



**DATE:**  
FEBRUARY 25, 2026

# **DIVISION 04 INSERT SPECIFICATION LANGUAGE**

## **CARBONBUILT CONCRETE MASONRY UNITS and SEGMENTAL RETAINING WALL MADE WITH REVERSA® BINDER**

### **PART 1 – GENERAL**

---

#### **Summary**

- A) Work includes loadbearing and non-loadbearing concrete masonry units (CMU), segmental retaining wall (SRW), accessories, and installation.
- B) Section includes low-carbon CMU and SRW manufactured using CarbonBuilt Reversa® binder technology.
- C) Work under this Section may support the project's sustainability goals, including LEED v5 certification, by reducing embodied carbon, improving material transparency.

#### **1.1 References**

- A) ASTM C90 – Standard Specification for Loadbearing Concrete Masonry Units.
- B) ASTM C129 – Standard Specification for Non-Loadbearing Concrete Masonry Units.
- C) ASTM C1372 – Standard Specification for Segmental Retaining Wall Units.
- D) ISO 14040 and ISO 14044 – Life-Cycle Assessment (LCA) Principles and Framework.
- E) LEED v5

#### **1.2 Administrative Requirements**

- A) Coordination: Coordinate unit sizes, strengths, and finishes with structural and architectural requirements.
- B) Coordinate LEED documentation with the sustainability consultant or Owner's Representative to ensure proper inclusion in the project's sustainability assessment and LEED submittal package.

#### **1.3 Submittals**

- A) Informational Submittals:
  - Certificates of compliance confirming CMU and SRW meet applicable ASTM standards.
  - Test reports validating compliance.
  - Product Data Sheets for CMU and SRW.
  - Environmental Product Declarations (EPDs) in accordance with ISO 14025 (Type III).
- B) Sustainability Submittals:
  - Embodied Carbon Data: Provide cradle-to-gate Global Warming Potential (GWP) values in kg CO<sub>2</sub>e per declared unit as defined in the applicable EPD, verified by a third-party EPD.



- LEED Documentation: Provide manufacturer documentation required to support LEED v5 MRc2 and MRc4 submittals, including EPDs and product transparency documentation.
  - Verification Statements: Provide documentation confirming that embodied carbon reductions are verified under an ISO or ETV protocol (when available).
- C) Sustainable Attributes (informational): Cradle-to-gate Global Warming Potential (GWP), A1–A3, as documented in the applicable third-party verified Type III EPD (Declared Unit: 1 m<sup>3</sup> of finished CMU). As of January 2026 (ASTM Program Operator; WAP Sustainability LCA), values include:
- Normal Weight CMU (1 m<sup>3</sup>): 127 kg CO<sub>2</sub>e
  - Lightweight CMU (1 m<sup>3</sup>): 611 kg CO<sub>2</sub>e
  - Segmental Retaining Wall (1 m<sup>3</sup>): 169 kg CO<sub>2</sub>e

#### **1.4. Quality Assurance**

- A) Manufacturer Qualifications: Produce CMU meeting ASTM C90, ASTM C129, or ASTM C1372, as applicable.
- B) Performance: Provide CMU and SRW units that meet specified structural and durability requirements and are suitable for the intended application.
- C) Sustainability Performance: Provide products incorporating Portland cement replacement via CarbonBuilt's Reversa® technology. Provide third-party verified cradle-to-gate GWP values as documented in the applicable Type III EPD. Any comparison to baseline products shall be determined by the project team using the project-defined reference case.

#### **1.5. Delivery, Storage, and Handling**

- A) Deliver units on pallets; protect from contamination and moisture per manufacturer recommendations.
- B) Provide documentation required for LEED v5 material cost and embodied carbon reporting.

#### **1.6. Field Conditions**

Do not install masonry in rain, snow, or freezing conditions unless protected per TMS 402/602 and project requirements.

### **PART 2 – PRODUCTS**

---

#### **2.1 Manufacturers**

- A) Basis-of-Design Manufacturer(s): Provide CarbonBuilt CMU and SRW manufactured using CarbonBuilt Reversa® technology.
- B) Approved Manufacturing Locations:
  - CarbonBuilt, Inc., Danielson, Connecticut
  - Substitutions: Submit requests in accordance with Division 01. Substitutions must demonstrate equivalent structural performance and documented embodied carbon performance via third-party EPD.



## **2.2 Concrete Unit Masonry (CMU)**

- A) Units shall conform to the following:
- Loadbearing CMU: ASTM C90.
  - Non-loadbearing CMU: ASTM C129.
- B) Technology: Incorporates CarbonBuilt's Reversa® binder technology, which replaces a portion of Portland cement with supplementary and recovered materials.
- C) Physical Requirements: Match standard nominal sizes, shapes, textures, and strengths indicated on drawings. Units shall meet specified structural and durability requirements and be suitable for the intended application.
- D) Environmental Requirements: Provide a current, third-party verified Type III EPD conforming to ISO 14025.

## **2.3. Segmental Retaining Wall (SRW)**

- A) Units shall conform to Loadbearing SRW: ASTM C1372.
- B) Technology: Incorporates CarbonBuilt's Reversa® binder technology, which replaces a portion of Portland cement with supplementary and recovered materials.
- C) Physical Requirements: Match standard nominal sizes, shapes, textures, and strengths indicated on drawings. Units shall meet specified structural and durability requirements and be suitable for the intended application.
- D) Environmental Requirements: Provide a current, third-party verified Type III EPD conforming to ISO 14025.

## **2.4. Accessories**

Mortar, grout, reinforcement, ties/anchors, and accessories: As specified elsewhere in Section 04 05 13 and related sections. (Coordinate with project standards.)

## **2.5. Source Information**

Manufacturer:  
CarbonBuilt, Inc.  
42 Junior Ave,  
Danielson, CT 06239  
[info@carbonbuilt.com](mailto:info@carbonbuilt.com)

## **PART 3 – EXECUTION**

---

### **3.1. Examination**

Verify substrates, foundations, and supports are plumb, true, and ready to receive CMU or SRW.

### **3.2. Installation**

- A) Install CMU in accordance with TMS 402/602 and project documents.



**DATE:**  
FEBRUARY 25, 2026

- B) Install SRW systems in accordance with ASTM C1372, the project geotechnical and structural design, and manufacturer's published installation instructions.
- C) Do not cut or alter units in ways that compromise compliance with ASTM C90/C129/C1372.

### **3.3 Field Quality Control**

- A) Perform testing and inspections per project specifications and code requirements.
- B) Provide data necessary for LEED v5 documentation of installed quantities and embodied carbon.

### **3.4. Cleaning And Protection**

Clean masonry and retaining wall with methods and solutions acceptable to manufacturer; protect completed work from damage and moisture.

### **Spec Writer Notes (Do Not Include in Project Manual)**

Carbon attributes associated with product manufacturing have been sold to third parties Purchasers of CarbonBuilt concrete products may not claim Scope 3 reductions for these units.

Project teams should consult GBCI directly regarding eligibility of these products for embodied carbon credit calculations such as LEED.

### **DISCLAIMER AND LIMITED WARRANTY**

---

CarbonBuilt maintains all disclaimer and warranty information publicly, on its website, [here](#).

### **CONTACT INFORMATION**

---

CarbonBuilt, Inc.  
42 Junior Ave  
Danielson, CT 06239  
Phone: 860-774-5000  
[info@carbonbuilt.com](mailto:info@carbonbuilt.com)  
[www.carbonbuilt.com](http://www.carbonbuilt.com)