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CONSULTING CIVIL ENGINEERS

Date: 06-04-2026

To,  
Hon. Secretary / Chairman  
SIMLA HOUSE CHS LTD.  
51/B, NEPEAN SEA ROAD,  
MALABAR HILL.MUMBAI-400026.

SUB: SUBMISSION OF STRUCTURAL AUDIT / SURVEY REPORT OF SIMLA HOUSE CHS LTD.

Dear Sir.

With reference to above sited subject and the structural audit / survey done by our team of engineers, we are sending enclosed herewith a copy of structural Audit report.

We are thankful to the managing committee, deputed staff by society and society members for their co-operation during the investigation.


Thanking you,

FOR SUPREME ENGICONS (INDIA) PVT. LTD.

  
RAJESH SINGH  
(PROJECT MANAGER)



Enclosed: 1. Structural Audit / Survey Report  
2. Balance Bill copy

SIMLA HOUSE CO-OP. W. S. LTD.  
Inward No. 17615  
Date 07/04/26  
Received by   
Manager.....  
Hon. Secretary.....  
Contents & Enclosers.....  
Not Verified .....

**STATUTORY STRUCTURAL AUDIT REPORT  
OF**

**SIMLA HOUSE CO-OPERATIVE HOUSING SOCIETY LTD.**

**51/B, NEPEAN SEA ROAD, MALABAR HILL, MUMBAI-400026**



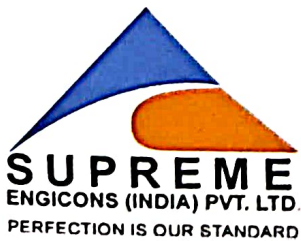
**COMPILED BY:**

**M/S. SUPREME ENGICONS (INDIA) PVT LTD.**

**808 - SHRI KRISHNA TOWER,  
OPP. LAXMI INDUSTRIAL ESTATE,  
ANDHERI (W), MUMBAI - 400 053.**

**OFFICE NO: 022- 26774100/200/8850913007.**

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# 1. INTRODUCTION

## 1.0. INTRODUCTION:

**M/S. SUPREME ENGICONS (INDIA) PVT LTD. (AN ISO 9001: 2008 Company)** is one of the Leading Consulting Engineers & Architects in the field of Redevelopment of Buildings, Repairs, Restoration and Rehabilitation, and Interior works as Project Management Consultants (PMC). Since its inception in 1999, we have developed and seen growth carried out in Mumbai by providing services to Government, Private Sector & Large Corporates, etc.

**We have the opportunity to be one of the leading professional companies for many activities such as:**

- 1) Repair & Rehabilitation Projects
- 2) Architectural Project & Interior Project
- 3) Infrastructural Development Project
- 4) Redevelopment Projects

**Till date, we have provided our esteemed services to more than 1000 projects in Repairs & Structural Audit, Approx. 175 Projects in Redevelopment & 50 Projects in Architecture/Interior as well work.**

**We have all the necessary affiliation and registrations in place to insure compliance with Govt Legislation and Regulations.**

The name and business strength that has been earned by our organization today, is due to the qualified managements and engineers professionally equipped and able staff, who have a varied experience and good knowledge of serving the Clients to their satisfaction. This is further enhanced by the innovative ideas of the management, who strive from time to time in creating awareness and keeping the company at par to the latest development of today's world.

### OUR CORE TEAM OF PROFESSIONALS

#### STRUCTURAL ENGINEERS:

**Mr. Suresh Sahu (M.D)**  
B.E (Civil), Registered Structural Engineer  
(Regd. No. STR/S/217)

**Mr V. K. Patil**  
M.E (Civil), Registered Structural Engineer

#### ARCHITECTS

Arch. Premnath  
Arch. Ashim Khatri  
Arch. Gautam Seth  
Arch. Ashwin Parmar

#### ADVOCATES & LEGAL ADVISORS

Shri Ameet Mehta - Solicis Lex  
Dhanuka & Partners  
Uday Wavikar & Company  
Kanga & Co.

#### SOCIETY CONSULTANT

Mr. Prabhakar Churi  
Ex-Chairman Housing Federation

#### TAX CONSULTANT

Mr. Vimal Punamia  
Senior Tax Consultant

## **REGISTRATION & MEMBERSHIP**

### **Registration:**

- ❖ MCGM
- ❖ MHADA
- ❖ MMRDA
- ❖ MSME
- ❖ TMC

### **Membership:**

- ❖ (ISNT) Indian society for Non Destructive Testing.
- ❖ (IIID) Institute of India Interior Designer.
- ❖ (PEATPA) Practicing Engineers Architects & Town Planners Association (India).
- ❖ (ACCEI) Association of Consulting Civil Engineers (India).
- ❖ (IIBE) Indian Institution of Bridge Engineers.
- ❖ (IRC) Indian Road Congress.
- ❖ (PVAI) Practicing Values Association of India.
- ❖ (IEI) The Institute of Engineers (India)
- ❖ (ACI) American Concrete Institute.
- ❖ (ISSE) Indian Society of Structural Engineers.
- ❖ (CEAI) Consulting Engineers Association of India.

## In House list Of Non- Destructive Testing Equipments (NDTE)

<u>Sr no.</u>	<u>Instrument Description</u>	<u>Qty</u>
1	Ultra Sonic Pulse Velocity	Two
2	Rebound Hammer	Two
3	Bar Locater And Cover Depth Meter	Two
4	Manual Half Cell Copper Sulphate Calibrated With Saturated Calomel Electrode	Two
5	Core Sample Locater	One
6	Resistivity Meter	One
7	Drilling Machine	One
8	<b>Investigation Kit Comprising Of :</b> Heavy Hammer Medium Hammer Light Hammer Cold Chisels Measuring Tape Phenolphthalein Wire Brush Compass Magnifying Glass Binocular Zoom Camera Video Camera Handy cam Digital Measuring Instrument	2 Nos. 8 Nos. 8 Nos. 6 Nos. 10 No. 1 No. 1 No. 2 Nos. 2 Nos. 1 No. 1 No. 1 No. 1 No. 1 No.

## OUR CLIENTS



**1.1. SIMLA HOUSE CHS LTD. BLDG. NO. A,B,C,D,E** is located at **51/B, NEPEAN SEA ROAD, MALABAR HILL MUMBAI-400026**. The society consists of 05 buildings Namely "A,B,C,D,E" and total number of flats are 248 Nos And Garages are.85 Nos.

**1.2.** The building is in RCC structure having **STILT+06** upper stories. Pump room, Meter room, etc. are located at ground floor area of the building.

**1.3. M/s Supreme Engicons (India) Pvt. Ltd.** of companies submitted a proposal to the Secretary/ Chairman of **SIMLA HOUSE CHS LTD.** On request of **Mr. Rajesh Singh** discussed the proposal and the principles and procedures of investigation. Finally society has approved to conduct survey of the building through a work order letter DT. **28<sup>th</sup> JANUARY- 2026.**

The investigation team comprises of **Mr. Kiran Tambade, Mr. Vishal Kore, Mr. & Mr. Vinayak Korda** as engineers.

**1.4.** As per the information provided by the client, No major accident such as fire, only partial loose plaster was collapse at certain location has occurred since its construction.

**1.5.** Fieldwork started from **29th JANUARY'2026** and the entire work was completed by **28<sup>TH</sup> FEBRUARY'2026**. Preliminary drawing preparation, Visual inspection, tapping was carried out simultaneously results of the same are presented in this document as **on Distress mapping**

**1.6.** Instrumentation such as "**Ultra Pulse Velocity Test, Rebound Hammer test, Core Test, Half-Cell Potential Test, & Carbonation Depth**" was carried out by our investigation team **Mr. Sreenath Menon, Mr. VISHAL KORE & Mr. Kiran Tambade** as technicians on **10<sup>th</sup> FEBRUARY'2026** whose results are also enclosed in the report.

**1.7. M/s. Supreme Engicons (India) Pvt Ltd.** undertake not to disclose or reveal any technical information collected during investigation or put in possession during the course of our working without the explicit written approval of the clients.

**M/s Supreme Engicons (India) Pvt. Ltd.** disclaim any responsibility of the finding, if the client chooses not to get the structure repaired or rehabilitated within one year of report date. We also are not responsible for any mishap or failure if the client alters the loading pattern and condition at site knowingly or unknowingly or by any act of nature. The validity of the report is restricted to one year only from today i.e. **MARCH' 2026 to FEBRUARY' 2027**. This report is to be treated as a status report only and not as stability certification of the building under investigation.

## **2. PRINCIPLES**

## 2.0. PRINCIPLES:

### 3.0. PRINCIPLES:

#### 3.1. VISUAL OBSERVATION:

The buildings was investigated flat by flat for observation and also from the outside of the buildings. Each column, beam & slab within the section was observed for a range of defects such as cracks, spalls, crazing, seepage etc. All these defects were marked on the observation sheets with approximate repair area which formed the total data of the structure.

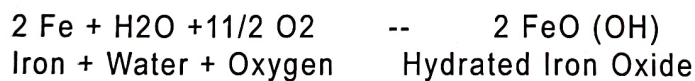
Various symbols used in observation sheets were as per attached legend sheet.

#### 3.2. TAPPING OBSERVATIONS:

Each and every column & beam inside the flat was subjected to tapping by 3 different type of hammers. For residential buildings structure, medium hammer will be the most effective which gives the delams from 10mm to 25mm depth. The hollow sound was recorded in the observation sheets as hollow, which was evaluated for Remedial measures.

#### 3.3. CORROSION:

Rusting of Iron and steel is the most commonly known process of Corrosion. The following equation describes the formation process of rust:



Concrete is permeable to water and solution of Chloride & Sulphate. Penetration of the solution of these chemicals can produce a gradual change in the condition within the concrete ultimately leading to Corrosion of steel and deterioration of concrete. Because of the chemical attack the concrete carbonation starts and the concrete loses its alkalinity. Major constituents like Carbon dioxide, Sulphates, Sulphur dioxide etc. cause the loss of alkalinity in concrete.

Any corrosion of reinforcement results in the formation of rust, which occupies a volume of about 2.2 times that of iron from which it is formed. This corrosion product has literally no place to go so that it produces large internal pressure as high as 1 ton/inch<sup>2</sup> around the concrete resulting in longitudinal cracks parallel to reinforcement and cracks the concrete.

### 3.4. INTEGRITY TESTING: - ULTRASONIC PULSE VELOCITY METHOD:

It is known that speed of a sound wave varies with the density of its propagation. In concrete is a medium through which ultrasonic pulse is made to propagate. The pulse is sent through a transmitting transducer acoustically coupled with the surface and is received by a similar transducer placed in position as shown in the figure. The time elapsed from transmittance to receipt of pulse is measured in microseconds and displayed on LCD display of ultrasonic pulse tester.



UPV Test on a beam

The pulse velocity in concrete ranges from 3 Km/sec to 4.8 Km/sec.

The UPV. In concrete is a function of density and compactness of concrete, which within limits bears a relationship with strengths and elastic properties of concrete. Beyond this limits, the relationship is very weak.

#### Application:

These tests are primarily done to establish:

- The homogeneity of concrete
- Presence of cracks, voids and other imperfections
- Changes in quality of concrete over time
- This test does not establish compressive strength of tested concrete
- UPV Tests are done in accordance with Indian standards IS: 13311 (Part 1)

#### Procedure:

- The concrete surface where probes are to be applied is cleaned properly.
- Grease is applied on the test surfaces
- The probes are pressed on the surface of the structural element to remove air gaps.
- Distance between the two probes is noted.
- Read time taken for the ultrasonic pulse from the instrument.
- Calculate Velocity = distance / time

Sr. No	Pulse velocity by cross probing	Concrete Quality Grading
	Above 4.5 km/s	Excellent
	3.5 km/s to 4.5 km/s	Good
	3.0 km/s to 3.5 km/s	Medium
	Below 3.0 km/s	Doubtful

### 3.5. REBOUND HAMMER TESTS:

#### Application:

These tests are primarily done to assess:

- The likely compressive strength of concrete
- The uniformity of concrete

Rebound Hammer tests are done in accordance with Indian standards IS: 13311 (Part 2)



Rebound Hammer Test

#### Procedure:

- The concrete surface is cleaned properly
- The hammer is pressed against the
- concrete surface and released
- Nine readings are taken and an average is taken.
- Correlate the average with the compressive strength.

Sr. No	Rebound Hammer number	Concrete Quality Grading
1.	Above 40	Excellent
2.	30 to 40	Good
3.	20 to 30	Medium
4.	Below 20	Doubtful

### 3.6 CONCRETE CORE TEST:

#### Application:

These tests are primarily done to obtain the compressive strength of the concrete sample. In addition, the density of the concrete sample is also obtained.

Concrete Core tests are done in accordance with Indian standards IS: 1199 and IS: 516

#### Procedure:

The exact position from where the core can be extracted from the concrete member is determined using a rebar mapping device so as to avoid the reinforcing bars within the concrete member.

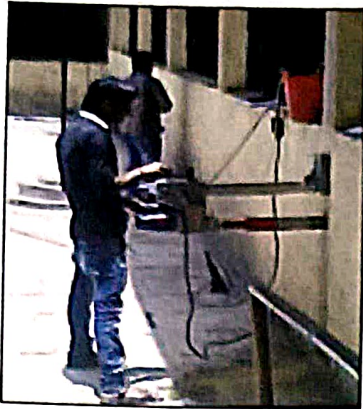
Concrete core of diameter of at least three times the maximum nominal size of coarse aggregate is obtained using a core cutting machine.

The obtained cores are capped on both sides in the laboratory using epoxy mortar. The capped surfaces shall be at right angles to the axis of the specimen and shall not depart from a plane by more than 0.05 mm

The core is then placed in water at a temperature of 24° to 30°C for 48 hours before testing.

The core is then subjected to compression forces on a compression testing machine. The breaking point is observed & noted.

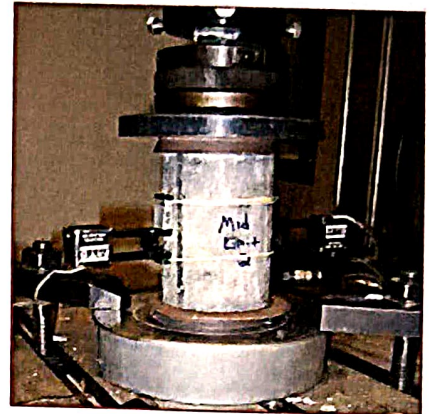
The obtained compressive strength is converted to equivalent cube strength and is reported after applying suitable correction factors in accordance with the Indian standards.



**Core Extraction**



**Extracted Core**



**Compression Testing**

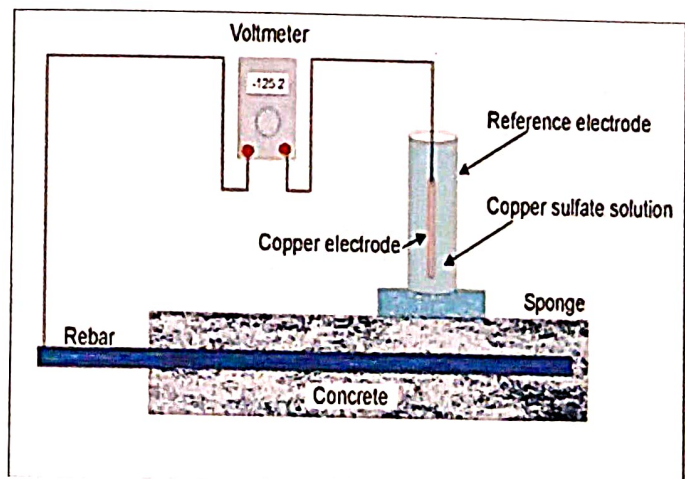
### **3.7. HALF CELL POTENTIAL:**

#### **Application:**

These tests are used to assess the probability of corrosion in reinforcement. HCP Tests are done in accordance with ASTM C876 standard.

#### **Procedure for Half Cell Potential Tests:**

- Identify test location & drill a hole in the concrete to reach the reinforcement.
- Establish electric contact with the reinforcement.
- Place the half-cell at various locations on the concrete surface & measure voltage in the voltmeter.
- Correlate the obtained voltages to probability of corrosion as per ASTM standard.



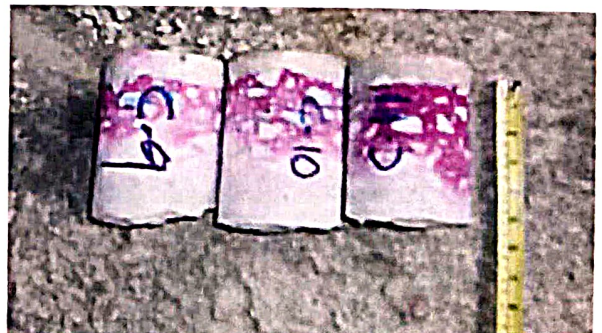
**HALF CELL POTENTIAL TEST.**

### **3.8. CARBONATION TESTING:**

Concrete, being basically a porous material, undergoes carbonation process with ageing. As the protective cover of the concrete carbonates completely, the corrosion reaches the steel reinforcement, rapidly accelerating the process of corrosion in steel.

#### **Procedure for Carbonation Tests:**

- Identify test location & drill a hole in the concrete to reach the reinforcement.
- Inject chemical & insert steel rod.
- The colour change determines till what depth carbonation has taken place
- Carbonation tests can also be done on extracted cores by applying the chemical on the core and measuring the depth till which the carbonation has taken place.



**CARBONATION TEST**

### **3.9. CHLORIDE TESTS**

#### **Application:**

These tests are used to assess the pH level, Chloride (Cl) content and SO<sub>3</sub> content of concrete. A higher pH value or a higher content of chloride or SO<sub>3</sub> than permitted by Indian standard codes shows the presence of an environment where corrosion of reinforcement has much higher probability than normal.

#### **Procedure:**

- The chemical tests are conducted on powdered concrete sample collected from the site.
- The powdered samples are tested in the lab using test kits from reputed manufacturers.
- The obtained results are correlated with the permissible limits given by IS 456: 2000 code and reported.

#### **Permissible Limits:**

pH	Not less than 8
Cl (kg/m <sup>3</sup> )	For PCC, maximum 3.0 kg of Chloride per m <sup>3</sup> of concrete.
	For RCC, maximum 0.6 kg of Chloride per m <sup>3</sup> of concrete.
SO <sub>3</sub> (%)	Less than 4% by mass of cement in the concrete mix.



**pH Test**



**Chloride Test**

## **3. OBSERVATIONS**

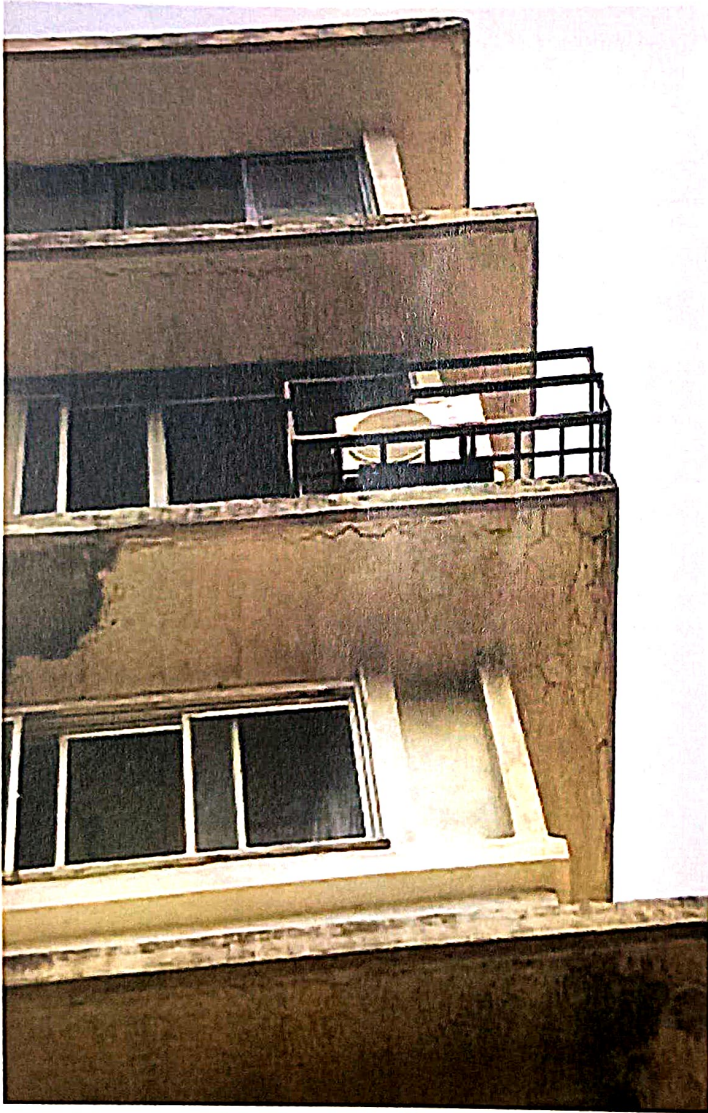
## 3.0. OBSERVATIONS

### 3.1. EXTERNAL

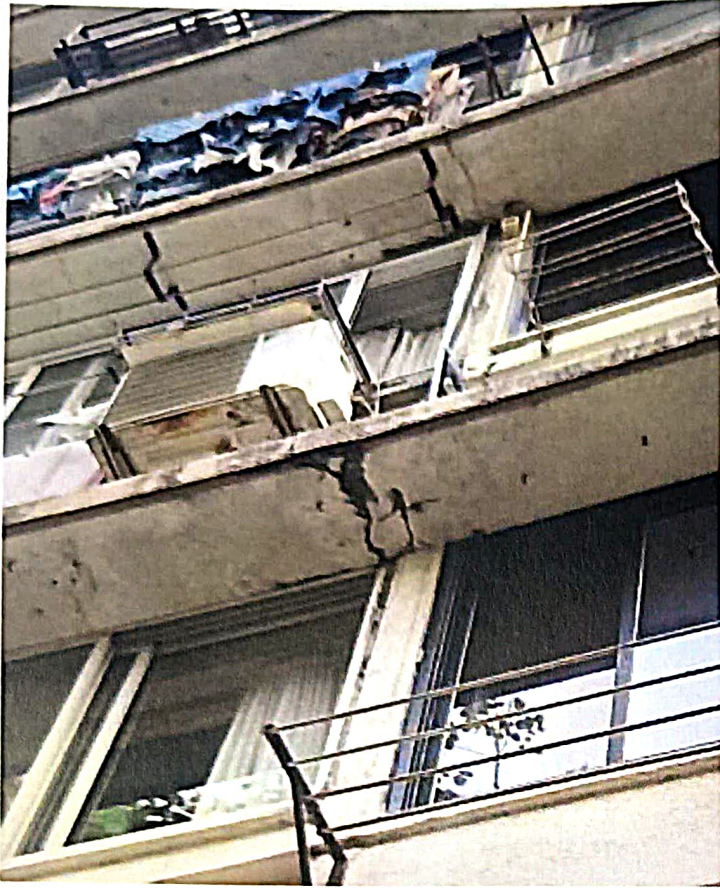
The exterior face of the building shows cracks, crazing & fungus in plaster at most of the locations. Random cracks are seen at external dead walls as noticed during survey. Fungus, crazing is the common factor at the entire external surface of the building particularly at dead walls. External RCC Chajjas & tie-beams are seen with wide cracks. Steel found exposed at chajja & tie-beam area indicating the rate of corrosion is high. Cracks are also found in external elevational fins.

**LOT'S OF CRACKS DEVELOPED AT EXTERNAL SURFACE OF THE BUILDING.**

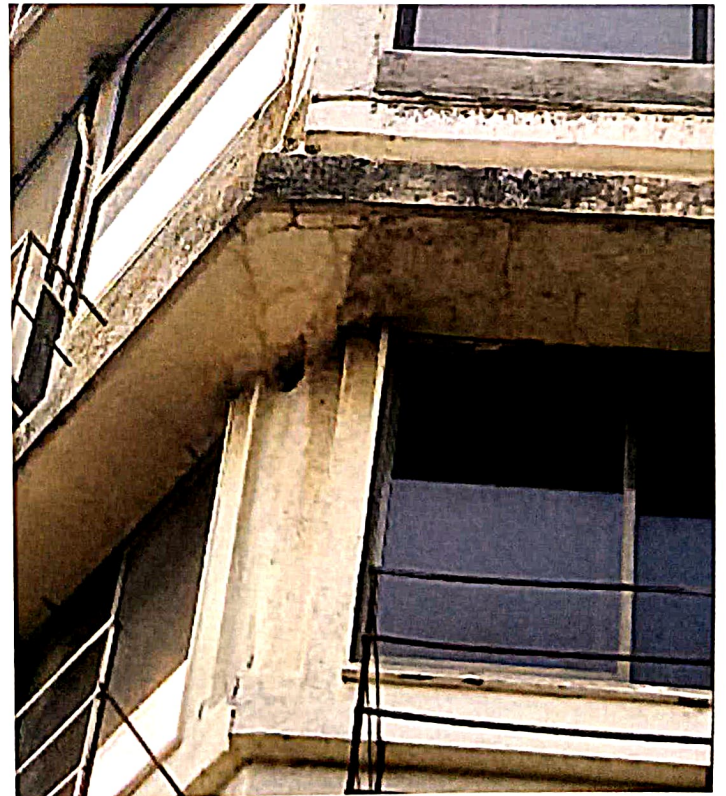
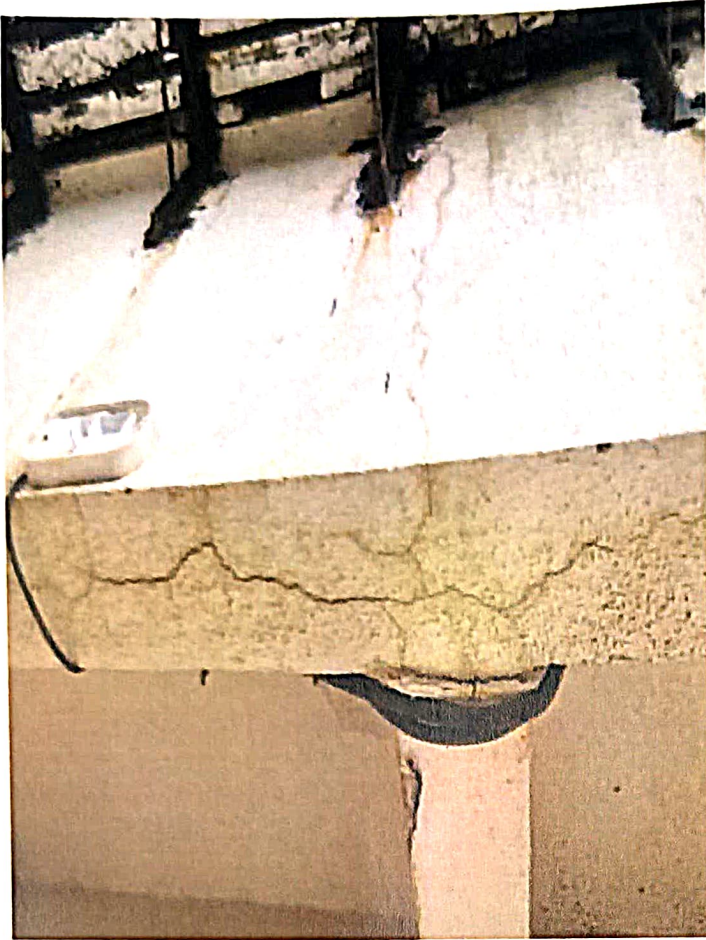
**ANOTHER PREVIEW OF CRACKS & FUNGUS DEVELOPED ON EXTERNAL DEADWALLS**



**Noticed Chajja found highly damaged condition**



**Noticed plaster damages at External wall of the building**

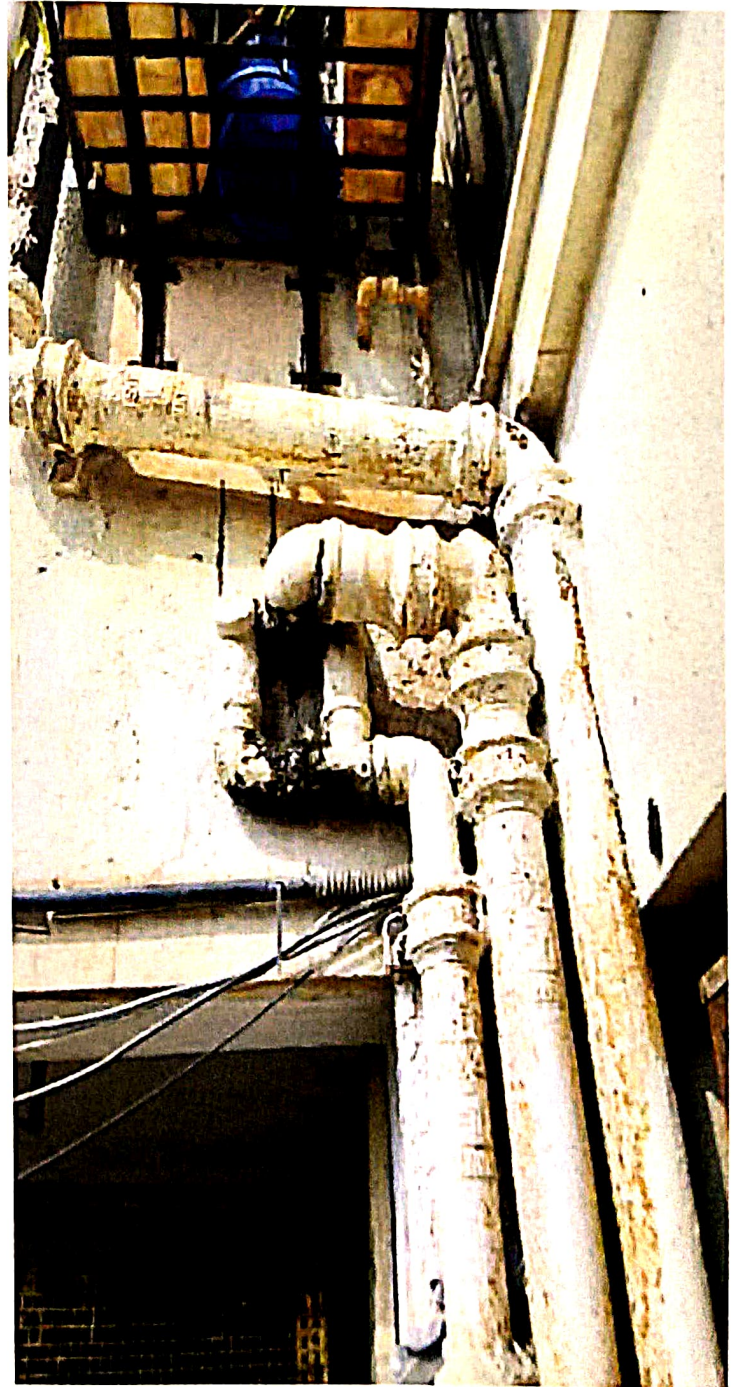


**Noticed plaster damages at External wall of the building**

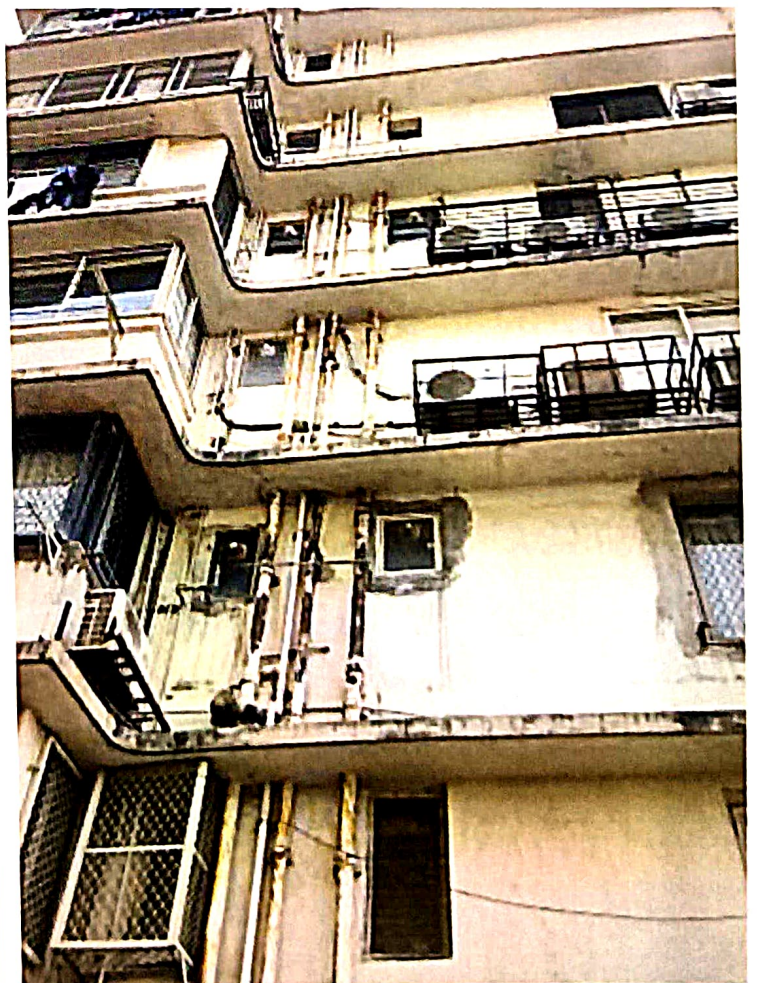
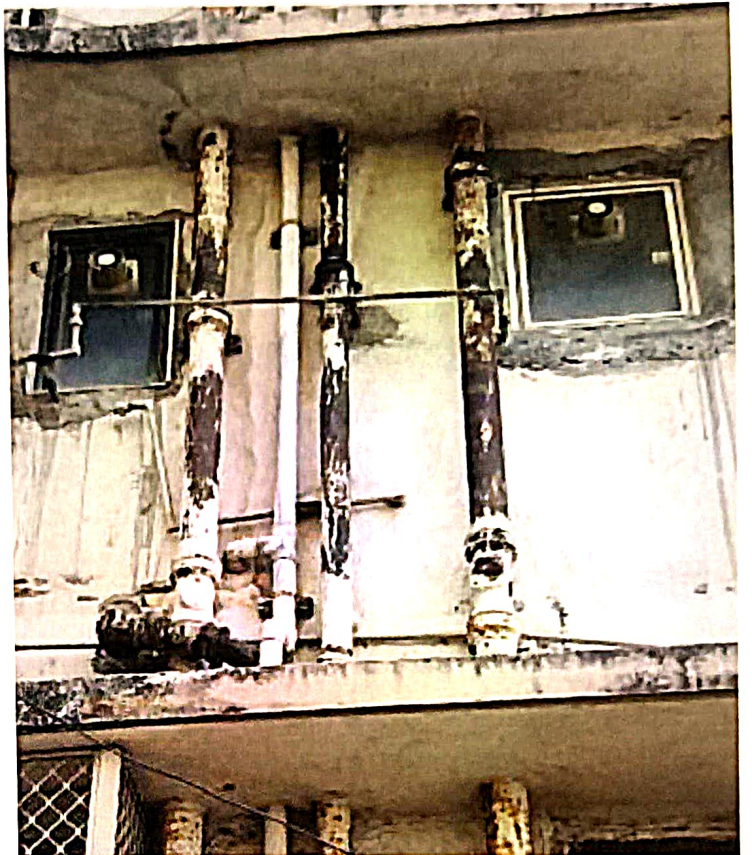
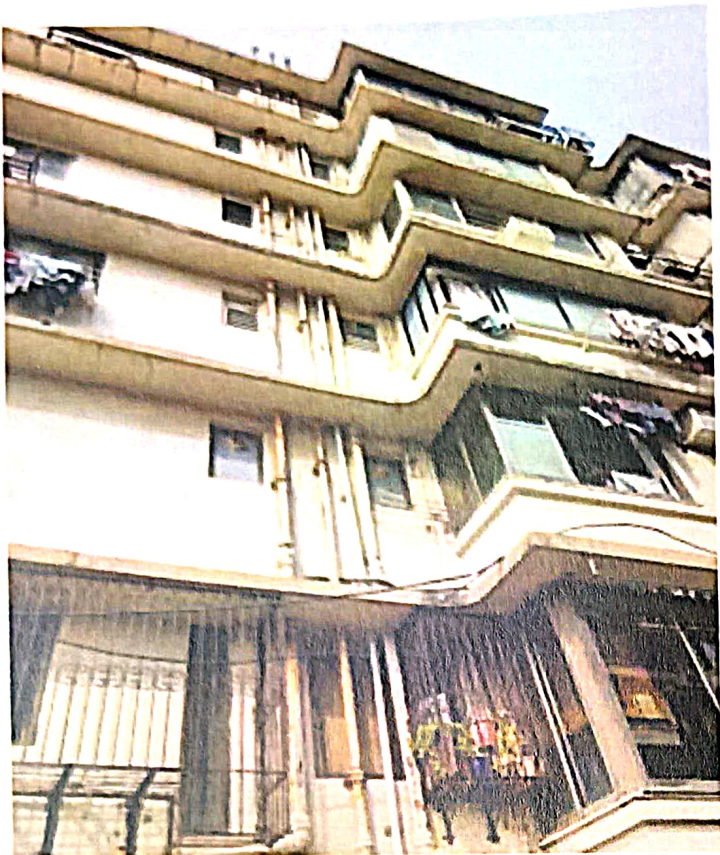
**PLUMBING:**

Plumbing and sanitation lines are not maintained properly. Major and minor leakages are observed at pipes and fitting area. The existing pipes are found with C.I./G.I./PVC/UPVC all mix pipes at all places. Vegetation growth and fungus are also found at plumbing joint area. All Pipes are fixed flush with wall as noticed during the survey. Many rectification works were done for temporary relief.

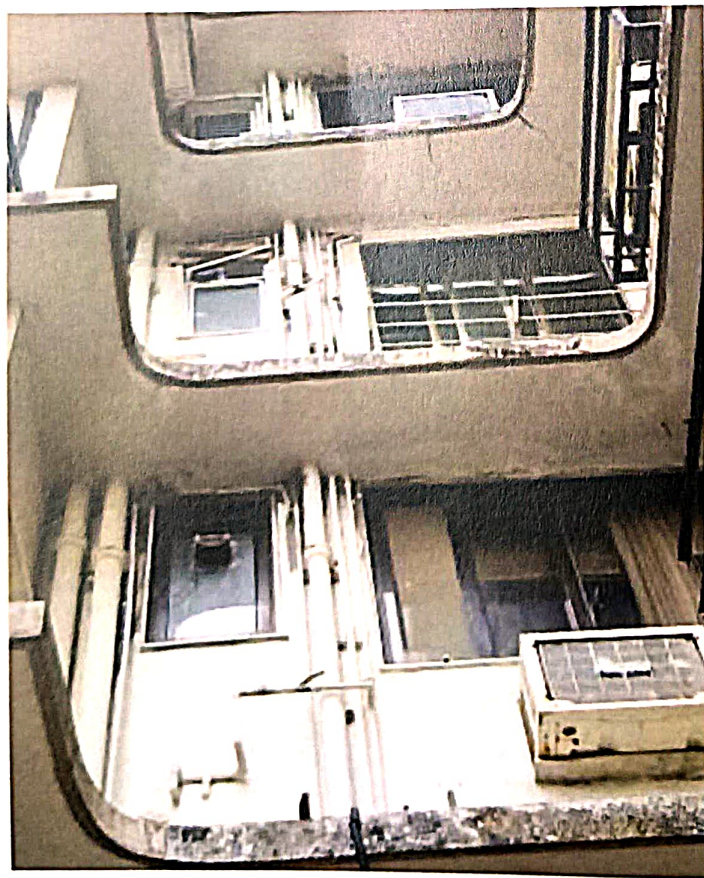
G.I water supply pipes are also found in bad condition. Pipes are found corroded at many places especially the fittings (Elbows, couplings, bends, etc.) at terrace level and also at down take pipes.



**NOTICED MAJOR LEAKAGES NEAR DRAINAGE PIPES.**



**NOTICED LEAKAGES NEAR PIPES AND PLASTER DAMAGE**



**NOTICED LEAKAGES NEAR PIPES AND PLASTER DAMAGE**

### 3.2. INTERNAL:

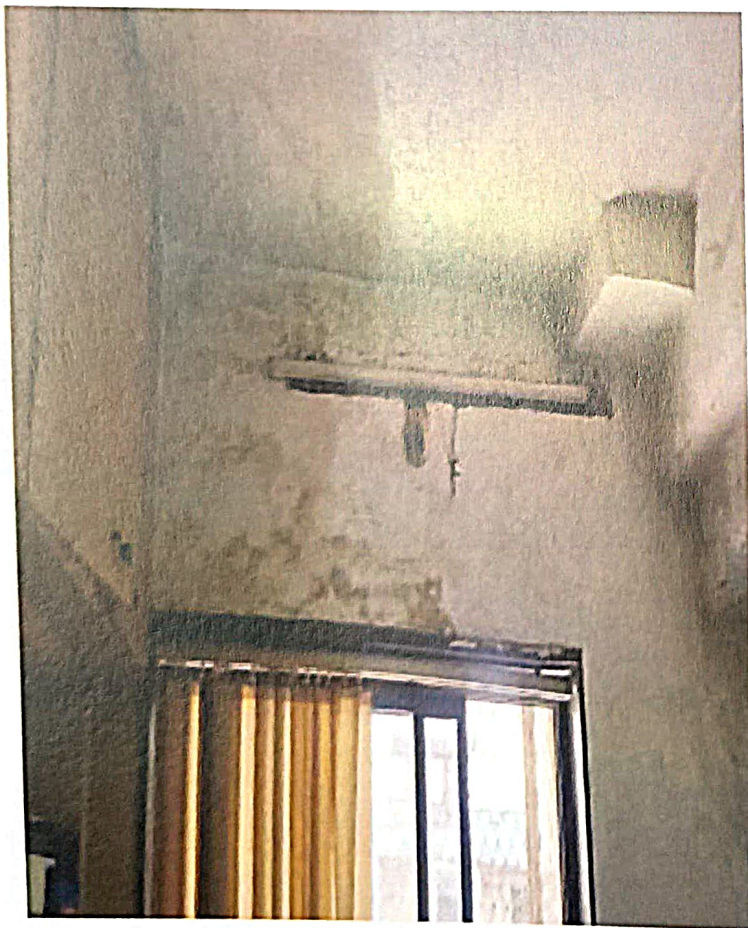
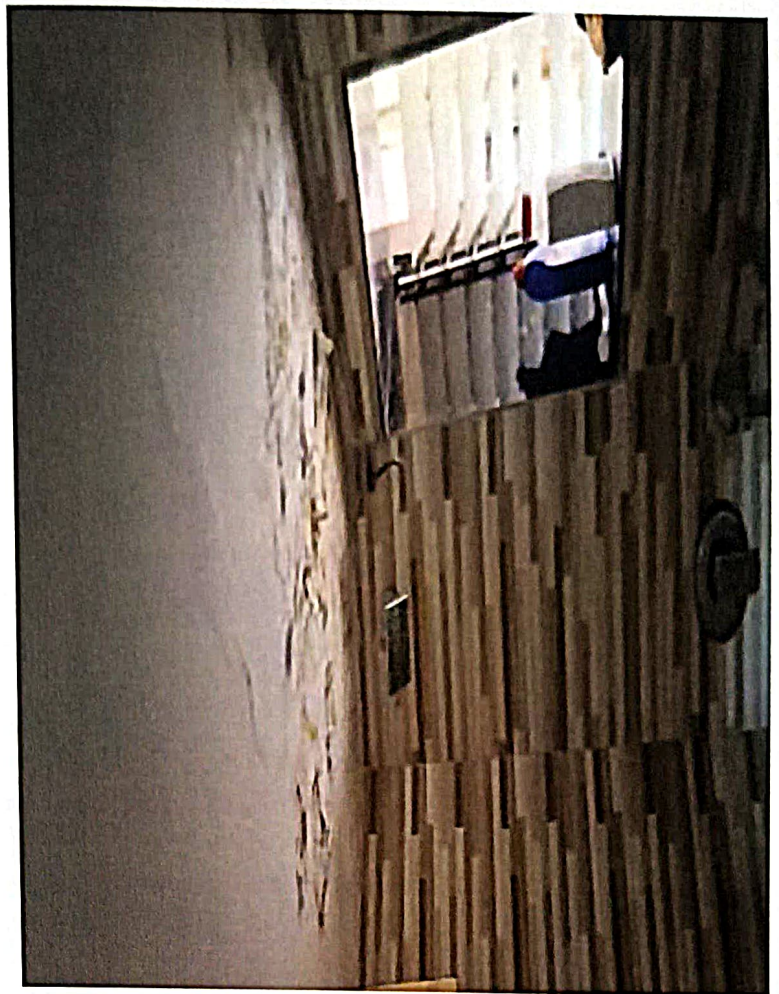
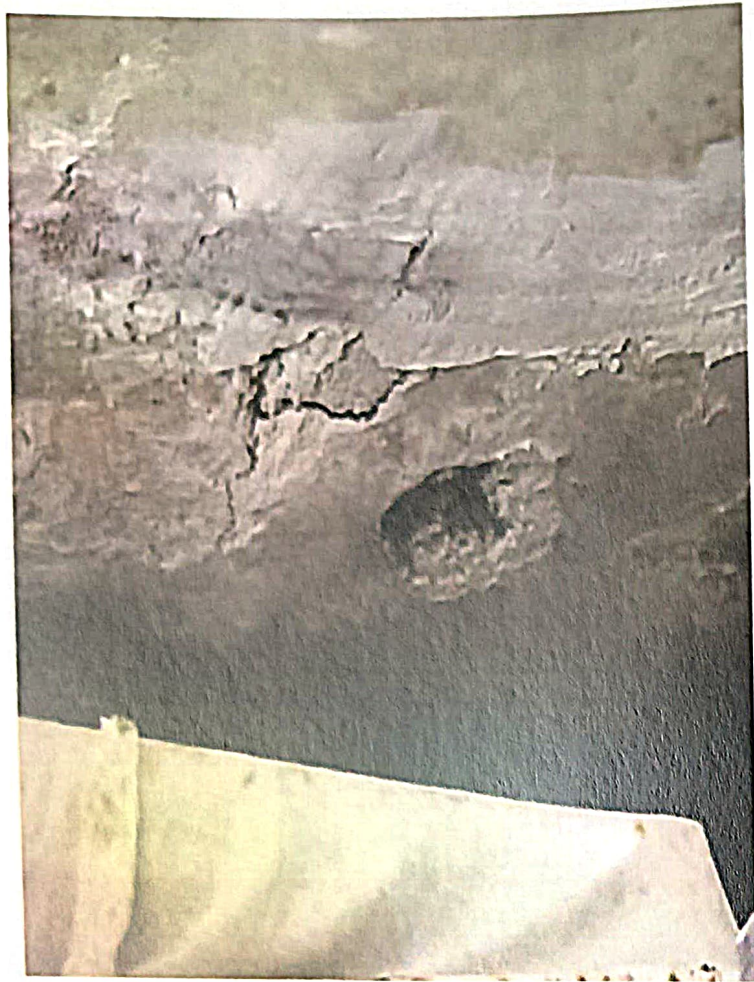
Seepage marks through dry patches have been observed through the external walls in maximum flats.

Toilet/Bath ceiling seepage mark heavy seepage marks are observed from external area of the building

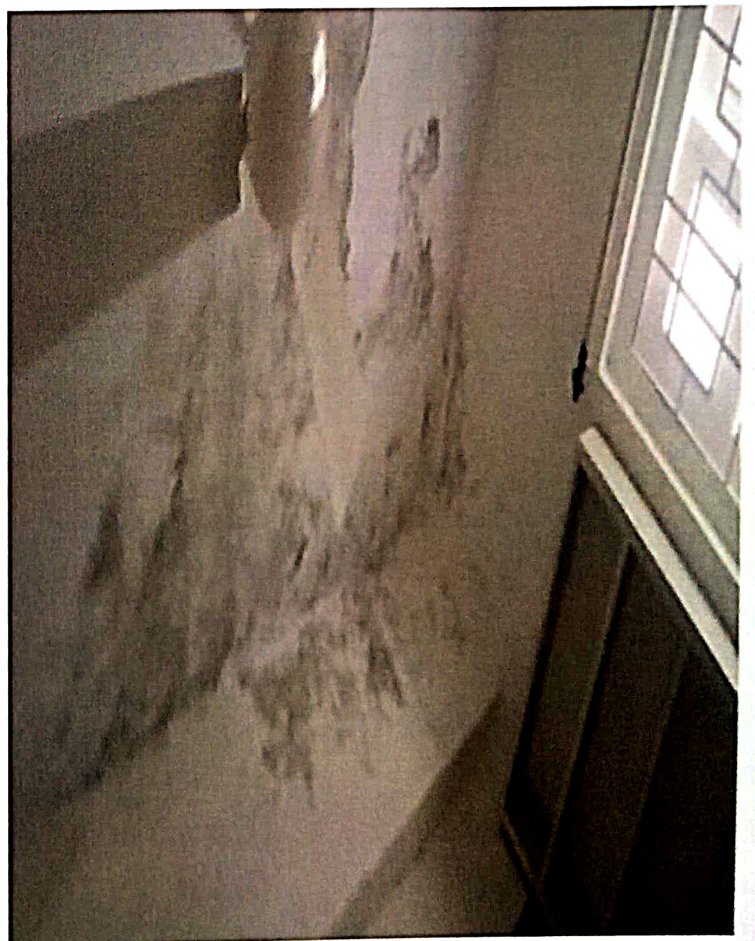
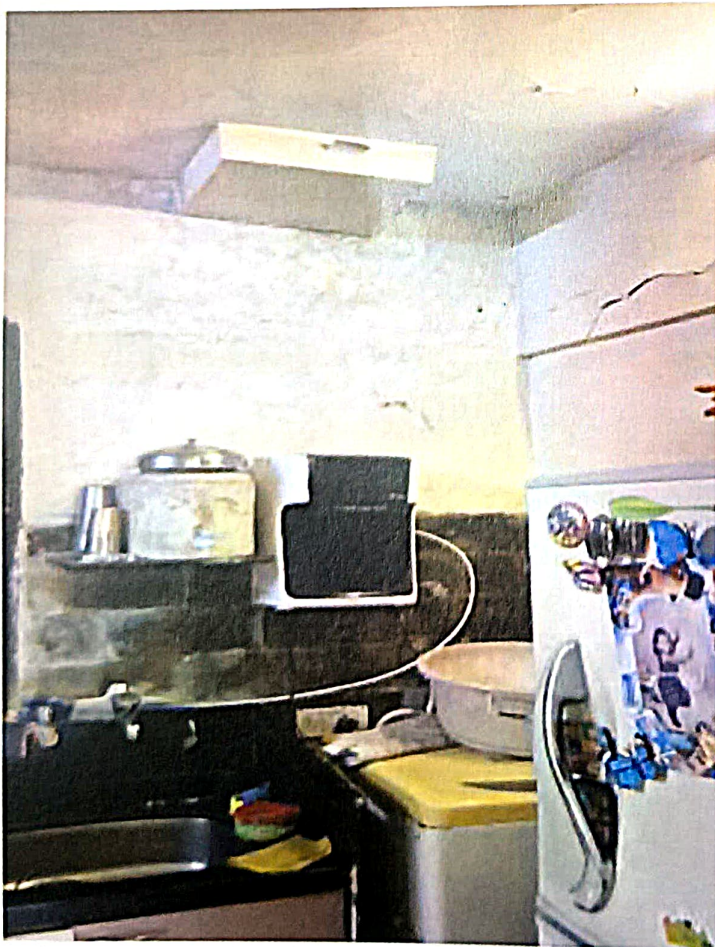
Staircase steps are found in moderate condition at common area. Paint peeling and crazing are seen at many locations of common staircase walls and ceiling area. Staircase midlanding area is also found in moderate condition. Structural crack noticed in column/beam at common passage area.



**NOTICED LEAKAGE IN CEILING AT BEDROOM AREA**



**NOTICED BEDROOM CEILING LEAKAGE**

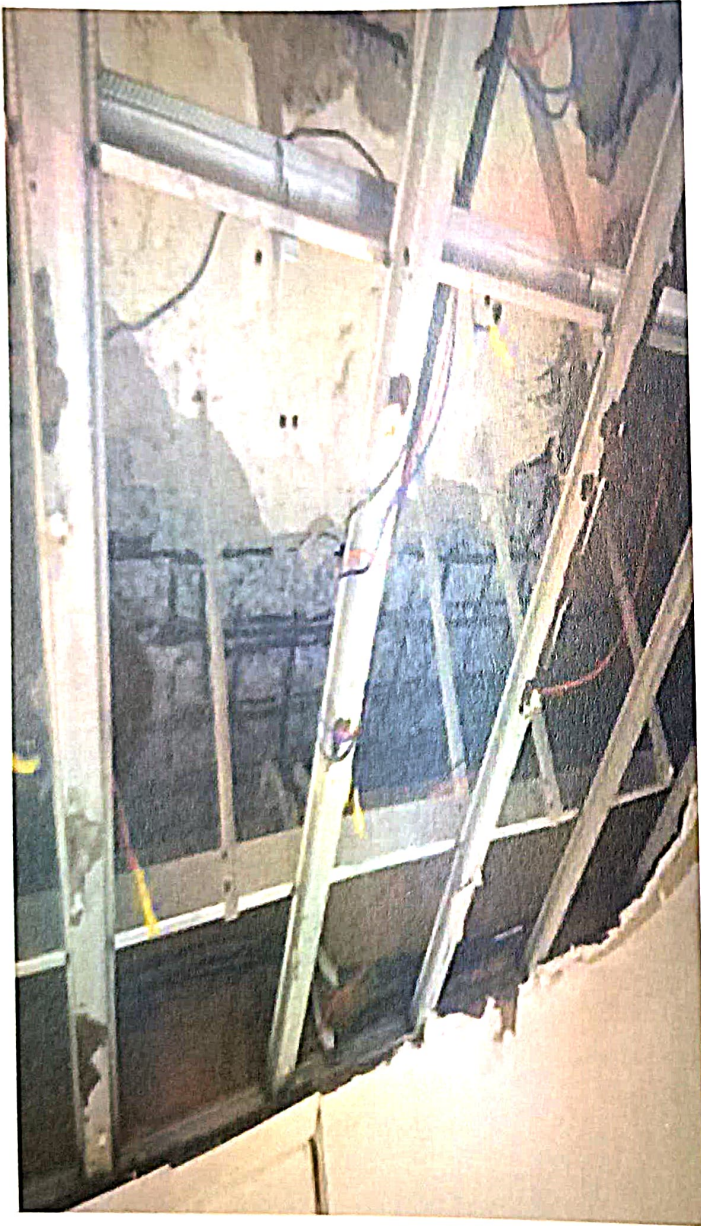


**NOTICED KITCHEN CEILING LEAKAGE**

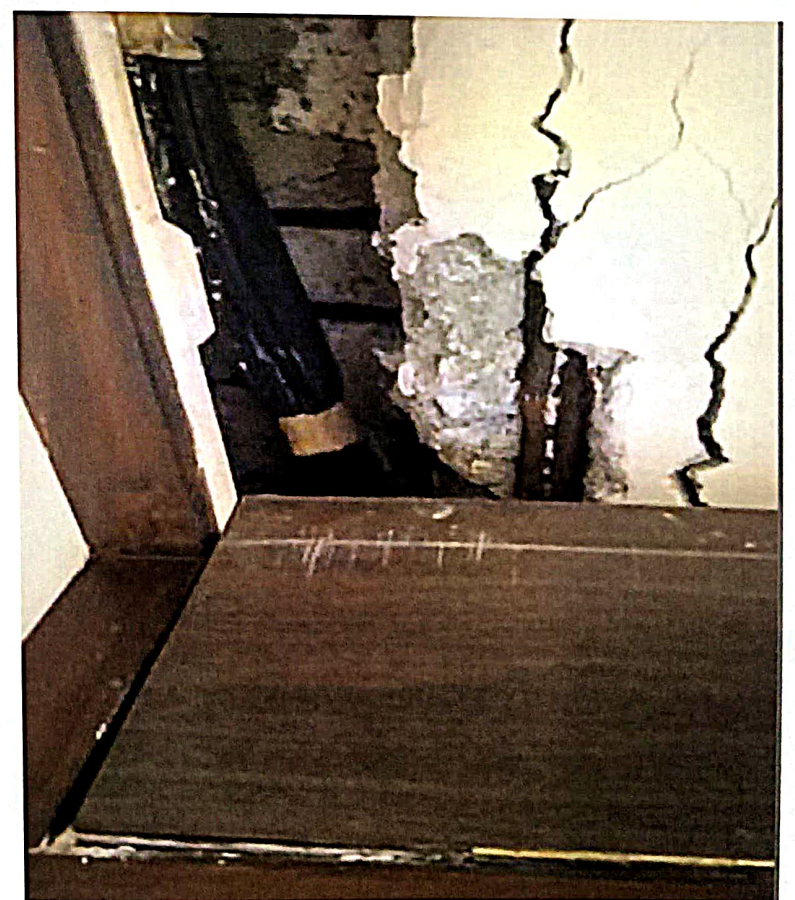
### 3.3. R.C.C. FRAME

The observations are based on visual, tapping and NDT survey conducted by our team of Engineers. An extensive investigation to collect full details and scope of repairs has been carried out. Observation sheets with specific flaws and their quantities are also recorded. Distress mapping flat wise are prepared in this effect, and the same are attached with this report elsewhere. Complete compilation along with various related facts, figures and drawings are given with this report. The RCC members show presence of distress at many spots in the form of cracks, & successive delams, etc.

As per the Distress mapping, Beam wall delamination and column wall delamination indicating no proper bonding between RCC and Brickwork or concrete Blocks. Beams show porosity and Honeycombing in some of the inside the flats.



**MAJOR COLUMN DAMAGED HAS BEEN OBSERVED INSIDE THE FLAT**



**MAJOR COLUMN DAMAGED HAS BEEN OBSERVED AT INSIDE FLAT**



**MAJOR COLUMN DAMAGED HAS BEEN OBSERVED INSIDE FLAT**

### 3.4. WATER PROOFINGS

Seepage marks are observed at terrace top floor flats such as flats and hence we conclude that terrace waterproofing of is in bad condition. However, existing terrace flooring is china mosaic Finished. Noticed somewhere Recently Chemical coating was done for temporary relief.

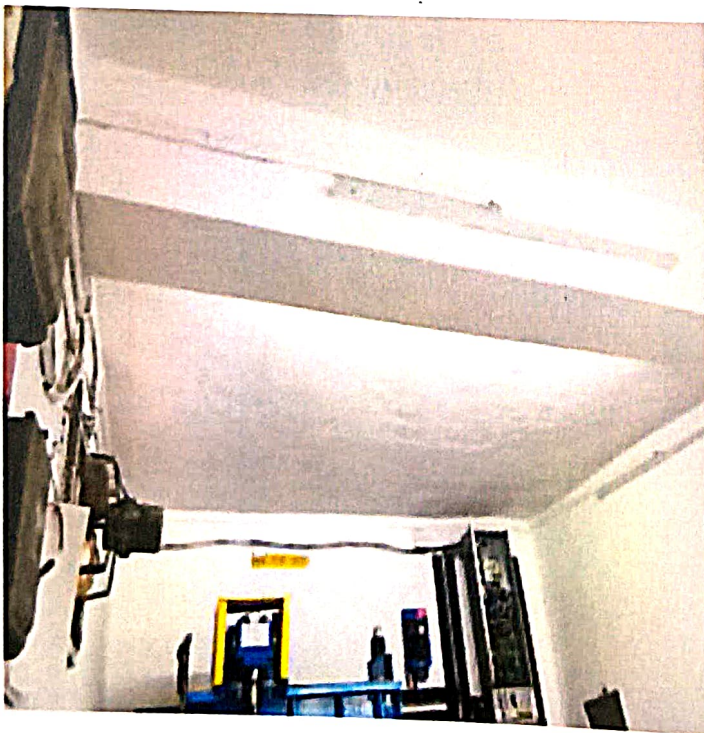
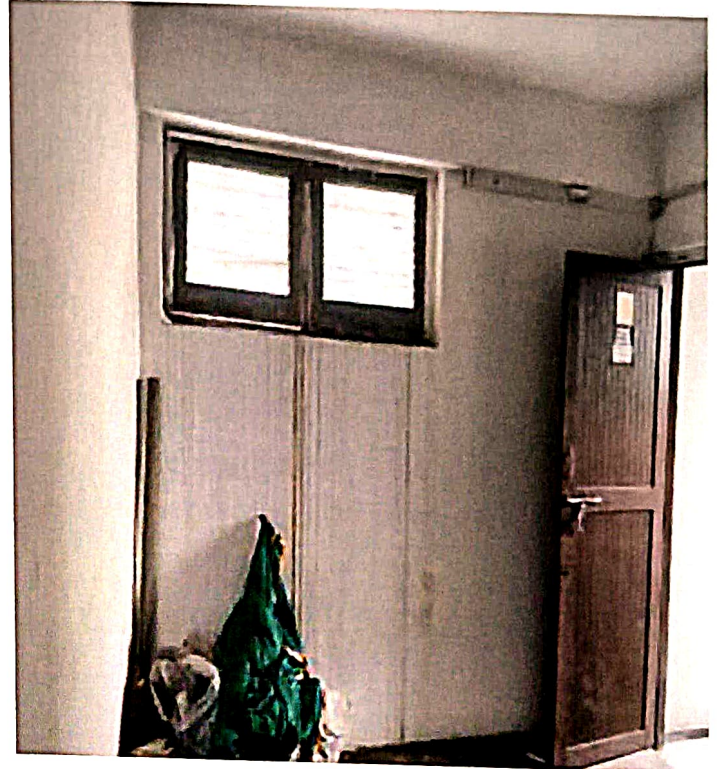
The parapet wall is also seen in moderate condition having minor cracks there was no coping noticed at parapet top. Refer photograph exhibits for more details. G.I looping pipes/ fittings are seen rusted at certain location of terrace area



**TERRACE FLOOR AREA DEVELOPED AIR POCKETS AT MANY PLACES**

### 3.5. LIFT ROOM AND OVER HEAD ROOM:-

The External condition of overhead lift room is moderate condition. Cracks, crazing and algae growths were noticed at external wall. Reinforcement exposed & failure of concrete. The External condition of overhead room is bad. Cracks, crazing were noticed at external wall.



**LEAKAGES NOTICED IN THE LIFT ROOM AREA**

## **4. DISTRESS MAPPING**

# GROUND FLOOR PLAN



**LEGEND SHEET**

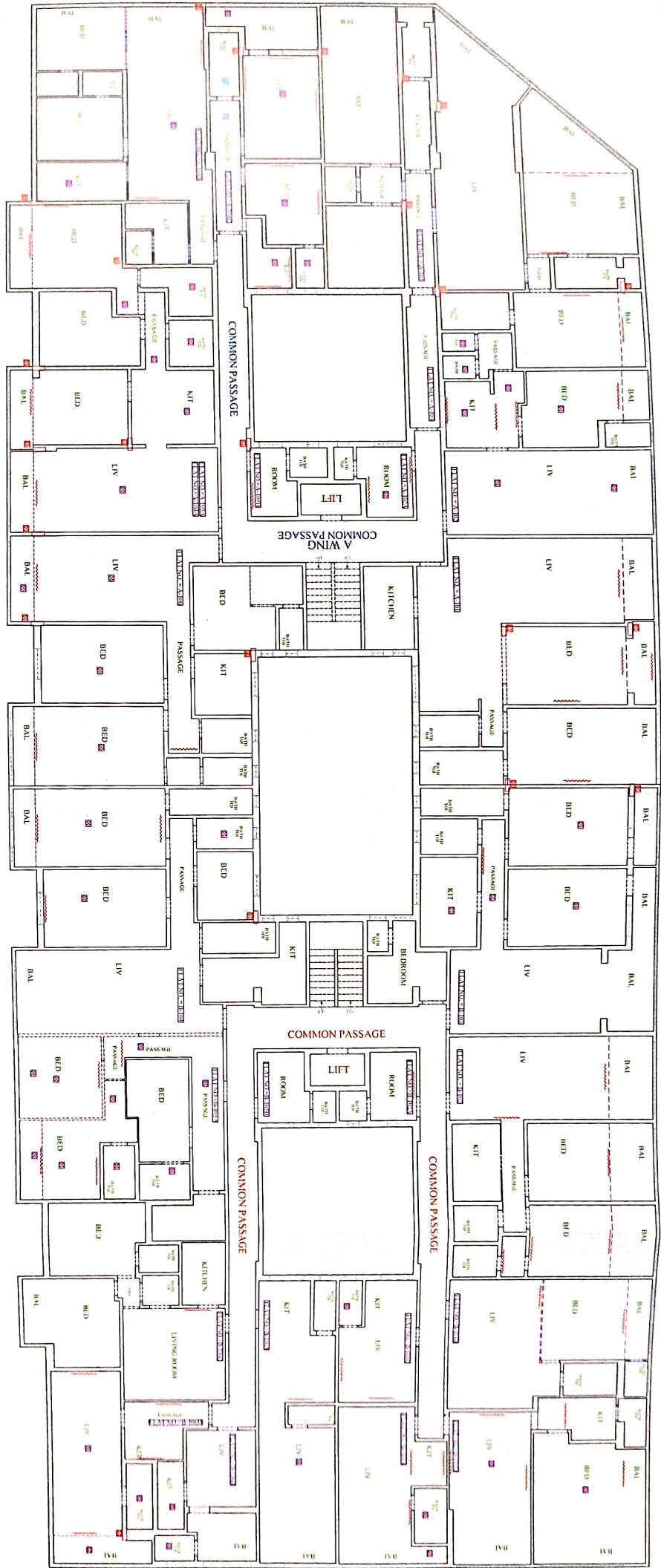
PAINT PEELING	COLUMN WALL CRACK
LEAKAGE FROM EXTERNAL WALL	SEALING CRACK
INTER FLOOR LEAKAGE	SEEPAGE MARKS
LEAKAGE FROM TERRACE	BEAM CRACKS
COLUMN	BEAM
	STEEL EXPOSED

**SUPREME ENGICONS (I) PVT LTD**  
 808 SHREE KRISHNA TOWER  
 OPP. LAXMI IND. EST. NEW LINK ROAD,  
 ANDHERI (W) MUMBAI-400053  
 PHONE No. 022-26774100/200

# WING - A

## 1 ST FLOOR PLAN

# WING - B



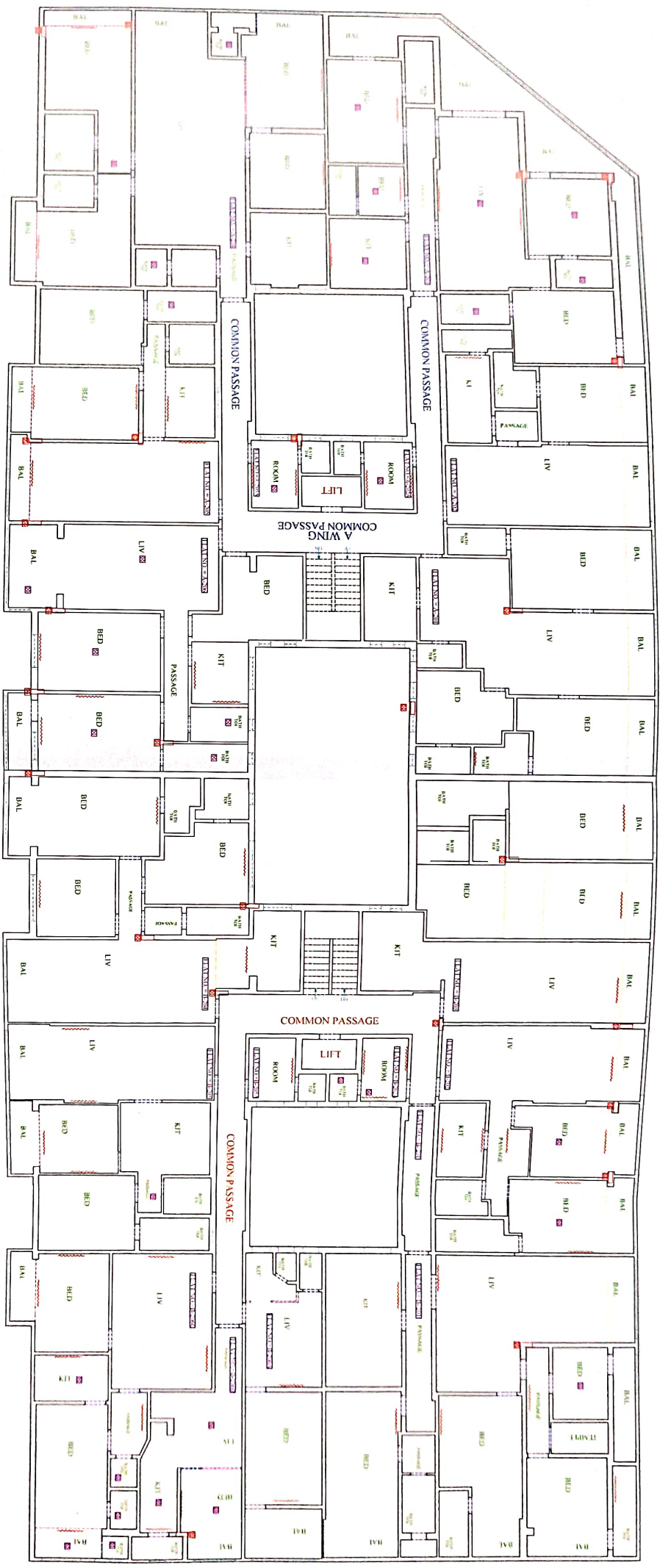
LEGEND SHEET			
	PAINT PEELING		COLUMN WALL CRACK
	LEAKAGE FROM EXTERNAL WALL		SEALING CRACK
	INTER FLAT LEAKAGES		SEEPAGE MARKS
	LEAKAGE FROM TERRACE		BEAM CRACK
	COLUMN		BEAM
			STEEL EXPOSED

**SUPREME ENIGCONS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP LAXMI IND EST, NEW LINK ROAD,  
 ANDHERI (W) MUMBAI-400053  
 PHONE No 022-26774100/200

# WING - A

## 2ND FLOOR PLAN

# WING - B



LEGEND SHEET

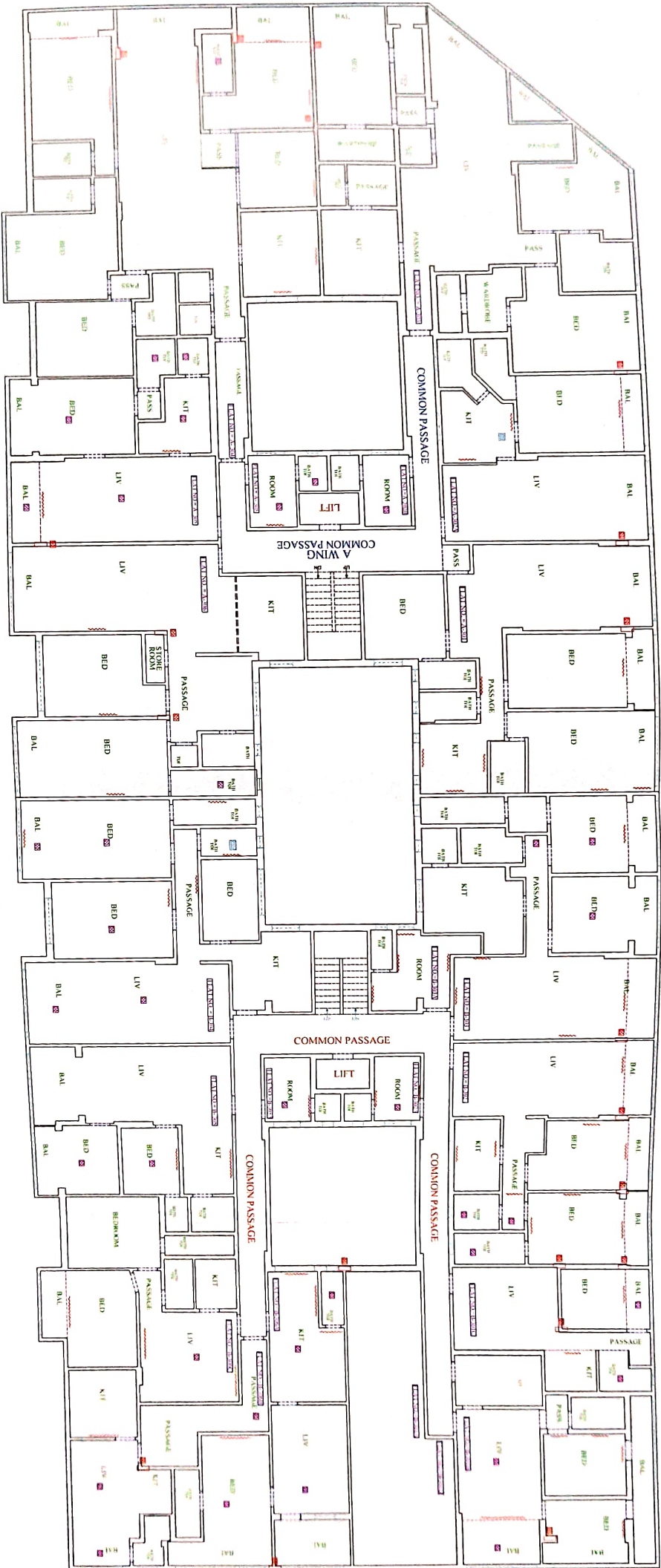
	PAINT PEELING		COLUINN WALL CRACK
	LEAKAGE FROM EXTERNAL WALL		SEALING CRACK
	INTER FLAT LEAKAGES		SEEPAGE MARKS
	LEAKAGE FROM TERRACE		BEAM CRACK
	COLUINN		BEAM
			STEEL EXPOSED

**SUPREME ENGICONS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP. LAXMI IND EST., NEW LINK ROAD,  
 ANDHERI (W), MUMBAI-400053  
 PHONE No. 022-26774100/200

# WING - A

## 3 RD FLOOR PLAN

# WING - B



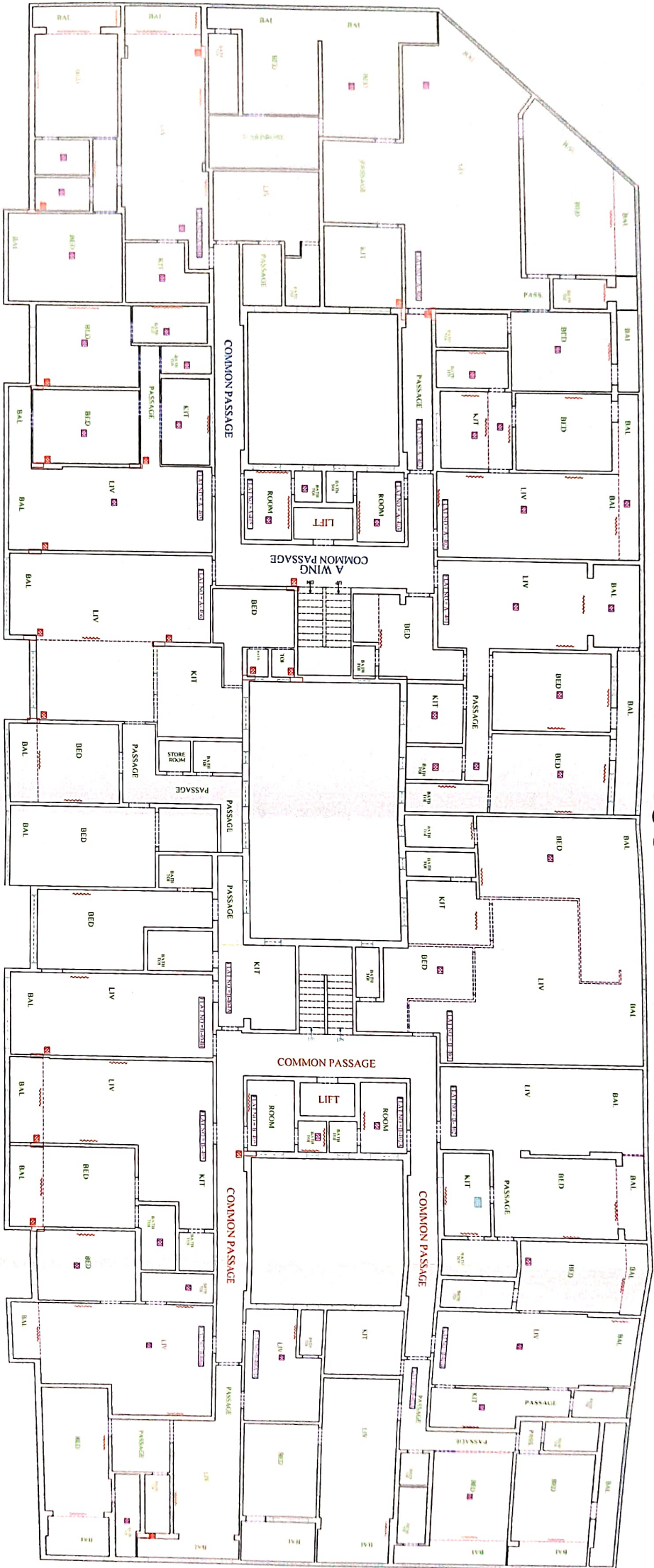
**LEGEND SHEET**

	PAINT PEELING		COLUMN WALL CRACK
	LEAKAGE FROM EXTERNAL WALL		SEALING CRACK
	INTER FLAT LEAKAGES		SEEPAGE MARKS
	LEAKAGE FROM TERRACE		BEAM CRACK
	COLUMN		BEAM
			STEEL EXPOSED

**SUPREME ENGINCONS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP LAXMI IND EST, NEW LINK ROAD,  
 ANDHERI (W) MUMBAI-400053  
 PHONE No 022-26774100/200

# WING - A 4 TH FLOOR PLAN

# WING - B



**LEGEND SHEET**

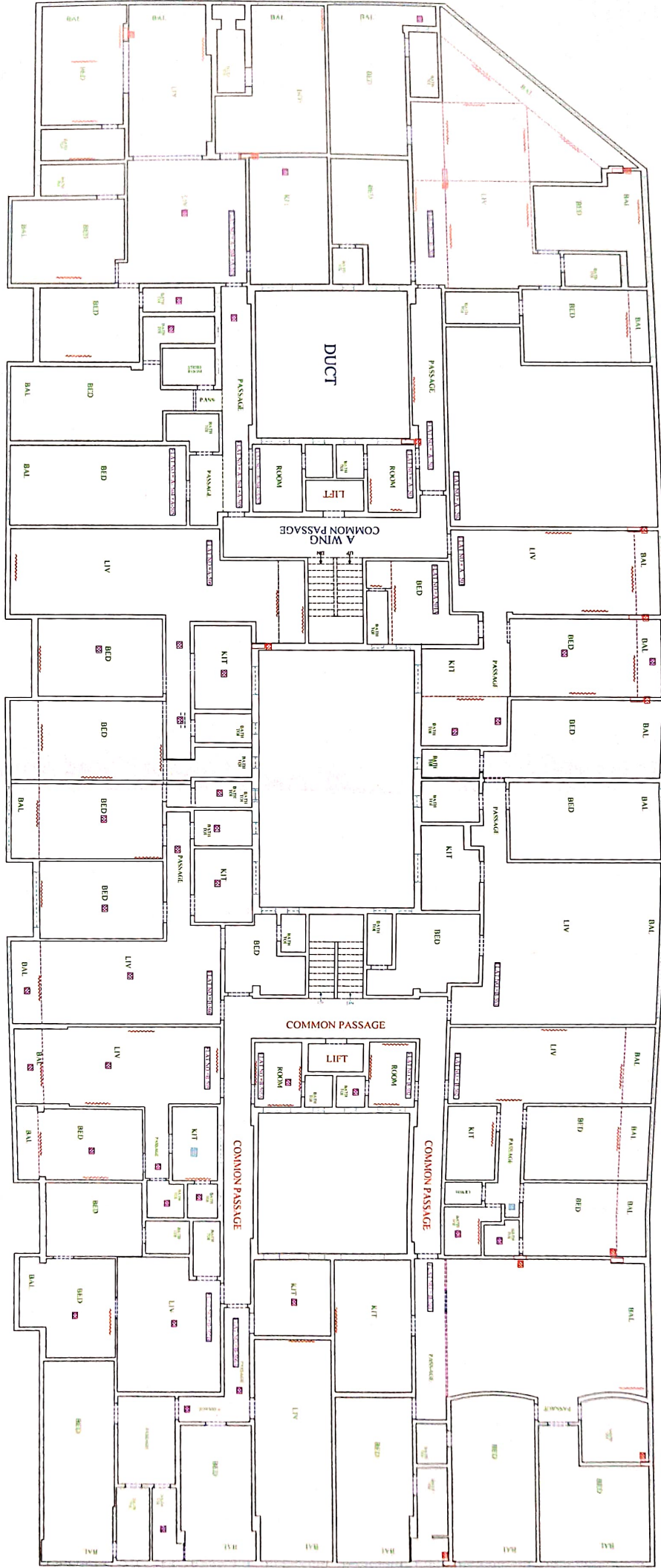
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	LEAKAGE FROM EXTERNAL WALL		SEALING CRACK
	INTER PLAT LEAKAGES		SEAPAGE MARKS
	LEAKAGE FROM TERRACE		BEAM CRACK
	COLUMN		BEAM
			STEEL EXPOSED

**SUPREME ENGICONS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP LAXMI IND EST, NEW LINK ROAD,  
 ANDHERI (W) MUMBAI-400053  
 PHONE No 022-26774100/200

# WING - A

# 5 TH FLOOR PLAN

# WING - B



LEGEND SHEET

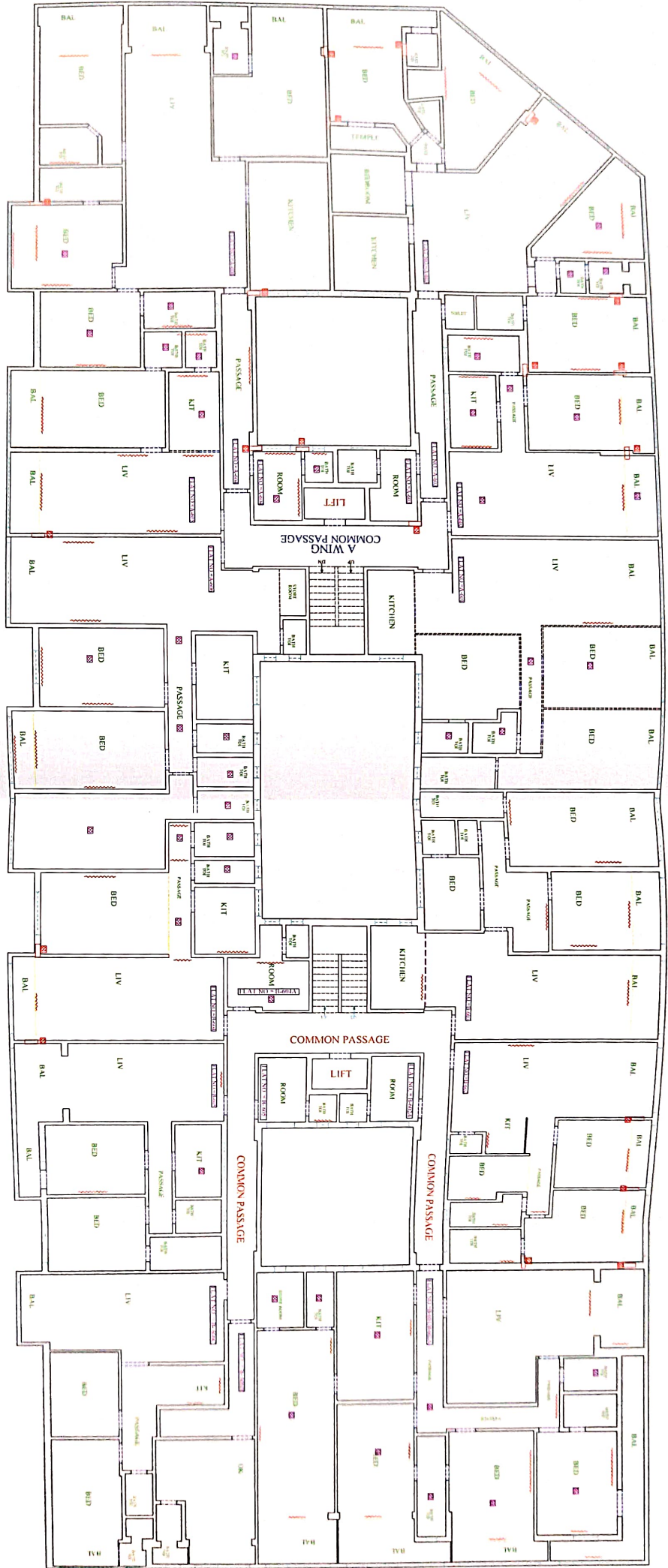
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	LEAKAGE FROM EXTERNAL WALL		SEALING CRACK
	INTER FLAT LEAKAGES		SEEPAGE MARKS
	LEAKAGE FROM TERRACE		BEAM CRACK
	COLUMN		BEAM
			STEEL EXPOSED

**SUPREME ENGINCONS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP LAXMI IND EST. NEW LINK ROAD,  
 ANDHERI (W) MUMBAI-400053  
 PHONE No. 022-26774100/200

# WING - A

# 6 TH FLOOR PLAN

# WING - B

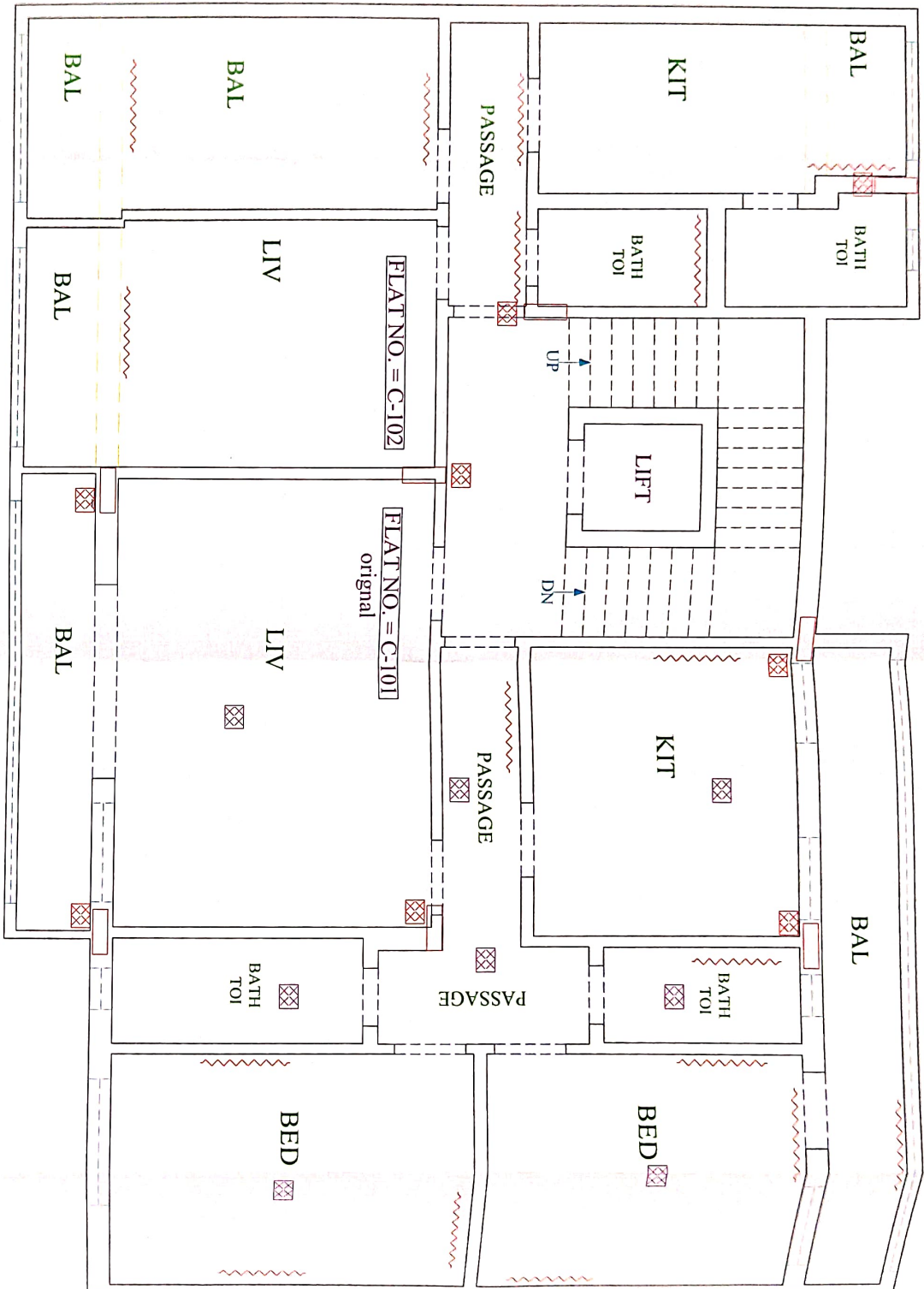


**LEGEND SHEET**

	PAINT PEELING		COLUMN WALL CRACK
	LEAKAGE FROM EXTERNAL WALL		SEALING CRACK
	INTER FLAT LEAKAGES		SEEPAGE MARKS
	LEAKAGE FROM TERRACE		BEAM CRACK
	COLUMN		BEAM
			STEEL EXPOSED

**SUPREME ENGINEERS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP LAXMI IND EST., NEW LINK ROAD,  
 ANDHERI (W), MUMBAI-400053  
 PHONE No. 022-26774100/200

# WING - C 1 ST FLOOR PLAN



LEGEND SHEET












	PAINT PELLING		COLUMN WALL CRACK
	LEAKAGE FROM EXTERNAL WALL		SEALING CRACK
	INTER FLAT LEAKAGES		SEEPAGE MARKS
	LEAKAGE FROM TERRACE		BEAM CRACK
	COLUMN		BEAM
			STEEL EXPOSED

**SUPREME ENGICTIONS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP. LAXMI IND. EST., NEW LINK ROAD,  
 ANDHERI (W), MUMBAI-400053  
 PHONE No. 022-26774100/200

# WING - C 2 ND FLOOR PLAN



### LEGEND SHEET

	PAINT PEELING		COLUMN WALL CRACK
	LEAKAGE FROM EXTERNAL WALL		SEALING CRACK
	INTER FLAT LEAKAGES		SEEPAGE MARKS
	LEAKAGE FROM TERRACE		BEAM CRACK
	COLUMN		BEAM
			STEEL EXPOSED

**SUPREME ENGICONS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP. LAXMI IND. EST., NEW LINK ROAD,  
 ANDHERI (W), MUMBAI-400053  
 PHONE No. 022-26774100/200

# WING - C 3 RD FLOOR PLAN



LEGEND SHEET

	COLUMN WALL CRACK
	SEALING CRACK
	SEEPAGE MARKS
	BEAM CRACK
	BEAM
	STEEL EXPOSED
	PAINT PEELING
	LEAKAGE FROM EXTERNAL WALL
	INTER FLAT LEAKAGES
	LEAKAGE FROM TERRACE
	COLUMN

**SUPREME ENGICONS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP. LAXMI IND. EST., NEW LINK ROAD,  
 ANDHERI (W), MUMBAI-400053  
 PHONE No. 022-26774100/200

WING - D  
 FLAT NO. = D-306A

# WING - C 4 TH FLOOR PLAN

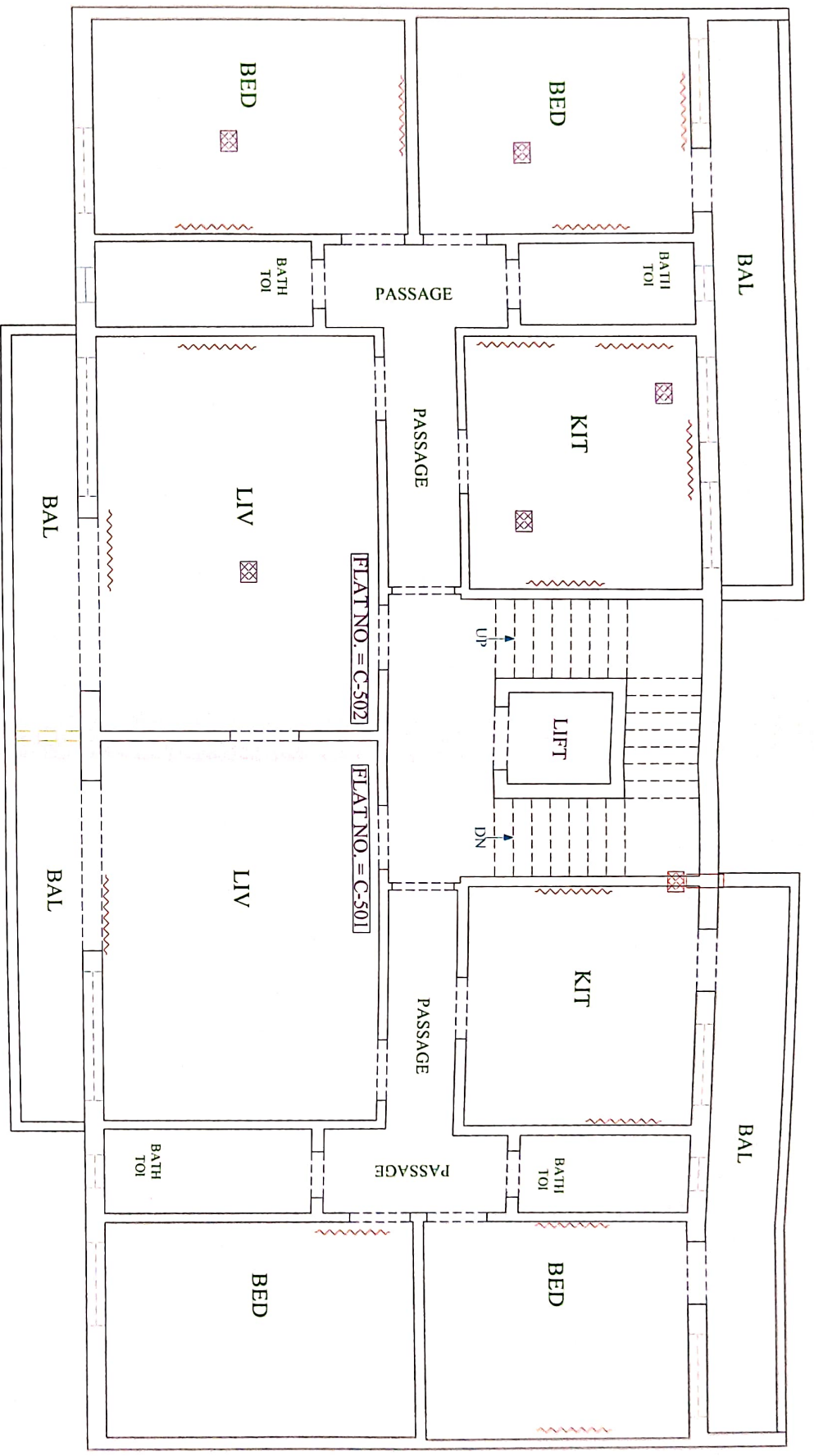


LEGEND SHEET

	COLUMN WALL CRACK		PAINT PEELING
	SEALING CRACK		LEAKAGE FROM EXTERNAL WALL
	SEEPAGE MARKS		INTER FLAT LEAKAGES
	BEAM CRACK		LEAKAGE FROM TERRACE
	BEAM		COLUMN
	STEEL EXPOSED		

**SUPREME ENGICONS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP. LAXMI IND. EST., NEW LINK ROAD,  
 ANDHERI (W), MUMBAI-400053  
 PHONE No. 022-26774100/200

# WING - C 5 TH FLOOR PLAN



LEGEND SHEET	
	COLUMN WALL CRACK
	PAINT PEELING
	SEALING CRACK
	LEAKAGE FROM EXTERNAL WALL
	INTER FLAT LEAKAGES
	SEEPAGE MARKS
	LEAKAGE FROM TERRACE
	BEAM CRACK
	COLUMN
	BEAM
	STEEL EXPOSED

**SUPREME ENGICONS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP. LAXMI IND. EST., NEW LINK ROAD,  
 ANDHERI (W), MUMBAI-400053  
 PHONE No. 022-26774100/200

# WING - C 6 TH FLOOR PLAN



**LEGEND SHEET**

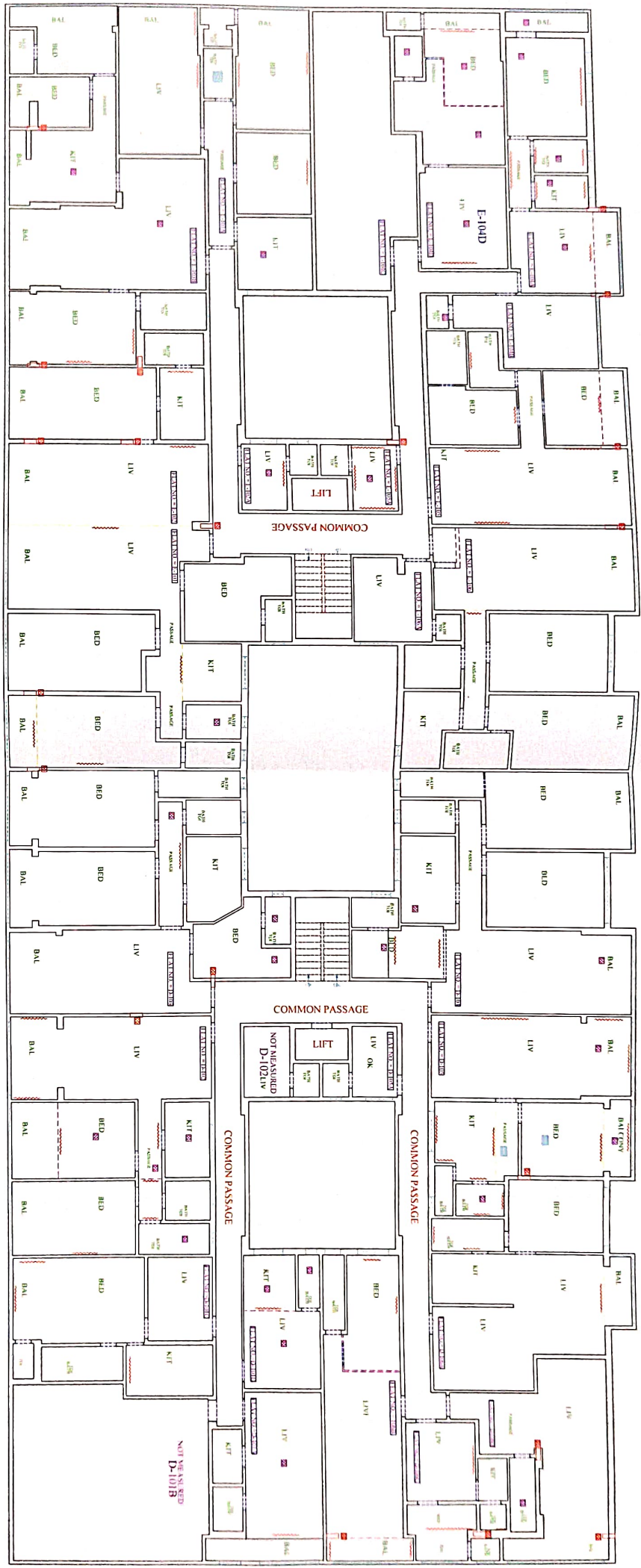
	COLUMN WALL CRACK
	SEALING CRACK
	SEEPAGE MARKS
	BEAM CRACK
	BEAM
	STEEL EXPOSED
	PAINT PEELING
	LEAKAGE FROM EXTERNAL WALL
	INTER FLAT LEAKAGES
	LEAKAGE FROM TERRACE
	COLUMN

**SUPREME ENGICONS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP. LAXMI IND. EST., NEW LINK ROAD,  
 ANDHERI (W), MUMBAI-400053  
 PHONE No. 022-26774100/200

# E WING

# 1 ST FLOOR PLAN

# D WING



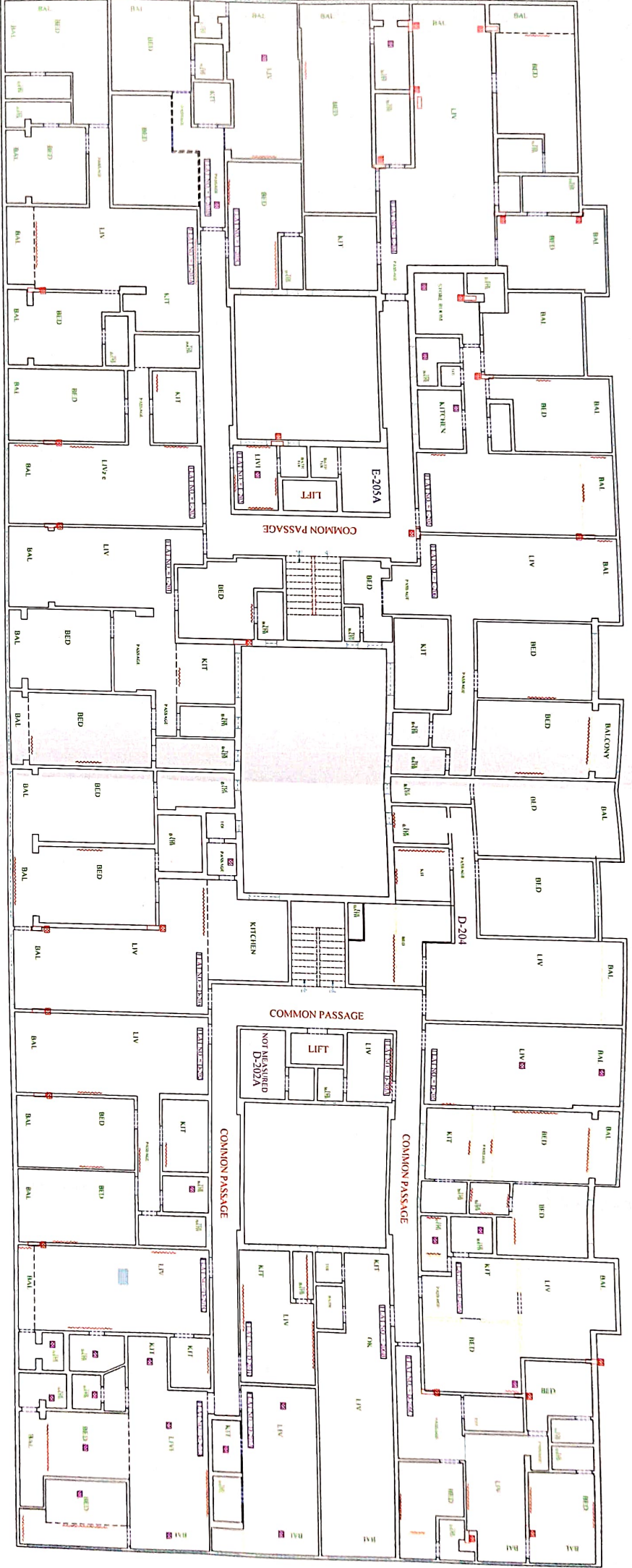
LEGEND SHEET			
	PAINT PEELING		COLUMN WALL CRACK
	LEAKAGE FROM EXTERNAL WALL		SEALING CRACK
	INTER FLAT LEAKAGES		SEEPAGE MARKS
	LEAKAGE FROM TERRACE		BEAM CRACK
	COLUMN		BEAM
			STEEL EXPOSED

**SUPREME ENGINCONS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP LAXMI IND EST, NEW LINK ROAD,  
 ANDHERI (W) MUMBAI-400053  
 PHONE No 022-26774100/200

# E WING

# 2ND FLOOR PLAN

# D WING

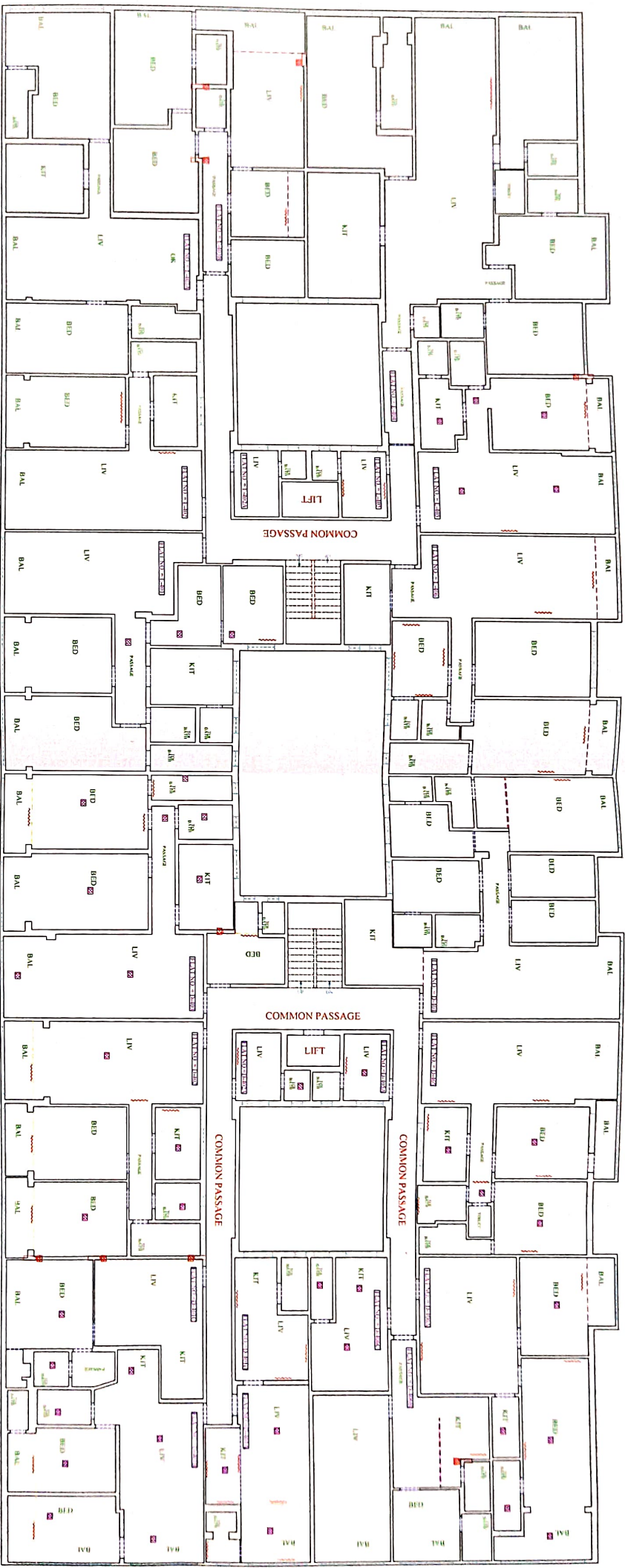


LEGEND SHEET			
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	LEAKAGE FROM EXTERNAL WALL		SEALING CRACK
	INTER PLAT LEAKAGES		SEEPAGE MARKS
	LEAKAGE FROM TERRACE		BEAM CRACK
	COLUMN		BEAM
			STEEL EXPOSED

**SUPREME ENIGCON'S (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER  
 OPP. LAXMI IND EST., NEW LINK ROAD,  
 ANDHERI (W), MUMBAI-400053  
 PHONE NO. 022-26774100/200



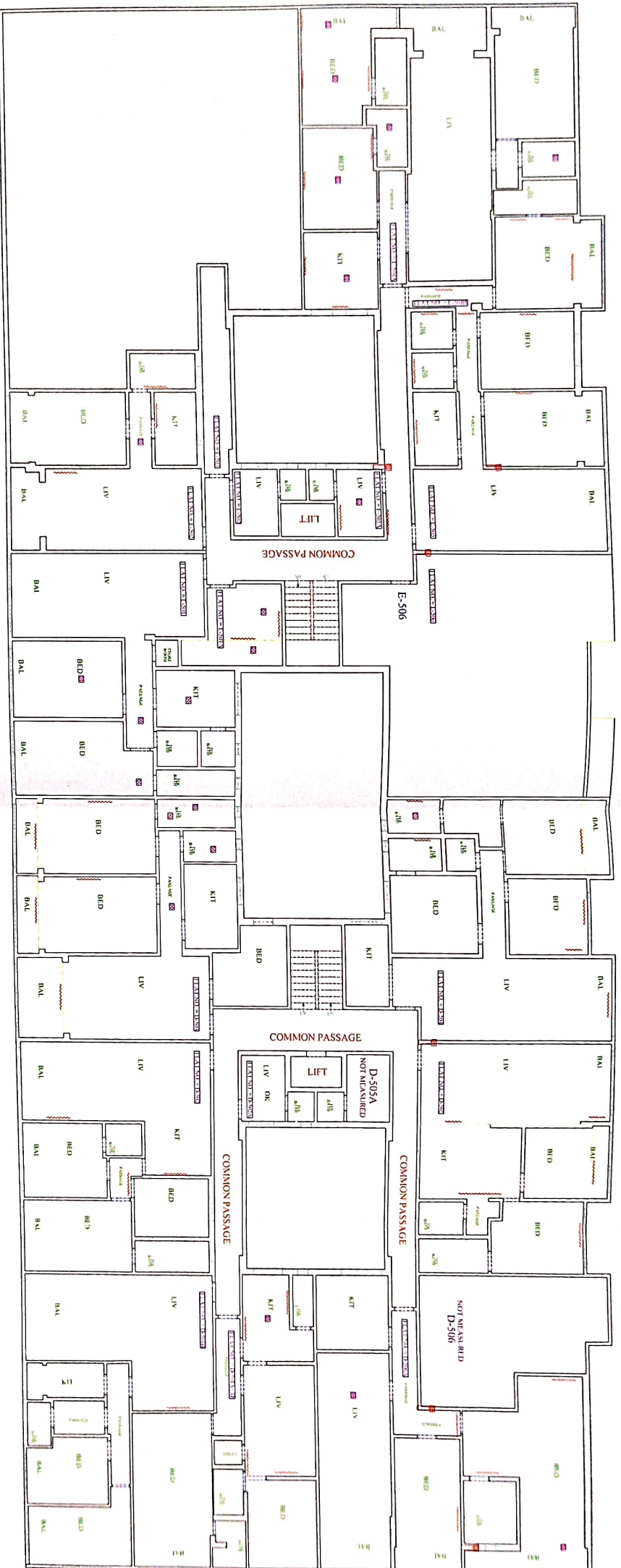
# E WING      4 TH FLOOR PLAN      D WING



LEGEND SHEET			
	PAINT PEELING		COLUMN WALL CRACK
	LEAKAGE FROM EXTERNAL WALL		SEALING CRACK
	INTER FLAT LEAKAGES		SEEPAGE MARKS
	LEAKAGE FROM TERRACE		BEAM CRACK
	COLUMN		BEAM
			STEEL EXPOSED

**SUPREME ENIGCON'S (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP. LAXMI IND EST., NEW LINK ROAD,  
 ANDHERI (W), MUMBAI-400053  
 PHONE No. 022-26774100/200

# E WING      5 TH FLOOR PLAN      D WING



**LEGEND SHEET**

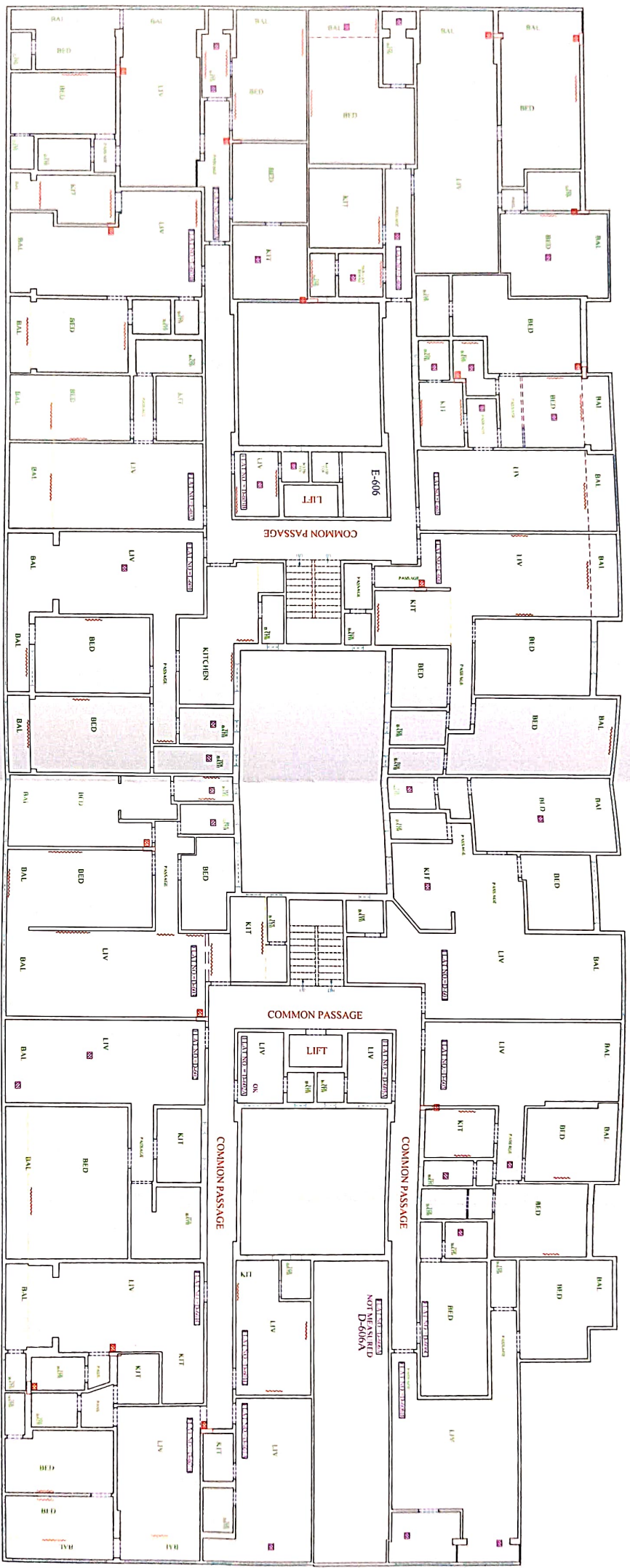
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	LEAKAGE FROM EXTERNAL WALL		SEALING CRACK
	INTER FLAT LEAKAGES		SEWAGE MARKS
	LEAKAGE FROM TERRACE		BEAM CRACK
	COLUMN		BEAM
			STEEL EXPOSED

**SUPREME ENGICONS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER  
 OPP. LAXMI IND EST. NEW LINK ROAD,  
 ANDHERI (W) MUMBAI-400053  
 PHONE No. 022-26774100/200

# E WING

# 6 TH FLOOR PLAN

# D WING

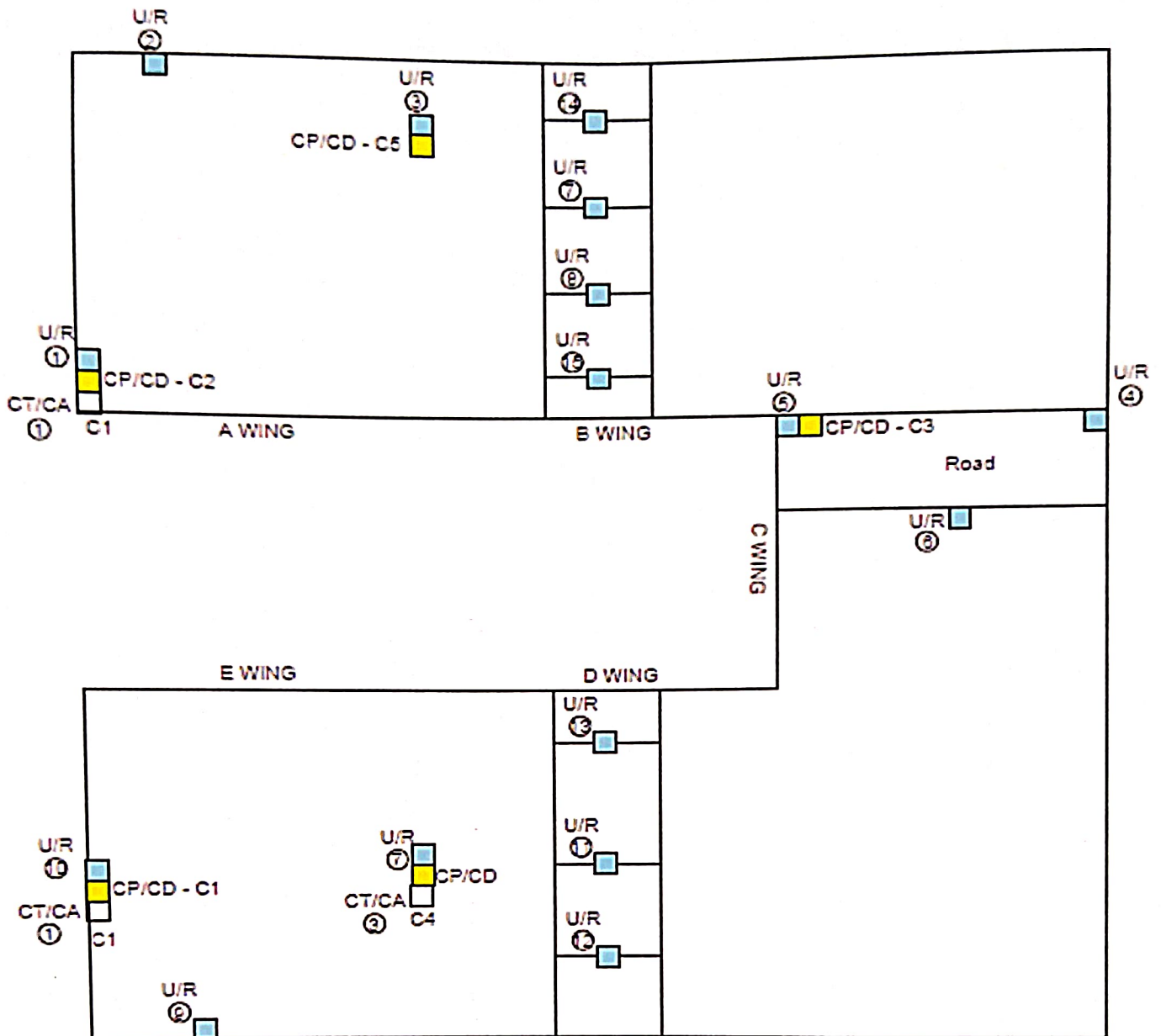





**LEGEND SHEET**

	PAINT PEELING		COLUMN WALL CRACK
	LEAKAGE FROM EXTERNAL WALL		SEALING CRACK
	INTER FLOOR LEAKAGES		SEEPAGE MARKS
	LEAKAGE FROM TERRACE		BEAM CRACK
	COLUMN		BEAM
			STEEL EXPOSED

**SUPREME ENGINCONS (I) PVT. LTD**  
 808, SHREE KRISHNA TOWER,  
 OPP. LAXMI IND. EST., NEW LINK ROAD,  
 ANDHERI (W), MUMBAI-400053  
 PHONE No. 022-26774100/200

# **5. INSTRUMENTATION**



LEGEND		
U	ULTRA PULSE VELOCITY TEST (UPV)	
R	REBOUND HAMMER TEST (RHT)	
CP	CORROSION POTENTIAL TEST (CP)	
CD	CARBONATION DEPTH TEST (CD)	
CT	CORE TEST	
CA	CHEMICAL ANALYSIS OF CORE	

SR. No.	Location	UPV						RHT					
		Type	Dist	Read	Vel	Avg.	Remark	1	2	3	4	Avg.	Remark
1	A wing Col U1												
	0.9m from FL	SD	141	74	1.91	1.89	P	26	24	22	24	24	F
	1.5m from FL		141	76	1.86			26	28	24	22		
								22	24	26	22		
2	A wing Col U2												
	0.9m from FL	SD	141	78	1.81	2.17	P	36	36	38	40	34	G
	1.5m from FL		141	56	2.53			36	34	32	36		
								30	32	32	30		
3	B Wing Col U3												
	0.5m from FL	ID	100	88	1.14	1.96	P	30	32	34	32	33	G
			200	111	1.80			32	34	36	32		
			300	114	2.63			32	34	34	32		
			400	175	2.29			32	34	32	34		
	1m from FL	ID	100	53	1.89	1.77	P						
			200	118	1.69								
			300	155	1.94								
	400		253	1.58									
4	C Wing Col U4												
	0.5m from FL	SD	141	98	1.44	1.50	P	30	32	30	36	32	G
	1.5m from FL		141	91	1.55			30	32	30	30		
								32	34	32	32		
5	C Wing Col U5												
	0.5m from FL	SD	141	101	1.40	1.41	P	30	30	32	30	31	G
	1.5m from FL		141	99	1.43			30	32	30	30		
								30	32	30	30		
6	C Wing Col U6												
	0.5m from FL	ID	100	27	3.70	2.62	P	34	36	38	40	39	G
			200	78	2.56			40	42	42	40		
			300	132	2.27			36	38	40	38		
			400	206	1.94			40	38	38	40		
	1.5m from FL	SD	100	87	1.15	1.47	P						
			200	118	1.69								
			300	184	1.63								
	400		281	1.42									
7	D Wing Col U7												
	0.5m from FL	ID	100	26	3.85	3.07	M	40	40	38	36	39	G
			200	77	2.60			40	38	36	40		
			300	88	3.41			36	38	40	38		
			400	165	2.42			40	38	38	40		
	1.5m from FL	SD	100	86	1.16	1.60	P						
			200	123	1.63								
			300	127	2.36								

400 | 316 | 1.27

8	E Wing Beam U8												
	0.5m from right end	D	250	68	3.68	2.53	P	30	32	30	32	31	G
	at centre of beam		250	165	1.52			30	30	32	30		
	0.5m from left end		250	104	2.40			30	32	32	34		

9	E Wing Col U9												
	0.5m from FL	ID	100	48	2.08	1.71	P	36	38	38	36	38	G
			200	105	1.90			40	38	36	40		
			300	212	1.42			36	38	40	38		
			400	280	1.43			40	38	38	40		
	1.5m from FL	SD	100	59	1.69	2.08	P						
			200	72	2.78								
			300	163	1.84								
	400		198	2.02									

10	E Wing Col U10												
	0.5m from FL	SD	141	94	1.50	1.59	P	36	32	32	36	35	G
	1.5m from FL		141	84	1.68			34	32	36	34		
								34	36	38	40		

11	D Wing Lobby Beam U11												
	0.5m from end	D	250	116	2.16	2.42	P	30	28	30	28	30	F
	0.5m from end		250	93	2.69			28	30	30	32		
								30	32	30	30		

12	D Wing Lobby Beam U12												
	0.5m from end	D	250	85	2.94	2.88	P	26	28	30	28	29	F
	0.5m from end		250	89	2.81			28	30	28	30		
								28	30	28	30		

13	D Wing Lobby Beam U13												
	0.5m from end	D	250	131	1.91	1.65	P	20	22	20	22	22	F
	0.5m from end		250	180	1.39			22	24	22	22		
								20	22	24	20		

14	B Wing Lobby Beam U14												
	0.5m from end	D	250	87	2.87	2.80	P	28	26	24	24	24	F
	0.5m from end		250	92	2.72			22	24	26	24		
								22	24	24	22		

15	B Wing Lobby Beam U15												
	0.5m from end	D	200	80	2.50	2.21	P	22	20	22	22	21	F
	0.5m from end		200	104	1.92			22	18	22	24		
								20	22	20	22		

**HALF CELL POTENTIAL TEST & CARBONATION TEST RESULT**

<b>TYPE OF INSTRUMENT USED:</b>	Cu/CuSO4 half cell
<b>INTERPRETATION:</b>	As per ASTM 876
<b>PRE WETTING:</b>	Frequent & manual
<b>READING INTERVAL:</b>	150 mm c/c

-610	-674	-653	-636	-640
-625	-695	-677	-639	-645
-648	RE-915	-669	-637	-631
-686	-673	-671	-641	-625

-508	-519	-542	-	536	-540
-512	-517	-528	-	539	-545
-523	RE-549	-532	-	537	-531
-528	-523	-539	-	541	-525

<b>LOCATION: E Wing Col C1</b>				
<b>DATE: 11/02/2026 TIME: 12.10 P.M.</b>				
<b>REFERENCE ELECTRODE: RE On</b>				
<b>Main rebar @1.2M FROM G LEVEL.</b>				
<b>RESULT: Reading shows</b>				<b>95%</b>
<b>corrosion potential</b>				

<b>LOCATION: A Wing Col C2</b>					
<b>DATE: 11/02/2026 TIME: 12.30 P.M.</b>					
<b>REFERENCE ELECTRODE: RE On</b>					
<b>Main rebar @1.2M FROM G LEVEL.</b>					
<b>RESULT: Reading shows</b>					<b>95%</b>
<b>corrosion potential</b>					

-442	-449	-442	-421	-401
-440	-461	-443	-432	-412
-444	-467	-467	-441	RE-572
-451	-464	-478	-464	-458

-461	-351	-354	-	367	-378
-355	-352	-350	-	361	-359
-356	-361	RE-389	-	389	-415
-369	-358	-356	-	356	-365

<b>LOCATION: C Wing Col C3</b>				
<b>DATE: 11/02/2026 TIME: 12:45 P.M.</b>				
<b>REFERENCE ELECTRODE: RE On</b>				
<b>Main rebar @1.2M FROM G LEVEL.</b>				
<b>RESULT: Reading shows</b>				<b>90%</b>
<b>corrosion potential</b>				

<b>LOCATION: B Wing Col C4</b>					
<b>DATE: 11/02/2026 TIME: 1.00 P.M.</b>					
<b>REFERENCE ELECTRODE: RE On</b>					
<b>Main rebar @ 1M FROM G LEVEL.</b>					
<b>RESULT: Reading shows</b>					<b>90%</b>
<b>corrosion potential</b>					

-642	-649	-642	-621	-701
-640	-661	-663	-632	-696
-644	-667	-667	-641	RE-772
-651	-664	-678	-664	-698

<b>LOCATION: B Wing Col C5</b>				
<b>DATE: 11/02/2026 TIME: 1.00 P.M.</b>				
<b>REFERENCE ELECTRODE: RE On</b>				
<b>Main rebar @ 1M FROM G LEVEL.</b>				
<b>RESULT: Reading shows</b>				<b>95%</b>
<b>corrosion potential</b>				

### Carbonation depth

	<b>Location</b>	<b>Depth in MM</b>
1	E Wing C1	60
2	A Wing C2	70
3	C Wing C3	60
4	D Wing C4	50
5	B Wing C5	60



**TEST REPORT**  
**COMPRESSIVE STRENGTH OF CONCRETE CORE**

DISCIPLINE: MECHANICAL TESTING  
GROUP: BUILDING MATERIALS

SAMPLE TESTED : IN LABORATORY  
REPORT NO.  
LAB COLLECTION NO.  
LILR NO.  
JOB ID  
TEST REPORT DATE  
DATE OF TESTING

! 26/04/20  
! 25.08.18  
! TC14500260000000317DF  
! 04580  
! 27/02/2026  
! 27/02/2026



**\*NAME OF CUSTOMER:**

SUPREME ENGICONS (INDIA) PRIVATE LIMITED  
2ND Floor, Unit No 201-A, Sunteck Grandeur, S.V. Road,  
Opp Andheri Subway, Andheri West, Mumbai, Maharashtra,  
400058

**\*PROJECT / SITE ADDRESS:**

Simla House Chs

TEMPERATURE CONDITION

LETTER REF./ DATE

QUANTITY

DATE OF RECEIPT

CONDITION OF SAMPLE ON RECEIPT:

TEST METHOD

! 28.5 °C  
! 21/02/2026  
! 03 Nos.  
! 22/02/2026  
! Satisfactory  
! IS: 516 (Part 4): 2018

**TEST RESULTS**

Sr No.	*Specimen ID Mark	Core Height (h) (mm)	Core Dia (d) (mm)	Core Wt. (Kg)	Cross sectional Area, mm <sup>2</sup>	Max. Load (KN)	Actual Comp. Strength (N/mm <sup>2</sup> )	Correct ion Factor for Dia	Correction Factor for (h/d) ratio	Corrected Comp. Strength (After Dia & h/d Ratio) (N/mm <sup>2</sup> )	Equivalent Cube Comp. Strength (N/mm <sup>2</sup> )
1	E Wing C-1	68.52	67.02	0.642	3528.2	67.02	19.00	1.06	0.992	17.97	22.46
2	A Wing C-2	70.52	68.45	0.702	3680.4	79.85	21.70	1.05	0.993	20.54	25.68
3	B Wing C-4	72.89	67.89	0.765	3620.4	82.69	22.84	1.05	0.995	21.74	27.18

**Remarks:**

- Correction factor for Diameter as per Clause : 8.4.1 for Dia less than 100 mm
- For h/d ratio correction factors are as per Figure - 1 of IS : 516 (Part 4) : 2018
- Equivalent cube compressive strength = 1.25 x corrected cylinder compressive strength as per clause 8.4.2 of IS : 516 (Part 4) : 2018
- As Per IS 516 Part 4 : 2018 Cl. No. 8.4.2 Factor = 0.11 x N + 0.78  
N = [Length/Diameter]

**NOTE:**

1. This report is based on the sample received by our laboratory.
2. The test result relates only to the item tested.
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4. Statement of conformity to a specification is provided considering the level of risk associated with decision rule applied.
5. Measurement uncertainty is not taken into consideration while stating conformity with the specified requirements as requested by the customer.
6. Any correction invalidates this report.

Page 1 of 1

Reviewed & Authorized By



Manish Choudhary

*Manish*  
Technical Manager  
Authorized Signatory

**AQUA LAB ALL BUILDING MATERIAL TESTING PRIVATE LIMITED**

[www.aqualab.co.in](http://www.aqualab.co.in)

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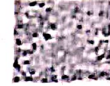


## CONCRETE CHEMICAL TEST

SAMPLE TESTED : IN LABORATORY  
DISCIPLINE & GROUP : CHEMICAL BUILDING MATERIAL

TEST REPORT NO.  
SAMPLE ID  
LAB COLLECTION NO.  
ULR NO.  
TEST REPORT DATE

: 26/04681  
: 04681  
: 26-0388  
: TC14500260000003109F  
: 26/02/2026



### NAME OF CUSTOMER :

M/s. SUPREME ENGICONS (INDIA) PRIVATE LIMITED  
2Nd Floor, Unit No.201-A, Sunteck  
Grandeur, S.V. Road, Opp.Andheri  
Subway, Andheri West, Mumbai,  
Maharashtra, 400058

### PROJECT / SITE ADDRESS :

Simla House CHS

### ENVIRONMENT RECORD

: 25.6°C

### LETTER REF./DATE

: 23/02/2026

### QUANTITY

: 3 Nos.

### DATE OF RECEIPT

: 23/02/2026

### CONDITION OF SAMPLE ON RECEIPT

: Satisfactory

### TEST OF METHOD

: BS 1881 (PART-124) : 2015

### PERIOD OF TEST

: 23/02/2026 to 26/02/2026

### CONCRETE CHEMICAL TEST RESULTS

Sr. No.	*Specimen ID Mark	Chloride		Sulphates as SO <sub>3</sub> (%)
		Cl (%)	Cl (kg/m <sup>3</sup> )	
1	E Wing C1	0.011	0.026	0.758
2	A Wing C2	0.009	0.023	0.729
3	B Wing C4	0.015	0.035	0.950

### Remarks :

As Per IS 456:2000(RA:2008)- Clause 8.2.5.2, Table No : 7, Max Chloride Content for Reinforced Concrete is 0.6 kg/m<sup>3</sup>.  
As Per IS 456:2000(RA:2008)- Clause 8.2.5.3, Total Water Soluble Sulphate Content should not exceed 4 % by Mass of Cement In Mix.

### NOTE :

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6. Any correction invalidates this report.



Mansi G More  
  
Technical Manager  
Chemical  
Authorised Signatory  
Reviewed and Authorised By

Page 1 of 1  
END OF REPORT

AQUA LAB ALL BUILDING MATERIAL TESTING PRIVATE LIMITED

www.aqualab.co.in

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CIN: U14210MH2019PTC325601

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Email: sales@aqualab.co.in,  
report@aqualab.co.in



## TEST REPORT

### CONCRETE CHEMICAL TEST

SAMPLE TESTED : IN LABORATORY  
DISCIPLINE & GROUP : CHEMICAL BUILDING MATERIAL



TEST REPORT NO.  
SAMPLE ID  
LAB COLLECTION NO.  
TEST REPORT DATE

: 26/04681-2  
: 04681-2  
: 26-0388  
: 26/02/2026

#### NAME OF CUSTOMER :

M/s. SUPREME ENGICONS (INDIA) PRIVATE LIMITED  
2Nd Floor, Unit No.201-A, Sunteck  
Grandeur, S.V. Road, Opp.Andheri  
Subway, Andheri West, Mumbai,  
Maharashtra, 400058

#### PROJECT / SITE ADDRESS :

Simla House CHS

#### ENVIRONMENT RECORD

: 25.6°C

#### LETTER REF./DATE

: 23/02/2026

#### QUANTITY

: 3 Nos.

#### DATE OF RECEIPT

: 23/02/2026

#### CONDITION OF SAMPLE ON RECEIPT

: Satisfactory

#### TEST OF METHOD

: IS 2720 (PART 26) : 1987 (RA 2016)

#### PERIOD OF TEST

: 23/02/2026 to 26/02/2026

### CONCRETE CHEMICAL pH TEST RESULTS

Sr. No.	*Specimen ID Mark	pH
1	E Wing C1	11.80
2	A Wing C2	12.26
3	B Wing C4	11.45

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6. Any correction invalidates this report.



Mansi G More  
*Omore*  
Technical Manager  
Chemical  
Authorised Signatory

Reviewed and Authorised By

Page 1 of 1  
END OF REPORT

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## **6. RECOMMENDATIONS**

## **6. RECOMMENDATIONS:**

**6.1.** Having gone through the actual observations as on site followings are recommended as best remedial measures to meet out the type of defects with respective items. Standard specification will be as per norm in elaborated form given in bill of quantity.

Looking into all aspects of the building maintenance and as per our detailed statutory Structural Audit/survey, we suggest that the building needs to be thoroughly repaired and painted (after external leakage treatment) in a planned manner.

As per the observation sheets & detail report, the defect in the RCC members are due to effect of Corrosion and continues drying & wetting process in the vicinity of thin RCC section. The propagation of defects will proceed faster once the entire concrete cover has deteriorated. It is desirable to strengthen the RCC members internally and also externally wherever necessary. The internal and external RCC members with distress pardis, Chajjas and fins need to be rehabilitated and restrengthening by **Polymer Modified Mortar (PMM)** technique. The above technique should be also applied for slab delimitation observed.

**6.2.** Highly damaged RCC members such as columns, beams, slabs, chajjas, pardis, etc. shall be treated with Recasting or High performance Micro concrete after proper shuttering and fitting reinforcements.

**6.3.** As the existing External plaster has failed due to delamination, crazing and cracks at certain places and hence Patch plaster is required to the affected area of the building wherever necessary. Over Head Tank and Staircase room cabin, parapet wall, Pump room, etc. are also to be treated externally through two coat plaster wherever necessary

**6.4.** Staircase common area is also not maintained properly. Crazing and paint peeling marks are observed at all the floor mid landings. Neeru plaster will serve the purpose to finish the area. Distressed RCC area such as waist slab can be treated with PMM if required.

**6.5.** Plumbing lines have got leakage at many places especially at joints. So existing old damaged pipes or fittings needs to be changed to new PVC pipes with fittings at identified location. Special bracket clamps can be provided to hold all pipes away from external wall wherever necessary.

**6.6.** Many cracks were noticed at external surface. Hence it is recommended that all existing cracks have to be properly grooved in "V" shape and accordingly to be refilled with waterproofing based crack filler.

**6.7.** G.I looping pipes are found flush with plastering work, which need to be replace with UPVC & proper projection from parapet wall at terrace. Accordingly all the

existing G.I. Pipes at terrace level have to be removed & then re-fixed with proper brackets away from wall wherever necessary.

**6.8.** Water proofing over terrace is found in bad condition. However based on actual observation from inside flats, it is the need of hour to retrofit the entire terrace chemical coating waterproofing system.

**6.9.** Some of the chhajjas are found insufficient watta at few locations. Damaged chhajjas need to be treated by Polymer Modified Mortar method & finally it should be plastered from bottom and to be waterproofed by brickbat coba method from top if required. Sufficient watta are also needed to be prepared simultaneously. The same process can be applied for over head room & balcony waterproofing. Highly damaged chhajjas / pardis needs to be recast with RCC to bring to its original condition.

**6.10.** Separation gaps between brickwork and R.C.C. members are found externally at many places. Hence polymer based sealant / chemicals need to be fill after opening the crack properly or as instructed by the consultant's engineer.

**6.11.** Injection grouting can be treated to column wall delimitation area, beam wall delimitation area, at terrace, near RCC members, at balcony tops, etc. as a multiple effective treatment.

**6.12.** Finally the building needs to be painted externally by Acrylic paint with 5 years of Guarantee to enhance the esthetical outlook and also protect the External plastered surface.

**6.13.** Crazing and paint peeling marks are observed at staircase & Passage area and hence, it is necessary Oil bound Distemper in Staircase Wall & Ceiling after required repairing works.

**6.14.** The external M.S grill was also noticed with corrosion & it is necessary to repaint the same with two coats of enamel paint after one coat of zinc phosphate extra build primer on either sides.

**6.15** The Non-Destructive Tests were conducted on the structure, the test locations are selected randomly and the results of the same are attached in this document. Summary of the results is as below:

- Total 15 nos. of ultra-pulse velocity (UPV) tests have been carried out at various Locations of the structure. The summary as per IS 13311 (part1)-1992

Results	Excellent	Good	Medium	Doubtful/Poor	Total
Nos.	0	0	1	14	15

- Totals 15 nos. of Rebound Hammer tests (RHT) were conducted. The summary As per IS13311 (part 2) & BS1881-202-

Results	Very Good	Good	Fair	Very Poor	Total
Nos.	0	9	6	0	15

- Total 05 nos. of Corrosion Potential tests (CP) were carried out. The tests were conducted in columns and shell of the structure, the corrosion activity is reached Up to the core of the concrete. The summary s per ASTM C876-

Results	10%	Uncertain	90%	95%	Total
Nos.	0	0	2	3	5

- Total 5 nos. of Carbonation depth test (CD) were carried out. The carbonation Effect has not reached the core of the concrete.

Results	No carbonation	0-10 mm	Above 50mm	Total
Nos.	0	0	05	05

- Total 3no. of Core extraction and analysis were carried out. The core test results show the strength of present members is nearing M- 25 grade concrete. Chemical analysis shows pH, Chloride content and Sulphate contents are in acceptable limits. Though these results are not alarming the remedial measures suggested.

**6.16. Miscellaneous Treatment:** As per progress of work, there may appear various defect of unforeseen nature. As such, these unforeseen items, at any parts of the building, but within the scope of Society which are apparently not specified above, be undertaken under miscellaneous treatment as and when required during actual execution & super vision such as brickwork, separation gap filling, chhajja casting, etc. The quantity of hidden works such PMM, patch plaster may vary from actual estimate which can only quantified after opening of plaster. For qualitative work a qualified supervisor under able guidance of Civil engineer supported by repair consultant, be deputed for full time basis. Considering the factor of safety and economy, few additional items which would may be required in future (presently unexposed) can be work out at the time of execution. Interflat leakages are not considered in the proposed bill of quantity which needs to be attended after consulting with society. However, we have identified the flats for interflat leakage.

**6.17.** A well-defined and proper designed rehabilitation and Restoration plan is essential. It is our opinion that repairs are essential & should be carried out immediately to the identified areas. Delay in planning in rehabilitation program, not only increases the distress level but also increases the cost of repairs.

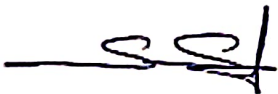
**6.18.** There are many layout changes inside the flats but no damages are seen to any of the structural members at the time of survey. However, these layout changes may affect the building structure in a long run. Hence, there shouldn't be any further layout changes inside the flat for the better health of the building structure.

**6.19.** As per our visual observation inside pump room and Electric Meter room column beam and ceiling are more deuterated condition and need to do urgent civil/structural repairs.

**6.20.** The conclusions are based on observation and are fairly accurate. The costs are based on the present market prices as of 2025-26 and likely to vary depending on market fluctuations. The time limit for the total rehabilitation & Painting program will be 12 to 18 working months. The critical items of repairs should be taken up immediately.

All observations are based on factual records. No suppression or extrapolation has been adopted. The observations and facts presented in this report relate to the finding of the team as of the date of the investigation. The process of deterioration is continues and the level of distress will go on increasing with time. This is only a survey report of the building and not the Stability certificate.

**FOR SUPREME ENGICONS (INDIA) PVT. LTD.**



**SURESH SAHU**

B.E. (Civil), F.A.C.C.E., M.P.E.A.T.A.,  
M.A.C.I., M.I.S.S.E., M.I.E., M.I.I.B.E.,  
M.I.G.S., M.P.V.A., M.I.I.I.D., M.I.S.N.T.,  
B.M.C. License No: STR/S/217

# **7. BILL OF QUANTITY**

**STRUCTURAL REPAIR AND REHABILITATION WORK FOR**

1. STRUCTURAL REPAIRS					
SR. NO.	ITEMS DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT (In Rs)
1	Steel Scaffolding Frame	15700	SOMT	180	28,26,000.00
2	Ply Protection	500	SQMT	550	2,75,000.00
3	Platform	500	SQMT	550	2,75,000.00
4	Safety Net	15700	SQMT	400	62,80,000.00
5	PMM(Structural Repair to columns & beams)	5000	SQMT	1800	90,00,000.00
6	External plaster	15700	SQMT	1400	2,19,80,000.00
7	Dash coat	1000	SQMT	350	3,50,000.00
8	Micro concrete	35000	KGS.	100	35,00,000.00
9	M20 Concreting for grating	20	CUMT	15000	75,000.00
10	Separation Gap Filling	1000	RMT	350	3,50,000.00
12	Chhaja Top Waterproofing	1000	SQMT	2000	20,00,000.00
13	Steel	5	M.T	90,000	4,50,000.00
14	Steel m.s .Props	200	NOS	350	70,000.00
15	Internal Plaster	2500	SQMT	1000	25,00,000.00
16	Debris	180	NOS	8500	15,30,000.00
17	Rem.& Re-fixing grill	500	SQMT	550	2,75,000.00
18	Rectification Of Plumbing Lines	LUMPSUM			20,00,000.00
19	Miscellaneous Works	LUMPSUM			10,00,000.00
TOTAL AMOUNT					5,47,36,000.00
2. EXTERNAL & INTERNAL PAINTING					
SR. NO.	ITEMS DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT(In Rs)
1	External Elastomeric Painting (With 10 Years Guarantee)	15700	SQMT	250	39,25,000.00
2	Staircase & common passage Plastic Painting	4000	SQMT	160	6,40,000.00
3	External M. S. Grill Oil Painting	1000	SQMT	160	1,60,000.00
TOTAL					47,25,000.00
3. WATER PROOFING					
SR. NO.	ITEMS DESCRIPTION	QUANTITY	UNIT	RATE	AMOUNT(In Rs)
1	Terrace Floor coating only	3000	SQMT	1,200.00	36,00,000.00
2	Staircase Head Room/LIFT ROOM	200	SQMT	1,200.00	2,40,000.00
TOTAL AMOUNT					38,40,000.00
SUMMARAY					
1	STRUCTURAL REPAIR & CIVIL WORK				5,47,36,000.00
2	EXTERNAL & INTERNAL PAINTING				47,25,000.00
3	WATER PROOFING				38,40,000.00
4	GRAND TOTAL AMOUNT				6,33,01,000.00
5	GST @18%				1,13,94,180.00
6	Total with GST				7,46,95,180.00

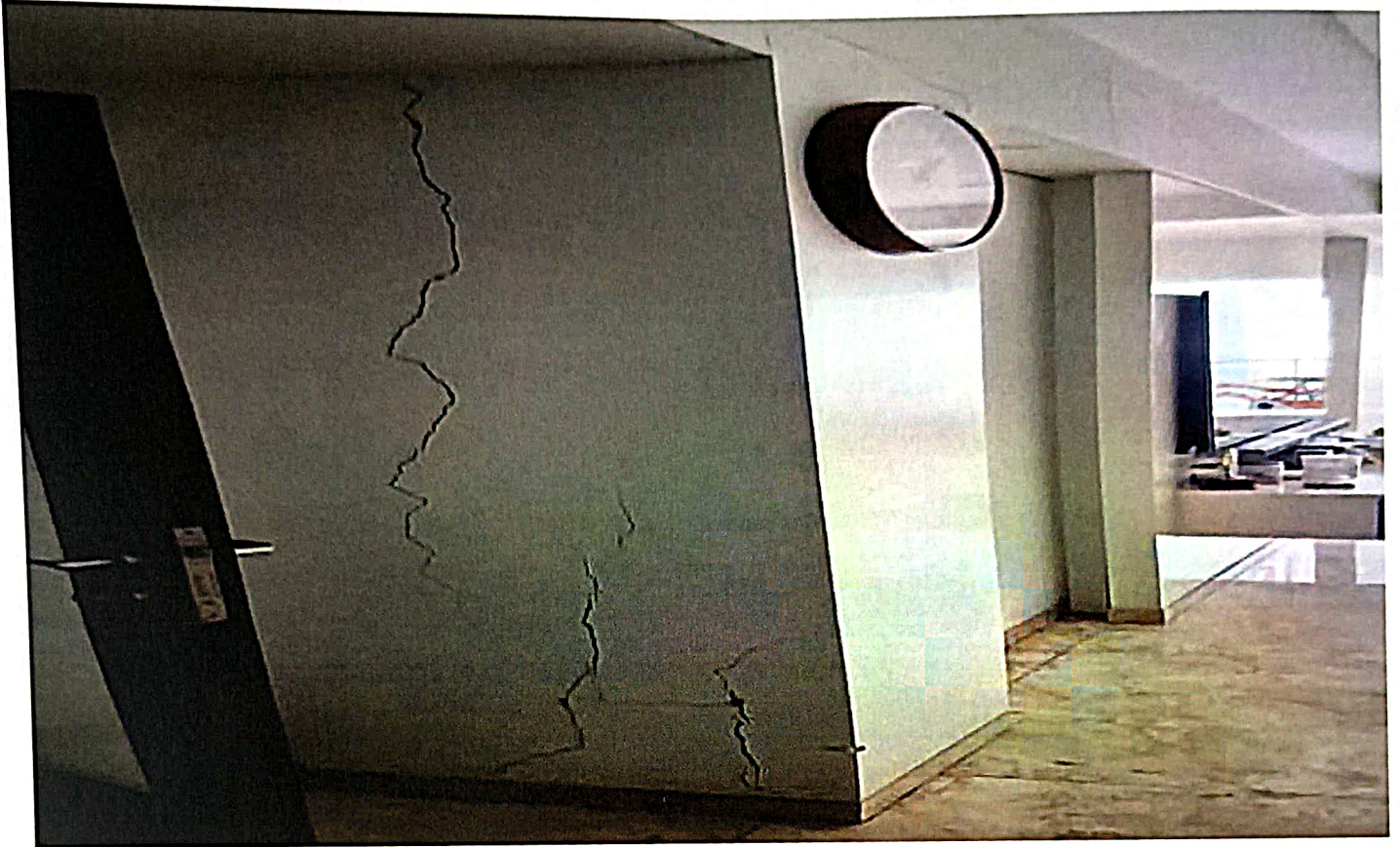
## **8. EXHIBITS**



1. NOTICED VEGETATION GROWTH DEVELOPED AT EXTERNAL WALL AREA



2. EXTENSIVE CRACK & FUNGUS OBSERVED ON THE EXTERNAL WALL PLASTER



**3. DAMAGES IN COLUMN HAS BEEN OBSERVED IN INTERNAL SIDE**



**4. STEEL EXPOSED AND HEIGHLY CORRODED OBSERVED .**



**5. IN SHOP NOTICED BEAM HEIGHLY EXPOSED**



**6. BEAM HEIGHLY EXPOSED HAS BEEN OBSERVED**



**7. COLUMN HEIGHLY EXPOSED HAS BEEN OBSERVED .**



**8. COLUMN HEIGHLY EXPOSED HAS BEEN OBSERVED**



**9. NOTICED BEAM HEIGHLY DAMAGED INSIDE THE GARAGE AREA**



**10. NOTICED BEAM HEIGHLY DAMAGED INSIDE THE GARAGE AREA**