

SQ Birichina Ltd Unit 2 - Extension (previously SQ Colblanc Limited)

Jamirdia, Valuka, Mymensingh

(24.284043, 90.392591)

31 October 2024

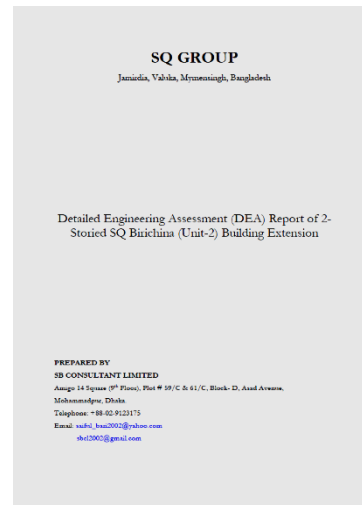


1. Building Information

1. This is a two-story (G+1) building, with a prefabricated steel roof structure.

2. Observation

Observation-1: Design report required to be reviewed by RSC for lateral loading. (Office Building)



Design report

BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY (BUET)
DEPARTMENT OF CIVIL ENGINEERING
 National University of Science and Technology, Dhaka-1000
CONCRETE LABORATORY

BTCE No. : 1180/0000/01/2022, Dt: 18/10/22
 Sent by : Md. Akbar Rahman, Senior Executive Project, SQ Group
 Ref. No. : Letter, Dt: 18/10/2022
 Project : Construction materials test for Hasea Extension Building at Factory Building of SQ Group at Jamindia, Khulna, Myanmar
 Sample : Concrete Cylinder (Pigment Type Stone dust)
 Location : Column (Site preparation carried out on-site)
 Note: Location subject to site visit. Not confirmed.
 Test : Compressive Strength Test of Concrete Cylinder (ASTM C39)
 Date of Test : 18/10/22

Sl. No.	Date of Casting as per the letter	Specimen Designation	Specimen Area	Specimen Length	Cracking Strength	Average Cracking Strength	Mode of Failure
1	18/10/22	-	12.57	30.411	7.530	7080 psi	Compressed
2	17/10/22	-	12.52	30.128	7.596	(52.3 MPa)	Compressed
3	-	-	12.18	30.180	7.608	(53.3 MPa)	Compressed

Note: Samples were received in untested condition.
 *Compressed - Spalling and Aggregate Failure.

Countersigned by: Dr. A. R. M. Baiziduzzaman, Professor, Department of Civil Engineering, BUET, Dhaka-1000, Bangladesh.
 Test Performed by: Alimul Karim Alimul Siddique, Assistant Professor, Department of Civil Engineering, BUET, Dhaka-1000, Bangladesh.
 Date: 18-10-22

Cylinder test report

5.12.2 Frequency of Testing

5.12.2.1 Samples for strength tests of each class of concrete placed each day shall be taken not less than once a day, nor less than once for each 60 m³ of concrete, nor less than once for each 250 m² surface area for slabs or walls.

5.12.2.2 On a given project, if the total volume of concrete is such that frequency of testing required by Sec 5.12.2.1 above would provide less than three strength tests for a given class of concrete, tests shall be made from at least three randomly selected batches or from each batch if three or fewer batches are used.

5.12.2.3 When the total quantity of a given class of concrete is less than 20 m³, strength tests are not required when evidence of satisfactory strength is submitted to and approved by the Engineer.

5.12.2.4 A strength test shall be the average of the strengths of at least two 150 mm by 300 mm cylinders or at least three 100 mm by 200 mm cylinders made from the same sample of concrete and tested at 28 days or at test age designated for determination of f'_c .

Description: A set of design reports was available for the office building. The design report needs to be reviewed for lateral loading. Also, the number of concrete cylinder test reports didn't meet BNBC's frequency of testing requirements (section 5.12.2). The building engineer is required to verify in-situ concrete strength to confirm the design strength.

3. Action Plan:

Observation	Action Plan	Timeline
Design report required to be reviewed by RSC for lateral loading. (Office Building)	Verify in-situ concrete strength either by 100 mm diameter cores or existing credible cylinder test reports.	within 6 weeks
	Prepared design report to be checked against lateral loads following BNBC by RSC.	within 6 weeks
	Carry out the suggested remedial works.	within 6 months