Rone Engineering

8908 Ambassador Row, Dallas, TX 75247
4221 Freidrich Ln., Ste. 195, Austin, TX 78744
7701 W. Little York, Ste. 600, Houston, TX 77040
Corporate Phone: (214) 630-9745

Report of
Threaded Rod Anchor Pullout Test

Client: Bonstone Material Corporation
Project No.: 0611892
Report No.: 902317
Date of Service: June 30, 2006

Stone Type: **Cold Spring Granite**
Adhesive: **Bonstone Clear Gel Epoxy**

Test Method: ASTM C 1354, Standard Test Method for Strength of Individual Stone Anchorages in Dimension Stone
Calculation: Anchorage system load = Test machine load
Loading: Constant rate of loading at 600 lbs./minute until failure

Anchor Description: 1/4" diameter threaded rod with nominal 1" embedment

Nominal Dimensions:

Length (inches)	Width (inches)	Thickness (inches)
12	12	2.00

Conditioning: Tested in an "as is" condition

Finish: Honed

Sample Number	Failure Mode	Anchorage System Load (lbf.)
1	Stone fracture through anchor	3,517
2	Anchor pullout, 1" cone	2,344
3	Anchor pullout, 1.5" cone	2,511
4	Anchor pullout, 1.5" cone	2,421
5	Anchor pullout, 1.5" cone	2,805
Average Anchorage System Load:		**2,720**
Standard Deviation:		479
Variance (percent):		17.61

LIMITATIONS: The test results presented herein were prepared based upon the specific samples provided for testing. We assume no responsibility for variation in quality (composition, appearance, performance, etc.) or any other feature of similar subject matter provided by persons or conditions over which we have no control. Our letters and reports are for the exclusive use of the clients to whom they are addressed and shall not be reproduced except in full without the written approval of Rone Engineering Services, Ltd.