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REPORT

Attn: Mr. Bimal Seebaran

Project Code: EC03826713/23

Client: ABEL BUILDING SOLUTIONS – ANSA MCAL ENTERPRISES LTD

Client Address: Depot Road Longdenville, Chaguanas

Report Title: Testing of 8" x 8" x 16" Columbia 1600 concrete blocks

Report No: 0967/23/01

Project Chief: Lisa Ramoutar

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Reviewed By: Neal Hassim, Civil Technologist **Date:** 2023/06/28

Authorized By: Lisa Ramoutar, Laboratory Manager **Date:** 2023/06/28

Copy No: 1 of 1 **Appendices:** ☐

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

Introduction

The client submitted six (6) 8 inch concrete blocks labeled "190 x 190 x 390 Columbia 1600" for water absorption and compressive strength determination. The samples were submitted on June 13, 2023 and were assigned CARIRI Identification numbers T231405 to T231410.

Approach

Guidelines given in *ASTM C140-18: Standard test method for sampling and testing of concrete masonry units* were used in the investigation.

Results

Testing period: June 20 to 22, 2023.

Test results are presented in Tables 1 and 2.

Table 1: Compressive strength results of 8 inch concrete blocks

CARIRI ID	Client ID	Avg. overall dimensions LxBxH (mm)	Net cross-sectional area (mm^2)	Load (N)	Net area compressive strength (N/mm^2)	Requirements of ASTM C90-16a
T231405	190x190x390 Columbia 1600	391×190×188	36 754	1 055 841	28.7	**Min. net area compressive strength** Average of 3 units - 13.8 N/mm^2 Individual unit - 12.4 N/mm^2
T231406		389×190×188	36 236	982 543	27.1	
T231407		389×191×188	36 761	1 075 813	29.3	
				Average	28.4	

Date tested: June 21, 2023

Table 2: Water absorption results of 8 inch concrete blocks

CARIRI ID	Client ID	Oven dry density (kg/m^3)	Water absorption (kg/m^3)	Requirements of ASTM C90-16a
T231408	190x190x390 Columbia 1600	2161	103	**Max. water absorption** For conc. density >2000 kg/m^3 Average of 3 units - 208 kg/m^3 Individual unit – 240 kg/m^3
T231409		2168	101	
T231410		2172	104	
	Average	2167	103	

Date tested: June 20 to 22, 2023

END OF REPORT