

**TECHNICAL INSPECTION FOR SAFETY AND
STABILITY OF JESUS & MARY SCHOOL BUILDINGS**

ADDRESS:

*Kh.no: 463 to 466,469to486 ,489 to 496,498,500,502 to
507, 509 to 524 at Mohal Malyana, Tehsil & Dist. Shimla*

CLIENT: Jesus & Mary School

CONSULTANTS:

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Structure design, surveying, contouring & project management consultants

STRUCTURAL SAFETY / STABILITY CERTIFICATE

Report

Site Address : Jesus & Mary School which comprised of Blocks:

1. Chapel Church
2. Main Building
3. Classroom :1
4. Classroom :2
5. Library
6. Toilet
7. Multi Purpose Hall
8. Carpenter Workshop
9. Nursury School
10. Teachers Cottage
11. Kitchen
12. Garage & Dining
13. Staff Quarters
14. Sweeper Quarters

All these blocks belonging to Jesus & Mary School on Kh.no: 463 to 466,469to486 ,489 to 496,498,500,502 to 507, 509 to 524 at Mohal Malyana, Tehsil & Dist. Shimla

Scope of Work : Technical Inspection of Safety and Stability of Buildings of Jesus & Mary School on Kh.no: 463 to 466,469to486 ,489 to 496,498,500,502 to 507, 509 to 524 at Mohal Malyana, Tehsil & Dist. Shimla

Client : Jesus & Mary School

Brief History of Project:

1. The Jesus & Mary School has both Framed and Load Bearing Structure
2. The old Structures are load bearing structures.
3. All new buildings are framed structures.
4. The footings of the stone masonry are resting on a hard strata and it is well protected from all sides.

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5. All external walls are stone/ brick masonry with mud/ cement plaster.
6. Wooden battens are fixed on thick wooden beams.
7. The Staircase, Baluster, Arches are made of Wood.
8. The CGI Sheets are fixed on a wooden truss which consists of wooden rafters & wooden purlins
9. The basic Stru. is 1:2:4 RCC framed stru. of Columns ,Beams & Slabs.
10. All internal and external brick walls are plastered with cement plaster (1:6).
11. All joinery work are in first class Deo-dar wood frames and paneled and glazed shutters are provided for doors,windows and ventilators.
12. RCCSlab is provided in all floors in Framed stru. Bldgs.
13. Oil bond distemper applied internal side of buildings.
14. Cement Concrete flooring is laid in different areas and partial tile flooring in kitchen & toilets.
15. Enamel paint is used in wooden doors,windows and ventilators.
16. Internal water supply is made through recessed 15 mm normal bore G.I Pipes and accessories.
17. External of the building finished with water proof cement paint.
18. Septic tank is constructed for sewerage disposal.
19. Soak pit and inspection chambers constructed for waste water disposal.

We have visited the site some observations were taken at site which are given below:

The super area of the existing buildings of Jesus & Mary School works out to be 14186 sq.mts.

Name of the block	Age of bldg. block	No. of Storeys	Total built up area in sq.mts
1. Chapel Church	150	1	565
2. Main Building	150	2	1980
3. Classroom :1	60	2	750
4. Classroom :2	60	2	1150
5. Library	55	3	1950
6. Toilet	55	1	90
7. Multi Purpose Hall	10	5	6252
8. Carpenter Workshop	70	1	45
9. Nursury School	40	2	410
10. Teachers Cottage	70	3	225
11. Kitchen	70	1	202
12. Garage & Dining	150	1	190
13. Staff Quarters	10	1	96
14. Store-1	70	1	43
15. Store-2	70	1	24
16. Green House	70	1	64

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17	Quarters-1	70	1	90
18	Quarters-2	70	1	152
19	Sweeper Quarters	70	1	60

Analysis and Checking of Design parameter (Concrete member sizes and reinforcement requirement)

Analysis

1. All the Structural data of building has been taken to know the size and dimension of RCC members and building.
2. The analysis of Building has been done on computer based design software (Staad-Pro) to know the design forces after given all the data and parameters of design as per relevant codes.
3. The effect of the earthquake is also analysed by putting all the seismic design parameters. Shimla comes in zone -IV as per seismic code of India.
4. The concrete grade is kept M20 and Steel of EE-415 grade is taken in analysis.
5. The imposed load 400kg/sqm on the ground floor.

Conclusions

After doing analysis of the structure it is found that the sizes of RCC members like Columns, beams and slab are adequate to take the proposed load.

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