Government of Maharashtra

सत्यमेव जयते

PUBLIC WORKS CIRCLE SATARA

PUBLIC WORKS SATARA(WEST) DIVISION SATARA

RFP

For the work of:

Providing Consultancy Services for R.C.C. /Structural Design of Proposed Court Building for Additional District Judge and Senior Judge Courts at Wai Tal-Wai Dist-Satara.

2026-2027

Name of Work: - Providing Consultancy Services for R.C.C. /Structural Design of Proposed Court Building for Additional District Judge and Senior Judge Courts at Wai Tal-Wai Dist- Satara.

INDEX

Government of Maharashtra
Executive Engineer,
Public Works Division, (West) Satara- 415001

email – westsatara.ee@mahapwd.gov.in Phone/Fax : (02162)-234329

E- TENDER NOTICE NO. 11 for 2026-2027
(REQUEST FOR PROPOSAL)

INVITING REQUEST FOR PROPOSAL (RFP) FOR APPOINTMENT OF PROJECT MANAGEMENT CONSULTANT FOR PROVIDING ARCHITECTURAL CONSULTANCY SERVICES FROM EXPERIENCED AND REGISTERED ARCHITECT / ARCHITECTURAL FIRMS FOR the work of **Providing Consultancy Services for R.C.C. /Structural Design of Proposed Court Building for Additional District Judge and Senior Judge Courts at Wai Tal-Wai Dist- Satara.**

The Executive Engineer, Public Works (West) Division, Satara- 415001 invites REQUEST FOR PROPOSAL (RFP) bids for Appointment of Consultancy Services from experienced and Registered Architect / Architectural firms for Architectural, Conceptual designs and drawing of landscape and related work and taking the approval for following work

Providing Consultancy Services for R.C.C. /Structural Design of Proposed Court Building for Additional District Judge and Senior Judge Courts at Wai Tal-Wai Dist- Satara.

as per Maharashtra Government, Public Works Department G.R. No. BDG-2016/Pra.Kra-133/Bldg-2, Dt. 19/01/2018, G.R. No. Khakshes-2018/Pra.Kra-75/Roads-9A, Mantralaya, Mumbai, Dt. 25/01/2019 and Public Works Department Mantralaya Mumbai G.R. No. Khakshes-2018/Pra.Kra-75/Roads-9A, Mantralaya, Mumbai, Dt. 01/01/2020

Details of Bids Document is available on website "https://mahatenders.gov.in" andwww.mahapwd.gov.in ". Bid Document shall be downloaded online. Other term and condition displayed in online e-tender forms. Right to reject any or all online bid of work without assigning any reasons is reserved by Competent Authority. Conditional Bids will not be accepted.

NAME OF WORK AND ESTIMATE COST LIST -

Sr. No.	Name of Project	Approx.covered road length in meter	Consultancy Fee Estimated Cost Rs.	Deposit for processing Fee Rs.	Cost of e-tender Form Fee Rs.
1	2	4	5	6	6
1	Providing Consultancy Services for R.C.C. /Structural Design of Proposed Court Building for Additional District Judge and	6708.66 sqm	Rs.9,05,933 /- (including GST)	9,000/- (Non-Refundable) (Including GST)	590/- (Non-Refundable) (Including GST)

	Senior Judge Courts at Wai Tal-Wai Dist- Satara.				

Eligibility Criteria:

1) Eligibility, Qualification and Experience Criteria of Consultancy Firm for providing Comprehensive Architectural services including Structural design, Acoustical design, MEP, HVAC, Interior, Landscape:-

The proposal,

a) May be submitted by an individual consulting firm engaged in architectural and engineering planning of Building works since l0 years or jointly in Consortium with other Consulting firms where the consortium may be constituted by not exceeding three (3) companies.

b) In case of Consortium, one of the Firms has to be a architectural Consultant while other Firm/s has to be an Engineering and Administrative Building planning/ Management consultant and MEP consultant. Lead partner may be a architectural Consultant Oran Engineering and Administrative Building planning/ Management consultant and will provide a single window access to all the required services(including services of other companies constituting the Consortium)

c) In case of a consortium, there should be an agreement executed by all the companies constituting the consortium mentioning inter alia the following-
   a. That they agree to work jointly for the assignment
   b. That they agree to be jointly and severally responsible for the assignment
   c. The share of each member in the total fees decided by the consortium.

2) The CONSULTANT, as sole entity or the Lead Consultant in Consortium, must:

a. Have an established and demonstrable track record of rendering all of the following services: Conservation & Architectural services including Structural design, Acoustical design, MEP, HVAC, Conceptual design, Interior, landscape & related work for Administrative / Office Building or similar projects having **1480 sqm.** or more, built up area along with the required parking. Similar type of building like hospitals, education, Court etc which includes Administrative/office block of **1480 sqm** will also be considered for experience.
b. Have experience in designing and executing at least One integrated State-Of-The Art Administrative/Office/Court Building.
c. Have completed an established and working office in India in last 5 years (Mandatory Requirement)
d. Have experience and capacity to engage and co-ordinate a multi-disciplinary team of experts for designing, executing, equipping and commissioning

modern infrastructure projects; and

e. Should possess and can display capacity for transfer of knowledge/skills for capacity development in best practices in operating the services under the project and maintenance of the project after its completion.

f. Average Annual turnover as CONSULTANT should not be less than **Rs.11.70 Lakh** in last 5years. Details of scope of services and eligibility criteria will be available in the bid document.

3) Other conditions:

i) Construction will be done as per PWD/NBC norms.

ii) Details of the project will be finalized in the DPR after discussion.

iii) Project will be implemented as per present PWD/NBC Norms.

4) All information of e-tendering is available on the following websites / Notice Board

5) The complete bid document can be viewed / downloaded from e-procurement portal from **dt.12/05/2026** at 10.00 Hrs to **dt.19/05/2026** up to 17.30 Hrs. IST. Bid must be submitted online only.

6) The e-procurement portal is given below.
http://mahatenders.gov.in,

7) The EMD of **Rs 9,000/-** and Tender form fee **Rs. 590/-**shall be paid via Online e- Payment Gateway mode only.

8) e-Tender Schedule is as given below.

Sr. No.	Description	Date
1	Invitation of RFP (NIT) (Download period of online tender)	**dt.12/05/2026** at 10.00 Hrs to **dt.19/05/2026** at 17.30 Hrs.
2	Pre-Bid/Pre-proposal meeting	Online or in the office of the Chief Engineer, P.W. Region, Pune on or before **Dt.15/05/2026** at 12.30 Hrs. (If bidder want to attend prebid meeting through Video Conference. He shall ask link through e-mail : westsatara.ee@mahapwd.gov.in before **Dt.14/05/2026** up to 4.00 pm.)
3	Authority response to queries for Pre-Bid/Pre-proposal Meeting	**dt.15/05/2026** at 17.30 Hrs
4	Bid Lock/Proposal Due Date	**dt.20/05/2026** at 17.30 Hrs
5	Physical submission of Technical Proposal etc.	At any of the following places within 72 Hrs. after Bid Lock / Proposal Due Date at office of the 1) Chief Engineer, P. W. Region, Pune

		2) Superintending Engineer, Public Works Circle, Satara 3) Executive Engineer, Public work (West) Division, Satara.
6	Opening of Proposals.	On **Dt. 25/05/2026** at 11.00 Hrs. in the office of the Superintending Engineer, P.W. Circle, Satara. (Maharashtra.)

9. Note:-

i) All eligible/interested consultants who want to participate in tendering process should compulsorily.

ii) Get enrolled on e-tendering portal "https://mahatenders.gov.in" and further need to empanel online on sub portal "https://mahatenders.gov.in" in the appropriate category applicable to them. The terms and conditions of online submission are mentioned in the said online portal.

iii) The Public Works Department reserves the right to accept or reject all or any of the bids/proposals without assigning any reason whatsoever.

No. AB/Tender / **3681 /** 2026
Office of the Executive Engineer,
P.W. (West) Division, Satara.
Date. **27/04/2026**

Executive Engineer,
Public Works (W) Division, Satara

ANNEXURE – A

TERMS OF REFERENCE

Sub: - Terms of reference for the appointment of technical consultancy for R.C.C. structural designs for the work of:

Providing Consultancy Services for R.C.C. /Structural Design of Proposed Court Building for Additional District Judge and Senior Judge Courts at Wai Tal-Wai Dist- Satara.

Definitions:

0.1 **Government**: - "The Government" as used in the Terms Of References (T O R) papers shall mean the Public Works department of the Government of Maharashtra.

0.2 **Chief Engineer**: - The "Chief Engineer" as used in the Terms Of References (T O R) papers shall mean the Chief engineer of the Government of Maharashtra who is designated as such.

0.3 **Superintending Engineer**: - The "Superintending Engineer" as used in the Terms of References (T O R) papers shall mean an officer of Superintending Engineers rank (by whatever designation he may be known) under whose control the work lies for the time being.

0.4 **Engineer or Engineer in charge**: - The "Engineer" or "Engineer in charge' 'as used in the Terms of References (T O R) papers shall mean the Executive Engineers in charge the work for time being

0.5 **Consultant**: - The "consultant" as used in the Terms of References (T O R) papers shall mean the successful bidder whose Expression of Interest (E O I) has been accepted and who has been authorized to proceed with the work.

1.0 **SCOPE OF PROJECT:**

As described hereinafter enclosed.

2.0 **SERVICES TO BE RENDERED:**

The Consultant shall render the following services as given in Clause -3 in connection with the project and in consultation with the Engineer in

charge of the Government as follows:

Services to be rendered

- (Refer clause 3.0)

3.0 Detailed Project Report and Drawings:

Providing Consultancy Services for R.C.C. /Structural Design of Proposed Court Building for Additional District Judge and Senior Judge Courts at Wai Tal-Wai Dist- Satara.

Following services shall be provided by THE CONSULTANT.

The Consultant is required to provide services in respect of the following.

3.1 Taking GOVERNMENT's instructions and preparation of R.C.C. Structural Design.

3.2 A detailed RCC design with schedule of reinforcement and RCC drawings.

3.3 Periodic inspection of Construction works.

3.2.0 Additional scope of Works:

3.2.1 The Consultant shall appoint the necessary Design Consultant at his own & the required consultancy charges shall be borne by THE CONSULTANT.

3.2.2 The Consultancy charges if any required in connection of Detailed R.C.C. Structural design including drawing for the work shall be borne by the Consultant himself.

3.2.3 The Consultant shall coordinate with the use of concluded information of surveys for producing the most cost effective, safe and practical solutions.

3.2.4 The Consultant shall Prepare drawings necessary for Governments / statutory bodies approvals and ensure compliance with codes, standards and legislation, as applicable

3.2.5 The Consultant shall during his visit issue necessary instructions to his team to achieve the above-mentioned objectives. The Consultant will also periodically appraise the performance of this team and furnish recommendation to the Government for suitable actions.

3.2.6 The Consultant shall advise the Government on getting the defects rectified from the respective contractor during the defect liability period specified in the respective contract works.

3.2.7 The Consultant shall be responsible for the direction and integration of their work into the main activity of the project.

3.2.8 To coordinate to get done all the various Engineering works to facilitate the further detailing related to structural, architectural and all services planning and designing.

3.2.9 To coordinate all the investigations and reports and set the specifications and parameters of the Structural and architectural design.

3.3.0 SCHEDULE OF SERVICES

The Consultant shall render his services in the following stages as described below.

3.3.1. STAGE (1): CONCEPT DESIGN

3.3.1.1 Ascertain Government requirements, examine site constraints and potential, and prepare a brief design for Government's approval.

3.3.1.2 Prepare drawing and schedules along with the RCC Structural Design Building to get approval from user department and competent authority.

3.3.1.3 Furnish report on measures required to be taken to mitigate the adverse impact, if any, of the existing and /or proposed developments in its immediate environs.

3.3.1.4 Prepare conceptual designs with references to requirements given along with reports obtained from survey investigation and assist The Engineer in charge in preparing detailed estimate of the project.

This stage shall be deemed to have been completed after submission of above documents to Executive Engineer, Public Works (West) Division Satara.

3.3.2. STAGE (2): RCC STRUCTURAL DESIGNS AND DRAWINGS FOR GOVERNMENT'S APPROVALS:

Prepare RCC Structural designs and drawings necessary for Government's approvals and ensure compliance with codes, standards and legislation, as applicable and obtain all the necessary approvals/NOC from the Superintending Engineer, Public Works Circle Satara.

3.3.3 STAGE (3): CONSTRUCTION:

3.3.3.1 Check and approve reinforcement laid by the Contractors/ Vendors.

3.3.3.2 Visit the site of work, at intervals mutually agreed upon, to inspect and evaluate the Construction Works and where necessary clarify any decision, offer interpretation of the drawings / specifications, attend conferences and meetings and give power point presentations as and when required to ensure that the project proceeds generally in accordance with the conditions of contract and keep the Government informed and render advise on actions, if required.

3.3.3.3 In order to ensure that the work at site proceeds in accordance with approved RCC Structural Designs/drawings, the consultant himself or his representative shall point out deviation if any, in time.

3.3.3.4 Issue certificate of virtual completion of work covered under services to be rendered.

3.3.4 STAGE (4): COMPLETION:

3.3.4.1 Prepare and submit completion reports and drawings for the project as required.

3.3.4.2 Issue four sets of as built RCC Structural Designs and drawings along with soft copies of the same including services and structures.

4 SCOPE OF WORK: - For R.C.C. design.

4.1. The objective of the consultancy is to prepare detailed R.C.C. design for approval from the Superintending Engineer, Public Works Circle Satara. The consultant shall analyze the structure and prepare complete and detailed structural R.C.C. designs and working drawings based on the Architectural plan supplied by the department and as per guidelines given

in “Designs Criteria” furnished as Annexure “D” for all the components of the structures. The consultant also shall work out the Quantities of the materials namely concrete and steel. (Diameter wise)

4.2. The designs shall be prepared in accordance with the relevant and latest Indian Standard Codes in vogue at the time of invitation of this consultancy offer.

4.3. If during the period when the designs are in progress, if any corrigendum on specific provision is issued by the Indian Standard Institute and if it is felt that such change is necessary for the safety, stability and durability of the structure, the same shall be incorporated in the designs and designs shall be modified accordingly.

4.4. Computer aided designs may be adopted; however, sample manual checks shall be carried out to the satisfaction of the Superintending Engineer, Public Works Circle Satara. Proper documentation including detailed input data in proper sequence should invariably be furnished. The complete listings of the programs used shall also be supplied including user’s manual. If any proprietary software is used, a licensed copy of the same, with all manuals shall be supplied to the client and it shall be property of the Department. The cost of the same shall be deemed to be included in the Financial Bid. All drawings and the designs calculations shall be supplied by the consultant on C.D. and Hard copy is in three sets. The software used to include listing along with user’s manuals shall also be supplied by the consultant.

4.5. The detailed designs and workings drawings submitted by the consultant shall be bold, legible, clear, self-explanatory and self contained in all respect with suitable reference to the technical literature referred therein,

copies of the extract of the literature shall be enclosed to facilitate expeditious scrutiny and approval by Superintending Engineer Public Works Circle Satara. Submission of the designs for scrutiny shall be from Terrace to foundation.

4.6. The consultant shall submit design calculations and relevant detailed working drawings in triplicate for scrutiny and approval of the Superintending Engineer Public Works Circle Satara and/or to the Authority as may be asked by S.E PW Circle Satara. The remarks raised or modifications needed or observations made will be communicated to the consultant for the necessary augmentations, modifications or corrections which will be carried out by the consultant at no extra cost within one week of receipt of such remarks and modified designs/compliance shall be resubmitted for approval till such time, the calculations and drawings are finally approved by the Superintending Engineer, Public Works Circle Satara. If there are no comments, the designs submitted shall be given approval by the Superintending Engineer, Public Works Circle, Satara. Computerized drawings and drafting are expected from the consultant.

4.7. In case of any contingency that may arise during construction period requiring review of the designs and working drawings, the consultant shall deal with the same to the satisfaction of the Superintending Engineer, Public Works Circle Satara without any extra cost.

4.8. The time period for completion of designs in all respect shall be one month from the date of the notice instructing consultant to begin carrying the services. However, foundation details and details up to plinth level shall be supplied within 15 days to enable the Department to start the construction work. The detailed designs and working drawings for the

remaining part shall thereafter be submitted progressively. A Detailed time schedule for the various stages preparation of detailed designs and obtaining approval of designs and working drawing from the Superintending Engineer Public Works Circle Satara shall be as per Appendix-A-1

4.9. The consultant shall work in close liaison with the Superintending Engineer, Public Works Circle, Satara attends discussions whenever necessary and/or for some explanation required while checking of designs.

4.10. The progress of the work of such designs and workings drawings shall be monitored by the Executive Engineer, Public Works (Weast) Division Satara / Superintending Engineer, Public Works Circle Satara as may be required.

4.11. The consultant shall have to furnish the construction methodology. Notwithstanding, approval by the Superintending Engineer, Public Works Circle Satara to the detailed designs and working drawing, the overall responsibility for soundness of designs, stability and durability of the structures and methodology adopted shall rest with the consultants. Approval accorded by the Superintending Engineer, Public Works Circle, Satara shall not absolve the consultant of his responsibility for the safety of the structure designed by him.

4.12. The consultant shall append his signature and seal on all the working drawings.

4.13. After the detailed design calculations and working drawings are finally approved, number of sets as mentioned in para 1.12 of the Designs

Criteria shall be submitted by the consultant to the Superintending Engineer, Public Works Circle Satara in bound volumes.

4.14. The duly approved detailed designs carried out by the consultant and working drawings shall be the property of the Department.

4.15. The consultancy fees quoted by the consultant shall be inclusive of all expenses and Taxes including expenses for site visiting fees as mentioned in para 19 of Terms of reference. The fees will cover expenses of stationary, consumables etc. It shall also cover expenses with regard to periodical site visits and meetings with the Superintending Engineer, Public Works Circle Satara in connection with scrutiny of designs and working drawings or review of work whenever required. No separate payment of whatsoever nature shall be made in excess of the offer accepted. However Proof checking fees shall be paid by PWD.

4.16. The schedule of interim payment shall be as per Appendix-A2. The payment shall be released only for the designs approved.

4.17. The duration of the consultancy will be up to the time of physical completion of the construction work in all respects.

4.18. The consultant or his qualified authorized representative/s shall visit the work site twice in a month when R.C.C. work is in progress and also whenever required **Executive Engineer, Public Works (West) Division Satara** to verify the construction work is being carried out truly in accordance with design details supplied and suggest the action to be taken if there is any deviation from detailed design during execution.

4.19. The consultant shall protect the interest of the Government during the tenure of the contract. During this period, the consultant shall not work in any capacity, regarding any dispute that may arise during execution of this work.

4.20. The consultant will have to sign the original copy of the tender papers and Architectural drawings according to which the work is to be carried out. He shall have to give a declaration to the effect that he has fully studied the plan and has given his offer with due consideration to this factor.

4.21. The geometry of the structure in elevation shall be strictly followed as shown in the Architectural plans supplied.

4.22. Design's parameters and other field-data on basis of which the detailed designs are to be carried out shall be as per the information given at para 1.3 of the Designs criteria supplied (ANNEXURE-D). If any other information is required which in the opinion of the consultant is necessary for preparation of detailed designs it shall be obtained from the Executive Engineer, Public Works (West) Division Satara or from the concerned field officers.

4.23. If required by the Department to obliviate any doubts about the soundness of structure from design point of view, the consultant shall give a scheme for load test of any part of the structure without any extra cost.

4.24. The consultant shall not assign or sublet the work awarded to him.

4.25. These terms of Reference shall form part of the tender document

ANNEXURE A-1

TIME SCHEDULE FOR Providing Consultancy Services for RCC Structural Design.

NAME OF WORK : Providing Consultancy Services for R.C.C. /Structural Design of Proposed Court Building for Additional District Judge and Senior Judge Courts at Wai Tal-Wai Dist- Satara.

The consultant shall commence the consultancy work immediately after the notice to the consultants instructing the consultants to being carrying the services is issued.

Time Schedule for several activities to be completed by the Consultant.

Sr. No.	Activity	Time in weeks	Remarks
1	Preliminary design & drawing & its approval from user department.	1	After issue of work order.
2.	Preparation and Submission of R.C.C. plans and detailed RCC designs for all floors, including Terrace and above terrace levels.	2	After approval of preliminary design and drawings.
3	Approval of RCC designs from The Superintending Engineer, Public Works Circle, Pune	1	Submission of detailed RCC design.
4	Site Visit	Once in a month or	In order to ensure that the work at site proceeds in

		as per the requirement up to completion of RCC work	accordance with approved design /drawings, the Consultant shall depute his personnel and point out deviation if any, in time.

Note: - The work should be done strictly as per above mentioned time frame. If there is any delay, the appropriate penalty will be recovered from consultant as decided by the Superintending Engineer Public Works Circle Satara.

ANNEXURE A-2

(Schedule of Payment)

NAME OF WORK : Providing Consultancy Services for R.C.C. /Structural Design of Proposed Court Building for Additional District Judge and Senior Judge Courts at Wai Tal-Wai Dist- Satara.

1 SCHEDULE OF PAYMENT:

The Consultant shall be paid professional fees as quoted in Annexure- 'B' on Lump Sum basis and the following stages consistent with the work done which is covered under services of Technical Consultancy plus other charges and reimbursable expenses as agreed upon, on Pro rata basis.

2 PROFESSIONAL FEES PAYABLE

Sr. No.	Activity	% Of Lump Sum offer	Cumulative %
1	2	3	4
1	On submission and Approval of preliminary design and drawing.	15%	15%
2	On preparation and submission of detailed RCC structural design and drawing, detailed specifications.	60%	75%
3	On approval of detailed design and drawing by the Superintending Engineer, Public Works Circle, Satara.	25%	100%
	Total	100%	

Note: -

i. The payment shown above shall be released only after the design and other details are approved by Superintending Engineer, Public Works Circle Satara

Executive Engineer,
P.W. Satara Division Satara.

ANNEXURE –B

Lump sum offer for Contract for the work

The Consultant shall have to quote his lump sum for the said work in the blank space provided as. (The offer shall be inclusive of all taxes)

Lump Sum offer for work

I/We here by quote consultancy charges for carrying out detailed R.C.C. design as specified in the tender for the work being under taken by Govt. of Maharashtra (hereinafter called "Government) as specified in the underwritten memorandum and terms of reference within the specified time in such memorandum at the lump sum amount of Rs……. (In words Rs. …….. Only)

Memorandum

1.	(a)	Name of Works	:	**Providing Consultancy Services for R.C.C. /Structural Design of Proposed Court Building for Additional District Judge and Senior Judge Courts at Wai Tal-Wai Dist-Satara.**
	(c)	Time allowed for the work from the date of written order to commence	:	As per time schedule given under Annexure A-1

2. I/We agree that the offer shall remain valid and open for acceptance for a minimum period of 90 days from the date of opening of offer and thereafter until it is withdrawn by me/us by notice in writing and delivered at the office of the Authority opening the offer in person.

Should this offer be accepted I/We hereby agree to abide by and fulfill all the terms and provisions of the conditions of contract annexed hereto.

Signature of the Consultant
(Before submission of the Tender)

Name :

Address:

Dated this Day of 202

Name: Signature of Witness to
Consultant's Signature

Address:

Dated this Day of 202

Acceptance:

The above offer is hereby accepted by me for and on behalf of the Governor of Maharashtra

Executive Engineer
Public Works (West) Division Satara

Dated this Day of 2025

ANNEXURE 'C'

This CONTRACT (hereinafter, together will all Appendices attached hereto and forming an integral part hereof, called the "Contract") is made the …….... of the month of …… between, on the one hand, Government of Maharashtra (hereinafter called the "Client") and, on the other hand …….

(Hereinafter called the "Consultants")

Now the parties hereto agree hereby as follows:

1. GENERAL PROVISIONS

1.1 Definitions:

Project: Project shall mean preparation of R.C.C. structural design of Proposed **Court Building for Additional District Judge and Senior Judge Courts at Wai Tal-Wai Dist- Satara.**

The details are as below.

Sr. No.	Building	Approximate Building Area
1	**Providing Consultancy Services for R.C.C. /Structural Design of Proposed Court Building for Additional District Judge and Senior Judge Courts at Wai Tal-Wai Dist-Satara.**	**6708.66 Sqm**

1.1.1 Services: Services shall mean work to be performed by the Consultants as per Terms of Reference in Annexure "A", for the scope defined in terms of reference and design criteria.

1.2 Law Governing Contract:

This Contract has been executed in the English Language, which shall be binding and controlling language for all matters relating to the meaning or interpretation of this Contract. Reports and all correspondence shall be in English.

1.3 Notice:

Any notice, request or consent required or permitted to be given or made pursuant to this Contract shall be in writing. Any such notice, request or consent shall be deemed to have been given or made when delivered in person to an authorized representative of the party to whom the communication is addressed, or when sent by registered mail, telex, or facsimile to such party at the following address:

For Client -- **Executive Engineer, Public Works (West) Division Satara.**

For Consultant --

1.4 Location: Wai Dist Satara.

The services shall be performed at such location as are specified in Terms of Reference hereto and, where the location of a particular task is not so specified, at such locations, as the client may approve.

1.5 Authorized Representative:

Any action required or permitted to be taken any document required or permitted to be executed under this Contract may be taken or executed:

i) On behalf of the client by the Executive Engineer, Public Works (West) Division Satara.

ii) On behalf of the Consultants by Shri. /Smt. ……

1.6 Taxes and Duties:

The Consultants and the Personnel shall pay all the taxes, duties, fees levies and other impositions levied under the Applicable Laws

2. COMMENCEMENT COMPLETION MODIFICATION AND TERMINATION OF CONTRACT.

2.1 Effectiveness of Contract:

This contract shall come into force and effect from the day of the award of the work……...

2.2 Termination of Contract for Failure to become effective:

If the Contract has not become effective within Two (2) weeks of the date hereof, either party may, by not less than Two (2) weeks' written notice to the other party, declare this Contract to be null and void, and in the event of such a declaration by either party, neither party shall have any claim against the other party with respect thereto.

2.3 Commencement of Services:

The Consultants shall begin carrying out the services immediately after receipt of work order.

2.4 Expiration of Contract:

Unless terminated earlier this contract shall terminate when, pursuant to the provisions hereof, the services have been completed and the payments of remuneration as per the accepted offer has been made.

2.5 Entire Agreement:

This Contract contains all covenants, stipulations and provisions agreed by the parties. No agent or representative of either party has authority to make, and the parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein.

2.6 Modification:

Modification of the terms and conditions of this contract, including any modification of the scope of the Services, may only be made by written agreement between the parties. Each party shall give due consideration to any proposal for modification made by the other party.

2.7 Suspension:

The Client may, by written notice of suspension to the consultants, suspend all payments to the consultants here under if the consultants fail to perform any of their obligations under this contract, including the carrying out the services, provided that such notice of suspension (i) shall specify the nature of the failure, and (ii) shall request the consultants to remedy such failure within a period not exceeding fifteen (15) days from receipt by the consultants of such notice of suspension.

2.8 Termination:

2.8.1 By the Client:

The Client may by not less than thirty (30) days' written notice of termination to the consultants terminate this contract:

(a) If the consultants fail to remedy a failure in the performance of their obligations hereunder, as specified in a notice of suspension pursuant to clause 2.7 herein above, within fifteen (15) days of receipt of such notice of suspension or within such further period as the client may have subsequently approved in writing;

(b) If the consultants become insolvent or bankrupt or enter into any agreements with their creditor for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary:

(c) If the consultants fail to comply with any final decision in respect of technical matter of contract as decided by Chief Engineer, Public Works Region, Pune.

(d) If the consultants submit to the client a statement which has a material effect on the rights, obligations or interests of the clients and which the consultants know to be false:

(e) If, as the result of Force Majeure, the consultants are unable to perform a material portion of the services for a period of not less than sixty (60) days; or,

(f) If the client, in its sole discretion and for any reason whatsoever, decides to terminate this contract.

2.8.2 By the Consultants:

The consultants may, by not less than thirty (30) days' written notice to client, such notice to be given after the occurrence of any of the events specified in paragraphs (a) through (d) of this clause 2.8.2 terminate this contract:

(a) If the client fails to pay any money due to the consultants pursuant to this contract and not subject to dispute within forty-five (45) days after receiving written notice from the consultants that such payment is overdue:

(b) If the client is in material breach of its obligations pursuant to this contract and has not remedied the same within forty-five (45) days (or such longer period as the consultants may have subsequently approved in writing) following the receipts by the client of the consultant's notice specifying such breach:

(c) If the client fails to comply with any decision reached in respect of technical matter by Chief Engineer, Public Works Region, Pune.

2.8.3 Payment upon Termination:

Should the client desire to terminate the contract at any time or cessation of the work becomes necessary for the consultant owing to paucity of funds with the client, or form any cause attributable to the client whatsoever, client shall pay consultant the remuneration for the work done up to the stage. If only a part of activity is completed the client shall pay consultancy charges on pro-rata basis.

3. OBLIGATIONS OF THE CONSULTANTS:

3.1 General:

3.1.1 Standard of Performance:

The Consultants shall perform the services and carry out their obligations hereunder with all due diligence, efficiency and economy, in accordance with generally accepted techniques and practices used in such jobs of preparation of Architectural drawing and structural R.C.C. design of multistoried structure (or other appropriate qualification) and with professional engineering and consulting standards recognized by international professional bodies, and shall observe sound management, technical and engineering practices and employ appropriate advanced technology and methods. The consultants shall always act, in respect or any matter relating to this contract or to the services, as faithful advisers to the client, and shall support and safeguard the client's interests in any dealing with Third parties.

3.1.2 Law Governing Services

The consultants shall perform the services in accordance with the Applicable Law and shall take all steps to ensure that the personnel and agents of the consultants comply with the Applicable Law.

3.2 Conflict of Interest:

3.2.1 Consultants not Benefit from Commissions, Discount, etc.:

The remuneration of the consultants pursuant to this contract shall constitute the consultants remuneration in connection with this contract or the services and the consultants shall not accept for their own benefit any trade commission, discount or similar payment in connection with activities pursuant to this contract or to the services or in the discharge of their obligations hereunder, and the consultants shall use their best efforts to ensure that any personnel and agents or either of them, shall not receive any such additional remuneration.

3.2.2 Consultants and Affiliates not to be otherwise Interested in Project:

The consultants agree that, during the term of this contract and after its termination, the consultants and any entity affiliated with the consultants, shall be disqualified from providing goods, works or services, (other than the services and any continuation thereof) for the project if found otherwise interested in project.

3.2.3 Prohibition of Conflicting Activities:

The Consultants and their personnel shall not, either during the term or after the expiration of this contract, disclose any proprietary or confidential information relating to the project, the services, this contract of the client's business or operations without the prior written consent of the client.

3.3 Confidentiality:

The Consultants, and their personnel shall not, either during the term or after the expiration of this contract, disclose any proprietary or confidential information relating to the project, the services, this contract of the client's business or operations without the prior written consent of the client.

3.4 Liability of the Consultants:

The consultants shall be liable to the client for the performance of the services in accordance with provision of this contract (Note: If the

consultants consist of more than one entity, this should be changed to read: “The consultants and each of their Members shall be jointly and severally liable to the client as a result of a default of the consultants in such performance, subject to the following limitations:

(a) The consultants shall not be liable for any damage or injury caused by or arising out of the act, neglect, default or omission of any persons other than the consultants or their personnel or either or them; and

(b) The consultants shall not be liable for any loss or damage caused by or arising out of circumstances over which the consultants had no control.

3.5 The consultants shall be responsible for the arithmetical correctness, structural soundness of designs and correctness of drawings which they will prepare and submit for approval of the Superintending Engineer, Public Works Circle Satara. In token of correctness of the calculations and drawings shall be signed by the consultants under their stamp and seal.

3.6 Documents prepared by the consultants to be the property of the client:

All approved plans, drawings, specifications, designs bill of quantities, reports and other documents prepared by the consultants in performing the service shall become and remain the property of the client. And the consultants shall, not later than upon termination or expiration of this contract, delivery all such documents to the clients, together with a detailed inventory thereof. The consultants may retain a copy of this contract without the prior written approval of the client.

4. OBLIGATIONS OF THE CLIENT:

4.1 Payment:

In consideration of the services performed by the consultants under this contract, the client shall make to the consultants such payments and in such manner as is provided in Terms of Reference of this contract or as decided mutually between client consultants.

5. FAIRNESS AND GOOD FAITH:

5.1 Good Faith:

The parties undertake to act in good faith with respect to each other's rights under this contract and to adopt all reasonable measures to ensure realization of the objectives of this contract.

5.2 Operation of the Contract:

The parties recognize that it is impractical in this contract to provide for every contingency which may arise during the life of the contract, and the parties hereby agree that it is their intention that this contract shall operate fairly between them and without detriment to the interest of either of them and that, if during the term of this contract either party believes that this contract is operating unfairly, the parties will use their best efforts to agree on such action as may be necessary to remove the cause or causes of such unfairness, but on failure to agree on any action pursuant to this clause shall give rise to a dispute. If, however, there is point of dispute about technical matter pursuant to design criteria and about any other matter the decision of Chief Engineer, Public Works Region, Pune shall be final and binding on all concerned.

6. SETTLEMENT OF DISPUTE:

Arbitration is not applicable to this contract. In case of disputes regarding Tech. issues, the decision of Chief Engineer, Public Works Region, Pune shall be final conclusive and binding on all concerned.

Tender offer of the consultants to provide consultancy services for preparation of detailed R.C.C. structural designs and detailed for construction of the following work/s as per ANNEXURE-"B" is Rs._____ _____ is financial offer vide their letter Dated ……... Detailed Architectural drawing and analysis, structural design and preparation of R.C.C. schedules and drawings /Design of **Proposed Court Building for Additional District Judge and Senior Judge Courts at Wai Tal-Wai Dist- Satara.**

7. The consultancy charges quoted for services mentioned above are accepted by the client (Government of Maharashtra).

We, hereby agree to abide by and fulfill all the terms and conditions of this contract.

In WITNESS WHEREOF, the parties hereto have caused this contract to be singed in their respective names of the day and year first above written.

FOR AND ON BEHALF OF (CLIENT)

By Executive Engineer,
P.W. (West) Division Satara.

FOR AND ON BEHALF OF (CONSULTANTS)

Authorised Representative

FOR AND ON BEHALF OF EACH OF THE MEMBERS OF THE CONSULTANTS

ANNEXURE “D”

DESIGNING CRITERIA

ANNEXURE – "D"

DESIGN CRITERIA FOR STRUCTURAL DESIGNS OF BUILDINGS.

1. GENERAL REQUIREMENTS:

The consultant while preparing design of building generally fulfills the following requirements:

(i) It shall be economical.

(ii) It shall ensure soundness of design and strength and durability of the structure, base on designs on requirement of adequate strength and satisfactory serviceability.

(iii) It shall ensure speedy and easy construction and lead to appreciable economy.

(iv) It shall be accompanied by preliminary but detailed drawings and detailed description of work and specification of materials and item. If called upon, Consultant shall furnish any additional information necessary for appreciation and comparison with other

(v) Alternative proposals received.

(vi) At the time of detail designs, the Consultants shall not normally deviate from the basic scheme proposed by him.

(vii) It shall maintain aesthetics as per the Architects plans and Architectural beauty as a whole.

(viii) It shall evolve good engineering designs based on the latest state of the Art Technology.

(ix) The designs shall be of a high professional standard and shall be complete and shall cover all the structural members.

(x) The necessary certificate of structural stability shall be obtained on completion from competent authority for total lease period, before issue of completion certificate by the engineer-in-charge.

(xi) Consultants shall have the experience of similar type of work and has to submit the documented proof for the same.

2. RESTRICITONS ON TYPE OF STRCUTRUES:

The following types of structural arrangements shall not be permitted.

(i) Structures, which require material for which foreign exchange is required.

(ii) Structures, which require floating columns.

(iii) Cantilevers of span more than 3.00 meters.

(iv) Structural configuration with soft storey/ weak places.

(v) Configuration including large torsion in Horizontal/Vertical planes.

3. REQUIREMENTS AND DATA:

(i) The design of buildings, Number of stories and other details and other details shall be based on Architect's drawings and satisfying prevailing by laws of Local Municipal Authority.

(ii) If there is any vertical expansion in future, the design shall cater for that expansion.

(iii) If there is any horizontal expansion planned in future provision for the same shall be made by way of providing expansion joints, combined footings etc. or other provisions required for the same. Foundation near such joints also shall be designed accordingly; taking this factor into account.

(iv) The parameters as mentioned below, which will affect the designs shall be considered, while carrying out he designs.

(a)	Location of Building (Coastal/ Non-Coastal)	:	Non-Coastal.
(b)	Exposure to environments As defined in I.S. 456-2000.	:	Medium
(c)	Seismic Zones for which the designs Are to be prepared. (This shall be as per Seismic Zone given in IS: 1893:2016)	:	Zone IV

(d)	Seismic co-efficient to be (As applicable In 'c' above) for static method of analysis	:	Analysis and relevant Co-efficient shall be as per I.S. 1893-2016
(e)	Importance factor as defined in I.S. 1893-2002	:	1.4
(f)	Type of foundation proposed (Depending Upon the height of the building and safe Bearing capacity of founding strata	:	Open foundation.
(g)	Presence of Sulphate, chloride and other Harmful chemicals in the sub soil as per Test result and measures Proposed to obviate their effects their effects found,	:	As per available geological report no harmful chemicals are present however the consultant should verify this, by verification and actual observation
(h)	Bering capacity of founding strata	:	As per geological Report
(i)	Depth of founding strata below finished Ground level	:	As per I.S.
(j)	Values of K1, K2, K3 factors required To calculate design wind speed as per I.S. 875-1987 (part-3)	:	As per I.S. 875-1987

(k) Type of Anti corrosive treatment : Nil

4. **OBLIGATORY PROVISIONS**:

4.1 Because of the possibility of reversal of shears in beams, due to the earthquake forces shear reinforcement shall be provided in the form of vertical stirrups only as they will be effective both for upward and downward shear. Closely spaced stirrups are preferable.

4.2 Design of Structural Components shall conform to the Criteria laid down in the latest editions of the following IS codes of Practice and Standard specifications published up to the last date of receipt of tender form subject to the departments stipulated.

A)	IS: 456-2000 (Fourth Revision)	:	Indian Standard Code of practice for plain and Reinforced concrete (Fourth revision)
B)	IS: 800-2007	:	Indian Standard Code of practice for use of Structural steel in general building construction
C)	IS: 875- (All parts)	:	Indian Standard Code of practice for structural safety of building: loading standard
D)	IS: 1080-1985	:	Indian Standard Code of practice for design and Construction of shallow foundation in soils (Other than raft, ring and shell.
E)	IS: 2950-1981	:	Indian Standard Code of practice for design and Construction of raft foundation.
F)	IS: 1893-2016	:	Criteria for Earthquake resistant design of

			structure
G)	IS: 4326-1993	:	Indian Standard Code of practice for earthquake resistant design and Construction of buildings.
H)	IS: 1904-1986	:	Indian Standard Code of practice for Structural safety of Building: shallow foundation.
I)	IS: 3370-1965 (All parts)	:	Code of practice for concrete structure for storage of liquids. (All parts).
J)	IS: 3414-1968	:	Indian Standard for designs and installation of joints in buildings.
K)	IS: 2911 Part I-1979 Part II & III-1980 Part IV-1985	:	Code of practice for Designs and Construction of pile foundation. (All parts)
L)	IS: 13920-2016	:	Code of practice for ductile detailing of reinforced concrete structures subjected to seismic force.
M)	IS: 1642-1989	:	Code of Practice for Fire and safety of buildings. (General)
N)	IS: 1643-1988	:	Code of Practice for Fire and safety of buildings (General): Exposure Hazards.
O)	IS: 1644-1988	:	Code of Practice for Fire and safety of buildings. (General) Exit Requirement and personal Hazards.
P)	IS: 1786-1985	:	High Strength Deformed Steel bars and admires for concrete reinforcement (Third Revision).
Q)	IS: 432-1982	:	Mild steel and medium tensile steel bars and

	(Part I)		hard drawn steel wire for concrete reinforcement.
R)	IS:13620-1993	:	Fusion bonded epoxy coated reinforcing bars.
S)	CECRI Guidelines for CPCC Anti-corrosive Anti- corrosive treatment.		

For special provisions, like shells, folded plates, prestressed concrete, pre-cast elements, etc. relevant Indian Standard Codes shall be followed. For aspects, which are not covered by these, codes or any other Indian Standard Codes available, relevant A.C.I./British Standard Codes may be referred to. As for the stipulations, which are not dealt with in any of these codes, the decision of the **Chief Engineer** concerned shall be final and binding.

4.3 The Designer should also take into consideration the recommendations made in the following I.S.I. publications (Latest editions)

(a)	SP:16	:	Designs aids for reinforced concrete to I.S. 456-2000
(b)	SP:24	:	Explanatory Hand-Book on I.S. 456-2000 (Code of practice for plain & reinforced concrete)
(c)	SP:34 (S&T)	:	Hand-Book on concrete Reinforcement and Detailing.
(d)	SP:22	:	Explanatory Hand-Book on code for Earthquake Engineering.
(e)	SP:7	:	National Building code of India.

4.4 In addition to the above, the following design requirements shall also be satisfied:

4.4.1 Loading to be considered for designs for different parts of the structure shall be as per I.S. 875 or as specified.

4.4.2 Load of B.B. coba for sanitary blocks shall be 2000 kg/m3

4.4.3 Lift machine room floor slabs shall be designed for live load of 1000 Kg/m2, of floor areas or as specified.

4.4.4 Lift load shall be as per relevant I.S. Codes and shall be increased by 100% for impact while designing lift machine room floor beams supporting R.S. Joist, which will be affected, by the impact.

4.4.5 Equivalent static load on R.S. Js. Supporting lifts shall be considered as per the relevant codal provisions.

4.4.6 Loading for the Electrical Installations (e.g., A.C. Ducting, exhaust etc.) shall be got confirmed from the Superintending Engineer (ELECTRICAL, P.W. DEPARTMENT)

4.4.7 Ductility provisions specified in IS: 4326 and IS: 13920-2016 shall be adopted in designs and detailing.

4.4.8 False ceiling if required shall be designed for a load of 250 Kg/m2 and suitable loading shall be adopted for catwalks, interior decoration etc. with advance approval from the Superintending Engineer, Public Works Circle Satara.

4.4.9 Any other loads which may be required to be considered in designs due to special type or nature of structure/any other reason/constructional method to be adopted, shall be got approved in

advance from the Superintending Engineer, Public Works Circle Satara.

4.4.10 Structural layout of building and tentative sizes of structural members of each floor based on the Architectural drawings shall be submitted to the Superintending Engineer, Public Works Circle Satara for approval.

4.4.11 The detail procedure to be adopted by consultant while designing the building is given in the Para Sr. No. 10.

4.4.12 Columns, beams, slabs shall be numbered as per Designs Circle's prescribed procedure to avoid confusion during checking and scrutiny of designs and later on in execution. The numbering procedure is given in Annexure-I.

4.4.13 Sizes of beams shall be so fixed as to satisfy the deflection criteria given in I.S. 456-2000. The beams shall also be designed as deep beams/slender beams, etc., as the case may be.

4.4.14 Where obligatory sizes are needed for beams, columns, etc., as necessitated by Architectural/Constructional requirements, they shall be provided accordingly.

4.4.15 The distribution of horizontal forces over different frames in both directions shall be made by any rational method as will be approved by the Superintending Engineer, Public Works Circle Satara.

4.4.16 The analysis and design shall be carried out by STAAD/ ETABS/ ETABS-PRO software and as per IS 456(2000). The detailing of reinforcement shall be as per IS 13920 (2016).

4.4.17 The analysis shall be carried out separately for Dead Loads, Live loads, Seismic loads and Wind loads etc. All the structural components shall be designed for the worst combination of the above loads, as per relevant codal provisions.

4.4.18 Nodal/Dynamic analysis shall be done for horizontal forces for buildings, if required as per relevant I.S. codes.

4.4.19 The procedure for scrutiny of detailed calculations and working drawings and their approval shall be as mentioned here in after clause 10.

4.4.20 The Designer, intending to use in house computer programs for the analysis of structure may do so, provided he shall solve adequate number of frames in the structure by any of the recognized methods and shall prove the correctness of his program to demonstrate that solutions are arithmetically and logically correct.

4.4.21 Columns shall, as far as, possible be tied in both directions preferably at the same level.

4.4.22 The column shall be designed for Bi-axial bending due to dead load, live load, seismic load and wind load etc. with the appropriate load combination as given in I.S.456-2000. The beams also shall be designed for the appropriate combination of loads.

4.4.23 The R.C.C. detailing in general may be done as per SP:34 & I.S.:13920 (only for Zone-III, IV & V). The Designer shall give sketches of reinforcement detailing in case of critical and complicated and important components.

4.4.24 The sequence of de-propping of beams shall be given in the beam schedule wherever it is required especially where cantilevers, grid slabs and beams of considerably long spans are involved.

4.4.25 Reinforcement for cantilevers shall be anchored preferably in an internal slab wherever possible instead of anchoring in beams in which case beams shall be designed for torsion. Detailed drawings showing

torsion stirrups etc. shall be given whenever cantilever slabs are anchored in beams.

4.4.26 Cantilever chajja and slabs shall be anchored preferably in an internal slab wherever possible instead of anchoring in beams in which case beams shall be designed for torsion. Detailed drawings showing torsion stirrups etc. shall be given whenever cantilevers slabs are anchored in beams.

4.4.27 The terrace slabs, in addition to normal live load shall also be designed for load of water-proofing treatment consisting of B.B. Coba of 112mm. thickness or as specified.

4.4.28 In case of future vertical expansion, the top slabs to be constructed in first phase shall be checked for terrace loading also.

4.4.29 Requirements for fire resisting structures as per relevant I.S. codes shall be satisfied.

4.4.30 Whenever Fusion Bonded Epoxy coating type anticorrosive treatment is given to the steel reinforcement, the development length required shall be increased as recommended by manufacturer or based on the test results. The decision regarding the increase in the development length shall be taken by the Superintending Engineer, Public Works Circle Satara.

4.5 Open Footings:

(i) The footing generally shall have minimum projection of 30 cm beyond column face.

(ii) Minimum diameter of reinforcement in footing shall be 10 mm.

4.6 Pile foundation: (If provided)

(i) Minimum diameter of circular piles shall be 500 mm in case of end bearing and friction piles.

(ii) Minimum 3 Nos. of piles shall be provided for each column and each pile cap shall be tied in both directions by beams at pile-cap level.

(iii) All the exposed surfaces of the pile cap likely to the chemical attack should be provided with a coat of coal tar, chlorinated rubber, epoxy or polyurethane with a coat of coal tar, chlorinated rubber, epoxy or polyurethane material as per the instructions of Executive Engineer.

(iv) Relevant I.S. codes will be applicable for this work. In case of any discrepancy sound engineering practice shall be followed.

(v) The pile caps in general shall be located above high tide level to avoid chemical attack and deterioration of exposed concrete surfaces.

4.7 Basement and Raft: (If provided)

(a) Bottom slabs of basement shall be designed to resist the upward soil pressure and up-lift pressure due to sub-soil water.

(b) Slide walls shall be designed to resist lateral load due to earth pressure and vertical loads and water pressure from the structure above.

(c) Raft also shall be checked for flotation.

(d) The mix of concrete shall be as per I.S. Code of Practice in contaminated subsoil water.

(e) The basement shall be leak-proof and suitable water-proofing treatment shall be given up to 30 cm. above the highest ground water level.

(f) Expansive soil shall be removed minimum up to 2.5 m. from ground level or 60 cm. below raft level whichever is more and surrounding area of walls for a distance of 45 cm. and shall be replaced by granular soil.

(g) Raft top shall be suitably treated with floor finish so that the raft, which is a structural member, should not be subjected to wear.

(h) Bedding concrete 10 cm. thick shall be provided above the granular material before laying raft.

(i) Suitable drainage arrangement for storm and sub-soil water shall be proposed and considered in designs.

(j) The passive rock anchors from bottom of Raft foundation to underlying volcanic rock shall be provided & the holes drilled for stitching shall be grouted, as per direction of Geologists.

5. CLARIFICAITONS:

Any clarification about Design Criteria, if required, may be obtained in advance from Superintending Engineer, Public Works Circle Satara

6. BORE DATA AND SOIL AT SITE

Geological Report for this work is prepared which is to be followed for design calculations.

7. EXPANSION JOINTS

Expansion joints of waterproof type shall be adequately designed to suit the structure proposed. Relevant I.S. Codes shall prevail. Detail Drawings shall be given.

8. ANTI CORROSIVE TREATMENT TO REINFORCEMENT

Anticorrosive treatment to be given to reinforcement by Galvanized method/FBEC/CPCC if recommended by Concerned Chief Engineer/Superintending Engineer.

9. DOCUMENTAITON AND INSTRUMENTATION

i) All final drawings and Microfilms of all approved drawings and "as built" drawings and calculations shall be supplied by the R.C.C. Consultant free of cost for the whole project.

10. PROCEDURE

(i) Initially the Consultant shall obtain the Architectural drawings from the Executive Engineer, of the concerned work. The approved drawing shall only be used for the designs of building.

(a) Number of storeys for which building shall be designed.

(b) The details of future horizontal and vertical extension + Expansion joints/ movement joint proposed.

(c) Type of foundation and safe bearing capacity adopted.

(d) Exposure condition as per I.S. 456:2000

(e) Type of material, Grade of Concrete and steel and Anti Corrosive/ Protective Treatment adopted and covers adopted for different members.

(f) Designs Loads: - Deed load/material density assumed, the live load as per the relevant I.S. Code, Live load occupancy classifications and live load used.

(g) Wind load: - Wind load along with wind pressure calculation.

(h) Earthquake forces along with calculations of seismic co-efficient.

(i) Load combinations to be adopted in analysis and design.

(j) Structural System.

(k) Importance factor adopted as per I.S. 1893 (Part I):2016.

(l) Capacity and type of water tank.

(m) All the details of lift if provided.

(n) Any other assumptions made in designs.

The R.C.C. layout and design conception note shall be scrutinized and approved by Superintending Engineer, Public Works Circle Satara. On approval of the R.C.C. layout, the copy of the R.C.C. layout shall be submitted to the Superintending Engineer, Public Works Circle Satara and approvals shall be obtained by the R.C.C. Consultant.

(ii) After obtaining the approval to R.C.C. layout the Consultant shall prepare the STAAD/ETABS Model using STAAD Pro-(appropriate version) The Consultant may also prepare the STAAD/ETABS Model on different version of the STAAD/ ETABS. However, copy of the same shall have to be made available to the Superintending Engineer, Public Works Circle, Satara without any extra cost.

(iii) STAAD/ETABS Model shall be submitted on compact disc (C.D.) to the Superintending Engineer, Public Works Circle, Pune shall scrutinize the STAAD/ETABS Model and shall communicate the approval to the STAAD/ETABS Model. If there are any queries, the consultant shall comply the queries and shall modify the STAAD/ETABS Model, if necessary. The modified STAAD/ETABS Model shall have to be re submitted to the Superintending Engineer, Public Works Circle Satara.

(iv) The consultant shall submit the detailed designs of the different components such as footing, beams, columns, and slabs as per the priority decided by the Executive Engineer of the concerned

work in the prescribed format given by Design Circle. The consultant shall submit a program of submission of designs. The program of submission of designs of various components shall be consistent with the program of work prepared by Executive Engineer of the concerned work. Detailed design calculation and working tracings of all the component parts of building shall be submitted well in advance of execution in accordance with above program. Initially two copies of the schedules duly signed by consultant shall have to be submitted along with soft copy of designs calculations. The schedules shall be submitted in the format prescribed and also on compact disc (C.D.). in case of any query/modifications, revisions in the schedule scrutinize of the Superintending Engineer, Public Works Circle, Satara the Consultant shall have to revise/modify the schedules and shall have to submit the same to Superintending Engineer, Public Works Circle, Satara without any extra cost. The schedules shall initially approve along with the modifications in the red ink and one copy of the schedules shall be returned by Superintending Engineer, Public Works Circle, Satara to consultant.

(v) On getting the initial approval, the Consultant shall submit 5 copies of the schedules along with the tracing and one soft copy on the C.D. to Superintending Engineer, Public Works Circle Satara. The schedule should be finally approved by Superintending Engineer, Public Works Circle, Satara and 3 copies shall be returned to the Executive Engineer of the concerned work and one copy of the schedule shall be returned to the Consultant for record.

(vi) The Consultant shall have to attend the office of The Superintending Engineer, Public Works Circle, Satara /concerned Executive Engineer, Office of the Chief Architect, Mumbai/Deputy Chief Architect of concerned for scrutinizing the R.C.C. layout, scrutinizing the STAAD/ETABS Model and designs work of all components at his own cost. The consultant shall have to attend the Executive Engineer of the concerned Division and all meeting of the Superintending Engineer, Public Works Circle Satara in connection with the designs work stipulated above as when required and directed by officers from Designs Circle at his own cost.

(vii) The consultant shall have to submit manually done sample calculation for adequate number of typical cases of program as developed in house are used for designs of reference copies of software used for the designs. The consultant shall also have to submit copies software used for the designs work at his own cost. The program as submitted will be further tested by comparison with solutions of worked examples. The Consultant shall normally follow the time schedules and the priorities of the designs are approved by Executive Engineer.

The drawings and designs shall be in metric unit only. Calculations shall be neat and clean and supplemented by explanatory notes and sketches wherever required. It is entirely the responsibility of consultant to submit the designs in good time to enable the Superintending Engineer, Public Works Circle, Satara to approve them in time. Schedule of reinforcement should also be shown on each drawing.

(viii) In case of any disputes regarding any designs of work as stipulated above, the decisions of Superintending Engineer, Public Works Circle Satara shall be conclusive and binding on the Consultant. The approval to the drawing and designs calculations by Superintending Engineer, Public Works Circle, Satara shall not any way relieve the Consultant from the responsibility of correctness, soundness of structure and the safety of the structure.

(ix) The Consultant shall have to submit the component wise R.C.C. quantity, quantity of steel, quantity of different material other than above to Superintending Engineer, Public Works Circle, Satara without any extra cost.

(x) (a) Approval of designs shall be done by Superintending Engineer, Public Works Circle, Satara for the building.

(b) Designs approval RCC Proof Checking shall be done by SEDC Mumbai/ Govt. Engineering College or IIT & the fees of Proof Checking will be the responsibility of the PWD Department.

(xi) The approved drawings and design calculations of the building shall be property of Government of Maharashtra.

(xii) The detailed design of the building shall comply all the provisions mentioned in Appendix-1

11. DISPUTES:

In case of disputes/disagreement on issues relating to designs arising between the Designer and The Superintending Engineer, Public Works Circle Satara. In respect of design matters, the decision of the Chief Engineer, Public Works Region, Pune shall be final and binding on the Designer.

APPENDIX – I

ADDITIONAL SPECIFICATIONS/REQUIRMENTS

1. Exposure condition to be considered for all purpose as given in IS: 456-2000 (concrete grade, minimum cement content, W/C ration, cover) - Medium

2. Type of anticorrosive treatment for

   a) Steel - No

   b) Concrete - No

   i) Piles - 25mm

   ii) Open Foundation - 15mm

SUPPLEMENTARY DATA

1.	The Architectural drawing to be used for the work	-	All the approved drawing numbers shall be informed by the field Executive Engineer.
2.	Design Loads	-	As per IS:875, IS:1893
3.	Seismic Zone	-	Zone-IV (As per IS 1893)
4.	Important factor	-	1.50
5.	Exposure condition	-	Medium (As per IS 456-2000)
6.	Expansion joint required	-	As shown on the drawing/Not.
7.	Water proofing treatment	-	Brick Bat waterproofing.
8.	Future Expansion	-	As per drawings
9.	Location and capacity of water tank	-	To be given by the field Executive Engineer. (Mentioned in Annexure II)
10.	Requirement of lift	-	To be given by field. (Mentioned in Annexure II)
11.	Type of foundation to be provided	-	As per available data the information is given in the

Annexure II)

12.	Field data	- The field data based on available Geological data is attached herewith.
13.	Formats	- Sample formats to be adopted for schedule are kept

ANNEXURE – I

NUMBERING SYSTEM AND NOTATIONS TO BE ADOPTED IN LAYOUTS

1.1 Columns:

Columns are numbered serially with integer number suffixed to letter "C" i.e.C1, C2, C3 etc. The columns are numbered from lower most left corner of the R.C.C. layout. Numbering shall proceed from left to right in X direction and proceeding successively in positive Y direction. R.C.C. layout showing column numbering is kept as per standards.

1.2 Beams:

(i) Beam actually supported over a column is called main beam. Beam supported over other beam is called secondary beam.

(ii) A beam number is composed of two parts e.g. 5.1, 5.2 etc. The part to the left of decimal point denotes the left side reference column number. The part to the right represents serial number of the beam.

Beams in X direction here the reference column is left supporting column. If left supporting column is absent then right supporting column is considered as reference column. For X direction beam serial number (2^{nd} part) is always odd e.g.1, 01, 3, 03 etc. Beams to the right side of reference column are numbered as 5.1 etc. While beams to the left of reference column is numbered as 5.01, where the reference column is C5.

Beams in Y direction in this case reference column is bottom most column. If the bottom column is absent then the upper supporting column can be considered as the reference column. For Y direction beam serial number (2nd part) is always even number e.g. 5.2, 5.02, 5.4 etc. Beams in positive Y direction of reference column are numbered as 5.2 while beams in negative y direction of the reference column are numbered as 5.02, where the reference column number is C5.

(iii) For numbering the secondary beams in "X" direction the first part of beam number shall be a reference column which shall be the nearest left side column of the beam. The second part shall be odd number except 'I' i.e.3, 5 etc. serially in X direction e.g. 5.3, 5.5 etc.

(iv) If the beams are at intermediate level above the floor under consideration, then the beam number will be suffixed with a letter like A, B & M e.g. if 5.1 is main beam at 1st floor level, 5.1 A is a beam in X direction at 1st floor lintel level and 5.2 M is abeam in Y direction at MIDLANDING LEVEL between the 1st floor and 2nd floor levels. "A" refers to floor level and "B" refers to lintel level and "M" refers mid landing level.

(v) A R.C.C. layout showing the beam numbering is kept at Annexure-III.

1.3 **Slabs**:

The slab notation is composed of four parts. The first, second and third part are written on the left side of the decimal point and the 4th is written on the right-hand side of the decimal point e.g., 200S1.1, 500S2.2.

(i) The first part denotes the imposed live load intensity in Kg. /Sqm. For which the particular slab is designed. This load is decided on the basis of designated use of the particular space (the slab) as shown in the Architect's plan and as per provisions of I.S.875. This practice is useful and advantageous for maintaining a proper record especially when different slab panels are designed for different live loads. This record is also useful to avoid over loading of the slab in future change of usage.

(ii) The second part represents the type of the slab force e.g.
"S" denotes general floor slab
"SF" denotes staircase flight slab
"SR" denotes room roof level slab staircase room roof level slab
"SM" denotes machine room floor slab
"SC" denotes cantilever slab and
"ST" denotes terrace slab.

(iii) The third part is either "1" or "2" I "1" denotes the slab is one way. The "2" denotes the slab is two way.

(iv) The fourth part is the serial number of the slab is one way/two-way category. Slabs having different end conditions shall be treated as different slabs for this notation.

(v) Slabs shall be grouped on the basis of panel dimensions, loading pattern and end conditions.

(vi) The notation for one way slab, two-way slab, 23 cm. brick wall, 15 cm. thick brick wall, R.C.C. pardi is shown on sample R.C.C layout kept at Annexure-III.

The dead load of various structural material and live loads adopted for different slabs and the R.C.C. layouts shall be got approved from Superintending Engineer.

2 GUIDELINE FOR FIXING THE POSITION AND ORIENTATION OF COLUMN IN THE LAYOUT.

This is an important stage. It is skillful job and economy in design is achieved by locating columns at proper and/ideal locations.

(i) Normally the positions of the columns are shown by Architect in his plans.

(ii) Columns should generally and preferably be located at or near corners and intersection/junction of walls.

(iii) If the site restrictions make it obligatory to locate column footings within the property line the column may be shifted inside along a cross wall to accommodate footings within the property line. Alternatively, trapezoidal footing, eccentric footing can also be adopted.

(iv) While fixing the orientation of columns care should be taken that it does not change architectural elevation. This can be achieved by keeping the column orientations and side restrictions as proposed in plans by the Architect.

(v) As far as possible, column projection/s outside the walls should be avoided, unless Architect's plans show contrary or same is required as structural requirement.

(vi) Columns should not obstruct door and window position/s shown in the Architect's plans.

(vii) As far as possible columns should be so positioned. that continuous frames from one end to the other end of building in both X and Y directions are available. This will increase the global stiffness of the building against horizontal forces.

(viii) When the locations of two columns are near to each other (for e.g. the corner of the building and intersection of the walls) then as far as possible only one column should be provided or secondary beam shall be provided.

(ix) As far as possible columns should not be closer than 2m. c/c to avoid stripped/combined/continuous footings.

Generally, the maximum distance between two columns should not be more than 8m. c/c.

(x) Column should be normally provided around staircases and lift wells.

(xi) Preferably overhead water tank should rest on the columns as shown in the Architect's plan. The height of water tank should be up to 2.0 m. clear height between top of Terrace and Bottom of water tank should not be less than 0.90 m.

(xii) Twin columns of equal size are desirable at expansion joints from aesthetic point of view.

(xiii) As far as possible every column must be connected (tied) in both directions with beams at each floor level, so as to avoid slender columns

(xiv) As far as possible columns supported on beam should be avoided. (Such columns are commonly called as floating columns)

(xv) When columns along with connecting beams form a frame, the columns should be so orientated that as far as possible the larger dimensions of the columns are perpendicular to the major axis of bending. By this arrangement column sections and their reinforcement are utilized to the best structural advantage.

ANNEXURE - II

1.3 FIELD DATA PROFORMA

STANDARD PROFORMA FOR FURNISHING FIELD DATA FOR COMMENCING DESIGN OF BUILDING PROJECTS

1.	Name of Work	:	**Providing Consultancy Services for R.C.C. /Structural Design of Proposed Court Building for Additional District Judge and Senior Judge Courts at Wai Tal-Wai Dist- Satara.**
2.	Location		
	(a) Location with Seismic Zone	:	Wai Taluka - Wai District –Satara (Seismic Zone IV)
		:	
	(b) "Importance Factor" for Structure as per I.S.:1893	:	1.5
	(c) Exposure Condition as per I.S. 456:2000	:	Medium
	(d) Grades of concrete		As required from design point of view.
3.	General description and salient features	:	Attached separately
4.	Architect's Plan No. & Job No.	:	Attached separately
5.	G.R. Number and date of administrative approval with cost (Copy to be attached)	:	Attached separately
6.	Budget Item No. and Page No. in Budget Book if it is budget	:	

7.	Technical sanction order and its data (authority with cost). (Copy to be attached)	:	
8.	Foundation condition		
	(a) Foundation details of existing building near to the site.	:	---------- Not applicable
	(b) Distance between the nearest existing building and proposed building.	:	As per Geotech Report
	(c) Plan showing location/s of trial pits/trial bores including level of sub-soil water table. (Give date of observation)	:	
	(d) Results of chemical tests on sub soil water for Sulphite, Chloride contents, Ph value.	:	
	(e) Safe bearing capacity of foundation strata including depth in case of open footing (mention basis i.e., test results with report etc.)	:	As per Geotech Report
	(f) Details of sub soil exploration or tests with results like.	:	
	(i) Nature of subsoil beneath and around with respect to Compressibility and shear strength.	:	As per Geotech Report
	(ii) Penetration test results of Different Strata.	:	
	(iii) Penetration test	:	

	results of Different Strata.		
	(iv) In case of weathered rock, description regarding physical behavior and expected physical behavior.	:	
	(g) Tidal effects if any.		
9.	Special points about foundation and site.	:	N. A
9.1	If open footings are not feasible give recommendations about	:	
	(a) Raft: Depth and Safe bearing capacity of strata	:	N.A.
	(b) Piles:	:	NA
	i) Depth.	:	
	ii) Safe bearing pressure for the hard strata	:	As per Geotech Report
	iii)Type-frictional /bearing/under reamed.	:	
	iv)Dia of pile proposed (if specific dia is to be provided)	:	NA --
	v)Proposed pile cap level.	:	
	vi)Proposed top level of finished file.	:	--
	vii) Undrained shear strength of soil.	:	--
	viii) Horizontal Modulus of soil.	:	--
9.2.	Nature of ground e.g. plain,	:	Plain

	undulating, sloping etc. (attach contour plan at 0.5 m. interval if ground slope exceeds 1:30)		
10.	Water storage tanks (show requirements of present and future extension separately)	:	Above staircase
	(a) Overhead tanks: Type (M.S./R.C.C./H.D.P.E./F.R.P .) capacity (show location on plan)	:	H.D.P.E. 1 No. of 5000 liters.
	(b) Underground tank (Locations, capacity and special requirements if any)	:	
11.	Lift loads	:	
	i) Capacity of lift (passengers /goods)	:	As per codal provision
	ii) Load of lift cage	:	
	iii) Load of motor/gear in the machine room.	:	
	iv) Machine room floor live load	:	
	v) Impact factor	:	
	vi) Lift pit depth	:	
	vii) Machine room floor level	:	
	viii) Machine roof level w.r.t. level	:	
	ix) Machine roof level w.r.t. terrace	:	
	x) Whether location sketch indicating position of girders for supporting gears/mortars and erection purpose provided?	:	As per manufactures specification

xi)	Minimum thickness of machine room floor slab required by field (if any)	:	200mm
xii)	Any other system load to be considered for erection.	:	NO
xiii)	Whether above information is given by the officer of the rank at Building Executive Engineer (Electrical) (Yes/No)	:	Yes
12.	Extra ordinary Load If any to be considered for Design	:	NIL
13.	Provision to be made in design for future extension if any	:	--
(a)	Horizontal	:	Nil
(b)	Vertical		Nil
	(Details of Extension)		
	i) No. of stories as per Architects Drawings	:	G+ Six Floor
	ii) No. of stories to be constructed at present		G+ Six Floor
	iii) No. of stories to be Designed for.	:	G + Six Floor
(c)	Authority for the above (Architect's plan, provisions in A.A. or Tech. Sanctioned estimate reference to maser plan etc.)	:	NA
(d)	Whether structural sections assumed in sanctioned		Nil

	estimate take into account the envisaged expansion at (a) & (b) above.	:	No
	(e) Detailed plans of the future extension.		
14.	Special requirement of Architectural plans if any.	:	Drawing is attached
	(a) Restriction on column sizes and their orientation with locations.	:	As per norms
	(b) Restriction on sizes of beams and their locations.	:	As per norms
	(c) Lift machine room floor clearance form general terrace level.	:	As per norms
	(d) Minimum headway if any, with locations.	:	As per norms
	(e) Any specific or suggested positions of expansion joints if required at particular places.	:	No
15.	If the Building is to be designed for wind load give value of 'K1', 'K2', 'K3' as per I.S. :875 (Part 3) to calculate design wind speed	:	As per I.S. 875-Part (3)
16.	Special features of the staircases if any	:	
	(a) Clearances on sides	:	As per Drawings/Plans given by the Consultant
	(b) Restrictions on No. of steps in a flight	:	
	(c) Restrictions of tread widths and heights of risers etc.	:	

Consultant Executive Engineer

		:	
17.	Any other special requirements or points such as .	:	
	i) Type of water proofing with its loading.	:	Brick bat waterproofing. (INDIA WATERPROOFING)
	ii) Exposure to saline and chemical atmosphere.	:	N.A.
Note:	The following plans must be supplied with this proforma.		
	i) Index plan	:	--
	ii) Site plan showing locations of trial pits.	:	Attached
	iii) Sub surface data including test results.	:	--
	iv) Contour plan in case ground slope exceeds 1:30.	:	Attached
	v) Architect's plan (original and not traced copies) Marked with location of overhead tanks/with individual capacity.	:	Attached
	vi) Plans and sketches showing special requirements, if any.	:	Yes