

**Volume-II**

**NATIONAL AGRI-FOOD BIOTECHNOLOGY INSTITUTE (NABI)**

(Department of Biotechnology,  
Ministry of Science and Technology, Govt. of India)  
Knowledge City, Sector-81, SAS Nagar, Mohali, Punjab

**FINANCIAL BID DOCUMENT**



**PROVISION OF RESEARCH SEED STORE WITH USE OF EXISTING MATERIAL AT NABI.**

# **TECHNICAL SPECIFICATIONS**

## **1.0 STANDARD SPECIFICATIONS TO BE FOLLOWED**

The work should be executed as per following CPWD specification and also the specification laid in tender document. In case, above specifications are not available for certain item, then the material should conform to ISI and BIS standards.

### **1.1 Civil Engineering Works**

CPWD Specification 2009 Vol. I & II along with latest correction slips. These Specifications have replaced CPWD Specifications 1996 along with Correction Slips issued on them. These Specifications cover all types of Works. The specifications are available as a printed document issued by CPWD and also in soft copy PDF Format in CPWD website.

### **1.2 Electrical Engineering Works**

- (A) CPWD General Specifications for Electrical Works Part I Internal - 2013.
- (B) CPWD General Specifications for Electrical Works Part II External - 1994.
- (C) CPWD General Specifications for Electrical Works Part IV Sub Stations – 2013.

The above specifications shall be read with upto date correction slips (if any).

## **(A) CIVIL WORKS**

### **WORKMANSHIP FOR THE ENTIRE PLUMBING WORK.**

The workmanship shall be best of its kind and shall conform to the specifications, as below or Indian Standard Specifications in every respect or latest trade practices and shall be subject to approval of the Engineer-in- Charge. All materials and/or Workmanship which in the opinion of the Engineer-in- Charge is defective or unsuitable shall be removed immediately from the site and shall be substituted with proper materials and/or workmanship forthwith.

### **WARRANTY AND HANDOVER**

The Contractor shall warrant that all plant, materials and equipment supplied and all workmanship performed by him to be free from defects of whatsoever nature before handover to the Engineer-in-Charge. All the Guarantee/Warranty certificates of all the items shall be in the name of Institute i.e., National Agri-Food Biotechnology Institute (NABI), Mohali.

## **HANDING OVER OF DOCUMENTS**

All testing and commissioning shall be done by the Contractor to the entire satisfaction of the Engineer-in- Charge and all testing and commissioning documents shall be handed over to the Engineer-in-Charge.

**NOTE: In case of any contradiction between the specifications, the contractor shall take the prior approval of the Engineer- In - Charge before executing the same at site.**

### **LIST OF MAKES TO BE ADOPTED**

S. No	Item	Make
1.	Cement	J K Lakshmi/ ACC/ Ultratech/ Ambuja
2.	Steel Reinforcement (TMT bars)	Tata/JSW Jindal/ Sail/Vizag
3.	Plaster of Paris	Birla/J K Lakshmi
4.	Mild steel tubular/section work	Jindal/Apollo/Tata/SAIL
5.	Stainless Steel door fittings	Doorset/Suzu Steel/Prayag
6.	Enamel Paint	Asian Paint/ Berger/ICI
7.	Pre- painted corrugated sheet	Tata/Jindal/Sail

**Note:** - Any other material make not mentioned above shall be ISI marked & got approved from Engg-in-charge

**NAME OF WORK: - PROVISION OF RESEARCH SEED STORE WITH USE OF EXISTING MATERIAL AT NABI.**

**ABSTRACT SHEET**

<b>S.NO</b>	<b>PARTICULARS</b>	<b>AMOUNT (In INR)</b>
1	ESTIMATED VALUE OF WORK (INCLUSIVE OF TAXES, LABOUR CESS ETC)	Rs 7,90,362/-
2	PERCENTAGE (% AGE) QUOTE PLUS/MINUS (+/ -) BY BIDDER ON ESTIMATED AMOUNT (IN FIGURES)	
3	PERCENTAGE (% AGE) QUOTE PLUS/MINUS (+/ -) BY BIDDER ON ESTIMATED AMOUNT (IN WORDS)	
4	NET AMOUNT AFTER UN- CONDITIONAL PERCENTAGE REBATE OR QUOTE ABOVE ESTIMATED VALUE ((IN FIGURES)	
5	NET AMOUNT AFTER UN- CONDITIONAL PERCENTAGE REBATE OR QUOTE ABOVE ESTIMATED VALUE ((IN WORDS)	

Stamp & Signatures of bidder

**BOQ FOR THE WORK OF PROVISION OF RESEARCH SEED STORE WITH USE OF EXISTING MATERIAL AT NABI.**

S	Description of Item	Unit	Qty	Rate	Amount
1	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge. All kinds of soil				
	Qty in cum	cum	21.2	125.95	2666.269
2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.				
	Qty in cum	cum	21.2	125.75	2662.0356
3	Supply , laying of earth from outside including the cost of loading, carriage, filling in layers not exceeding 20 cm in depth , compaction, watering , ramming etc complete in all aspects as per directions of Engineer- in - charge				
	Net Qty required from outside	cum	93.859	382	35854.11
4	Providing and laying in position brick bats including filling of gaps, voids with coarse sand - All work up to plinth level :				
	Qty in cum	cum	16.0	1080.63	17301.29

5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
	1:5:10 (1 cement : 5 coarse sand (zone-III): 10 graded stone aggregate 40 mm nominal size).	cum	7.92	4209.05	33335.676
		cum	16.875	4209.05	71027.72
6	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth up to height of 1.2 mtrs above NGL in:				
	Cement mortar 1:4 (1 cement : 4 coarse sand)				
	Qty in cum	cum	27.216	4970.3	135272.249
7	12 mm cement plaster of mix : 1:4 (1 cement: 4 fine sand)				
	Qty in sqm	sqm	153.16	172.95	26488.996
8	12 mm cement plaster finished with a floating coat of neat cement of mix :				
	1:3 (1 cement: 3 fine sand)	sqm	11.640 2	226.8	2640.007
	On wall cill				
9	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry,pvc strips at every 4 feet both ways but excluding the cost of nosing of steps etc. complete.				
		sqm	135.25	362.6	49041.65

10	Labour charges for fixing of puff panel walls, ceiling with utilization of existing 100 mm thick pre-painted galvanized Iron puff panels including the cost of shifting from storage space, cutting, jointing with silicon making it weather proof , etc complete in all aspects. The cost of U channel, L Angle shall be paid separately. The joints should be sealed properly with silicon etc for prevention of any water seepage. The ceiling, wall cutouts should be packed with puff panels with the use of suitable channel, strips , silicon etc.				
		sqmtr	273.6	284.97	77974.06
11	Providing and fixing of powder coated aluminium sliding window with 50 micron coating of size 1 x 1 metre with both shutters for glass , wire mesh along with needful tower bolts, locks, frame, overhead weather protection with new 40 mm thick puff panel canopy 3' projected etc complete in all aspects. The sliding window should have EPDM rubber or any other beading for making it air-tight. The scope of work includes removal and safe stacking of existing glass view panel of 1 x 1mts size from existing puff panels.	each	4	10815.1 4	43260.56
12	Providing and fixing of powder coated U channel or L channel for fixing of existing or new 100 mm thick wall/ceiling puff panel with minimum wall of 0.5mm thick GI sheet with girth of 300 mm . The U channel should be fixed with atleast 6 inches deep fastners and L channel where ever used should be riveted with minimim 6 mm dia rivets. The joints should be sealed with silicon at bottom, corners, panel joints wherever required as directed by Engineer-in-charge complete in all aspects.				
		metre	125	328.647	41080.875



13	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.				
	Hot finished welded type tubes	kg	350.0	90.25	31587.5
14	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
	In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete	kg	90.0	65.8	5922.0
15	Providing pre-painted corrugated G.S. sheet roofing of minimum thickness 0.6 mm including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	sqmtr s	75.27	700.55	52730.40
16	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete	sqm	153.16	118.7	18180.07435
17	Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications :				
a	Two or more coats applied on walls @ 1.25 ltr/10 sqm over and including one coat of Special primer applied @ 0.75 ltr /10 sqm	sqm	153.16	98.95	15155.167

B	Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand and manufacture	sqm	15	84.75	1271.25
18	Labour charges for fixing of existing PPGI doors 1 x 2.1 mtr along with frame including its fittings and needful screws, cutting etc as required.	each	4	678.5	2714
19	Providing and laying factory made chamfered edge Cement Concrete paver blocks In foot path, park & lawns driveway or light & traffic parking etc. of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of course sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand, all complete as per manufacturer's specifications & direction of Engineerin-Charge.	sqm			
	80mm thick Cement concrete paver block of M-30 grade with approved colour, design & pattern.	sqm	112.5	638.95	71881.875
20	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :	rmt	9	720.95	6488.5
	450 mm dia. R.C.C. pipe				

21	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge)	cum	4.75	5012.65	23810.0875
22	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres.	sqm	157.5	90.1	14190.75
23	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level & up to 1st level :				
	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size).	cum	0.5625	6215.35	3496.134
24	Centering and shuttering including strutting, propping etc. and removal of form for all heights :				
	Suspended floors, roofs, landings, balconies and access platform	sqm	4.5	422.3	1900.35
25	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level or above.				

	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	39.375	56.6	2228.625
	Sub- Total Amount				782537.105
	Add L Cess @ 1%				7825.371
	NET TOTAL AMOUNT				<b>790362.476</b>

**NOTE: - Payment shall be released item wise based on actual measurement examined at site by Engineer- In- Charge. Rate quoted shall be deemed to be inclusive of GST/other taxes.**

Signature/Stamp of Bidder