



RAJSHREE CONSOLIDATED CONSULTING PVT. LTD

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AUDIT REPORT

PART 1

REF. RCCPL - ICICI BANK / JAIHIND PRESS RAJKOT / AR - 020

DATE - 2023-05-01

PROJECT: JAI HIND PRESS BRANCH,
RAJKOT

CLIENT: ICICI BANK LTD.



While visiting the site (JAI HIND PRESS Branch, RAJKOT) we observed a lot of points on various aspects as listed in the attached observation sheet in detail and submitted here with our views/opinion in brief & in elaborated form with visual aids (where ever necessary) to M/S ICICI

Bank Ltd, for their needful. We feel that this report will help ICICI BANK to take necessary Corrective/Preventive measures timely, and where ever required take appropriate decisions on the relocation, remodeling, or necessary rectification works, etc.

At most of the branches/audit locations, the problems are observed due to improper terrace treatment, bad workmanship & poor plumbing connections. Basic construction norms are ignored. Jaihind Press Branch is an old RCC building constructed around 30-35 years back (as per details given by the landlord's office).

Except for a few rectification points, the building in general seems OK. No major structural crack and/or settlement crack was observed nor any other major problem of sagging etc. This way in today's conditions the building seems OK. Normally this type of building may last for 5 - 10 years without any big complications if do not encounter some major problems in between. Proper & timely appropriate maintenance reduces the threat of structural instability if the building is constructed with a good degree of quality.

However, for more clarity on the building assessment, stress analysis for buildings in general & a few tests on concrete can be conducted, if required, to ascertain the strength of concrete in today's conditions for comparing the strength of concrete when it was designed/constructed.

BUILDING TITLE: RENTED*

MAJOR OBSERVATION & ANALYSIS:

1. The rainwater downtake plumbing system is in poor condition. Which is causing seepages at so many locations in the bank building.
2. Vegetation growth is observed at a few places on the terrace & on the walls of the ground floor as well. The roots of this vegetation enter into the porosity of building RCC elements and in masonry walls as well, which results in seepages and cracks.
3. The parapet walls at the last terrace & at the first-floor balcony pardi were observed with so many cracks. These cracks allow water to enter into the wall (masonry/RCC Pardi), which further causes seepage in the masonry wall & rusting of steel in the RCC Pardi. The more the steel rusts it loses strength and this way the affected component of the building also loses strength.
4. At a few locations, cracks were observed at the joints of masonry and RCC member. Perhaps chicken mesh or fiber mesh was not provided before doing the plaster. Due to variable thermal expansion coefficients for RCC & masonry, these cracks take place. Once the cracks are developed then rainwater will start entering into these cracks, which causes seepage on the other side or inside the building.
5. In some places, the waterproofing treatment is not applied with a protective layer. And not only this old & broken furniture is also thrown on this. So due to the movement of man and material on the waterproofing layer, its membrane gets damaged and hence the purpose of waterproofing gets defeated.
6. Only at one or two locations in a small area tile flooring was observed loose. It is due to improper compaction of bedding material below the tiling, so when the load comes at one corner, the other corner gets lifted up and in this way, the flooring is loosened. At one or two locations the wall tiling is also observed to loosen due to inadequate bonding between the wall surface & the adhesive/cement paste below the tiling. On minute observation, it was found that the distemper/white wash layer on the base wall surface was not brush-cleaned.

7. In the toilet plumbing areas mostly it is observed the tile flooring is done with face-to-face joints with no gaps in between tiles. In such cases, these joints get broken up due to the use of harpic/acids/detergents, etc. and as a result, water starts entering through these broken joints, which further travels into the building below tile flooring and causes seepage in skirting areas with capillary action.

RECOMMENDATION:

1. OBSERVATIONS & ANALYSIS POINTS IN LINE WITH THE OBSERVATION POINTS IN THE OBSERVATION SHEET SHALL BE READ & UNDERSTOOD PROPERLY/CAREFULLY TO DECIDE THE ACTION PLAN.
2. FRONT PARK SIDE ELEVATION CAN BE MODIFIED WITH A GLAZING SYSTEM AFTER NECESSARY RECTIFICATIONS ARE DONE, TO SOLVE ALL FRONTAL ELEVATION-RELATED PROBLEMS.
3. VEGETATION GROWTH ON TERRACES & IN WALLS SHALL BE VIEWED SERIOUSLY & SHALL NOT BE ALLOWED TO GROW.
4. THE ENTIRE RAINWATER DOWN-TAKE PIPING/PLUMBING SYSTEM IS ADVISED TO BE SET RIGHT CORRECTLY WITH WELL DESIGNED SYSTEM FROM THE TERRACE TO ROAD LEVEL.
5. THE EXTERIOR WALL SURFACE FRONT SIDE & ROADSIDE ALONG WITH MUMTY AREA AT TERRACE IS ADVISED TO SCRAP OUT THE OLD PLASTER MATERIAL FOR REDOING WITH NEW & RMP MATERIAL. ON MASONRY & RCC JOINTS CHICKEN MESH/FIBER MESH APPLICATION IS ADVISED.
6. TERRACE WATERPROOFING SHALL BE PROTECTED WELL BY A PROTECTIVE LAYER WHEREVER NEEDED. IT CAN BE SCREED CONCRETE/TILING WITH SPACED JOINTS EPOXY GROUTED.
7. FOR ALL THOSE RCC COMPONENTS, WHERE STEEL IS EXPOSED, RUSTED & CONCRETE IS CRACKED, IT IS ADVISED TO DO THE REFURBISHMENT AS EARLY AS POSSIBLE.
8. AFFECTED PARAPET WALLS ARE ADVISED TO BE TREATED USING A PARAPET THERAPY SYSTEM.
9. THE CRACKS IN WALLS WHEREVER OBSERVED SHALL BE TREATED WITH THE SUGGESTED CRACK THERAPY.
10. THE HUGE SEEPAGES IN WALLS & CEILINGS ETC. SHALL BE SCRAPPED OUT THE OLD PLASTERING MATERIAL & REDONE WITH NEW & RMP MATERIAL AFTER THE SOURCE OF WATER IS CLOSED.
11. EPOXY GROUTING IN THE TOILET WALLS/FLOOR TILING IS ADVISED.

PREVENTIVE MEASURES:

Following preventive measures are recommended to reduce the threat to structural stability and save the cost of maintenance & improve the quality of work in the future, where relocation is not planned.

1. Standardizing the Type of Maintenance Related Problems & Solutions for a better & quick understanding of IFMs & Vendors.
2. Making an Operation Manual with the help of Industry Expert Designed Methodologies, Guide Lines & Check Lists, etc.
3. Clear Guide Lines on UGWT & OHWT Connections & Other Plumbing Work including Rain Water Down Take Piping System.
4. Maintenance Check List & Monitoring of House Keeping Staff's Work more attentively & on a daily basis.
5. Annually one Lecture on Maintenance Related Problems & Solutions by Industry Experts for IFMs & Vendors.

6. Generating a Record of "As Built Building & Services Drawings" for all Branches, ROs, etc. for future reference.

7. Once in a 3 years building audit is advised to reassure the building condition is good.

CORRECTIVE MEASURES:

Following corrective measures are recommended to reduce the risk & in the view of safety of staffs working there, where relocation is not planned.

1. Scrapping out of the entire external surface of walls for roadside walls is advised after removing all loose and damaged plaster away, the new & RMP plaster is advised.

2. Terrace treatment as per the methodology including methodology for terrace waterproofing shall be done, wherever needed.

3. The rainwater down-take plumbing system shall be improved.

4. Proper housekeeping & timely cleaning is advised for avoiding vegetation growth.

5. All toilet tile Walls & flooring is advised for epoxy grouting with a 2-3 mm spacer between tiles.

6. Parapet wall therapy shall be applied on affected parapet walls.

7. All RCC components (slabs, beams, walls, Pardis, columns, etc.) where steel is exposed, rusted & concrete is disintegrated/loosened up shall be provided with REFURBISHMENT TREATMENT using the suggested methodology.

8. Crack therapy is advised for cracks in masonry walls.

9. Inside the building the internal plaster is advised for scrapping out wherever affected with seepage and advised for redoing with new & RMP (Ready Mix Plaster) material after closing the source of water entry causing seepage.

SPECIALIZED MATERIALS SUGGESTED:

1. Sika Rustoff - 100 (Rust Remover)
2. Sikatop Armatec - 108 Plus (Anti Corrosive Coating)
3. Sikadur - 32 LP (Structural Bonding)
4. Sika - Monotop 122 F (PMM - Polymer Modified Mortar)
5. RMP (Ready Mix Plaster) Materials.
6. Epoxy Grouting Material.

NOTE:- If any help is needed in getting these materials, we may be contacted. The above materials are prescribed for reference only, however, other companies' similar results-giving materials can also be used.

METHODOLOGY:



RCC MEMBERS STRUCTURAL REPAIR (REFURBISHMENT) | CRACK THERAPY A (FOR PUTTY & PLASTER LEVEL CRACKS) | EPOXY GROUTING | OHWT OVERFLOW & RAINWATER DOWN TAKE PIPES PLANNING | EXTERNAL & INTERNAL PLASTER FOR AFFECTED AREA.

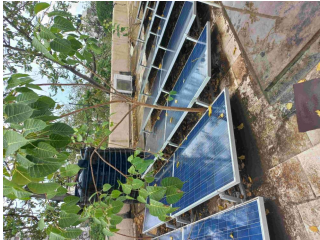




Note:- * Building Title taken as rented may kindly be cross verified/checked.

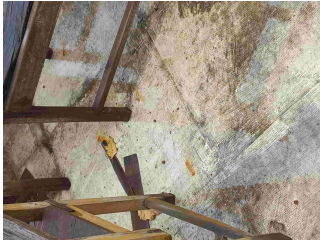

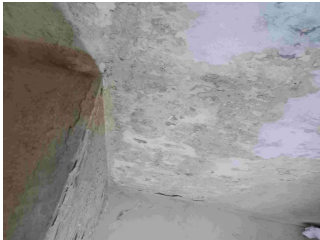
PART 2




PROJECT OBSERVATION SHEETS



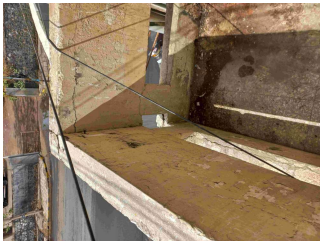

PROJECT: JAI HIND PRESS BRANCH, RAJKOT CLIENT: ICICI BANK LTD.

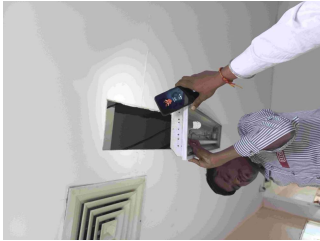
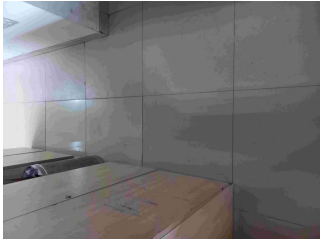



| AUDIT OBSERVATION SHEET | | | | | |
|-------------------------|---|------------|--|--|--------------------------|
| Reference / Rev. No | | | OBS / 020 (JAIHIND PRESS, RAJKOT) / 2022-23 | DATED | 2023-05-01 |
| S.No. | OBSERVATION POINTS | DATE | CORRECTIVE / PREVENTIVE MEASURES SUGGESTED | PHOTOGRAPHS | STATUS (For Client Only) |
| 1 | The poor plumbing system is causing the rainwater to enter into the roots/foundation of the building. | 2023-05-01 | It is advised for proper connection of the rainwater plumbing system to the public drain from below plinth protection. |  | |
| 2 | Same as above. | 2023-05-01 | Same as above. |  | |





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| 3 | <p>Terrace status towards the zonal office above the landlord's office is showing vegetation growth.</p> <p>Tiling done on the terrace should be with epoxy grouting of joints.</p> | 2023-05-01 | <ol style="list-style-type: none"> 1. Removal of vegetation is advised before redoing of terrace treatment. 2. Epoxy grouting in tile joints solves seepage/leakage problems for a longer time. |  | |
| 4 | Terrace parapet wall cracks were observed. | 2023-05-01 | Parapet wall therapy is advised as per the methodology suggested. |  | |
| 5 | Cracks at mumty slab beam and walls in terrace area. | 2023-05-01 | Crack therapy is advised. |  | |
| 6 | Parapet top cracks. | 2023-05-01 | Parapet therapy is advised. |  | |
| 7 | <p>Tree growth at the terrace is observed.</p> <p>This causes a regular moisturized atmosphere in the building element where roots are entered.</p> | 2023-05-01 | Regular cleaning/housekeeping shall be ensured to avoid vegetation growing. |  | |

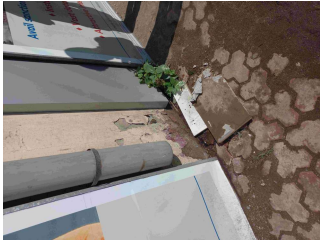
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| 8 | Waterproofing treatment is not applied with a protective layer. Old & broken furniture is lying directly on the waterproofing layer + manpower movement is also allowed directly on the WPT layer. So there are all chances for getting damaged of water proofing layer. | 2023-05-01 | The protective layer is advised. It can be tiled with epoxy grouting in joints on screed concrete. |  | |
| 9 | Terrace floor lunch area wall showing seepage. | 2023-05-01 | The outside of the wall on the terrace should be treated with an L-shaped waterproofing treatment as per the methodology suggested. |  | |
| 10 | The staircase area wall from the terrace to the second floor shows huge seepage & slab Crack towards the bottom side. The seepage source is most likely from the terrace. | 2023-05-01 | <ol style="list-style-type: none"> 1. Visible crack is advised to be opened up and see the extent of steel rusting if any, and based on this need for refurbishment shall be decided. 2. At the seepage, source itself L-shaped waterproofing treatment is advised to stop water entry from the terrace. |  | |

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| 11 | The second-floor level balcony top beam cracking severely. The photo was taken from the first-floor balcony's front side. | 2023-05-01 | <ol style="list-style-type: none"> 1. Water entry from the terrace needs to be stopped. L-shaped waterproofing can be done on the terrace as a preventive measure. 2. As a corrective measure, Refurbishment is advised. |  | |
| 12 | Cantilever balcony parapet wall at second floor level is cracking at top & bottom both levels. | 2023-05-01 | <ol style="list-style-type: none"> 1. Dismantling and redoing are advised if damages are huge or else refurbishment can be done. 2. Landlord was planning to remove the entire parapet wall and in place fixing a railing at the parapet place. This is also OK, rather something should be there from the safety point of view. |  | |
| 13 | Same as above. | 2023-05-01 | Same as above. |  | |

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| 14 | First floor pantry area slab beam conditions are good seems no problem. | 2023-05-01 | Nothing is needed right now. |  | |
| 15 | Parapet wall cracks are observed. | 2023-05-01 | <ol style="list-style-type: none"> 1. If this parapet wall is built out of RCC then Refurbishment is advised first as per the methodology suggested. 2. And if it is non-RCC made out of masonry then simple crack therapy is advised as per the methodology suggested. |  | |
| 16 | First floor bank area balcony parapet cracks. | 2023-05-01 | Same as above. |  | |
| 17 | Water leakage from terrace to balcony parapet causing seepage. | 2023-05-01 | Water leakage is to be stopped from the terrace by applying proper waterproofing treatment. |  | |

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| 18 | RAPG Hall ceiling was checked by opening the false ceiling light & inside real ceiling was found in good condition. | 2023-05-01 | Nothing is required at this stage. |  | |
| 19 | Few tiles in first floor RAPG Hall found loose. | 2023-05-01 | Repairing with proper consolidated bedding material is advised. |  | |
| 20 | Seepage is observed near AC duct in first floor zonal office in RPC hall. | 2023-05-01 | Seepage source to be closed. |  | |
| 21 | <p>Wall Tiling is loosened up in the staircase area from the first floor downwards.</p> <p>It may be due to the lost bonding between the wall's base surface/course & tile adhesive/cement paste because the wall surface with old distemper/white wash layer was not brushed up & cleaned properly.</p> | 2023-05-01 | <p>The following are advised.</p> <ol style="list-style-type: none"> 1. The first thing after the removal of tiles to be done is to brush up/clean up the wall surface. 2. Then redoing of tiling dado with an appropriate & proper thickness of the adhesive. |  | |
| 22 | Same near ground floor in same staircase. | 2023-05-01 | Same as above. |  | |

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| 23 | The toilet area's floor tiling joints are not done perfectly. | 2023-05-01 | Epoxy grouting is advised in the joints with a 2-3 mm spacer gap in between while changing the tiling floor. |  | |
| 24 | GF's strong room corner at the ceiling is observed with damage/cracks as shown in the photo. | 2023-05-01 | Patch-up treatment from outside (roadside) & inner side needs to be done to close the cavity. |  | |
| 25 | This is outside of the strong room inside. The improper rainwater down takes the piping system is causing vegetation growth (roots are clearly visible in the photo). these roots grow inside the wall masonry as well causing seepage & cracks inside the building. | 2023-05-01 | <ol style="list-style-type: none"> 1. Proper cleaning & housekeeping regularly is advised to avoid/prevent tree growth on the terrace and in walls. 2. The rainwater down-take piping system needs to be set right properly. |  | |
| 26 | The poor plumbing system is causing the rainwater to enter into the roots/foundation of the building. | 2023-05-01 | It is advised for proper connection of the rainwater plumbing system to the public drain from below plinth protection. |  | |

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| 27 | Outside towards the road rainwater down take piping related issue was observed causing water entry directly into the foundation. | 2023-05-01 | A proper chamber is advised with an outlet drain to the road or public drain. |  | |
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| <div>PART 3</div> <div>CHECK LIST</div> <div>VISIT DATE: 2023-05-01</div> <div> <div>PROJECT: JAI HIND PRESS BRANCH, RAJKOT</div> <div>CLIENT: ICICI BANK LTD.</div> </div> | | | | | | |
|---|--|--------------|--------|--|--|--------|
| S.NO | OBSERVATION POINTS FOR SITE INSPECTION | RATING SCALE | RATING | DETAILED DESCRIPTION | LOCATION | REMARK |
| 1 | Visual Inspection of Over all Building from Structure Stability Point of View. | 10 | 4 | There seems no immediate issue related to structural stability. | | |
| 2 | External Side Observation, if any | 10 | 4 | The Rainwater piping system is not good. Water is entering in wall roots. The frontal facade pardi is showing cracks and the steel started rusting so both ends need immediate action. | Front (Garden) side at FF level & Plinth protection level. | |
| 3 | Observation of Foundation | 10 | 5 | The foundation was not visible but it seems there is no problem since there are no settlement cracks or nothing such development was observed. | | |
| 4 | Settlement Cracks in Walls | 10 | 5 | No settlement cracks were observed. | | |

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| 5 | Settlement Cracks Floors | 10 | 6 | No settlement cracks were observed. | | |
| 6 | Moisture / Dampness Visibility in Ceiling Areas | 10 | 4 | Not observed except at one or two small sizes. | | |
| 7 | Moisture / Dampness Visibility in Walls Areas | 10 | 4 | Only at one or two locations in small size areas. | | |
| 8 | Moisture / Dampness Visibility above Skirting Areas | 10 | 5 | Not Observed. | | |
| 9 | Check for Plaster Strength (Intact or not) - Lighting Hammering Action. | 10 | 6 | Did not find any hollow sound or debonding of plaster or any cracks etc. | | |
| 10 | Floor - Visible Up Rooting, If Any | 10 | 4 | On the first floor one location. | First Floor | |
| 11 | Plaster - Visible Up Rooting in Ceiling Areas, If Any | 10 | 6 | NO | | |
| 12 | Plaster - Visible Up Rooting in Walls Areas, If Any | 10 | 6 | NO | | |
| 13 | Visible Concrete Deterioration in Slabs, If Any | 10 | 6 | Not Observed. | | |
| 14 | Visible Concrete Deterioration in Beams, If Any | 10 | 6 | Not Observed. | | |
| 15 | Any Refurbishment is needed in Columns/Beams/Slabs/Other RCC elements. | 10 | 4 | Yes, It is needed on the first-floor parapet wall in the front elevation facade | | |
| 16 | Visible Cracks / Deterioration in Stone Patti Roofs, If Any | | | NA | | |
| 17 | Visual Stability Check for Parapet Walls, if any. | 10 | 4 | Parapet walls at the terrace and balcony on the first floor, need refurbishment. | | |
| 18 | Visual Stability Check for Projections / Partitions if any (Horizontal) | 10 | 4 | Suspended facade pardi and parapet wall showing cracks. | | |

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| 19 | Water Leakage through RCC Column / Beam / Slab, if any | 10 | 6 | Not Observed. | | |
| 20 | Water leakage through Masonry Structure | 10 | 4 | Observed at some places as per photos. | | |
| 21 | Over head Water Storage Tanks & Plumbing Connection Status | 10 | 3 | OK, However, overflow is not planned properly. | | |
| 22 | Plumbing Connection Status in Toilets/Pantry Area. | 10 | 5 | OK | | |
| 23 | Rainwater Downtake Piping System Status. | 10 | 2 | Not OK. It shall be properly planned & rectified. | Most Affected at ground level outside. | |
| 24 | Any Vegetation Causing Moisture/Cracks. | 10 | 3 | Yes, a lot of places on the terrace. | Terrace | |
| 25 | Terrace Area Checking in General | 10 | 2 | Proper terrace treatment is not done for mumty & other affected areas. | | |
| 26 | Status of earlier done water proofing. | 10 | 3 | Poor. It is not protected well. | | |
| 27 | Status of earlier done water proofing. | 10 | 3 | Poor. It is not protected well. | | |
| 28 | Type of water proofing done earlier. | 10 | 3 | It is a fiber mesh reinforcement with brush application. | Terrace | |

TOTAL RATING SCALE : 270

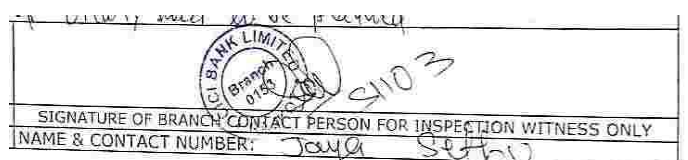
TOTAL RATING : 117

RATING INDEX: 0.43

RECOMMENDATION : Please check the RECOMMENDATIONS in the audit report part 1.



SIGNATURE OF AUDITOR



SIGNATURE OF BRANCH CONTACT PERSON FOR INSPECTION WITNESS ONLY

JAYA SETHU

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