AMERICAN ENGINEERING TESTING, INC.

CONSULTANTS
- ENVIRONMENTAL
- GEOTECHNICAL
- MATERIALS
- FORENSICS

REPORT OF LOAD TESTING

PROJECT:

VERSACORE PLUS LIGHT
EMBED TESTING

REPORTED TO:

FABCON
6111 WEST HIGHWAY 13
SAVAGE, MN 55378

ATTN: JASON HENSLEY

AET JOB NO: 05-02765

DATE: OCTOBER 4, 2006

INTRODUCTION

This report presents the results of the load testing conducted at the Fabcon Headquarters in Savage, Minnesota. We understand the VersaCore Plus light panel contains foam inserts positioned between the top and bottom strand and span between two foam billets. The scope of our work was limited to the following:

1. Observe six P-12 failure tests on a Versacore Plus Light insulated core concrete wall panel.
2. Observe six P-2 failure test of the same panel.
3. Preparing a written report providing our opinion.

Our work was requested and authorized by Mr. Jason Hensley of Fabcon.

CONCLUSIONS

Based on the results of our testing and experience, it is our opinion the following conclusions are appropriate:

1. The P-12 embedment worked properly. The failure load ranged from 23,104 lbs to 28,158 lbs when the studs failed and 28,158 to 33,212 lbs when the studs pulled out of the panel.

2. The P-2 embedment worked properly. All samples failed in rebar/concrete bond failure at loads of 4,332 to 7,210 lbs.

VERSACORE PLUS EMBED TEST

We observed the testing for the following VersaCore Plus Light embed tests. The tests were performed in an 8" thick VersaCore Plus Light panel. This panel was constructed using foam cores as well as placing foam drop-ins in the web of the panel. Embed plates were placed in solid concrete sections. P-12's were tested in shear. P-2's were tested in tension, but were cut in half (only one stud embedded in the concrete) for the testing.

The plates were tested using a hydraulic ram. The areas of the cylinders within the rams were 7.22 and 5.15 in^2.

RESULTS

This set of tests illustrates the effects of the light weight concrete on the embed plates. The following is a chart of the tested embeds.

Test No.	Embed Type	PSI	Ram Size (in^2)	Load (lbs)	Observations
1	P-12	3,800	7.22	27,436	Studs failed
2	P-12	3,900	7.22	28,158	Studs failed
3	P-12	3,200	7.22	23,104	Studs failed
4	P-12	4,600	7.22	33,212	Studs pulled out of panel
5	P-12	3,900	7.22	28,158	Studs pulled out of panel
6	P-12	3,800	7.22	27,436	Studs failed
7	P-2	300	7.22	4,332	Rebar/concrete bond failure
8	P-2	600	5.15	6,180	Rebar/concrete bond failure
9	P-2	650	5.15	6,695	Rebar/concrete bond failure
10	P-2	500	5.15	5,150	Rebar/concrete bond failure
11	P-2	700	5.15	7,210	Rebar/concrete bond failure
12	P-2	700	5.15	7,210	Rebar/concrete bond failure

LIMITATIONS

Our work scope was limited to observations of the Embed test. AET did not perform any of the testing. All testing was performed by Fabcon. Our work scope did not include a structural review of any of the VersaCore Plus Light product line. Based on the witnessed tests, AET feels that the testing methods and results are adequate to determine the structural properties of this type of panel.

REMARKS

If you have any questions regarding this report, or if we can be of further assistance to you, please feel free to contact us.

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