

# PREPARATION OF COMPREHENSIVE STORM WATER DRAINAGE MASTER PLAN AND DETAILED PROJECT REPORT OF BARPALI, NAC AREA

DISTRICT: BARGARH, ODISHA



# ବିଜ୍ଞାପିତ ଅଂଚଳ ପରିଷଦ, ବରପାଲି

## OFFICE THE NOTIFIED AREA COUNCIL: BARPALI

Address: At/P.O-Barpali, Dist.-Bargarh, Pin-768029, Email: barpalinac@gmail.com, Website: www.nacbarpali.in

#### **Barpail NAC Details**

Barpali NAC is in the District of Bargarh having an area of 31.78 Sq. kms and population of 20841 as per Census-2011, consisting of 11 nos of wards and 4777 House Holds.

Looking in to the sufferings of the people of the city, the Housing and Urban Development Department, Government of Odisha has directed the NAC to go for a Comprehensive Drainage Master Plan for Barpali NAC Area as mandated by the 15<sup>th</sup> State Financial Commission to solve the above issue.

Barpali NAC is an urban local body with responsibility of providing basic civic services like roads, water supply, sewerage, health, sanitation and storm water proposal etc. within its 11 wards.

In support of the Invitation for the EOI offer, the Barpali NAC issues this bidding document for the preparation of Comprehensive Drainage Master Plan alongwith DPR with Complete technical data, design, drawing, estimates with specifications etc. and related services incidential thereto as specified in Schedule of Services (SS).

#### OBJECTIVE

The objective of the programme is to promote planned integrated development of the NAC area to help creating durable public access and to improve quality-oriented services in the town.

The broad objective of this proposed Project is to:-

- Prevent flooding of the City there by minimizing occurrence of damages to public/ private properties and public life & Renovation of the existing natural storm water channels suiting to the following scope.
- Construction of storm water drains sand or retaining walls on both sides wherever needed duly demarcating the boundaries on either side.
- Construction of Check dams/Drops wherever necessary to reduce the velocity in stages to ensure steady flow, to help in ground water recharge and to be used as water bodies / lakes for recreational spots.
- iv. Construction of cross culverts/ Bridges wherever necessary.

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- v. Chain link fences to minimize dumping of garbage and litter.
- Conducting detailed survey of the existing storm water Channels to assess their physical status, carrying capacity & adequacy to meet design discharge requirements.
- vii. Preparation of storm water drainage map for Barpali, NAC area & zonal maps showing existing major and primary, tertiary storm water drains & their disposal system.
- viii. Based on the hydrologic study design-of the entire drainage system including out-fall structures shall be carried out for safe discharge of design flood to the rivers.
- Structural design of the entire drainage system without fall structures shall be carried out.

## The DPRs shall include the following (SCOPE OF WORK)

#### 1. Survey Works

- a. Topographical Survey using a combination of Drones and DGPS, highresolution Ortho Rectified Imagery (ORIs) and Digital Elevation Models (DEMs) should be developed. The horizontal accuracy of less than 10 CMs and vertical accuracy of less than 20 CMs should be achieved.
- Field Survey Detailed survey of the drains and their floodplain areas, the survey of existing culverts, bridges, or any other hydraulic structures.
- Conducting a detailed survey of the existing stormwater channels to assess their physical status, dimensions, etc.
- d. Enlisting of obstructions, bottlenecks, and encroachments.

#### 2. Data Collection

- Long-term (at least 40 plus years) local rainfall data (daily and hourly if available) should be collected from the local Govt. authority or from the IMD.
- High flood marks from previous flood incidences across the study area.
- c. Land use/Land Cover data
- d. Soils data
- e. Groundwater table data
- f. Water Levels and Flow data from the major drains or rivers/tributaries if they are part of the stormwater system
- 3. Hydrological and Hydraulic Model (Stormwater Management Model) Development
  - a. Rainfall Analysis
  - b. IDF Curves Development
  - c. Design Storm Creations (5, 10-, 25-, 50- and 100-year Hyetographs)
  - d. Watershed Delineation
  - Hydraulic Model Development including existing drains, natural drainage, rivers and their tributaries, ponds, etc.
  - f. Land-Use/Land Cover, Soils characteristics based hydrological parameterization of the stormwater model

- g. Rainfall-Runoff modeling to arrive at the hydrographs and peak discharges and volumes for 5, 10, 25, 50, and 100-year design storms.
- Assessing & review the existing conditions, and the capacity of the existing drainage system to identify flooding cases, hydraulic bottlenecks, etc.
- i. Deficiency analysis from a hydraulic and structural point of view.
- Level sensors should be installed at key locations and velocity measurements should be carried out using current meters for collecting the level and flow data for model calibration.
- k. H&H model should be calibrated & validated against the collected flow and level data from the field.
- Low-Impact Development (LID) or Sustainable Urban Development Designs. The LIDs should be modeled in hydrological and hydraulic model to assess their performance.
- 5. Groundwater recharging study and its effect.
- Structural Analysis for the proposed hydraulic solutions of the Stormwater Management Plan
  - a. Development of a rehabilitation plan
  - Estimation of flood discharge and hydraulic design
  - Preparation of the Longitudinal Sections (LS) and Cross-Sections (CS) of drains.
  - d. Design of cross culverts/bridges wherever necessary
  - e. Structural design of drain cross sections depending upon the land availability.
  - f. Detailed estimates with rate analysis based on the current SR
  - Preparation of detailed drawings and estimates (as per the present SOR OPWD Odisha)
  - h. Construction program to complete the execution
- Preparation of stormwater drainage map for Barpali & Zonal maps showing existing major and primary, tertiary stormwater drains & their disposal system & Flood Risk Maps Development. Alignment Maps for the entire drainage system.
- Preparation of land schedule with ROR, village map, etc. for the acquisition of private, Govt. and forest lands to develop the network.
- Detailed Project Report Preparation & Submission as per the guidelines & norms stipulated by the Govt. of Odisha and the Govt. of India.

Capacity building and training to the client and its staff to better understand the system characteristics and evaluate the impacts of proposed stormwater management and urban flood risk mitigation measures using relevant modelling tools.



## REQUEST FOR PROPOSAL (RFP)

# SCHEDULE OF EOI AND OTHER IMPORTANT INFORMATION

SI no.	Particular	Details		
1	Web address to download the EOI	https://www.nacbarpali.in		
2	Date & Time of availability of bid	22.11.2023 after 11 AM to 04.12.2023 up to 5.30 PM		
2	Date & Time of sale of hard copies of bid documents	22.11.2023 after 11 AM to 04.12.2023 up to 5.30 PM		
3	Last date & time of submission of bid by speed post/ registered post and by hand	05.12.2023 up to 5.30 PM		
4	Date & Time of opening of Technical Bid	06.12.2023 at 11 AM		
5	Date & Time of opening of Financial Bid	To be intimated later to the technically qualified bidder		
6	Duration of Service	07 Months		
7	Cost of EOI document	Demand Draft/Banker Cheque of Rs. 10000/- (TenThousand) only, from any Nationalized Bank in favour of Executive Officer, Barpali NAC, Dist-Bargarh, payable at Barpali		
9	Earnest Money Deposit	Demand Draft/Banker Cheque/TDR/NSC etc. of Rs 60000/- (Sixty Thousand) only, from any Nationalized Bank/Post office in favour o Executive Officer, Barpali NAC, Dist-Bargarh payable at Barpali		
10	Address where Bidders must send proposal	Executive Officer, Barpali, NAC, Barpali , Dist- Bargarh,State-Odisha, Pin- 768029.		





#### 1.REQUEST FOR PROPOSAL (RFP)

Providing Consultancy Services for preparation of DPR including Topographical Survey, Design and technical support assistance for Improvement of Drainage System of Barpali NAC in the District of Bargarh, Odisha

## INFORMATION TO THE BIDDER Pre-Qualification · Criteria:

Before opening and evaluation of the technical proposals, each bidder/ consultant will be assessed based on the following pre-qualification criteria. The bidder / consultant is required to produce the copies of the required supportive documents/information as part of their technical proposal failing which the proposals will be rejected.

SI	Eligibility Criteria	Supportive Documents	
1	A company registered under Indian Companies Act, 2013 OR A partnership firm registered under Indian Partnership Act, 1932 OR Limited Liability Partnership Firm Registered under the Limited liability partnership Act- 2008 Note: Consortium is also allowed. The consortium shall not consist of more than two companies/ corporations and shall be formed under a duly stamped consortium agreement. (Attach Proof). Every member of the consortium shall be equally responsible and jointly and severally liable for the successful completion of the entire project. A bidder cannot be a partner in more than one consortium.	Certificate of Incorporation/Partnership deed/ Service Tax Registration	
2	The bidder/ Consortium member should have been in the consulting business for more than TWO YEARS from the date of Incorporation on the last date of submission of the proposal.		
3	The agency bidder or the consortium partner should have completed similar consultancy services, i.e. preparation of at least one master plan with relate to Sewerage or Storm Water Management or City Sanitation Plan / DPR in any urban area in India with existing population more than 20 Thousand within the last 2 years. (The bidder should be submitting the copies of Work Order / Agreement and Completion Certificate as evidence)	Copies of Work Order /Contract Document /Completion Certificate from the previous Clients	
	The Bidder or the Lead Bidder in case of a consortium should have a minimum average annual turnover of One Crore for the last three financial years	Financial Details of the bidder - Statement duly sealed and certified by the CA and the authorized representative of the bidder/consultants.	
	Bidder / Consultant shall furnish an undertaking about not being blacklisted or debarred from any project during execution. The bidder must furnish an undertaking that all the provided documents are true as per their knowledge and there is no false documentation during submission of the bid & the bidder agrees that the discretion and decision of Barpali, NAC in respect of selection of agencies with accomplished expertise is final and binding.	Self-Declaration from the Bidder.	



# 2. Documents/ Formats needs to be submitted along with TECHNICAL PROPOSAL:

The bidder / consultants have to furnish the following documents duly signed in along with their Technical Proposal:

- Covering letter (TECH. 1) on bidder's letterhead requesting to participate in the selection process.
- 2. Copy of Certificate of Incorporation/Registration
- 3. Copy of PAN
- Copy of Goods and Services Tax Identification Number (GSTIN).
- Copies of IT Return for the last 3 (Three) Assessment Years
- 6. General Details of the Bidder.
- List of completed assignments of similar nature (Past Experience Details) along with copies of contracts / work orders from previous Clients.
- Undertaking for not having been blacklisted by any Central / State Government / Any other autonomous bodies/international & National Organization in the recent past.
- EMD of Rs.60,000/- in shape of Demand Draft /TDR etc in favour of Executive Officer, NAC Barpali
- Tender paper cost of Rs.10,000/- in shape of Demand Draft /TDR etc in favour of Executive Officer, NAC Barpall
- 11. No relation Certificate.
- 12. Affadavit for Correctness of Documents.

Each page should be signed by the Bidder/authorized representative.

#### 3 Financial Bids

Those bidders who are eligible in Technical bid their financial bid will be opened.

#### 4. Validity of the Proposal:

Proposals shall remain valid for a period of **90** (Ninety Days) from the date of opening of the technical proposal. The Client reserves the rights to reject a proposal valid for a shorter period as non-responsive and will make the best efforts to finalize the selection process and award of the contract within the bid validity period. The bid validity period may be extended on mutual consent.

Bid shall be enclosed with -----

Part 1: Tender Fee/Pre-Qualification/Technical Proposal with proposed key personnel's

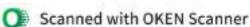
Part2: Financial Proposal.

## Performance Bank Guarantee: (PBG)

Within 15 days of notifying the acceptance of a proposal for award of contract, the qualified bidder shall have to furnish a Performance Bank Guarantee amounting to 5% of the Contract Value from a Nationalized bank.

## Anti-corruption Measure:

a. Any effort by Bidder(s) to influence the Client in the evaluation and ranking of financial proposals, and recommendation for award of contract, will result in the rejection of the proposal.



b. A recommendation for award of Contract shall be rejected if it is determined that the recommended bidder has directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the contract in question. In such cases, the Client shall blacklist the bidder either indefinitely or for a stated period of time, disqualifying it from participating in any related bidding process for the said period.

## Language of Proposals;

The proposal and all related correspondence exchanged between the bidder and the Client shall be written in the English language. Supporting documents and printed literature that are part of the proposal may be in another language provided they are accompanied by an accurate translation of the relevant passages in English with self-certification for accuracy, in which case, for the purpose so interpretation of the Proposal, the translated version shall govern.

#### Legal Jurisdiction;

All legal disputes are subject to the jurisdiction of the civil court of Barpali, Odisha. The Client and the agency shall make every effort to resolve amicably, by direct negotiation, any disagreement or dispute arising between them under or arising from or in connection with the contract. Disputes not so resolved amicably within 30 days of receipt of notice of such as a dispute shall be resolved by a sole arbitrator nominated by the department of Housing and Urban development dept Govt. of Odisha.

#### Force Majeure;

For the purpose of this clause, "Force Majeure" means an event beyond the control of the agency and not involving the agency's fault or negligence and not foreseeable. Such events may include, but are not restricted, wars or revolutions, fires, floods, riots, civil commotion, earthquake, epidemics or other natural disasters and restriction imposed by the Government or other bodies, which are beyond the control of the agency, which prevents or delays the execution of the order by the agency If a force Majeure situation arises, the agency shall promptly notify Client in writing of such condition, the cause thereof and the change that is necessitated due to the condition. Until and unless otherwise directed by the Client in writing, the Agency shall continue to perform its obligations under the contract as. far as is reasonably practical and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event. The agency shall advise Client in writing, the beginning and the end of the above causes of delay, within seven days of the occurrence and cessation of the Force Majeure condition. In the even to fade lay lasting for more than one month, if arising out of causes of Force Majeure, Client reserve the right to cancel the contract without any obligation to compensate the agency in any manner for what so ever reason.



## Timelines, stages of deliverables and content of each deliverable,

## Deliverables is-a- visit time frame

Deliverables	Description of Items/Deliverables	Corresponding time frame (Monthly)
D1	Submission of Inception report , Topographic Survey and Survey Reports (5 Copies)	90 days
D2	Submission of Preliminary Report & Detailed Project Report	90 days
D3	Co-ordation for approval of Final DPR from competent authority, Tendering for Construction with required Tender documents	30 days

#### Special conditions of contract

- The payments will be made upon submission of an invoice backed by consultant.
- If any of the work is to be done as addition in this contract in jurisdiction of ULB area according to the necessary requirements & desires of ULB authority then the extra payment shall be paid to consultant as per mutual discussion between both the parties in consideration to a Minutes of Minutes.
- 3. For Scrutiny of the Technical Feasibility of the detailed project Report the ULB will form a technical committee for checking of the technical points in conformity with the provisions of detailed scope of work mentioned in the tender documents before release of the final payment.
- 4. The ULB will extend all necessary coordination with different depts. for providing all necessary information during topographical survey and preparation of DPR. The ULB authority shall extend all necessary cooperation to Scrutiny of the Technical Feasibility of the (DPR) detailed project Report with formed committee by ULB.

N.A.C. Barpaii



## Payment Terms and Schedule form

The Payment of Consultancy Fees will be made as per the following table:

SI. No	Payment Terms	Schedule	Pyment Schedule	
1	Project Mobilization after acceptance of Work order and submission of Inception report (5 copies)	Within 1 <sup>st</sup> Month completion from date of Work Order.	10 %.	
2	Completion of Topographic Survey and Submission of Survey Report (5 copies)	On or before 3 <sup>rd</sup> Month completion from date of Work Order.	20%. Survey and Submission of Survey Report.	
3	Preparation of Draft DPR & presentation (5 copies)	On or before 5 <sup>th</sup> Month completion from date of WO	30% Submission of draft DPR & presentation in ULB with all analysis of the technical issues and proposals with the initial estimation.	
4	Preparation and Submission of Final DPR incorporating observation & compliance (5 copies)	On or before 6 <sup>th</sup> Month completion from date of WO.	20% Submission of Final DPR along presentation and discussion with technical ommittee formed by NAC.	
5	Approval of Final Master plan from competent authority (5 copies) Preparation of Specification and submission of Tender Documents for Construction & assist in bidding system of NAC and Technical support for execute the work	On or before 7 <sup>th</sup> month completion from date of WO.	20 % Assist in tendering system and reporting to NAC.	

#### NOTE:

- 1. Any addendum/Corrigendum/cancellation/erratum of tender can also be seen in the said Website.
- 2. The Authority reserves the right to reject any or all the tenders without assigning any reasons thereof.

Executive officer N.A.C. BAAFali

## PERFORMANCE BANK GUARANTEE FORMAT

To,

The Executive Officer BARPALI, NAC, BARPALI, District- Bargarh, State-Odisha.

"the Consultant") has un-	(Name and address of the Consultant) (here in after called dertaken, in pursuance of RFP No Dated to (description of services) (herein after called "the contract").
AND WHEREAS it has be that the Consultant shall	en stipulated by (Name of the Client) in the said contract furnish you with a bank guarantee by a scheduled commercial bank sum specified there in as 'Security' for compliance with its
AND WHEREAS we have	agreed to give the supplier such a bank guarantee;
NOW THEREFORE where	by a firm that we are guarantors and responsible to you, on behalf a total of
first written demand dec without caviler argumen	e in words and figures), and we undertake to pay you, upon your daring the consultant to be in default under the contract and t, any sum or sums within the limits of (amount of guarantee )as needing to prove or to show grounds or reasons for your demand or in.
Where by waive the nec presenting us with the d	essity of your demanding the said debt from the consultant before emand.
contract to be performed made between you and	o change or addition to or other modification of the terms of the d there under or of any of the contract documents which may be the consultant shall in any way release us from any liability under e by waive notice of any such change, addition or modification.
This performance bank g	uarantee shall be valid until the day of <year></year>
amount depending on the only and only if you serve received by us- at our	- (Name & Address of the Bank) is liable to pay the guaranteed ne filing of claim and any part thereof under this Bank Guarantee e upon us at our
	(Signature of the authorized officer of the Bank)
	(Name and designation of the officer)
	(Seal, name & address of the Bank &Branch)

## TECHNICAL PROPOSAL- 1

Annexure-I

## **COVERING LETTER**

(In Bidder's Letter Head)

Place-

Date-

To,

The Executive Officer, NAC, Barpali District-Bargarh, State-Odisha.

Subject: EOI for Providing Consultancy Services for preparation of DPR including Topographical Survey, Design and technical support assistance for Improvement of Drainage System of NAC, Barpali, Dist- Bargarh, State-Odisha.

Sir

I, the undersigned, offer to provide the consulting services for as per EOI floated by your good office i.e " EOI for Providing Consultancy Services for preparation of DPR including Topographical Survey, Design and technical support assistance for Improvement of Drainage System of NAC, Barpali, Dist- Bargarh, State- Odisha.

In accordance with your EOI document No.-----, I have examined the details given in this EOI nitice, Performa etc.

I/We hereby certify that all the statements made and information furnished in the enclosures is true and correct.

I/We have furnished all information and details necessary for EOI and have no further pertinent information to supply.

I/We also agree that the authorized representatives can approach individuals, employers and firms to verify our competence and general reputation.

I/We submit certificates in support of our sultability, technical know how and capability for having successfully completed the projects, in prescribed format.

I/We agree that the discretion and decision of the NAC, Barpali in respect of selection of the agencies with accomplished expertise is final and binding.

We understand that you are not bound to accept any proposal you receive.

Yours faithfully

Authorized Signatory:

Name and Designation of Signatory with Date and Seal:

Address of the Bidder:

## Annexure-II

## Bidder's Organization (General details)

S.No.	Description	Full Details
1	Name of the Bidder/ Consultant	
2	Address for communication: Tel: Fax: 2 Email id:	
3	Name of the authorized person signing & submitting the bid on behalf of the Bidder: Mobile No.: Email id:	
4	Registration/Incorporation Details Registration No: Date & Year:	
5	Local office in Odisha Please furnish contact details	
6	Bid Processing Fee Details Amount: DD/No: Date: Name of the Bank:	
7	EMD Details Amount: DD/No. Date: Name of the Bank:	
8	PAN Number	
9	Goods and Services Tax Identification Number (GSTIN)	
10	Willing to carry out assignments as per the scope of work of the RFP	
11	Willing to accept all the terms and conditions as specified in the RFP	

## NOTE:

Copy of supporting documents (original )defining the legal status, registration etc. are to to be enclosed.

Authorized Signatory [In full and initials]:	
Name and Designation with Date and Seal:	

## (BIDDER'S PAST EXPERIENCE DETAILS)

Table-I (List of completed assignments only of similar nature of work in any sector)

SL no	Period	Name of The Assignment	Name of the Client	Contract Value (in INR)	Date of Award /Commence at of assignment	Date of Completion of assignment	Remarks If any
Α	В	С	D	E	F	G	н
1							
2							
3							-
4							
5					10-2		

#### NOTE:

Work/Projects means similar nature of work as per the objective and broad scope of the assignment. The list of works/ project mentioned should be substantiated with documentary evidence such as work orders or contract agreement or completion certificates from the owner/client.

Authorized Signatory [In full and initials):

Name and Designation with Date and Seal:

# PROPOSED WORK PLAN TO CARRY OUT THE ASSIGNMENT

Bidders Work Plan in Month Wise.

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#### NOTE:

Bidder are requested to fill their proposed work plan monthly basis .

Authorized Signatory [In full and initials]:

Name and Designation with Date and Seal:

## Financial Status of Firm/Organization

SI No	Financial Year	Annual Turnover (Rs)
1	2020-21	
2	2021-22	
3	2022-23	

#### NOTE:

Certified copies of audited Balance sheets/ Chartered Accountants certificats are to be enclosed for each financial year.

(Seal and Signature of Statutory Auditor)

Authorized Signatory (In full and initials):

Name and Designation with Date and Seal:

## Annexure-VI

## **Check List of Documents**

- Covering letter for TECHNICAL BID (Annexure-I to VI) on bidder's letterhead requesting to participate in the selection process. (Yes/No)
- 2. Copy of Certificate of Incorporation/Registration. (Yes/No)
- 3. Copy of PAN. (Yes/No)
- Copy of Goods and Services Tax Identification Number (GSTIN). (Yes/No)
- Copies of IT Return for the last 3 (Three) Assessment Years. (Yes/No)
- 6. General Details of the Bidder. (Yes/No)
- List of completed assignments of similar nature (Past Experience Details) along with copies of contracts / work orders from previous Clients. (Yes/No)
- Undertaking for not having been blacklisted by any Central / State Government / Any other autonomous bodies/international & National Organization in the recent past. (Yes/No)
- EMD of Rs.60,000/- in shape of Demand Draft /TDR etc. in favour of Executive Officer, NAC Barpali. (Yes/No)
- Tender paper cost of Rs.10,000/- in shape of Demand Draft /TDR etc in favour of Executive Officer, NAC Barpali. (Yes/No)
- 11. No relation Certificate. (Yes/No)
- 12. Affadavit for Correctness of Documents. (Yes/No)
- Covering letter for FINANCIAL BID on bidder's letterhead as per prescribed format. (Yes/No)

#### NOTE:

Please Tick mark in Yes/No of above sl no 1 to 12.

Authorized Signatory [In full and initials):

Name and Designation with Date and Seal:



## FINANCIAL PROPOSAL- 2

#### **COVERING LETTER**

(In Bidder's Letter Head)

Place-

Date-

To,

The Executive Officer, NAC, Barpali District-Bargarh, State-Odisha.

Subject: Financial Price offer for Providing Consultancy Services for preparation of DPR including Topographical Survey, Design and technical support assistance for Improvement of Drainage System of NAC, Barpali, Dist- Bargarh, State-Odisha.

Sir

I, the undersigned, offer to provide the consulting services for Financial Price offer for Providing Consultancy Services for preparation of DPR including Topographical Survey, Design and technical support assistance for Improvement of Drainage System of NAC, BARPALI, Dist- Bargarh, State- Odisha in accordance with your EOI document No.----------

SI no	Items	Unit	Rate (Rs) for whole assignment Including all taxes & duties		
	Tems	05000	In Figure	In Words	
1	Preparation of Comprehensive Drainage Master Plan along with DPR for Storm Water Drainage System of BARPALI, NAC Area inconformity with the provisions of detailed scope of work mentioned in the tender documents.	Per One Sq Km Municipal area			

The above quoted amount is inclusive of the taxes applicable as per GST Act. I do hereby undertake that, in the event of acceptance of our bid, the services shall be provided in respect to the terms and conditions as stipulated in the RFP document.

Yours faithfully

Authorized Signatory:

Name and Designation of Signatory with Date and Seal:

Address of the Bidder:

