

Bid Document

for

**Supply, Installation, Testing
& Commissioning of
Hi Tech Poly Houses,
Shade Net House,
Drip & Sprinkler Irrigation
at
Barjora Horticulture Farm,
Barjora, Bankura**

**Issued by:
West Bengal State Food Processing &
Horticulture Development Corporation Ltd.**

January 2014

Contents

Sl. No.	Particulars
1	Invitation for Bid
2	Form of Bid
3	Instruction to Bidders
4	Design Requirements
5	Schedule of Quantities
6	Technical Specifications
7	Location Drawing of Farm

1. Invitation for Bid

Managing Director, West Bengal State Food Processing & Horticulture Development Corporation Ltd. (WBSFP&HDCL) (hereinafter referred to as the Employer) invites Bids in sealed envelopes, comprising the Bid Security, Techno-Commercial Bid and Price Bid from qualified applicants for Design, Supply, Installation, Testing & Commissioning of Hi Tech Poly Houses, Shed Net House, Drip & Sprinkler Irrigation for Barjora Horticulture Farm, Barjora, Bankura.

WBSFP&HDCL has appointed I-Win Advisory Services Ltd. (hereinafter referred to as PMC) as the Project Management Consultant (PMC) for the Project. The PMC will act on behalf of WBSFP&HDCL and also assist WBSFP&HDCL in all matters.

The work shall be taken up on Design Built Item Rate Contract.

Reputed contractors executing similar nature of work are encouraged to bid.

Bidders must furnish full data and information as required in this Bid document.

Award of the Bid is at the sole discretion of West Bengal State Food Processing & Horticulture Development Corporation Ltd. Proposal of the successful Bidder would form the basis for future negotiations in awarding the work.

An applicant may collect the Bid document in person from the office of PMC at the following address between 31-12-2013 and 14-01-2013 :

Managing Director
I-Win Advisory Services Ltd.
S-02, CFB, Shilpangan, Salt Lake City, Sector – 3,
Kolkata – 700 098
Phone : 2335 6570; 2335 5507
Fax : 2335 6956

The document shall be given on payment of non-refundable Bid purchase fee of Rs. 2,000 /- (Rupees two thousand only) by Cash or Demand Draft / Pay Order / Banker's Cheque in favour of "I-Win Advisory Services Ltd." payable at Kolkata.

The applicants may submit there queries regarding the Bid in written before / on 13-01-2013 by 1 pm. The same will be discussed during the pre-bid meeting. The Pre-Bid meeting will be held on 13-01-2013 at 2 pm at the office of WBSFP&HDCL to provide clarifications to the queries raised by the bidders. Further no queries will be entertained.

Sealed Bids have to be submitted to the office of WBSFP&HDCL at Mayukh Bhavan, 2nd Floor, Salt Lake City, Kolkata – 700 091 by 2 pm of 15-01-2013. The Bid will be opened on the same day at 3 pm in presence of the Bidders who wishes to be present.

Bidders shall visit the site prior to submitting their quotation and ascertain themselves of all available facilities at site.

WBSFP&HDCL reserves the right to accept or reject any or all the Bids and sub-divide the work without assigning any reasons thereof and are not bound to award work to the lowest Bidder.

Any form of canvassing shall be deemed as adequate reason for disqualification.

For and on behalf of
**West Bengal State Food Processing &
Horticulture Development Corporation Ltd.**

Managing Director

Date : 27-12-2013

Place : Kolkata

2. Form of Bid

Managing Director
West Bengal State Food Processing &
Horticulture Development Corporation Ltd.
Mayukh Bhavan, 2nd Floor,
Salt Lake City,
Kolkata – 700 091

Sub : Tender for Supply, Installation, Testing & Commissioning of Hi Tech Poly Houses, Shade net House, Drip & Sprinkler Irrigation for Barjora Horticulture Farm, Barjora, Bankura

Dear Sir,

We refer to the Invitation for Bid published in “_____” dated _____ by your office for Supply, Installation, Testing & Commissioning of Hi Tech Poly Houses, Shade Net House, Drip & Sprinkler Irrigation for Barjora Horticulture Farm, Barjora, Bankura, in accordance with this Bid Document and any instructions issued by Employer / PMC.

We do hereby offer to perform, execute and complete the works in conformity with the accepted design and specifications.

We have satisfied ourselves of the site conditions, examined the requirements and all aspects of the Bid Document. Subject to the above, we do hereby agree, should this Bid be accepted, in whole or in part, to :

- Abide by, perform and fulfill the terms and conditions of the Bid Document and the Contract Agreement to be entered upon.
- Complete the work within 30 days of the order in writing.

We have deposited the Bid Security of which, we note, will not bear interest and is liable for forfeiture at your discretion in case of our failure to commence the work mentioned above, or our failure to fulfill, perform or carry out the conditions stipulated in the Bid Document when and if called upon to do so.

Incase we fail to commence work and / or fail to fulfill, perform or carry out the conditions stipulated in the Bid Document when and if called upon, WBSFP&HDCL or its assignee has the right to terminate the Contract and award the work or part thereof to others.

We agree that the acceptance of any bid shall be at the sole and absolute discretion of West Bengal State Food Processing & Horticulture Development Corporation Ltd. (hereinafter referred to as the Employer), and they do not bind themselves to accept the lowest Bid or any Bid and may reject any or all bids received. We accept that if the above mentioned conditions are not fulfilled or are incomplete in any respect, or the bid is submitted without Bid Security, the Bid is liable to be rejected. Employer also reserves the right to accept the entire or any part of the bid and we shall be bound to perform, fulfill, observe and carry out the work thus required at the quoted respective item rates in accordance with the stipulated conditions of the contract.

We agree to abide by the Bid for a period of 6 (six) Calendar months from the date fixed for opening the same and it shall remain binding upon us at any time before the expiration of that period.

Dated this _____ day of _____, 2014

Name :

Signature :

Designation :

Address :

TO BE SIGNED & SEALED BY THE AUTHORISED SIGNATORIES OF THE COMPANY / FIRM

3. Instructions to Bidders

- 3.1. Qualifying criteria : Reputed contractor capable of design and execution of similar nature of work. Should be financially competent to execute such works. Should have experience of executing such works.
- 3.2. The form of bid have to be submitted along with the bid in the letter head of the bidder.
- 3.3. The complete bid document has to be signed on all pages and submitted along with the bid.
- 3.4. The selected bidder should demonstrate and train the personnel to operate the system implemented after completion of works.
- 3.5. The contractor should make his own arrangement for power and water required during the construction stage.
- 3.6. The contractor should make his own arrangement for labour hutment and other establishments. All materials have to be kept at the custody of the contractor, loss or misplace of the same will be the sole responsibility of the contractor.
- 3.7. All incidental works at site such site clearance for work, etc. to be done by the contractor and should be included in the rates quoted. No extra on the same will be entertained.
- 3.8. The work is to be done with respect to the conditions of the bid document with reference to the technical specifications. The work has to be carried our as per the directive of the Employer and the PMC. Actual site location for the work will be indicated by the Employer / PMC.
- 3.9. For any dispute the decision of the Additional Chief Secretary, Department of Food Processing Industries & Horticulture, Government of West Bengal shall be followed and binding.
- 3.10. After completion of the works, the contractor has to submit the as built drawings, technical literature, operation manual and maintenance manual of the system installed.
- 3.11. Inspection of the materials will be done at site. If any equipment is found damaged / defective, the same will be rejected and no payment against the same will be made.
- 3.12. Documents regarding experience of similar nature of work done for Government / Semi Government / Corporations / Other Organizations to be provided in detail.

- 3.13. The quantities shown are indicative and may be altered as per the requirement of the Client. No compensation for the same will be entertained.
- 3.14. The bidder has to submit an earnest money of Rs. 40,000 /- by way of Demand Draft / Banker's Cheque, drawn on any Schedule Bank in Kolkata in favour of "West Bengal State Food Processing & Horticulture Development Corporation Ltd.". Any Bid not accompanied with Bid Security will be treated as invalid. Bid Security shall be forfeited if the Bidder withdraws the Bid during the Bid validity period. Bid Security of unsuccessful Bidders will be refunded as promptly as possible upon appointment of successful Bidder. However WBSFP&HDCL reserves the right to hold the bid security upto a period of 6 (six) months, i.e. the period of validity of the Bid if it deems essential.
- 3.15. The work has to be completed within 30 days of receipt of the work order.
- 3.16. The bidders should provide a performance guarantee from any sort of defects for a minimum period of 1 (one) year from the date of commissioning of the equipment.
- 3.17. Rate quoted should be inclusive of all applicable taxes, duties, cess, toll tax, entry tax, etc. and it should be including supply at site, installation, testing and commissioning.
- 3.18. Detailed specification of the material along with the make to be provided along with the quoted rate.
- 3.19. Payment Terms will be as under :-
- On submission of detailed drawing & design – 10%
 - On supply of materials at site – 30%
 - Within 6 months from testing & commissioning on providing training & demonstration and submission of as built drawings, technical literature, operation manual and maintenance manual of the system installed – 50%
 - On completion of defect liability period of 1 year from the date of commissioning – 10%

The total payment will be as per the actual quantum of work executed.

3.20. Bid Submission

(1) Packet 1 Technical Bid should contain :

- a. Form of Bid in accordance to the format given in Section 2.
- b. Bid Security (i.e. Earnest Money)

- c. Authorization of the person signing the Bid.
- d. Valid copies of Income Tax filed for last financial assessment year, VAT / Service Tax / Sales Tax Registration Certificate, Trade License.
- e. Copy of Provident Fund Registration Certificate, ESI registration certificate.
- f. Audited annual balance sheet and financial report of the last three financial years.
- g. The complete proposed design for executing the works along with the detailed technical specifications.
- h. Work details stating the following – List of executed similar projects in last five years.
- i. Information about the Organization :

Name of the Bidder

Contact address and name of person duly authorised to clarify, negotiate and finalize the Bid (with telephone, e-mail, fax number & mobile number)

- j. Acceptance of Time of Implementation of the Project must be unconditional and the time for implementation would be reckoned from the date of issue of order in writing to the selected Contractor to commence work.
- k. Personnel Employed with the Bidder
Bidder should provide a list of personnel with their qualification and experience under their direct payroll who will be involved in execution of the project
- l. Equipment available with the Bidder for carrying out similar nature of work.
- m. Returning the Bid Document
The original Bid Document shall be returned duly signed and sealed on all pages.

(2) Packet 2 Financial Bid should contain:

The Price Bid. The Schedule of Quantities should be typed in the letter head of the bidder indicating clearly the rates (in figure and words) against each items of work. No other documents should be submitted in the Price Bid.

4. Design Requirements

4.1. Hi Tech Poly House

- 4.1.1 Hi Tech Poly House of Open Vent Tropical Saw Tooth Type Multi Span of size 34 m x 15 m = 510 sqm
- 4.1.2 There will be 2 nos Hi Tech Poly Houses
- 4.1.3 The Hi tech Poly House's construction should be such that it can take care of all weathering action, effect of wind & storm, etc.
- 4.1.4 The design should be efficient in nature so that minimum water and power is utilized.
- 4.1.5 The technical specification is enclosed separately.

4.2. Shade Net House

- 4.2.1 The Shade Net House will be Flat Type Multi Span of size 10 m x 10 m – 100 sqm.
- 4.2.2 There will be 1 no Shade Net House.
- 4.2.3 The technical specification is enclosed separately.

4.3. Drip Irrigation

- 4.3.1 The technical specification is enclosed separately.

4.4. Sprinkler Irrigation

- 4.4.1 The technical specification is enclosed separately.

5. Schedule of Quantity

Sl. No.	Items	Unit	Quantity	Rate	Amount
1	Hi Tech Poly House	Sqm	1020		
2	Shade Net House	Sqm	100		
3	Drip Irrigation of 8 m x 8 m spacing	Hectare	1		
4	Drip Irrigation for Orchard Area with 4 m x 4 m spacing	Hectare	5		
5	Drip Irrigation for Vegetable Area with 2.5 m x 0.6 m spacing	Hectare	1		
6	Mini Sprinkler for Vegetable Field with 10 m x 10 m spacing	Hectare	3		
				Total	

Quoted amount is Rupees only.

Supply, Installation, Testing & Commissioning of Hi Tech Poly Houses, Shade Net House, Drip & Sprinkler Irrigation at Barjora Horticulture Farm, Barjora, Bankura
Technical Specifications for Poly House & Shade Net House

High Tech Poly Greenhouse

Design : Open Vent Tropical Saw Tooth Type (Multi-span)

Size : 34 m x 15 m = 510m² , Colum Height: 3mt, Span 6mt x 4mt Grid

Top Height 5.2 m From ground level

Quantity required - 2 nos

Item	Specifications
Structural materials	
Tubular Stand pipe	76 mm OD X 2.9 mm thick IS: 1239
Bush	48 mm OD X 2.9 mm thick IS: 1239
Arch	42 mm OD X 2.6 mm thick IS: 1239
Side Arch	42 mm OD X 2.6 mm thick IS: 1239
Angle support pipe	42 mm OD X 2.6 mm thick IS: 1239
Longitudinal pipe	42 mm OD X 2.6 mm thick IS: 1239
Tie/ purlin	32 mm OD X 1.5 mm thick
G.I. Channel	4 m thick 1 mm
Door (2 nos)	6.5' X 3.5'
Rolling System + Handle	0.5" pipe
Lock Spring	12 gauge
Clamp	1", 2", 1.4"
Nut, Bolt	3/8", 1/2"
Coated Wire	As needed
Concrete base casting with Cement, Sand and gravel	12" X 12" X 24"
Footpath (Cement concrete)	1 m X 34 m (10 cm thick)
Cladding Materials	
U.V.stabilized Film	UV stabilized diffused 200 micron thickness, UVA Clear 5 layer film. Anti Virus, Thermic, Anti Drip, Anti Dust
Shade Net	50% shading intencity
Insect Proff Net	Bio Net of 60 mesh
Cooling System	
Air Circulation Fan	Heavy duty (4 nos)
Water Circulation Pump	1 HP Pump
P.V.C Tank	1000 Liter
Irrigation System	
Micro irrigation with fertigation, fogging, Mister or Overhead sprinkler system and water supply pump	Main line 50 mm PVC pipe, lateral line 12mm, Drippers, Fertigation system including ventury, Foggers, Mister etc.
Atmospheric Measuring Components	
1. Digital Lux Meter: To measure intencity of light.	
2. Digital Thermo Hygrometer : To measure the instrument calculates and displays the absolute humidity, the dew point, the partial vapor pressure.	
3. Digital PH Meter: Separately for soil and water	

Shade Net House

Design: Flat Type (Multi-span)

Size: 25 m X 20 m = 500m² Column Height : 2mt

Quantity required - 1 no

Item	Specifications
Structural materials	
Tubular Stand pipe	76 mm OD X 2.9 mm thick IS: 1239
Bush	48 mm OD X 2.9 mm thick IS: 1239
Angle support pipe	32 mm OD X 2.6 mm thick IS: 1239
Longitudinal pipe	32 mm OD X 2.6 mm thick IS: 1239
Door (2 nos)	6.5' X 3.5'
Side guard pipe	32 mm OD X 2.6 mm thick IS: 1239
Clamp	1", 2", 1.4"
Nut, Bolt	3/8", 1/2"
Coated Wire, Stitch rope	As needed
Concrete base casting with Cement, Sand and gravel	12" X 12" X 24"
Footpath (Cement concrete)	1 m X 25 m (10 cm thick)
Lock Spring	12 gauge
Cladding Materials	
Shade Net	50% shading intencity
Insect Proff Net	40 mesh
Irrigation System	
Water Circulation Pump	1 HP Pump
P.V.C Tank	1000 Liter
Micro irrigation with fertigation, fogging, Mister or Overhead sprinkler system and water supply pump, filters	Main line 50 mm PVC pipe, lateral line 12mm, Drippers, Fertigation system including ventury, Foggers, Mister etc.

Supply, Installation, Testing & Commissioning of Hi Tech Poly Houses, Shade Net House, Drip & Sprinkler Irrigation at Barjora Horticulture Farm, Barjora, Bankura
Technical Specifications for Drip & Sprinkler Irrigation

Indicative Requirement of Materials for Drip Irrigation System
Wide Spaced Crops
For 1 Hectare

Sl. No.	Component Description / Lateral to Lateral X Dripper Spacing (m x m)	BIS Standard	Unit	8 m X 8 m spacing
1	PVC Pipe 75 mm; Class-II ; 4kg/cm ²	IS: 4985: 1999	M	0
2	PVC Pipe 63 mm; Class-II ; 4kg/cm ²	IS: 4985: 1999	M	0
3	PVC Pipe 50 mm; Class-II; 4kg/cm ²	IS: 4985: 1999	M	156
4	Lateral 16mm Class II ; 2.5kg/cm ²	IS : 13488: 2008	M	0
5	Lateral 12mm Class II ; 2.5kg/cm ²	IS : 13488: 2008	M	1250
6	Emitter 4/8 lph	IS :13487:1987	Nos	625
7	Micro Tube 6mm	IS :14482:1997	M	469
8	Control Valve 75 mm	IS :10805 : 1986	Nos	0
9	Control Valve 63 mm	IS :10805 : 1986	Nos	0
10	Control Valve 50 mm	IS :10805 : 1986	Nos	1
11	Flush Valve 63mm	IS :7834 :1987	Nos	0
12	Flush Valve 50mm	IS :7834 :1987	Nos	1
13	Air Release Valve 1"	IS :7834 :1987	Nos	1
14	Non Return Valve 1.5"	IS :778 :1984	Nos	1
15	Throttle Valve 1.5"	IS :10124 :1988	Nos	1
16	Screen Filter 10 m ³ /hr	IS :12785 : 1994	Nos	1
17	By-pass Assembly -2"	IS :10124 :1988	Nos	0
18	By-pass Assembly -1.5"	IS :10124 :1988	Nos	1
19	Venture & Manifold - 2"	IS : 14483 :1997	Nos	0
20	Venture & Manifold 1.5"	IS : 14483 :1997	Nos	1
21	Fitting & Accessories	IS :7834 :1987	@5%	1

Indicative Requirement of Materials for Drip Irrigation System
Wide Spaced Crops (Orchard Area)
For 1 Hectare indicative quantities are given
Work to be done for 5 hectares

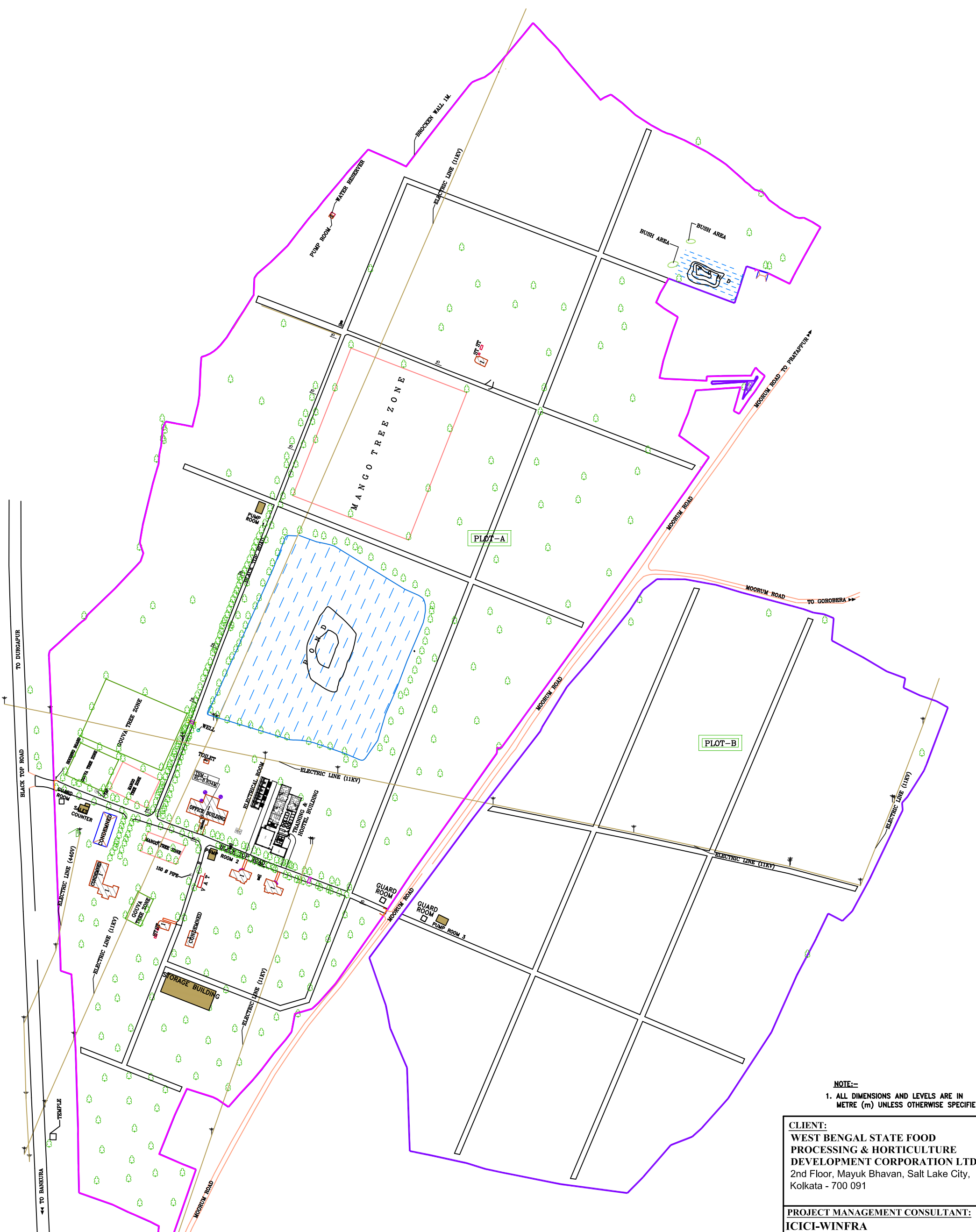
Sl. No.	Component Description / Lateral to Lateral X Dripper Spacing (m x m)	BIS Standard	Unit	4 m X 4 m spacing
1	PVC Pipe 75 mm; Class-II ; 4kg/cm ²	IS: 4985: 1999	M	0
2	PVC Pipe 63 mm; Class-II ; 4kg/cm ²	IS: 4985: 1999	M	156
3	PVC Pipe 50 mm; Class-II; 4kg/cm ²	IS: 4985: 1999	M	0
4	Lateral 16mm Class II ; 2.5kg/cm ²	IS : 13488: 2008	M	0
5	Lateral 12mm Class II ; 2.5kg/cm ²	IS : 13488: 2008	M	2500
6	Emitter 4/8 lph	IS :13487:1987	Nos	1275
7	Micro Tube 6mm	IS :14482:1997	M	1250
8	Control Valve 75 mm	IS :10805 : 1986	Nos	0
9	Control Valve 63 mm	IS :10805 : 1986	Nos	1
10	Control Valve 50 mm	IS :10805 : 1986	Nos	0
11	Flush Valve 63mm	IS :7834 :1987	Nos	1
12	Flush Valve 50mm	IS :7834 :1987	Nos	1
13	Air Release Valve 1"	IS :7834 :1987	Nos	1
14	Non Return Valve 1.5"	IS :778 :1984	Nos	1
15	Throttle Valve 1.5"	IS :10124 :1988	Nos	1
16	Screen Filter 10 m ³ /hr	IS :12785 : 1994	Nos	1
17	By-pass Assembly -2"	IS :10124 :1988	Nos	1
18	By-pass Assembly -1.5"	IS :10124 :1988	Nos	0
19	Venture & Manifold - 2"	IS : 14483 :1997	Nos	1
20	Venture & Manifold 1.5"	IS : 14483 :1997	Nos	0
21	Fitting & Accessories	IS :7834 :1987	@5%	1

**Indicative Requirement of Materials for Drip Irrigation System
Close Spaced Crops (Vegetable Plot)
For 1 Hectare**

Sl. No.	Component Description / Lateral to Lateral X Dripper Spacing (m x m)	BIS Standard	Unit	2.5 m X 0.6 m Spacing
1	PVC Pipe 75 mm; Class-II ; 4kg/cm ²	IS: 4985: 1999	M	54
2	PVC Pipe 63 mm; Class-II ; 4kg/cm ²	IS: 4985: 1999	M	102
3	PVC Pipe 50 mm; Class-II; 4kg/cm ²	IS: 4985: 1999	M	0
4	Lateral 16mm Class II ; 2.5kg/cm ²	IS : 13488: 2008	M	60
5	Emitting Pipe 16 mm ClassII, (0.6M X 1 to 4 lph)	IS : 13488: 2008	M	4040
6	Control Valve 63 mm	IS :10805:1986	Nos	1
7	Control Valve 50 mm	IS :10805:1986	Nos	1
8	Flush Valve 50mm	IS :7834 : 1987	Nos	1
9	Air release Valve 1"	IS :7834 : 1987	Nos	1
10	Non Return Valve 1.5"	IS :778 : 1984	Nos	1
11	Throttle Valve 1.5"	IS :10124 :1988	Nos	1
12	Screen Filter 10 m ³ /hr	IS :12785 : 1994	Nos	1
13	By-pass Assembly -2"	IS :10124 :1988	Nos	1
14	Venture & Manifold 1.5"	IS : 14483 :1997	Nos	1
15	Fitting & Accessories	IS :7834 : 1987	@5%	1

**Indicative Requirement of Materials for Micro Sprinkler System
For 3 Hectare (Vegetable Field)**

Sl. No.	Component Description / Area (Ha)	BIS Standard	Unit	10 m X 10 m Spacing
1	PVC Pipe 90 mm; Class-II ; 4kg/cm ²	IS: 4985: 1999	M	210
2	PVC Pipe 75 mm; Class-II ; 4kg/cm ²	IS: 4985: 1999	M	320
3	PVC Pipe 63 mm; Class-II; 4kg/cm ²	IS: 4985: 1999	M	0
4	Lateral 32 mm Class II ; 10 kg/cm ²	IS : 13488: 2008	M	3000
5	Mini Sprinkler Head	IS :12232-1 : 1996	Nos	300
6	M S Riser Rod 8 mm (102-1.8 m length)		Nos	300
7	Control Valve 75 mm	IS :10805 : 1986	Nos	4
8	Control Valve 32 mm	IS :10805 : 1986	Nos	0
9	Control Valve 25 mm	IS :10805 : 1986	Nos	65
10	Flush Valve 75 mm	IS :7834 :1987	Nos	4
11	Flush Valve 63 mm	IS :7834 :1987	Nos	0
12	Air Release Valve 1"	IS :7834 :1987	Nos	1
13	Non Return Valve 2"	IS :778 :1984	Nos	0
14	Non Return Valve 2.5"	IS :778 :1984	Nos	1
15	Throttle Valve 2"	IS :10124 :1988	Nos	0
16	Throttle Valve 2.5"	IS :10124 :1988	Nos	1
17	Throttle Valve 3"	IS :10124 :1988	Nos	0
18	Screen Filter 30 m ³ /hr	IS :12785 : 1994	Nos	1
19	By-pass Assembly -2"	IS :10124 :1988	Nos	0
20	By-pass Assembly -1.5"	IS :10124 :1988	Nos	1
21	Venturi & Manifold - 2"	IS : 14483 :1997	Nos	1
22	Fitting & Accessories	IS :7834 :1987	10%	1



NOTE:-
1. ALL DIMENSIONS AND LEVELS ARE IN METRE (m) UNLESS OTHERWISE SPECIFIED.

CLIENT:
WEST BENGAL STATE FOOD PROCESSING & HORTICULTURE DEVELOPMENT CORPORATION LTD.
2nd Floor, Mayuk Bhavan, Salt Lake City, Kolkata - 700 091

PROJECT MANAGEMENT CONSULTANT:
ICICI-WINFRA
(A Joint Venture between ICICI Bank and WBIDC)
2 B, Gorky Terrace, Kolkata 700017

PROJECT NAME:
SEED TESTING LABORATORY AT BARJORA, BANKURA, WEST BENGAL

DRAWING NAME:
SITE PLAN

DWG. NO. : IWIN / BSTL / A / S-1

REV. NO. :

SCALE : N.T.S.

DATED : 23-NOV.-2011

LEGEND

SL.NO.	DESCRIPTION	SYMBOL	SL.NO.	DESCRIPTION	SYMBOL	SL.NO.	DESCRIPTION	SYMBOL
1	TRAVERSE STATION	△	9	T.B.M. POINT	⊕	17	BLACK TOP ROAD	———
2	TREE	🌳	10	CULVERT (R.C.C. / WOODEN)	⌒	18	BRICK ROAD	———
3	ELECTRIC POST	⌚	11	PUCCA BUILDING	▨	19	EARTHEN ROAD	———
4	WATER TAP	⊙	12	RTS	⬠	20	EMBANKMENT SLOPE	∇
5	PILLAR	■	13	HUTMENT	▭	21	EXISTING WATER LINE	———
6	TRANSFORMER	⊞	14	WATER BODY	▭	22	PROPERTY LINE	———
7	TUBE WELL	🏠	15	BOUNDARY WALL	———	23	H. T. LINE	———
8	LAMP POST	⌚	16	FENCING	———	24	H. T. TOWER	⊞

