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October 26, 2001

Dale Yarbrough
RE: Stoneskirt FHA Submittal Calculations

Dear Dale:

Per our conversation, the test results are as follows:

Test 1	3 segments high (2')	Test area= 2.6 ft^2
	Total weight = +550 lbs.	Realized load= +200 lbs/ ft^2
Test 2	4 segments high (2.67')	Test area= 3.5 ft^2
	Total weight= +650 lbs.	Realized load= 185 lbs/ ft^2
Test 3	5 segments high (3.3')	Test area= 5.5 ft^2
	Total weight= 770 lbs.	Realized load= 140 lbs/ ft^2
Test 4	6 segments high (4')	Test area= 4.33 ft^2
	Total weight= +620 lbs.	Realized load= 145 lbs/ ft^2

The testing apparatus was designed to simply support the Stoneskirt at three sides and use the metal

clip that attaches to the beam on the fourth side. The loads were placed directly over the beam used

for lateral support. Tests 1 & 2 were not carried out until failure due to the immense loads already on

them and the belief that real world situations would never require the material to handle greater loads.

Test 3 & 4 however were carried out until failure. The interesting part of these tests is that the structural

beam was not the mode of failure. The metal clip used at the top of the skirting, used to attach the

beams to the home, was what failed in bending. The clip simply bent and rolled out of the beam. In a

soil loading scenario, the loading would be focused mainly on the bottom of the skirting (base sliding) with a fraction translating to the top (overturning). Also, in a wind loading scenario, the wind loading will be negligible at the base, increasing as you go up the skirting causing a more direct load, but the amount of load is negligible (100 mph wind = 15 lbs/ft^2). Because this test required much more from the metal clips than the real world situations would, I believe any calculations derived from these tests will prove very conservative.

If you have any questions, please feel free to call me.

Sincerely,
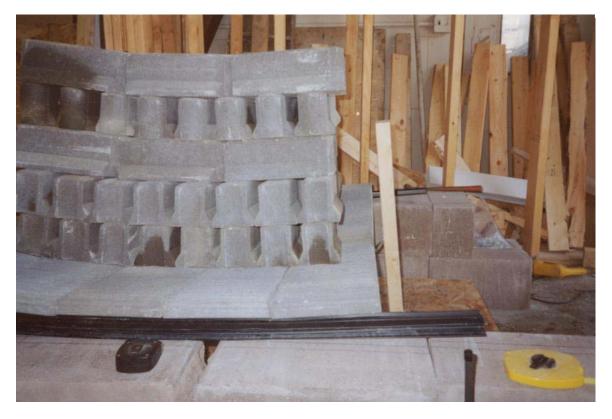
Brian Baillie

Rockwood Retaining Walls

3 - Panels

4 – Panels

5 – Panel

5 – Panel (2)

6 – Panel

6 – Panel (3)