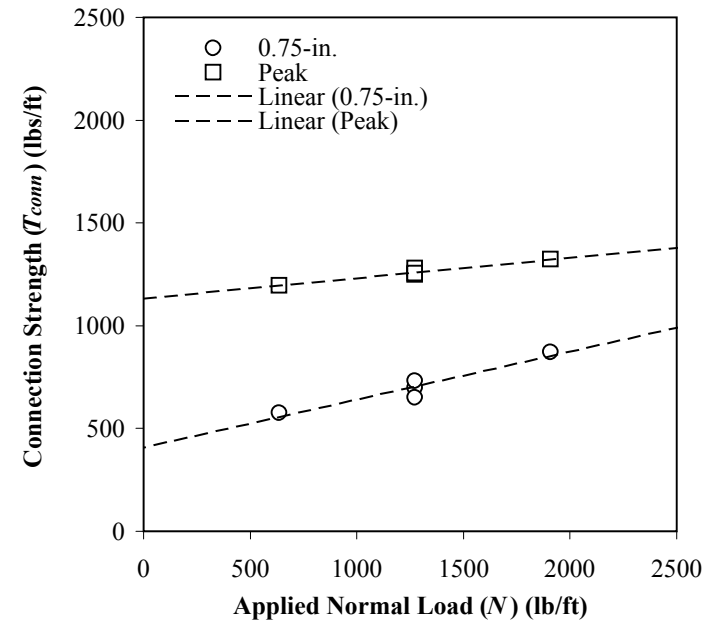
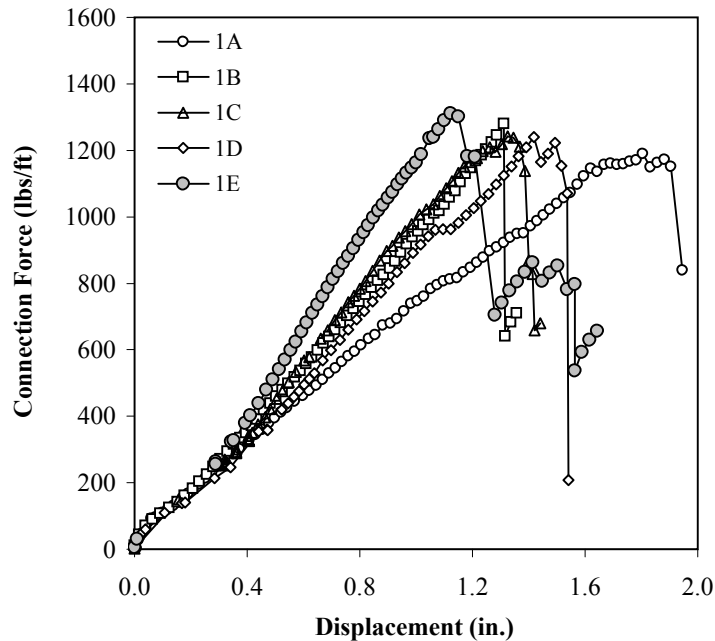


**GEOSTONE RETAINING WALL SYSTEMS, INC.  
CONNECTION STRENGTH TESTING (ASTM D 6638)**

TEST SERIES NO. 1: Synteen SF20/20 Geogrid in machine direction within Geostone 4" thick block units with compacted AASHTO #57 sto



Test No.	Test Specimen Width (in.)	Test Normal Stress (psi)	Equivalent Normal Load (lb/ft)	Approx. No. of Blocks	Approx. Height (ft)	0.75-in. Strength (lb/ft)	Peak Strength (lb/ft)	Connection Strength Equations ( $T_{conn}$ )
1A	34.5	4.4	636	15	5.0	575	1197	$T_{0.75-in.} = 410 + (N) \tan ( 13^\circ )$
1B	34.5	8.8	1272	30	10.0	698	1280	
1C	34.5	8.8	1272	30	10.0	732	1248	$T_{peak} = 1135 + (N) \tan ( 6^\circ )$
1D	34.5	8.8	1272	30	10.0	651	1253	
1E	34.5	13.3	1908	45	15.0	872	1322	

**NOTES:**

Dimensions of Geostone Block Unit: 17.75 in. wide by 12 in. long and 4 in. high.  
 Weight of a full-size Geostone Block: 37.5 lbs.  
 Average Unit Weight of Facing (Block and Gravel): 127.2 pcf  
 Failure Mode of Geogrid: abrasion and rupture of the geogrid in each test.

DATE TESTED: 25 to 26 July 2003

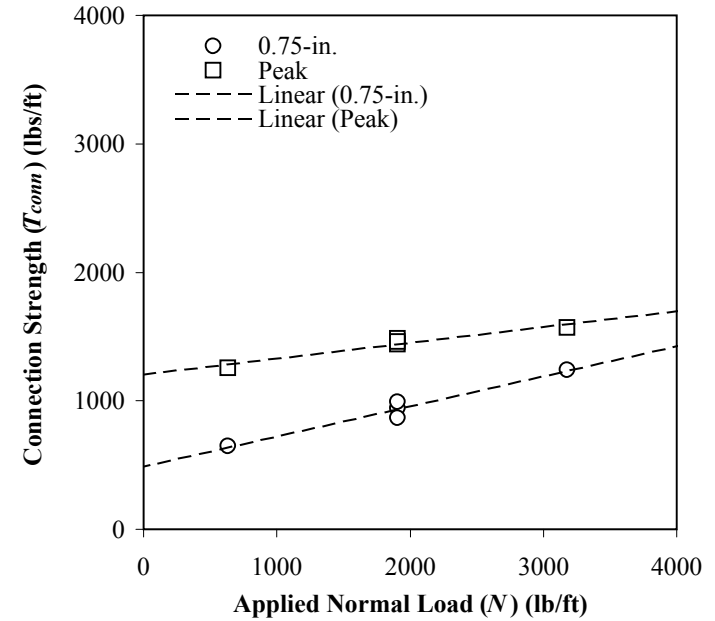
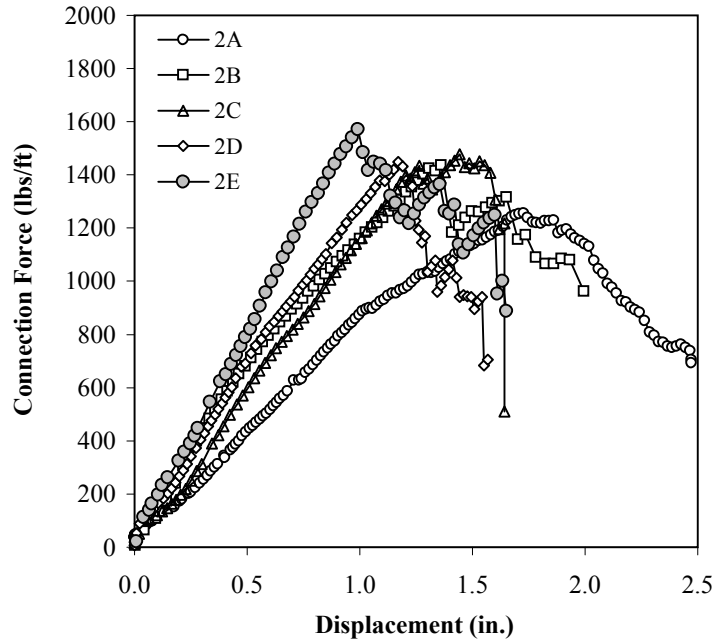


**SGI TESTING SERVICES, LLC**

FIGURE NO.	C-1
PROJECT NO.	SGI1053
DOCUMENT NO.	SGI1053.07
FILE NO.	

**GEOSTONE RETAINING WALL SYSTEMS, INC.  
CONNECTION STRENGTH TESTING (ASTM D 6638)**

TEST SERIES NO. 2: Synteen SF35 Geogrid in machine direction within Geostone 4" thick block units with compacted AASHTO #57 stone



Test No.	Test Specimen Width (in.)	Test Normal Stress (psi)	Equivalent Normal Load (lb/ft)	Approx. No. of Blocks	Approx. Height (ft)	0.75-in. Strength (lb/ft)	Peak Strength (lb/ft)	Connection Strength Equations ( $T_{conn}$ )
2A	35.3	4.4	636	15	5.0	645	1257	$T_{0.75-in.} = 490 + (N) \tan ( 13^\circ )$ $T_{peak} = 1205 + (N) \tan ( 7^\circ )$
2B	35.3	13.3	1908	45	15.0	941	1438	
2C	35.3	13.3	1908	45	15.0	865	1485	
2D	35.3	13.3	1908	45	15.0	991	1459	
2E	35.3	22.1	3180	75	25.0	1241	1571	

**NOTES:**

Dimensions of Geostone Block Unit: 17.75 in. wide by 12 in. long and 4 in. high.  
 Weight of a full-size Geostone Block: 37.5 lbs.  
 Average Unit Weight of Facing (Block and Gravel): 127.2 pcf  
 Failure Mode of Geogrid: abrasion and rupture of the geogrid ribs in each test.

DATE TESTED: 27 to 28 July 2003



**SGI TESTING SERVICES, LLC**

FIGURE NO.	C-2
PROJECT NO.	SGI1053
DOCUMENT NO.	SGI1053.07
FILE NO.	