

BUREAU VERITAS

IND.B.7.2022.300DR-R3

**VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNJ ARMY
TOWER - A OF ARMY WELFARE HOUSING ORGANISATION (AWHO)
AT SILVER SAND ISLAND, VYTILLA, KOCHI, KERALA**

APRIL 2023



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TOWER A

**VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNJ ARMY
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AT SILVER SAND ISLAND, VYTILLA, KOCHI, KERALA**

APRIL 2023





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Report on

TOWER A

Report on : Visual Inspection of Residential Chanderkunj Army Tower - A of Army Welfare Housing Organisation (AWHO) at Silver Sand Island, Vytilla, Kochi, Kerala

Report for : M/s Army Welfare Housing Organization (AWHO) Vytilla, Kochi, Kerala.

Reference : Meeting on 13-10-2022

Period of Assessment : 20th February 2023 to 24th February 2023

Assessment carried out under the guidance of : Mr. Mohankumar
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Executive - NDT

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M/s Bureau Veritas (India) Pvt Ltd,
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**Assessment carried out
in the presence of**

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Project Director
Army Welfare Housing Organization

Rear Admiral P Ashokan (Retd.)
President

Mr. Jaya Kumar Velloor
Manager

Residential Welfare Association (RWA)
Managing committee, Chanderkunj Army towers
Kochi

**Date of submission of
final report**

: 30th April 2023

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A. INTRODUCTION

The existing **Army Welfare Housing Organisation “Chanderkunj Army Towers”** residential apartment building located at Silver Sand Island, Vytilla, Kochi, Kerala is a conventional RC framed structure with infilled masonry walls. The residential complex consists of three towers namely A, B, C and Club House.

Tower A comprises of ground plus fourteen upper floors. The residential block was reported to be constructed about 7 years back and since then most of the flats were occupied.

Off late, the concerned authorities of **M/s Army Welfare Housing Organisation (AWHO)** and **Residential Welfare Association (RWA)** were observed distress features such as Cracks, spalling of cover concrete & dampness/damp patches, peeling of paint were observed in RC members in Tower A. Hence, a reference was made to M/s Bureau Veritas India Pvt. Ltd, to visually inspect Tower A and to suggest appropriate restoration /corrective measures.

In response to this, a detailed investigative study was carried out by M/s Bureau Veritas India Pvt. Ltd. from **17th February 2023** and **24th February 2023** by conducting the visual inspection.

B. PHYSICAL OBSERVATIONS

Following are the physical observations made consequent to the detailed inspection of Tower A.

Ground floor (Common areas only):

- No visible signs of settlement in the foundation system were observed in any part of the building.
- Peeling of paint were observed in the RC ceiling slab and beams at few locations.
- Peeling of paint & dampness/damp patches were observed in the masonry walls at a few locations.

(Refer Sketch DWG.REF. No. GL/ GF/ TA-01 & DM/ GF/ TA-01)

First floor:

- Debond of granite cladding around lifts shear wall were observed at most of the locations.
- Peeling of paint & dampness/damp patches were observed in the masonry wall at isolated locations inside the flats of A-0101, A-0103



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TOWER A

- Plaster cracks in masonry wall (Window Bottom) were observed at isolated location inside the flat of A-0101.
- Any other major distress features were not observed other than the above mention distress in this floor.

(Refer Sketch DWG.REF. No. GL/ 1F/ TA-02 & DM/ 1F/ TA-02)

Second floor:

- Cracks were observed in RC ceiling slab at few locations inside the flat of A-0203.
- Peeling of paint & dampness/damp patches were observed in the masonry wall at isolated locations inside the flat of A-0203.
- Debond of tiles flooring were observed at few of the locations in the flat of A-0203.
- Any other major distress features were not observed other than the above mention distress in this floor.
- Flat No. A-0201 & A-0204 was not inspected due to non-availability of the occupant.

(Refer Sketch DWG.REF. No. GL/ 2F/ TA-03 & DM/ 2F/ TA-03)

Third floor:

- Debond of tiles cladding around toilet wall were observed at a few locations inside the flat of A-0301.
- Peeling of paint & dampness/damp patches were observed in the masonry wall at isolated locations inside the flat of A-0301.
- Popping up of granite flooring were observed at a few location entrances of flat A-0301.
- Any other major distress features were not observed other than the above mention distress in this floor.
- Flat No. A-0302 & A-0303 was not inspected due to non-availability of the occupant.

(Refer Sketch DWG.REF. No. GL/ 3F/ TA-04 & DM/ 3F/ TA-04)

Fourth floor:

- Peeling of paint & dampness/damp patches were observed in the masonry wall at isolated locations inside the flats of A-0401 & A-0403.
- Cracks in masonry wall were observed at isolated locations the flat of A-0401.



- Flat No. A-0402 & A-0404 was not inspected due to non-availability of the occupant.

(Refer Sketch DWG.REF. No. GL/ 4F/ TA-05 & DM/ 4F/ TA-05)

Fifth floor:

- No major distress features were not observed in this floor.
- Flat No. A-0502 & A-0504 was not inspected due to non-availability of the occupant.

(Refer Sketch DWG.REF. No. GL/ 5F/ TA-06 & DM/ 5F/ TA-06)

Sixth floor:

- Peeling of paint & dampness/damp patches were observed in the masonry wall at isolated locations inside the flats of A-0602 & A-0603.
- Any other major distress features were not observed other than the above mention distress in this floor.
- Flat No. A-0601 & A-0604 was not inspected due to non-availability of the occupant.

(Refer Sketch DWG.REF. No. GL/ 6F/ TA-07 & DM/ 6F/ TA-07)

Seventh floor:

- Peeling of paint & dampness/damp patches were observed in the masonry wall at isolated locations inside the flats of A-0702 & A-0703.
- Popping up of tiles were observed at a few locations inside the flats of A-0702.
- Any other major distress features were not observed other than the above mention distress in this floor.
- Flat No. A-0701 & A-0704 was not inspected due to non-availability of the occupant.

(Refer Sketch DWG.REF. No. GL/ 7F/ TA-08 & DM/ 7F/ TA-08)

Eighth floor:

- Peeling of paint & dampness/damp patches were observed in the masonry wall at isolated locations inside the flats of A-0803.
- Any other major distress features were not observed other than the above mention distress in this floor.
- Flat No. A-0802 & A-0804 was not inspected due to non-availability of the occupant.



(Refer Sketch DWG.REF. No. GL/ 8F/ TA-09 & DM/ 8F/ TA-09)

Ninth floor:

- Peeling of paint & dampness/damp patches were observed in the masonry wall at isolated locations inside the flats of A-0903
- Any other major distress features were not observed other than the above mention distress in this floor.
- Flat No. A-0902 & A-0904 was not inspected due to non-availability of the occupant.

(Refer Sketch DWG.REF. No. GL/ 9F/ TA-10 DM/ 9F/ TA-10)

Tenth floor:

- Peeling of paint & dampness/damp patches were observed in the masonry wall at isolated locations inside the flats of A-1003 & A-1004.
- Any other major distress features were not observed other than the above mention distress in this floor.
- Flat No. A-1001 was not inspected due to non-availability of the occupant.

(Refer Sketch DWG.REF. No. GL/ 10F/ TA-11 & DM/ 10F/ TA-11)

Eleventh floor:

- No major distress features were not observed in this floor.
- Flat No. A-1102 & A-1103 was not inspected due to non-availability of the occupant.

(Refer Sketch DWG.REF. No. GL/ 11F/ TA-12 & DM/ 11F/ TA-12)

Twelfth floor:

- Peeling of paint & dampness/damp patches were observed in the masonry wall at isolated locations inside the flat of A-1201 & A-1202.
- Popping up of granite flooring were observed at a few location entrances of flat A-1201.
- Cracks in masonry wall were observed at isolated locations inside the flat of A-1201.
- Any other major distress features were not observed other than the above mention distress in this floor.
- Flat No. A-1203 & A-1204 was not inspected due to non-availability of the occupant.

(Refer Sketch DWG.REF. No. GL/ 12F/ TA-13 & DM/ 12F/ TA-13)

Thirteenth floor:

- Peeling of paint & dampness/damp patches were observed in the masonry wall at isolated locations inside the flat of A-1303.
- Cracks in masonry wall were observed at isolated locations inside the flat of A-1303.
- Any other major distress features were not observed other than the above mention distress in this floor.

(Refer Sketch DWG.REF. No. GL/ 13F/ TA-14 & DM/ 13F/ TA-14)

Fourteenth floor:

- Peeling of paint & dampness/damp patches were observed in the masonry wall at isolated locations inside the flat of A-1401.
- Cracks in masonry wall & separation cracks were observed at isolated locations inside the flat of A-1401 & A-1404.
- Cracks were observed in RC ceiling slab at few locations inside the flat of A-1401.
- Peeling of paint & dampness/damp patches were observed in the masonry wall (Staircase regions) at isolated locations.

(Refer Sketch DWG.REF. No. GL/ 14F/ TA-15 & DM/ 14F/ TA-15)

Terrace floor:

- Peeling of paint & dampness/damp patches were observed in the masonry wall at several locations.
- Peeling of paint & condensation stains were observed in the RC members at few locations.

C. PREPARATION OF LAYOUTS FOR DISTRESS MAPPING.

A detailed distress mapping was carried to prepare the distress layout drawings of the Ground floor to Fifteenth floor.

(Refer Sketch DWG.REF. No. DM/ GF/ TA-01 to DM/ GF/ TA-15)

D. INFERENCES.

Following are the inferences drawn, based on the detailed observations and results of probing tests.

- a. The plaster cracks in masonry walls are mainly due to improper filling of mortar in joints and lean mortar mix provided for joints, which are minor in nature and are not detrimental to safety of structure.
- b. Separation cracks observed are due to dissimilar materials, improper filling of joints / not provided with mesh between masonry and RC members during construction stages. Further, thermal effects caused by expansion and contraction of building have aggravated the cracks.
- c. Peeling of paint and damp patches in masonry walls and could be due to any one or a combination of the following.
 1. Deterioration of water proofing on toilet flooring has lead to leakage and seepage.
 2. Age effect.

E. RESTORATION/CORRECTIVE MEASURES.

Based on the above visual inspection & inferences drawn, appropriate recommendations are made

1. Treatment for cracks in RC Ceiling slab.

- a. All existing plaster/de-bonded cover concrete shall be completely removed by gentle chipping to expose hard / sound concrete.
- b. 'U' groove of 10 mm shall be made along the lift interface/ crack/construction joint. and filled with polymer modified mortar.
- c. 12 mm dia holes, 50/75 mm deep @ 200mm c/c shall be drilled along the crack/joint/ honey-combed surface to fix PVC nozzles for grouting.
- d. 10 mm dia PVC nozzles shall be fixed into the drilled holes using anchor grout as per specification.
- e. 'U' groove shall be filled with polymer modified mortar/ epoxy putty as per standard practice.
- f. Pressure grouting shall be done with a pressure of 3 to 4 Kg/sq.cm using low-viscosity epoxy injection grouting through the nozzles as per specification enclosed. The nozzles shall be cut in flush with the surface and plugged.

(Refer sketch DWG.REF. No.RM-01)

2. **Treatment for separation crack between the junction of RC member & masonry wall.**
 - a. 'U' groove of 12 mm wide 6 mm deep shall be made all along the crack at the interface of masonry wall and RC member junction and cleaned.
 - b. Groove shall be filled with a flexible sealant like Tacksel/Polysulphide sealant /silicon sealant or any other equivalent.

(Refer sketch DWG.REF. No.RM-02)

3. **Treatment for cracks in Masonry wall.**
 - a. Existing plaster along the crack shall be removed on either side of the crack for a width of about 300 mm (on either side of the wall) and cleaned.
 - b. Mortar joints along the crack shall be deep raked and filled with cement mortar.
 - c. Weld-mesh of size 50 x 50 x 3 mm shall be fabricated and fixed across the crack using 'U' nails.
 - d. Re-plastering the region with CM 1:4 as per standard practice

(Refer sketch DWG.REF. No.RM-03)

4. **Treatment for dampness region of masonry wall.**
 - a. The deteriorated plaster on masonry walls shall be removed by gentle chipping.
 - b. The mortar joints in walls shall be deep raked and re-pointed with CM 1:4 as per the standard practice followed by re-plastering in CM 1:3 mixed with waterproofing plasticizers.

F. GENERAL RECOMMENDATIONS

In addition to the above-mentioned recommended measures, the following are the general recommendations.

- Leakages/seepages/corrosion in any RC member shall be treated immediately without delay.
- Periodic maintenance of the building shall be strictly adhered to for effective functioning and enhancing the life of the structure.

G. CONCLUDING REMARKS

Based on the detailed Physical observations made on the ground floor to fifteenth floor of **Tower A** of the existing “**CHANDERKUNJ**” Army Towers of Army Welfare Housing Organisation (AWHO) Residential Apartment Building” located at Silver Sand Island, Vytilla, Kochi, Kerala India as it stands is found to be minor distressed, minor leakages and seepages. However, these functional-related distress features call for appropriate treatment to avoid further deterioration and to improve the durability and longevity of the structure.

On carrying out the recommended remedial measures effectively under the guidance of experienced technical personnel by an experienced agency, the distress in the building will be minimized.

After carrying out the recommended remedial measures effectively it is mandatory to carry out periodic maintenance of the building as per standard practice.

Disclaimer:

The technical information furnished in this report is based on the inspection carried out by M/s. Bureau Veritas India Pvt Ltd. The responsibility of M/s. BVIPL is only to technical content of this report. M/s. BVIPL shall not in any way be responsible for any consequential matters.

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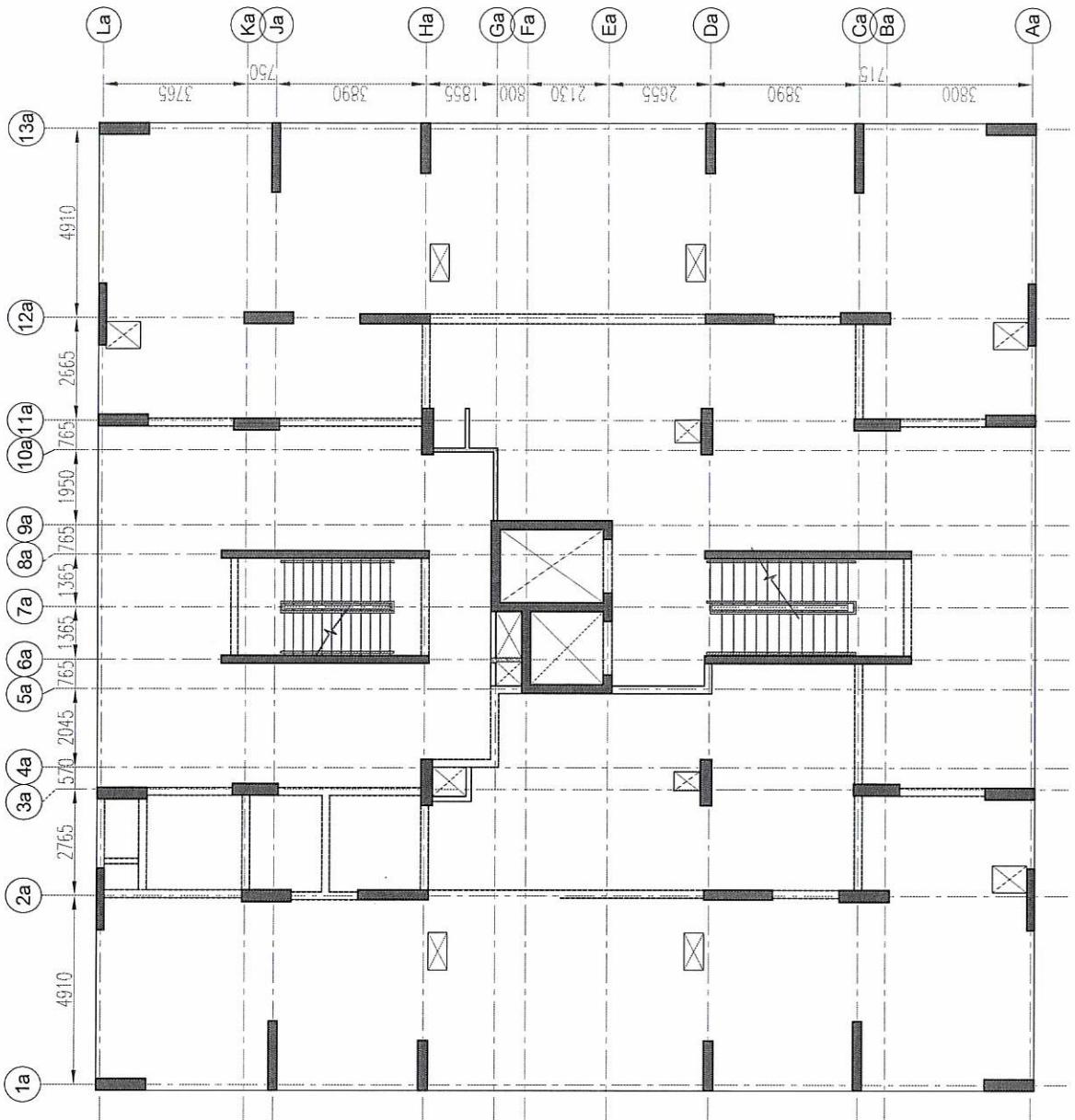
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ANNEXURES



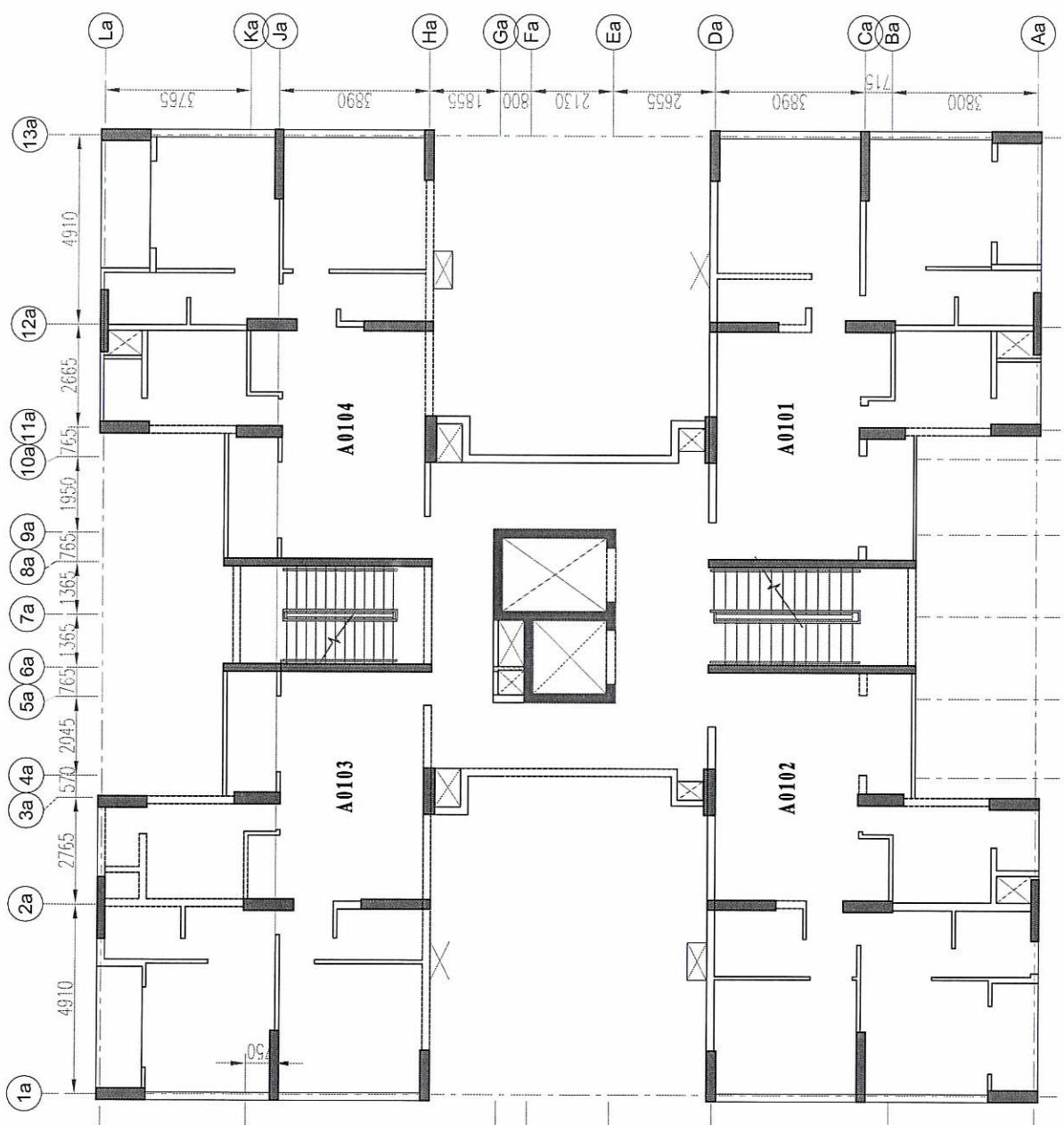
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SKETCHES



TOWER-A-GROUND FLOOR

CLIENT	M/s ARMY WELFARE HOUSING ORGANISATION (AWHO) VITILLA, KOCHI, KERALA	TITLE	GENERAL LAYOUT OF TOWER A- GROUND FLOOR	
PROJECT	VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNJ ARMY TOWER-A OF ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VITILLA, KOCHI, KERALA			



CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VITILLA, KOCHI, KERALA

PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNI ARMY TOWER A OF
ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND,
VITILLA, KOCHI, KERALA

TITLE
**GENERAL LAYOUT OF
TOWER A-1ST FLOOR**

DRAWN: RSKK **CHECKED:** C/H/R/MBS

APPROVED: A.U/Dr-KS

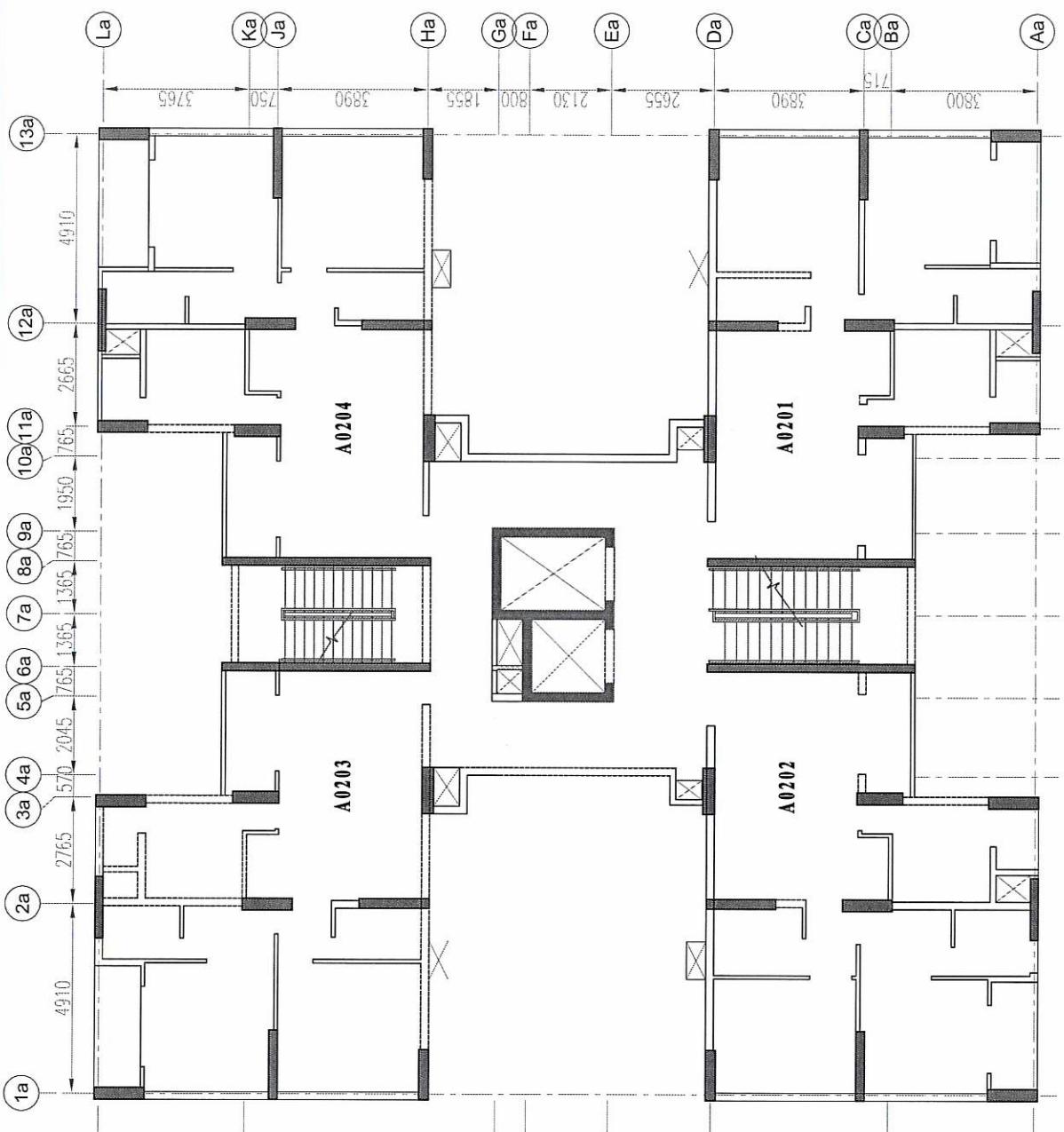
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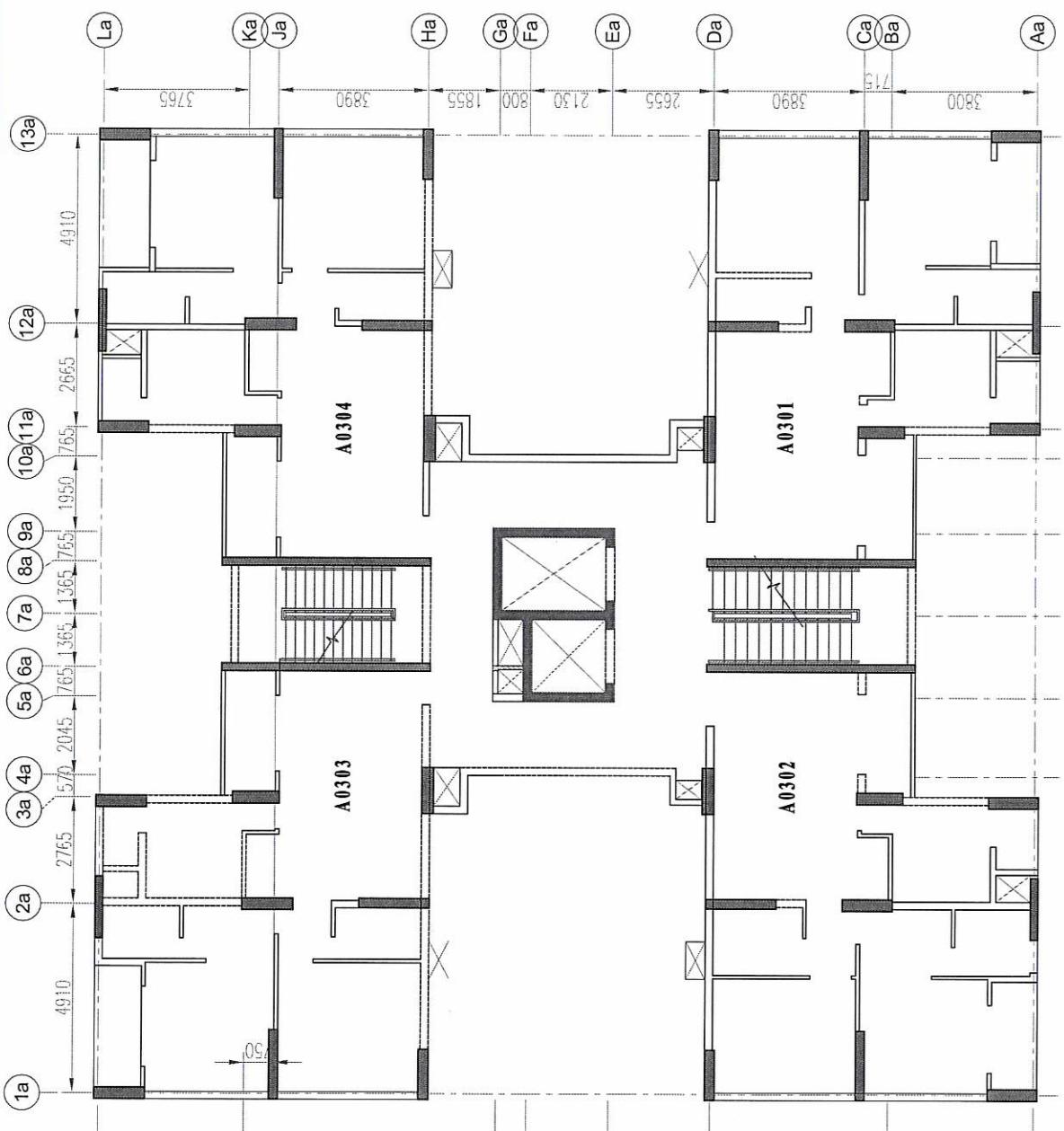


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TOWER-A-2nd FLOOR

CLIENT	PROJECT	TITLE	DRAWN:	CHECKED:	SCALE	DATE
M/s ARMY WELFARE HOUSING ORGANISATION (AWHO) VYILLA, KOCHI, KERALA	VISUAL INSPECTION OF RESIDENTIAL CHANDERIUN ARMY TOWER-A OF ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYILLA, KOCHI, KERALA	GENERAL LAYOUT OF TOWER A-2nd FLOOR	RSKK	CHR/MBS	NTS	24-04-2023
			APPROVED:	A/ Dr. KS	DWG. REF. NO : GI/2F/TA-03	REF. NO. RO
					BUREAU VERITAS (INDIA) PVT. LTD.	CONTRACT NO
					# 1000, 13th Cross, Balmohar, 2nd Stage, Bengaluru - 560 070. Tel : 080-25882000	1767143
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TOWER-A-3rd FLOOR

CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VITILLA, KOCHI, KERALA

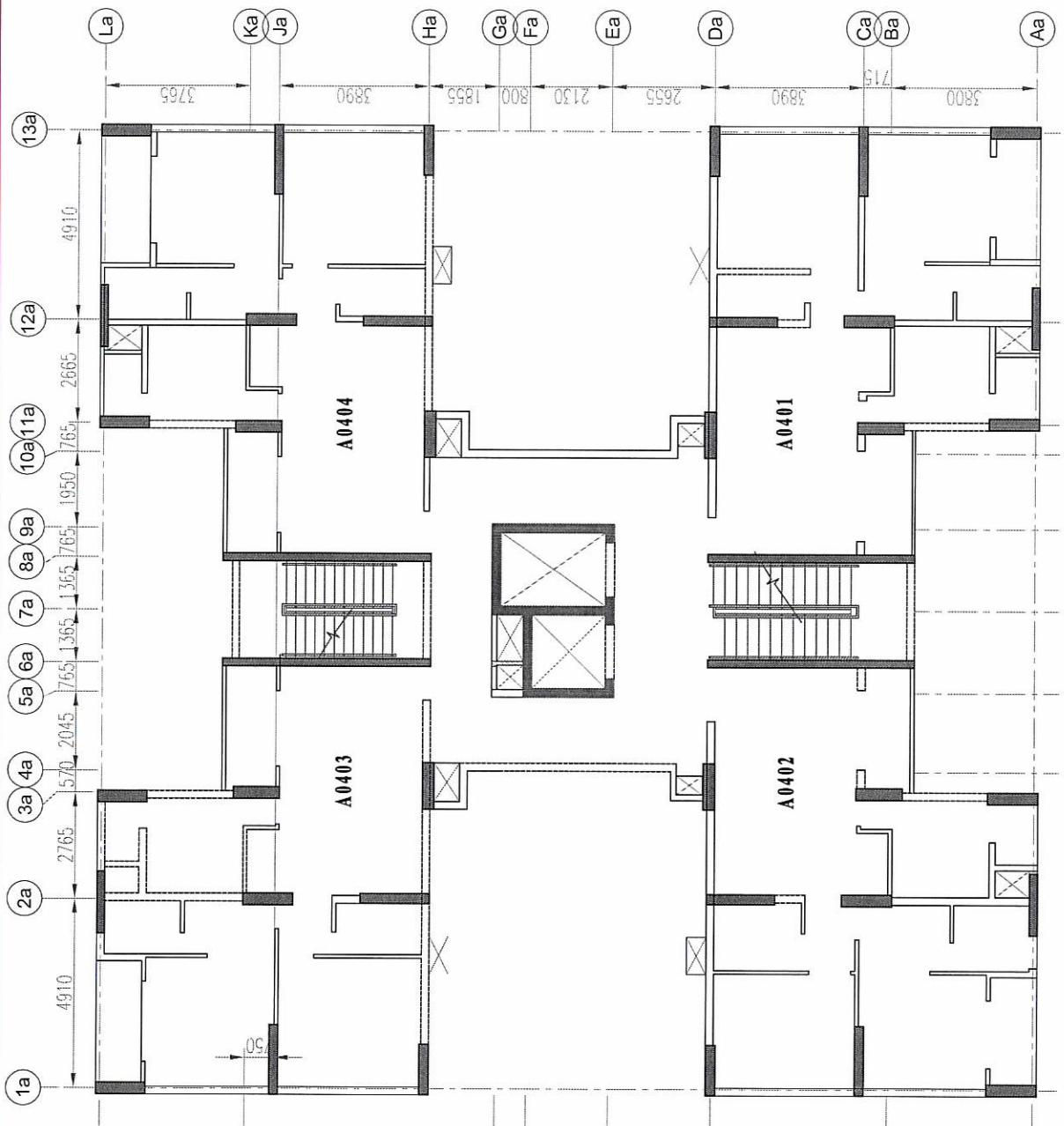
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ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND,
VITILLA, KOCHI, KERALA

GENERAL LAYOUT OF TOWER A-3rd FLOOR		TITLE	
DRAWN:	RSKK	CHEKED:	CH-R/MBS
APPROVED:	A./Dr.KS	APPROVED:	A./Dr.KS
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TOWER-A-4th FLOOR

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VITILLA, KOCHI, KERALA

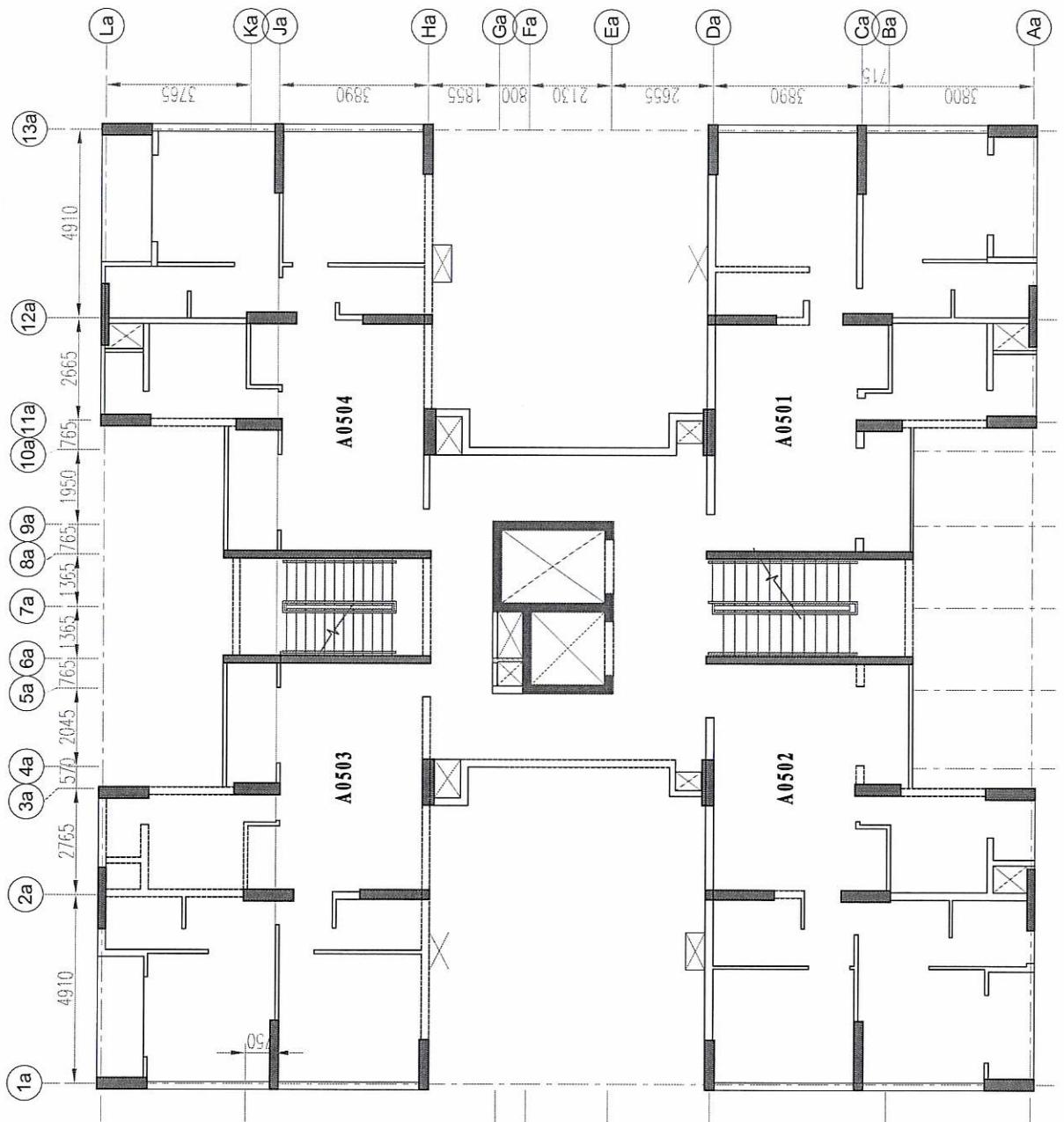
GENERAL LAYOUT OF TOWER A-4th FLOOR

TITLE		DRAWN:	RSKK	CHECKED:	CHR/MBS	SCALE	DATE
						NTS	24-01-2023
CONSULTANTS	BUREAU VERITAS (INDIA) PVT. LTD.	APPROVED:	AJ/Dir-KS			DWG. REF. NO : GL/4F/TA-05	REF No, RO

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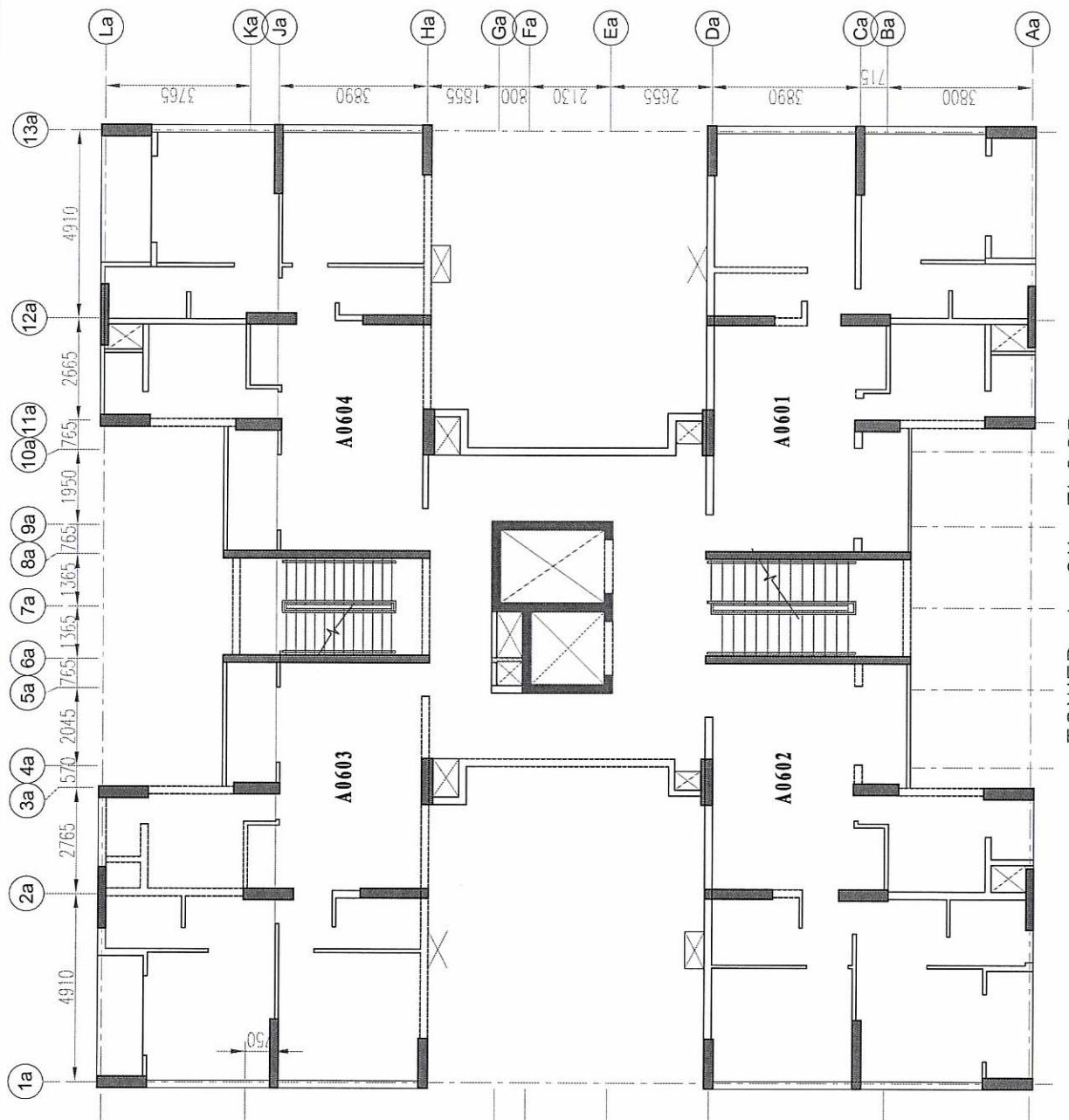


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Tel : 080-25500200



TOWER-A-5th FLOOR

CLIENT	M/s ARMY WELFARE HOUSING ORGANISATION (AWHO) VITILLA, KOCHI, KERALA	TITLE	GENERAL LAYOUT OF TOWER A- 5th FLOOR		
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DRAWN:	RSKK	CHECKED:	CHR/MB/S	SCALE NTS	DATE 24-07-2023
APPROVED:	AJ/D/-KS	DWG. REF. NO :	GL/5F/TA-06	REV. NO. RO	17671143



CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
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PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNI ARMY TOWER-A OF
ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND,
VITILLA, KOCHI, KERALA

TITLE
**GENERAL LAYOUT OF
TOWER A- 6th FLOOR**

DRAWN:	RSKK	CHECKED:	CHR/MBS	SCALE:	NTS
APPROVED:	A./Dr. KS			DATE:	24-04-2023
DWG. REF. NO :	GI / 6F / TA -07	REV. NO.			
CONTRACT NO					
CONSULTANTS	BUREAU VERITAS (INDIA) PVT. LTD.				

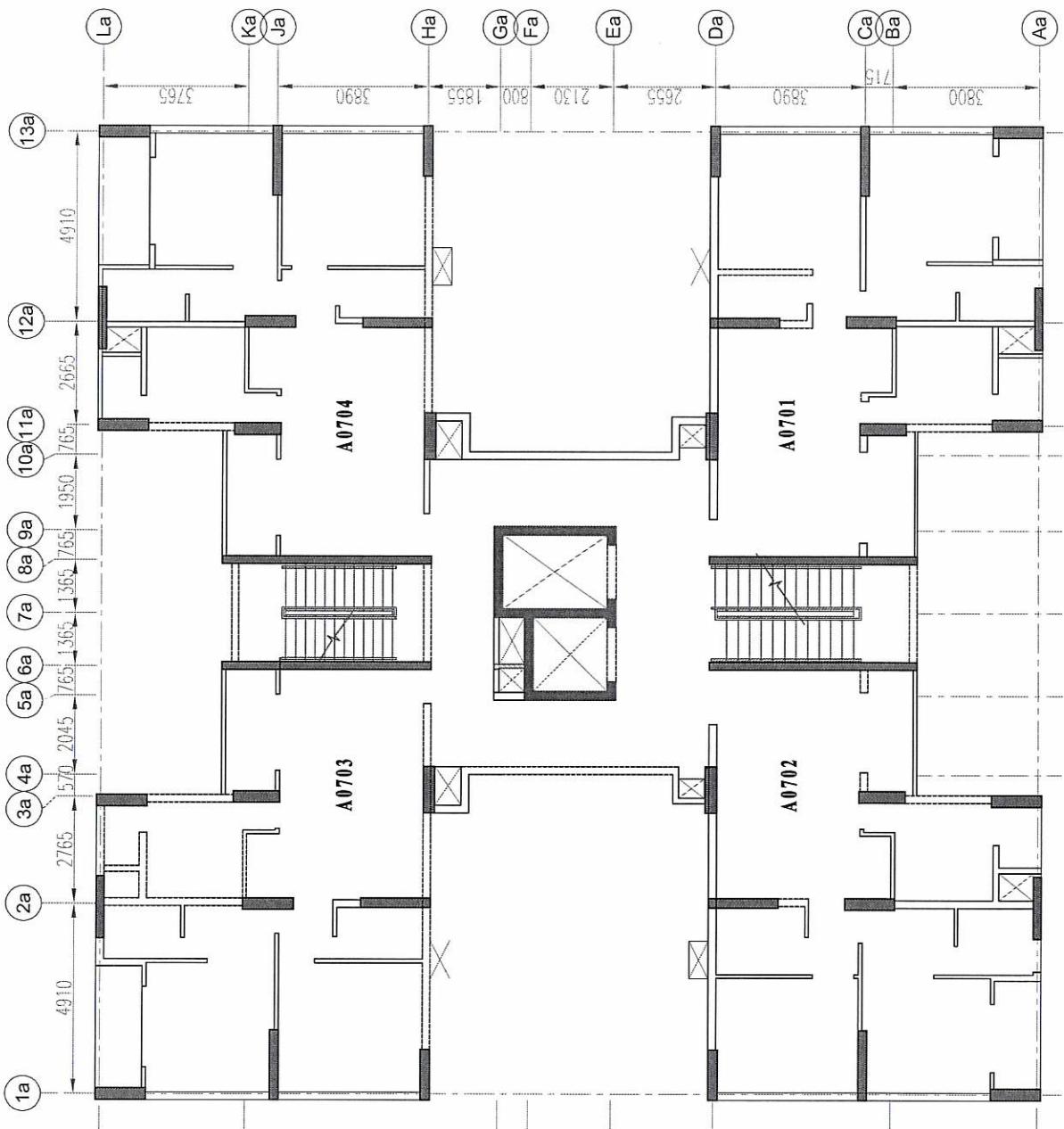
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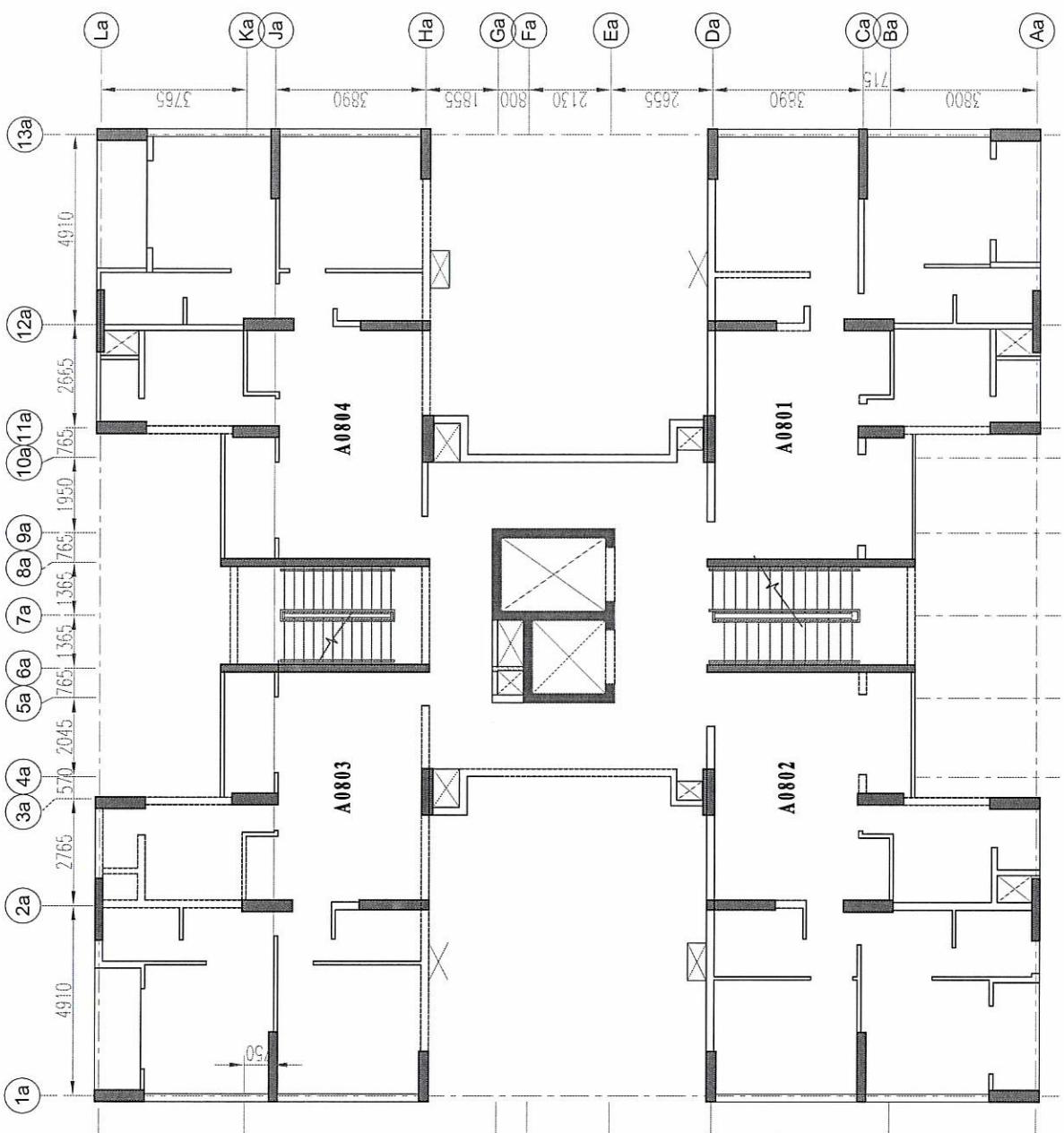
TOWER-A-7th FLOOR

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VITILLA, KOCHI, KERALA

GENERAL LAYOUT OF TOWER A- 7th FLOOR	
TITLE	DRAWN: RSKK
	CHECKED: C-HR/MBS
	APPROVED: A./Dr.KS

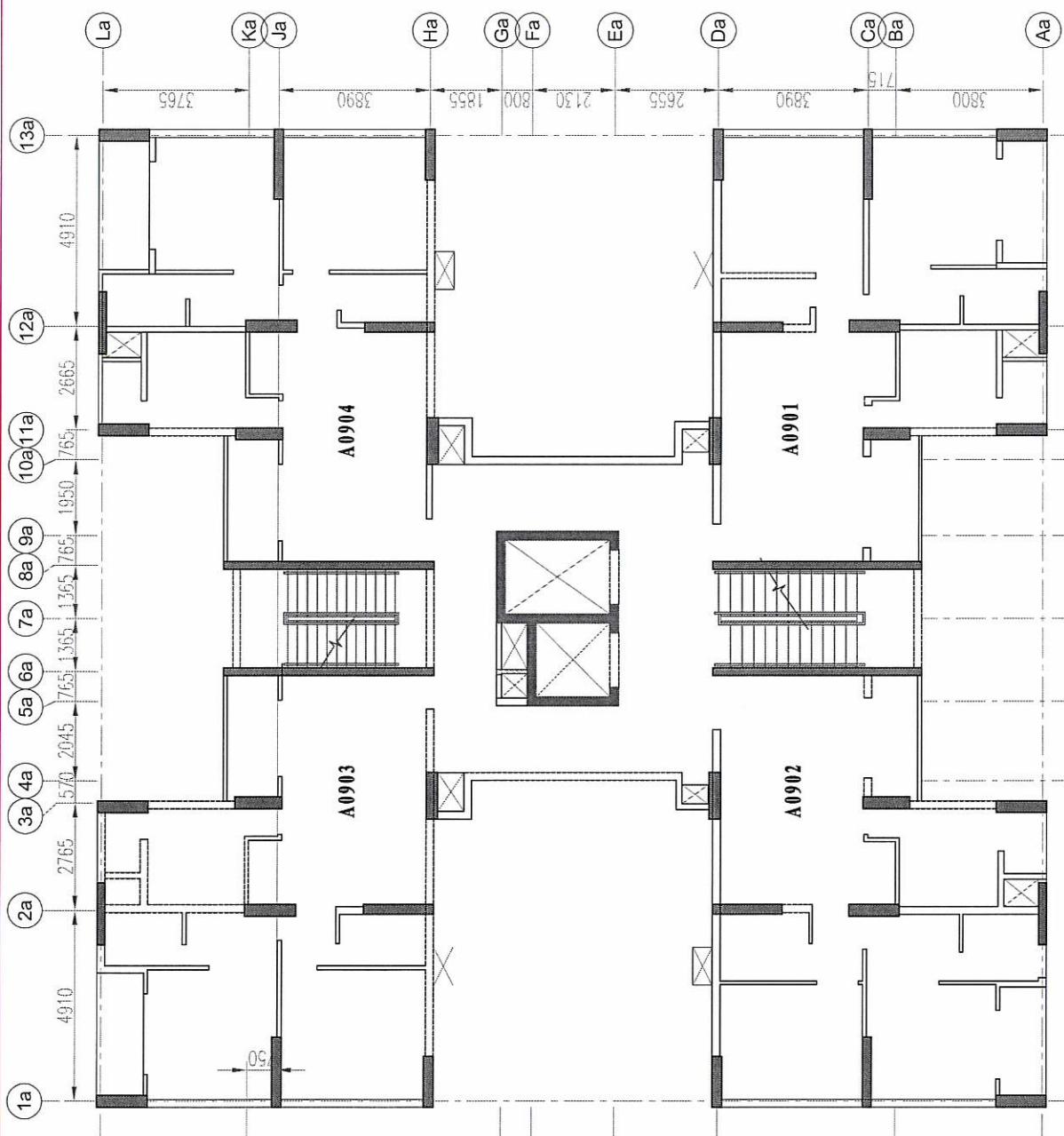
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	# 103, 13th Cross, Basaveshwaranagar 3rd Stage, Bangalore - 560 070. Tel : 080-25552000	DWG. REF. NO : GL/7F/TA-08	REF. NO. RO
			17671143





TOWER-A-8th FLOOR

CLIENT	M/s ARMY WELFARE HOUSING ORGANISATION (AWHO) VYTILLA, KOCHI, KERALA	TITLE	GENERAL LAYOUT OF TOWER A- 8th FLOOR		DRAWN:	RSK/K	CHECKED:	CHR/MBS	SCALE NTS	DATE 24-04-2023
PROJECT	VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNI ARMY TOWER A OF ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYTILLA, KOCHI, KERALA	CONSULTANTS			APPROVED:	AJ/Dr.KS			DNG. REF. NO : GL/8F/IA-09	REV. NO. RO



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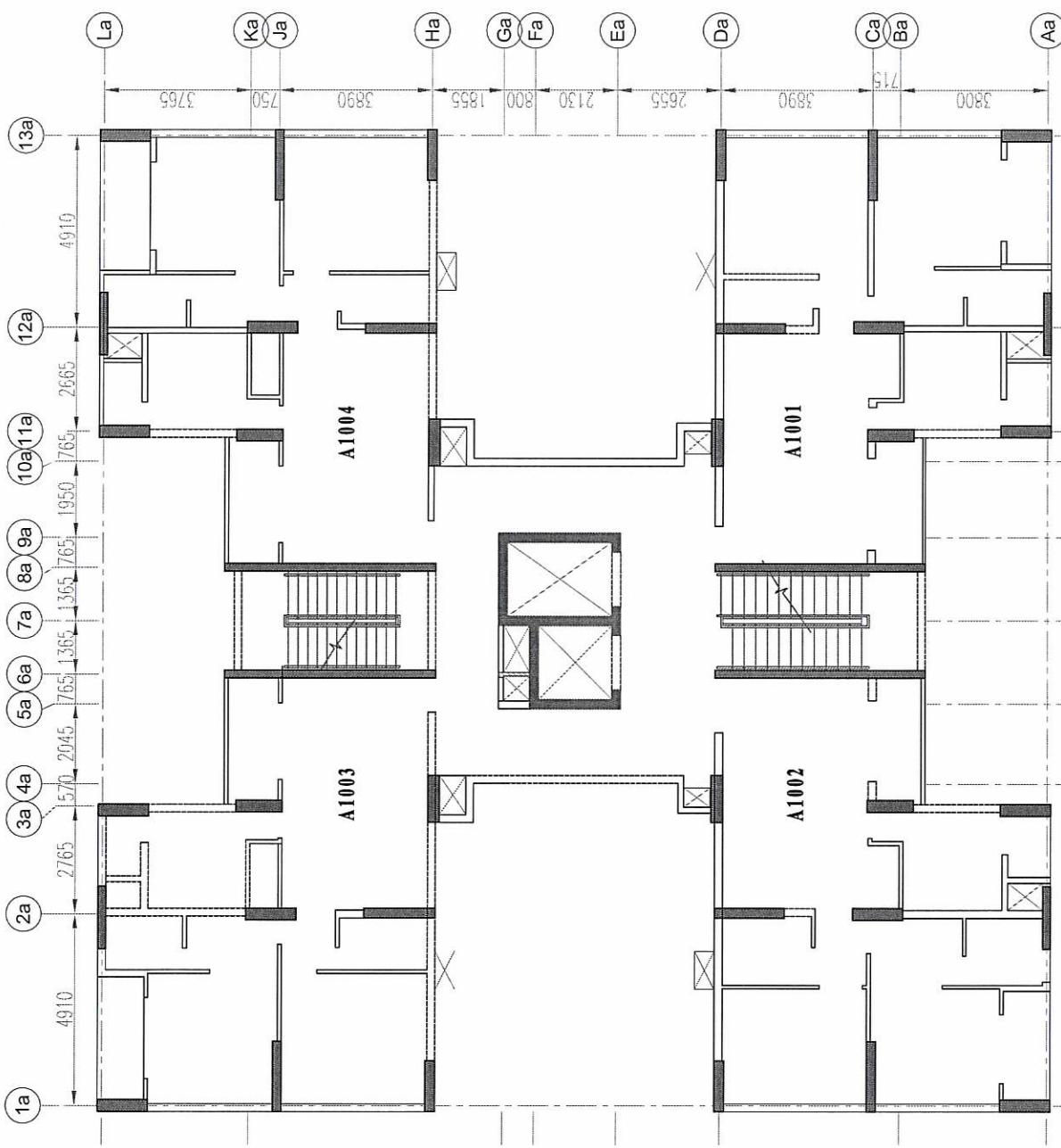
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ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND,
VYTILLA, KOCHI, KERALA

TITLE
**GENERAL LAYOUT OF
TOWER A- 9th FLOOR**

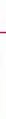
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APPROVED:	A./Dr.KS	APPROVED:	A./Dr.KS	REF. NO.
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				RO

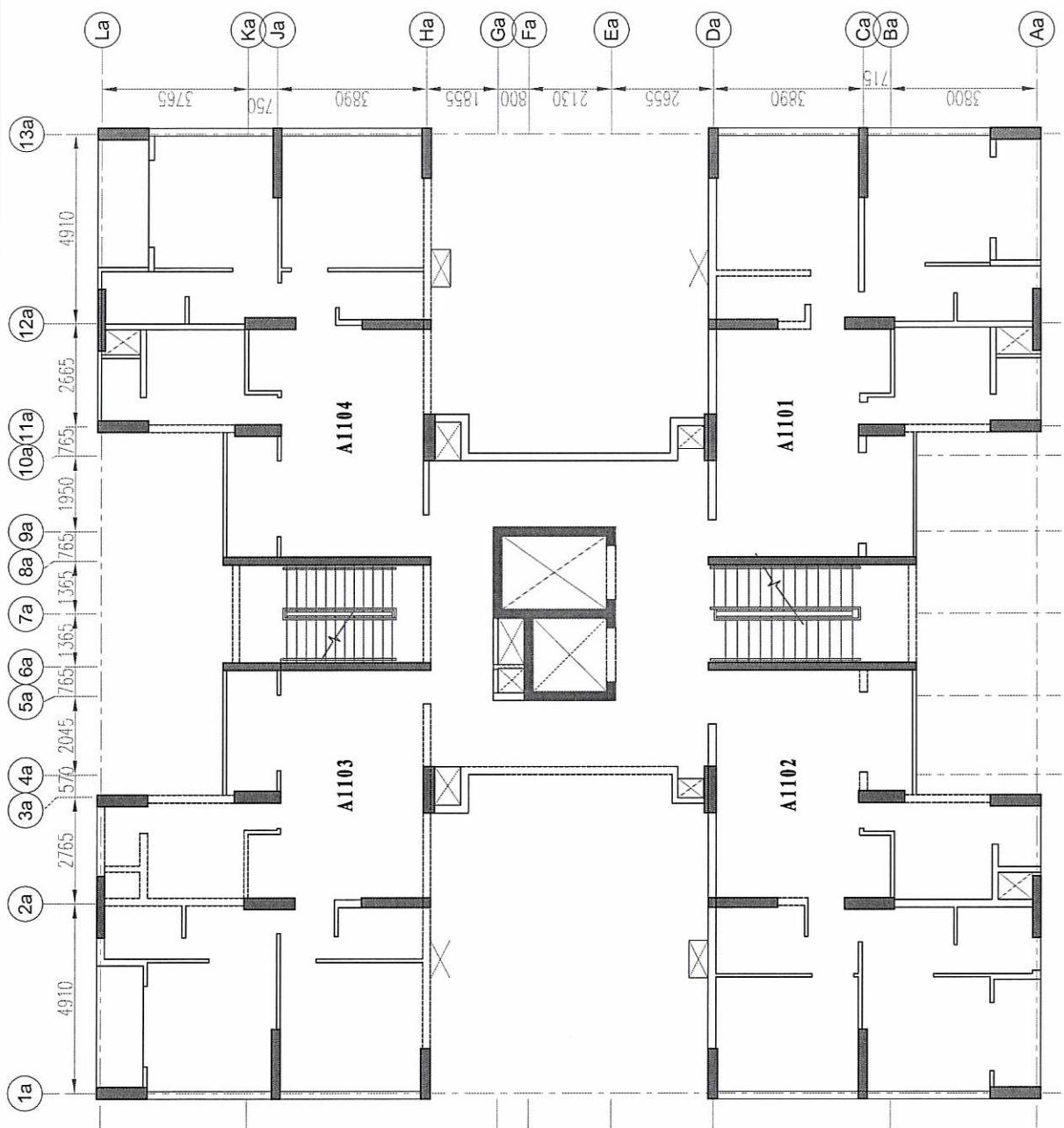
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REF. NO. 17671143



TOWER-A-10th FLOOR

CLIENT	M/s ARMY WELFARE HOUSING ORGANISATION (AWHO) VYTILLA, KOCHI, KERALA	TITLE	GENERAL LAYOUT OF TOWER A- 10th FLOOR			
			PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNJ ARMY TOWER-A OF ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYTILLA, KOCHI, KERALA			
DRAWN:	RSK&	CHECKED:	CHR/MBS	SCALE NTS	DATE 24-04-2023	REV. No. RO
APPROVED:	AJ/Dr.KS				DNG. REF. No : GI/10F/TA-11	
					CONTRACT NO	
					BUREAU VERITAS (INDIA) PVT. LTD.	
					 # 1020, 13th Cross, Bannerman Road, Bangalore - 560 070 Tel. : 080-25860200	17671143



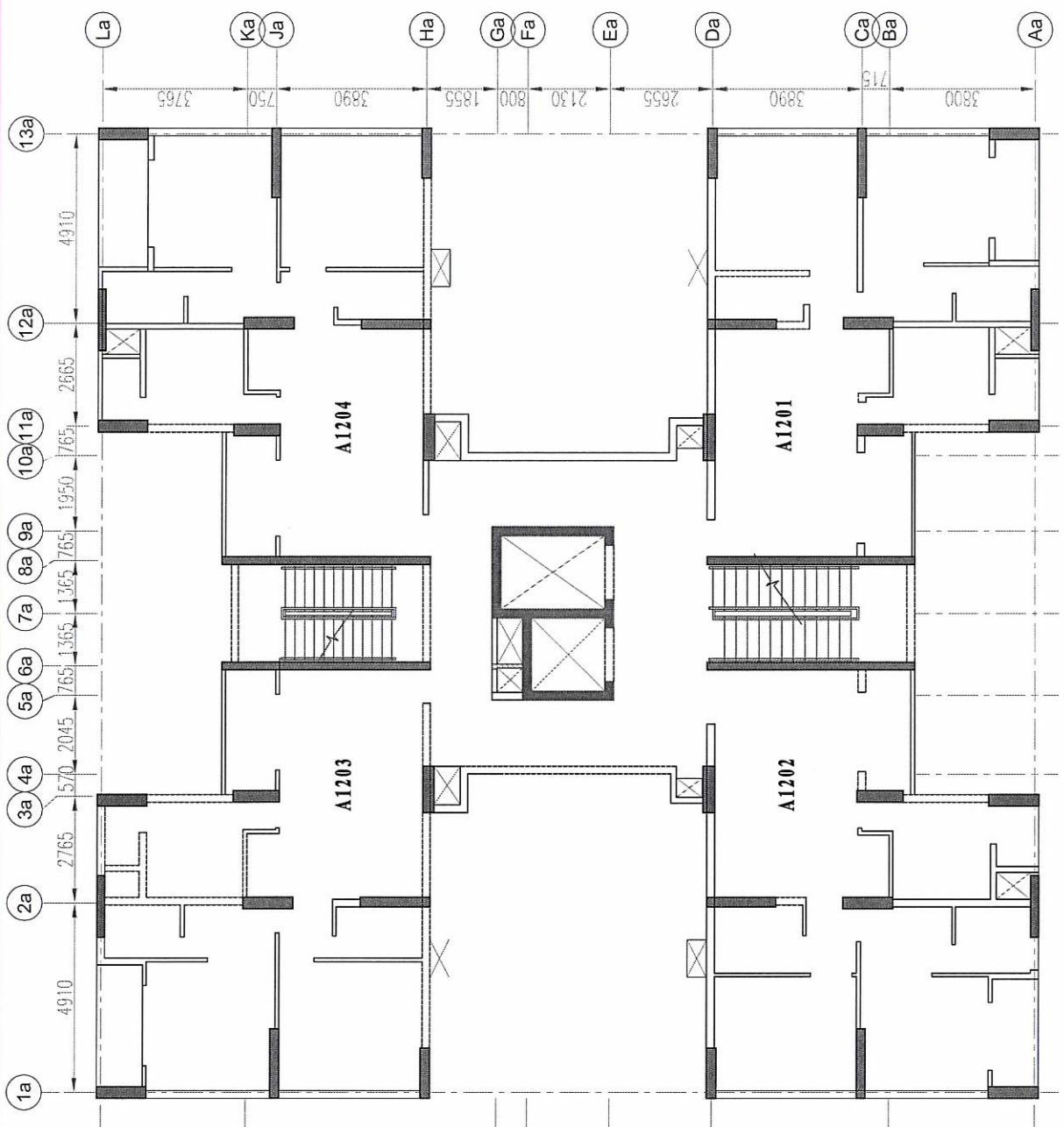
CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VYTILLA, KOCHI, KERALA

PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERNAGAR ARMY TOWER-A OF
ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND,
VYTILLA, KOCHI, KERALA

TITLE GENERAL LAYOUT OF
TOWER A-11th FLOOR

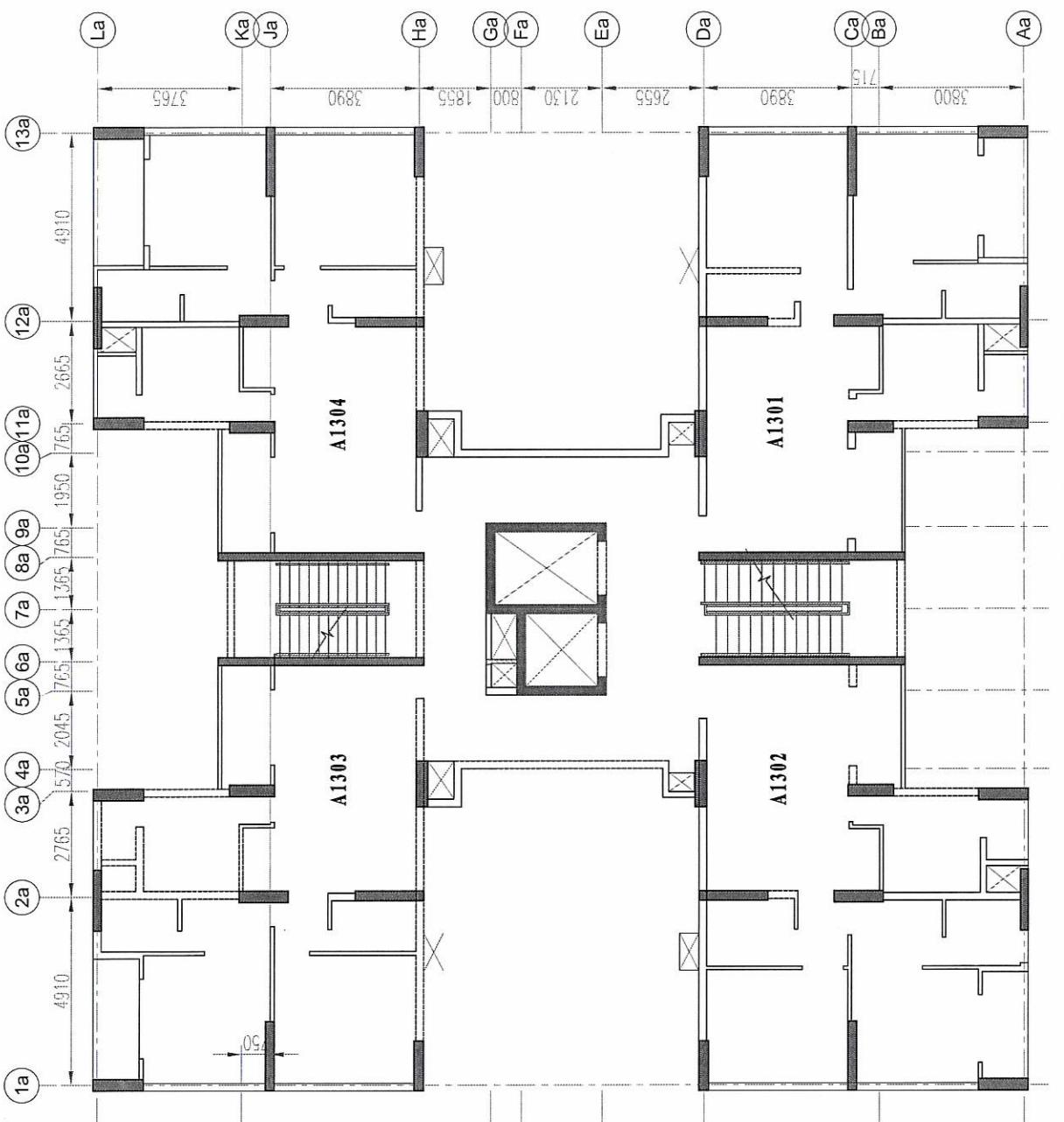
DRAWN: RSKK	CHECKED: CH-R/MBS	SCALE: NTS	DATE: 24-04-2023
APPROVED: A./Dr./KS			DWG. REF. NO : GL/11F/TA-12 / REV. NO. RO
CONSULTANTS BUREAU VERITAS (INDIA) PVT. LTD.			CONTRACT NO
# 1000, 13th Cross, Outer Ring Road, Bangalore - 560 070. Tel : 080-25502020			17671143





TOWER-A-12th FLOOR

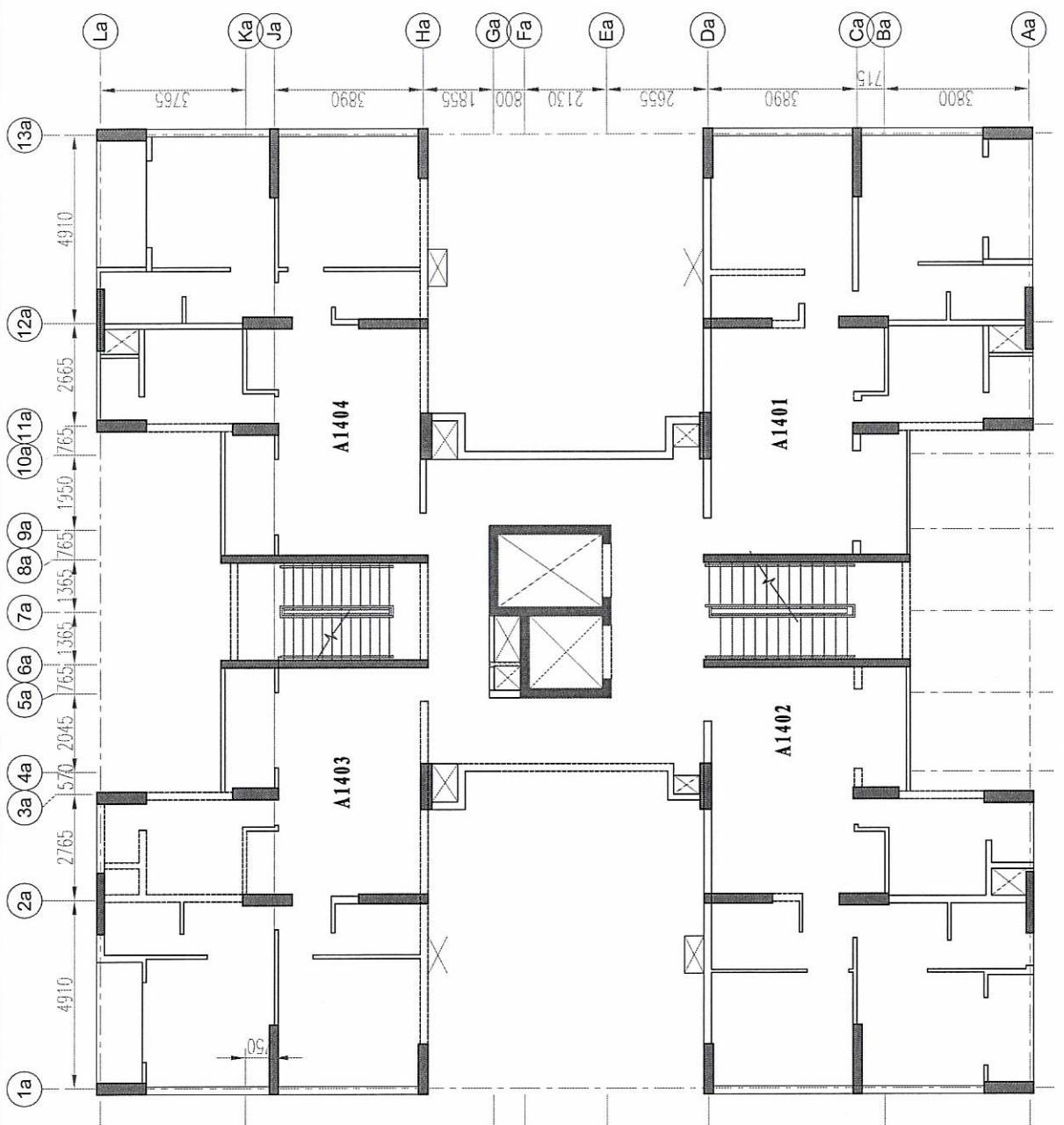
CLIENT	M/s ARMY WELFARE HOUSING ORGANISATION (AWHO) VYTILLA, KOCHI, KERALA	TITLE	GENERAL LAYOUT OF TOWER A-12th FLOOR		
PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUND ARMY TOWER-A OF ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYTILLA, KOCHI, KERALA					
DRAWN:	RSK/K	CHECKED:	CHR/MBS NTS	SCALE	DATE 24-04-2023
APPROVED:	A.J./Dr. KS	APPROVED:	A.J./Dr. KS	DNG. REF. NO:	GL/12F/TA-13 REV. NO. RO



TOWER A-13th FLOOR

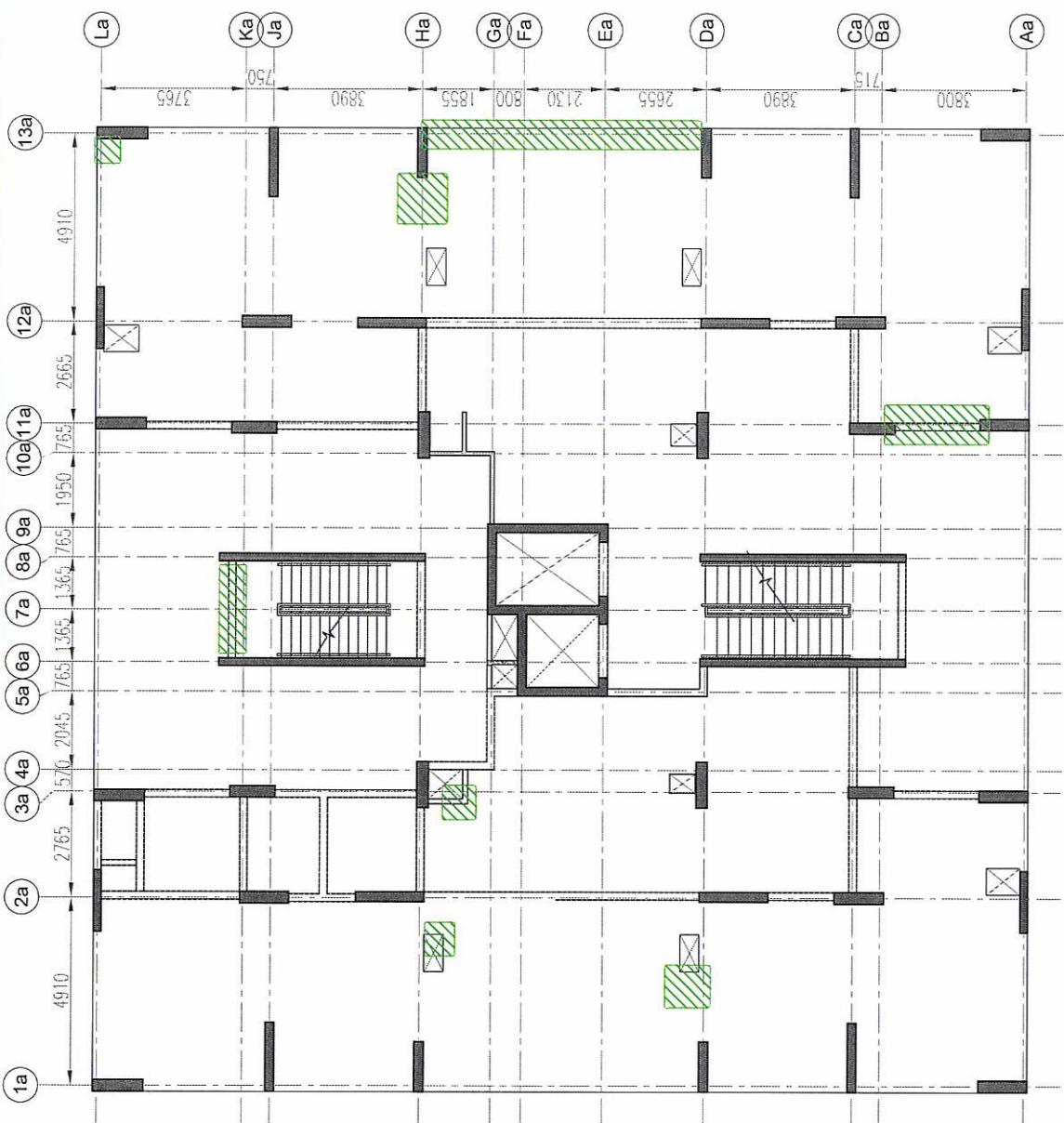
CLIENT	M/s ARMY WELFARE HOUSING ORGANISATION (AWHO) VITILLA, KOCHI, KERALA
PROJECT	VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNI ARMY TOWER-A OF ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VITILLA, KOCHI, KERALA

TITLE	GENERAL LAYOUT OF TOWER A-13th FLOOR		
	DRAWN:	RSIKK	CHECKED:
		CHR/MBS	CHR/MBS
	APPROVED:	A/Dr.KS	A/Dr.KS
CONSULTANTS	BUREAU VERITAS (INDIA) PVT. LTD.		
	# 155, 15th Cross, Bangalore-2nd Stage, Bangalore - 560 070. Tel : 080-25502000		
	REF. NO: GL/13F/TA-14 / RO 17671143		



TOWER-A-14th FLOOR

CLIENT	M/s ARMY WELFARE HOUSING ORGANISATION (AWHO) VYTILLA, KOCHI, KERALA	TITLE	GENERAL LAYOUT OF TOWER A- 14th FLOOR		
PROJECT	VISUAL INSPECTION OF RESIDENTIOAL CHANDERKUNJ ARMY TOWER-A OF ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYTILLA, KOCHI, KERALA				
DRAWN:	RSKK	CHECKED:	CHR/MBS	SCALE	DATE
APPROVED:	Au/D-1/KS			1:500	24-01-2023
DWG. REF. NO :	GI/14F/1/A-15	CONTRACT NO		REV. NO.	RO



TOWER-A-GROUND FLOOR

LEGEND:

- PEELING OF PAINT-SLAB/BEAM/WALL
- DAMPNESS/ DAMP PATCHES / PEELING OF PAINT
- CRACKS-CEILING SLAB/MASONRY WALL
- POP-UP OF TILES/WALL TILES

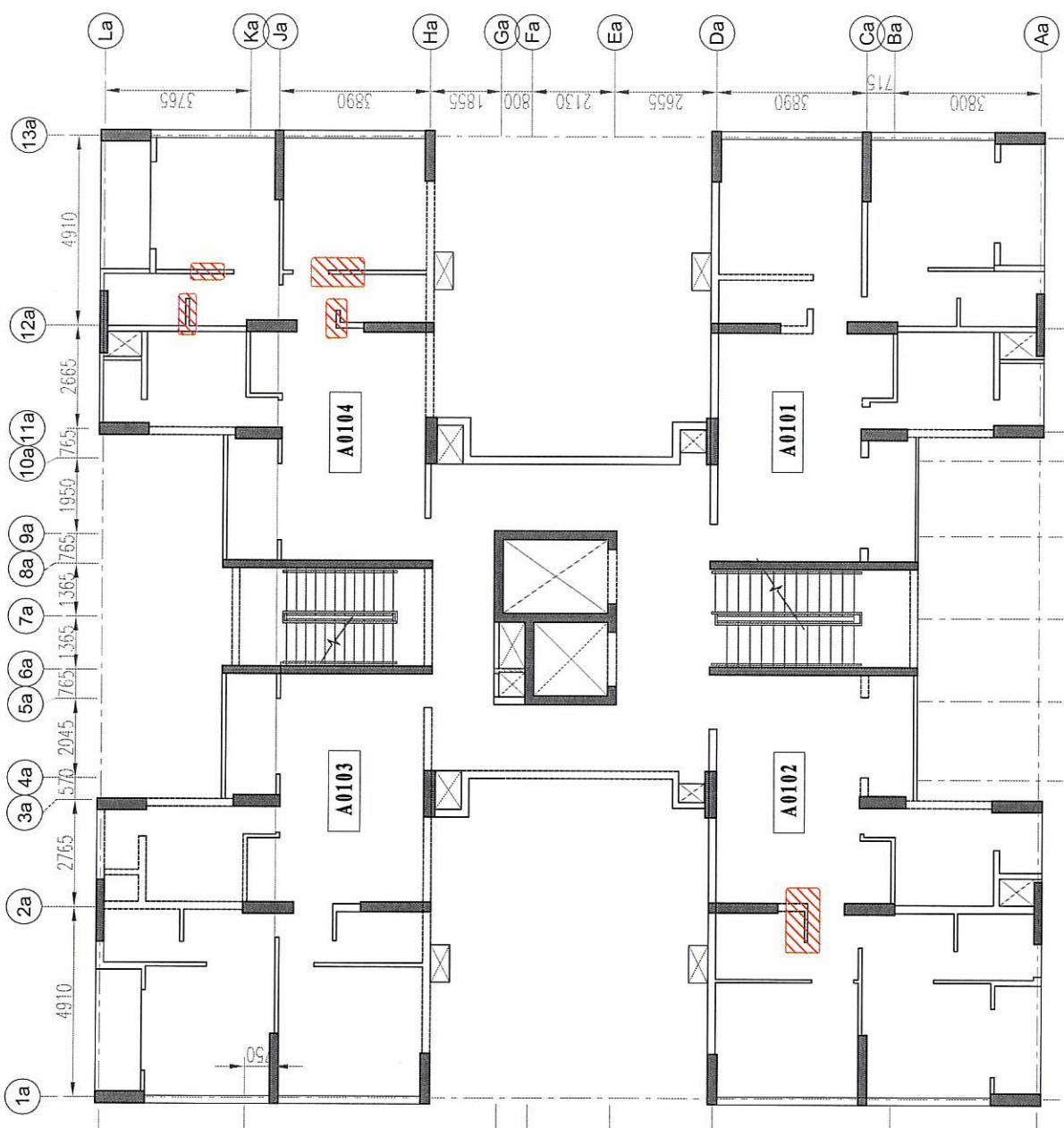
CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VYTILLA, KOCHI, KERALA

PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKONJ ARMY TOWER-A OF ARMY
WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYTILLA,
KOCHE, KERALA

DISTRESS LAYOUT OF TOWER A-GROUND FLOOR		TITLE	
DRAWN:	RSKK	CHEKED:	CHR/MBS
APPROVED:	AJ/Dr.KS	SCALE	DATE

BUREAU VERITAS (INDIA) PVT. LTD.	1000, 13th Cross, Binniannur, 2nd Stage, Bengaluru - 560 070.	REV. NO.
CONSULTANTS	1. 080-25880200	RO

17671143



TOWER-A-FIRST FLOOR

LEGEND:

- PEELING OF PAINT-SLAB/BEAM/WALL
- DAMPNESS/ DAMP PATCHES / PEELING OF PAINT
- CRACKS-CEILING SLAB/MASONRY WALL
- POP-UP OF TILES/WALL TILES

CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VYTILLA, KOCHI, KERALA

PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNJ ARMY TOWER-A OF ARMY
WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYTILLA,
KOCHE, KERALA

TITLE		DISTRESS LAYOUT OF TOWER A-1ST FLOOR	
DRAWN:	RSKK	CHEKED:	C/R/MBS
APPROVED:	AJ/Dr.KS	SCALE	1:50
CONSULTANTS	BUREAU VERITAS (INDIA) PVT. LTD.	DATE	24-01-2023

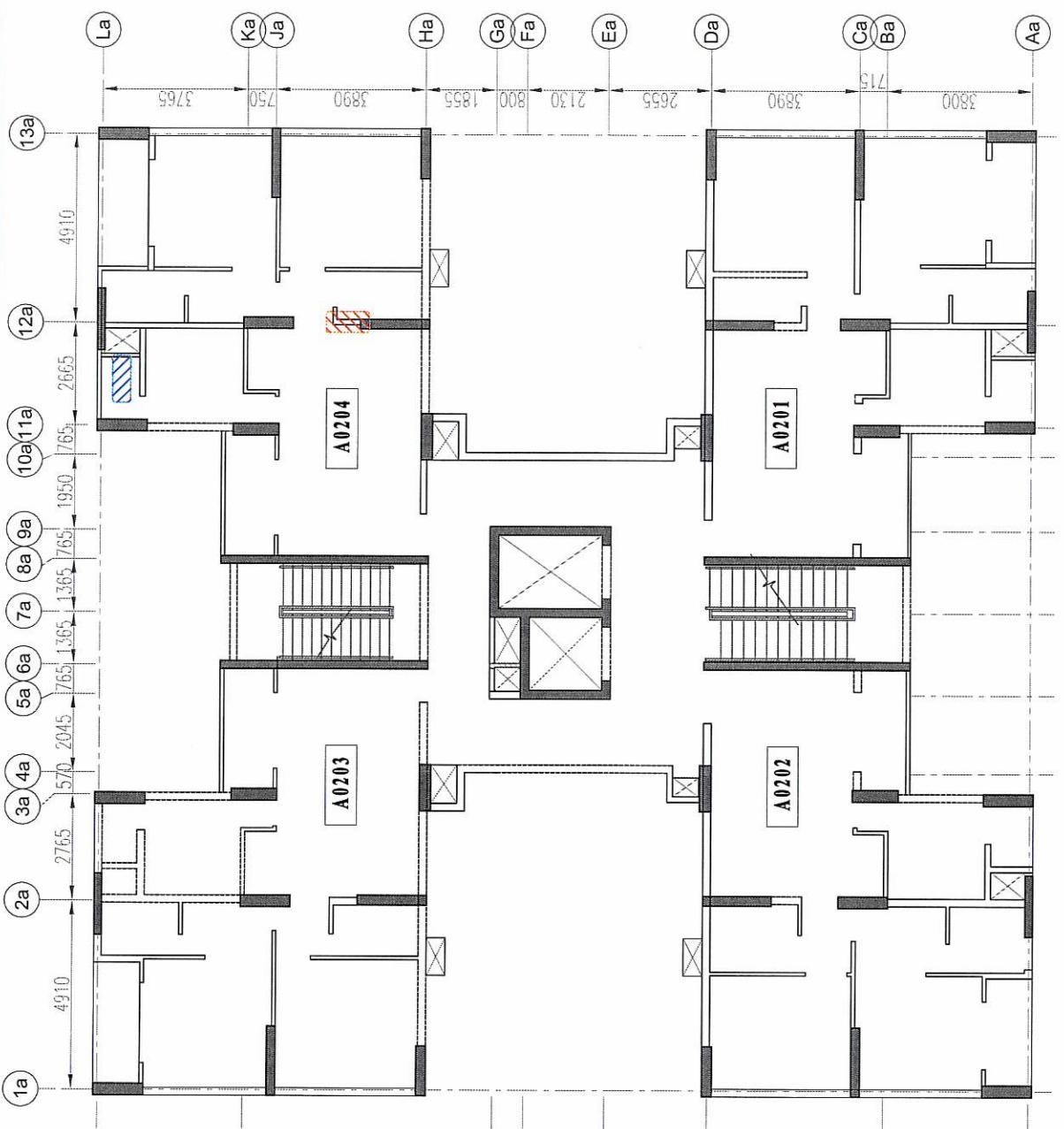
1020, 13th Cross, Balmohar Road 2nd Stage, Bangalore - 560 070.
Tel : 080-25880200



17671143

REVNo.

RO



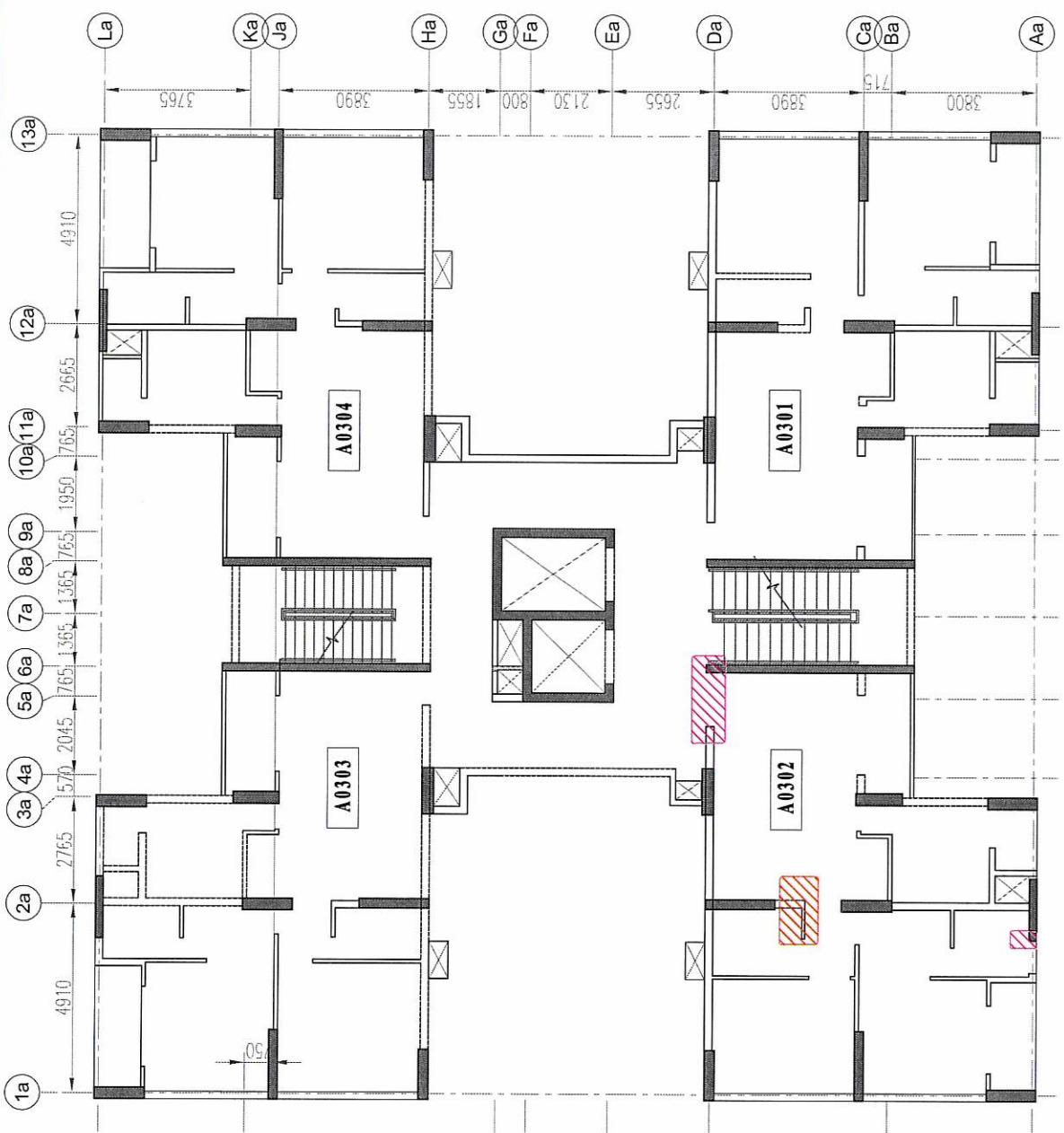
LEGEND:

- Peeling of Paint-Slab/Beam/Wall
- Dampness/ Damp Patches / Peeling of Paint
- Cracks-Ceiling Slab/Masonry Wall
- Pop-up of Tiles/Wall Tiles

TOWER-A-2nd FLOOR

CLIENT	M/s ARMY WELFARE HOUSING ORGANISATION (AWHO) VITILLA, KOCHI, KERALA
PROJECT	VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNI ARMY TOWER-A OF ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VITILLA, KOCHE, KERALA

CONSULTANTS	BUREAU VERITAS (INDIA) PVT. LTD. # 1080, 13th Cross, Balmohar Road and Steps, Bengaluru - 560 070. Tel. : 080-25990200
DATE	24-04-2023
DWG. REF. NO :	DM/2F/TA-03
REF. NO.	RO
CONTRACT NO	17671143



LEGEND:

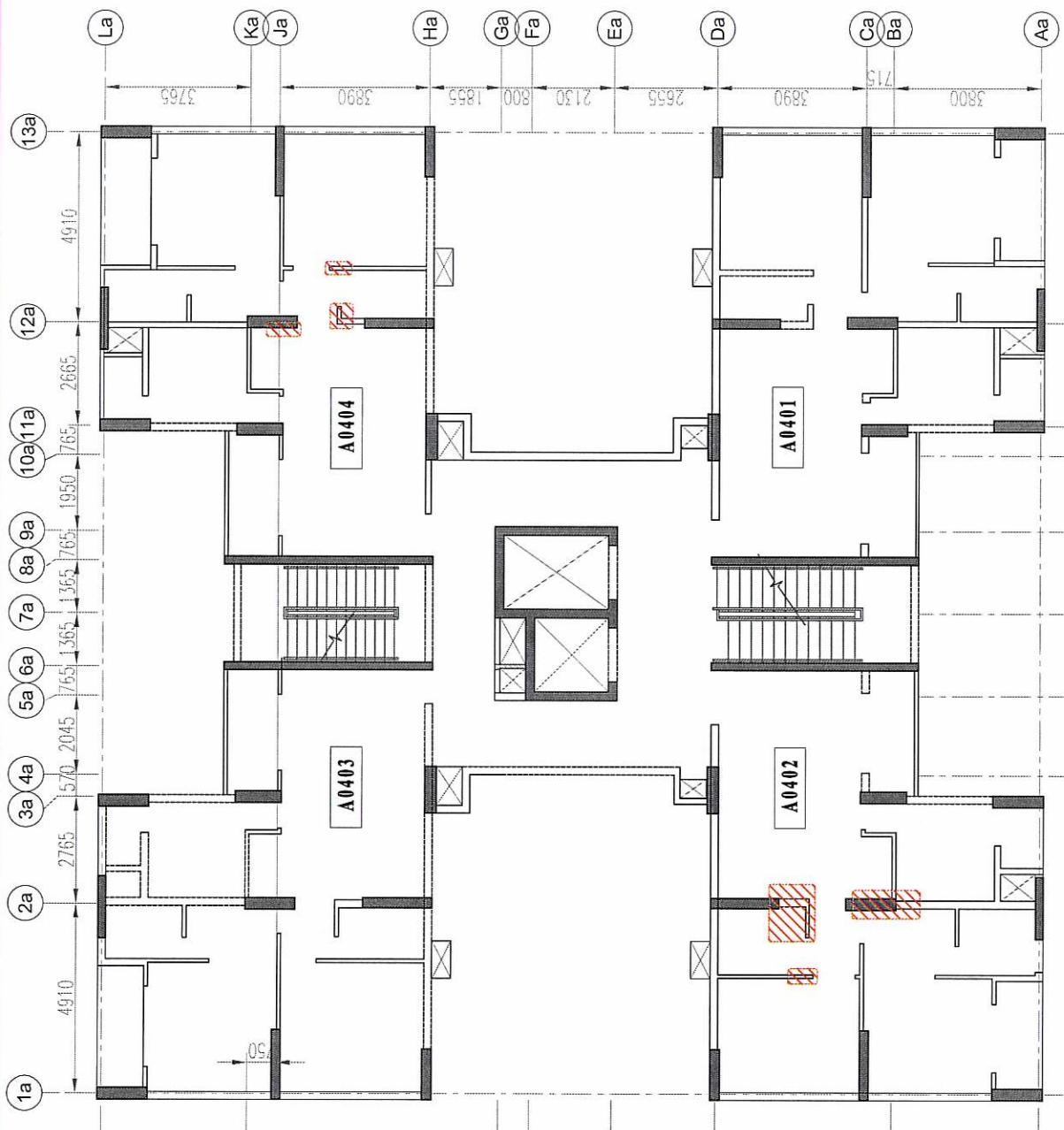
- PEELING OF PAINT-SLAB/BEAM/WALL
- DAMPNESS/ DAMP PATCHES / PEELING OF PAINT
- CRACKS-CEILING SLAB/MASONRY WALL
- POP-UP OF TILES/WALL TILES

CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VITILLA, KOCHI, KERALA
PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNJ ARMY TOWER-A OF ARMY
WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VITILLA,
KOCHE, KERALA

TOWER-A-3rd FLOOR

**DISTRESS LAYOUT OF
TOWER A- 3rd FLOOR**

CONSULTANTS	DRAWN: RSKK	CHECKED: C-HR/MBS	SCALE: 1:500	DATE: 24-04-2023
BUREAU VERITAS (INDIA) PVT. LTD.	APPROVED: A./Dr.KS	REF. NO : DM/3F/TA-04	REV. NO.	RO
# 100, 13th Cross, Bangalore 5th Stage, Bangalore - 560 070. Tel : 080-25502020				
BUREAU VERITAS				17671143



TOWER-A-4th FLOOR

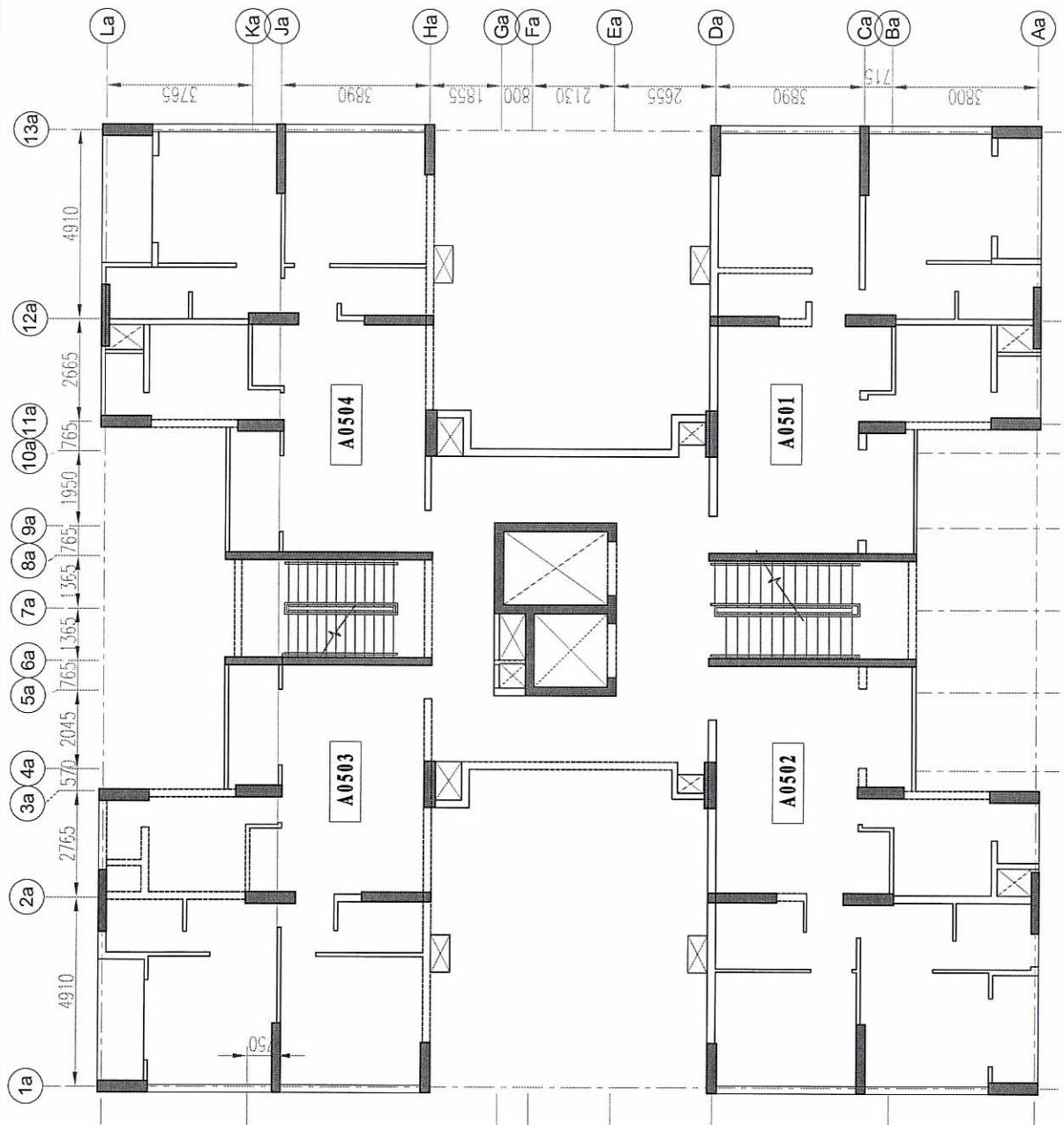
LEGEND:

- PEELING OF PAINT-SLAB/BEAM/WALL
- DAMPNESS/ DAMP PATCHES / PEELING OF PAINT
- CRACKS-CEILING SLAB/MASONRY WALL
- POP-UP OF TILES/WALL TILES

CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VITILLA, KOCHI, KERALA

PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNI ARMY TOWER-A OF ARMY
WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VITILLA,
KOCHE, KERALA

DISTRESS LAYOUT OF TOWER A- 4th FLOOR			DATE 24-01-2023	DRAWN: RSKK	CHECKED: CIR/MBS	SCALE NFS		
			CONSULTANTS BUREAU VERITAS (INDIA) PVT. LTD.					
			F 103, 13th Cross, Binniherkot 2nd Stage, Bengaluru - 560 070, Tel : 080-25802020	A/D/RS	APPROVED:			
						17671143		



TOWER-A-5th FLOOR

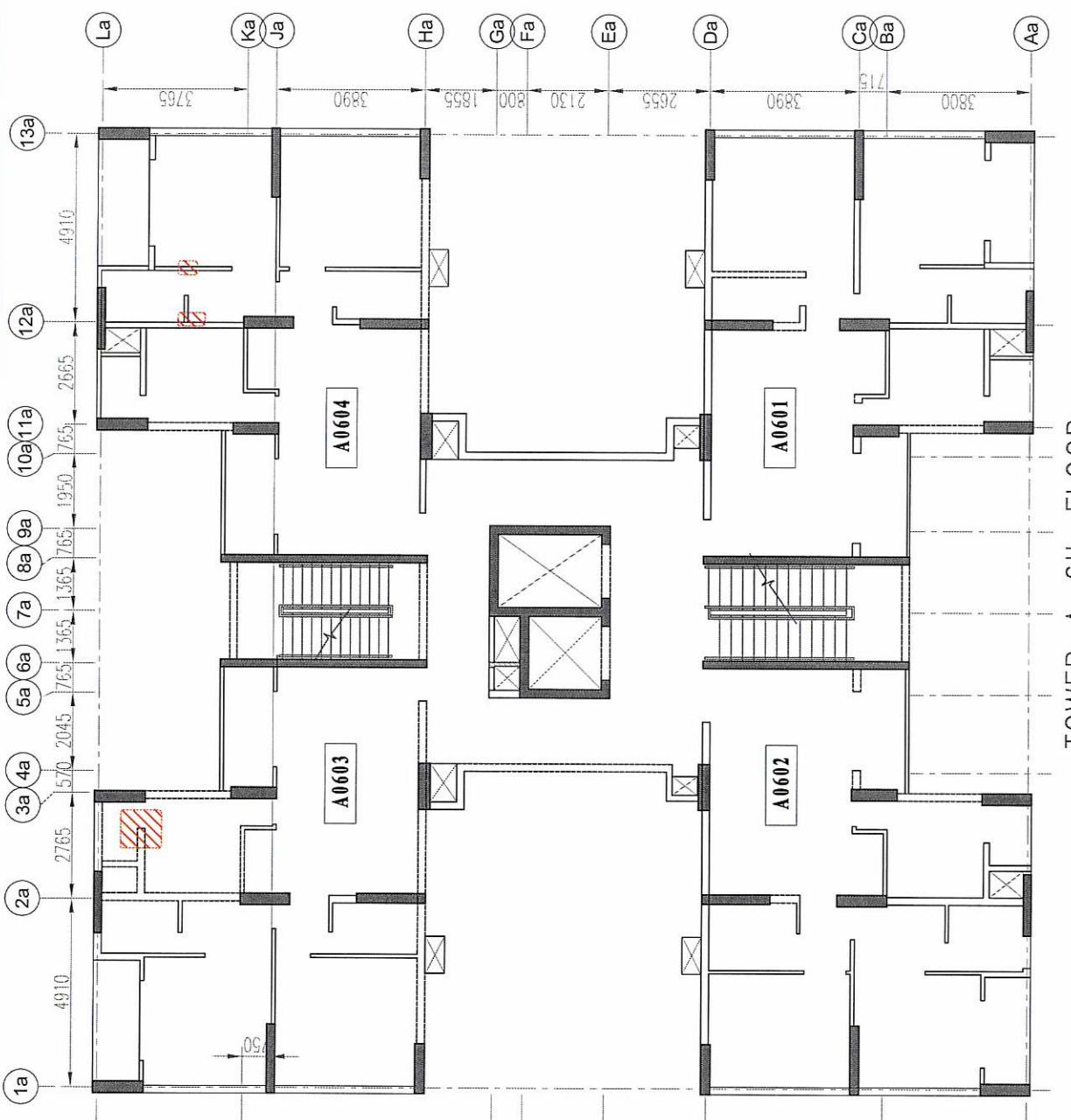
LEGEND:

- PEELING OF PAINT-SLAB/BEAM/WALL
- DAMPNESS/ DAMP PATCHES / PEELING OF PAINT
- CRACKS-CEILING SLAB/MASONRY WALL
- POP-UP OF TILES/WALL TILES

DISTRESS LAYOUT OF TOWER A- 5th FLOOR			TITLE	
	DRAWN: RSKK	CHECKED: CHR/MBS	SCALE: NTS	DATE: 24-04-2023
	APPROVED: A/Dr.KS		REF. NO: DW/5F/TA-06	REF. NO: RO
			CONSULTANTS: BUREAU VERITAS (INDIA) PVT. LTD.	
			# 103, 13th Cross, Binnalur, 2nd Stage, Bengaluru - 560 070. Tel : 080-25880200	
			1767143	

CLIENT: M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VYTILLA, KOCHI, KERALA

PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNI ARMY TOWER-A OF ARMY
WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYTILLA,
KOCHE, KERALA



TOWER A-6th FLOOR

LEGEND:

- PEELING OF PAINT-SLAB/BEAM/WALL
- DAMPNESS/ DAMP PATCHES / PEELING OF PAINT
- CRACKS-CEILING SLAB/MASONRY WALL
- POP-UP OF TILES/WALL TILES

CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VITILLA, KOCHI, KERALA

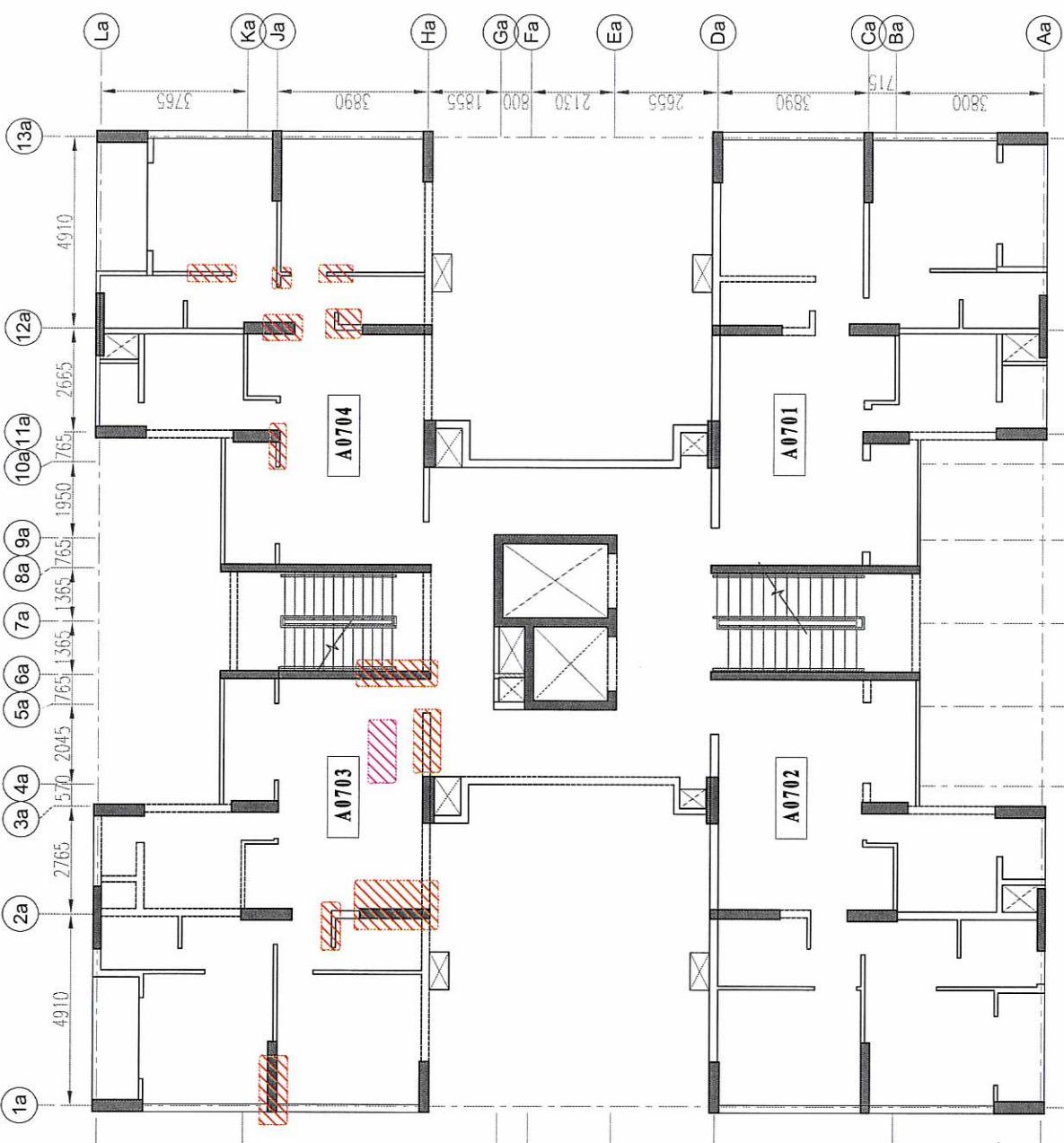
PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNI ARMY TOWER-A OF ARMY
WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VITILLA,
KOCHE, KERALA

TITLE DISTRESS LAYOUT OF TOWER A-6th FLOOR

DRAWN: RSKK
CHECKED: CHR/MBS
SCALE NTS
DATE 24-04-2023
REF. NO.
DINC. REF. NO : DM/6F/TA-07
CONTRACT NO

BUREAU VERITAS (INDIA) PVT. LTD.
109, 13th Cross, Residency Road, Bengaluru - 560 070.
Tel : 080-25880200
VERITAS

1767143



TOWER-A-7th FLOOR

LEGEND:

- PEELING OF PAINT-SLAB/BEAM/WALL
- DAMPNESS/ DAMP PATCHES / PEELING OF PAINT
- CRACKS-CEILING SLAB/MASONRY WALL
- POP-UP OF TILES/WALL TILES

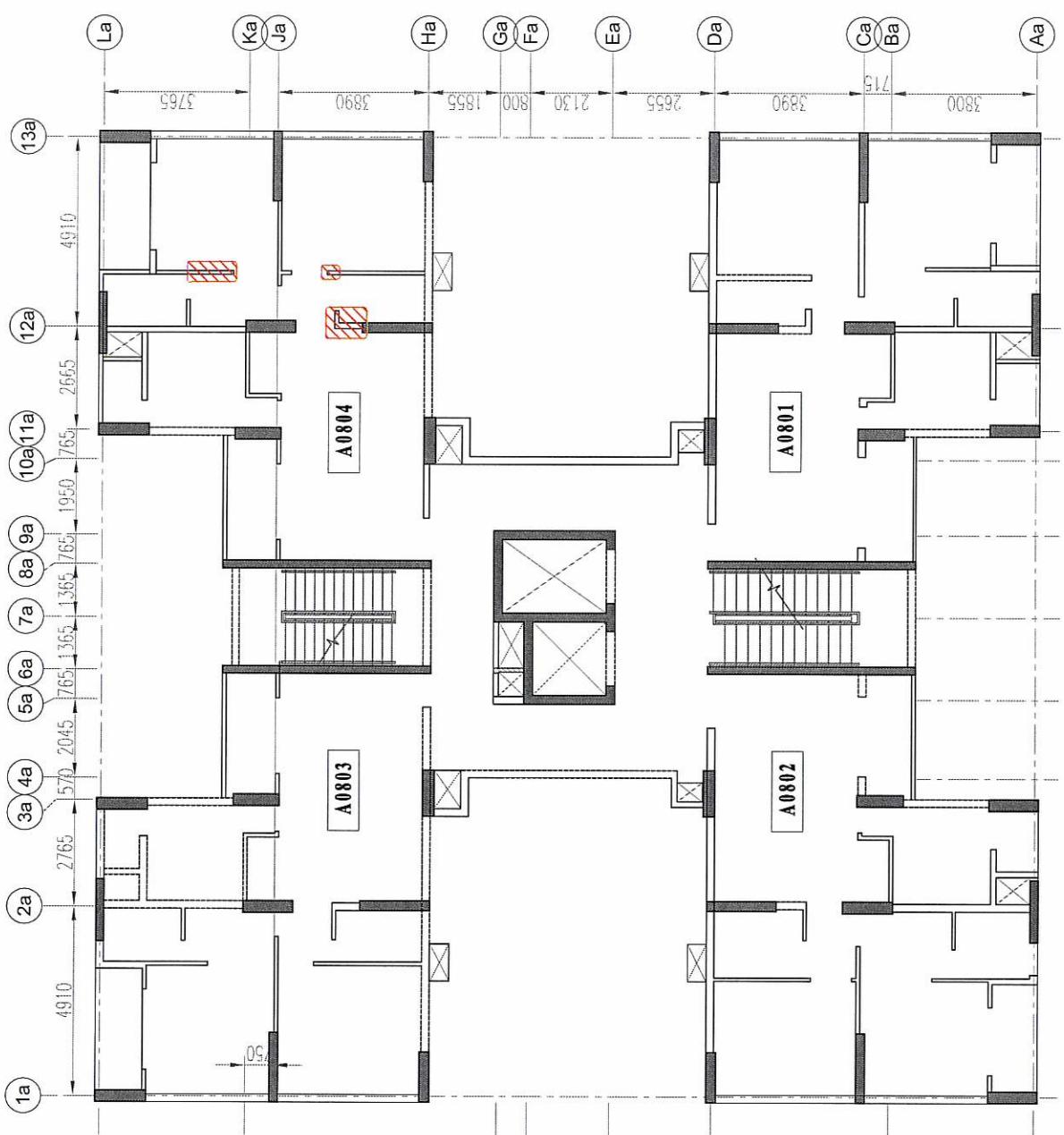
CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VYTILLA, KOCHI, KERALA

PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNI ARMY TOWER-A OF ARMY
WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYTILLA,
KOCHE, KERALA

TITLE
**DISTRESS LAYOUT OF
TOWER A-7th FLOOR**

DRAWN: RSKK
CHECKED: CHR/MBS
SCALE: NTS
DATE: 24-04-2023
APPROVED: A/Dr/KS
DNG. REF. NO.: DM/7F/TA-08
CONTRACT NO: R0
REF. NO: 1767143

CONSULTANTS
BUREAU VERITAS (INDIA) PVT. LTD.
103A, 13th Cross, Bannerman 2nd Stage, Bengaluru - 560 070,
Tl: 080-26880200
VERITAS



LEGEND:

- PEELING OF PAINT-SLAB/BEAM/WALL
- DAMPNESS/ DAMP PATCHES / PEELING OF PAINT
- CRACKS-CEILING SLAB/MASONRY WALL
- POP-UP OF TILES/WALL TILES

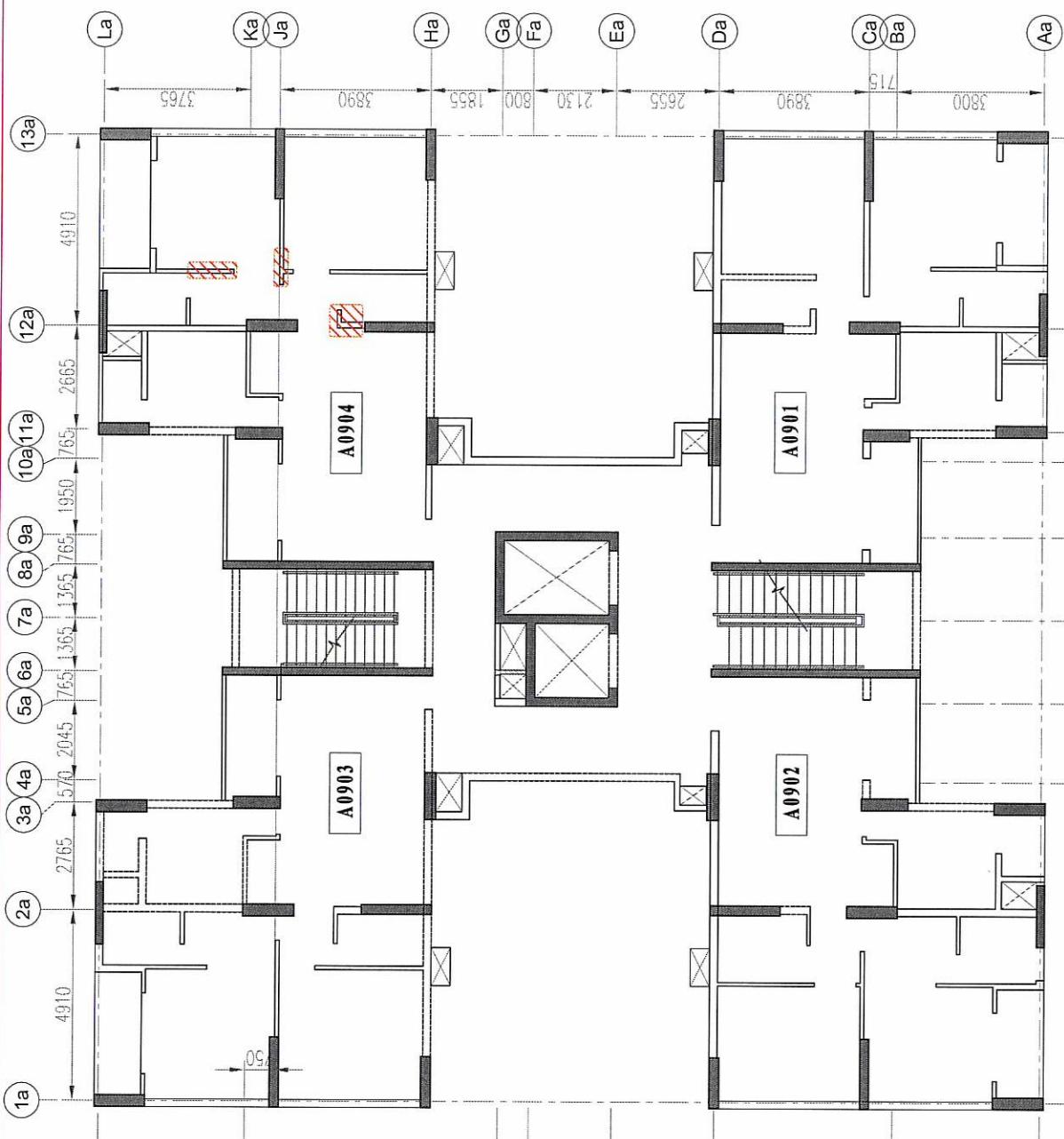
CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VITILLA, KOCHI, KERALA

PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNJ ARMY TOWER-A OF ARMY
WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VITILLA,
KOCHE, KERALA

TITLE DISTRESS LAYOUT OF
TOWER A- 8th FLOOR

DRAWN: RSKK	CHEKED: C-HR/MBS	SCALE: 1:50	DATE: 24-04-2023
APPROVED: A./Dr-KS	REF. NO : DM/8F/TA-09	REV. NO.	RO
CONSULTANTS BUREAU VERITAS (INDIA) PVT. LTD.			CONTRACT NO
# 105, 13th Cross, Residency Road, Bangalore - 560 001. Tel : 080-25502000			17671143





LEGEND:

- PEELING OF PAINT-SLAB/BEAM/WALL
- DAMPNESS/ DAMP PATCHES / PEELING OF PAINT
- CRACKS-CEILING SLAB/MASONRY WALL
- POP-UP OF TILES/WALL TILES

CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VITILLA, KOCHI, KERALA

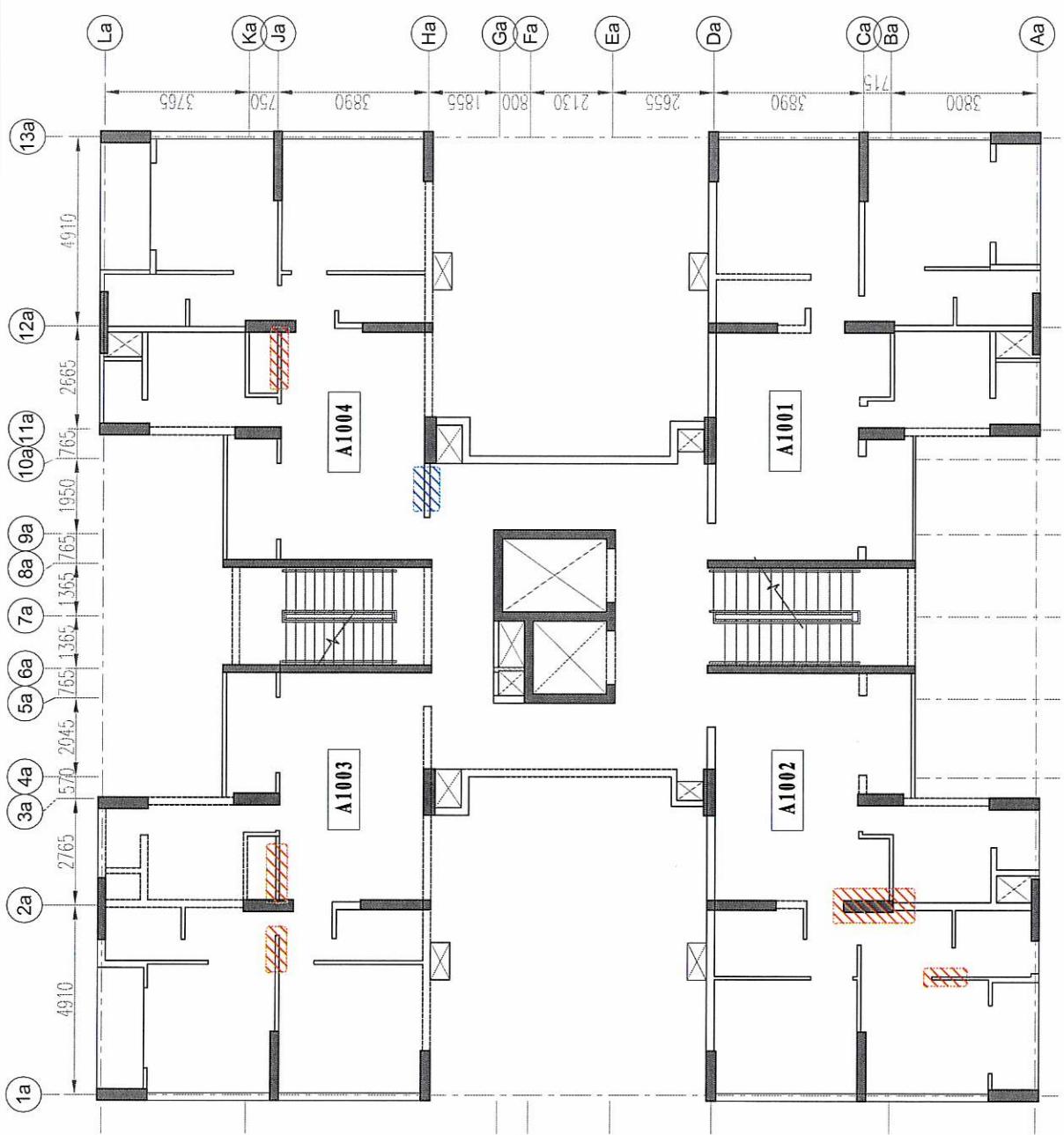
PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNI ARMY TOWER-A OF ARMY
WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VITILLA,
KOCHE, KERALA

TOWER-A-9th FLOOR

DISTRESS LAYOUT OF
TOWER A- 9th FLOOR

DRAWN:	RSIKK	CHECKED:	CHR/MBS	SCALE
APPROVED:	AJ/Dr.KS	APPROVED:	AJ/Dr.KS	NTS
CONSULTANTS:	BUREAU VERITAS (INDIA) PVT. LTD.			
ADDRESS:	# 105, 12th Cross, Bangalore-2nd Stage, Bangalore - 560 070.			
TEL:	080-25880200			

DATE 24-04-2023
DWG. REF. NO : DM/9F/TA-10 REV. NO. R0
CONTRACT NO
BUREAU VERITAS
17671143



LEGEND:

- PEELING OF PAINT – SLAB/BEAM/WALL
- DAMPNESS/ DAMP PATCHES / PEELING OF PAINT
- CRACKS – CEILING SLAB/MASONRY WALL
- POP-UP OF TILES/WALL TILES

CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VYTILLA, KOCHI, KERALA

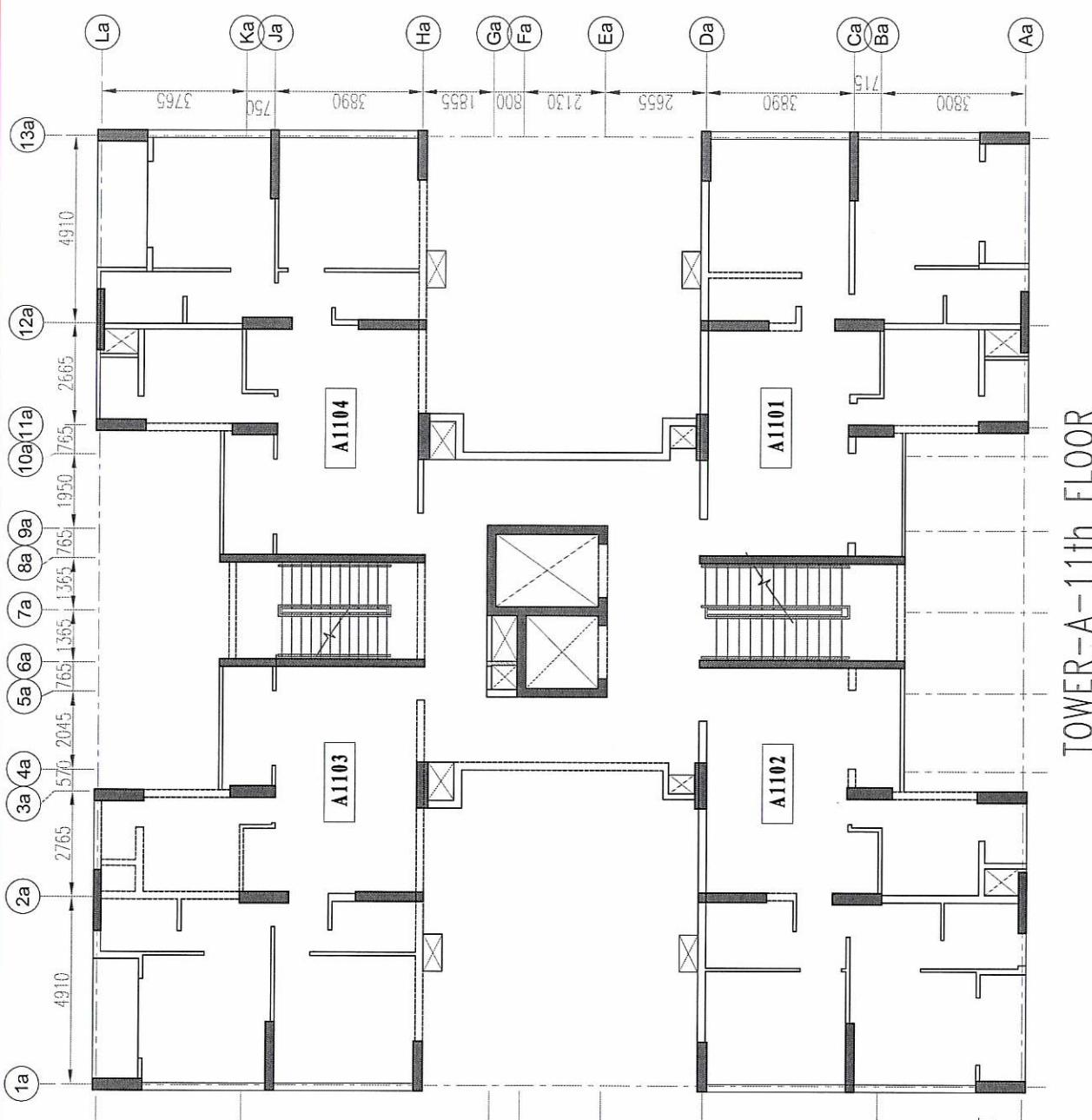
PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNJ ARMY TOWER-A OF ARMY
WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYTILLA,
KOCHE, KERALA

TITLE DISTRESS LAYOUT OF
TOWER A- 10th FLOOR

DRAWN:	RSKK	CHEKED:	C/H/R/MBS	SCALE	DATE
CONSULTANTS				NTS	24-04-2023
BUREAU VERITAS (INDIA) PVT. LTD.					
# 100, 11th Cross, Bonthamur 1st Stage, Bengaluru - 560 070, Karnataka, India					
REV. NO.					
RO					

DRAWN: RSRR
CHECKED: C/H/R/MBS
APPROVED: A/Dr.KS
CONSULTANTS: BUREAU VERITAS (INDIA) PVT. LTD.
100, 11th Cross, Bonthamur 1st Stage, Bengaluru - 560 070,
Karnataka, India
REV. NO.
RO

17671143



LEGEND:

- 1. PEELING OF PAINT-SLAB/BEAM/WALL
- 2. DAMPNESS/ DAMP PATCHES / PEELING OF PAINT
- 3. CRACKS-CEILING SLAB/MASONRY WALL
- 4. POP-UP OF TILES/WALL TILES

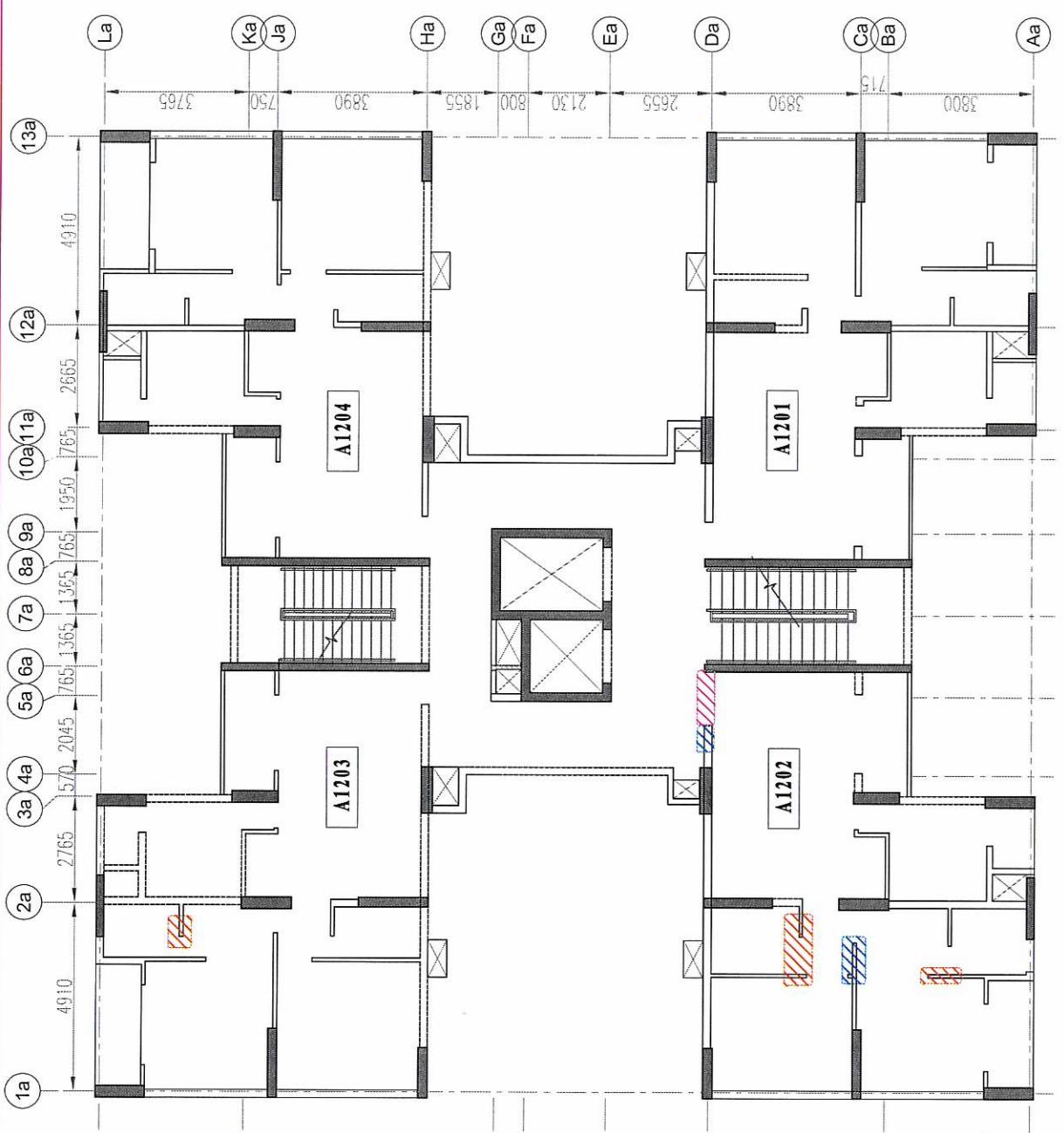
TOWER-A- 11th FLOOR

TITLE		DISTRESS LAYOUT OF TOWER A- 11th FLOOR	
DRAWN:	RSKK	CHEKED:	C-HR/MBS
APPROVED:	AJ/Dr.KS	SCALE:	NTS
CONSULTANTS	BUREAU VERITAS (INDIA) PVT. LTD.	DATE:	24-01-2023

CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VITILLA, KOCHI, KERALA

PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNI ARMY TOWER-A OF ARMY
WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VITILLA,
KOCHE, KERALA

REV. NO.
Dwg. Ref. No : DM/11F/T/A-12
RO
CONTRACT NO
CONSULTANTS
BUREAU VERITAS (INDIA) PVT. LTD.
1030, 13th Cross, Binnathuruthi 7th Stage, Bangalore - 560 070.
Tel. : 080-28420000
17671143



TOWER-A-12th FLOOR

LEGEND:

PEELING OF PAINT-SLAB/BEAM/WALL

DAMPNESS / DAMP PATCHES / PEELING

CRACKS-CEILING SLAB/MASONRY WALL

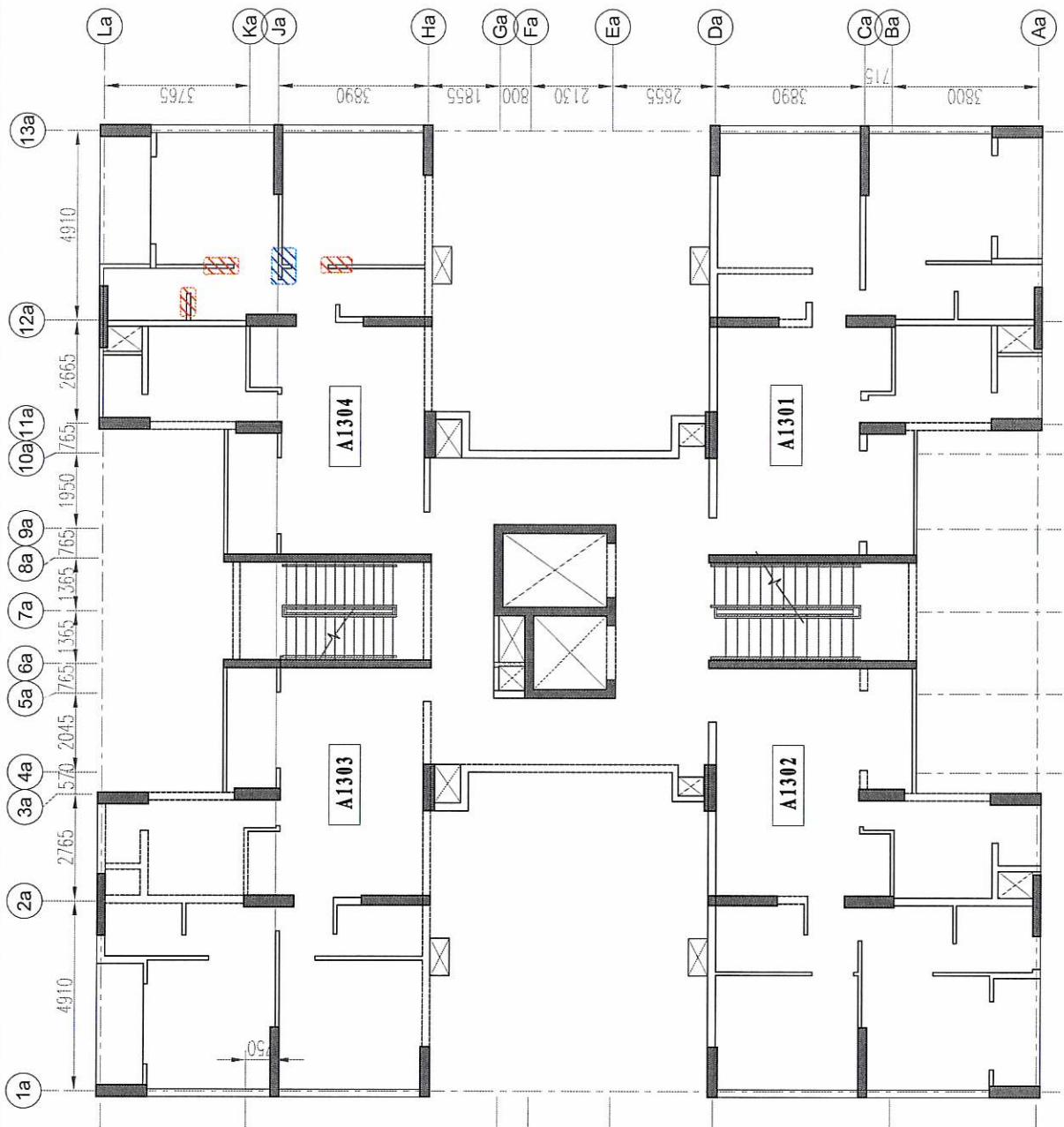
POP-UP OF THE WALL FILES

CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VITILLA, KOCHI, KERALA

PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERNAGAR TOWER-A OF ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VITHLA, KOCCHI, KERALA

**DISTRESS LAYOUT OF
TOWER A- 12th FLOOR**

DRAWN:	RSKK	CHECKED:	CHR/MBS	SCALE NTS	DATE 24-04-2023	REV. No.
APPROVED:	AJ/Dr.KS	DWG. REF. No : DW/12F/TA-13			RO	
BUREAU VERITAS (INDIA) PVT. LTD. CONSULTANTS	 1103, 15th Cross, Bonthalli 2nd Stage, Bengaluru - 560 070. Tel. : 080-28502000	CONTRACT NO	17671143			
 CONSULTANTS						



LEGEND:

- PEELING OF PAINT-SLAB/BEAM/WALL
- DAMPNESS/ DAMP PATCHES / PEELING OF PAINT
- CRACKS-CEILING SLAB/MASONRY WALL
- POP-UP OF TILES/WALL TILES

CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VYTILLA, KOCHI, KERALA

PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNJ ARMY TOWER-A OF ARMY
WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYTILLA,
KOCHE, KERALA

TITLE

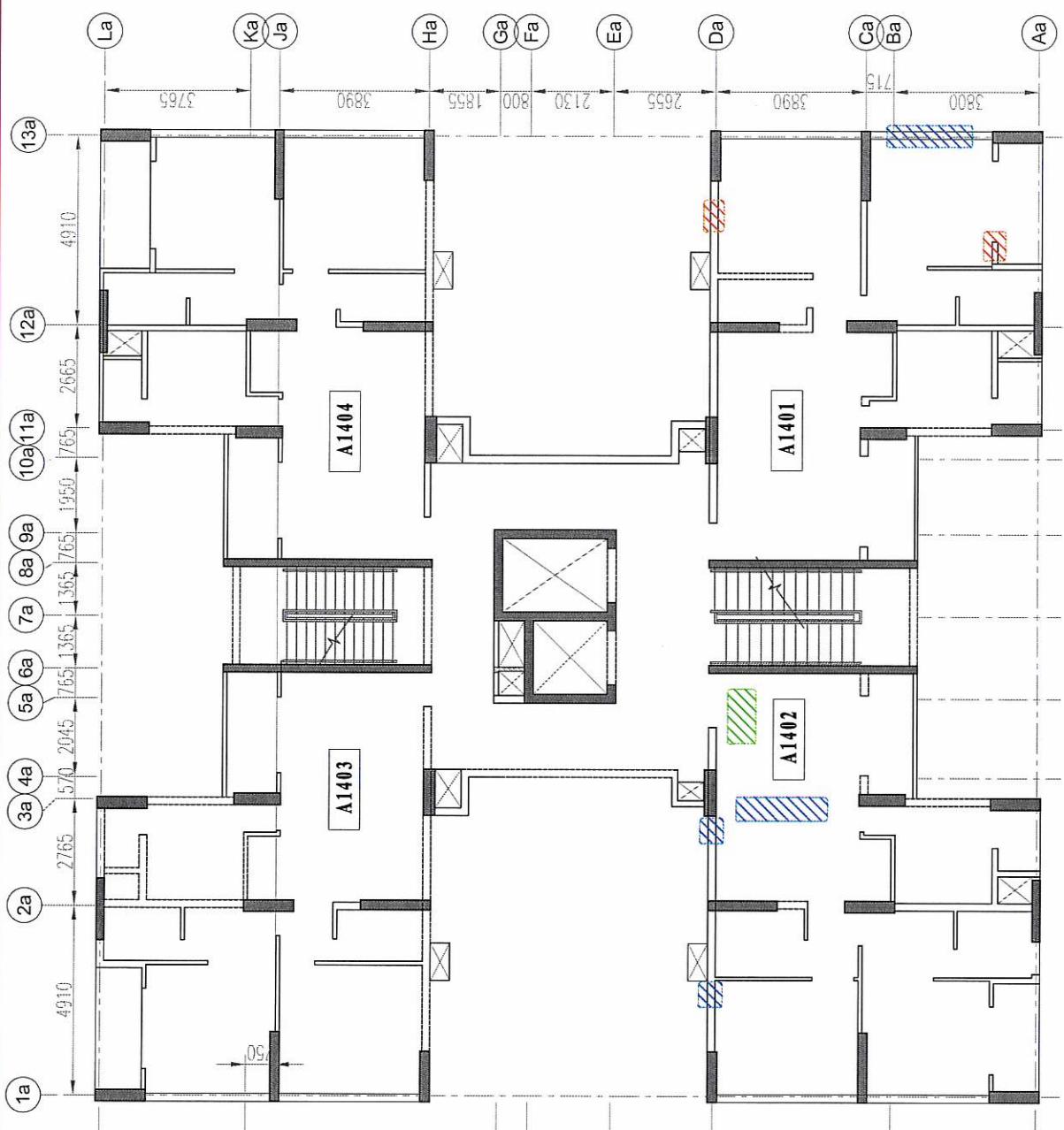
**DISTRESS LAYOUT OF
TOWER A-13th FLOOR**

DRAWN:	RSKK	CHEKED:	C/HR/MBS	SCALE	DATE
				NFS	24-01-2023
APPROVED:	AJ/Dr.KS	APPROVED:	AJ/Dr.KS	DRG. REF. NO	DM/13F/TA-14
CONSULTANTS	BUREAU VERITAS (INDIA) PVT. LTD.	CONTRACT NO		REV. NO.	RO

17671143



17671143



TOWER-A-14th FLOOR

LEGEND:

-  PEELING OF PAINT-SLAB/BEAM/WALL
-  DAMPNESS/ DAMP PATCHES / PEELING OF PAINT
-  CRACKS-CEILING SLAB/MASONRY WALL
-  POP-UP OF TILES/WALL TILES

CLIENT M/s ARMY WELFARE HOUSING ORGANISATION (AWHO)
VYTILLA, KOCHI, KERALA

PROJECT VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNJU ARMY TOWER-A OF ARMY
WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYTILLA,
KOCHI, KERALA

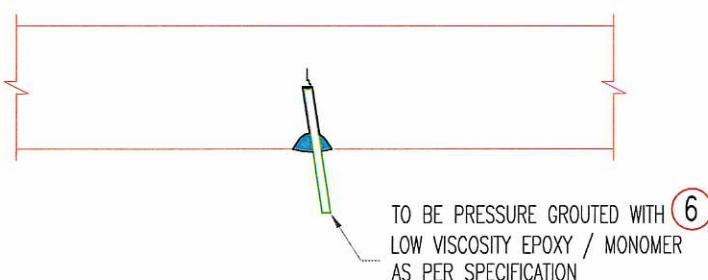
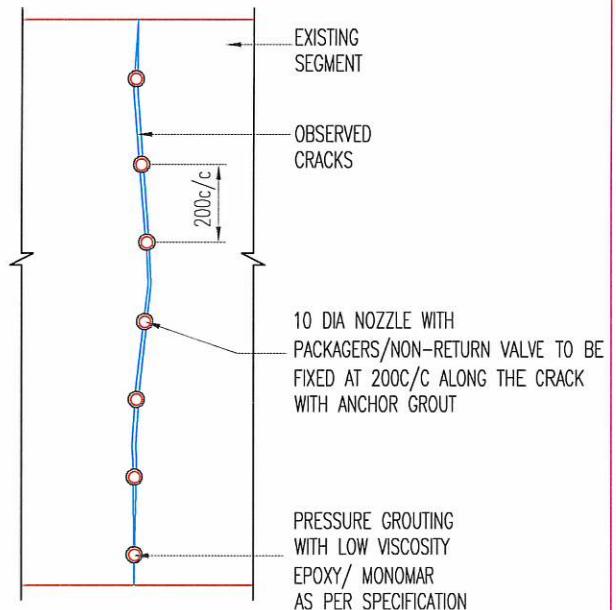
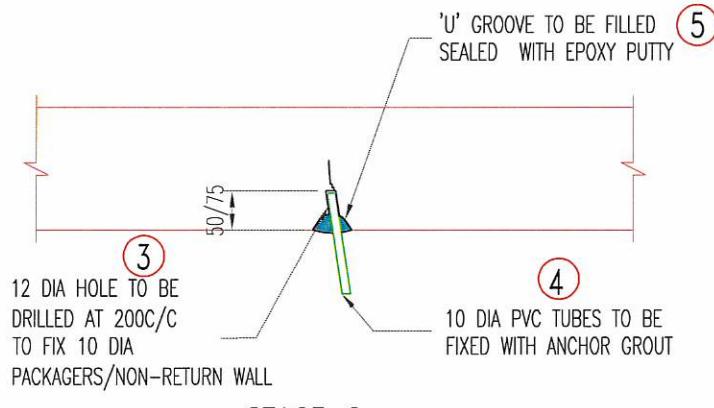
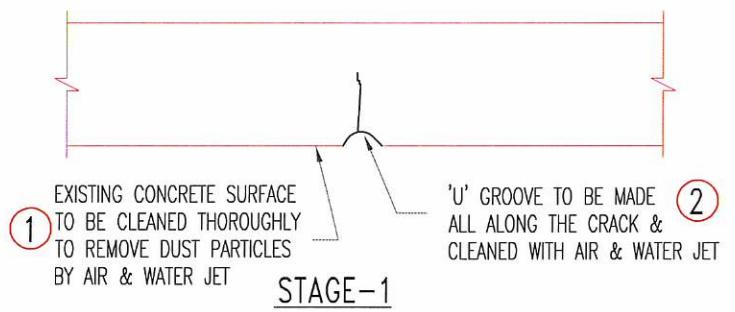
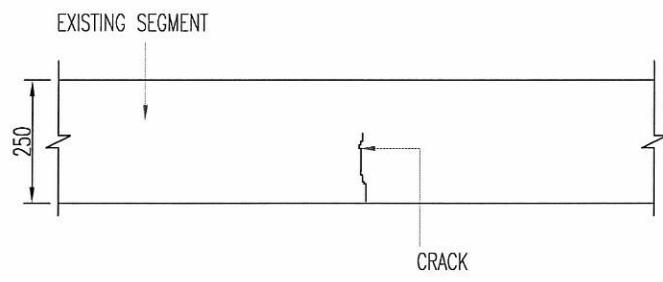
TITLE DISTRESS LAYOUT OF TOWER A-14th FLOOR

DISTRESS LAYOUT OF TOWER A-14th FLOOR			
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	APPROVED: A/J/Dir-KS	DATE 24-04-2023	DWG. REF. No : DM/14F/Ta-15
			REV. No. RO

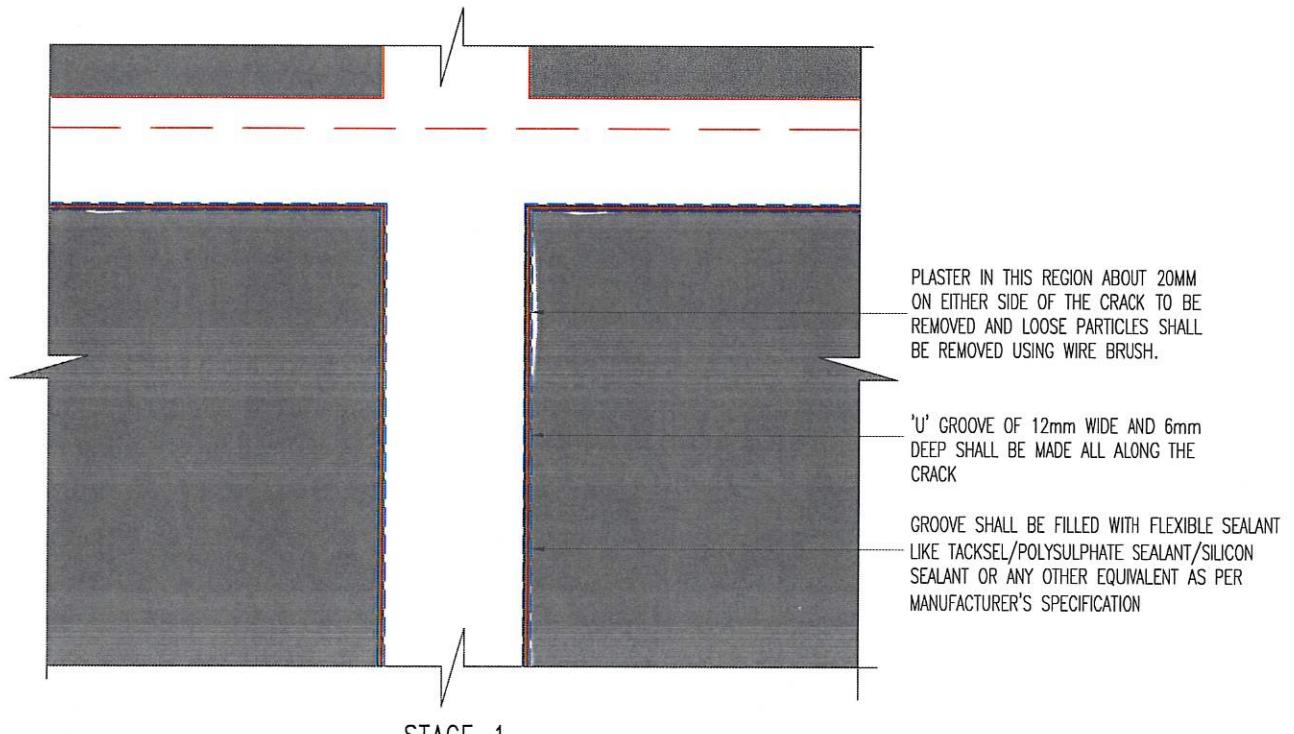
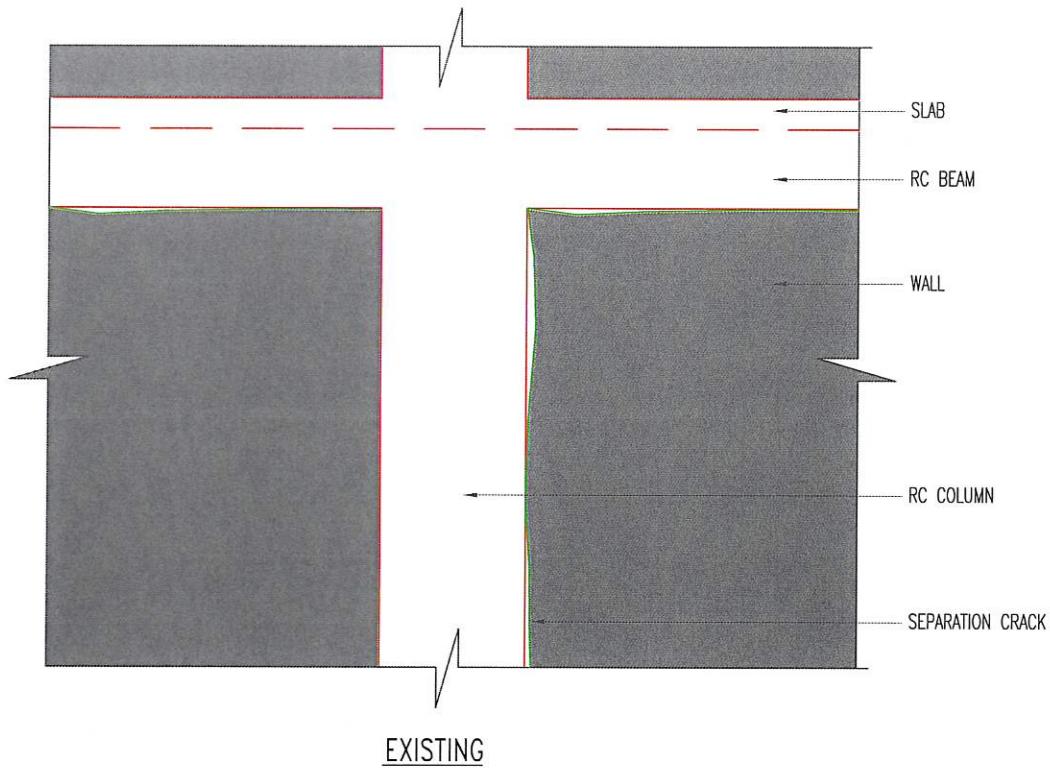
BUREAU VERITAS (INDIA) PVT. LTD.
1030, 13th Cross, Bangalore 2nd Stage, Bangalore - 560 070.
Tel. : 080-25880200



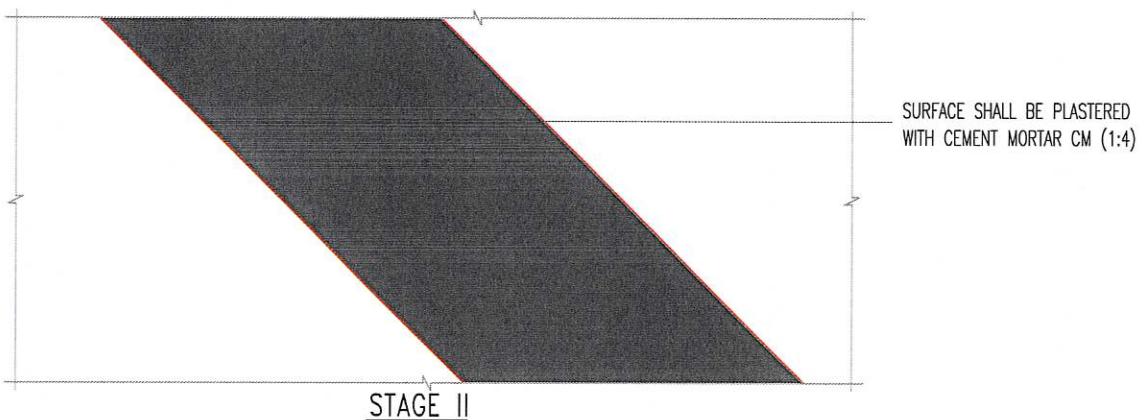
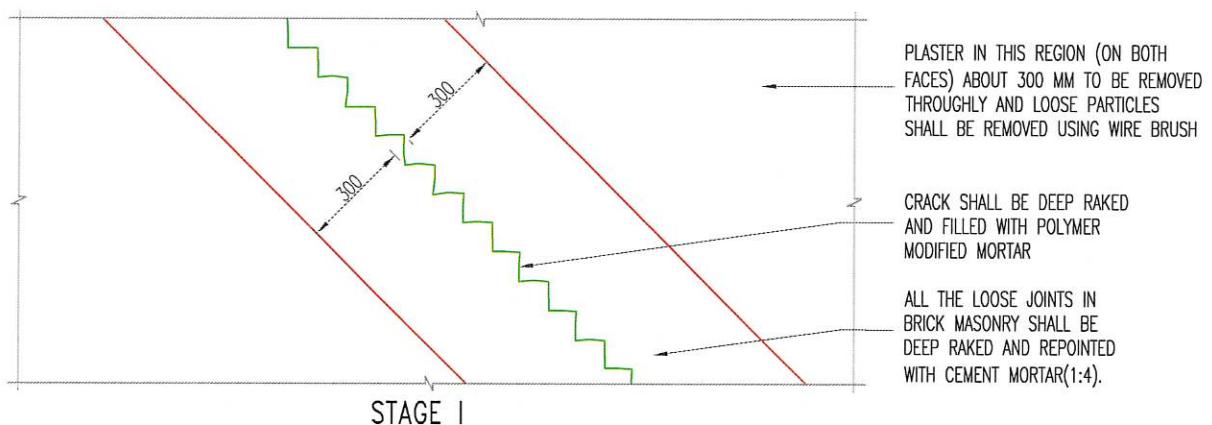
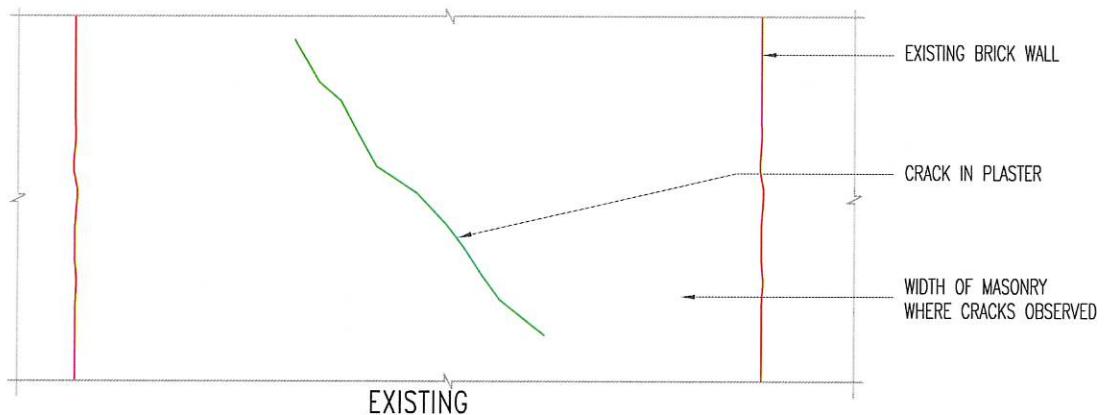
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TITLE	DESCRIPTION			
	DATE	REV		
CLIENT	DRAWN:	RSKK	CHECKED:	CHR/MBS
M/S ARMY WELFARE HOUSING ORGANISATION (AWHO) VYTILLA, KOCHI, KERALA	DESIGNED:		APPROVED:	AJ
PROJECT	SCALE	NTS	DATE	24-04-2023
VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNJ ARMY TOWER-A OF ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYTILLA, KOCHI, KERALA	DWG. REF. NO.	RM/01	REV. NO.	RO
CONSULTANTS	BUREAU VERITAS (INDIA) PVT. LTD. # 1030, 13th Cross, Banashankari 2nd Stage, Bangalore - 560 070. Tel. : 080-26980200			
	CONTRACT NO	17671143		



TITLE	TREATMENT FOR SEPARATION CRACK					
	DATE	REV	DESCRIPTION			
CLIENT	M/S ARMY WELFARE HOUSING ORGANISATION (AWHO) VYTILLA, KOCHI, KERALA	DRAWN:	RSKK	CHECKED:	CHR/MBS	SCALE NTS
PROJECT	VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNJ ARMY TOWER-A OF ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYTILLA, KOCHI, KERALA	DESIGNED:		APPROVED:	AJ	DATE 24-04-2023 DWG. REF. No. RM/02
	CONSULTANTS 	BUREAU VERITAS (INDIA) PVT. LTD. # 1030, 13th Cross, Banashankari 2nd Stage, Bangalore - 560 070. Tel. : 080-26980200				REVAL. RO CONTRACT NO 17671143



TITLE	TREATMENT FOR CRACK IN MASONRY WALL	DESCRIPTION				
		DATE	REV			
CLIENT	M/S ARMY WELFARE HOUSING ORGANISATION (AWHO) VYTILLA, KOCHI, KERALA	DRAWN:	RSKK	CHECKED:	CHR/MBS	SCALE NTS
PROJECT	VISUAL INSPECTION OF RESIDENTIAL CHANDERKUNJ ARMY TOWER-A OF ARMY WELFARE HOUSING ORGANIZATION(AWHO) AT SILVER SAND ISLAND, VYTILLA, KOCHI, KERALA	DESIGNED:		APPROVED:	AJ	DATE 24-04-2023
		CONSULTANTS	BUREAU VERITAS (INDIA) PVT. LTD. # 1030, 13th Cross, Banashankari 2nd Stage, Bangalore - 560 070. Tel. : 080-26980200			DWG. REF. No. RM/03
						KEY NO. R0
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SPECIFICATIONS



SPECIFICATION FOR ELASTOMERIC SEALANT FOR SEPARATION CRACK

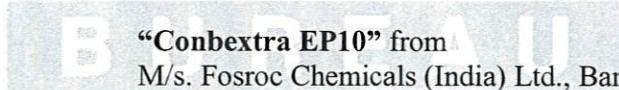
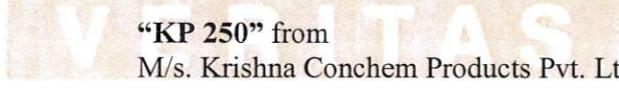
Type of sealant	: Two part elastomeric waterproof sealant
Tensile strength	: 1.50 to 1.70 N/sq.mm
Elongation	: 600 to 700 %
Movement accommodation	: ± 25 to 40%
Pot life	: Not less than 30 minutes
Full cure	: 7 to 10 days max. (as per manufacturer's specification)
Shore A hardness	: 18 to 23 at 25° C
Pressure resistance	: 6 to 8 m hydrostatic head
Application temperature	
Range	: 10° C to 50° C
Density	: 1.60 to 1.70 Kgs / litre
Solid content	: 100% (Max.)
Resistance of exposure	: Shall not degrade when exposed to Ultra-Violet radiation and weathering
Service condition	: i) Shall be resistant to abrasion ii) Shall be impermeable to water when sealed iii) Shall be non-corrosive type iv) Shall be non-toxic and food grade
Life	: Shall be durable for a minimum period of 5 years (Guarantee period)
Technical reference	: BS - 4254 - 1983 or equivalent
Available sources	: “Masterflex 472/474” from M/s. BASF India Ltd., Bangalore

“Dr. Fixit PU Sealant”
M/s. Pidilite Industries Ltd.

“Nitoseal PU – Polyurethen selant”
“Thioflex 600 – Polysulphide sealant”
“Nitoseal MS 600 – Hybrid Silyl Modified Polyether”
M/s. Fosroc Chemicals (India) Pvt. Ltd., Bangalore

or any equivalent

SPECIFICATION FOR
EPOXY INJECTION / GROUTING

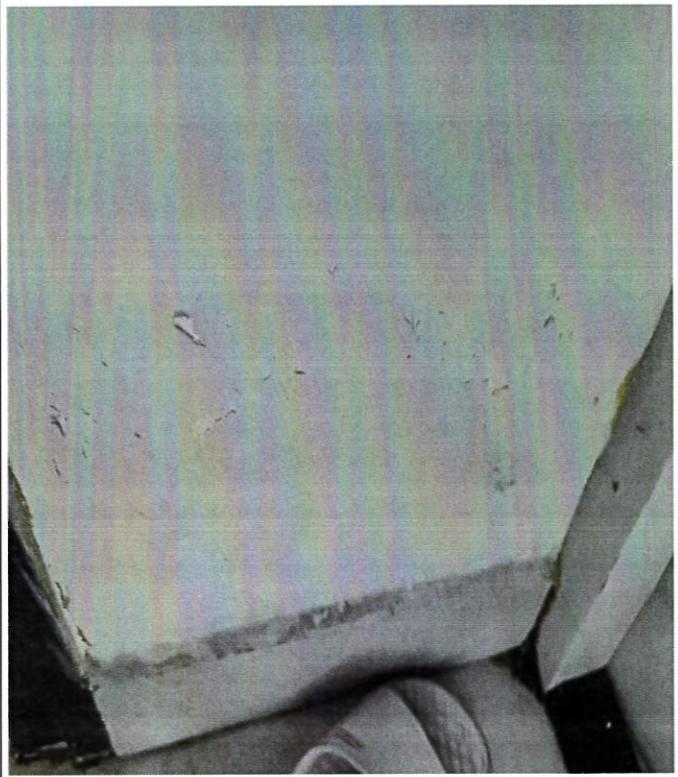
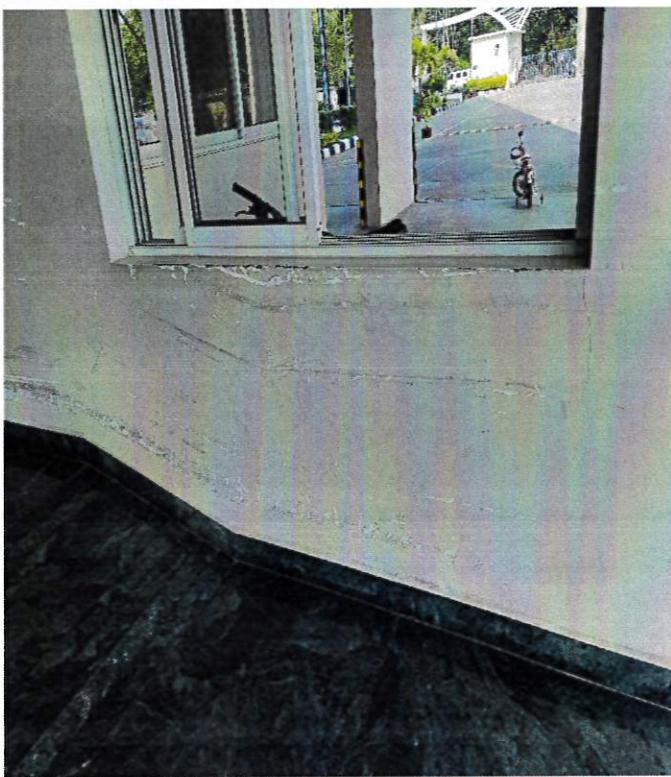
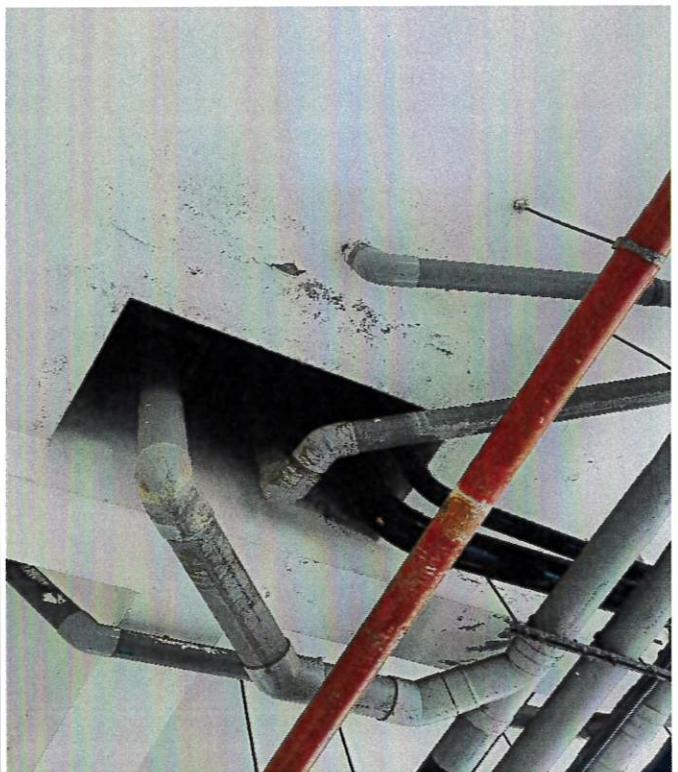
Reference	: ASTM - 881 - 87 Type I, Grade I, Class B or C.
Type of Epoxy	: Low viscosity solvent free prepacked resin and hardener, free flow epoxy system after mixing.
Viscosity	: Mix viscosity 800 mPa maximum at 25° C.
Pot life	: Not less than 45 minutes
Compressive strength after 7 days curing at 25° C	: Not less than 75 N/Sq.mm
Injection equipment	: Electrically operated or Compressed air driven injection pump with suitable syringe system, fitted with suitable pressure gauge.
Operating pressure	: 3 – 4 Kg/Sq.cm
Available sources	<p>: “MasterInject 1315” from M/s. BASF India Ltd., Bangalore</p> <p>“Dr. Fixit Epoxy Injection Grout” M/s. Pidilite Industries Ltd.</p> <p>“Quickmast 231” M/s. Don Construction Chemicals India Ltd.</p> <p> “Conbextra EP10” from M/s. Fosroc Chemicals (India) Ltd., Bangalore</p> <p> “KP 250” from M/s. Krishna Conchem Products Pvt. Ltd., Mumbai</p> <p>“Sikadur 52” from M/s. Sika Qualcrete Pvt. Ltd., Bangalore</p> <p>or any equivalent</p>



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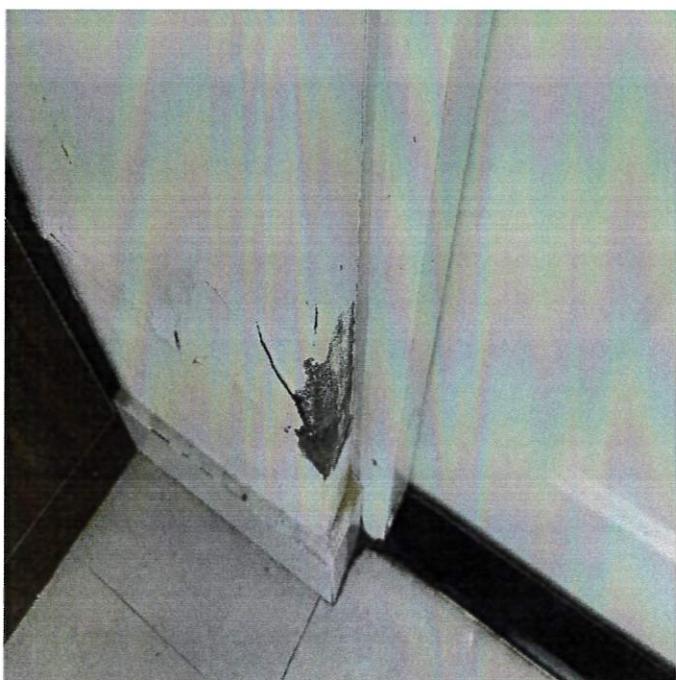
PHOTOGRAPHS

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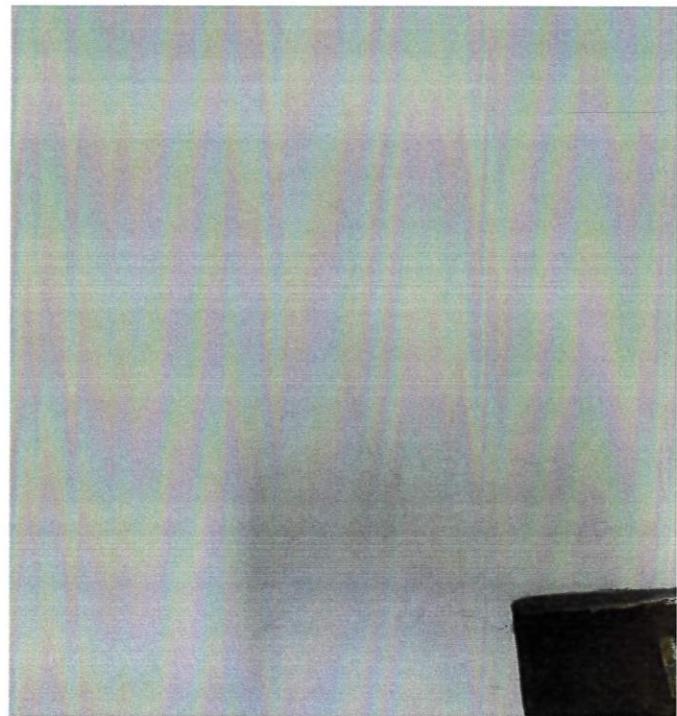
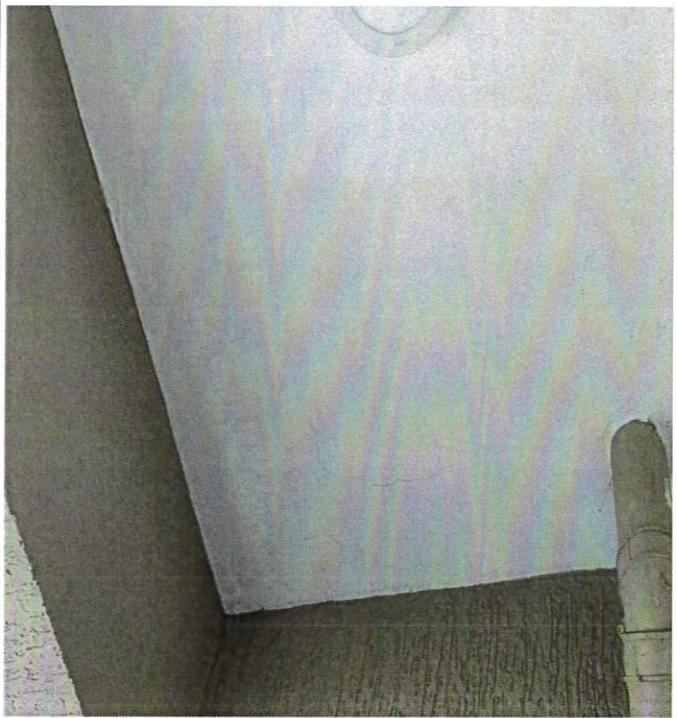
View of dampness/ damp patches/ peeling of paint

PHOTOGRAPHS



View of dampness/ damp patches/ peeling of paint inside the Flats

PHOTOGRAPHS



View of Cracks in masonry wall inside the Flats

PHOTOGRAPHS



View of dampness/ damp patches/ peeling of paint inside the Flats



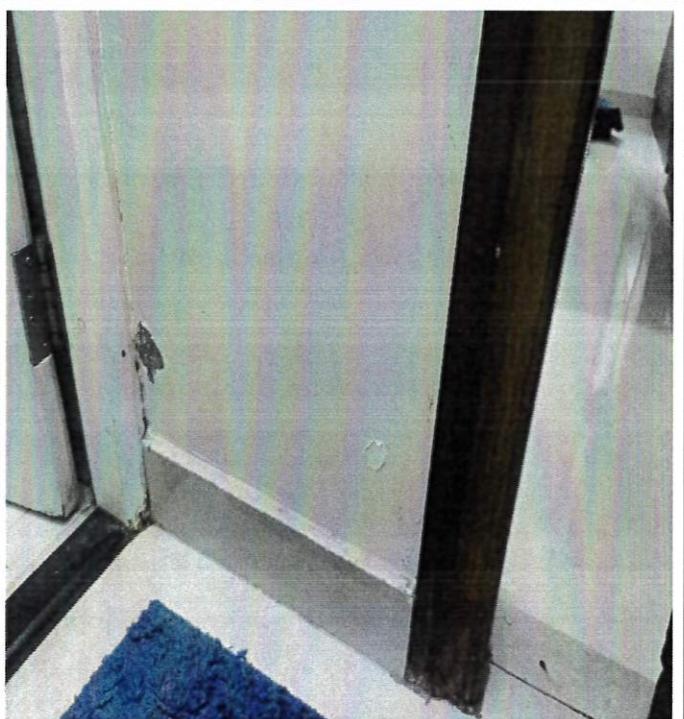
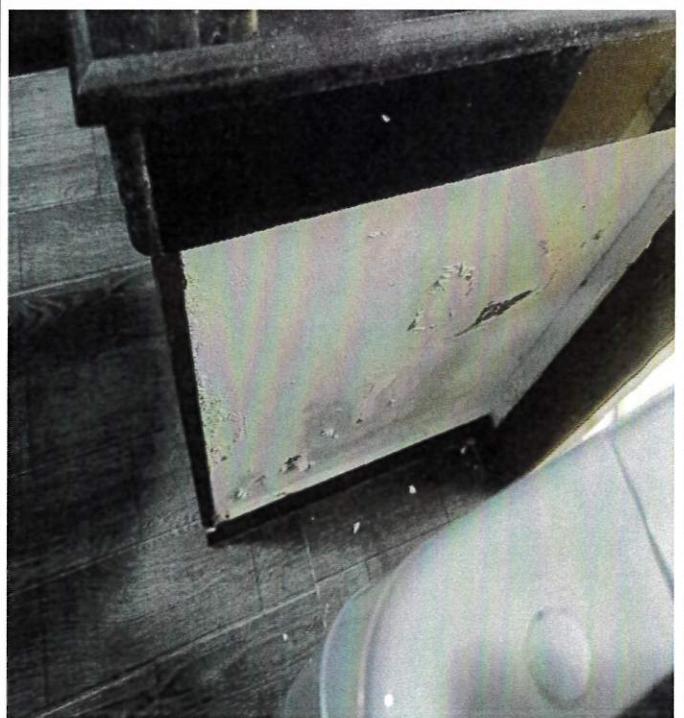
TOWER A

PHOTOGRAPHS



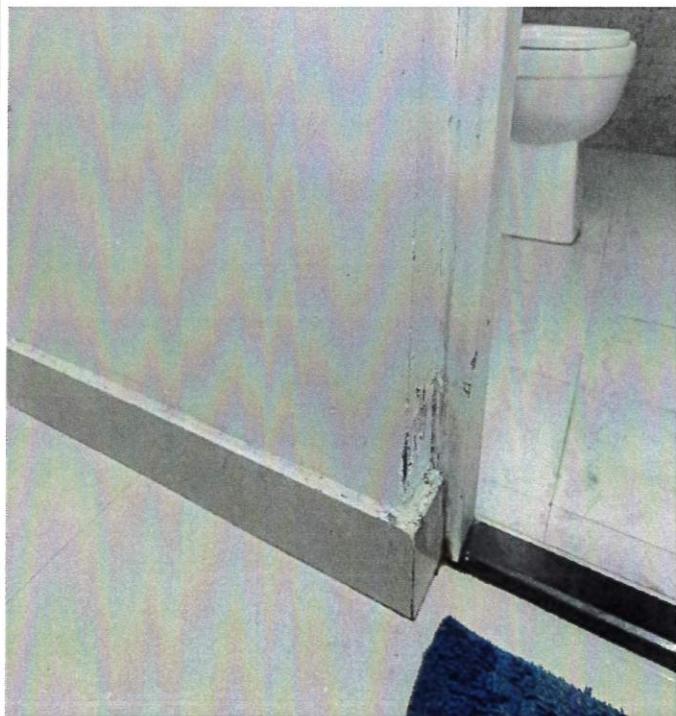
View of dampness/ damp patches/ peeling of paint inside the Flats

PHOTOGRAPHS



View of dampness/ damp patches/ peeling of paint inside the Flats

PHOTOGRAPHS



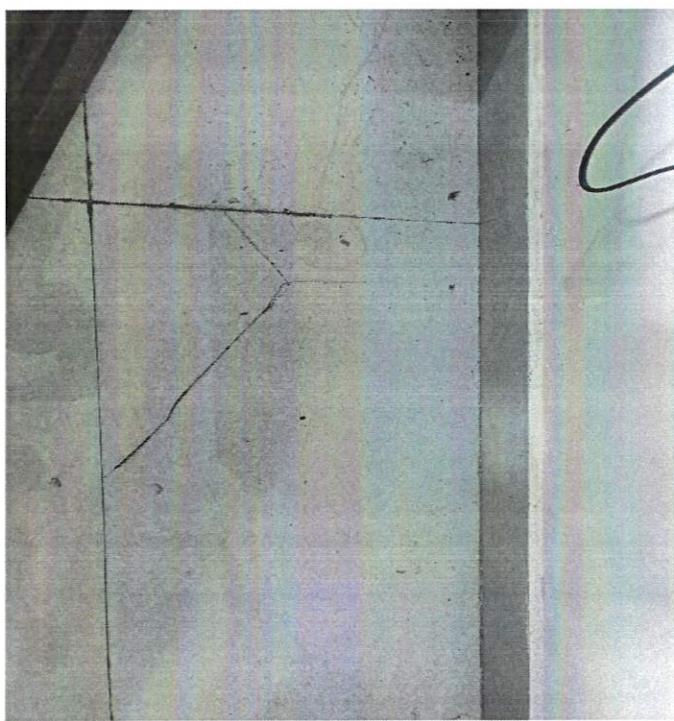
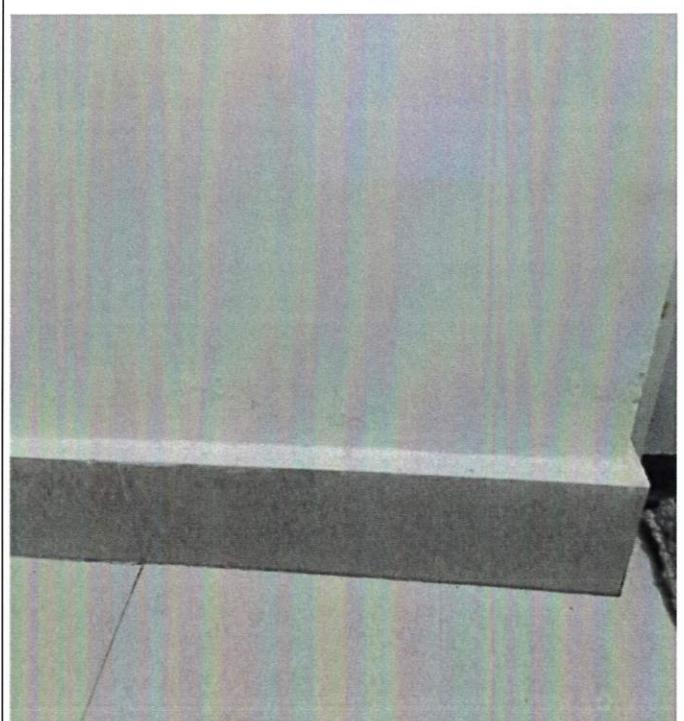
View of dampness/ damp patches/ peeling of paint inside the Flats



BUREAU
VERITAS

TOWER A

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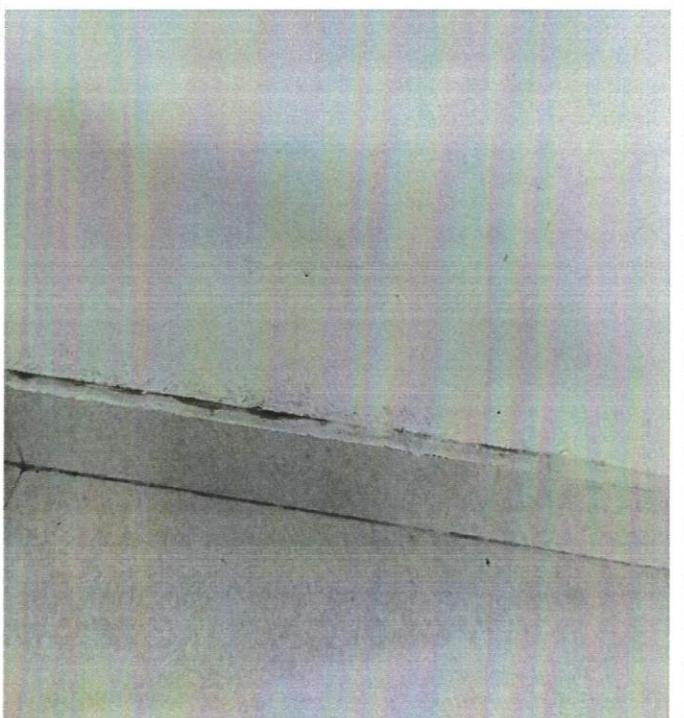


View of dampness/ damp patches/ peeling of paint inside the Flats



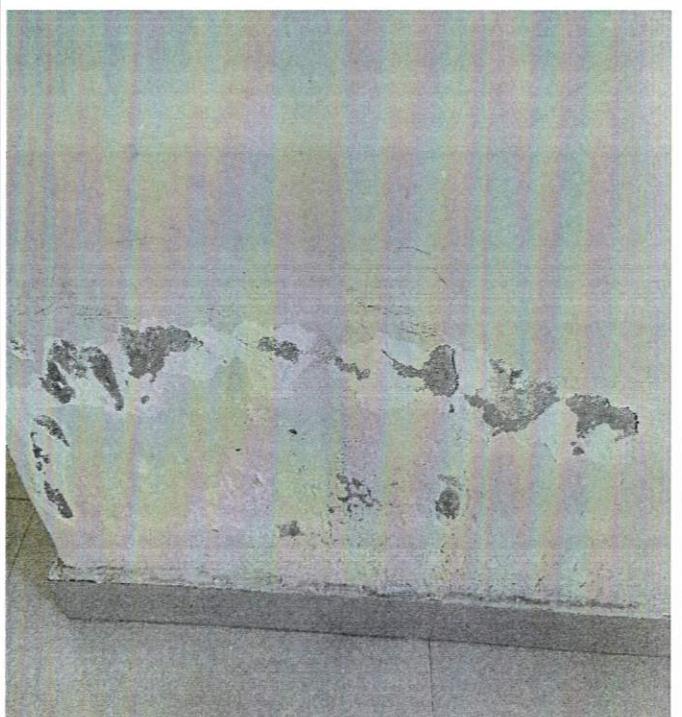
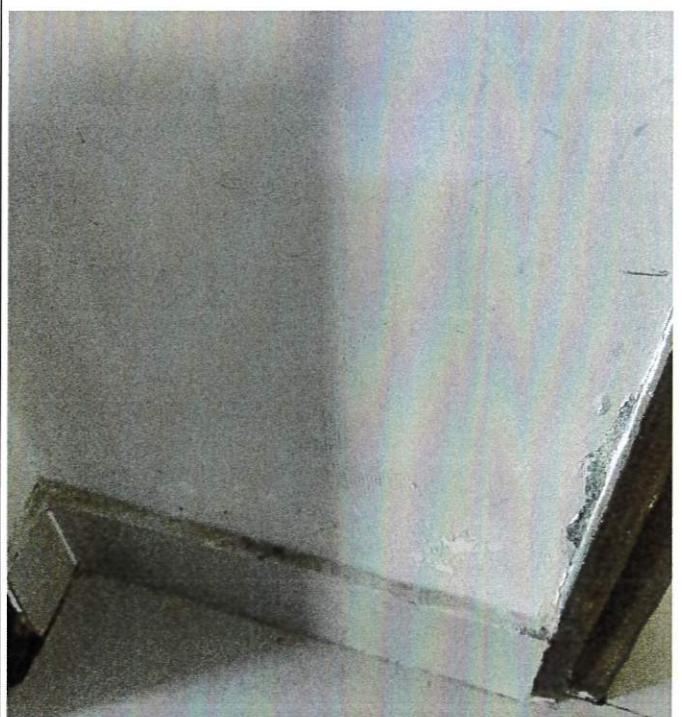
TOWER A

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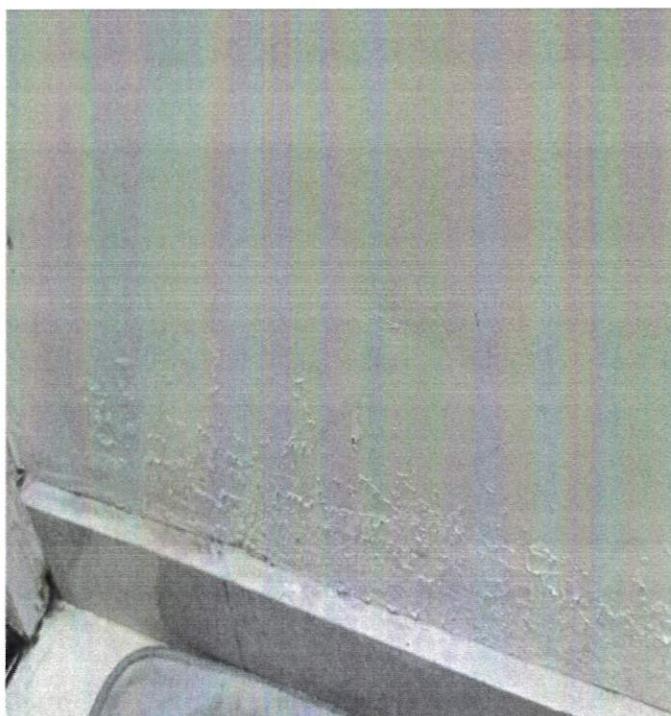
View of dampness/ damp patches/ peeling of paint inside the Flats

PHOTOGRAPHS



View of dampness/ damp patches/ peeling of paint inside the Flats

PHOTOGRAPHS

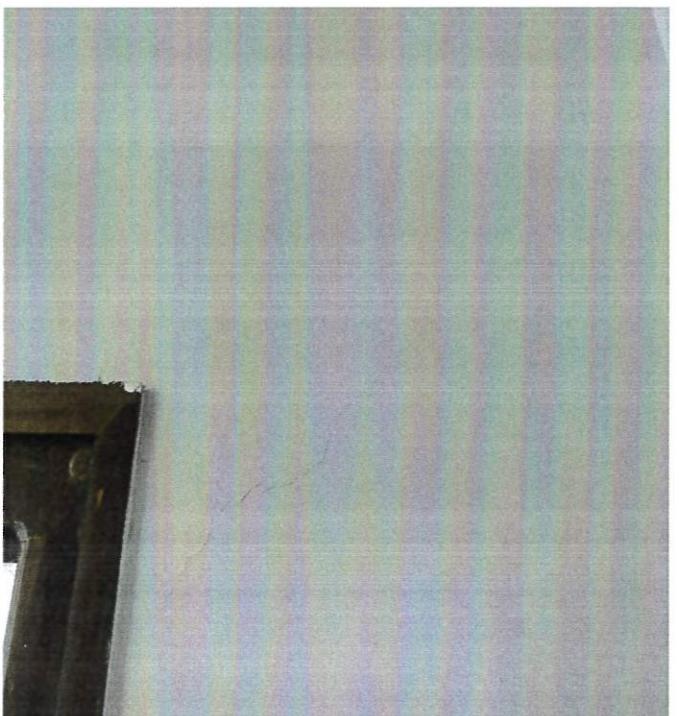
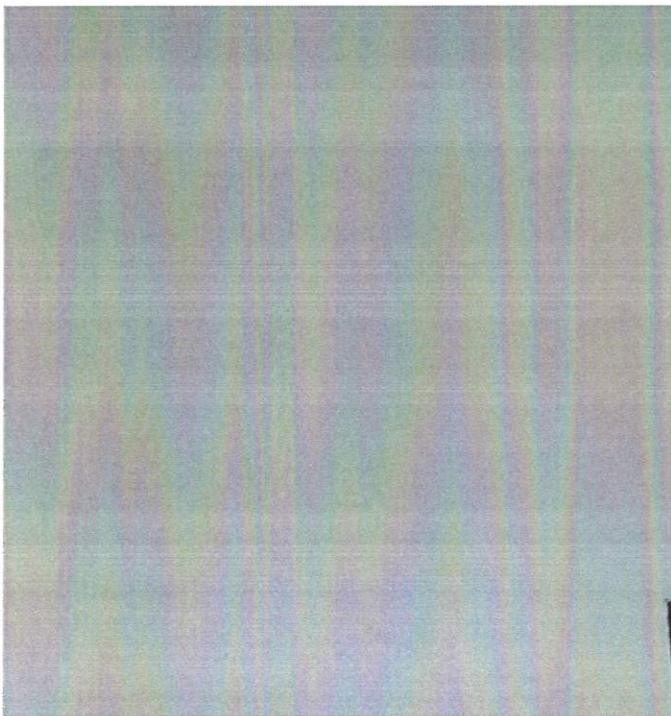
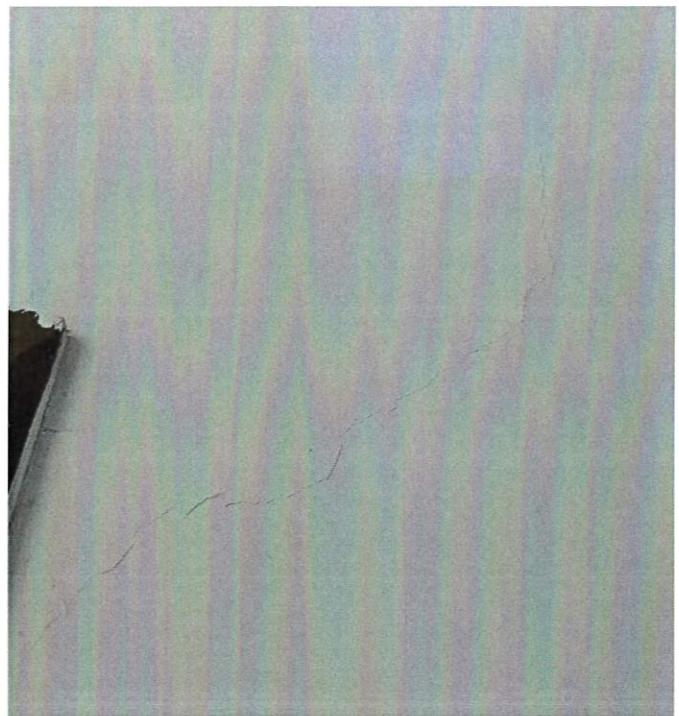


View of dampness/ damp patches/ peeling of paint inside the Flats



TOWER A

PHOTOGRAPHS



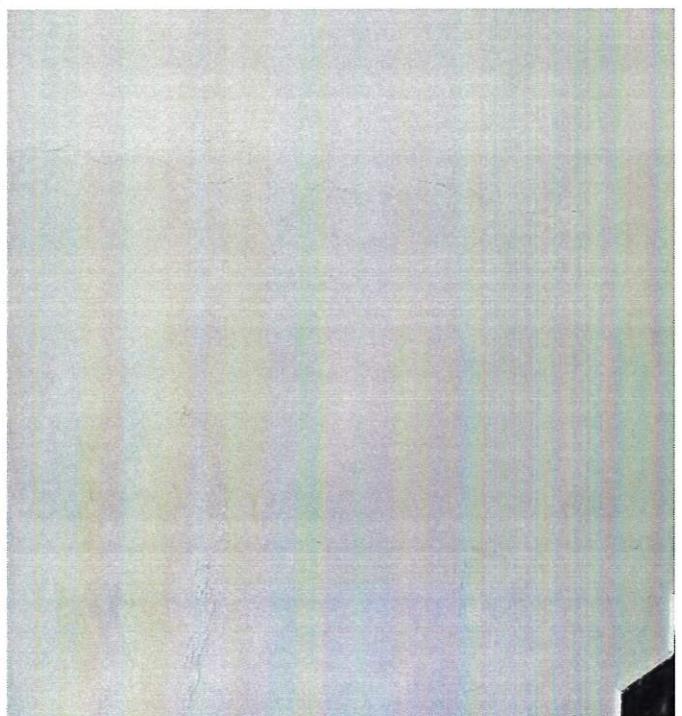
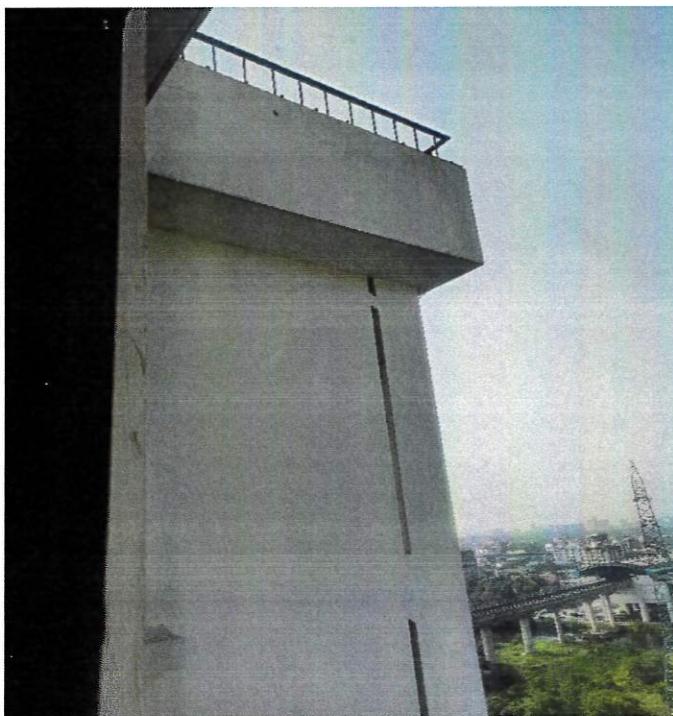
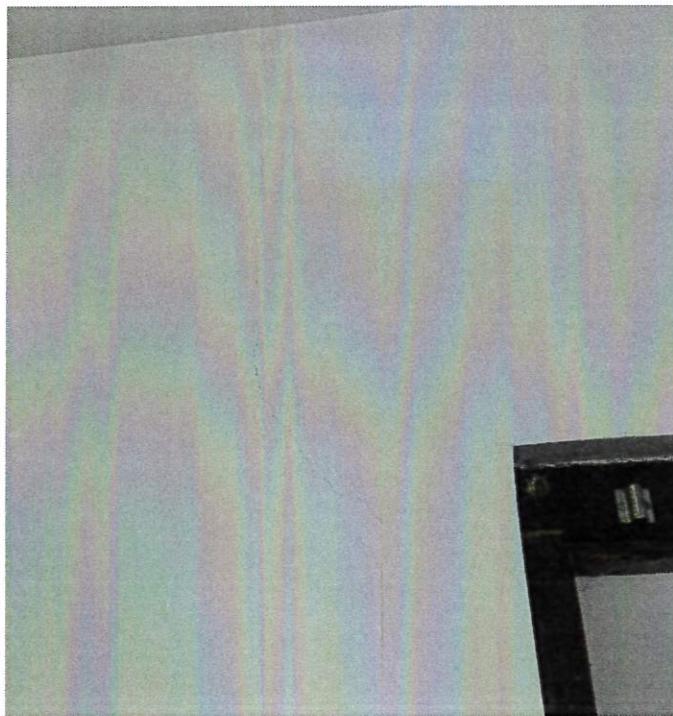
View of cracks in masonry wall



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TOWER A

PHOTOGRAPHS



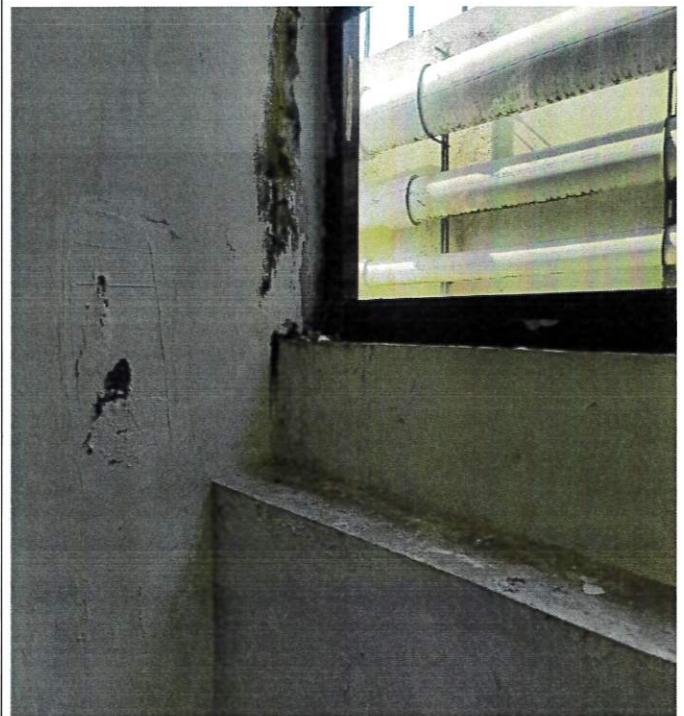
View of cracks in masonry wall



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VERITAS

TOWER A

PHOTOGRAPHS



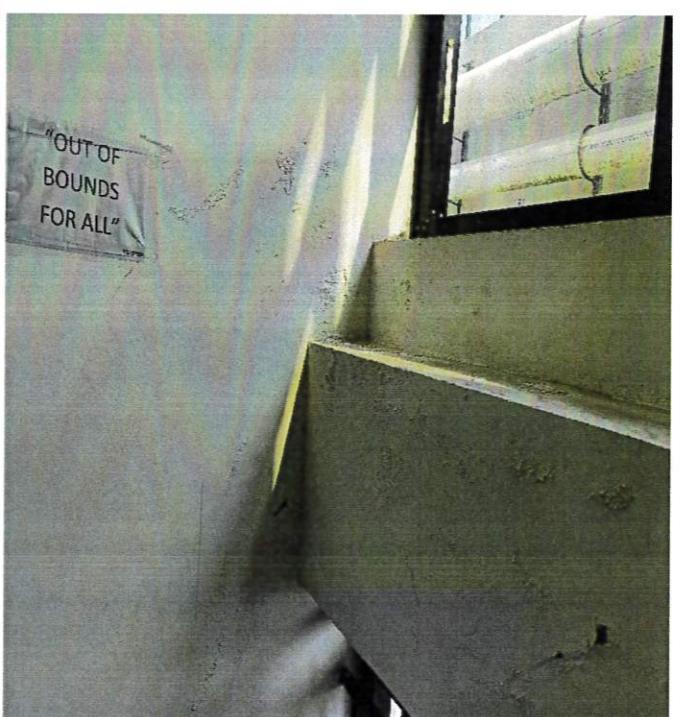
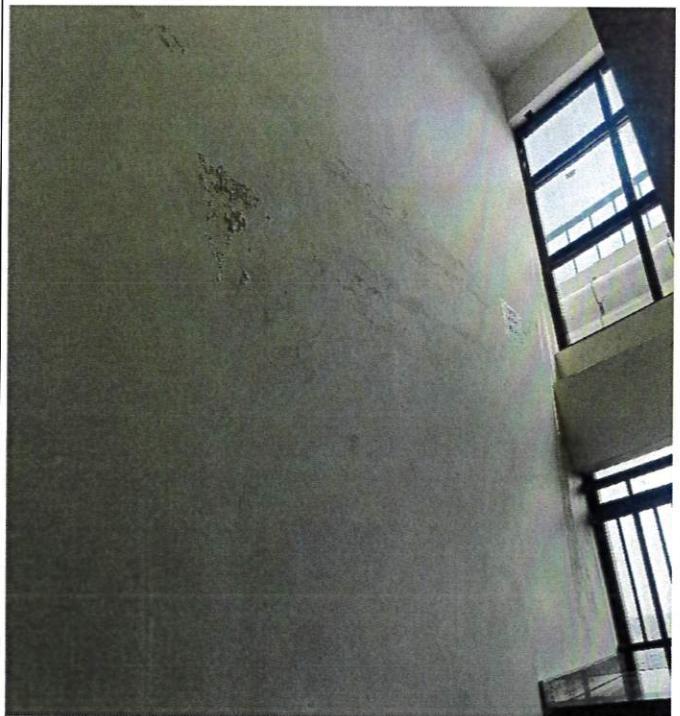
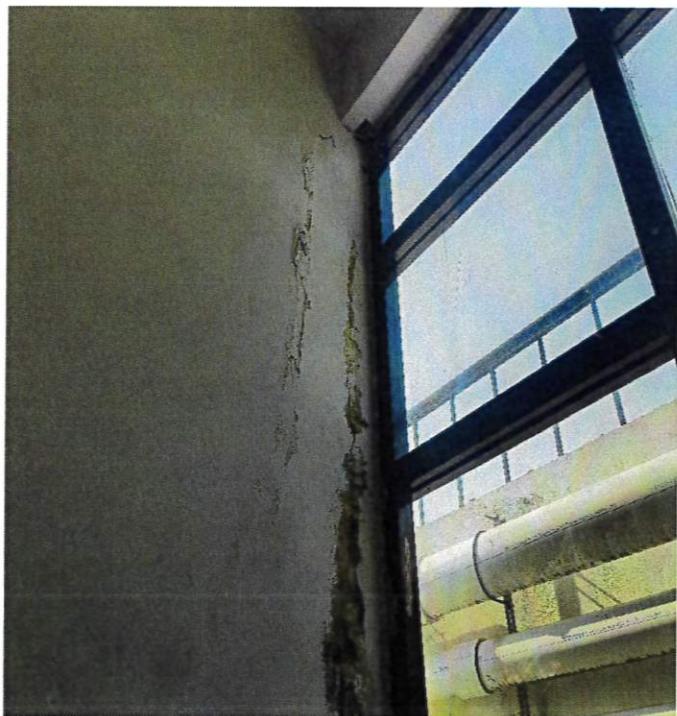
View of cracks in masonry wall



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TOWER A

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View of dampness/ damp patches/ peeling of paint