Cyclic Foot Traffic Load Simulation.

May 5, 2015

REPORT NUMBER: **HETI-15-M528**

MANUFACTURER: PROJECT CLASSIC STRUCTURAL ENGINEERING
7318 Texas Trail, Boca Raton, Florida 33487.

TEST LOCATION: Hurricane Engineering & Testing Inc.
6120 NW 97th Avenue, Doral, Florida, 33178

NOTIFICATION NUMBER: HETI14025 (MIAMI-DADE COUNTY, FLORIDA
LAB. CERTIFICATION No.: 10-1117.07 (MIAMI-DADE COUNTY, FLORIDA)
IAS. CERTIFICATION No.: TL-296 (ISO 17025-05)
FBC ORGANIZATION No: TST1691
FBPE Certificate of Authorization Number: 6905

PRODUCT: Composite Panel
(See Hurricane Engineering & Testing, Inc. marked Drawing).

PRODUCT SIZE: 51" wide x 161" long x 8 3/16" deep and 14 ½" high (12'-0" Span)

PRODUCT DESCRIPTION: 3500 psi Concrete Covered Steel Panel (Reference Material Tensile Test Report No. HETI-15-T304, HETI-15-T305; Concrete Compression Test Report No. HETI-15-C101)

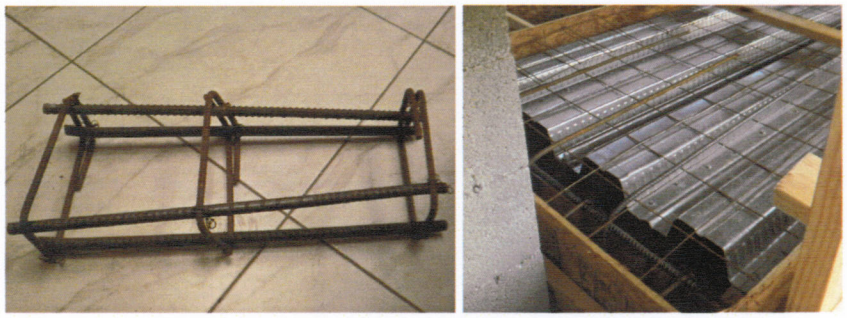
DRAWING NO.: S23 by Project Classic Structural Engineering, dated 1/22/15.

TEST WITNESSED BY: Syed Waqar Ali, Ph.D. (HETI)
Nasreen K. Ali, E.I. (HETI)
Eugenio Rivera (HETI)
Mr. Rafael E. Droz-Seda, P.E. (HETI)

12'-0" Product Description

Each sample was constructed by attaching (2) separate panel halves on top of each other to create the hexagon shaped steel frame. The (2) panels were attached with (4) rows of (23) #10 x ¾" Hex Head Self Drilling Screws (HH SDS) located at 2 ¼", 6 ¼", 10 ¾", 14 ¾", 19 ¾", 26 ½", 33 ¼", 39 3/8", 47 ½", 56 ¼", 60 5/8", 68 1/8", 78 ¼", 89 1/8", 96", 105 3/8", 111", 117 1/8", 124", 129 1/8", 133 3/8", 137 7/8", and 141 ½" from the left end. Once the samples were constructed, a layer of 0.142" thick (6" x 6" square) steel lathing the size of the sample was laid on top as well as (3) #4 bent rebars 40" in length (length parallel to panel) which connected to a rebar end assembly using rebar tie wires. The rebar end assembly was comprised of (4) 24" long # 5 rebar and (3) #3 5" x 9" stirrups. The 24" rebar was tied to the inside of the (3) stirrups using rebar tie wire, which were located at the ends and center of the 24" rebar (See photo below). The rebar end assembly was laid into the bottom of a 51" wide x 8" high x 14 ½" deep form on each end. Once the sample was completely constructed, an average layer of 2.06" of 3500 psi concrete was poured on top of the finished double panel sample.

Individual Panel Size:	25 ½" w x 144" long x 3 1/16" deep
Double Finished Panel Size:	50 3/8" w x 144" long x 6 1/8" deep
Composite Finished Panel Size:	51" w x 161" long x 8 3/16" deep x 14 ½" high
Corrugated Panel Thickness:	18ga (0.048")
Concrete:	3500 psi



Rebar End Assembly and Rebar End Assembly Installed into Form

Note*: All composite panels manufactured with concrete resulted in a partial filling of the hexagonal cavity at each end of the panel. The minimum full hexagon fill is 8" and the maximum full fill of the cavity was 10". After the full fill of the cavity, the concrete tapers off to zero in 10" to 24". See photo below.

TEST RESULTS

The load was applied three feet from end and along centerline on a one square foot area using hydraulic cylinder and automated control system.

No. Of Cycles	Maximum Force (lbs)	Minimum Force (lbs)	Result
1000	500	0	No failure was observed; locally concrete remained intact and concrete to steel contact appeared intact.

Conclusion

The sample was structurally intact at the conclusion of this test.

NOTE: The above results were obtained using the designated test methods that indicates compliance with the performance requirements of the referenced specifications. This report does not constitute certification of the specimens tested.

STATEMENT OF INDEPENDENCE

The Hurricane Engineering & Testing, Inc., does not have, nor does it intend to acquire or will acquire, a financial interest in any company manufacturing or distributing products tested or labeled by the Hurricane Engineering & Testing, Inc. Hurricane Engineering & Testing, Inc., is not owned, operated or controlled by any company manufacturing or distributing products it test or labels.

Dr. Nasreen K. Ali
Vice President

Mr. Rafael E. Diaz-Seda, P.E.
Resident Engineer