



**Iowa Department of Transportation**

**SPECIAL PROVISION  
FOR  
LIMESTONE BLOCK COLUMN**

**Johnson County  
STP-U-1557(638)--70-52**

**Effective Date  
December 17, 2013**

**THE STANDARD SPECIFICATIONS, SERIES OF 2012, ARE AMENDED BY THE  
FOLLOWING MODIFICATIONS. THESE ARE SPECIAL PROVISIONS AND SHALL PREVAIL  
OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.**

## **PART 1 GENERAL**

### **1.01 SUMMARY**

- A. SECTION INCLUDES
  - 1. This part of the Specifications includes all labor, materials, equipment, and supervision required to provide and install LIMESTONE BLOCK COLUMNS.
  - 2. This section includes the specifications for LIMESTONE BLOCK COLUMNS (native Iowa limestone) and limestone accessories.

### **1.02 MEASUREMENT AND PAYMENT**

- A. Basis of Measurement: The Engineer will receive bills of lading that document the number of EACH of the LIMESTONE BLOCKS delivered to the site and the Engineer will verify the number of EACH of the LIMESTONE BLOCK COLUMNS and structural pcc footings installed, complete.
- B. Basis of Payment: Payment for LIMESTONE BLOCK COLUMNS includes all labor, materials, equipment, and supervision required to install the columns and footings, complete.
- C. Unit Price for LIMESTONE BLOCK COLUMNS includes shop drawings, limestone, structural concrete footing as per Section 2403 of the Standard Specifications, reinforcing, material delivery to site, installation, cleaning and repair, and other materials necessary for furnishing and installing the LIMESTONE BLOCK COLUMN complete.

### **1.03 QUALITY ASSURANCE**

- A. Materials and methods of construction shall comply with the American Society for Testing and Materials (ASTM) and applicable requirements of local governing authorities.
- B. Limestone Standards:
  - 1. Native Iowa limestone -- min. 55 percent calcium chloride as  $\text{CaCO}_4$ .
  - 2. Compressive strength (ASTM C 170 - 50).
    - a. Minimum - 6500 psi.
    - b. Average - 7500 psi.
  - 3. Absorption (ASTM C 97 - 47) -- maximum 7.0 percent.
  - 4. Match material color and texture of stacked limestone blocks installed at the Interstate-80 and Coral Ridge Avenue Interchange.
- C. Installation: Performed only by experienced stone wall builders with satisfactory record of performance on complete projects of comparable size and quality.
- D. Provide all limestone from one quarry to ensure consistent color range and texture.
- E. Do not change source or brands of materials during the course of the work.

### **1.04 SUBMITTALS**

- A. Product data for stone and accessories required.
- B. Limestone: Samples required; include the color and texture proposed for the work.
- C. Shop drawings showing reinforcing, footings, and connections.

**1.05 DELIVERY, STORAGE, AND HANDLING**

- A. Stone:
  - 1. Deliver, store, and handle limestone materials in accordance with stone suppliers recommendations.
  - 2. When blocking and packing use non-staining materials.
  - 3. Protect stone from damage and soiling.
- B. Stone Accessories: Deliver, store, and handle masonry accessories to prevent weather damage and deterioration.

**1.06 PROJECT CONDITIONS**

- A. Do not use metal accessories with loose coatings, including ice, which will reduce bond.
- B. Protect partially-completed limestone work against weather damage and moisture, when work is not in progress. Cover tops of limestone with strong, waterproof, non-staining membrane.
- C. Cold Weather Construction:
  - 1. Do not use frozen materials or materials mixed or coated with ice or frost.
  - 2. Do not build on frozen ground or frozen work. Remove and replace stone work damaged by frost or freezing.
- D. Protect adjacent work from damage, soiling, and staining during masonry work operations.

**PART 2 PRODUCTS****2.01 LIMESTONE**

- A. Match material used throughout Coralville; material has been quarried and supplied by Weber Stone Co., Inc., Anamosa, Iowa.
- B. Surface finishes: As shown on the plans.
- C. Sizes: As shown on plans.
- D. Grade/quality: Standard.
- E. Provide sound limestone uniform in color and texture, free from mineral stains, other foreign matter, and defects detrimental to appearance and durability.
- F. Color range to match existing stacked limestone blocks installed at the Interstate-80 and Coral Ridge Avenue Interchange.

**2.02 REINFORCED CONCRETE FOOTING**

- A. Concrete and reinforcing as per Section 2403 of the Standard Specifications.
- B. See plans for information.

**PART 3 EXECUTION****3.01 LAYOUT OF LIMESTONE BLOCK COLUMNS**

- A. Establish column locations, lines and levels, based on station and offset information in plans.
- B. Station, offset and elevation is to top of finished grade. Calculate top of footing based on information in plans.

**3.02 EXCAVATION AND SUBGRADE INSPECTION/PREPARATION**

- A. Excavate to lines and grades shown on the plans.
- B. Examine substrates and installation conditions.
- C. Examine subgrade and confirm subgrade is level.

**3.03 INSTALLATION OF LIMESTONE BLOCKS**

- A. Do not use LIMESTONE BLOCKS with unacceptable chips, cracks, voids, stains, or other visible defects as determined by the Engineer.
- B. Set LIMESTONE BLOCKS in accordance with plan details.
- C. Install LIMESTONE BLOCKS with joints widths and alignments as shown on the plans.

**3.04 CLEANING AND REPAIR**

- A. Remove and replace LIMESTONE BLOCKS which are loose, broken, stained, or otherwise damaged. Provide new matching units, install as specified.
- B. Upon completion of the work, remove from site all excess materials, debris, tools, and equipment. Repair damage resulting from stone masonry work operations.