



INDIRA GANDHI ENGINEERING COLLEGE

Declared Autonomous By Government Of Madhya Pradesh

TESTING & CONSULTANCY
INDIRA GANDHI ENGINEERING COLLEGE, SAGAR (MP)

IGEC/CE/TEST-329/2026-27 2005

Sagar, Dated 17/9/26

To,

Principal
Kendriya Vidyalaya
No.1, cantt, Sagar (M.P.)

Subject: School building structural stability audit report.

Ref: Your letter no. F. Sag1KV/2025-26/358 dated 28.02.2026

With reference to above mentioned letter, find the enclosed herewith audit report on structural stability of Kendriya Vidyalaya school building, Sagar Cantt (MP).

Enclosure - Report 05 pages


Dr. S.K. Jain
(Associate Professor)


Prof. B.S. Kiran
(Associate Professor)


Principal
Indira Gandhi Engineering College
Sagar (M.P.)



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Structural stability report

The Principal, Kendriya Vidyalay no.1, Sagar, Cantt (MP) requested Indira Gandhi Engineering College Sagar MP to conduct the structural stability audit of school building at Cantt Sagar. A team of expert from this institute (IGEC, Sagar) visited the site on 02/09/2026 for detailed visual inspection and carried out non destructive test on various elements of the school building to identify distress if any and their effect on the structure stability of the structure.

(1) About the building

- (a) Name of building – Kendriya Vidyalay no.1, Sagar, Cantt (MP)
- (b) Ward/Area – Cantt Sagar
- (c) No. of stories – G + 1
- (d) Year of construction –1976 (As reported)
- (e) Type of structure – Combination of RCC and stone masonry
- (f) History of repair - Not reported.

(2) Observations

- (a) Condition of plaster - External and Internal plaster are noted to be in good condition.
- (b) Condition of columns & beams - No distress observed in columns and beams.
- (c) Masonry walls - Vertical very few cracks are noted on internal classroom walls and few area of terrace. White washing work is noted on the full building structure.
- (d) Seepage / Leakage – Seepage / Leakage is observed in the walls and ceiling on toilet blocks and terrace area.
- (e) Condition of roof - No major cracks are noted in roof slab. Some fine cracks are observed in terrace area.
- (f) Deflections / Sagging - No major signs of deflection / sagging are observed in the structure.

(3) Sample testing of the various elements of the building are as follow:

(A) Ultrasonic Pulse Velocity test results

Locations	Elements	Test Data		Remarks Concrete quality grading
		Time in μ s	Velocity in m/s	
Room No. 38	(a) Beam 39 cm width	110.6	3526.2	Good
		116.5	3347.6	Medium
	(b) Slab 30 cm width Indirect	83.8	3579.9	Good
		87.6	3424.6	Medium
Room No. 54	(a) Beam 39 cm width	118.6	3204.0	Medium
		111.8	3398.9	Medium
	(b) Slab 30 cm width Indirect	82.9	3618.8	Good
		85.6	3504.6	Good

Village Baheriya Jabalpur Road, Sagar (M.P.) 470004

Tel: 07582-263986 Fax : 07582-263855

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(B) Rebound Hammer Test results

Locations	Elements	Average Compressive strength in N/mm ²	Remarks
Room No. 38	Beam 39 cm width	25.5	> 20 N/mm ²
		30.2	
	Slab 30 cm width	21.8	
		22.2	
Room No. 54	Beam 39 cm width	20.2	
		24.4	
	Slab 30 cm width	24.2	
		28.5	

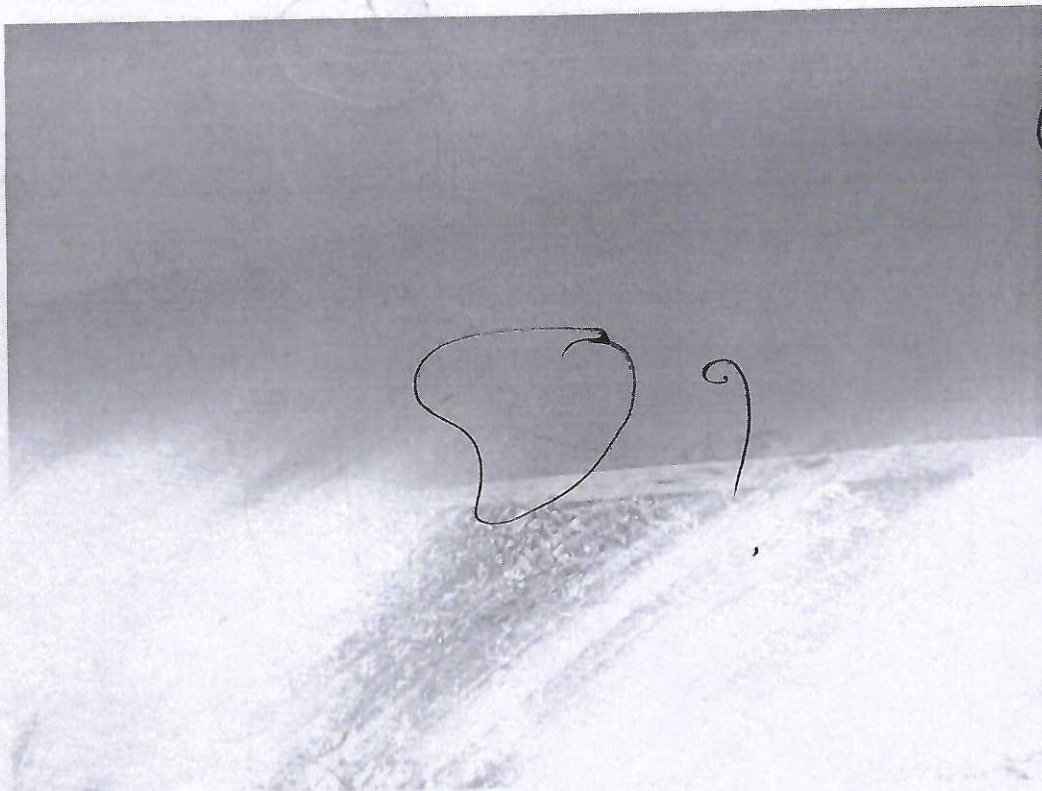
(4) Photograph: - Photographs with caption are inclosed with this report.

(5) Conclusions - Presently, the conditions of combined RCC and stone masonry structure are appered to be good. Also the results of non-destructive testing shows the sound condition of combined RCC and Stone masonry structure members. Minor few cracks are noted in the walls of school building. Based on visual inspection and non-destructive test results, it is recommended that the building is structurally safe and fit to be used as a school building.

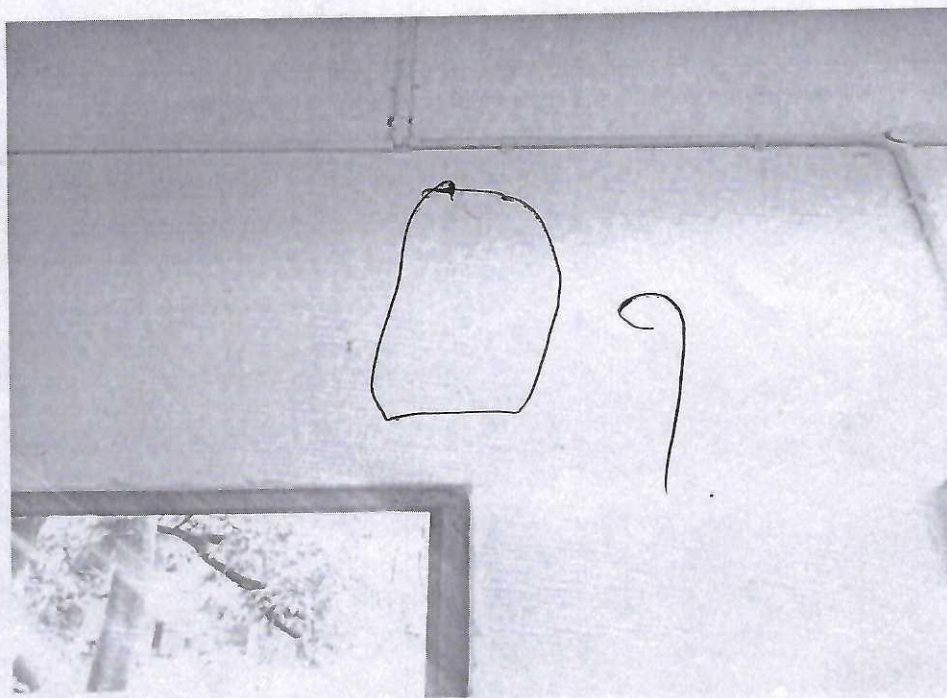
Note-

1. It is a sample audit and not a full audit. Structure stability of the structure will not collapse under expected design load. This does not guarantee that an individual component of the structure will not collapse due to any eventuality.
2. Our responsibility ceases from the moment the structure is over loaded due to any of the reasons including natural calamities.
3. The report shall be valid for a period of five years from the date of issue of this report.
4. The support conditions shall not be altered and roof slab and plinth of the building shall be protected against accumulation of water in all weather conditions.
5. All cracks shown in the photographs must be patchup fully and water seepage treatment is needed in the area as shown in the photographs.

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Chhaja Near Office
Distress: - Fine cracks noted

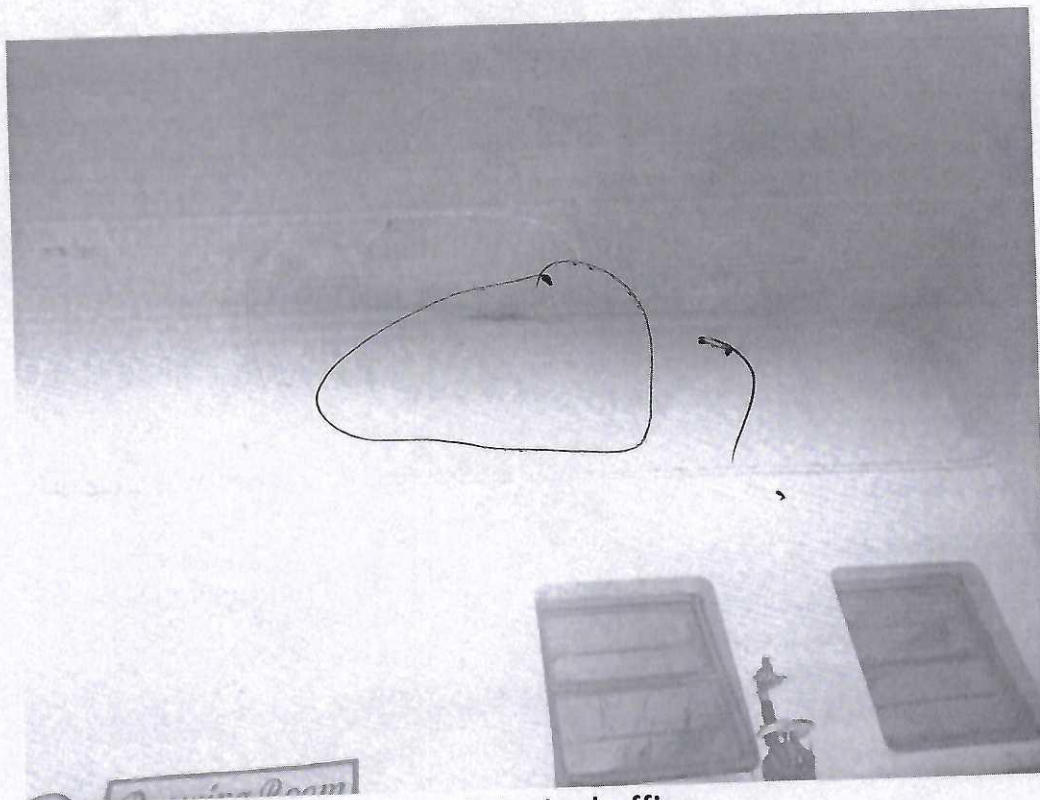


Near room no. 07
Distress: - Fine cracks noted

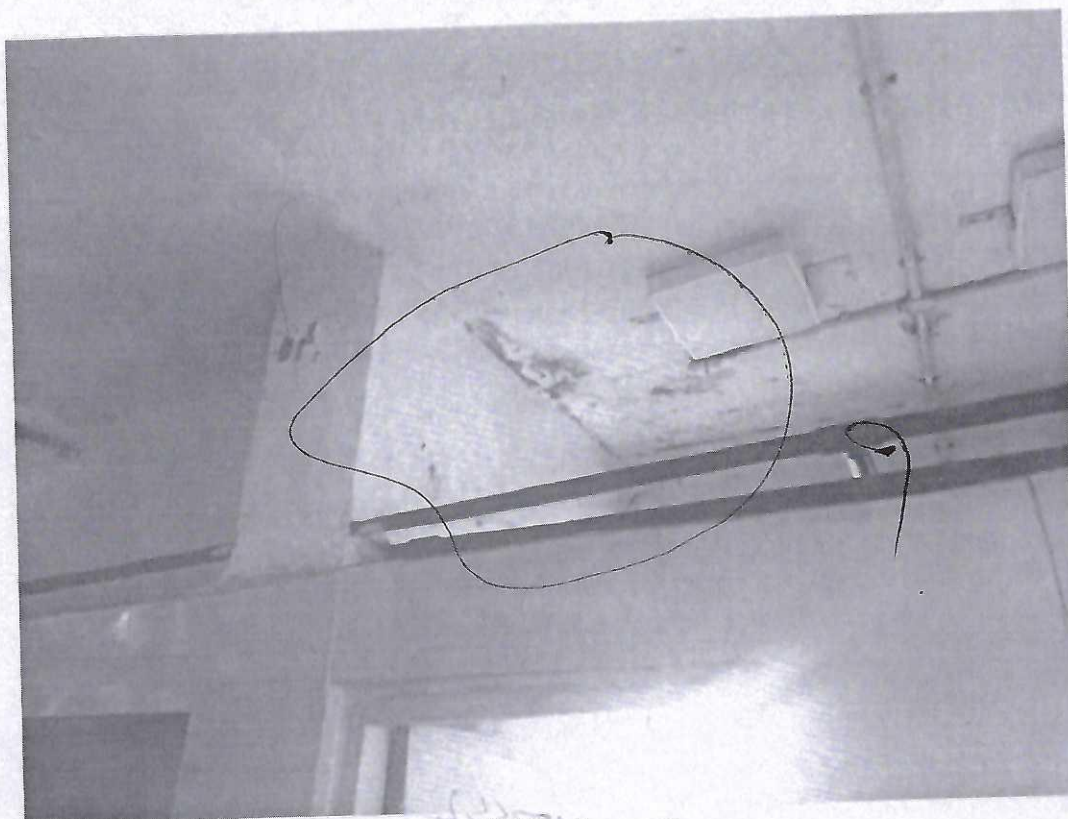
Gair 13552

13552

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Near Principal office
Distress: - Seepage noted



Staff Washroom
Distress: - Very fine cracks and Seepage noted

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5/5 5/5



Front elevation of school building

Distress: - No major distress noted in the front side of school building

Spair

12/5/2