



**SURVEY OF PAKISTAN
Rawalpindi**

INVITATION TO BID

Survey of Pakistan invites sealed bids under the Project titled "Cadastral Mapping" through **Single Stage- Two Envelop procedure** from the firms registered with Income Tax & Sales Tax Departments for **Cadastral Mapping of CDA Sectors & Housing Societies Islamabad.**

2). For Cadastral mapping of Statelands, the bids will be submitted for each Division of Province separately. Firms can apply for Cadastral Mapping of Statelands in one or Division depending upon their capacity. Bidding documents, containing detailed terms and conditions, technical specifications, method of procurement, procedure for submission of bids, bid security, evaluation criteria, performance guarantee etc., are available for the interested bidders at website of Public Procurement Regulatory Authority, which can be downloaded.

3). The bids, prepared in accordance with the instructions in the bidding documents, must reach at Survey of Pakistan, Faizabad Rawalpindi duly addressed to the Chairman Purchase Committee on or before **14-06-2021 at 11:00 hrs.** Bids will be opened on the same day at **11:30 hrs.** This advertisement is also available on PPRA's website at www.ppra.org.pk and Survey of Pakistan website www.sop.gov.pk.

(Muhammad Tanvir)
Director
Chairman Purchase Committee
051-9290217

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**BID SOLICITATION DOCUMENT FOR AWARD OF CONTRACT OF
CADASTRAL MAPPING OF 19 x CDA SECTORS & HOUSING
SOCIETIES ISLAMABAD**

1 PROJECT OVERVIEW

Major challenges are associated with current land record of CDA which at best can only be described as old arrangement. The existing Records have not been updated since long , creating problems for the users.

2. REQUEST FOR PROPOSAL

Survey of Pakistan invites divisionwise Proposals from eligible bidders/firms for “Cadastral Mapping of 19 X CDA Sectors & Housing Societies Islamabad” as mentioned below for completion before 15-08-2021.

i. CDA Sectors Islamabad

SI No.	Sectors	SI No.	Sectors
1	A-17	5	F-16, 17
2	B-16, 17	7	G-12, 15, 16, 17
3	C-13, 14, 15, 17	8	H-13
4	D-14, 17	9	I-17
5	E-16, 17	-	-

ii. Housing Societies Islamabad

- a. Saidpur
- b. NoorPur Shahan
- c. Model Urban Shelter Project Frash

Survey of Pakistan intends to select the Firm through a competitive bidding process in accordance with the procedure set out herein.

2.1. Validity of the Proposal / Bid

The Proposal shall be valid up to 90 days as per PPRA Rule

2.2. Brief description of the Selection Process

The Bidders will send their Proposals in two sealed envelopes as mentioned in clause 3. **Single Stage- Two Envelop Procedure as per PPRA Rule 41 (3) will be adopted.** The selection process in evaluating the Proposals comprising of Technical and Financial Bids to be submitted in **two separate sealed envelopes** **Single stage two envelopes procedure.** In the first phase, a technical

evaluation will be carried out as specified in **Clause 8**. Based on this technical evaluation, in the second phase, a financial evaluation will be carried out. On the basis of Financial Proposal, **the bid with the lowest cost per Sq Km will be considered the most advantageous.**

2.3. Bid Security

All bidders are required to submit 2% earnest money in financial proposal envelop in the form of a bank guarantee or Bank draft/pay order. The Earnest Money should be furnished by a reputable bank in favor of Project Director, Survey of Pakistan, Rawalpindi and shall be valid for a period of three (3) months. The bank guarantee / pay order for earnest money will be returned to the responsive bidders on signing of the contract with the successful bidder and the earnest money of technically non-responsive bidder will be returned within 30 days. Bidders submitting a proposal without acceptable earnest money would be immediately disqualified.

All communications related to the project should clearly be marked as **“Cadastral Mapping of 19 X CDA Sectors & Housing Societies”** on the top of the envelope.

3. INSTRUCTIONS TO THE PROSPECTIVE BIDDERS

- 3.1. Detailed description of the objectives, scope of services, deliverables and other requirements relating to this project are specified in this RFP. The manner in which the Proposal / Bid is required to be submitted, evaluated and accepted is explained in this RFP.
- 3.2. The Bidder shall submit its Proposal in the form and manner specified in the RFP. The Technical and Financial Bid shall be submitted in line with the respective forms attached with RFP. Upon selection, the Bidder shall be required to enter into an agreement with the Client on finalization of bidding process. However, some clauses may be modified on mutually agree-able terms.
- 3.3. Bidder should familiarize themselves with local conditions and take them into account in preparing their Proposals. To obtain first-hand information on the assignment and local conditions, Bidders are encouraged to visit the Client before submitting a proposal and to attend a pre-bid conference as specified in the schedule. Bidders should contact the Client's representative to obtain

- additional information on the pre-bid conference, and should ensure that these officials are advised in advance of the visit with adequate time to allow Project Director to make appropriate arrangements.
- 3.4. Bidder may request a clarification on the RFP documents up to the number of days indicated above before the proposal submission date. Any request for clarification must be sent in writing, or by standard electronic means to the Client's address indicated in the Data Sheet. The Client will respond in writing, or by standard electronic means, and will send written copies of the response (including an explanation of the query but without identifying the source of inquiry) to all Bidders.
 - 3.5. At any time before the submission of Proposals, the Client may amend the RFP by issuing an addendum in writing, or by standard electronic means. The addendum shall be sent to all bidders and will be binding on them. The Bidders shall acknowledge receipt of all amendments. To give Bidder reasonable time in which to take an amendment into account in their Proposals the Client may, if the amendment is substantial, extend the deadline for the submission of Proposals.
 - 3.6. The original proposals (Technical and Financial) shall contain no interlineations or overwriting, except as necessary to correct errors made by the Bidder themselves. The person who signed the proposal must initial such corrections.
 - 3.7. An authorized representative of the Bidder shall sign all pages of the Technical and Financial Proposals. The authorization shall be in the form of a written power of attorney on stamp paper accompanying the Proposal or in any other form demonstrating that the representative has been duly authorized to sign.
 - 3.8. The Technical Proposal shall be placed in a sealed envelope clearly marked "**TECHNICAL PROPOSAL**" Similarly, the Financial Proposal shall be placed in a sealed envelope clearly marked "**FINANCIAL PROPOSAL**" and clearly mentioning the name of the assignment, and with a warning "**DO NOT OPEN WITH THE TECHNICAL PROPOSAL.**" The envelopes containing the Technical and Financial Proposals shall be placed into an outer envelope and sealed. This outer envelope shall bear the submission address and be clearly marked "**DO NOT OPEN, EXCEPT IN PRESENCE OF THE APOINTED OFFICIAL**". The Client shall not be responsible for misplacement, losing or premature opening if the outer envelope is not sealed and/or marked as

stipulated. Such an occurrence may be the case for Proposal rejection. If the Financial Proposal is not submitted in a separate sealed envelope duly marked as indicated above, this will constitute grounds for declaring the Proposal non-responsive.

- 3.9. The Proposals must be sent to the address/addresses indicated in the Data Sheet and received by the Client no later than the time and the date indicated above, or any extension to this date in accordance with rules. Any proposal received by the Client after the deadline for submission shall be returned unopened.
- 3.10. From the time the Proposals are opened to the time the Contract is awarded, the Bidder should not contact the Client on any matter related to its Technical and/or Financial Proposal. Any effort by Bidder to influence the Client in the examination, evaluation, ranking of Proposals, and recommendation for award of Contract may result in the rejection of the Bidder Proposal.
- 3.11. The technical evaluation committee shall evaluate the Technical Proposals on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria, sub criteria, and point system specified in the RFP. Each responsive Proposal will be given a technical score. A Proposal shall be rejected at this stage if it does not respond to meet evaluation criteria.
- 3.12. After the technical evaluation is completed, the Client may inform the Bidders who have submitted proposals that the technical scores obtained by their Technical Proposals, and shall notify those Bidder whose Proposals did not meet the minimum qualifying mark or were considered non-responsive to the RFP and TOR, that their Financial Proposals will be returned unopened after completing the selection process.
- 3.13. According to PPRA rule, "the procuring agencies may seek un-conditional discount by incorporating the same in bid solicitation documents. The bidder may offer un-conditional discount, in percentage of their quoted price or bids, before opening of the of the financial proposal. The discount bid price shall be considered as original bid for evaluation being an integral part of the bid. No offer of discount shall be considered after the bids are opened." The bidder will offer discount in term of percentage of financial bid in writing on Firm letterhead. **The bidder may not forget to bring Firm letterhead on the day and time of opening of Financial Bid.**
- 3.14. Financial Proposals shall be opened publicly in the presence of the qualified

bidders or their representatives who choose to attend. The name of the Bidders, and their technical scores shall be read aloud. The Financial Proposal of the Bidder who meet the minimum qualifying marks will then be inspected to confirm that they have remained sealed and unopened. These Financial Proposals shall then be opened, and the cost read aloud and recorded.

- 3.15. All documents relevant to data entry including the prints prepared by the Firm shall become and remain the property of the procuring Client; Any restrictions on the future use of these documents by the Firm shall be specified in the conditions of the contract.
- 3.16. Procuring Client may negotiate with the most advantageous bidder regarding methodology, work plan, staffing and special conditions of the contract. The procuring Client shall not permit substitution of key staff, unless both parties agree that undue delay in selection process makes such substitution unavoidable.
- 3.17. Bidders should note the Proposal Due Date (PDD), for submission of proposals. Except as specifically provided in this RFP, no supplementary material will be entertained by the Client and that evaluation will be carried out only on the basis of Documents received by the closing time of Proposal Due Date. Bidders will ordinarily not be asked to provide additional material information or documents subsequent to the date of submission, and unsolicited material if submitted will be summarily rejected. For avoidance of any doubt, the Client reserves the right to seek clarifications under and in accordance with the provisions of Clauses.
- 3.18. Bidder shall not submit any document after PDD except in response to any clarification sought by Project Director and in response to clarifications no change shall be made.
- 3.19. The TOR's mentioned in the RFP and Technical Proposal received from the bidder will be integral part of agreement.
- 3.20. **Liquidation Damages:** The firm has to pay liquidation damages for the period of delays in supply of deliverables upto rate of 2% of the contract price per month or part of a month exceeding the original delivery period subject to the provision that total liquidation damages thus levied will not exceed 10% of the total contract price.
- 3.21. **Confidentiality:** The firm shall not, during the process of execution or after expiration of this contract, disclose any proprietary or data without the prior

written consent of SoP.

3.22. **Force Majeure:** Both the parties shall not be held responsible for any delay occurring in the Project due to event of Force Majeure such as acts of God, War, Civil commotion, Strike, Lockouts, Act of Foreign Govt and its agencies and disturbance directly affecting the parties over the events or circumstances where both the parties have no control. In such an event both parties will inform each other within 15 days of the happening and within the same timeframe about the discontinuation of such circumstances / happening in writing.

3.23 Arbitration:

- a) Matter will be referred to Grievances Committee of Client to hear the grievances of Parties.
- b) ***Any Party not satisfied with the decision of the grievances committee may lodge an appeal in the relevant court of jurisdiction and only court of law at Rawalpindi / Islamabad shall decide the matter.***

4. DATA SHEET

Paragraph Reference

Name of the Client: Survey of Pakistan

Name of the Assignment: "Cadastral Mapping of 19 X CDA Sectors & Housing Societies Islamabad

Method of Procurement: Single Stage – Two Envelop Procedure

Special Terms & Conditions

- 4.1 Survey of Pakistan invites sealed bids containing One Original Technical and Financial Proposal from all interested Bidders for this RFP.
- 4.2 The Bidder must quote for the complete scope of work as per TORs. The bid offering partial scope of work shall be rejected as non-responsive.
- 4.3 The Technical Proposal should contain all the bid items/solutions without quoting the price and must list firm's clientele, details of past projects, equipments, items specification etc.
- 4.4 Interested bidders may obtain further information on the bid and inspect the bidding documents at the office of Project Director.

- 4.6 All bids must be delivered to the office of the Project Director, on or **14-06-2021 at 1100 hrs**. The bids will be publicly opened in the office of Project Director, at 11.30 Hrs on the same day in presence of bidders who wish to attend bid opening for official confirmation of the participating bidders.
- 4.7 The client will not be responsible for any costs or expenses incurred by bidders in connection with the preparation or delivery of bids.
- 4.8 Bidders shall submit bids, which comply with the bidding documents, alternative bids will not be considered.
- 4.9 **Conditional bids will not be acceptable.**
- 4.10 Authority Letter from Principal Company for product and vendor authentication is to be provided by the bidder.
- 4.11 Every page of the original proposal documents should be signed and stamped by the bidder and proposal to be submitted in binded form otherwise bid will not be accepted.
- 4.12 Any firm, which furnishes wrong information, will be liable for legal proceeding. Any contract awarded in such case when find out, will be cancelled.
- 4.13 The bidder/lead should not be blacklisted by any of its clients. An affidavit to this affect must be submitted by the bidder.
- 4.15. Implementation Plan is critical to the success of the project. A detailed Implementation Plan is to be prepared by the Firm and be part of the proposal.
- 4.16. Payment Schedule shall be based on the deliverables and will be detailed at the time of the contract.
- 4.17. Acceptance Criteria: Bidding is open to all Bidders that meet the eligibility criteria and minimum qualification criteria relating to previous experience, delivery capability, firms standing, etc., as stated in the RFP. Interested Bidders may obtain further information from the office of the Project Director and inspect the Bidding Documents during working hours by contacting at the address given below:-

Project Coordinator
Survey of Pakistan, Rawalpindi.
Tel # 051-9290217
Fax # 051-9290212

- 4.18. Evaluation criteria are given below for the selection of the Firm.

- 4.22. The validity period i.e. validity of proposals within period of Award of Contract, would be 90 days. The financial & Technical Proposal of the bid can be considered for variation subject to significant change in the agreed upon scope of work.
- 4.23 The Firm has to submit documentary evidence (sufficient & acceptable) to the client and subject to approval of the client which will deem to have the final say on this subject.
- 4.24. Proposals shall be submitted in English language.
- 4.25. Amounts payable by the Client to the Firm hired under the contract would be subject to all local taxation.
- 4.26. Taxes shall be deducted from each payment made to the Firm as per Income Tax Rules and Regulations prescribed by Government of Pakistan.
- 4.27. Each party shall be liable for its own taxes. The prices quoted by the Firm in its financial proposal will be considered inclusive of all applicable taxes.
- 4.28. Firm is to state local cost in the national currency.
- 4.29 The Employer at its sole discretion may terminate the bidding process and cancel the bids for any packages at any time without effecting the bidding process of other packages

BID PROPOSALS

5. TECHNICAL PROPOSAL:

- 5.1. Bidders shall submit the technical proposal in the formats at TECH-I (the "Technical Proposal"). While submitting the Technical Proposal, the Bidder shall in particular, ensure that all forms are submitted in the prescribed formats and signed by the prescribed signatories. CVs of all Professional Personnel must be incorporated in the proposal.
- 5.2. The Technical Proposal shall not include any financial information relating to the Financial Proposal.
- 5.3. The proposed team shall be composed of experts and specialists (the "Professional Personnel") in their respective areas of expertise and managerial/support staff (the "Support Personnel") such that the Firm should be

able to complete the Project within the specified time schedule. The Key Personnel specified in TOR's shall be included in the proposed team of Professional Personnel. Other competent and experienced Professional Personnel in the relevant areas of expertise must be added as required for successful completion of these services. The CV of each such Professional Personnel, if any, should also be submitted in the format at TECH-3, TECH-4 & TECH-5.

- 5.4. The Client reserves the right to verify all statements, information and documents, submitted by the Bidder in response to the RFP. Any such verification or the lack of such verification by the Client shall not relieve the Bidder of its obligations or liabilities hereunder nor will it affect any rights of the Client there-under.
- 5.5. In case it is found during the evaluation or at any time before signing of the agreement or after its execution and during the period of subsistence thereof, that one or more of the eligibility conditions have not been met by the Bidder or the Bidder has made material misrepresentation or has given any materially incorrect or false information, the Bidder shall be disqualified forthwith.

6. Financial Proposal / Bid

- 6.1 Bidders shall submit the financial proposal in the formats at FIN-I (the "Financial Proposal") clearly indicating the rate in Pak Rupees per Sq Km including GCPs and all taxes both in figures and words, in PKR, and signed by the Bidder's Authorized Representative. In the event of any difference between figures and words, the amount indicated in words shall prevail. In the event of a difference between the arithmetic total and the total shown in the Financial Proposal, the lower of the two shall prevail.
- 6.2 All the costs associated with the assignment shall be included in the Financial Proposal. These shall normally cover as per scope of work mentioned in TOR's and remuneration related to digital cadastral mapping through full fledged GIS Labs, extensive GNSS/DGPS survey, transportation, deployment of Human Resources and other services necessary for proper digitization of record. The total amount indicated in the Financial Proposal shall be without any condition attached or subject to any assumption, and shall be final and binding. In case any assumption or condition is indicated in the Financial Proposal, it shall be considered non-responsive and liable to be rejected.

6.3 The Financial Proposal shall take into account all expenses and tax liabilities. For the avoidance of doubt, it is clarified that all taxes shall be deemed to be included in the costs shown under different items of the Financial Proposal. Further, all payments shall be subject to deduction of taxes at source as per Applicable Laws.

6.4 Rates per Sq Km including GCPs & Sq Km shall be expressed in PKR.

7. EVALUATION PROCESS

ELIGIBILITY CRITERIA

S.No	PRE-QUALIFICATION CRITERIA	DOCUMENTARY EVIDENCE
01.	Registered with FBR for Income tax and must be on FBR's Active Tax Payers List	Certificate of Registration
02.	Registered with Survey of Pakistan	Certificate of Registration
03.	Financial Capability of Firm 10 Million	Certificate of turnover
04.	Submit a self-declaration for not being under legal action for corrupt or fraudulent practices(blacklisted) by any Government Organizations.	Declaration signed and stamped by bidder
05.	Successfully accomplished at least Three Surveying and Mapping/GIS Projects	Attach copies of Supply Orders with relevant completion certificate or Signed Agreement with the procuring agency

8. Technical Evaluation Criteria

8.1. Bidders scoring **60%** or more in the technical evaluation will be technically qualified otherwise considered disqualified. Relative Weights given to the different evaluation criteria are shown in the table below:

Weight	Evaluation Criteria	Weightage
W1	Company/Firm Profile (EC1)	10
W2	Experience of the Firm (EC2)	20
W3	Project Team (EC3)	20
W4	Approach and Methodology (EC4)	35

W5	Equipment Available (EC5)	15
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The Technical Score, St will then be obtained by the following formula:

$$St = (EC1 *W1/100) + (EC2 *W2/400) + (EC3 *W3/200) + (EC4 *W4/60)+ (EC5 *W5/65)$$

where, EC1, EC2, EC3, EC4 & EC5 are the total component scores against Company profile, Experience of the Firm, Project team and Approach & Methodology criteria and equipment respectively. The technical criteria and their details are given below:

8.2. Firm Profile (EC1):

Profile of each bidder will be evaluated on the basis of the following three factors:

S.No	Item	Score
A.	Registration with Survey of Pakistan	50
B.	Financial Capability	30
C.	Certifications of the Firm	20
	Total (A+B+C)	100

8.2.1. Registration with Survey of Pakistan (A)

The firm requires to be registered with the Survey of Pakistan under Mapping Act 2014, Government of Pakistan.

Registration Category	Marks Assigned (C)	Parameter
S1 Category	50	Attach Registration Certificate from Survey of Pakistan
S2 Category	40	
S3 Category	30	
S4 Category	20	
Sub Total (A)	50	

8.2.2. Financial Capability of the Firm (B)

S.No.	Financial Strength	Marks Assigned	Documentary Evidence
01.	Over all average turn over of the Company in past three Consecutive Financial years e.gFY 2017-18, FY 2018-19, FY 2019-2020,		Certificate from the statutory auditor should be attached determining the combined turnover of the company in past three fiscal years
	10 to 20 Million	20	
	20 to 50 Million	25	
	50 Million or above	30	
Sub Total (B)		30	

$$EC (1) = A + B$$

8.3. Experience of the Firm (EC2):

The experience of each firm will be evaluated on the following factors:

S.No	Item	Score
1.	Surveying and Mapping / GIS Projects	
	More than 5 projects	400
	3-5 projects	300
	Less than 3 projects	200
	Total	400

8.4. Project Team (EC 3):

This section of the evaluation rates the team nominated by the firm to execute the assignment. For this, each CV of following Human Resource will be evaluated separately on the basis of education and past experience.

8.3.1 Human Resource Capability: -

S.No	Position	No. of Resources	Maximum Marks
01.	Project Manager (MS Degree in GIS / Geoinformatics/RS)	01	20
02.	GIS Specialist (Bachelor/Master Degree in GIS/Geoinformatics/RS)	04	40

03.	Land Revenue Specialist (Retired Revenue Officer in BS-16 or higher with domain knowledge)	02	20
04.	GIS Application Development Manager (Bachelor Degree in CS/IT/Software Engineering)	02	20
05.	GIS Development Officer (Bachelor Degree in CS/IT/Software Engineering)	01	10
06.	I.T Specialist (Bachelor Degree in CS/IT)	03	20
07.	DGPS Survey Specialist (Diploma/Certificate/DAE (civil))	04	20
08	Surveyors (Diploma/ Certificate)	10	50
Total Marks			200

8.5 Approach & Methodology (EC 4):

This section will evaluate the firm's solution to the TOR's. This section comprises two sub sections, i.e.

- a) Understanding & Innovativeness
- b) Methodology

Item	Weighted Score
Understanding and Innovativeness	30
Methodology	30

Each section contains several questions that can be given either of the following grades depending on the content of the technical proposal:

Grade (G)	Quality (Q)	Weight (W)
A	Excellent	5
B	Good	3
C	Average	2
D	Absent	0

8.5.1 Understanding and Innovativeness (L)

S. No.	Criteria	Grade
1	Experience of firms in Field of Surveying & Mapping	
2	Experience of firms in GIS Projects	

3	Demonstrate your proven track record regarding the issues/problems raised in the project and measures taken to mitigate the problem.	
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Step 1: Each grade is converted into its weight (W) and added up to get a total score (N).

Step 2: N is divided by 3, i.e. the maximum attainable score, and multiplied with the component weight to get the component score:

$$\text{Component score} = (N/3) \times 30$$

8.5.2 Methodology (M)

S. No.	Criteria	Grade
1	Outline your Methodology for Designing, managing and implementation of this project keeping in mind the scope of work and the unique nature of the records. Include the following in your Project Management Methodology: - <ul style="list-style-type: none"> ▪ Your Vision for the Land Record Digitization. ▪ Project Team Structure ▪ Field survey and data integration methodology ▪ Parcel fabrication details ▪ Quality Assurance and Quality Control 	
2	Detail how you intend to prepare records for scanning (include unbinding, repairing, cleaning, rebinding as necessary) and highlight the manpower and time required for this process & strategy for missing musavees and unsettled areas.	
3	Describe your management expertise and processes required to develop a coherent program to complete the activity, and to keep the project on track, on time and within the specified cost. (Detailed Work Plan)	
4	Explain how the information security will be ensured and the storage, backups and retrievals are disaster proof	

Step 1: Each grade is converted into its weight (W) and added up to get a total score (N).

Step 2: N is divided by 4, i.e. the maximum attainable score, and multiplied with the component weight to get the component score:

$$\text{Component score} = (N/4) \times 30$$

$$\text{EC 4} = L + M$$

8.6. Equipment Available (EC 5):

This section will evaluate the firm's resources in the form of equipment available with the firm.

SI No.	Equipment	Minimum Qty	Weighted Score
1	GPS	03	20
2	Total Station	03	15
3	Workstation/computers	10	30
Total			65

$$\text{EC 5}$$

$$\text{TOTAL TECHNICAL SCORE: EC1+EC2+EC3+EC4+EC5}$$

Note: Minimum 60 % is required in Technical Bid evaluation for further consideration. The score given by the Evaluation Committee of the Department shall be final and binding on all the bidders. Keeping in view the availability of time, the vendors may also be asked to provide presentation on the following:

- Company Profile
- Understanding of scope of work and requirements
- Approach & Methodology (AM) for operations/execution, maintenance and Quality of service
- Proposed data entry plan and quality management.
- Risk Identification & Mitigation Plan

8.7 Evaluation of Financial Proposals / Bids

- For financial evaluation, the cost per sq km indicated in the Financial Proposal will be considered.
- The Selection Committee will determine whether the Financial Proposals are complete. The rates indicated in the Financial Proposal shall be deemed as final. The lowest rates per sq km quoted by the firm will be considered as the most advantageous bid for award of contract.

9. APPOINTMENT OF VENDOR

9.1 Verification of Infrastructure by the Board / Committee members on vendor's site. The Vendor will provide the under mentioned details as part of Technical Bid:

9.1.1 Number of hardware with make, model and technical specs to be used in establishment of Lab.

9.1.2 Number of personnel to be engaged for the project. If currently not employed, then strategy to reach that number (if fails to recruit these personnel before award of the project, then the bidder is liable to lose the contract).

9.1.3 Before the award of the contract, user may visit the facilities of the short-listed Vendor / company and verify the plan as submitted.

9.2 The Client will examine the CVs of all other Professional Personnel and those not found suitable shall be replaced by the Bidder to the satisfaction of the Department.

9.3 Substitution of Key Personnel

9.3.1 The Client will not normally consider any request of the Selected Bidder for substitution of Key Personnel as the ranking of the Bidder is based on the evaluation of Key Personnel and any change therein may upset the ranking. Substitution will, however, be permitted if the Key Personnel is not available for reasons of any inability or due to health, subject to equally or better qualified and experienced personnel being provided to the satisfaction of the Client.

9.3.2 The Client expects all the Key Personnel to be available during execution of the Project. The Client will not consider substitution of Key Personnel except for reasons of any inability or due to health. Such substitution shall ordinarily be limited to one Key Personnel subject to equally or better qualified and experienced personnel being provided to the satisfaction of the Client.

9.3.3 Substitution of the Team Leader will not normally be considered and may lead to disqualification of the Bidder or termination of the Agreement.

10. Award of Work

After selection, a Letter of Award ("LOA") shall be issued, in duplicate, by the Client to the Selected Bidder and the Selected Bidder shall, within 7 (seven) days of the receipt of the LOA, sign and return the duplicate copy of the LOA in acknowledgement thereof. In the event the duplicate copy of the LOA duly signed by the Selected Bidder is not received by the stipulated date, the Client may, unless it consents to extension of time for submission thereof, appropriate the Earnest Money of such Bidder as mutually agreed genuine pre-estimated loss and damage suffered by the Client on account of failure of the Selected Bidder to acknowledge the LOA, and the next highest ranking Bidder may be considered.

11. Payment Schedule

- I. Being a measurement contract, the payment will be made as per amount of work done, jointly measured and mutually agreed. Firm will be paid as per following schedule:
- II. 10% of Total Estimated Cost will paid at the time of Mobilization with Bank Guarantee
- III. Payment will be made on satisfactory completion & submission of deliverables distt-wise.
- IV. Payment of Retention Money: 15 % of total estimated cost will kept as retention money which will be paid to firm after one month of issuance of NOC from Client for successful completion of awarded work.

12. Execution of Agreement

After acknowledgement of the LOA as aforesaid by the selected Bidder, it shall execute the Agreement within the specified period. The Selected Bidder shall not be entitled to seek any deviation in the Agreement.

13. Commencement of Assignment

The Selected Bidders shall commence the Services at the Project site within 7 (seven) days of the date of the Agreement or such other date as may be mutually agreed.

14. Proprietary Data/Ownership

SoP has the intellectual Property Rights for all the Requirement Analysis Report, Proforma /templates, Digitized Map and Applications. Bidders are not authorized to use these documents for any other purpose without the express written permission of SoP.

15. TERMS OF REFERENCES FOR CADASTRAL MAPPING of 19 x CDA Sectors & Housing Societies Islamabad

15.1 SCOPE OF WORK

The scope of work is Digital Cadastral Mapping of CDA Sectors/ Housing Societies.

15.2 OBJECTIVES

- 1) The Firm shall perform digitization at *parcel* level; through parcel fabric dataset model.
- 2) The firm is responsible to develop *mouza* boundaries using notifications and mussavies data.
- 3) High precision RTK GNSS based field surveys should be conducted by the firm for the collection of reference data and verification of the digitized work.
- 4) The firm will complete all the associated datasets with parcels / administrative boundaries by following given Data Model.

15.3. Provision of Data/Record/ Imagery and Data Model Client will be responsible to provide the Contractor followings data/record/imagery:

- i. Record/Layout Plans of concerned area in scanned form.
- ii. Data of State lands falling in the concerned area.
- iii. High resolution Aerial Photos/Satellite Imagery.
- iv. Parcel Fabric Data Model

15.4. Digitization Using Parcel Fabric Dataset Model

15.3.1 Scanning and Indexing of Record

Scanning of missing revenue record and indexing will be carried out of cadastral maps of Project Area. The scanned record *Mussavie* shall be stored in high resolution tiff format.

15.3.2 Mosaicking and Stitching of mussavies

The Firm will be responsible for the stitching and mosaicking of *mussavies*. High resolution latest Aerial Photos/ images shall be used for project. The images shall be geo-referenced with accuracy for Urban areas better than 10 cm so that it supports accurate measurements and referencing. This is an essential step as will lead to the accurate overlay analysis of images/*mouza* boundaries and field data points.

15.3.3 Georeferencing of images

The firm shall carryout georeferencing of images using GCPs obtained through Field activity.

15.3.4 Digitization Using Parcel Fabric Dataset Model

The Firm shall perform digitization at *parcel* level; through parcel fabrication dataset model by preserving all features and attribute data of vertices, lines, polygons and dimensions with units in the geo-database for Desktop with all the attribute information related to the parcel of land in WGS-84 with UTM Projection System.

The Firm shall be responsible to digitize all the features i.e. parcel boundaries, roads, water channels, graveyards, and other similar features by following given data Model. Parcel fabrication model shall incorporate data in a way that the *parcel* is stored as polygon and also separate lines with details of sides, dimensions and numeric values.

The firm will be responsible for the scanning and attribute entry of all the property of the project area within the project duration.

15.4 Field Data Collection/ Verification:

The firm will be responsible for field verification of digitized data using RTK.

15.5 Quality Control:

All type of errors such as connectivity, nodes, missing linkages, duplicate lines/data entry, mismatching of vertices, badly shaped vector, missing knots at intersection, too many vertices in line, switchbacks and topological errors as overshoot, knots, loops, undershoot and dangle, etc. shall be checked and corrected in GIS environment.

After the development of base data and integration of secondary information with base data, all the digitized vector data (points, lines and polygons) shall be checked for Quality Assurance in the field.

15.6 Standards for Positional Accuracy: The following standards will be used to define minimally acceptable levels of differential relative positional accuracy required for Cadastral Survey.

a. Local Accuracy Standards:

95% Confidence Circle	Application
Less than 0.050 (m)	Cadastral Project Control
Less than 0.100 (m)	Cadastral Measurements

b. Network Accuracy Standards:

95% Confidence Circle	Application
Less than 0.100 (m)	Cadastral Project Control
Less than 0.200 (m)	Cadastral Measurements

16. Project Tiime: upto 15- August 2021 from the date of signing of Contract Agreement

17. Monitoring of Work:

The monitoring to check quality / progress of work will be carried out by SoP team on monthly basis.

18. Deliverables

- a. Parcel level vector layer superimposed on Geo-referenced Aerial Photos/satellite images.
- b. Geo-database of *complete project area* on portable storage media with proper indexing.
- c. Raster and Vector data with complete set of information as mentioned in this document.
- d. Map showing location of GCPs with coordinates.
- e. Hard copy of all the documents / record used in the project.
- f. Monthly progress reports and final project report.
- g. Miscellaneous

Technical Forms

Form TECH-1

Technical Proposal Submission Form

[*Location, Date*]

To: [*Name and address of Client*]

Dear Sir:

We, the undersigned, offer to provide the Project Management consulting services for [*Insert title of assignment*] for (Package) in accordance with your Request for Proposal dated [*Insert Date*] and our Proposal. We are hereby submitting our Proposal, which includes this Technical Proposal, and a Financial Proposal sealed under a separate envelope.

We are submitting our Proposal in association with: [*Insert a list with full name and address of each associated Project Management Consultant*]

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

We undertake, if our Proposal is accepted, to initiate the Project Management consulting services related to the assignment not later than the date indicated in the schedule.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature [*In full and initials*]: _____

Name and Title of Signatory: _____

Name of Firm: _____

Address: _____

B – Experience of Firm

[Using the format below, provide information on each assignment for which your firm, and each associate for this assignment, was legally contracted either individually as a corporate entity or as one of the major companies within an association, for carrying out consulting services similar to the ones requested under this assignment.]

Assignment name:	Approx. value of the contract (in PKR):
Country: Location within country:	Duration of assignment (months):
Name of Client:	Total No of staff-months of the assignment:
Address:	Approx. value of the services provided by your firm under the contract (in PKR):
Start date (month/year): Completion date (month/year):	No of professional staff-months provided by associated Firm:
Name of associated Firm, if any:	Name of senior professional staff of your firm involved and functions performed (indicate most significant profiles such as Project Director/Coordinator, Team Leader):

Narrative description of Project:
Description of actual services provided by your staff within the assignment:

Firm's Name: _____

Form TECH-2

Description of Approach, Methodology and Work Plan for Performing the Assignment

[Technical approach, methodology and work plan are key components of the Technical Proposal. You are suggested to present your Technical Proposal (descriptive, inclusive of charts and diagrams) divided into the following three chapters:

- a) Technical Approach and Methodology,*
- b) Work Plan, and*
- c) Organization and Staffing,*

a) Technical Approach and Methodology. In this chapter you should explain your understanding of the objectives of the assignment, approach to the services, methodology for carrying out the activities and obtaining the expected output, and the degree of detail of such output. You should highlight the problems being addressed and their importance, and explain the technical approach you would adopt to address them. You should also explain the methodologies you propose to adopt and highlight the compatibility of those methodologies with the proposed approach.

b) Work Plan. In this chapter you should propose the main activities of the assignment, their content and duration, phasing and interrelations, milestones (including interim approvals by the Client), and delivery dates of the reports. The proposed work plan should be consistent with the technical approach and methodology, showing understanding of the TOR and ability to translate them into a feasible working plan. A list of the final documents, including reports, drawings, and tables to be delivered as final output, should be included here. The work plan should be consistent with the Work Schedule of Form TECH-7.

c) Organization and Staffing. In this chapter you should propose the structure and composition of your team. You should list the main disciplines of the

assignment, the key expert responsible, and proposed technical and support staff.]

Form TECH-3

Team Composition and Task Assignments

Professional Staff				
Name of Staff	Firm	Area of Expertise	Position Assigned	Task Assigned

FORM TECH-4

CURRICULUM VITAE (CV) FOR PROPOSED PROFESSIONAL STAFF

1. Proposed Position [only one candidate shall be nominated for each position]: _____

2. Name of Firm [Insert name of firm proposing the staff]:

3. Name of Staff [Insert full name]: _____

4. Date of Birth: _____ Nationality: _____

5. CNIC No : _____

6. Education:

Degree	Major/Minor	Institution	Date (MM/YYYY)

7. Membership of Professional Associations:

8. Other Training [Indicate significant training since degrees under 6 - Education were obtained]:

9. Languages [For each language indicate proficiency: good, fair, or poor in speaking, reading, and writing]:

10. Employment Record [Starting with present position, list in reverse order every employment held by staff member since graduation, giving for each employment on the following format:

Employer	Position	From (MM/YYYY)	To (MM/YYYY)

11. Detailed Tasks Assigned

[List all tasks to be performed under this assignment]

12. Work Undertaken that Best Illustrates Capability to Handle the Tasks Assigned [Among the assignments in which the staff has been involved, indicate the following information for those assignments that best illustrate staff capability to handle the tasks listed under point 11.]

1) Name of assignment or project: _____

Cost: _____

Year: _____

Starting Date: _____

Completion Date: _____

Positions held: _____

Actual time spent on the project: _____ in months.

Location: _____

Client: _____

Main project features: _____

Activities performed: _____

2) Name of assignment or project: Cost: _____

Year: _____

Starting Date: _____

Completion Date: _____

Positions held: _____

Actual time spent on the project: _____ in months.

Location: _____

Client: _____

Main project features: _____

Activities performed: _____

[Unroll the project details group and continue numbering (4, 5, ...) as many times as is required]

13. Certification:

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any willful misstatement described herein may lead to my disqualification or dismissal, if engaged.

[Signature of staff member or authorized representative of the staff]

Full name of authorized representative (attach authority letter):

Date: (Day/Month/Year)_____

Form TECH-5

Abstract of Eligible Assignments of Key Personnel

S.No.	Name of Project	Name of Client	Estimated capital cost of project (PKR)	Name of firm for which the Key Person worked	Designation of the Key Person for the assignment	Date of compensation of assignment	Mandays spent
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1		-		-	-		-
2							
3							
4							
5							
6		-		-	-		-

Form TECH-6

Staffing Schedule

	Name of Staff		Staff input (in the form of a bar chart) ²												Total staff-month input
			First Quarter			Second Quarter			Third Quarter			Fourth Quarter			
		Qtr	1	2	3	1	2	3	1	2	3	1	2	3	
1															
2															
3															
4															
5															
n															
												Total			

1 For Professional Staff the input should be indicated individually; for Support Staff it should be indicated by category (e.g.: draftsmen, clerical staff, etc.).

2 Months are counted from the start of the assignment.

Full time input

Part time input

Form TECH-7

Work schedule and planning for deliverable

N°	Activities	Months											TOTAL	
		1	2	3	4	5	6	7	8	9	n		

- 1 List the deliverables with the breakdown for activities required to produce them and other benchmarks such as the Client’s approvals. For phased assignments, indicate the activities, delivery of reports, and benchmarks separately for each phase.
- 2 Duration of activities shall be indicated in a form of a bar chart.
3. Include a legend, if necessary, to help read the ch

Financial Forms
Form FIN-1
Financial Proposal Submission Form

[Location, Date]

To: [Name and address of Client]

Dear Sir:

We, the undersigned, offer to provide the Project Management Consultancy services for [Insert title of assignment] in accordance with your Request for Proposal dated [Insert Date] and our Technical Proposal. The cost is inclusive of the local taxes, which shall be identified during negotiations and shall be added to the above amount.

Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature [In full and initials]: _____

Name and Title of Signatory: _____

Name of Firm: _____

Address: _____

Form FIN-2

Financial Capacity of the Bidder

S. No.	Financial Year	Annual Revenue (PKR)
1.		
2.		
3.		

Certificate from the Statutory Auditor #

This is to certify that(name of the Bidder) has received the payments shown above against the respective years on account of Professional Services/Consultancy Fees.

Name of the audit firm: Seal of the audit firm: Date:

(Signature, name and designation of the authorized signatory)

In case the Bidder does not have a statutory auditor, it shall provide the certificate from its chartered accountant that ordinarily audits the annual accounts of the Bidder.

Note: Please do not attach any printed Annual Financial Statement.

Form FIN-3

Summary of Cost

CDA Sectors & Housing Societies Islamabad

SI No.	Item	Cost/ sq km (Rs) including all taxes
1	Cost of Cadastral Mapping CDA Sectors per Sq Km including Ground Control Points (GCP) using DGPS equipment & all taxes	
2	Cost of Cadastral Mapping of Housing Societies per Sq Km including Ground Control Points (GCP) using DGPS equipment & all taxes	

1 Indicate the total costs, inclusive of all taxes i.e. (Income Tax , Services Tax of BRA etc) .