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REPORT

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Project Code: EC03826690/24

Client: ABEL BUILDING SOLUTIONS – ANSA MCAL ENTERPRISES LTD

Client Address: Depot Road Longdenville, Chaguanas

Report Title: Testing of clay blocks – 4 inch vertical core

Report No: 0981/24/01

Project Chief: Lisa Ramoutar

Author(s): Delroy John

Reviewed By: Neal Hassim, Civil Technologist **Date:** 2024/06/10

Authorized By: Lisa Ramoutar, Laboratory Manager **Date:** 2024/06/10

Copy No: 1 of 1 **Appendices:** ☐

Report Version: **ORIGINAL** ☒ **RE-ISSUE** ☐ **AMENDED** ☐

Introduction

The client submitted six (6) 4" vertical core Hercules hollow clay blocks for compressive strength determination. The samples were submitted on May 01, 2024 and were assigned CARIRI Identification numbers as indicated in Table 1.

Testing and Methodology

Guidelines given in *ASTM C 67-23: Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile* were used in the investigation.

Results

Test period: May 22 to 27, 2024

Test results are presented in Table 1.

Table 1: Compressive strength of blocks

CARIRI ID	Client ID	Dimensions (L×W×H)	Surface Area (mm^2)	Load (N)	Compressive strength (N/mm^2)
T241269	Hercules 4x8x16	389.50×90.00×190.00	35 055	770 075	22.0
T241270		394.50×91.50×190.00	36 097	542 914	15.0
T241271		391.50×89.00×191.00	34 844	664 844	19.1
T241272		391.50×89.00×190.00	34 844	537 577	15.4
T241273		389.50×88.00×191.00	34 276	608 126	17.7

Table 2: Water absorption test results

CARIRI ID	Dry weight (g)	Saturated weight (24hr cold water) (g)	Saturated weight (5 hr boiling water) (g)	Absorption after immersion (%)	Absorption after immersion and boiling (%)
T241274	6054.9	6324.0	6525.2	4.4	7.8
T241275	6360.0	6712.4	6944.0	5.5	9.2
T241276	6224.6	6625.6	6831.5	6.4	9.8
T241277	6365.7	6712.4	6945.6	5.4	9.1
T241278	6100.3	6395.9	6623.9	4.8	8.6
			Average	**5.3**	**8.9**

⊡ Test Laboratory: CARIRI Materials Laboratory, Trincity West Industrial Estate, Macoya

END OF REPORT