ensure for proper alignment and provide a ¾" airspace.

3. Moderra Bracket – Attaches the Moderra unit to the wall.

J. Contact Information- Moderra Concrete Siding 325 Alliance Place NE Rochester, MN 55906. Phone 507.529.2871. Website www.moderra.com.

2.02 Moderra concrete Units

A. Standard 8" Unit -8"h x 16"w x 2.5"d exterior dimension .88 square feet and a minimum of 2. 5" thickness.

B. Standard 4" Unit- 4"h x 16"w x 2.5"d exterior dimension .44 square feet and a minimum of 2.5" thickness.

C. 8" Corner Unit – exterior dimension is .88 square feet and a minimum of 2.5" thickness.

D. 4" Corner Unit- exterior dimension is .44 square feet and a minimum of 2.5" thickness.

E. 4" Brick Corner Unit- exterior dimension is .33 square feet and a minimum of 2.5" thickness.

F. Sill Unit – 4"h x 16"w x 4.5"d exterior dimension is .44 square feet and a minimum of 3½" thickness.

G. The Moderra units, corner units, and sill units will conform to the following aesthetic requirements:

1. Color – color should be specified by the Owner or Designer

2. Face Surface – fractured rock face with a scored design – STRI pattern with a scored design

H. Moderra standard units, corner units, and sill units shall conform to the Requirements of ASTM: C-90 Hollow Load-bearing Masonry Units, ASTM: C-140 Sampling and Testing Concrete Masonry Units ASTM: C-145 Solid Load-Bearing Concrete Masonry Units, standard specifications for load bearing concrete masonry units.

I. Moderra standard units, corner units, and sill units shall conform to the structural and unit measurement tolerances in accordance with the following Moderra specification.

1. Compressive strength minimum of 3.500 PSI

2. Absorption maximum of 6%

3. Unit height of variance of plus or minus $^{1}/_{16}$ inch

J. Sill units will be attached using an adhesive meeting the manufacturers specifications.

2.03 Base Pad Material

A. Consult engineer for proper foundation design or for placement of the base ledge to support the Moderra wall.
1. Steel Angle – should be a minimum of 2” wide and 3” high. The angle should be approximately ¼” thick.

2. Timber Ledge – should be a minimum of two 2” x 6” treated lumber.

3. Brick Ledge – should be a traditional brick ledge, ensure the ledge is level.

PART 3 EXECUTION

3.01 Examination

A. The area and conditions where the concrete veneer is to be constructed needs to be examined and documented. If conditions exist that seem detrimental to the construction, design or lifetime performance of the concrete veneer after installation, the General Contractor or owner should be notified.

3.02 Back Wall Preparation

A. Back wall surface that is non-waterproof should be covered with a weather resistant moisture proof barrier. The moisture barrier should be lap so that moisture wicks from top to bottom without penetrating to the back wall sheathing.

3.03 Base Ledge

A. The Base Ledge is constructed out of steel angle or timber ledge. It should be attached with proper fasteners every 16 inches using fasteners capable of holding the desired weight.

B. Brick Ledge leveling pad must be constructed to the specification and design of a traditional brick ledge with regard to depth and width of the foundation in different temperature zones.

C. Base Ledge shall be prepared to ensure full contact to the base surface of the Moderra concrete unit.

D. Proper flashing and/or building paper over or around the angle iron, timber ledge and brick ledge to prevent moisture damage.

3.04 Moderra Unit Installation

A. Place Moderra directly on the leveling pad, made up of steel angle, timber or brick ledge. Block alignment and levels, parallel and perpendicular to the building, should be checked to ensure all units are in full alignment with the wall. Moderra units must also be inline horizontally, or side to side, with adjacent units.

B. The H-Channel is installed on each completed unit column – the units shall be positively interlocked by an Aluminum H-Channel inserted into the vertical side of the block.

C. When H-Channel splicing is required, the splices shall be staggered so that no H-Channel within thirty-two inches of each other is spliced in the same horizontal course of Moderra units.

D. The Moderra Bracket is installed in each Moderra unit. The Moderra Bracket is installed into the vertical side of each block. The Moderra wall can be built horizontally or vertically.

E. For corner applications, please follow the installation instructions.

3.05 Sill Installation

A. Sill units shall be adhered to underlying Moderra units with the Alliance SSA adhesive or an all-weather adhesive recommended by the manufacturer. Sill will need to be cut for corner applications.

B. For more detailed Sill instruction, consult the Moderra installation instructions.

3.06 Field Quality Control

A. The Owner or General Contractor should inspect or enlist the assistance of a qualified third party to provide quality assurance, services during constructions and/or a final inspections for the project. The presents of this third party does not alleviate the installer from fault.

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