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THROMDE ADMINISTRATION
SAMDRUP JONGKHAR



TERMS OF REFERENCE (TOR)



**“DESIGN AND CONSTRUCTION OF INTEGRATED MARKET
SHED AND CAR PARKING AT LAP I, SAMDRUP JONGKHAR
THROMDE”**

(JUNE 2020)

SAMDRUP JONGKHAR THROMDE ADMINISTRATION



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THROMDE ADMINISTRATION SAMDRUP JONGKHAR



A. BACKGROUND

Samdrup JongkharThromde is declared as one of the four class A municipalities of Bhutan along with Thimphu, Phuntsholing and Gelephu after including Dewathang extended areas within its limits by an act of parliament in 2010. The Thromde administration was delinked from dzongkhag administration in 2011. Since then Thromde has been functioning as a municipal local government. The Thromde has urban development plan (UDP) in place which is a guiding document for any developmental activities. Out of 8 LAPs, 7 LAPs are approved and are under implementation stage.

The UDP has a proposal to establish an Integrated market Shed within LAP I in Samdrup Jonkhar in the plot size of 2873 Sq. m

II. ELIGIBILITY of BIDDERS:

Large construction companies, W3 and W4 category, registered with Construction Development Board (CDB) of Bhutan in association with consultancy firm (national) registered under C1, C4, C5, E7, A1, A3 and S2 is eligible to participate in the tender. If the association is with the national consultancy firm, then either of the party can be the lead partner. The national consultancy firm should be registered with CDB. Further, the consultancy firm should prove that they have experience in similar projects. For the successful completion of the works, the consulting firms involved in design, drawings and quantity will supervise the work.

III. CLIENT/EXECUTING AGENCY:

The Thromde administration, Samdrup Jongkhar is the client or executing or procuring agency of this particular work.

IV. SCOPE OF WORK:



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THROMDE ADMINISTRATION SAMDRUP JONGKHAR



The Bidder is required to **Design and construct the Integrated Market Shed including architectural, structural, electrical, telecommunication, plumbing and sanitation utility services as specified in the technical specifications. The same works shall be carried out in lumpsum within the budget limit of not more than 50 million.**

In this context, the following tasks shall be carried out by the Bidder:

- a. Survey and inspect the site for furnishing appropriate data and information before designing the project.
- b. Produce architectural designs and detailed working drawings as per the specification provided;
- c. Produce detailed structural drawings as per the specifications;
- d. Produce electrical and telecommunication network drawings as per the specifications;
- e. Produce plumbing and sanitary drawings as per the specifications;
- f. Develop detailed BoQ with Technical specifications for all works included in the scope and their cost estimates. The BoQ should include all the items as per the drawings and no deviations/corrections shall be entertained after the award of work at site.
- g. The successful bidder shall construct at site as per approved drawings (architectural, structural, electrical & LAN and plumbing & sanitary) by the client after the issuance of work order by the client.

V. TECHNICAL SPECIFICATIONS:

Before designing and quoting, the Bidder must inspect and produce topo-survey of the site to fully acquaint himself about the conditions and technical parameters. No claims of deviations in design and execution shall be entertained by the Employer in any circumstances. Any query and clarification must be sought before designing from the client.

1. Architecture.



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THROMDE ADMINISTRATION SAMDRUP JONGKHAR



1. The vegetable market shed shall be constructed at existing vegetable market area (plot area - 2873 Sq. M). The shed shall be fully covered by roof and should incorporate traditional architectural features to complement Bhutanese context in border town.
2. The maximum floors shall be G+3 with required setback and landscaping
3. Rainwater harvesting provision shall be provided with adequate storage (the harvested water shall be used for cleaning and flushing). The roof design should take care of rain entering inside however the TAG and BBR shall not be compromised
4. Male (at least 4 WC & 6 urinals) and female (6 WC) washroom shall be present in each floor with wash basin and mirror. At least one washroom for differently abled person in each floor near public ramp access. Proper hand washing and social distancing facilities shall be incorporated which will cater towards prevention of recent covid-19 pandemic.
5. Adequate no of ramps of standard size shall be provided distinctly for public and service delivery (minimum 2 m wide).
6. Adequate number of staircases of standard size shall be provided till top floor.
7. Janitor room/s shall be present in each floor.
8. Minimum floor height shall be 3.5 Meters
9. All the floors shall not be covered by wall (traditional and contemporary railings shall be provided taking the account of aesthetics and function) except for restaurants, café, conference hall. The conference hall shall be acoustically sound proof.
10. The site shall be surrounded by fencing and minimum of two entry gate shall be provided at the most suitable locations.
11. Different drop and take off space for products and garbage shall be provided for all kinds of products.
12. Resting space provision shall be provided in all floors
13. Structural provision for lift
14. The desired requirement in details are as shown in the table below:

Sl.No	Facilities required	Numbers	Minimum area required (Sq.m)	Remarks
1	Sale counters for local vegetable products	15	12	For each counter
2	Sale counters for imported vegetable products	25	12	For each counter
3	Fruits sale counters (imported and local)	10	12	For each counter



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THROMDE ADMINISTRATION SAMDRUP JONGKHAR



4	Food products(cereals) sale area	10	12	For each counter
5	Separate sale counters for dry fish	5	12	For each counter
6	Diary product sale counter	2	20	For each counter and they should be enclosed
7	Poultry products sale counter	1	20	
8	Common Refrigeration room	2	30	For each room
9	Dry store	1	30	
10	Meat stalls	10	20	For each stall
11	ATMs	3		
12	Security guard room	1	15	
13	Office cum lab for BAFRA	1	15	
14	Electrical system/Generator room	1	12	
15	Florist Shop	2	15	For each counter
16	CCTV control room	1	15	
17	Seeds shop	1	12	



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THROMDE ADMINISTRATION SAMDRUP JONGKHAR



18	Betel nut and leaves stall	2	12	
19	Child Day care center for vendors (Creche)	1	40	with attached toilet & nap room
20	Conference hall	1		100 persons capacity minimum
21	Customer care office	1	30	with attached toilet
22	Food court	1	50	

Note 1: Addition of new requirements and innovation from consultants shall be appreciated.

Note 2: Cadastral data of site boundary is available in auto cad format with Mr. Tila Chand Timsina (17279870) and Rinchen Peldon (17450816). However, there is no detailed topo map of the site which the bidders need to produce before designing.

2. Structure

Design of structure to be as per latest versions of applicable codes used in Bhutan. The bidder shall clearly specify the design codes considered by him in preparing his offer. The bidder must determine the bearing capacity of the soil at site.

3. Electrical

1. Design to be as per latest versions of applicable standards used in Bhutan. The bidder shall clearly specify the design codes considered by him in preparing his offer;
2. Shall include flood lights at designated location to illuminate all open spaces, entry/exit points and walkway.
3. Latest LED fixtures to be installed adopting the design standard for adequate illumination.
4. LAN – Layout plan of location of internet points and U-racks; Layout plan showing the location of server; A proper set of drawings with all the necessary information should be submitted.

5. Plumbing and sanitations



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THROMDE ADMINISTRATION SAMDRUP JONGKHAR



1. Design to be as per latest versions of applicable standards used in Bhutan. The bidder shall clearly specify the design codes considered by him in preparing his offer;
2. All the new sewer lines should be connected to the existing sewer line.
3. Water requirements shall be worked by consultant and storage shall be designed as per the requirement.

VI. Deliverable Schedule.

The bidders shall submit all the following on 4th August, 2020 before 10:30 AM:

1. Bidders shall submit final architectural designs and drawings (site plans, floor plans, roof plans, elevations, sections (3 min at different parts), 3d images, reflected ceiling plans, schedule of openings, details, finishing specifications and details).
2. Bidders shall submit final structural designs and drawings (column layout plans, beam layout plans, truss layout plans, truss details, lintel details, bar bending schedule, analysis files (software working files), foundation details, slab plans and details).
3. Bidders shall submit final electrical designs and drawings.
4. Bidders shall submit final plumbing and sanitary drawings.
5. Bidders shall submit final detailed BoQ and estimates.
6. In addition to above submissions, the bidders shall make a design presentation on 5th August, 2020 in thromde office.

Note: All the drawings will be in understandable and readable scales.

VII. EVALUATION AND COMPARISION OF BIDS:

- 1) The evaluation will have two stages.
- 2) Stage 1 for evaluation of consultant which shall be technical as well as design-based evaluation which will be done during design presentation on 4th August, 2020. The technical part will be converted into 30% and design evaluation will be 70% of the total 100%. The total of these two will be converted to 70%. Only top three bidders shall qualify for evaluation of stage 2 (contractor part).
- 3) Stage 2 for evaluation of contractor which shall be both technical and financial. Total score shall be scaled down to 30%. However, as per evaluation guidelines, only bidders who obtain 70 points and above shall be qualified for financial stage.
- 4) The tender will have two bids in separate envelope for services (**Envelope A**) and works (**Envelope B**).



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THROMDE ADMINISTRATION
SAMDRUP JONGKHAR



- 5) The bid of services and works is to evaluate the consultant and contractor respectively.
- 6) **Envelope A** will have technical proposal only.
- 7) **Envelope B** will have both the technical and financial proposal.
- 8) The **Envelope B** will be evaluated through point base system using e-tool.
- 9) The lowest evaluated bidder (**H1**) combined of stage 1 and stage 2 will be given the letter of intent and if accepted, the work will be awarded to him.
- 10) The Financial proposal shall be evaluated for any arithmetical errors and for the purpose of comparison, all the cost shall be converted to a single currency i.e. Ngultrum.
- 11) While the winner will be awarded the contract work, the other non-awardees (top three) will be awarded cash prices for making effort in participating in the tender.

The Technical Proposal should contain the following information:

1. Bidder's technical capabilities & experience records.
2. Detailed Curriculum Vitae of the proposed;
 - a. Architect
 - b. Structural Engineer
 - c. Electrical Engineer and
 - d. Civil Engineer should be attached.
3. The CV should be supported by Academic & Experience Certificates.
4. Signed letter of commitment from the:
 - a. Architect
 - b. Structural Engineer
 - c. Electrical Engineer
 - d. Civil Engineer availability and Commitment for the job.



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THROMDE ADMINISTRATION
SAMDRUP JONGKHAR



XIII. RESPONSIBILITY FOR ACCURACY OF THE WORK:

For the inaccuracies in the design, drawings, Bills of Quantities, cost estimates etc., submitted by the Bidder as a part of the consultancy service, the Bidder shall indemnify the Client as follows:

- 1) For design and drawings, the penalty shall apply if the errors cause to deviate the quantity in the BoQ beyond +/- 20% or add so many number of extra items that is more than 3% of the total number of items in the BoQ. The design and drawings shall be corrected by the Bidder at their own cost.
- 2) For the Bills of Quantities (BoQ), however, the penalty of 10% for the sub section shall apply under following conditions:-
 - i) The quantity deviation for any item in the BoQ is beyond +/- 20% ;
 - ii) For extra items, the value of the extra items exceeds 1% of the total contract amount quoted by the Contractor. “Extra items” in this context are those items that are in the drawings but missed in the BOQ.
- 3) For major lapses or over sights in the analysis and/or design of the structures such that it results in the part or total failure of the structure or that the structure is rendered unserviceable during its intended service life and if it can be proven beyond sufficient doubt that the failures are attributable to the Design consultant, the Bidders shall be **fully** liable for the repayment of all the costs and making good any other eventualities resulting from the failure of the structure(s).
- 4) The Bidder shall be liable proportionately and as appropriate for the damages caused to both Client and the Contractor resulting from his/ her (Bidder's) negligence or failure to discharge the stipulated duties and responsibilities during the execution of the contract.
- 5) If the Project is not completed in time, the Bidder will be liable proportionately or fully as appropriate if the delay is attributable to the Bidder not performing the duties in time as per the terms of Contract and/ or if it becomes apparent that the Bidder has deliberately delayed the construction process.



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THROMDE ADMINISTRATION
SAMDRUP JONGKHAR



VIII. FINANCIAL PROPOSAL:

The Financial proposal shall include all the expenses required to carry out the Services and works as per the Terms of Reference & other relevant clauses in the Contract Agreement.

IX. COMMENCEMENT AND DURATION OF CONTRACT:

The contract shall come into effect from the date of signing of contract and the duration for the completion of works is 14 months from the date of signing of contract. However, the defect liability period shall be 2 years after handing taking of works.

X. KEY TECHNICAL PERSONNEL:

All the experts who have a crucial role in implementing the contract are referred to as key experts and detail profiles of these key experts required for this assignment are given below. Overall, the Bidder shall provide a suitably qualified team to carry out the detailed studies.

1. Key Experts:

The Bidder shall engage the following key personnel apart from other support staff to carry out the services.

- a. Architect
- b. Structural Engineer
- c. Electrical Engineer
- d. Site Engineer
- e. Project Manager
- f. Site Supervisor

2. Qualification and Experience Requirements:

The key personnel shall meet the following minimum eligibility requirements:



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THROMDE ADMINISTRATION SAMDRUP JONGKHAR



a. Architect:

- i. Must have at least Bachelors Degree in architecture from a reputed University.
- ii. Must have at least 5 years of professional work experience.
- iii. Should be familiar with 2D and 3D architectural software.
- iv. Should be able to prepare and finalize design concepts and design criteria and do the presentation.
- v. Should be able to prepare detailed Architectural drawings.
- vi. Should be familiar with specifications of materials for construction of vegetable market shed.
- vii. Should have good presentation skill.
- viii. Must be fluent in spoken & written English.
- ix. Should be able to carry out design supervision at site.

b. Structural Engineer:

- i. Must have at least Bachelors Degree in Civil Engineering with specialization in structures from a reputed University.
- ii. Must have at least 10 years of similar experience in structural analysis, design and construction.
- iii. Should be familiar with structural analysis and design software like SAP2000, MIDAS Civil, MIDAS Gen, STAAD, etc.
- iv. Should have adequate knowledge and experience in material testing and result interpretation.
- v. Prepare and finalize structural designs in close consultation with the Architect.
- vi. Must be fluent in spoken & written English.
- vii. Should be able to carry out structural design supervision at site.



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THROMDE ADMINISTRATION
SAMDRUP JONGKHAR



c. **Site Engineer:**

- i. At least Bachelors Degree in Civil engineering from a reputed University with 5 years of similar work experience OR Diploma in Civil engineering with minimum of 10 years of similar work experience.
- ii. Responsible for overall supervision of all the works.
- iii. Review design drawings for completeness or consistency before commencement of Contract works.
- iv. Construction progress monitoring and evaluation.
- v. Material testing and certification of quality.
- vi. Ensure safety working procedures and enforce them.
- vii. Overall quality control and quality administration/ assurance.
- viii. Work in close coordination with Project Manager/Engineers of client and contractor(s).
- ix. Prepare a final report and present to a forum of stakeholders.
- x. Must be fluent in spoken & written English.

d. **Electrical Engineer:**



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THROMDE ADMINISTRATION SAMDRUP JONGKHAR



- i. Bachelor Degree in Electrical Engineering from a reputed University with at least 5 years of similar professional experience in electrical, HVAC and firefighting mechanism.
- ii. Diploma in Electrical Engineering with at least 10 years of similar professional experience in electrical, HVAC and firefighting mechanism.
- iii. Should be familiar with CAD software like AutoCAD.
- iv. Prepare and finalize design concepts and design criteria in close consultation with the Team Leader.
- v. Prepare detailed engineering drawings.
- vi. Must be fluent in spoken & written English.

The task and responsibilities specified above are generic in nature and the experts will have to undertake all the activities required for them to complete the project as defined in the detailed scope of work. Preference shall be given to experts having experiences in similar works. Supporting document for key personnel's /training certificate(s) from the reputed training institutions is required. Similarly, the qualifications/experiences shall be supported by academic qualification and experience certificates (in English).

Non submission of the evidences for the qualification shall have an effect on your technical score. Translations in English must be submitted along with the copy of original if the certificates are not in English.

XI. MODE OF PAYMENT:

The mode of payments shall be in the Account payee cheques drawn in favor of the Bidder's firm. The payments shall be made in local currency, that is, in Bhutanese Ngultrum only. The Bidder shall submit bills in original while claiming for release of payments. The Executing Agency shall properly scrutinize the bills, verify and submit for release of payments. The client



བསམ་གྲུབ་སྤྱོད་མཁའ་སྤྱོད་
THROMDE ADMINISTRATION
SAMDRUP JONGKHAR



shall plan and release payment as per the payment schedule submitted by the bidder depending on the progress of works achieved at site.

The payment schedule payable to the Bidder for performing the work within the scope of works shall be released as follows:

Sl no.	Activity	Amount to be released	Remarks
1	Signing of contract	15%	Percentage of initial contract price. However, from every bill, 10% (ten percent) shall be deducted as retention money.
2	Completion of Work till plinth level	20%	
3	Completion of Super structure including roofing (The payment will be done floor wise)	35%	
4	Completion of electrical, plumbing, sanitation and utility services	10%	
5	Completion of finishing	10%	
6	Completion and handing taking of work.	10%	

XII. RETENTION MONEY:

From every bill, **10% (ten percent)** shall be deducted as retention money. The retention money would be released only after completion of defect liability period.