

**Structural Audit application and  
report**

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**STRUCTURAL ARCHITECTURAL PROJECT MANAGEMENT CONSULTANT**

SMC Licence No: DDMCS/R/2021/APL/00904

18.04.2023

## Structural Audit Report

**Owner/Site: Chairman, Tukaram Apartments flats Ownership co-op housing Society**

**Address of the Building Visited: CTS. No 8363/1A/ Plot C, Railway Lines Solapur**

**Date of Visit: 15.03.2023**

On Request of Owner I personally visited the above said building for the purpose of structural audit and fitness.

### A. Introduction

With reference to Building permission number 419 dated 26/09/1984 on CTS. No 8363/1A/ plot c admeasuring 1308.96 sqm having total Built up area 1778.49 sqm. The building has G+3 load bearing structure having Two Wings A wing and B wing respectively. Each wing has 4 flats on each floor and 16 flats in A- wing and 18 flats in B - wing. Total 34 flats are exists in said building of Tukaram Apartment.

The building was constructed by Rahul Builders in between year 1984- 1985 and has age more than 38 years from its construction. Due to the age of the structure, there are many areas in the building where deterioration in the structure is observed.

The current structural audit work is being carried out to get a better understanding of the current condition of the building, and to check fitness of the building. During Inspection following points were observed.

### B. Description of building:

1. Building was designed and constructed as a Load bearing structure. Brick masonry for parallel walls as main load bearing walls. Lintels, Chajjas and projections were made up of RCC.
2. First Slab is constructed using precast concrete panels. Remaining slabs were regular RCC slab and beam grid.



3. Separate RCC columns were taken for overhead water tanks on both wings
4. Terrace waterproofing cobs and Ips was done.

**C. Observations:**

1. Due to age, building is losing its strength and deterioration of load bearing walls is started. Walls are deformed and crushing is seen at few locations.
2. Major damage is seen in ground floor walls, which is more dangerous to total building due to load bearing walls.
3. External plaster is damaged at number of location and brickwork is exposed to weather.
4. East side and west side of building is seen damp and major leakages are observed due to lack maintenance of drainage line. Swellings in the walls are seen.
5. External floor is damaged in plot margins. Water seepage is seen from it to ground floor.
6. Cracks in the toilets are seen and tiles are damaged due to seepage and weakened walls.
7. Precast slab panels of first slab are damaged badly at various locations. Steel is exposed due to spalling of concrete cover, and bars are also reduced in diameter and corroded. Major risk is created for first floor flats.
8. Parapet wall is also damaged.
9. Vegetation is grown in the walls and penetrated deep at various locations which further reduces the strength of walls and increases chances of failure.
10. Damages in balconies also seen in number of flats and leakages are seen from it to floor below.
11. Terrace waterproofing is also damaged and seepage is found from it.
12. Retrofitting of Overhead water tank columns are done approx 7 to 8 years before. Now columns of the overhead tanks in both wings are weakened and major vertical cracks are seen in it. Columns are started bulging and buckling, which are at extreme risk.
13. Cracks in the water tank are also seen.

**D. Conclusion:**

After visit and observation of both the wings of Tukaram Apartment, it is seen that major distress occurs in ground floor walls, Precast slab floor, overhead tank columns and tank portion due to which the chances of critical and sudden failure of



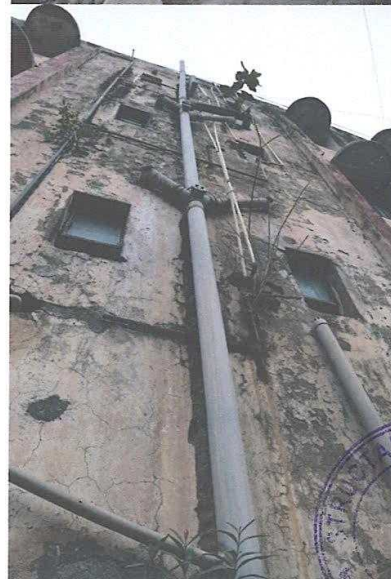


structure can happen. Due to leakages from cracks and grown vegetation, walls got weakened and reduces its strength.

In my opinion strengthening and retrofitting of ground floor of the building is cannot be made fit by only repairs and can collapse.

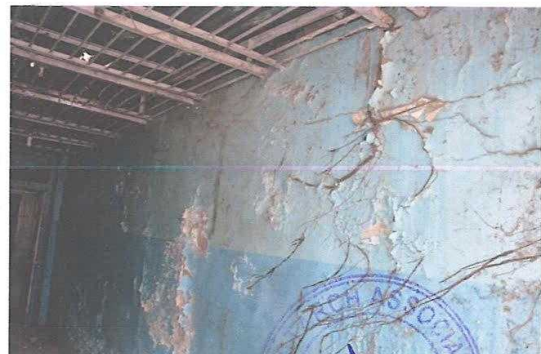
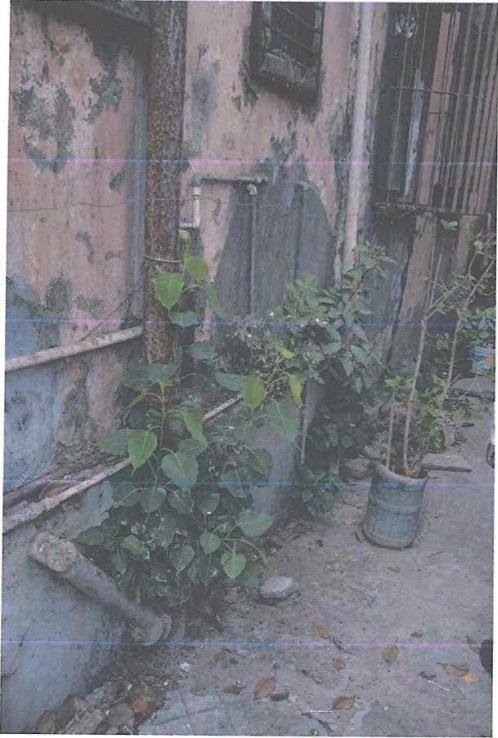
Its is suggested that to complete demolish the building and go for redevelopment of the same as early as possible to avoid life casualty.

**E. Site Photographs:**











*Diddi*  
*18/11/23*

**JAGDISH DEVIDAS DIDI**  
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**STRUCTURAL | ARCHITECTURAL | PROJECT MANAGEMENT CONSULTANT**

No. **57**

Date: 21/4/23

Received with thanks from M/s. Tukaram Apartment Flat owners  
Co-op. Society, Solapur.  
for the Project of : Structural Audit

in account of Part / Full / Advance in Words Rs. Thirty two thousand eight

by Cheque / Cash / D.D. No. 158809 Dated: 21/4/23 Bank: SJSB

**Rs. 32,860/-**

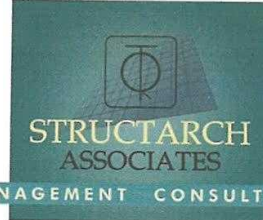
Subject to realisation of cheque

For Structarch Associates



Jagdish Devidas Diddi  
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STRUCTURAL ARCHITECTURAL PROJECT MANAGEMENT CONSULTANT

GST Registration Number : 27AMPPD4041F1Z9

21.04.23

To,  
Chairman, Tukaram Apartments flats Ownership co-op housing Society

Dear Sir,

Kindly find our bill for professional services rendered FOR **Tukaram Apartments** and request for fever of an early payment.

<b>Re: Tukaram Apartments structural Audit and Inspection</b> Towards Professional Structural Consultancy Fees	Rs.	32,860.00
Declaration:- "Composition taxable person, not eligible to collect tax on supplies/services"		
Total	Rs.	32860.00

Jagdish Diddi

DIDDJ JAGDISH  
DEVIDAS

Structural Consultant

Reg. No. SUR/NSR, HSG, (TC) 314/87

तुकाराम अपार्टमेंटस् फ्लॅटस् ऑनरशीप  
सहकारी गृहनिर्माण संस्था मर्या., सोलापूर.

१२४, रेल्वे लाईन, सोलापूर-४१३ ००२.

क्रावक नंबर

दिनांक

14/03/2023

To  
The structural engineer  
J D Diddi  
Solapur

Sub:- Site visit & safety report.


Respected Sir,

With reference to our discussion we, the members of Tukaram Apartment, Flat owners co-op Housing Society; want to know the status of building situated at CTS NO-8363/1A/2, Railway Lines, Solapur from Safety point.

With regards to this please visit our apartment and give us safety report.

We are ready to pay your fees towards site visit and safety report.

Thanks

Secretary   
Nagraj P. Yavgal

Chairman  
Shobha R. Patil



तुकाराम अपार्टमेंटस् फ्लॅटस् ओनरशीप  
सहकारी गृहनिर्माण संस्था मर्या., सोलापूर.  
१३४, रेल्वे लाईन, सोलापूर-४१३००२.

जावक नंबर

दिनांक

To,  
The Stuctural Engineer  
Rajesh Chandrakant Shah  
Solapur

Date- 07/01/2023

Sub:- Site visit & safety report.

Respected Sir,

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Regards to this please visit our apartment and give us safety report.

We are ready to your fees towards site visit and safety report.


Thanks

  
Secretary

Nagraj yavgal

MVS. (S.R. Patil)  
Chairman

Shobha R patil

  
सचिव  
तुकाराम अपार्टमेंटस् फ्लॅटस् ओनरशीप  
सह गृह निर्माण संस्था म सोलापूर

MVS. (S.R. Patil)  
सचिव

  
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