



American Granite Curb Producers

**Greene County Granite**

<b>Client:</b>	North Carolina Granite Corp.	<b>Project:</b>	Greene County Granite
<b>Material:</b>	Greene County Granite	<b>Test Report Number:</b>	TCNA-218-09
<b>Source:</b>	North Carolina Granite Corp.	<b>Lab Number:</b>	
<b>Date Sampled:</b>		<b>Sampled By:</b>	Client
<b>Date Tested:</b>	6/1/09 – 6/3/09	<b>Tested By:</b>	TCNA

Report of Flexural Strength of Dimension Stone Testing		
Test Method: ASTM C 880		
Stone Type: Granite	Preconditioning Procedure: ½ Dried in an Oven (48 hours), ½ Submerged in Water	
Load Parallel to Rift		
Sample#	Dry Condition, psi	Wet Condition, psi
1	1804	1370
2	1691	1343
3	1823	1323
4	1702	1245
5	1770	1477
<b>Avg</b>	1758	1351

- All ten specimens were broken by a four-point load on a Satec universal tester.
- Parallel to Rift: Dry standard deviation of 60, wet standard deviation is 84.
- The ASTM C 615 specification for granite gives a minimum flexural strength requirement of 1200 psi.

Absorption and Bulk Specific Gravity of Dimension Stone						
Test Method: ASTM C97						
Sample Number	Dry Weight	SSD Weight	Weight in Water	Absorption, % of Dry Weight	Bulk Specific Gravity	Units Weight lbs/cu ft
1				0.21		165
2				0.20		165
3				0.18		165
4				0.21		165
5				0.22		166
<b>Avg</b>				0.20		165

- The ASTM C 615 specification for granite gives a maximum absorption requirement of 0.4% and a minimum density requirement of 160 lb/ft<sup>3</sup>

Modulus of Rupture of Dimension Stone		
Test Method: ASTM C99		
Stone Type: Granite	Preconditioning Procedure: ½ Dried in an Oven (48 hours), ½ Submerged in Water	
Load Parallel to Rift		
Sample#	Dry Condition, psi	Wet Condition, psi
1	1833	1519
2	1840	1637
3	2010	1469
4	1730	1696
5	1697	1671
<b>Avg</b>	1822	1599

- All ten specimens were broken by a three-point load on an Instron universal tester with a load rate of 1000 lbf/min and a span of 7 inches.
- ASTM C 615 specification for granite gives a minimum modulus of rupture of 1500 psi



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<b>Client:</b>	North Carolina Granite Corp.	<b>Project:</b>	Greene County Granite
<b>Material:</b>	Greene County Granite	<b>Test Report Number:</b>	TCNA-177-09
<b>Source:</b>	North Carolina Granite Corp.	<b>Lab Number:</b>	
<b>Date Sampled:</b>		<b>Sampled By:</b>	Client
<b>Date Tested:</b>	5/4/2009	<b>Tested By:</b>	TCNA

**Report of Compressive Strength of Dimension Stone**

**Test Method: ASTM C170**

Specimen	Load Parallel to Rift	Load Perpendicular to Rift	
	Dry Condition, psi	Dry Condition, psi	Wet Condition, psi
1	21,762	20,492	14,922
2	17,649	19,476	14,228
3	21,334	21,822	14,964
4	20,380	17,732	15,354
5	17,968	18,446	14,874
<b>Avg</b>	19,819	19,594	14,868

- Ten of fifteen specimens were dried in an oven for 48 hours. The remaining five were submerged in water for 48 hours.
- Ten specimens were compressed on the Forney universal tester at a rate of 5000 psi/min until failure (five with the load parallel to the bedding plane and five with the load perpendicular to the bedding plane).
- The ASTM C 615 specification for granite gives a minimum compressive strength of 19,000 psi.

**Report of Flexural Strength of Dimension Stone Testing**

**Test Method: ASTM C 880**

Stone Type: Granite		Preconditioning Procedure: ½ Dried in an Oven (48 hours), ½ Submerged in Water	
Sample#	Dry Condition, psi	Wet Condition, psi	
1	2310	2045	
2	1907	2055	
3	1940	2245	
4	2167	1936	
5	1480	2391	
<b>Avg</b>	1961	2134	

- All ten specimens were broken by a four-point load on a Satec universal tester.
- Dry standard deviation of 316, wet standard deviation is 181.
- The ASTM C 615 specification for granite gives a minimum flexural strength requirement of 1200 psi.

**Modulus of Rupture of Dimension Stone**

**Test Method: ASTM C99**

Stone Type: Granite		Preconditioning Procedure: ½ Dried in an Oven (48 hours), ½ Submerged in Water	
Sample#	Dry Condition, psi	Wet Condition, psi	
1	2162	1644	
2	1981	1889	
3	1764	1635	
4	1579	2089	
5	1048	2019	
<b>Avg</b>	1707	1855	

- All ten specimens were broken by a three-point load on an Instron universal tester.
- The ASTM C 615 specification for granite gives a minimum modulus of rupture of 1500 psi.



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