

Submittal Form

Use this form to submit your project to the NCMA Research and Development Laboratory. Please complete this form and enclose it with your shipment of test samples. Client is responsible for shipping arrangements and shipping costs.

Company: _____

Contact Name: _____

Address: _____

Phone Number: _____

Email: _____

DESCRIPTION OF PROJECT

Unit Type*	Identification	Quantity	Tests Required
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

* All units must be identical in shape and from the same concrete batch. If more than one unit type is submitted, please mark units with identification number or symbol. Different tests require different numbers of units. Please call the laboratory if you are unsure of tests needed or number of units required.

Please provide additional information and instructions on reverse side

PRODUCTION RESEARCH SERVICES

The production research facility has state-of-the-art equipment to produce a wide range of concrete masonry products. This manufacturing facility is designed to accomplish different batching, production, and curing methods. Units produced include three 8 inch (200 mm) equivalent concrete masonry units, segmental retaining wall units, concrete pavers, reduced-scale CMU, and others. The facility can also be used for the development of new and innovative prototype concrete masonry products.

Production research capabilities include:

- **Material Evaluation**
 - Aggregates
 - Admixtures
 - Pozzolans and cements
 - Recycled materials
- Curing procedure optimization
- Perfecting mix designs
- Developing prototype units
- Production-related training programs



EDUCATION AND CERTIFICATION

Laboratory personnel are actively involved in providing valuable technical education on production and testing-related topics, both at NCMA headquarters and beyond.

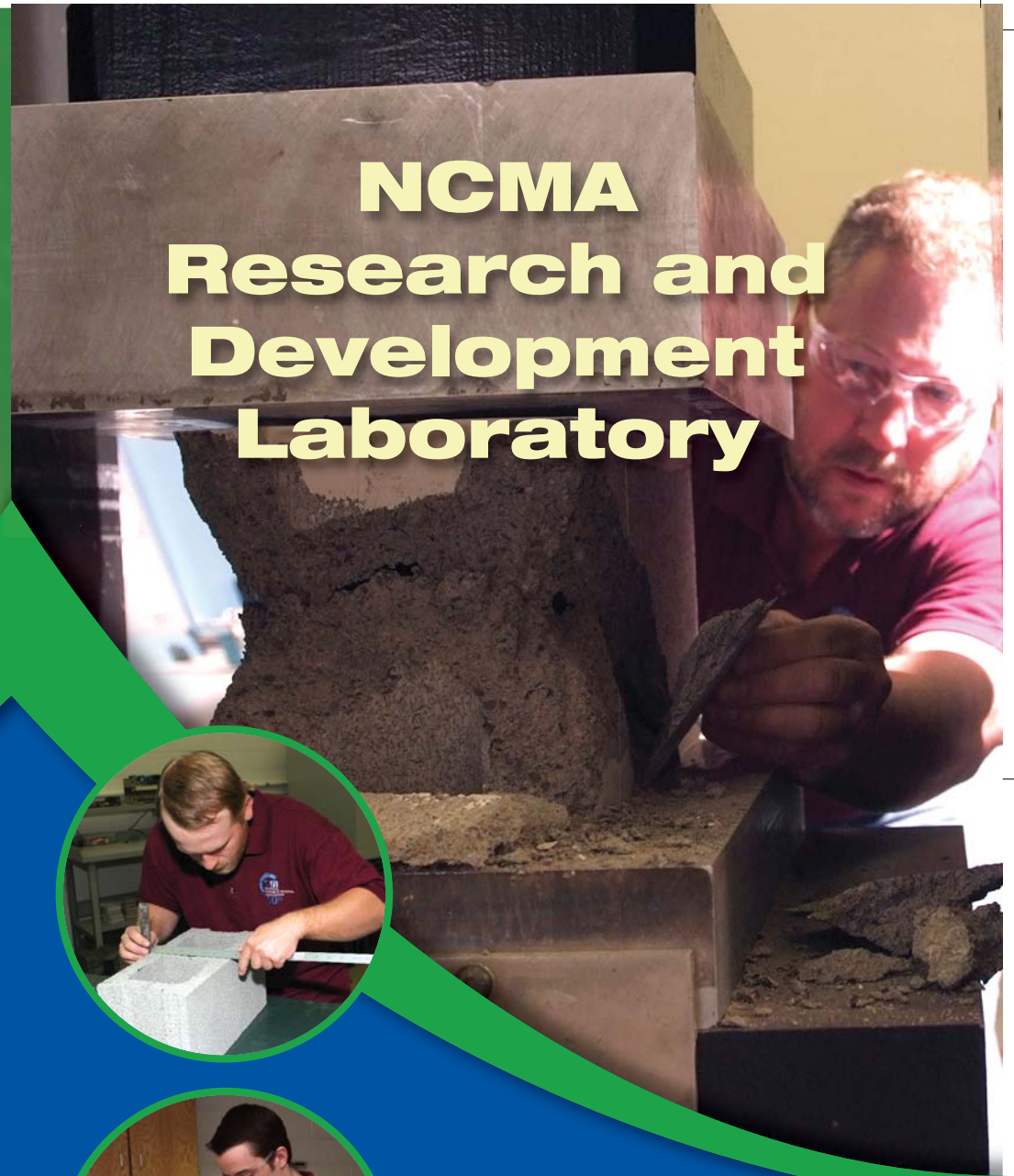


On behalf of NCMA's Concrete Products UniversitySM (CPUSM), Laboratory staff teach the CPU Testing Procedures Course for field and laboratory materials testing technicians and manufacturing quality control personnel, and proctor the Certified Concrete Masonry Testing TechnicianTM (CCMTTTM) certification examination. The course and certification exam are offered twice annually at the Laboratory, and throughout North America on request. The CCMTT provides independent, third-party verification of an individual technician's knowledge of and skill at conducting the applicable ASTM test methods and specifications. A Canadian version of the CCMTT is available, focused on the testing methods and standards of the Canadian Standards Association (CSA).

NCMA engineers are available to teach custom-designed seminars related to the use and evaluation of masonry and hardscape materials and systems. The Laboratory and NCMA's classroom facilities are also available for use to facilitate company-sponsored training.



NCMA Research and Development Laboratory



National Concrete Masonry Association
Research and Development Laboratory
 13750 Sunrise Valley Drive • Herndon, VA 20171
 (703) 713-1900 (703) 713-1910 fax
www.ncma.org

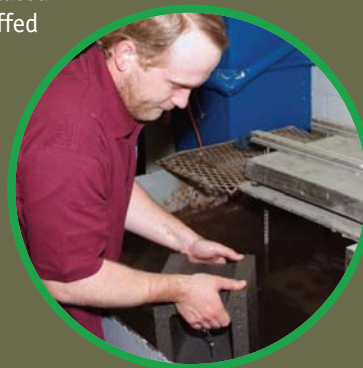


Leading the Industry Through Research & Material Testing

CONCRETE MASONRY PRODUCT AND MATERIAL EVALUATIONS

Proper testing is critical for concrete masonry production and construction. The Research and Development Laboratory is equipped to perform nearly all physical testing of concrete masonry units, hardscape products, and related masonry construction materials. The Laboratory is staffed by professional engineers and certified technicians to ensure that products are tested correctly and in accordance with relevant testing standards.

- Manufactured concrete masonry products – compressive strength, absorption, density, shrinkage, water repellency
- Product certification compliance to ASTM and CSA specifications
- Certifications for fire ratings, energy, sound transmission
- Certifications for recycled content evaluations
- Evaluation of aggregates and other raw materials
- Mortar, grout and masonry prism testing



HARDSCAPE PRODUCT TESTING

Hardscape products present unique testing requirements. NCMA's Research and Development Laboratory has been providing testing services for these products since their introduction. The Laboratory is able to provide routine testing, as well as specialized testing, for the hardscape industry. With various testing procedures for every different type of product, NCMA's experts make sure products are tested right.

Hardscape Products

- Segmental retaining wall units
- Interlocking concrete paving units
- Concrete paving slabs
- Articulating concrete block and erosion control units
- Concrete grid paving units



Hardscape Testing Services

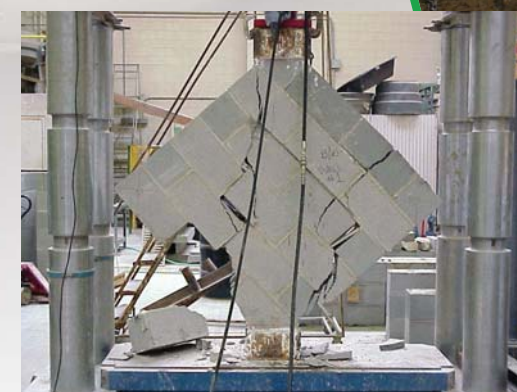
- Manufactured concrete hardscape products – compressive strength, absorption, freeze-thaw durability, salt-scaling resistance, flexural strength, split-tensile strength
- Product certification compliance to ASTM and CSA specifications
- Certifications for recycled content evaluations
- SRW shear and connection strength testing

MASONRY WALL ASSEMBLY TESTING

Very few commercial laboratories are equipped to provide large-scale masonry assembly testing. NCMA's Research and Development Laboratory is staffed with experienced masons to build test specimens to exact specifications and evaluate constructability issues. Testing is conducted by experienced professionals with extensive knowledge of assembly testing. Staff engineers are available to develop proposed testing protocols, oversee testing programs, analyze results of testing, and provide consulting services to develop design recommendations and prepare submittals to building code evaluation service agencies.

Assemblage testing services range from evaluating concrete masonry as a building enclosure, structural capacity of concrete masonry wall systems, and constructability evaluation of masonry products and systems.

- Water penetration resistance
- Air penetration resistance
- Flexural strength (out-of-plane shear)
- Racking (in-plane shear)
- Compression (axial and eccentric loadings)
- Anchorage and tie evaluation



Submittal Form

COMMENTS AND ADDITIONAL INSTRUCTIONS

Send this completed form with your project and receive 5% off the following tests:

C 140 C 426 C 1262 C 1645 C 270 C 1314

Contact the Laboratory for discounted shipping options.



SHIP TO:

**National Concrete Masonry Association
Research and Development Laboratory**

13750 Sunrise Valley Drive • Herndon, VA 20171
(703) 713-1900 (703) 713-1910 fax
www.ncma.org