MAYO COLLEGE, AJMER

SUBJECT: INVITATION TO TENDER – RESTORATION OF MAIN BUILDING BLOCK, MAYO COLLEGE

Dear Sir,

1. This is with reference to the tender for **Restoration of Main Building Block** at Mayo College, Ajmer.
2. The **estimated cost** of the project is **Rs. 90 lacs (Rupees Ninety Lakhs only)**. The complete tender document is enclosed herewith. Please note that **Goods and Services Tax (GST)** will be paid **separately** over and above the quoted rates.
3. The **time for completion** of the project shall be **Four (4) Months** from the date of acceptance of the work order.
4. A **non-refundable tender fee** of **Rs. 2,000/- (Rupees Two Thousand only)** in cash and an **Earnest Money Deposit (EMD)** of **Rs. 50,000/- (Rupees Fifty Thousand only)** must be deposited **by Demand Draft or through online transfer** at the time of submission. Tenders submitted without the EMD will not be considered. A **hard copy** of the tender document will be available from the office of **Mr. Apoorv Kimtee** between **31st May 2025 – 17th June 2025** (1000 Hrs – 1400 Hrs) upon cash payment of the tender fee.
5. For any clarifications, you may contact **Mr. Apoorv Kimtee** at **+91-8770045484** or via email at **je@mayocollege.com**, between **1000 Hrs – 1700 Hrs**.
6. The **tender must be submitted** by **1400 Hrs on 17th June 2025**, **online** or in **physical form** at the office of the **Bursar, Mayo College, Ajmer**. Any delay in submission will render the bid invalid.
7. Kindly forward your company's complete profile and credentials to **je@mayocollege.com** for review.

We look forward to receiving your bid.
Sincerely,

Apoorv Kimtee
JE, PWD
Mayo College, Ajmer
Phone: +91-877045484
Email: je@mayocollege.com

TENDER DOCUMENT
For
Restoration of Main Building Block
Mayo College, Ajmer, Rajasthan

Issued by
Mayo College
Ajmer, Rajasthan – 305008
Contact Details – Apoorv Kimtee - 8770045484

Conservation Consultant
TeamARC
Mumbai, Maharashtra - 400022
Contact Details - 9819860489

Tender No.: MC/PWD/2025/001
Date of Issue: 31.05.2025
Last Date of Submission: 17.06.2025

1. Notice Inviting Tender (NIT)
Sealed tenders are invited from eligible and experienced contractors for the conservation and restoration of the Main Building Block at Mayo College, Ajmer. The work involves the conservation of a heritage structure and must adhere to established conservation protocols.
Tender No.: MC/PWD/2025/001
Date of Issue: 31.05.2025
Last Date of Submission: 17.06.2025

Pre-Bid Meeting & Site Visit: 14.06.2025 between 10:00 am to 02:00pm
Cost of Tender Document: INR 2,000/- (Non-refundable)
Earnest Money Deposit (EMD): INR 50,000/-
Project Duration: 4 months from the date of work order

---

2. Eligibility Criteria
Bidders must:

- Be registered contractors in India.
- Have a minimum of **3 years of experience** in **heritage building restoration**.
- Have successfully completed **at least 1 similar works** in the last 3 years.
- Have a valid GST registration and PAN.
- Be financially solvent and not blacklisted by any government or private body.

---

3. Scope of Work
The scope of work includes but is not limited to:

- Specialized Stone Cleaning of High-Quality Marble Stone Facades
- Waterproofing of terrace areas in Lime Concrete
- Structural retrofitting and stabilization.
- Lime plaster and stone masonry restoration.
- Woodwork repair and replication in windows, doors, and roofing.
- Restoration of heritage detailing and finishes.
- Site cleaning and disposal as per heritage norms.
- Periodic quality checks with TeamARC.

All works shall strictly adhere to conservation principles and guidelines under the supervision of the conservation consultant.

---

4. Tender Submission Requirements

- Bids must be submitted in two separate sealed envelopes:
    - Envelope A: Technical Bid
    - Envelope B: Financial Bid
- Both envelopes should be sealed in one larger envelope clearly marked: "Tender for Conservation of Main Building Block, Mayo College, Ajmer."

4a. Technical Bid Format & Evaluation
Technical Bid - Total Marks: 70 (Minimum required marking – 35)

1. **Technical Documents**
    - Entire Tender Document with each page duly signed by authorised personnel, acknowledging and accepting all terms and clauses of the tender
    - EMD in the form of Demand Draft of Rs. 50,000/- drawn in favour of Principal, Mayo College, Ajmer

- Duly filled tender form (Annexure I)
- Registration Documents (GST, PAN, applicable licenses etc.)
- Undertaking on company letterhead that the company is financially solvent and not blacklisted by any government or private body

2. **Technical Qualifications (40 Marks):**
   - Experience and credentials with company profile
   - list of similar completed projects with details of project including name, nature, cost & duration. Minimum 1 similar nature project should be undertaken by the bidder as principal contractor in past 3 years.
   - Team qualifications with CVs of technical personnel.
3. **Technical Presentation (30 Marks):**
   - Visual documentation of previous projects (photographs, reports)
   - Proposed execution strategy & Conservation methodology
   - List of machinery, tools, company owned scaffolding units and skilled craftsmen

Note: Bidders must enclose supporting documentation and visuals in the technical bid.

4b. Financial Bid Format & Evaluation

Financial Bid - Total Marks: 30

Blank BoQ (Annexure II) should be duly filled & signed and submitted as part of the Financial Bid. The bidder shall quote rates inclusive of all duties, taxes, royalties and other levies except Goods & Services Tax (GST). The amount of applicable GST will be paid separately. Rates of all items should be filled and incase of any rate cell is left empty, the bid shall be considered incomplete and rejected.

- L1 (Lowest Bidder) will be awarded full 30 marks. Other bidders will be proportionately evaluated based on the L1 value.

4c. Combined Evaluation:

Technical (70%) + Financial (30%) = 100 Marks

- Envelope “A” (Technical Bid) shall be opened first at the time and date notified and its contents shall be checked. In cases where Envelope “A” does not contain all requisite documents, such bid shall be treated as non-responsive, and Envelope B of such bid shall not be opened.
- Bidders with Technical Score of Envelope “A” less than 35 shall not be considered for further evaluations
- Envelope “B” (Financial Bid) of only top 3 scorers of Envelope “A” (Technical Bid) shall be taken into consideration and shall be opened at the time and date notified and its contents shall be evaluated.
- The bidder with the highest combined score will be invited for final negotiations.
- The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all the bids at any time prior to contract award, without incurring any liability.
- Information relating to examination, evaluation, comparison and recommendation of contract award shall not be disclosed to bidders or any other person not officially concerned with such process until final decision on the bid.

---

6. Prebid Meeting & Site Visit for Examination of Works

The Prebid meeting will be held at Mayo College on 04.06.2025 at 11.00 a.m., bidders may visit the site for examination of works after the prebid meeting on 04.06.2025 till14.00 p.m.,

after necessary permissions from college authorities. The bidders are advised to visit and inspect the site of works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for the project. All costs in this respect shall have to be borne by the bidder.

---

7. Tender Submission

- All bid documents to be submitted in hard copy at Mayo College on or before 07.06.2025, at 2:00 p.m. to: Bursar Office, Mayo College
- Tender Fees of Rs. 2,000/- to be paid in the form of Demand Draft drawn in favor of Principal, Mayo College, Ajmer
- EMD of Rs. 50,000/- to be submitted in the form of Demand Draft drawn in favor of Principal, Mayo College, Ajmer
- The EMD amount shall remain valid for a period of 90 (Ninety) days from the Application Due Date, or beyond any period of extension subsequently as determined by Mayo College from time to time.
- Any bid document submitted without EMD shall be considered incomplete and rejected.
- EMD of all bidders except top scorer will be returned within 15 working days of the decision on the bid.
- EMD of the successful bidder shall be discharged within 15 days from the date of Work Order issued to the successful bidder.
- Firms registered with MSME/NSIC will be exempted from EMD. Exemption applicable only for registered unit under MSME/NSIC as on bid publication date. Copy of supporting documents to be submitted.
- The EMD Deposit shall be forfeited if the Applicant:
  • furnishes any information or document which is misleading or untrue in any material respect.
  • engages in a corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice
  • Fails to participate in the further RFP rounds.
  • if the Applicant fails to provide the Performance Security and execute the Contract with Mayo College within the stipulated time or any extension thereof provided by the college.

---

8. Opening of Tenders

The technical bids shall be opened at 11.00 **a.m. on 17.06.2025** by Mayo College representatives, presence of bidders for the same is not permitted. After opening and evaluation of the technical bids, the financial bids of top 3 technical bid scorers shall be opened subsequently on the same day.

After evaluations of all the bids, top scoring bidder shall be invited for final negotiations on 17.06.2025.

---

9. Contact for Clarification

For any queries, contact:

Mayo College (Client)
Email: Je@mayocollege.com
Phone: 8770045484
TeamARC (Conservation Consultant)
Email: teamarc.jd@gmail.com
Phone: +91 – 9819860489

---

10. Annexures

- **Annexure I – Tender Submission Form**
- **Annexure II – Blank BoQ (To be filled by contractor)**
- **Annexure III – Conservation Specifications**

TENDER CLAUSES

1. Definitions

- **Client**: Mayo College, Ajmer.
- **Consultant**: TeamARC – Conservation Architects.
- **Contractor**: The successful bidder awarded the contract.
- **Site**: Main Building of Mayo College, Ajmer.

---

2. Work Execution

- Work shall be carried out in accordance with the conservation practices and standards defined by TeamARC.
- All materials, methods, and techniques must be pre-approved by the Consultant.
- No deviation is permitted without written approval from the Consultant and Client.

---

3. Site Supervision

- The Contractor shall ensure daily presence of a qualified site engineer.
- Work will be periodically reviewed by the Consultant and Client's technical team.
- Any non-compliance found will result in work stoppage until rectified.

---

4. Timelines

- Work commencement must begin within **10 days of work order**.
- The entire work must be completed within **4 Months** as per the stipulated **timeline defined in the work order**.
- If the Contractor fails to complete the work within the stipulated or extended period, Liquidated Damages at 1.0% of the contract value per week of delay (max 10%) shall be levied. This does not absolve the Contractor from completing the work or other obligations. The Client may deduct LD from any payable amount. In justified cases, the Client may waive or reduce LD at its sole discretion by written order.

---

5. Payment Terms

- 10% mobilization amount upon mobilization of labour & erection of external scaffolding, which shall be recovered through a 10% deduction from the gross value of each Interim Bill and the Final Bill until the total mobilization amount is fully adjusted.
- Interim running bills based on verified work progress. 10% of each Interim Bill shall be retained as retention amount for the defect liability period.
- The 10% withheld as **Retention Amount**, to be released after 3 months of defect liability period from the date of final bill with all works verified as complete by the Client & Consultant.

---

6. Termination

- The Client reserves the right to terminate the contract:
    - For breach of contract or non-performance.
    - If the contractor abandons the work.
    - In case of insolvency of the contractor.
- Upon termination, the Client may get the remaining work executed at contractor's risk and cost.

7. Safety & Liability

- Contractor shall ensure strict compliance with safety norms.
- The Client will not be responsible for any accident or injury on-site.
- Contractor to carry necessary insurance for workers and third-party liability.

8. Dispute Resolution

- Any dispute will be first resolved through mutual consultation.
- If unresolved, the dispute shall be referred to an independent Arbitrator appointed by the Client.
- Jurisdiction: Ajmer, Rajasthan.

9. Force Majeure

- Neither party shall be liable for failure to perform obligations due to unforeseen circumstances (natural calamity, war, strikes, etc.).

A**NNEXURE I – Tender Submission Form**

(To be printed on the bidder's letterhead)

To
The Principal
Mayo College
Ajmer, Rajasthan – 305008

Subject: Submission of Bid for "Restoration of the Main Building" – Tender No. MC/PWD/2025/001

Dear Sir/Madam,

With reference to the above-mentioned tender, I/we hereby submit our bid for the proposed restoration work of the Main Building at Mayo College, Ajmer.

We have thoroughly examined the tender document and fully understand the scope, terms, and conditions outlined therein. We hereby confirm our unconditional acceptance of the same and agree to comply with all requirements.

We further confirm the following:

1. We meet all the eligibility criteria stipulated in the tender.
2. The Bill of Quantities (BoQ) has been duly filled in, signed, and enclosed.
3. All requisite documents as per the tender are enclosed herewith.
4. We undertake to execute the work in accordance with the specified timelines, standards, and quality requirements.

We respectfully request that our bid be considered for further evaluation.

Thank you for the opportunity.

Yours faithfully,

(Signature)
Name:
Designation:
Company Name:
Address:
Email:
Phone:
Date:

ANNEXURE - 2

CONSERVATION OF MAIN BUILDING, MAYO COLLEGE, AJMER

BILL OF QUANTITIES

Nos.	Description of Item	Quantity	Unit	Rate	Amount
				(Rupees)	(Rupees)
1	Careful Clearing of vegetation from monument surfaces including walls, floor, terraces etc. using necessary means without causing any damage to the structure. All vegetation to be carefully uprooted from the surface, the cavities created by the roots to be treated with local methods like mix of hot lime and hing or chemicals like glycel or round up or equivalent chemical as approved by the Architect or Engineer in Charge, safe cemicals to be used that do not cause any damage to the masonry surfaces.	30.00	Nos		₹ 0.00
2	Cleaning of stone/ masonry surfaces using chemical treatement with mixture of chemicals such as Liquid ammonia, Non-ionic detergent etc as may be required. Item to include gently cleaning the surface of the stone masonry and piers with Water by gentle brushing with soft nylon brushes as specified. Gentle surface cleaning may include mild pH balanced surfactants as specified for indicated areas to remove surface dirt, grit, sulphate accretions, lime wash etc as indicated by Architect.	5175.00	Square Metre		₹ 0.00
3	Recessed lime pointing 1:2:1/2 (1 Lime:2 sand: 1/2 Surkhi in stone masonry (Note: 1. Composition of lime mortar (1:2:1/2) may have variations as per site conditions or as per the instruction of the conservation Architect.)	5175.00	Square Metre		₹ 0.00
4	Repairing and grouting of any width of the open joints / cracks in all types of masonry work including scrapping of loose jointing material from cracks. The inner side to be filled/pointed with polymer mixed lime mortar with wooden trowel and fixing grouting nipple from outer side as directed by Engineer-in-charge. Then apply polymer based lime mortar by injection grouting through pre fix nozzle and nipple up to total thickness of existing stone wall and removing the PVC nipple pipe, lime mortar of mix lime & sand 1:1 mix with polymer using katha or other additives to achieve require matching colour and including cost of all materials, labour, machinery, equipment, curing and cleaning the site as directed.	500.00	Litre		₹ 0.00
5	8mm Steel-rod stitching in cracked stone masonry using stainless steel (316 grade) rods upto 25cm length and 15 cm bent on either sides, cold bending at 90 degrees. The stainless steel rod to be fixed perpendicular to the crack by drilling in stone and fixing with lime mortar and araldite mixture in such a way that the entire length of the rod is in complete contact of the stone and the bent ends are fully inserted in the cracked stone. Including making necessary holes for fixing of the steel rod as directed by Engineer-In-charge.	50.00	Numbers		₹ 0.00

6	Providing and applying breathable, non-reactive, transparent, antifungal, UV resistant, alkaline stable, impregnable silane-siloxane or equivalent based water repellent coating by brush or spray on exposed absorbing substrate stone surface in two or more coats of Wacker, laticrete or equivalent make as approved by the Architect or Enginner in Charge. The coating to be done on all surfaces in all heights, horizontal, inclined, vertical & on ceiling complete in all respects and making it complete waterproof as per the directions of the Architect or the Engineer in Charge	4000.00	Square Metre		₹ 0.00
7	Removing of disturbed architectural parts like brackets, column capitol and base etc.carefully including all scaffolding and shuttering work and stacking the useful architectural fragments in proper sequence at proper place in sequence.	1.50	Cubic Metre		₹ 0.00
					``
8	Providing and fixing decorative marble stone architectural parts like brackets, column capitol and base etc. of type, size and design as per the original members found on site. Item to include necessary cutting from larger stone section including necessary carving of ornamental details as per original, including anchoring the member with SS pins & dowelling details as per original fund during dismantling works or as per details as directed by the Architect or Engineer in Charge. Item to include necessary dressing, carving, making good of damages etc complete.	1.50	Cubic Metre		₹ 0.00
9	Replacing damaged marble stone chajjas with 50 to 75 mm thick marble stone chajja in lime sand mortar 1:2 including making gola at junction with wall in lime concrete, 40% lime mortar & 20mm brick aggregate nominal size graded aggregates, including careful dismantling of existing damaged stone chajjas, making drip course etc complete including 20mm thick plastering in Lime Mortar (1 Lime Putty: 2 sand: 1/4 Surkhi) where ever required, racking of joints, curing etc complete. (Note: 1. Composition of lime mortar may have variations as per site conditions or as per the instruction of the conservation Architect.)	50.00	Square Metre		₹ 0.00
10	Careful removal of existing deteriorated/ damaged/ weathered lime plaster without damaging the below surfaces and including safety precaution,scaffolding and efficient precise tools for removing of plaster as directed by Engineer-in-charge.	400.00	Square Metre		₹ 0.00
11	25mm thick Lime Surkhi Sand Plaster 1:1:1 (1 Lime : 1 Surkhi: 1 Sand) includingpreparation of mortar by traditional practice (by grinding) in 3 course for base coarse and subsequent course & Loi, tamping, beating, till the shrinkage cracks are disappear. The work is to be done with all leads and lift as the work is of restoration nature as per Archaeology practice on old walls and other surface including removal of old loose and decayed plaster, each coat to be done after 3 days of previous coat.	200.00	Square Metre		₹ 0.00

12	40-50mm thick decorative Lime Surkhi Sand Plaster 1:1:1 (1 Lime : 1 Surkhi: 1 Sand) on domes & chatris including preparation of mortar by traditional practice (by grinding) in 3 course for base coarse and subsequent course & Loi, tamping, beating, till the shrinkage cracks are disappear. The work is to be done with all leads and lift as the work is of restoration nature as per Archaeology practice on old walls and other surface including removal of old loose and decayed plaster, each coat to be done after 3 days of previous coat.	250.00	Square Metre		₹ 0.00
13	Providing and applying pigmented lime wash in 3 coats to internal plaster surfaces of verandah walls & ceilings with careful mixing of pigments to match existing/ proposed colour scheme as per Architect's instructions, Item to include providing test patches for approval of colour and finish by the Architect or Engineer-inCharge before applying the same	850.00	Square Metre		₹ 0.00
14	Providing lime kara on curved or decorative pillars, surfaces embelishments as per decorative ornamental designs as per old existing carving on surface highly precise	250.00	Square Metre		₹ 0.00
15	Removing disturbed stone flooring carefully and stacking at proper place. Thickness up to 40 cm including all scaffolding and shuttering work, stacking useful architectural fragments in proper sequence at the proper place in proper order.	375.00	Square Metre		₹ 0.00
16	Demolishing loose, cement/ lime concrete and disposal of material within 50 meter lead,as directed by Engineer-In-Charge.	50.00	Cubic Metre		₹ 0.00
17	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be levelled and neatly dressed. (No extra lift is payable if work is done by mechanical means) All kinds of soil	325.00	Cubic Metre		₹ 0.00
18	Filling available excavated earth (excluding hard rock/Ordinary rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	225.00	Cubic Metre		₹ 0.00
19	Providing dry trap/ rubble stone soling including hand packing and compacting etc. Complete	50.00	Cubic Metre		₹ 0.00
20	Raised and cut lime pointing 1:2 (1 Lime:2 surkhi) On Stonework	350.00	Square Metre		₹ 0.00
21	Providing and laying lime concrete in foundation and plinth with graded brick aggregate 40 mm nominal size and 50% mortar 1:1:2 (1 lime putty: 1 surkhi: 2 Coarse sand) rammed excluding cost of centring and shuttering	55.00	Cubic Metre		₹ 0.00

22	40 mm thick fine dressed stone flooring over 20 mm (average) thick base of lime mortar 1:1:1 (1 lime: 1 surkhi:1 coarse sand) with joints finished flush. 40 mm thick fine dressed stone flooring over 20 mm (average) thick base of lime mortar 1:1:1 (1 lime: 1 surkhi:1 coarse sand) with joints finished flush.	375.00	Square Metre		₹ 0.00
23	Carefuly dismantling of existing layers of waterproofing and lime terracing over the terrace areas upto required depth by manual means only, including carefully dismantling the top layer of concrete, cleaning and levelling of sub base to prepare same to recieve new layer of waterproofing, including necessary lifting, stacking the dismantled material on site, and disposing the same as required and as directed by the Engineer-in-charge	175.00	Cubic Metre		₹ 0.00
24	Providing and laying lime concrete terracing on roofs with 20mm to 25mm nominal size brick aggregate and 50% lime mortar 1:2 (1 lime putty : 2 surkhi) rammed and finished with gur and belgiri treatment complete including rounding off junctions with parapet wall complete	175.00	Cubic Metre		₹ 0.00
25	Providing and laying water proofing treatment to existing terrace slab with NILOBIT / STP / Pidilite or equivalent 3mm thick APP modified bitumen membrane with polymer reinforcement with overlapping of 75mm along length and 100mm along width including removing the tarfelt treatment, without causing damages to the existing structure, cleaning the terrace surface neatly preparing bell mouth with removing the dust and loose portion, including applying the bitumen based primer @ 0.20 Ltr / Sqm and laying the 3mm thick Nilobit / STP / Pidilite or equ9ivalent 3mm thick APP modified bitumen membrane coating with torching method and finishing surface with heat reflective bitumen based silver paint @ 0.10 Ltr. / Sqm and covering the whole treatment with five years guarantee, on requisite stamp paper etc. complete	1700.00	Square Metre		₹ 0.00
26	Providing and laying lime Gola on roofing as per Archaeology practice with lime, Surkhi, brick aggregate 12 to 20mm (1:1:2) and using Methi, Gur, Hemp, bhel etc including beating and temping 100 to 150mm thick as per specifications. Including dismantling of old deteriorated roofing	400.00	Running Metre		₹ 0.00
27	Providing and fixing matching Stone Khurra (Ramp way)30cm long and 10CmX10Cm dimension in face(in plan) or as per matching with site dimension and pattern with approved stone, fixing of khura in grinded lime surkhi/ sand mortar 1:2, making khura with rough chisel dressed stone of stone fixing vertically as per direction of Engineer-in-Charge. (Khura should be non slippery surface)	50.00	Numbers		₹ 0.00

28	Providing and fixing 50-75mm GI water spouts as water outlets at terrace levels. The spouts to project out of the parapet wall edge by atleast 50mm to allow the water to flow directly out and not run along the wall surface. The innerside of the spout to be cut angularly to merge with the slope of the Khurras, including making necessary holes in the parapet based on the terrace slopes to insert the water soputs or cleaning and repairing the existing water outlets and fixing the spouts within the same including necessary cleaning, repairing the water outler surfaces and walls in lime mortar, making good any damages, tools, hardware etc. complete	50.00	Numbers		₹ 0.00
29	Providing and fixing well seasoned hard wood members like rafters, joists, frames, louveres etc. as may be required, of the original size, design and type as per the original damaged members dismantled from site. Deteriorated/ damaged wooden members to be carefully dismantled without damaging the adjacent members, and replaced with new hard wood members of the same type and size using necessary anchoring methods as per original details or as directed by the Architect. The wooden members to be coated with anti-termite treatment before fixing, including necessary lifting, cutting, carvings if any, fixing details, tools, hardware etc. complete	1.00	Cubic Metre		₹ 0.00
30	Scraping the existing wooden door and window shutters with frame and other wooden members removing existing paints and or polish, by applying paint remover over wooden surface, heating by blow lamp, rubbing the surface with sand paper & as directed by the architect etc complete. (External Windows & Verandah Doors)	300.00	Square Metre		₹ 0.00
31	Providing PU coating on wooden surfaces including prepare the surface by sanding with 180 sand paper followed by 320 & 400 numbered sand papers. Then apply 2-3 coats of Asian Paints PU Palette Exterior Primer Surface White, using recommended procedure. The recoating time is 4-5 hours but should not exceed 72 hrs. Before recoating, sand the surface using 320 & 400 numbered sand papers & wipe the surface clean after sanding. After 4-5 hours of the last primer coat, sand and apply 2-3 coats of Asian Paints PU Palette Interior Satin/ Interior Glossy/ Exterior Glossy (or equivalent 2 pack pigmented polyurethane products with excellent resistance to scratch & stain, and no yellowing properties) to build a 120 micron film. The recoating time between each coat is 12-14 hours but should not exceed 72 hours. Sanding the surface between each coat with 320 & 400 numbered sand papers is necessary.	50.00	Square Metre		₹ 0.00
32	Providing and applying french polish to new wood work, for required finishing including. knotting, preparing the surfaces, scaffolding etc. complete as directed.	200.00	Square Metre		₹ 0.00

33	Plaster of Paris covering of 30mm thickness over the floor area with a bottom layer of high density plastic sheet/12 mm commercial ply over existing flooring to ensure that scaffolding/ movement of machine do not damage the historic flooring all complete in all respects and to the entire satisfaction of the Architect and Engineer in charge. Item to include the cost of removing & cleaning the site of Plaster of Paris and ply after the works are done	1400.00	Square Metre		₹ 0.00
34	Cleaning & Buffing of existing heritage stone flooring, using necessary chemicals like tinoxide etc., The floor to be properly cleaned to remove all stains and dirt before polishing and utmost care to be taken that no damages are caused to the flooring while cleaning and buffing of the floor. No polishing stones should be used for the cleaning and buffing works which may scratch the stone surfaces. Item to include necessary cleaning, using polishing machines, hand polishing machines for edges and corners, cleaning the wall areas off all dirt caused while cleaning, making good the damages etc. complete	1400.00	Square Metre		₹ 0.00
35	Providing bird protection nets under domes & chattri areas, in the interior verandah areas of the building, to avoid pigeons and birds from settling in the spaces. The net to be fixed using 50mm x50mm well seasoned teak wood frames. Item to include removing existing bird nets, mkaing good the holes and damages, fixing the new frame and net using necessary anchornig methods with minimum damages to the walls, painting the wooden frame, scaffolding, tools etc. complete	50.00	Square Metre		₹ 0.00
36	Touching up of damaged artwork of main assemblly hall ceiling. Item to include identifying damaged sections of the artwork and carefully scraping the dmaged sections of the painted surfaces, with utmost care to avoid any damages to the adjoining areas. and repainting with paint shade to match the original on site, with necessary artwork and stenciling to be replicated over the same to match the original design and finish of the traditional ceiling. The works to be executed by skilled craftsmen only and under strict supervision. Item to invlude necessary stencil work, scaffolding, protection of floor while erecting scaffolding, skilled craftsmen with tools etc. complete	Specialized works only if required	Square Metre (Rate Only)		
37	Providing and strengthening the distressed structure of the ceilings by using steel adjustable props of required length with connecting pipes and couplers with wooden load distributors at top and bottom etc., complete. Item to include providing mechanical jacks for structurally distrssed beams, rafters, wall plates, trusses etc. with necessary wooden load distributors at the top and bottom, avoiding any damages to the surrouding areas, etc. complete.	Only for SOS Support if required	Square Metre (Rate Only)		
	Total Amount in Figures	**0.00**			
	Total Amount in Words				

	The above rates & amount doesnot include GST & 18% GST shall be payable extra. *The rates must be inclusive of all taxes, duties, transportation, and incidental costs*

TERMS & CONDITIONS

1. **Variation in Quantities**
   "The Client reserves the right to increase or decrease work quantities without assigning any reason."
2. **Measurement Clause**
   "Payment will be based on actual site measurements as verified by the Consultant Team/Client."
3. **Supplier Warranties**
   "All equipment/material warranties shall be issued in the Client's name, wherever assignable."
4. **Indemnification**
   "The contractor shall indemnify the client for any losses or damages due to non-performance or contract breach."
5. **Material Entry Register**
   "All materials entering site shall be recorded in the entry gate register. Contractor is responsible for accuracy of entries."
6. **Storage Responsibility**
   "Contractor shall arrange and be responsible for safe storage of material at site."
7. **Electricity & Water**
   "Electricity will be provided via sub-meter and charged accordingly (.75% of total bill). Water arrangement is the contractor's responsibility."
8. **Extra Work Clause**
   "Extra work will only be paid if written instructions are issued and approved by the designated authority (e.g., Project Head)."

A. Contractual & Operational Clarity

1. **Project Schedule and Milestone Chart**
    - *"Contractor shall submit a detailed work schedule with defined milestones within 7 days of Work Order issuance. Progress will be monitored against these milestones". Any variations in the work schedule should be notified in advance with valid justification for the same.*
2. **Site Possession Certificate**
    - *"Site possession shall be formally documented on the day of handover with joint signatures of the Contractor and Client."*

B. Financial Safeguards

3. **Final Bill Submission Timeline**
    - *"The final bill must be submitted within 30 days of work completion. Delayed submissions may not be entertained without valid justification."*
4. **No Claim Certificate**
    - *"Contractor shall submit a 'No Claim Certificate' along with the final bill, confirming no pending dues or claims post-final settlement."*

C. Labour & Workforce Compliance

5. **Skilled Labour Requirement Clause**
    - *"Contractor must deploy only skilled artisans and workers experienced in heritage restoration, with records to be submitted prior to commencement."*
6. **Labour Camp and Welfare Responsibility**
    - *"Contractor is responsible for labour accommodation, sanitation, and adherence to labour welfare norms during the contract period."*

D. Risk Mitigation & Compliance

7. **Site Security & Access Control**
    - *"Contractor shall ensure restricted site access and coordinate with campus authorities for daily entry/exit logs."*
8. **Mock-Up Approval Clause**
    - *"Mock-ups of all specialized restoration works (e.g., lime plaster, stone carving) must be prepared and approved by the consultant's team before large-scale execution."*
9. **Heritage Sensitivity Protocol**
    - *"Contractor must ensure that no irreversible alterations are made to any part of the building without explicit written consent from the Conservation Consultant."*

E. Documentation & Handover

10. **Photographic Documentation**
    - *"The contractor shall maintain before-during-after photographic records of all restoration work and submit them in digital format at the time of final handover."*

F. Communication & Escalation

12. **Site Coordination Meetings**
    - *"Periodic site meetings shall be conducted with the Project Consultant and Client team. Minutes of meeting (MoM) shall be recorded and shared."*
13. **Dispute Escalation Matrix**
    - *"A formal escalation mechanism shall be defined for resolving execution delays or discrepancies prior to invoking arbitration."*

ANNEXURE – III
CONSERVATION SPECIFICATIONS

A1	Demolition, Dismantling & Enabling Works (Scaffolds)
A2	Stone Cleaning & Paint removal
A3	Stone Consolidation
A4	Removal of Biological growth
A5	Dutchman Repair & Restoration of Cornices through Plastic Repair
A6	Specifications for Lime Work
A7	Specifications for Treatment & Consolidation of Timber

A. 1. a DEMOLITION, DISMANTLING AND REMOVAL

Contractors shall take all precautions to see that the demolition is done in such a sequence and manner as to prevent all damage to usable and any damage to nearby property or injury to life. To this effect the Contractor may be required to erect suitable barricades around the works as directed for which no claims for extra payment will be allowed.

The structure shall be dismantled carefully, and the materials removed without causing damage to the serviceable materials and the part of the structure to be retained, and any properties or structure nearby. Any damage to nearby property or structure shall be made good by the contractor without extra claims. Materials which are to be reused, shall be carefully dismantled to avoid any damages and stacked in an order which facilitates the re-use. Serviceable materials may be issued to the contractor for use in the new work or elsewhere at the rates and as per conditions provided in the tender. No material shall be disposed off by the contractor without the specific instructions of the Consultants.

b. ENABLING WORKS – SCAFFOLDING, MOBILE WORK STATIONS & PROTECTIVE WORKS

Various precautions to protect the Heritage Structure and finishes from damage as detailed herein shall be taken by the contractor. All scaffolding erected on site should mostly be self supported with minimum or no supports taken from the heritage structure, under no circumstances shall the structure be damaged to make any sort of support of the scaffolding, any support if required shall be taken with utmost care ensuring no decorative details are damaged or any other damages to the structure. All scaffolding should be provided with rubber pads wherever the same comes in contact with the structure walls or floor surfaces avoiding any superficial damages to the structure.
Sufficient amount of safety measures to be taken on site including making provisions of printed duck tape with safety signage and words “Site Works in Progress” and “Caution” printed to cordon off areas of work. Adequate site signage in bold printed signs should be placed as per Architect’s instructions for safety instructions.

A. 2.STONE CLEANING OF EXPOSED MASONRY SURFACES

Any old surface dirt or old surface coatings on the masonry surface is to be removed by gently dry dusting using soft nylon bristle brushes or a vacuum cleaner, to allow for removal of loose dirt and waterproof coatings. Stone surfaces must be cleaned from the top to bottom in dry dusting. The stone surfaces on the external facades exhibit stone staining and accumulation of pollutants and sulphate skins, in passage of time. The surface hence requires gentle cleaning, using either of the under stated techniques, or in some cases additional cleaning techniques explained in the following passages. It is recommended that for buff basalt gentle water misting and water washing with mild surfactant is to be used and for the limestone stringer courses, cornices, capitals etc., ammoniacal poulticing is to be employed.

Mist Spraying & Water Washing:

Most of the flat stone surfaces along the external facades shall require only a gentle water washing with Soft Nylon Brushes without actually over-wetting the stone and causing any disastrous side effects like salt migration and consequent efflorescence. In cases of very stubborn staining, a mild, non-ionic detergent solution like ‘Teepol’ shall be used, if necessary. Proportion: 3 - 9 parts water / spirit to 1 part of nonionic detergent. For some stubborn stains such as iron stains, additional application of some chemical such as glycerin, sodium citrate may be used. For removal of bitumen stains, the application of scrapper of freezing

with dry ice and following it up with petrol, paraffin or naphtha washes may be adopted. For oil and grease stains, the application of white spirit or methyl chloroform may be adopted and for other stubborn staining, a very weak solution of HF (2-5 %) at very short dwell times and ensuring maximum safety precautions may be adopted. Any such cleaning undertaken will have to be first approved by the consultants. For removing limewash and paint a dilute wash of caustic soda (NaOH) may be applied and then washed after nylon brushing.

Poulticing for Limestone and Decorative Surfaces:

In case of stone cleaning of Limestone decorative surfaces and other smaller surfaces, a chemical poulticing treatment shall be adopted. This shall involve an ammonia paper poultice treatment and shall be carried out under controlled conditions.

The method of preparation of the mix involves mixing 100 gms (10%) of Ammonium Carbonate, 30 gms of Solvite and 3 drops of Triton X-100 for every one Litre of water. Crushed Paper pulp is to be added to the mixture to create the poultice; same is to be thoroughly mixed till a thick consistency of a putty like mixture is reached. Cover the mouth of the container with a plastic sheet. The container shall then be transported to the site of application and after gently spraying the stringer/ moulding patch with water to remove loose grit and dirt, a 20 mm thick layer of putty shall be applied to the surface. In order to allow for gradual drying of the putty, it should be covered with a "Cling Film" and left in place for 3 days. After a period of 3 days, the cling-film shall be removed and the poultice gently scraped off, using flat wooden spatulas. The pollutant, which has become soft and pliable by then, shall be scraped off gently, using the wooden spatulas, water sprays and nylon brushes. The application shall be repeated twice for the required cleaning. This process shall be conducted using rubber gloves and masks to avoid inhalation of ammonia fumes, or damage to broken or abraded skin surface. The mixing process shall take place in a controlled environment, using a suction hood for speedy removal of ammonia fumes.

Application of chemical cleaning agents in cleaning & paint removal:

Chemical cleaning works on the principle of some chemicals being reactive with dirt accretions but unreactive with the stone surface underneath. Though chemical cleaning agents are among the most efficient cleaning methods, care must be taken to ensure their compatibility with the given stone and of removal all residual deposits by washing with water, or adequate neutralizing with dilutions of acetic acid in case of Ph alkaline solvents.

In some cases, the application of a chemical treatment is enhanced by application as a poultice or gel since this ensures that the chemical does not penetrate too deep into the stone. Pre wetting is another method of ensuring this. Most commonly used chemical surfactant is Washing with neutral Ph balanced surfactants like Teepol & Caustic Soda. However, it is extremely important to thoroughly clean the surface after use of same with water and brush to neutralize the baseshould continue till the litmus test shows up a Ph balanced surface . This application needs to adopt strict safety standards, with the personnel wearing protective eye goggles, rubber gloves and helmet during work.

Removal of Algae, Moss and Lichens

The recommended treatment for masonry covered with algae, moss and small plants is to Scrape off the moss and algae with stiff bristle or non-ferrous wire brushes. Fill a spray pump with two-thirds solution of quaternary Ammonium based biocide and apply a flood coat. Leave the treated area for at least one week. Brush off as much dead growth as possible with brushes.

A. 3. CONSOLIDATION OF STONE

Consolidants may be used for stone where it is deteriorated severely or shows heavy amount of disintegration. Further to this, the use of a water repellent treatment to arrest further water ingress however ensuring the breathability of the stone making sure the treatment is vapour permeable. The coat selected shall also be resistant to Ultra Violet Radiation. Freshly treated stone surfaces must be protected from rain for a period of at least 3 days. Treated areas should be protected from direct radiation by setting an awning or veiling the scaffold.

Calcium hydroxide as consolidant: Lime water may be used as a consolidant for lime stone. Lime water is tapped from a slaking tank after all the slaking of lime in excess water has ceased and the water has a clear appearance. Carbonation (upon exposure to air) that makes the lime ineffective shall be cleverly avoided. For this purpose, the surface of the lime water may be covered with a polystyrene sheet pierced only by a siphon tube fitted with a filter. The lime water is drawn off when required by a hand pump into spray bottles and it is necessary to check from time to time that the water has not accidentally become clouded through the disturbance of lime at the bottom. After completing the curing process, ideally 28 days, further rehabilitation measures such as repointing, stone replacement or sealant may be undertaken.

A. 4. REMOVAL OF BIOLOGICAL GROWTH

a. Removal of Ficus Plant Growth from masonry walls:

Ficus plant growth is one of the factors responsible for the structural problems of a building. These plants with their roots in the masonry of the building start growing outward causing issues such as cracks, breakage of part masonry etc. In order to remove such growth, the following measures shall be carried out:

Removal from root: During the initial stages of the project all the plant growth all along the surface of the masonry shall be physically pulled out and uprooted, or in case of a very sturdy growth, chopped off above the stone surface.

Injecting a suitable biocide: Biocides that are least damaging to the adjoining stone masonry shall be used.

Natural Lime Paste Application: After cutting out the ficus, a paste of powdered "Hing" (asafoetida) and slaked lime putty in the proportion 1:2 shall be applied to the base or origin of the ficus. This shall be applied as a paste over 2 –3 times and allowed to dry.

b. Removal of Algae, Lichens, etc.:

Buildings with leakage and other plumbing issues are prone to algal growth on the masonry and needs immediate cleaning. The following methods shall be adopted for the removal of such organic growth:

Intensive Scraping: The microbiological growth shall be removed by spatula, knife blades or stiff bristles or non-ferrous soft wire brushes.

Chemical Application: A chemical solution of a biocide shall be applied to the surface, or could be sprayed on to the affected surface and left for a few days.

A. 5. DUTCHMAN REPAIR & LIME PLASTIC REPAIR

Dutchman Repair (Stone to Stone Repair)

Dutchman Repair refers to the process of replacement of damaged stone areas/ details with the use of new stone matching closely to the original stone, matching to its original size and profile without damaging the adjoining stone masonry. This work shall be carried out after other works such as complete cleaning and drying of the stone and other practices such poulticing only in areas suggested by the Conservation expert. The following characteristics to be adhered to in case of a new stone being used to match the original:

-No distressing, other chemical processes to be done to the new stone to match it to the older stone.

-Matching in terms of size, design and profile should be done to the highest degree possible.

-A sample of the stone should be first approved by the Conservation Architect and only then works shall commence.

-The Conservation shall have the authority to reject faulty, crude craftsmanship and ask for a fresh new sample.

- Careful storage of the new stones shall be ensured including no contact between various stones to cause any damage. These stones should be carefully lifted to their designated positions with hoists, etc.

The cavity created to receive the new stone shall be carefully cleaned out and a lime mortar bed will have been spread onto the wetted old stone. The new stone must be dampened too, to avoid the risk of dewatering the mortar. Fixing is to be done by means of non corrosive pins of stainless steel or phosphor bronze. No other material such as cement or any other binder alien to this job shall be used for Dutchman Repair of stone.

Lime Plastic Repair (Restoration of damaged stone profile in lime mortar)

Refers to creation of ornate elements, cornice bands and other details of the structure to be created using lime mortar as they are to small or intricate for a Dutchman Repair. The Conservation Architect shall primarily approve samples made by the contractor in their wet, semi dry and dry condition on areas marked and assigned for this work. Saturate the cavity with water using hand sprays to prevent dewatering of repair mortar. Lime plastic repair is to be carried out in the following steps:

-Each application of the mortar to be done in layers of not more than 10mm each, post which complete drying shall be awaited.

-In cavities extending 50 mm in depth and over 50 sq.mm surface area, stainless steel threaded pins should be provided as reinforcements.

- Holes should be flushed out with white spirit and allowed to dry before fixing with epoxy. 20 mm of cover should be allowed for any reinforcement.

-The required profile may be achieved by working with fine saw blade or purpose-made scrapers.

-Mortar repairs are to be protected from direct sunlight by providing damp cotton wool pads and damp sacks as a cover.

An advantage of adopting this method is that it allows for more of the original fabric to be retained. Plastic repair is often used on moulded or carved detail. It can also be an effective form of repair on both ashlar and rubble walling. Cement must never be used for plastic repair.

Plastic repair mortars should be comprised of appropriate aggregates, binder (Naturally Hydraulic Lime) and colour. To be successful the materials employed need to have certain characteristics:

- They should have physical characteristics similar to the host masonry.

-Have adequate bond strength.

-Have a good modulus of elasticity.

-Be vapour permeable.

-Be durable.
-Be capable of being dressed with similar tools to the original masonry.
-Remain workable long enough to allow details to be fashioned.
-Match in colour and texture.
-Adsorb water sufficiently in wetting and drying periods to match adjacent masonry.
-They must always be reversible.

The repair mix for lime plastic repair shall be tentatively as follows:
Repair mix
White cement: lime putty : aggregate (1 : 2 : 10)

A. 6. SPECIFICATIONS FOR LIME WORKS:

Lime to be used:

Appropriate slaked lime made of a desirable good quality limestone shall be They shall be crushed properly before slaking. A slaking pit is to be created at site and fresh lime of approved quality should be then added to it with hot water and made into a thick paste or a running consistency to be able to pass through a certified 256 mesh to one square inch and rejected if it does not pass through this desired mesh. All pieces of unburnt lime or other impurities shall be rejected. In case not separately specified by Architect, the lime shall conform to IS-712 (Building limes). The sand shall conform to IS-1542 (sand for plaster). The sand shall not contain any particle larger than 3mm and shall be washed before use. The slaked lime shall be screened through IS 240 sieve for mortars used for first coat or through IS 120 sieve for mortars used in subsequent coats. The slaked lime shall be stored in a weather proof shed and be used when fresh. The lime shall be kept wet for at least 6 days in a water tank (or drums) before using.

Lime Mortar:

The lime shall conform to IS-712 (Building limes). The sand shall conform to IS-1542 (sand for plaster). The lime mortar shall be made of good fresh lime and clean sand, approved by the Consultants and mixed in the proportion as specified in the Bill of Quantities. The lime and sand shall be stacked before grinding, in alternate equal layers of about 6" in depth, measured in the stack.
Stages of Preparing Lime Mortar:
-The materials shall be carefully mixed in small quantities in a pan mixer.
-The grinding shall be performed with a sufficient quantity of fresh water, twice before the mortar is used in the work.
-The mortar shall be kept moist and well sheltered from the sun till it is used in the work.
-Mix sand well with proper “chakki” and this lime and sand mix in fact may be stored in batches in air tight plastic buckets/ containers with a wet hessian packing over the lime sand mortar.
-The mix must be left to mature in timber lined pits, so that the excess water can continue to drain from the mortar, and it should be covered up in plastic to prevent excess drying out.
Good mature lime putty should have a consistency of mature cheese and should retain its shape when turned out of a container. This putty will return to workable state when knocked up. Knocking shall be done just before using for mortar. Small amounts can be knocked by hand, for larger amounts roller pan mixer should be used. After working a good plastic consistency transfer it to a small bucket, cover the bucket so that it does not dry out. Once the pointing is being done, it should be taken out only a small workable quantity of mortar and beat well with spatula, chopping and aereating the mortar well to get it into a workable and malleable shape for application.

Pointing in Lime:

The old mortar in the joint should be removed carefully without any damage to the stone with a saw blade and cleaned with a jet of water. The mortar for the pointing shall consist of one part lime and two parts sand and shall be applied to wetted joints uniformly regular and uniform in breadth. The edges of the pointing shall be cut off parallel so as to leave well defined lines. The pointing shall be kept well wetted for five days after the pointing is done. Natural stone dust and such powders or chemical colourants and natural colourants such as kattha as approved by the architect may be employed for staining the stone to match the original mortar and stone. Mortar for repointing should be inserted with the slide of steel blade or edge of a fine spatula/trowel, using a masking tape to ensure clean lines of the pointing, pressing the mortar into the joint with a flexible spatula blade or with the ball of the thumb. To achieve a fine edge, masking tape may be used to get the required sharpness of the pointing. It is necessary to ensure that the depth of the new mortar should be a minimum of 30-40 mm. When the mortar starts to dry up it should be tapped back with a soft wood mallet to eliminate any shrinkage cracks. The exact detail of surface finishing of the joints should match any surviving original weathered mortar. The joints of the masonry to be flat pointed shall be raked to a depth of about 20mm while the mortar in the joint is still fresh and the joints shall be kept well wetted till the pointing is done. The mortar for the pointing shall consist of one part lime and two parts sand and shall be applied to wetted joints uniformly. The joints of the pointed work shall be regular and uniform in breadth. The edges of the pointing shall be cut off parallel so as to leave well defined lines. The pointing shall be kept well wetted for five days after the pointing is done.

A. 7.SPECIFICATIONS FOR TREATMENT & CONSOLIDATION OF TIMBER

Timber needs to be obtained from a recognised timber vendor and provided certification. The timber to be used for all wood wood unless specified otherwise shall be well seasoned, free from cracks, knots etc. The Consultant shall have the power to reject at any stage any work which may be found defective in quality or workmanship and he shall not be debarred from rejecting wrought timber by reason of his having previously passed the same in the log or other un-worked state. The Contractor shall, therefore, give due notice to Consultant or his representative for inspection. The tolerance permissible in teak wood shall be as follows :

i) Sap wood to the extent of 20%
ii) Warp to the extent of 10mm in 3 metre length.
iii) Live knots of 2 knots per metre the diameter of each knot not exceeding 20mm.

Joinery details in all timber works, including nuts, bolting, hinges etc, to be as specified in drawings provided by the Architect. Details such as splicing of timber shall be as per inputs of structural engineer. All timber resting on or embedded in masonry to be well tarred with boiling coal tar. . The whole of the wood work shall be first treated with two coats of anti-termite wood preservative chemicals of an approved make and the contractor shall strictly observe the manufacturer's instructions for using the material. All the wood shall thereafter be applied with a primary cost of approved first quality wood primer paint. The application of primary shall not be done within 24 hours of the application of the second cost of anti-termite treatment. The wood work shall be made perfectly clean and smooth before painting. The cost of primer and wood preservative as specified is to be included in the cost of wood work to which it is applied.

Painting & polishing of door and window frames

This work should primarily include consolidation of the timber that is damaged. Removal of old layers of paint to be removed by light scraping or turpentine etc. Wood preservatives such as solignum etc, shall be applied prior to application of the finishing layer. External doors and windows should also be consolidated

using teak wood inserts where necessary, with a view to using second hand teak that has been properly seasoned. Missing or damaged hardware needs to be similarly replaced.

Exposed timber surfaces that are directed to be painted shall be given 1 coat of wood primer, followed by 1 coat of ready-mix enamel putty, followed by 1 undercoat, another coat of putty rubbed down with emery paper and water and 2 finishing coats of "Goodlass Nerolac" or "Berger" 1st quality enamel oil paint, diluted as required with thinner (not turpentine) sprayed or hand-brushed to required shade as per instructions.

For French Polish the timber shall be well sanded and prepared and the grains to be filled with a grain filler. Staining if prescribed must be done before application of the polish. A series of thin even coats to be applied allowing only for a few minutes for drying in between application. This layer on achievement of an even surface is then spirited off with methylated spirit to remove the rubber marks and to achieve a smooth finish.

For Melamine Polish, clean off all grease and dirt with an abrasive and white spirit. It is advised that it is not done in humid conditions. Apply the same coat, of preferably a clear hard glaze with a cloth pad. It should be allowed to dry for a minimum of 6 hours and then again coated. Subsequent coats should be rubbed down with fine glass paper or medium grade steel wool. A matt finish is then achieved, if specified, by giving a final coat of clear Ronseal Matt coat.

PROJECT REPORT FOR RESTORATION OF HERITAGE STRUCTURES AT MAYO COLLEGE, AJMER, RAJASTHAN

MAIN BUILDING

team ARC
Architecture Research & Conservation

Table of content

1.1 Mayo College, Ajmer, Rajasthan

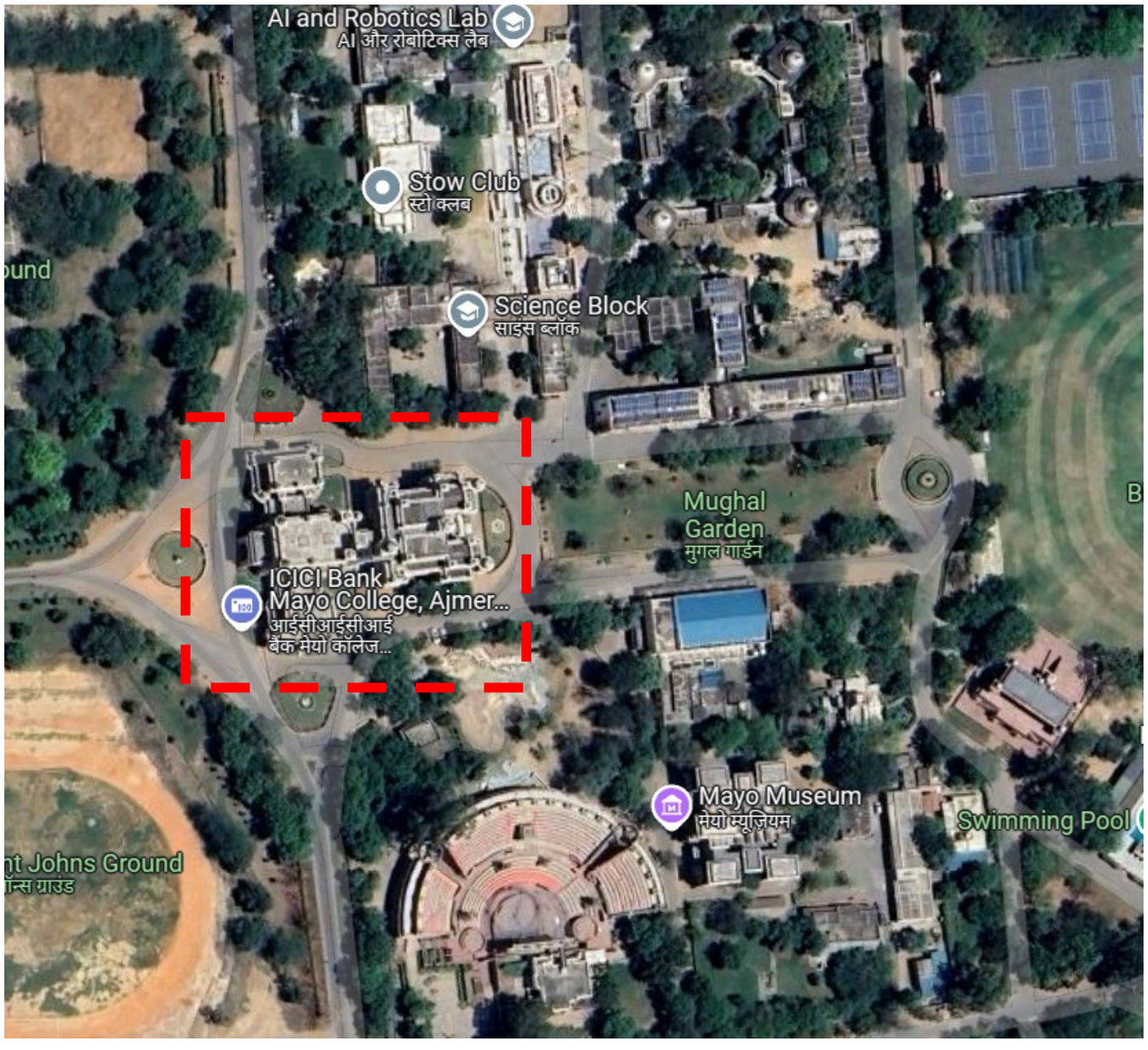
Mayo College, often referred to as the "Eton of the East," is a prestigious boys' boarding school in Ajmer, Rajasthan, India. Founded in 1875 by the 6th Earl of Mayo, the Viceroy of India, it was established to provide a modern education to the sons of Indian royalty and nobility. The school's vision was to create an institution that would blend the best of British public-school traditions with Indian values.

Mayo College boasts a rich history and a renowned alumni network, including prominent figures in Indian politics, business, and the arts. The school's emphasis on academics, sports, and extracurricular activities fosters a well-rounded education. The picturesque campus, designed in the Indo-Saracenic style, adds to the unique character of the institution. Mayo College continues to be a beacon of excellence, upholding its legacy of providing a holistic education to its students.

Mayo college -Main building

1.1.1 INTRODUCTION:

NAME : Mayo College- main building
LOCATION : Ajmer, Rajasthan
TYPOLOGY: Institutional (Educational)



2.1 SITE PLAN

Architectural style of Mayo College

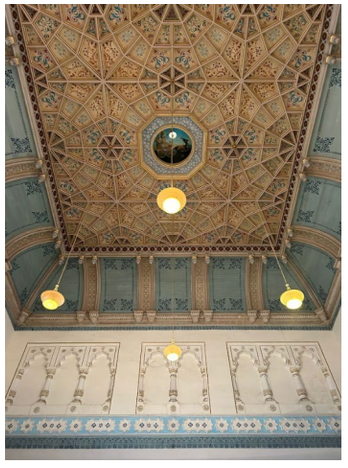
Indo-Saracenic style: The building is a classic example of Indo-Saracenic architecture, a fusion of Hindu and Islamic architectural elements. This style was popular in India during the colonial period and is characterized by its use of arches, domes, minarets, and intricate detailing.

Architectural features of Mayo College

•**White marble construction:** The main building is constructed of white marble, which gives it a grand and imposing appearance.
• **Domes/Chattris:** The building is adorned with a number of small domes, which is a prominent feature of Indo-Saracenic architecture.
•**Arches and columns:** The building features numerous arches and columns, which are used to support the structure and add visual interest.
•**Jharokhas:** Jharokhas are small, projecting windows that are common in Indian architecture. They provide a view of the surrounding landscape and allow for ventilation.
•**Balustrades:** Balustrades are decorative railings that are often used to enclose balconies or terraces. They add a sense of elegance and grace to the building.

CLOCK TOWER

JHAROKHAS AND CHTATTRIS



ASSEMBLY HALL

2.2 EXTERIOR FACADE

The exterior facades show signs of deterioration, including **staining, algae growth, minor stone flaking, and loose masonry joints**. These issues are likely attributed to **water seepage f**rom the roof (terraces), **rising dampness** from the plinth potentially due to the presence of landscaped areas surrounding the structure.

2.2 EXTERIOR FAÇADE

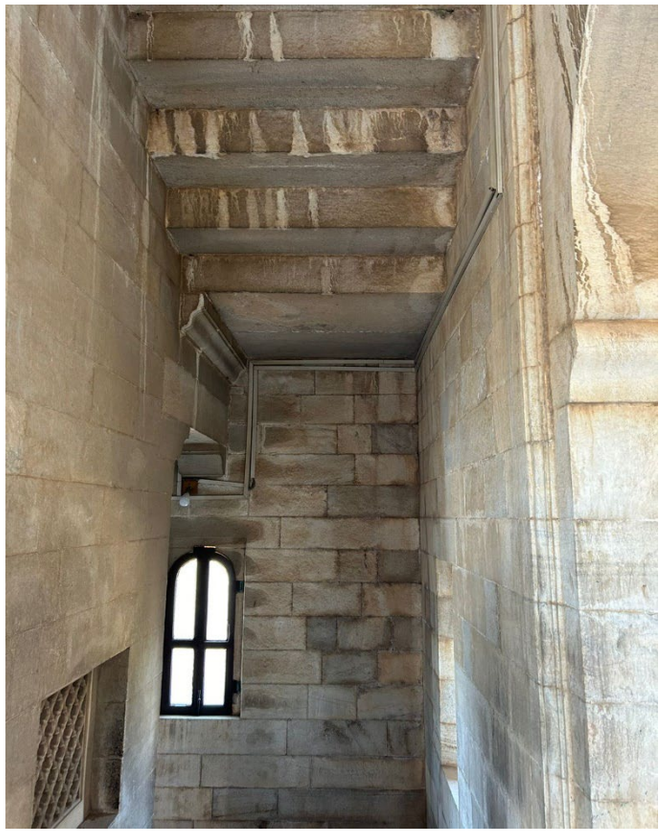
The exterior facades show signs of deterioration, including **staining, algae growth, minor stone flaking, and loose masonry joints**. These issues are likely attributed to **water seepage f**rom the roof (terraces), **rising dampness** from the plinth potentially due to the presence of landscaped areas surrounding the structure.

2.2 RISING WATER DAMPNESS

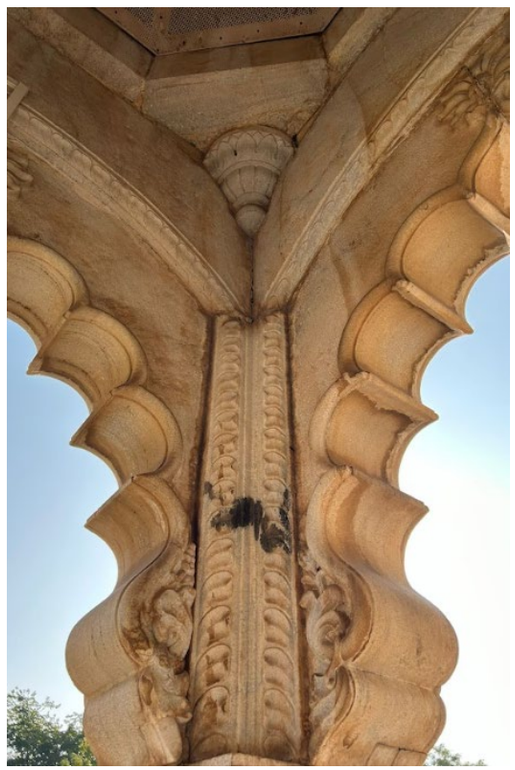
The majority of the structure exhibits signs of **rising dampness**, resulting from the intrusion of water from the ground and surrounding soil through capillary action.

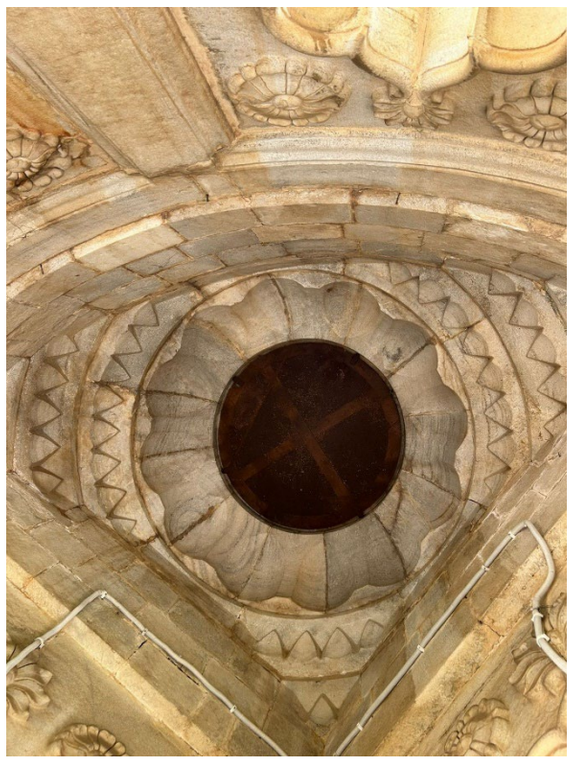
- **Plinth protection** around the periphery of the structure is required to limit water seepage.

2.2 DAMPNESS DUE TO WATER SEEPAGE



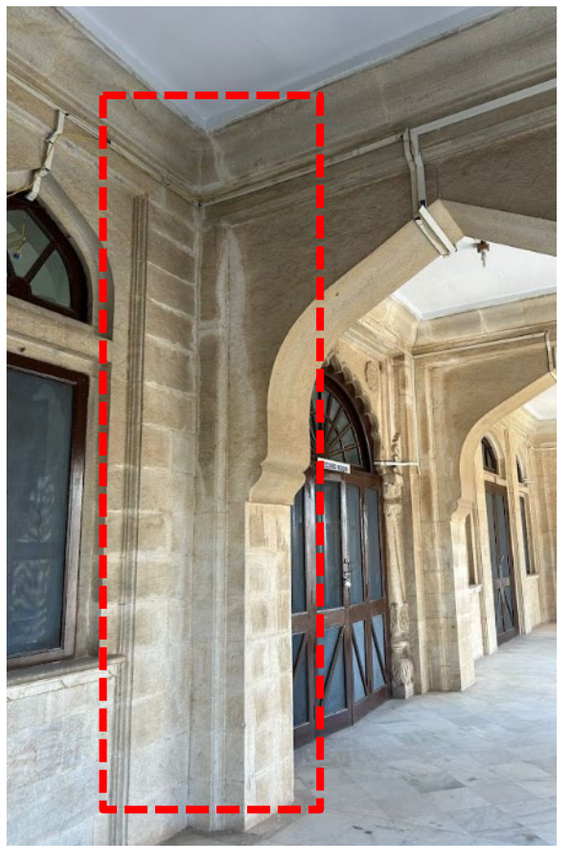
The **masonry joints** constructed with lime mortar have deteriorated over time, leading to significant openings. This deterioration facilitates **water ingress through the joints,** compromising the integrity of the walls, arches, domes, and chattris. The deteriorating waterproofing in the roofs and stone cracking and flaking also contributs to thw water seepage

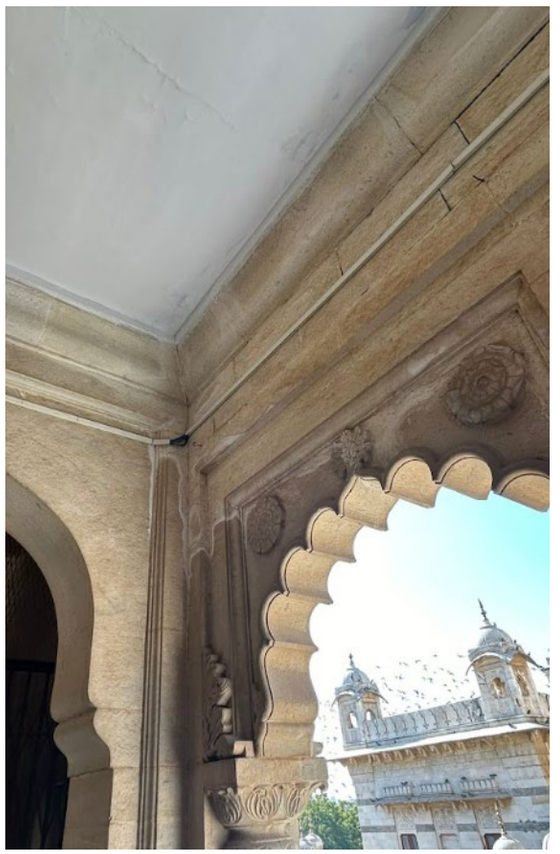


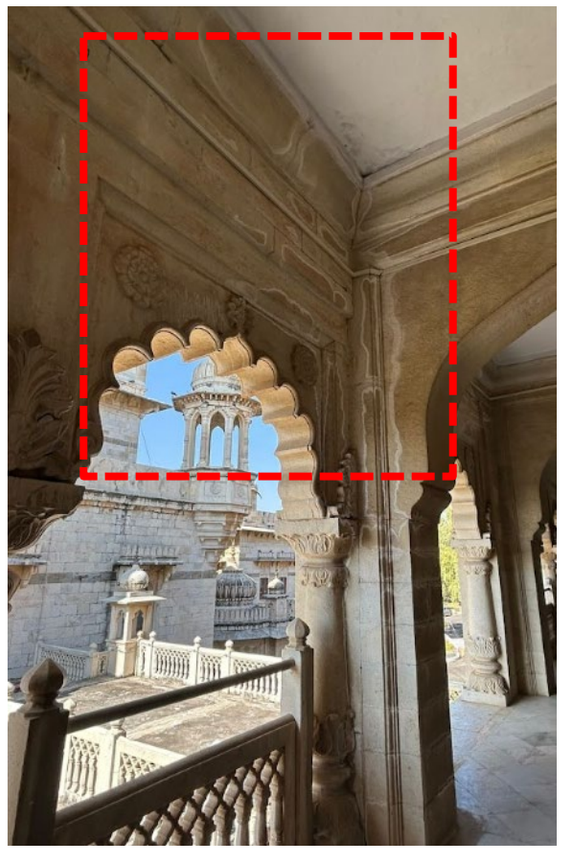


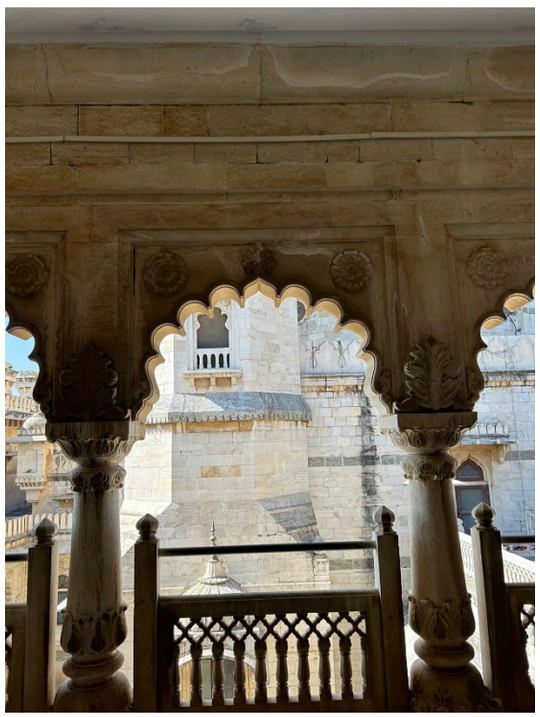
2.2 EFFEREVECENCE OR SALT DEPOSITION

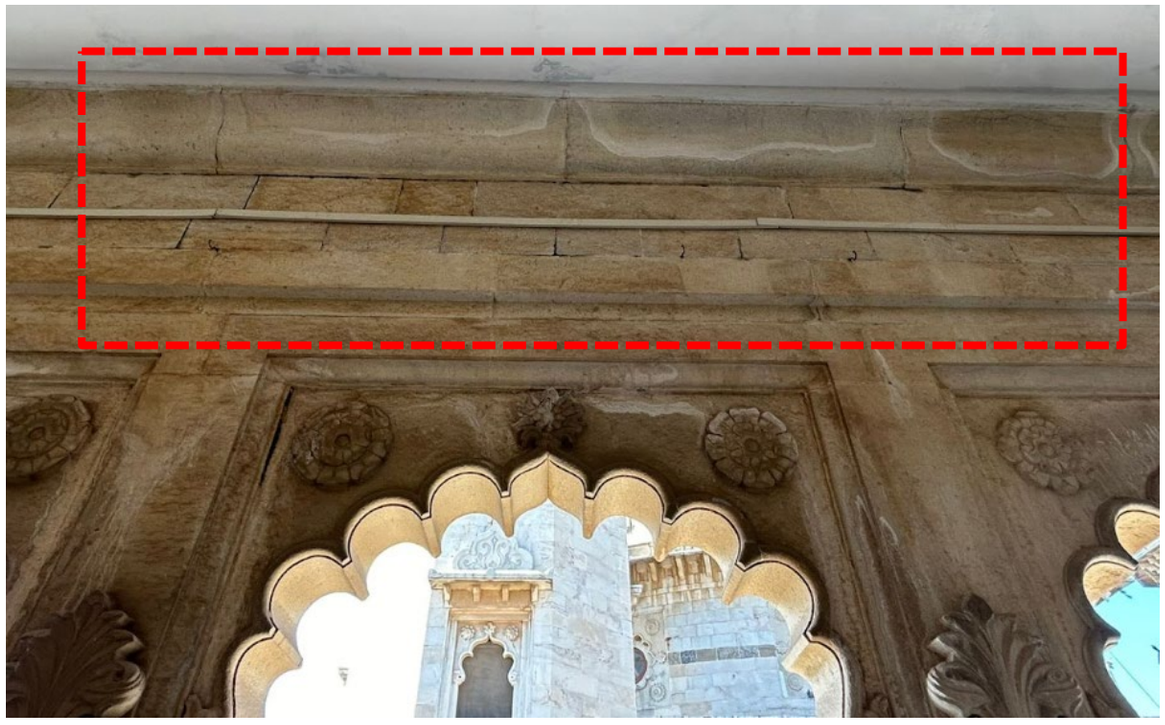
The verandahs, arches, staircase soffits and other open, semi-open spaces shows **white, powdery deposits (efflorescence)** on the surface due to minerals in the **water seeping** from the ground and the rains



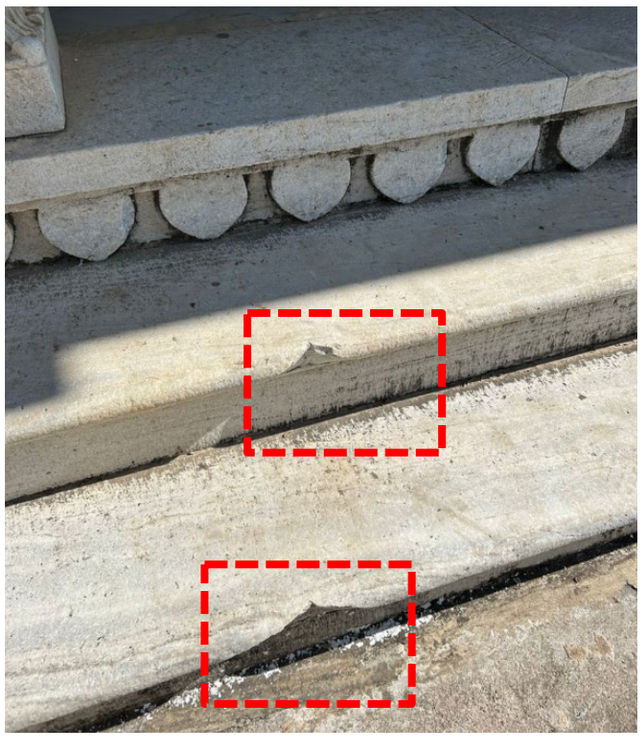


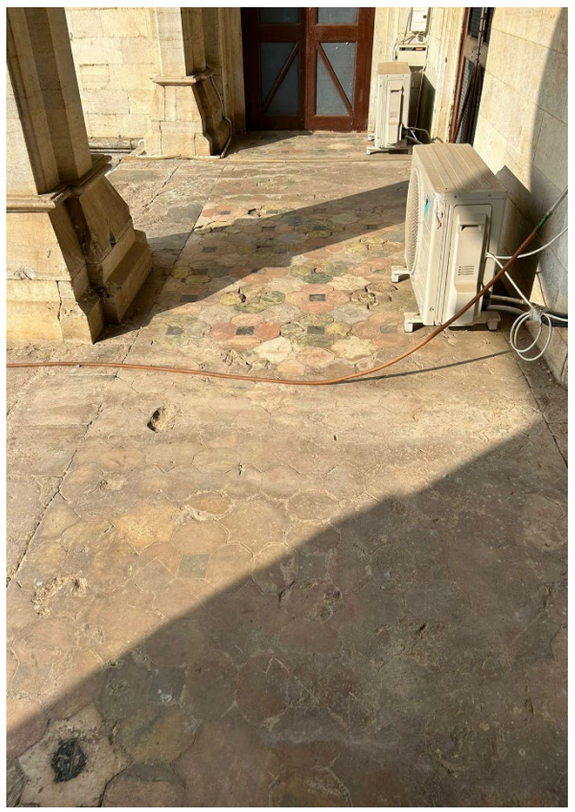




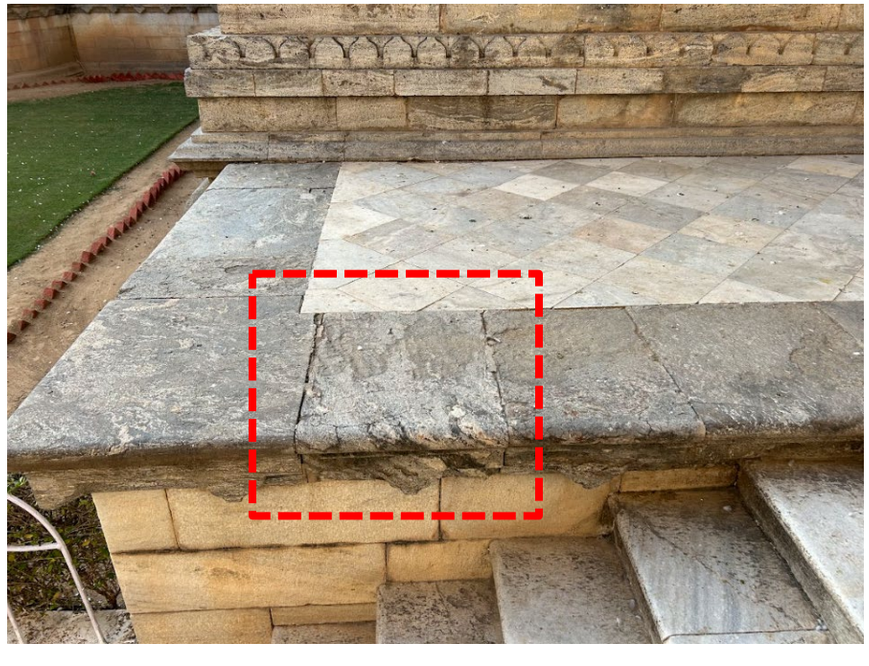


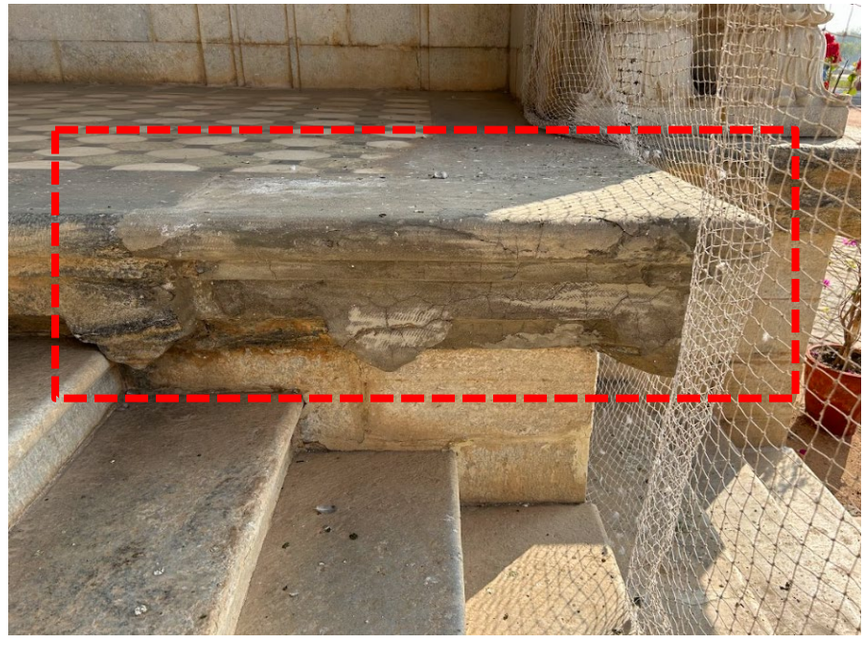
2.2 CHIPPED OR WORN OF MARBLE STONES/FLOORING



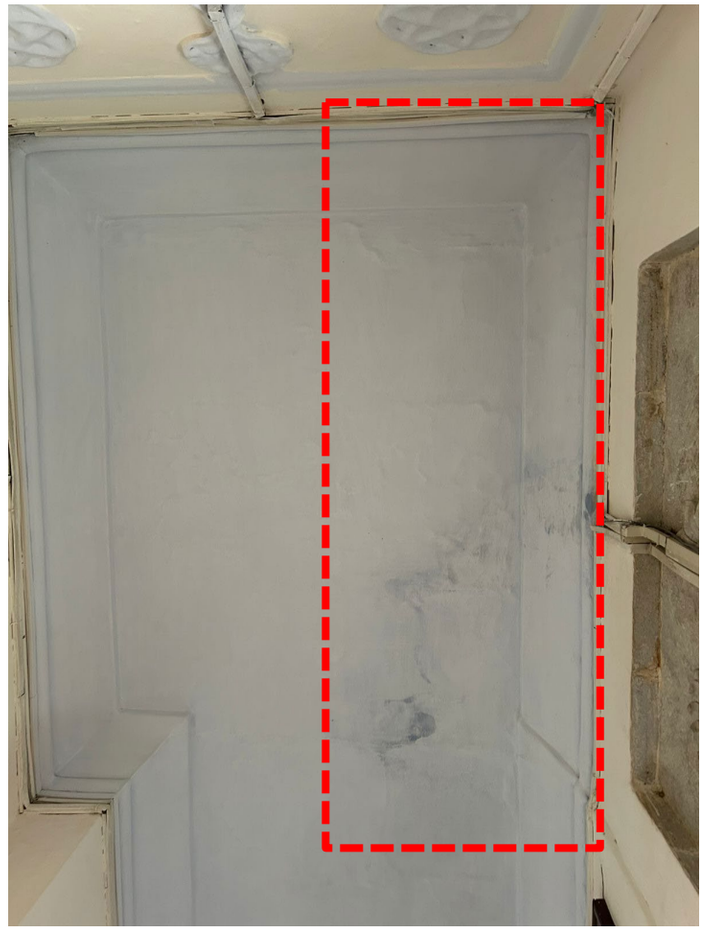


The marble flooring exhibits minor signs of deterioration, including chipping, cracking and wear on the stones. Patch repairs using cement mortar are evident in certain areas.



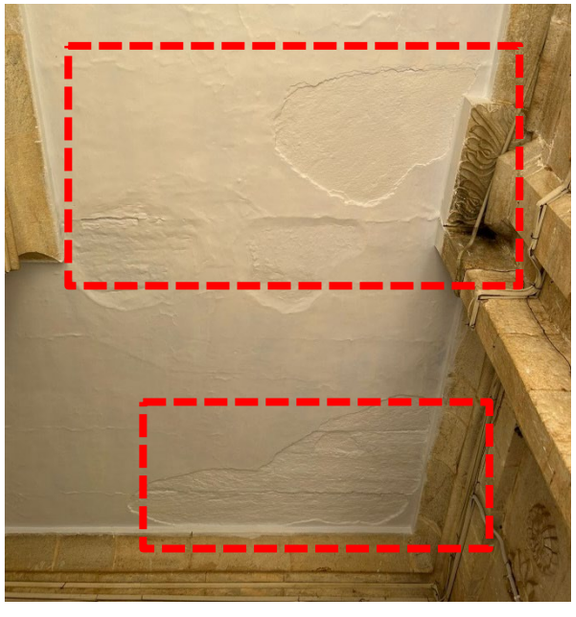


2.2 INTERIORS - WATER SEEPAGE AND PLASTER FLAKING



The **interior** spaces appear to be in a relatively good condition, with **minor signs of dampness and plaster flaking** observed. These issues are likely attributed to **water seepage** through the stone walls.

- **Patch plaster repair in lime mortar** needs to be done



2.2 DAMAGED/BROKEN CHAJJA STONES

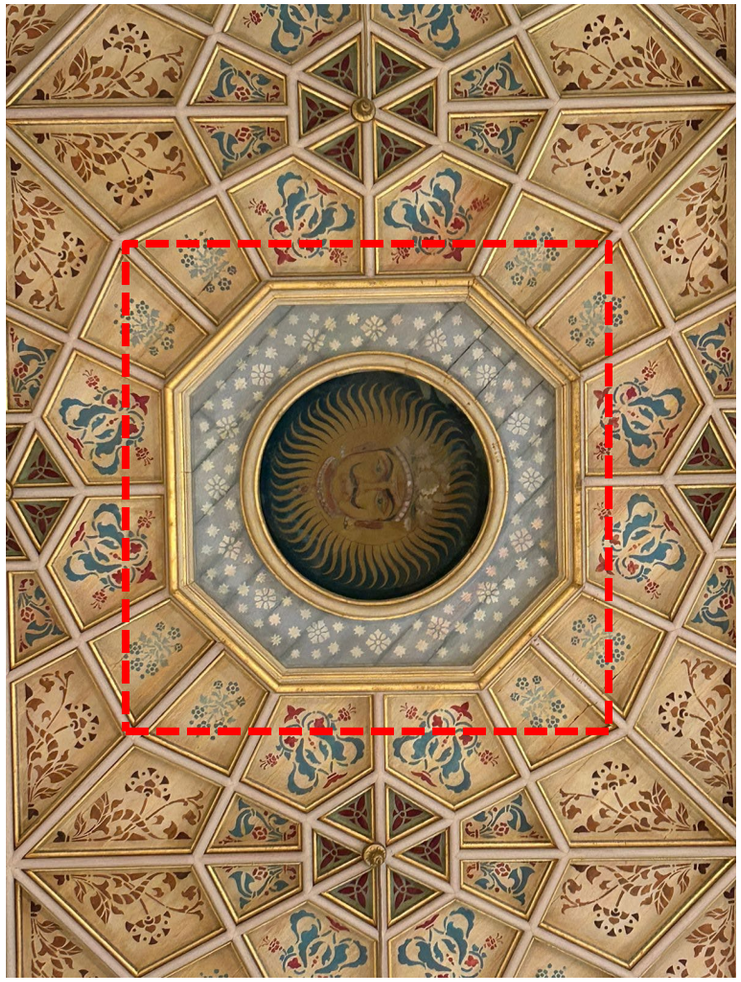
The **joints** of the chajjas have **opened up**, with some **stones damaged or broken**. Signs of efflorescence and water stains are evident, indicating water seepage.

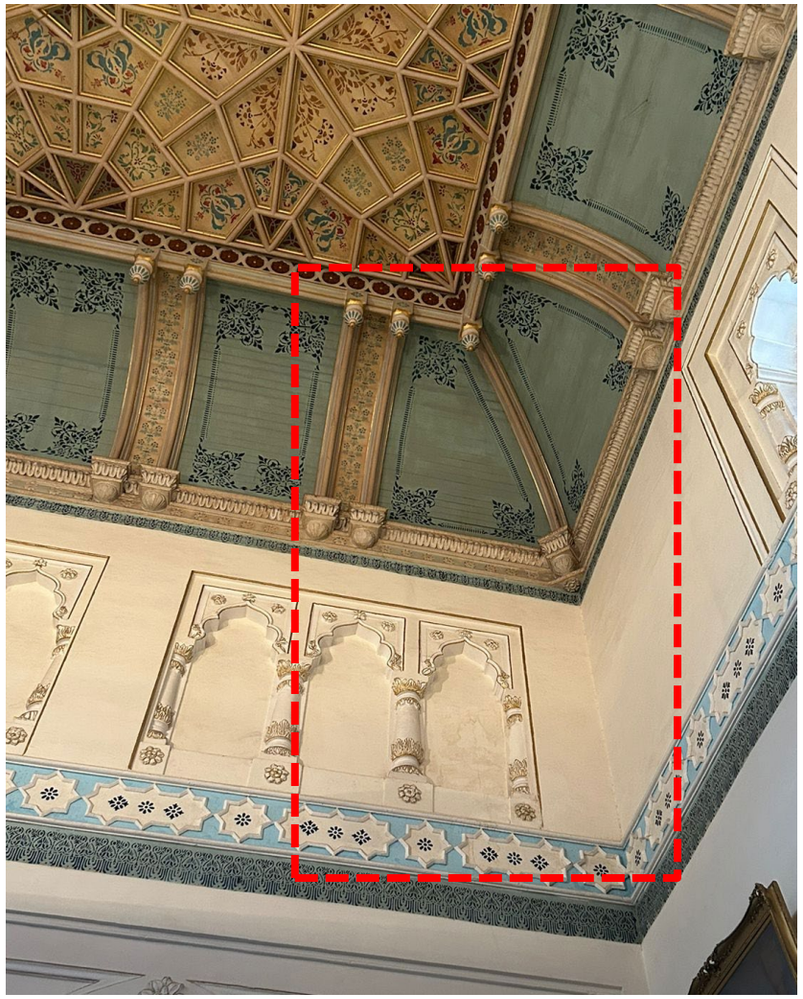
- Damages stones to be replaced, joints to be redone lime mortar

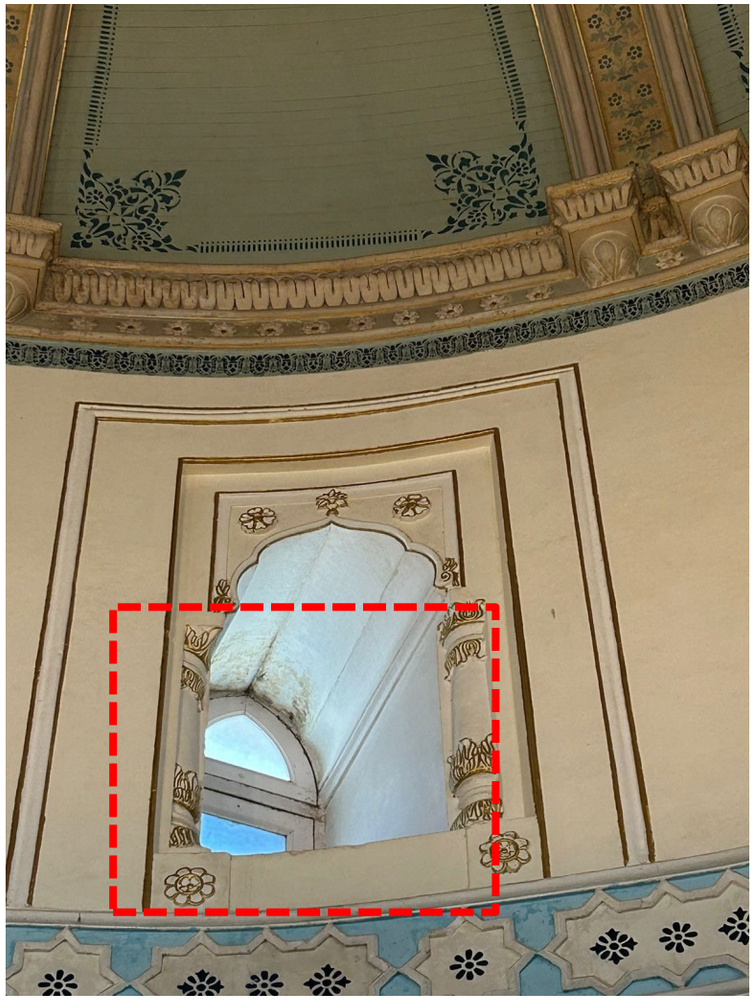
2.2 LATER INTERVENTIONS

L-angles seem to have been introduced in the ceiling slabs to counter the possible structural distress in the slab

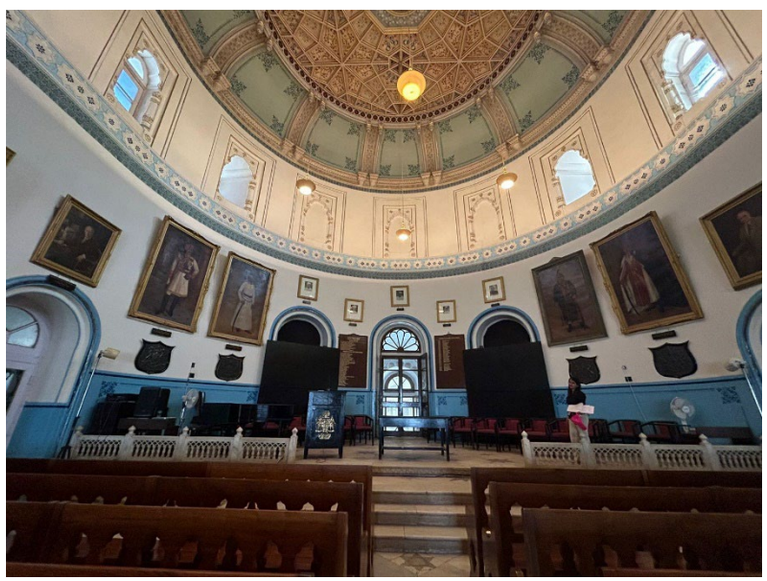
2.2 ASSEMBLY HALL – WATER SEEPAGE



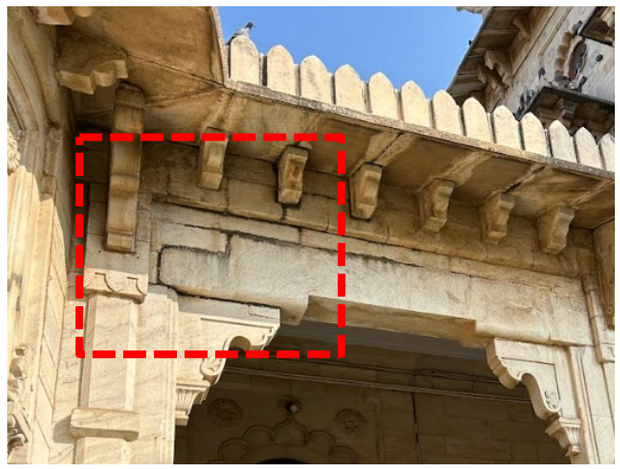


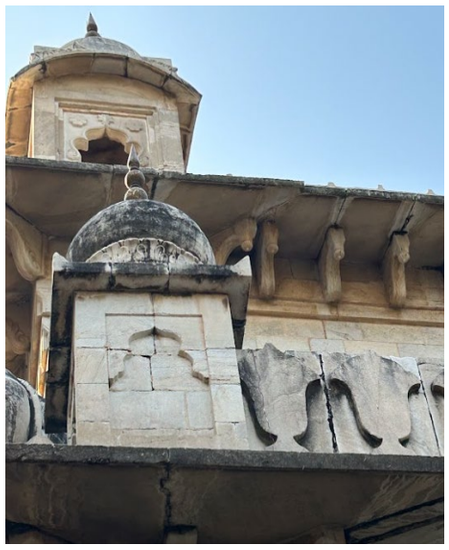


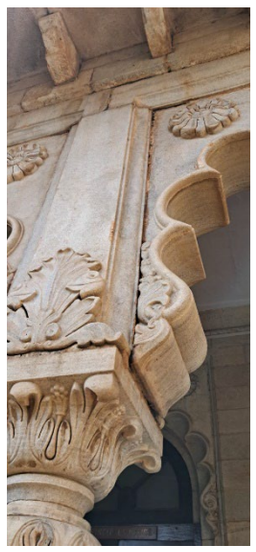
The ceiling and walls of the assembly hall show minor signs of dampness, algae growth in one of the windows



2.2 LOOSE AND WEAKENED STONE JOINTS

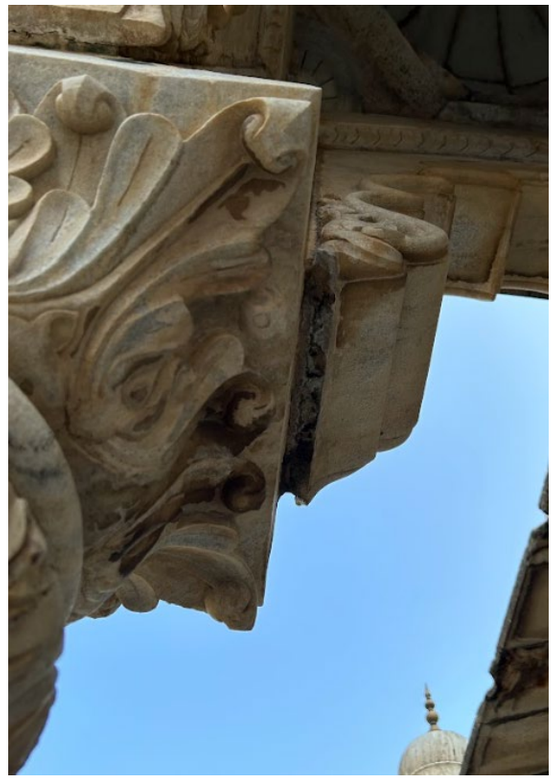






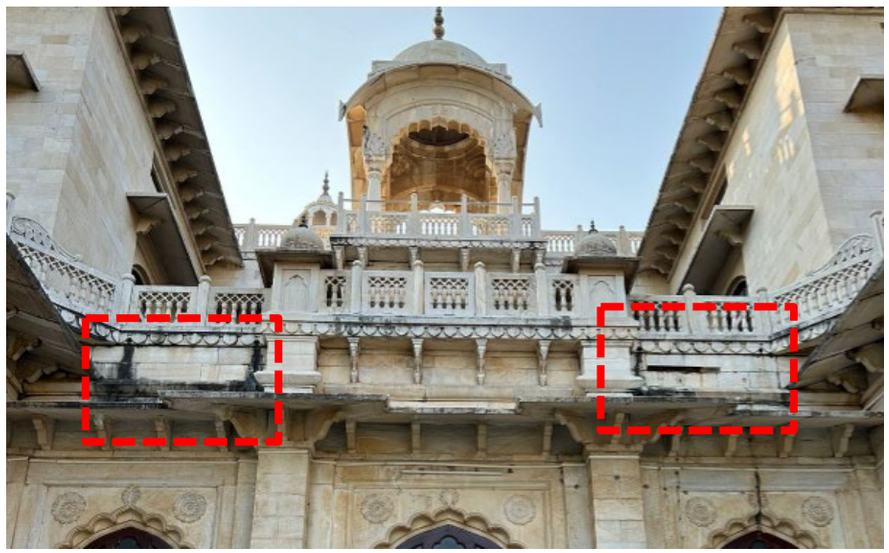
The masonry joints have deteriorated over time and require repointing with lime mortar.

2.2 RUST STAINS

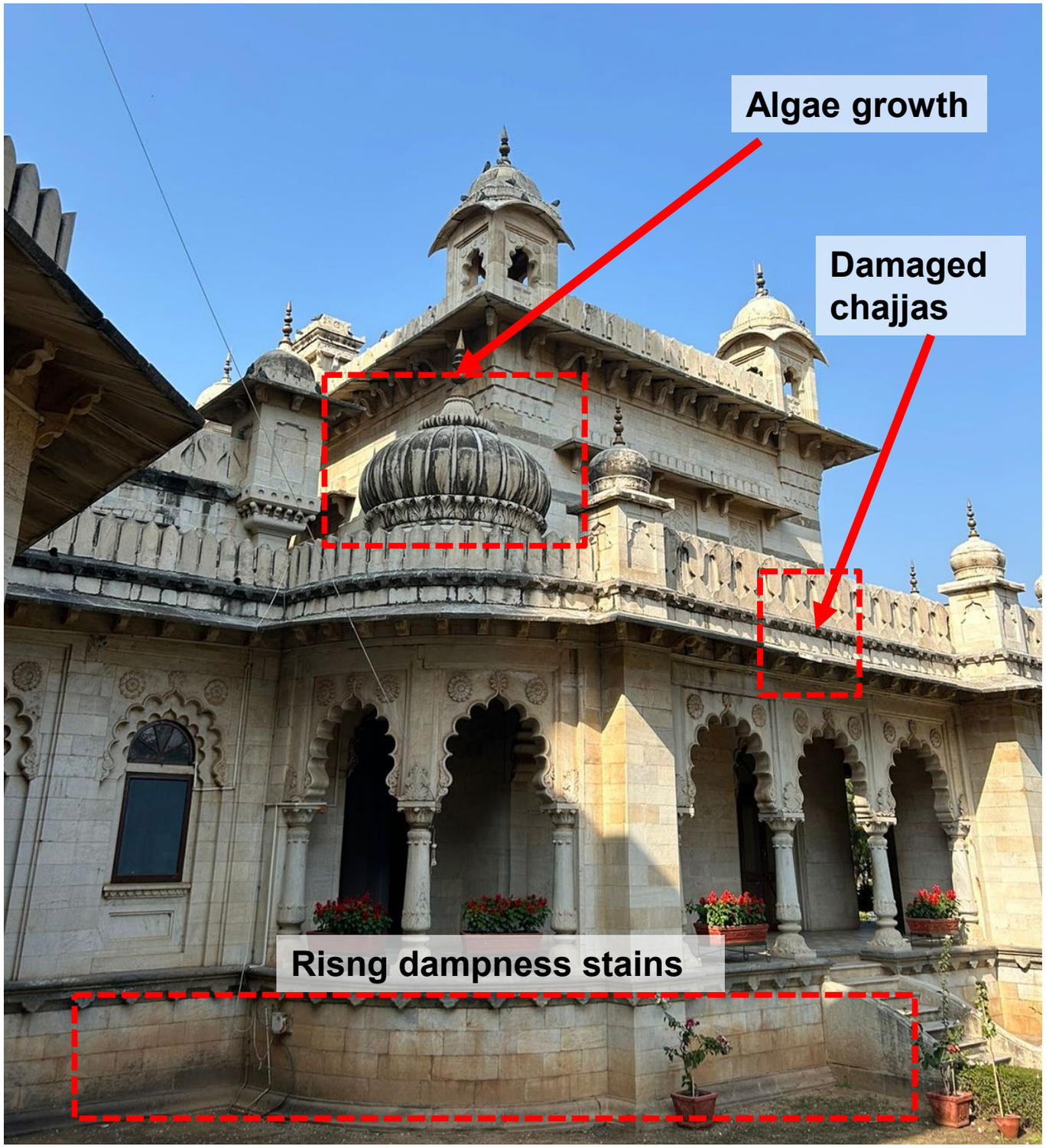


The decorative columns in marble show minor rust stains

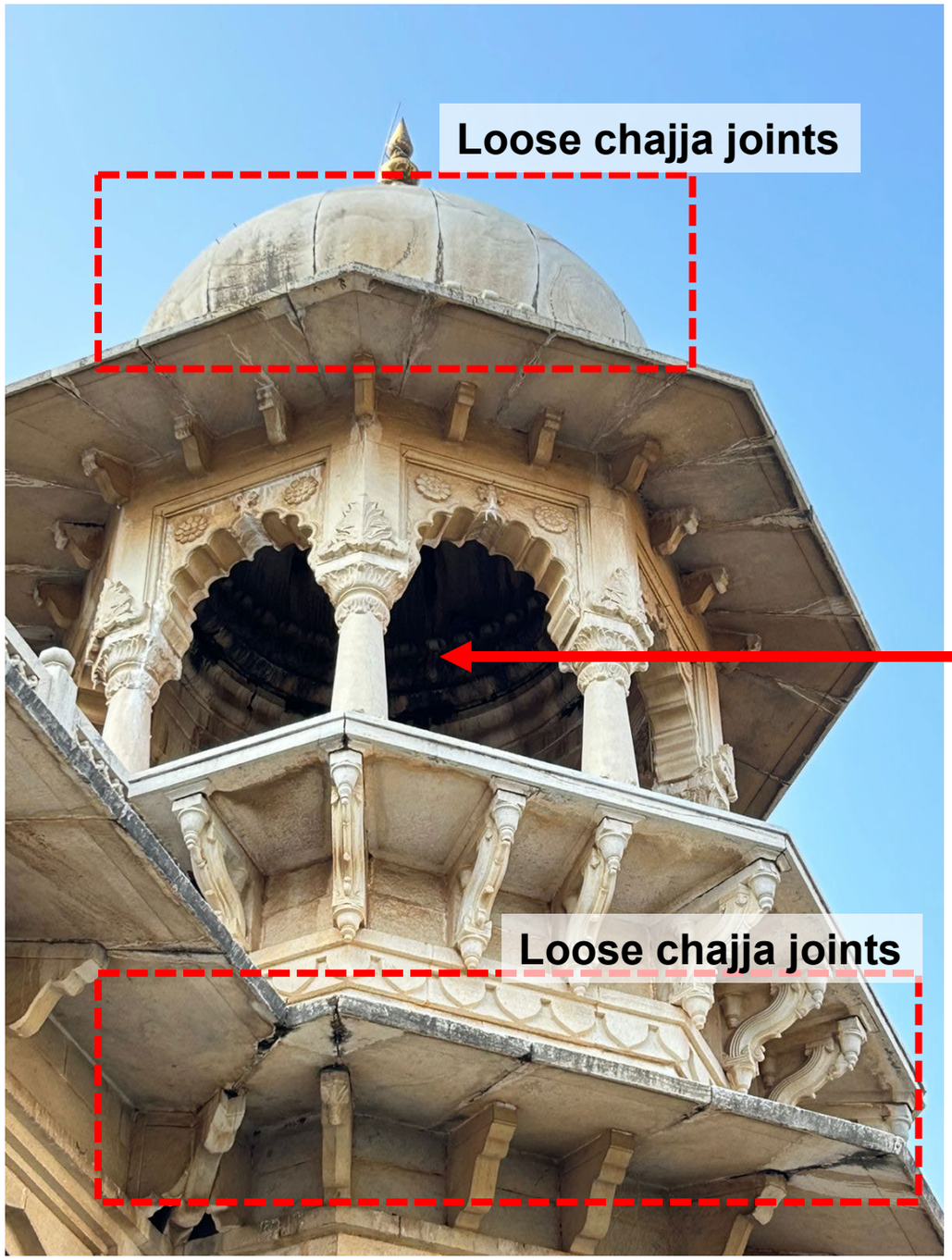
2.2 ALGAE GROWTH DUE TO WATER SEEPAGE



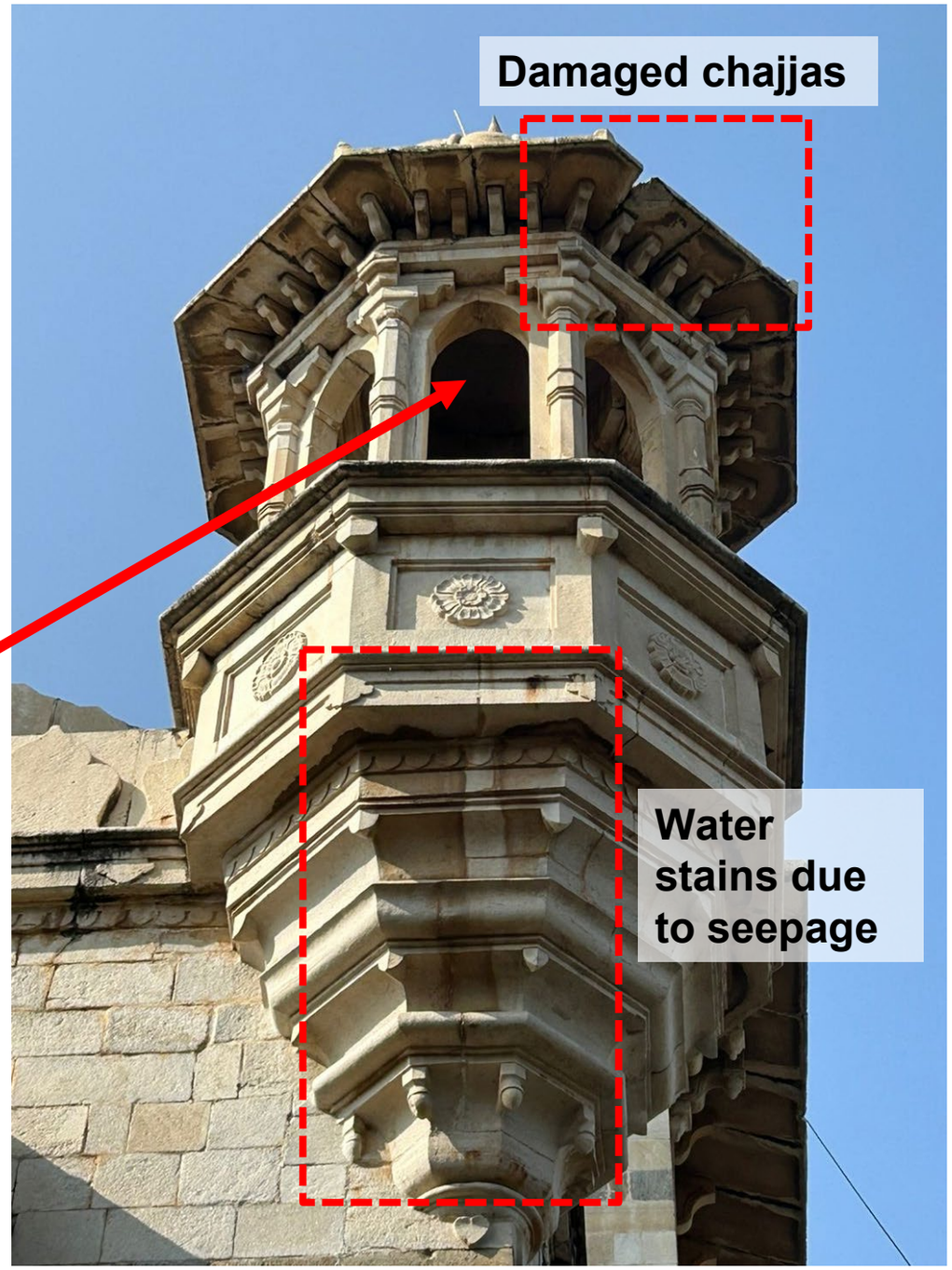
Algae growth is visible **above chajja** levels and **below spouts.**



2.2 CHATRRIS AND JHAROKHAS



Water stains due to seepage

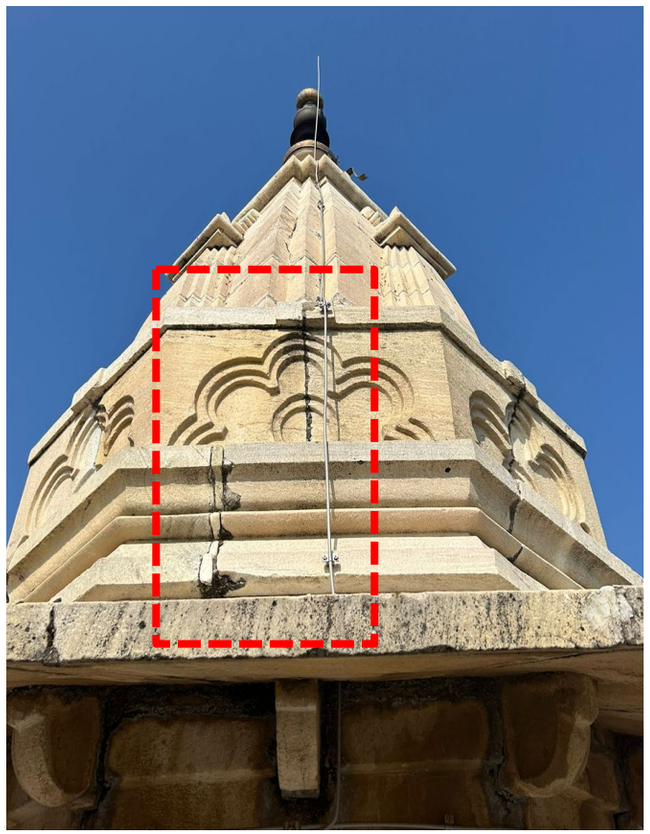


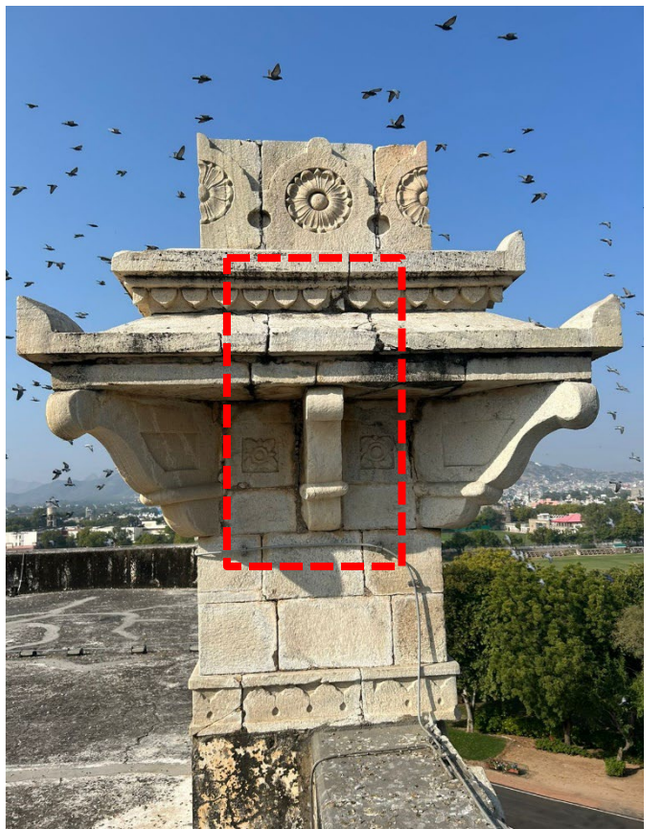
2.2 TERRACES

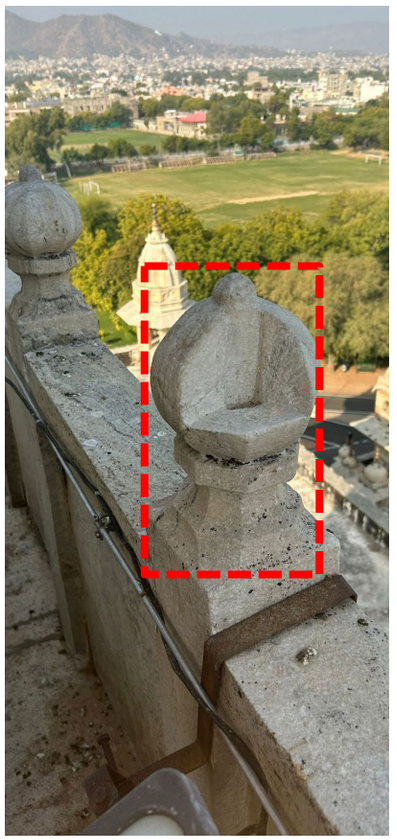
The **waterproofing** of the entire terrace has **deteriorated** significantly**. Cracks** have appeared and been **patched with cement mortar**, but these repairs are also **failing**.

- The existing cement waterproofing layer to be **removed and redone in lime concrete** with the necessary **protective coatings**
- **Cracks along the vents** to be sealed and made **watertight to prevent any water seepage**

2.2 CHATTRIS AND DOMES







The chattris and domes exhibit significant damage, including **stone cracks, loose masonry joints, cracks in the slabs, water seepage, and deterioration of some decorative details.** Some areas appear to have been previously **repaired with cement mortar**.