

777 Bay Street, 2nd Floor
Toronto, Ontario, M5G 2E5

T: 416 585 4234
F: 416 585 7531
W: www.ontario.ca/buildingcode/

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Ontario

**Building Materials Evaluation
Commission**

**Commission d'évaluation des
matériaux de construction**

BMEC AUTHORIZATION: 14-06-372

Eldorado Stone and Dutch Quality Stone: Manufactured Masonry Veneer Stone

Date of Authorization: May 29, 2014
Date of Expiry¹: May 29, 2019

1. Applicant

Headwaters Inc.
1200 Industry Street
Everett Washington
USA 98203

Tel: 425 890-3474
Web: www.eldoradostone.com
Web: www.dutchqualitystone.com

2. Manufacturing Facility

Eldorado Stone Manufacturing
9156 Molly Pitcher Highway
Greencastle Pennsylvania
USA 17225

Dutch Quality Stone Manufacturing
18012 Dover Road
Mt Eaton Ohio
USA 44659

3. Authorization

The Eldorado Stone and Dutch Quality Stone are decorative non-structural units that may be adhered to interior wall surfaces of a building. The Eldorado Stone and Dutch Quality Stone are precast concrete products made to resemble natural stone and having a varying thickness of 16 mm to 45 mm (1-1/8 in. to 1-5/8 in.).

Additional descriptive information is provided in documents supplied by the Applicant listed in Appendix A.

¹ This Authorization expires on the date shown. It is the responsibility of Authorization holders to make a complete application considering the time for review and complexity of the new application.

Reports and assessment provided by the Applicant demonstrate that if the Eldorado Stone and Dutch Quality Stone are manufactured, designed, constructed, installed, and maintained in accordance with the manufacturer's instructions and limitations, and the specific terms and conditions stated in this authorization, the use of the Eldorado Stone and Dutch Quality Stone shall be deemed to not be a contravention of Section 3.1.13. "Interior Finish", and Section 9.29. "Interior Wall and Ceiling Finishes" of Division B of the Building Code;

All other requirements pertaining to the construction and installation are subject to the requirements of the Building Code, and subject to the following terms and conditions contained in 4 and 5 below:

4. Specific Terms and Conditions

1. This Authorization is valid only for Headwaters Inc.'s Eldorado Stone and Dutch Quality Stone: Manufactured Masonry Veneer Stone;
2. The Eldorado Stone and Dutch Quality Stone shall be used only in Group A, C, D, E, and F occupancies;
3. The Eldorado Stone and Dutch Quality Stone shall not be installed in a building where the structural design and construction of the building would be assigned an Importance Category of High or Post-disaster;
4. The Eldorado Stone and Dutch Quality Stone shall be used only in buildings up to 2 storeys in building height;
5. The Eldorado Stone and Dutch Quality Stone shall be used only in interior applications;
6. The walls used to support the installation of the Eldorado Stone and Dutch Quality Stone shall be sheathed using a minimum of 12.7 mm sheathing;
7. The Eldorado Stone and Dutch Quality Stone shall not be installed on the inside of a fireplace, or in a location where the product may be exposed to direct flame, or where the temperature may exceed 125^o C (257^o F);
8. The Eldorado Stone and Dutch Quality Stone shall not be installed on a wall intended to support other superimposed loads;
9. The walls used to support the Eldorado Stone and Dutch Quality Stone shall be designed:
 - a. in accordance with CSA O86-09 "Engineering Design in Wood", or
 - b. in accordance with CSA S136-07 "North American Specification for the Design of Cold Formed Steel Structural Members",
10. Wood and steel wall framing supporting Eldorado Stone and Dutch Quality Stone shall have a stud spacing not greater than 406 mm on center and have maximum deflection of L/600.
11. The Eldorado Stone and Dutch Quality Stone shall not be installed such that the weight of the veneer stone, lath, cementitious scratch coat, and bonding mortar exceed 1.2 KPa (25 psf);

12. The Eldorado Stone and Dutch Quality Stone shall not be installed in overhead horizontal locations, such as, but not limited to archways, walkthroughs, etc.; and
13. The Eldorado Stone and Dutch Quality Stone shall not be installed in locations that are susceptible to moisture penetration, such as, but not limited to bathrooms, pools, or spa enclosures.

5. General Conditions

1. The use of the Eldorado Stone and Dutch Quality Stone as described in Section 3. and the Specific Terms and Conditions set out in Section 4 must comply with:
 - (a) the *Building Code Act, 1992*, (the "Act") as amended or re-enacted,
 - (b) except as specifically authorized herein, the Building Code as amended or remade, and
 - (c) all other applicable legislation.
2. A copy of this Authorization shall accompany each application for a building permit and shall be maintained on the site of the construction with the building permit.
3. The Applicant specified in Section 1. shall promptly notify the BMEC of:
 - (a) the failure of the Applicant to comply with any of the Specific Terms and Conditions set out in Section 4,
 - (b) the failure of the material, system or building design that is the subject matter of this Authorization to
 - (i) comply with any of the Specific Terms and Conditions set out in Section 4, or
 - (ii) provide a satisfactory level of performance in situ, or
 - (c) the occurrence of any of the events described in General Conditions 5.4.(a), (b), (e) or (f).
4. The BMEC may amend or revoke this Authorization at any time on its own initiative, or at the request of the Applicant specified in Section 1. Without restricting the foregoing, the BMEC may amend or revoke this Authorization where it determines that:
 - (a) any change has been made to:
 - (i) the name of the Applicant specified in Section 1,
 - (ii) the address or other contact name information of the Applicant specified in Section 1,
 - (iii) the ownership of the Applicant specified in Section 2,
 - (iv) the manufacturing facilities specified in Section 2,
 - (v) the material, system, or building design that is the subject matter of this Authorization, or
 - (vi) a test method relevant to this Authorization,
 - (b) the Applicant has failed to comply with any of the terms and conditions set out in this Authorization,
 - (c) in the opinion of the BMEC, the use of the material, system or building design authorized herein provides an unsatisfactory level of performance in situ,

- (d) in the opinion of the BMEC, amendment or revocation of the Authorization is appropriate on the basis of potential danger to public health and safety,
- (e) the *Act* or Building Code has been amended, re-enacted or remade in a manner relevant to this Authorization,
- (f) this Authorization was issued on mistaken, false or incorrect information, or
- (g) a revision of an editorial nature is appropriate.

Dated at Toronto this 29th day of May 2014

BUILDING MATERIALS EVALUATION COMMISSION

Edward Link, P.Eng
Chair, Building Materials Evaluation Commission

ENCLOSURES: APPENDIX A - SUPPORTING INFORMATION

Appendix A – Supporting Information

The following is a list of the documents that were submitted and reviewed, but were not limited to:

1. Letter Report, J.T. Watson & Associates “Certification & Analysis of the (Adhered) Manufactured Masonry units of Headwaters Stone Division (dba) Eldorado, Stonecraft & Dutch Stone.” Dated April 29, 2013;
2. Report, ICC Evaluation Service, “ESR-1215, Subject: Eldorado Stone®, Eldorado Brick® and Eldorado Adobe® Veneer and Eldorado Accents”, reissued October 1, 2012;
3. Report, ICC Evaluation Service, “ESR-1215 FBC Subject: Supplement Eldorado Stone®, Eldorado Brick® and Eldorado Adobe® Veneer and Eldorado Accents”, reissued October 1, 2012;
4. Manufacturer’s Literature, Eldorado Stone, “Technical Data”, C144-0608 ©2008;
5. Warranty, Eldorado Stone, “Eldorado Stone: 50 Year Limited Warranty”, C149-0510 ©2010;
6. MSDS Sheet, Eldorado Stone, LLC, “Precast Stone Veneer”, Print Date 10/20/2008;
7. Letter Report, Underwriters Laboratories Inc. “Subject: Eldorado Stone Corp. UL Classification for Minimal Composition Units”, dated February 12, 2008;

8. Table Chart, "Average Thickness of Eldorado Stone Veneer Profiles", dated January, 2013;
9. Maintenance Manual, Eldorado Stone, "Eldorado Stone Maintenance", undated;
10. Specification Sheet, Eldorado Stone, "Section 04 07 00 Manufactured masonry Veneer", revised February 12, 2007;
11. Manual, Eldorado Stone, "Eldorado Stone Quality Manual", rev 6.5;
12. Report, Architectural Testing, "ASTM E 330 Structural Test Report, Report No 69332.01-901-44", report date 02/14/07;
13. Report, Architectural Testing, "ASTM E 330 Structural Test Report, Report No 69947.01-901-44", report date 02/14/07;
14. Report, Architectural Testing, "Large Missile impact Test Report, report No 72994.01-901-44", report date 07/31/07;
15. Report, Department of Housing and Urban Development, "Eldorado Stone Manufactured Stone and Brick Veneer", issued February 13, 2008;
16. Manual, Masonry Veneer Manufacturers Association, "Installation Guide for Adhered Concrete Masonry Veneer", 3rd edition;
17. Manual, Dutch Quality Stone, "Dutch Quality Stone: Quality Manual", rev 2.1, dated April 23, 2012;
18. Report, ICC Evaluation Service, "ESR-1942*", Subject: Dutch Quality Stone Adhered Veneer", reissued March 1, 2012;
19. Table Chart, "Dutch Quality Stone Average Thickness by Profile", dated January, 2013;
20. Manufacturer's Literature, Dutch Quality Stone, "Technical Data", effective date 04-2011;
21. Specification Sheet, Dutch Quality Stone, "Section 04 07 30 Simulated Stone", effective date 04-2011;
22. Warranty, Dutch Quality Stone, "Manufacturer Limited Warranty", undated;
23. MSDS Sheet, Dutch Quality Stone, "Precast Stone Veneer" Print Date 11/3/2010;
24. Manufacturer's Literature, Eldorado Stone, "Eldorado. The Foundation for Memorable Spaces", undated;
25. Manufacturer's Literature, Dutch Quality Stone, undated;
26. Catalogue, Dutch Quality Stone, "Dutch Quality Stone: 2011 Catalog", undated;
27. Calculations, Dr. J. Engineering LLC, "Parallel Floor Joists", 3/11/2014;
28. Calculations, Dr. J. Engineering LLC, "Perpendicular Floor Joists", 3/11/2014;
29. Calculations, Dr. J. Engineering LLC, "Example Calculations", 3/11/2014;
30. Manual, "Headwater Inc., "Procedure: Installation of Headwater Stone Division Adhered masonry veneer Stone for Interior Applications", undated
31. Report, Dr. J. Engineering LLC, "Analysis of Light-frame Wood Walls Supporting Eldorado Masonry Stone veneer", 3/11/2014;
32. Manual, Eldorado Stone, "Installation Guidelines: Interior Installation (Canada)", undated;
33. Letter Report, RSB Consulting Engineering Group Inc. "Re: BMEC submission for Eldorado Stone", dated March 12, 2014;
34. Letter Report, Headwater Stone Division, dated June 11, 2013
35. Letter Report, Headwater Stone Division, dated July 19, 2013;
36. Letter Report, Headwater Stone Division, "Application A2013-05 BMEC, Eldorado Stone, Dutch Quality Stone Response Letter", dated July 20, 2013;
37. Letter Report, Headwater Stone Division, dated August 21, 2013;
38. Letter Report, Headwater Stone Division, dated October 7, 2013;
39. Letter Report, Headwater Stone Division, dated October 21, 2013;

40. Letter Report, Headwater Stone Division, dated December 19, 2013;
41. Letter Report, J.T. Watson & Associates "Certification & Analysis of the (Adhered) Manufactured Masonry units of Headwaters Stone Division (dba) Eldorado, Stonecraft & Dutch Stone; interior vertical applications", dated November 21, 2013;
42. Standard, ASTM, "C1670-13: Standard Specification Adhered Manufactured Stone Masonry Veneer (AMSMV) Units";
43. Standard, ASTM, "C1780-13: Standard Practice for Installation Methods for Adhered Manufactured Stone Masonry Veneer";
44. Letter Report, Headwater Stone Division, cover letter with attachment, 6 pages, dated May 13, 2014;
45. Calculations, Dr. J. Engineering LLC, "Analysis of Light-Frame Wood Walls Supporting Eldorado Stone and Dutch Quality Stone Masonry Veneer", Issued May 12, 2014; and
46. Calculations, Dr. J. Engineering LLC, "Analysis of light-Frame Steel Walls Supporting Eldorado Stone and Dutch Quality Stone Masonry Veneer", Issued May 14, 2014.