



EASTERN UNIVERSITY, VANTHARUMOOLAI SRILANKA

BIDDING DOCUMENT PROCUREMENT OF WORKS

MINOR CONTRACT

For
Accelerating Higher Education Expansion and Development Operation
(AHEAD)

Name of Work:

Faculty of Agriculture under the ELTA-ELSE Project
**Construction to (10,000 L) Over Head Water Tank
with Pump House in Faculty of Agriculture, EUSL**

Contract No. EUSL/AHEAD/AGI/10/IV

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of Standard Bidding documents for Procurement of Works {(ICTAD/SBD/03), second edition – January 2007} Approved by National Procurement Agency (NPA) and Institute for Construction Training and Development (ICTAD). This publication shall be available for reference at the **Vice Chancellor, EUSL, Vantharumoolai.** and for purchase from Institute (insert name of the District) for the Construction Training and Development (ICTAD) “Sauvsiripaya”, 123, Wijerama Mawatha, Colombo-7

VOLUME II

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Invitation for Bids (IFB)

Section – 4

**FORM OF BID AND QUALIFICATION
INFORMATION**

FORM OF BID

Bid for: Construction to (10,000 L) Over Head Water Tank with Pump House in Faculty of Agriculture, EUSL

Gentleman,

1. Having examined the Standard Bidding Document – Procurement of Works – Minor Contracts (ICTAD/SBD/03 –Second Edition, January 2007), Schedule, Specifications, Drawings and Bills of Quantities and addenda for the execution of the above-named Works, We / I the undersigned, offer to execute and complete such Works and remedy any defects therein in conformity with the aforesaid Conditions of Contract, Schedule, Specifications, Drawings, Bill of Quantities and Addenda for the sum of Sri Lankan Rupees(LKR) or such other sums as may be ascertained in accordance with the said Conditions.
2. We / I acknowledge that the Schedule forms part of our Bid.
3. We / I undertake, if our Bid is accepted, to commence the Works as stipulated in the Schedule, and to complete the whole of the Works comprised in the Contract within the time stated in the Schedule.
4. We / I agree to abide by this Bid for the period stated in the Sub-Clause 15 of Instructions to Bidders or any extended period and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
5. Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding contract between us / me.
6. We / I understand that you are not bound to accept the lowest or any Bid you may receive.

Dated this day of 202.... in the capacity of duly authorised to sign tenders for and on behalf of

(IN BLOCK CAPITALS)

Signature:

Address:

Witness:

QUALIFICATION INFORMATION

(to be completed by the bidder and submitted with the Bid)

	Eligibility Requirement	Bidder's Qualification	
ICTAD Registration			
Registration Number			
Grade	C8&C7		
Speciality	-		
Expiry Date	Valid ICTAD registration		
Black listed contractors			
Have you been declared as a defaulted contractor by NPA or any other Agency?		Yes / No	
If yes provide details.			
VAT Registration Number			
Construction Program	<i>(attach as annex)</i>		
Legal Status	<i>(Public Company/Private Company/Partnership/Sole Proprietor)</i>		
Qualification and experience of key staff	Eligibility Requirement		Bidder's Qualification
	Category, Experience and Qualifications	Required Nos	
	1. Site Supervisor With one Year Experience	01	
List other information required			

Signature of the Bidder:

Section – 5
SCHEDULE

SCHEDULE

IT B C a u s e	Condit ions of Contra ct Clause	Item	Data
1.	1.1	Employer is:	<p>Name: <i>Vice Chancellor</i></p> <p>Address: <i>Eastern University Sri Lanka Vantharumoolai Batticaloa</i></p>
	1.1.9	Employer Representative:	<p>Name:- <i>Works Engineer</i></p> <p>Address: <i>Eastern University, Sri Lanka Vantharumoolai Batticaloa</i></p>
	1.1.10	Engineer is:	<p>Name: <i>Deputy Director, Engineer (AHEAD Project)</i></p> <p>Address: <i>Provincial Director Department of Buildings Eastern Province, Trincomalee</i></p>
		Engineer's Representative	<p>Name: <i>Executive Engineer</i></p> <p>Address: <i>Department of Buildings Kallady, Batticaloa</i></p>
1..	1.1.21	Summary of Works	<p>Construction to (10,000 L) Over Head Water Tank with Pump House in Faculty of Agriculture, EUSL</p> <p>Located at Batticaloa</p> <p>Contract Number <i>EUSL/AHEAD/AGI/10/IV</i></p>
1.	1.1.14	Intended Completion Date	<p>Intended Completion Date is Three Months from the Start Date</p>
		Source of Funds	<p>The source of funds is GOSL</p>
		Eligibility	<p>Shall hold a valid registration for the grade specified in the IFB, at CIDA. (C8 & C7)</p>

1.3 The documents forming the contract are in the following order of priority

- 1) Letter of Acceptance
- 2) Contract Agreement
- 3) Memorandum of Understanding (if any)
- 4) Contractor's Evaluated Bid – Accepted BOQ
- 5) Schedule
- 6) Conditions of Contract
- 7) Specifications
- 8) Drawings
- 9) Bill of Quantities

16 **Bid Security**

Bid shall include a bid security

For an amount of **Rs.39,100.00**

Issued by an agency
acceptable to the employer Yes / No
Remain valid till **91 Days**

31. 4.4 Performance Security Amount of Performance Security required is 5 % of the Initial Contract Price. The form acceptable is unconditional bank guarantee, bond from construction guarantee fund and from an approved insurance company acceptable by the Employer

6.4 Late Completion The amount to be paid is **0.025%** of Initial Contract Price per Day, subjected to maximum of **5%** of Initial Contract Price.

8.1 Notification of Defects The period for Defect Notification is 365 Days from Taking Over.

10.3 Retention money The amount of retention is **10 %** of certified work done. The maximum amount of retention is 5% of Initial Contract Price.

13. 10.9 Price Adjustment Deleted / Applicable
If Applicable only the price adjustment shall be computed in accordance with the ICTAD formulae **Option B** under Sub Clause 10.10
Non Adjustable element shall be

10.11 Advance Payment B.O.Q item Numbers
Applicable / Deleted
If applicable, upon the payment of the advance payment in full the Employer shall return the original of the Advance Payment Guarantee to the contractor

13.1 (c) Insurance, third party Minimum amount for third party insurance is Rupees

13.1 Insurance for Contractor's Personnel Minimum amount for Insurance for Contractor's Personnel is Rupees.....

33. 1.1.11 Adjudicator The Adjudicator proposed by the Employer is.....

Fees and types reimbursable expenses to be paid to the adjudicator shall be on a case to case basis and shall be shared by the contractor and the Employer

14.0 Resolution of Disputes Fees and types reimbursable expenses to be paid to the arbitrator shall be on a case to case basis and shall be shared by the contractor and the Employer

Section – 6

SPECIFICATIONS

SPECIFICATIONS

Following standard specifications published by ICTAD to be followed.

SCA/3/2 - Water Supply Sewerage & Storm Water Drainage

SCA/4 - Building Works (Vol I)

SCA/4/II - Building Works (Vol II)

SCA/8 - Electrical & Mechanical Works

Any other Standard Specifications approved by the Government.

Section – 7

BILLS OF QUANTITIES

Section – 8

DRAWINGS

CHECK LIST FOR BIDDERS

Bidders are advised to fill the following table:

ITEM	ITB Clause	YES (tick)	REFERENCE
Form of Bid			
Addressed to the Employer ?	18		
Completed?	18		
Signed?	18		
Bid Security (if required)			
Addressed to the Employer ?	16		
Format as required?	16		
Issuing Agency as specified?	16		
Amount and currency as requested?	16		
Validity 28 days beyond the validity of Bid?	16		
Qualification Information			
All relevant information completed?	4		
Signed?	4		
Addendum			
Contents of the addendum (if any) taken in to account?	10		
Bid Package			
All the documents given in ITB clause 12 enclosed in the original and copy?	12		
ITB Clause 19 followed before Sealing the Bid Package?	19		

SIGNATURE OF THE BIDDER

**BILL OF QUANTITY FOR THE CONSTRUCT TO (10,000 L) OVER HEAD WATER TANK WITH PUMP HOUSE IN
AGRICULTURE FACULTY OF EASTERN UNIVERSITY BATTICALOA, SRILANKA.**

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (LKR)
	<u>BILL NO: 01</u>				
	<u>PRELIMINARIES</u>				
	<u>Insurance and Securities</u>				
PR-WTEU-1	Allow for providing a Performance Security			P.Sum	15,000.00
PR-WTEU-2	Allow for providing an Advanced Payment Security			P.Sum	20,000.00
PR-WTEU-3	Provisional sum for insurance of Works, Machinery & Equipment , Plant, Materials, third party persons & property and Employer's personnel & property at site as per the Contract			P.Sum	10,000.00
	<u>Engineer's Facilities</u>				
PR-WTEU-4	Allow lump sum for constructing, maintaining dismantling and removal on completion of the Works, a temporary building (area not less 50Sqm) for Engineer's requirements, including necessary furniture and fittings, furnishing, sanitary facilities and other facilities such as (a) Furniture such as 1 No. tables & 3 No.chairs for staff	Item	Allow	Sum	.....
	<u>Contractor's facilities</u>				
PR-WTEU-5	Allow lump sum for constructing, maintaining dismantling and removal on completion of the Works, a temporary site office of adequate size including staff rest room and toilets and other facilities for the contractor's site management staff in accordance with the plans prepared by the contractor and concurred by the Engineer. Site office as per Drg. with necessary equipment and furniture.(area not less than 15 Sqm with rendred floor.	Item	Allow	Sum	.....
	<u>Quality, Standards and Progress</u>				
PR-WTEU-6	Allow lump sum for all cost in connection with preparing samples for testing,making arrangements for testing of Materials, Goods etc. as stipulated in the specification, obtaining test reports and submitting the same to the Engineer			P.Sum	15,000.00
	<u>Setting Out</u>				
PR-WTEU-7	Allow lump sum for setting out of works in accordance with drawing and other written information give by the engineer.	Item	Allow	Sum	.....
	<u>Services and Facilities</u>				
PR-WTEU-8	Allow lump sum for supply of water for the Works and paying all charges and other expenses in connection with the supply from water mains or any other alternative method of water supply, storage and reticulation.	Item	Allow	Sum

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ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (LKR)
PR-WTEU-9	Allow lump sum for arrangement of safty arangment for around the plat form, safty net around working area. Include ladder arrangement for technical inspaction and works	Item	Allow	Sum
PR-WTEU-10	Allow sum for providing safety facility for the Engineer and his staff during construction. (Safety helmets, Boots and other facilities)	Item	Allow	Sum	.....
BILL NO:01, PRELIMINARIES CARRIED TO SUMMARY					

**BILL OF QUANTITY FOR THE CONSTRUCT TO (10,000 L) OVER HEAD WATER TANK WITH PUMP HOUSE IN
AGRICULTURE FACULTY OF EASTERN UNIVERSITY BATTICALOA, SRILANKA.**

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (LKR)
	<u>BILL NO: 02</u>				
	<u>OVER HEAD WATER TANK</u>				
	<u>(A) - CLEARING AND GRUBBING</u>				
A-WTEU-1	Setting out for foundation of over head tank and Site preparation, Clearing site vegetation, removing bushes, shrubs & top soil to a depth not exceeding 150mm and removing all debris away from site.	Item	Allow	Sum	.....
A-WTEU-2	Completion -The contractor shall remove all debris clean all surplus materials as directed by the Engineer and leave whole of the works in a clean and perfect condition fit for occupation and use at completion. The whole area of the works shall be completely cleared of all debris and tidied up	Item	Allow	Sum	.....
	Site Clearing carried to summary				
	<u>(B)- EXCAVATOR AND EARTH WORK</u>				
	All the items in this trade are purely provisional since the depth of excavation are taken as indicated in drawing assuming the site is flat.				
	Note:- Rate shall include for:-				
	(a) Leveling bottom of trenches and keeping side plumb.				
	(b) Back filling with selected Excavated materials and Consolidating.	Note			
	(d) Disposal of surplus excavated material and keeping all excavation free from water.	Note			
	(e) All excavations are measured net. No allowance made for working space.				
B-WTEU-1	Excavation for foundation in any material except rock requiring blasting, part return fill in and ram, and surplus disposed of within site as directed. (Rate include for shoring)	Cu.m	26.00	.....	.....
B-WTEU-2	Back filling - Approved Earth spreading , leveling watering and compaction manually using standard cast iron stamper or equivalent and filling in 150 mm thick layers (loose volume) in restricted areas (Earth available at site) - Earth measured as a volume in loose state before spreading and compaction	Cu.m	21.00

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ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (LKR)
	<u>Earthwork Supports (where necessary)</u>				
	Earthwork supports (Planking & Strutting) total depth of excavation not exceeding 2.0m and distance between vertical sides (opposing faces) not exceeding 2.0m, (Payment will be made only for actually executed Quantities on the order of the Engineer)				
B-WTEU-3	For Column Footings	m ²	30.00	.....	.....
	<u>Dewatering</u>				
B-WTEU-4	Allow for dewatering, in the manner approved by the engineer to keep all excavation dry until all works in substructure are completed. including water pumps. (payment will be made only for the actually execution, on the order of the engineer)			P.sum	10,000.00
	Excavation & Earth work carried to summary				
	<u>(C) - CONCRETE WORKS</u>				
	<u>Concrete</u>				
	<u>Unless other wise stated all concrete work shall be</u>				
	(a) 1:2:4(3/4") mix.				
	(b)1:3:6 (40)Mix				
	(c)1:1-1/2:3(20)				
	(d) Made dense with a vibrator.				
	(e)So cast astoreceive only that finishing on it sexposed surface as required.				
	<u>Rates for concrete shall include for :-</u>				
	Plant formixing, handling, hosting, depositing, compacting --do -- curing removal of formwork.				
	Unless other wise specified in the respective items,all form work and reinforcement are measured separately				
	<u>Mass/Lean Concrete</u>				
C-WTEU-1	Cement concrete 1:3:6 (40) under column footings (lean concrete of 75mm thickness)	Cu.m	0.80	.....	.....
	<u>Reinforced Concrete</u>				
C-WTEU-2	Cement concrete in column footings in 1:2:4(20) ground floor using mixer and vibratos	Cu.m	3.10

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ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (LKR)
C-WTEU-3	Cement concrete 1:2:4(20) in Plinth Beams	Cu.m	1.30
	Column				
C-WTEU-4	1:2:4(20) concrete, columns Above Footings to 3.0m height.	Cu.m	2.70	.....	.....
C-WTEU-5	1:2:4(20) concrete, columns from 3.0m to 6.0m hight.	Cu.m	2.00	.....	.....
C-WTEU-6	1:2:4(20) concrete, columns from 6.0m to 9.0m hight.	Cu.m	2.00	.....	.....
C-WTEU-7	1:2:4(20) concrete, columns from 9.0m to 12.0m hight.	Cu.m	2.00	.....	.....
C-WTEU-8	1:2:4(20) concrete, columns from 12.0m to 15.0m hight.	Cu.m	2.00	.....	.....
	Beam				
C-WTEU-9	1:2:4(20) RCC concrete beam above Plinth beam to 3.0m hight level.	Cu.m	1.30	.....	.....
C-WTEU-10	1:2:4(20) RCC concrete beam from 3.0m to 6.0m hight level.	Cu.m	1.30	.....	.....
C-WTEU-11	1:2:4(20) RCC concrete beam from 6.0m to 9.0m hight level.	Cu.m	1.30	.....	.....
C-WTEU-12	1:2:4(20) RCC concrete beam from 9.0m to 12.0m hight level.	Cu.m	1.30	.....	.....
C-WTEU-13	1:2:4(20) RCC concrete beam from 12.0m to 15.0m hight level.	Cu.m	1.50	.....	.....
C-WTEU-14	175mm thick 1:1-1/2:3(20) RCC concrete in tank bottom slab	Cu.m	1.30	.....	.....
C-WTEU-15	150mm thick 1:1-1/2:3(20) RCC concrete in tank wall	Cu.m	2.80	.....	.....
C-WTEU-16	100mm thick 1:2:4(20) RCC concrete in tank top slab	Sq.m	10.70	.....	.....
C-WTEU-17	100mm thick 1:2:4(20) RCC concrete in manhole cover slab	Sq.m	1.60	.....	.....
C-WTEU-18	Supplying mixing used Dr. fix it slab .sunshade and bath room area (1.27 Lit for use 1 Cu.m G-20 Cement concrete)	Cu.m	4.10
	Concreter carried to summary				

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ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (LKR)
	<u>(D) - FORM WORKS</u>				
	(A) Rate shall including for all necessary boarding, supports, erecting, framing, cutting & angles, striking or removal, cleaning, wetting etc.				
	(B) Form work is measured in the same order as the concrete items.				
	(C)Form work is measured as the net contact surface measurement between concrete and form work.				
	(D) Form work for column, beam & lintels are given as a girth measurements.				
D-WTEU-1	Shuttering for column footing width >300mm. including class II 50x50mm runner joists and necessary supports. Rate to include for removal.(If necessary)	Sq.m	10.30	.....	.....
D-WTEU-2	Shuttering for Plinth beam in ground floor including class II 50x50mm runner joists and necessary supports. Rate to include for removal.(If necessary)	Sq.m	12.00	.....	.....
D-WTEU-3	Form work for column Above Footings to 3.0m. including class II timber joists and necessary props	Sq.m	29.50	.....	.....
D-WTEU-4	Form work for column from 3.0m to 6.0m high. including class II timber joists and necessary props	Sq.m	22.10	.....	.....
D-WTEU-5	Form work for column from 6.0m to 9.0m high. including class II timber joists and necessary props	Sq.m	22.10	.....	.....
D-WTEU-6	Form work for column from 9.0m to 12.0m high. including class II timber joists and necessary props	Sq.m	22.10	.....	.....
D-WTEU-7	Form work for column from 12.0m to 15.0m high.including class II timber joists and necessary props	Sq.m	14.10	.....	.....
D-WTEU-8	Plywood Shuttering for beam above Plinth beam to 3.0m level. including class II timber joists and necessary props.	Sq.m	12.00	.....	.....
D-WTEU-9	Plywood Shuttering for beam from 3.0m to 6.0m level. including class II timber joists and necessary props.	Sq.m	12.00	.....	.....
D-WTEU-10	Plywood Shuttering for beam from 6.0m to 9.0m level. including class II timber joists and necessary props.	Sq.m	12.00	.....	.....
D-WTEU-11	Plywood Shuttering for beam from 9.0m to 12.0m level. including class II timber joists and necessary props.	Sq.m	12.00

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ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (LKR)
D-WTEU-12	Plywood Shuttering for beam from 12.0m to 15.0m level. including class II timber joists and necessary props.	Sq.m	11.85
D-WTEU-13	Plywood Shuttering for tank bottom slab (Plinth beam+15.0m). Including 100x50mm class II joists and necessary props.	Sq.m	7.00	.....	.....
D-WTEU-14	Plywood Shuttering for tank wall (Plinth beam +15.0m). Including 100x50mm class II joists and necessary props.	Sq.m	37.30	.....	.....
D-WTEU-15	Plywood Shuttering for tank top slab (Plinth beam +15.0m). Including 100x50mm class II joists and necessary props.	Sq.m	11.15	.....	.....
D-WTEU-16	Plywood Shuttering for manhole cover slab	Sq.m	0.75	.....	.....
D-WTEU-17	Supplying and erecting steel scaffolding sets. Rate to include for dismantling same after completion of work	Item	Allow	Sum	.....
	Form work carried to summary				
	<u>(E) - REINFORCEMENTS</u>				
	Tor steel rod reinforcement including bends, hooks, tying wire, distance blocks and ordinary spacers (Inevitable laps and chairs included in BOQ Quantities) fy = 460 N/mm2	Note			
	Mild steel rod reinforcement to BS 4449 and strength (FY=250 N/mm2) including bends, hooks, tying wire, distance blocks and ordinary spacers.	Note			
E-WTEU-1	Tor steel rods (10mm ,12mm & 16mm) in reinforcing in footings,Column,Beam ,Tank bottomslab, cover slab and wall bent to shape, laid in position and tied with G.I. Wire as directed.as per drawing.	kg	2500.00	.....	.....
E-WTEU-2	Mild steel 6mm rods in stirrups column ,Plinth beam and Beam bent to shape, laid in position and tied with G.I. Wire as directed.as per drawing.	kg	360.00	.....	.....
	Reinforcements carried to summary				

**BILL OF QUANTITY FOR THE CONSTRUCT TO (10,000 L) OVER HEAD WATER TANK WITH PUMP HOUSE IN
AGRICULTURE FACULTY OF EASTERN UNIVERSITY BATTICALOA, SRILANKA.**

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (LKR)
	(F) - WALL FINISHES				
	The rates shall include for all temporary rules, screed and grouts etc. for raking out joints of brick work or hacking new concrete for key. Internal and covered ancles joints making good around pipes, sanitary fit similar fixtures. between different surfaces, etc.	Note			
	Note-Without Pump House				
F-WTEU-1	10mm th.plaster to RCC Column and beam cement and sand 1:3 finished smooth above 3.0m to 6.0m	Sq.m	38.30	.....	.....
F-WTEU-2	10mm th.plaster to RCC Column and beam cement and sand 1:3 finished smooth from 6.0m to 9.0m	Sq.m	38.30	.....	.....
F-WTEU-3	10mm th.plaster to RCC Column and beam cement and sand 1:3 finished smooth from 9.0m to 12.0m	Sq.m	38.30	.....	.....
F-WTEU-4	10mm th.plaster to RCC Column, beam,Tank internal & external walls cement and sand 1:3 finished smooth 12.0m to water tank top.	Sq.m	72.00	.....	.....
F-WTEU-5	20mm thick 1:2 cement, sand rendering to tank internal bottom. With add 5% pudlo cement.	Sq.m	9.70	.....	.....
F-WTEU-6	Gray cement floating coat & finish smooth to tank internal walls.	Sq.m	27.50	.....	.....
	Wall finishes carried to summary				

**BILL OF QUANTITY FOR THE CONSTRUCT TO (10,000 L) OVER HEAD WATER TANK WITH PUMP HOUSE IN
AGRICULTURE FACULTY OF EASTERN UNIVERSITY BATTICALOA, SRILANKA.**

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (LKR)
G-WTEU-1	<p align="center">(G) - WATER PROOFING</p> <p>Water proofing system. Shall consist of two coats of waterproofing concrete slurry coats.</p> <p>Surface preparation, mixing, application and curing shall be strictly in accordance with the manufacture's instructions.</p> <p>The contractor may use any system of water proofing concrete by crystallization. With the prior approval of the Engineer.</p> <p>Rate shall include for chipping removing and cleaning all loose materials on the surfaces to be water proof.</p> <p>Rate shall include for sealing around gullies, pipe protrusions with non shrink high strength cementation grout master flow 98 or equivalent</p> <p>Supplying and laying of glass fiber reinforcement strip, Glascoate 60 or equivalent to vertical or horizontal intersections as per manufacture instruction & working order.</p>	Sq.m	27.50	.....	.....
	Two coats Application of crystalline type Xypex (Non-toxy) waterproofing to horizontal and vertical surfaces of water tanks, (water proofing material recommended for portable water storage tanks) products marketed/installed by a specialist contractor registered at ICTAD and 10years manufacturer warranty should be provided. Method statement should provide before commence the work.				.....
	Waterproofing carried to summary				

**BILL OF QUANTITY FOR THE CONSTRUCT TO (10,000 L) OVER HEAD WATER TANK WITH PUMP HOUSE IN
AGRICULTURE FACULTY OF EASTERN UNIVERSITY BATTICALOA, SRILANKA.**

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (LKR)
	(H) - PAINTING				
	The rate shall include for all preparation of surfaces on cleaning down smoothening knotting, stopping etc. protecting of floors and fitting removing and replacing doors and windows furniture's and cleaning windows etc. upon completion				
	Note - Without Pump House				
	Preparing surfaces and apply one coat of Alkali resistant primer and two coats of approved quality weather shield paint to external area.				
H-WTEU-1	Paint to Column & beam above 3.0m to 6.0m level.	Sq.m	30.00	.....	.....
H-WTEU-2	Paint to Column & beam from 6.0m to 9.0m level.	Sq.m	30.00	.....	.....
H-WTEU-3	Paint to Column & beam 9.0m to 12.0m level.	Sq.m	30.00	.....	.....
H-WTEU-4	Paint to 12.0m to water tank top.	Sq.m	45.00	.....	.....
	Painting Work carried to summary				
	(I) - PLUMPING WORKS				
	Rates shall include for screws, nails, pipe hooks, saddles, brackets, sockets, connectors, short length, back nuts, nipples, and the like and all holes, chasing, etc. made good in all trades and all necessary excavation and back filling	Note			
	Any special water supply and drainage fittings such as bends, tees, reducers, etc. Unless otherwise specified including in the Bill of Quantities shall be deemed to have been included in the relevant item and should accordingly be rated to include for such specials, etc. and for any Extra work involved for the satisfactory completion of such items.	Note			
	Unless otherwise stated rates for the Items following shall include uPVC pipe for water service, waste , etc. plastic piping and fittings shall comply with latest BS 3505 for uPVC pipes and BS 1922 for polyurethane pipe and should have SLS.	Note			
	Supply and fix Type 1000,uPVC pipes including all specials to wall with necessary hooks or buried under floors as per drg. / instruction. Type 600 uPVC pipes for waste water disposal and providing ventilation including all specials etc. Rate to include for excavation of trenches and backfilling where necessary.	Note			
I-WTEU-1	Supply and fixing 40mm dia Brass Ball valve "Pegler" Brand or approved equivalent.	Nrs	1.00	.....	.....

**BILL OF QUANTITY FOR THE CONSTRUCT TO (10,000 L) OVER HEAD WATER TANK WITH PUMP HOUSE IN
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ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (LKR)
I-WTEU-2	Supply and fixing 50mm dia Brass Ball valve "Pegler" Brand or approved equivalent.	Nrs	1.00
I-WTEU-3	Supply and fixing 110mm dia Brass Ball valve "Pegler" Brand or approved equivalent.	Nrs	1.00	.....	.....
I-WTEU-4	Supply and laying 32mm PVC pipe (PNT 14/ PN 16) with necessary fittings	L.m	4.00	.....	.....
I-WTEU-5	Supply and laying 40mm PVC pipe (PNT 14/ PN 16) with necessary fittings	L.m	22.00	.....	.....
I-WTEU-6	Supply and laying 50mm PVC pipe (PNT 14/ PN 16) with necessary fittings	L.m	22.00	.....	.....
I-WTEU-7	Supply and laying 110mm PVC pipe (PNT 14/ PN 16) with necessary fittings	L.m	22.00	.....	.....
	Plumbing Work carried to summary				
	(J) - STRUCTURAL STEEL WORK				
	Rate shall include for applying two coats of enamel paint (paint approved by Engineer) after treating with a coat of anticorrosive paint to all exposed of GI pipes & box bar ect.,	N ote			
J-WTEU-1	Supplying , fabricating & fixing GI pipe hand rail, consisting of 2" dia. GI pipe as hand rail and 3/4" dia. GI pipes @ 11" c/c as vertical members fixed to steps with the 4" x 1 1/2" x 12mm thick M.S. plate connecting with 2 nos of 10mm anchor bolts, work complete in order with necessary nuts & bolts. Rate Shall include for applying two coats of anti-corrosive paint and two coats of enamel paints. All sizes and details as per Drawing.	L.m	14.00	.....	.....
J-WTEU-2	Supplying , fabricating & fixing GI pipe ladder, consisting of 2" dia. GI pipe as ladder and 3/4" dia. GI pipes @ 18" c/c as horizontal members fixed to steps with the 4" x 1 1/2" x 12mm thick M.S. plate connecting with 2 nos of 10mm anchor bolts, work complete in order with necessary nuts & bolts. Rate Shall include for applying two coats of anti-corrosive paint and two coats of enamel paints. All sizes and details as per Drawing.	Nos	1.00	.....	.....
J-WTEU-3	Supplying & fixing 3mm thick 150mm width MS plate as water bar at required position (Rate including cutting, welding, fixing and ect..)	L.m	14.00	.....	.....
	Structural Steel Work carried to summary				

**BILL OF QUANTITY FOR THE CONSTRUCT TO (10,000 L) OVER HEAD WATER TANK WITH PUMP HOUSE IN
AGRICULTURE FACULTY OF EASTERN UNIVERSITY BATTICALOA, SRILANKA.**

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (LKR)
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BILL NO:02, OVER HEAD WATER TANK CARRIED TO SUMMARY

I.No	DESCRIPTION	AMOUNT
A	CLEARING AND GRUBBING	.....
B	EXCAVATOR AND EARTH WORK	.....
C	CONCRETE WORKS	.....
D	FORM WORKS	.....
E	REINFORCEMENT	.....
F	WALL FINISHES	.....
G	WATER PROOFING	.....
H	PAINTING	.....
I	PLUMPING WORKS	.....
J	STRUCTURAL STEEL WORK	.....
BILL NO:02, OVER HEAD WATER TANK CARRIED TO SUMMARY		

**BILL OF QUANTITY FOR THE CONSTRUCT TO (10,000 L) OVER HEAD WATER TANK WITH PUMP HOUSE IN
AGRICULTURE FACULTY OF EASTERN UNIVERSITY BATTICALOA, SRILANKA.**

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT (LKR)
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BILL OF GRAND TOTAL

L.NO	DESCRIPTION OF WORK	TOTAL AMOUNT (LKR)
1	BILL NO:01 - PRELIMINARIES (AS PER ANNEX B.O.Q.) COLLECTION PAGES NO: 1 TO 2)
2	BILL NO:02 -CONSTRUCTION OF OVER HEAD (AS PER ANNEX B.O.Q.) COLLECTION PAGES NO: 3 TO 12)	.....
	TOTAL CARRIED TO SUMMARY	
	LESS PROVISIONAL SUM WORK (-)	70,000.00
	SUB TOTAL-I	
	LESS DISCOUNT(%) (If any)	
	SUB TOTAL-II	
	ADD PROVISIONAL SUM WORK (+)	70,000.00
	GRAND TOTAL (BID PRICE) -EXCLUDING VAT	

Total Amount in words:

Total Value of VAT (Rs) :

VAT Registration Number :

.....

Signature Of Bidder

Date:

.....

Signature Of Employer

Date:

Witness :.....

Address:.....

.....

BILL OF QUANTITY FOR THE CONSTRUCT TO (10,000 L) OVER HEAD WATER TANK
WITH PUMP HOUSE IN AGRICULTURE FACULTY OF EASTERN UNIVERSITY
BATTICALOA, SRILANKA.

A1. NOTES AND PRELIMINARIES.

Note:-

This bill of quantities contains pages 13 consecutively. Please check to see that no pages missing not any in duplicate and that all **TRADES** are carried to **SUMMARY** at the end of this Bill of Quantities

A2. Specifications

All items of work are to be done strictly as shown in drawings accordance with and read and in conjunction with the Sri Lanka specification for buildings works,Electrical works, water supply and sewerage work (CITP / ICTAD publication).

The Project Director may direct a special order of work.

A3. Drawings

The following drawings listed here under and any other detail drawings referred to through out this Bill of Quantities will form a part of the contract documents.

Architectural

Structural

Structural details

General arrangement, Plans & Sections, Details of Foundation

A4. Inspection of site.

Tenderers are requested to visit the site and acquaint themselves with all existing conditions and with the nature and extent of work to be done under this contract.

As no extras will be allowed on the plea of want of information due to neglect on their part of this regard.

A5. Timber

Unless otherwise specified in the respective trades/sections, the timber for all trades shall be as specified in Carpentry & Joinery.

A6. Cement

Cement having SLS 107 or equivalent Approved by Engineer.

A7. Trade Name

Where trade names, brands and / or catalogue or equipment may be used, Provided that the characteristics of type, quality, appearance, finish method of construction and / or performance is not less than specified and provided also that approval is first obtained.

A8. Method of Measurement.

This Bill of Quantities has been provided generally in accordance with:-

- (a) The principles of the Standard Method of Measurement for buildings works in Sri Lanka.
(SLS 573:1982)
- (b) The S.M.M. issued by the quantity Surveying Section. Departments of Building August 1980

A9. Rates

Rates for all items shall be inclusive of the following:

- (a.) All supply of materials, labour, plant, Scaffolding, waster, Incidental Materials, fixing media, Cartage, Hoisting, Fitting and fixing Complete.
- (b.) Providing holes, chasing etc. as directed for electrical Installation and all other services and making good as the same as and when such installations are provided
- (c.) Providing samples specimens etc for such items of work as required.
- (d.) All overhead preliminary expences and profit except where otherwise stated.
- (e.) Testing of all buildings materials.
- (f.) Furnishing monthly 3 sets of photography for the buildings under construction from three location identified by the Engineer.
- (g) Providing stable access (Temporary Stair case) Externaly from ground floor to 1 st and 2 nd floor level to transport materials, labourer & etc.

A10. Measurements:-

Tenderers are to note that the measurement are taken absolutely NET unless otherwise stated and they must, therefore, allow in their prices for all straight cutting and waste, laps ,etc through out even though not specifically mentioned.

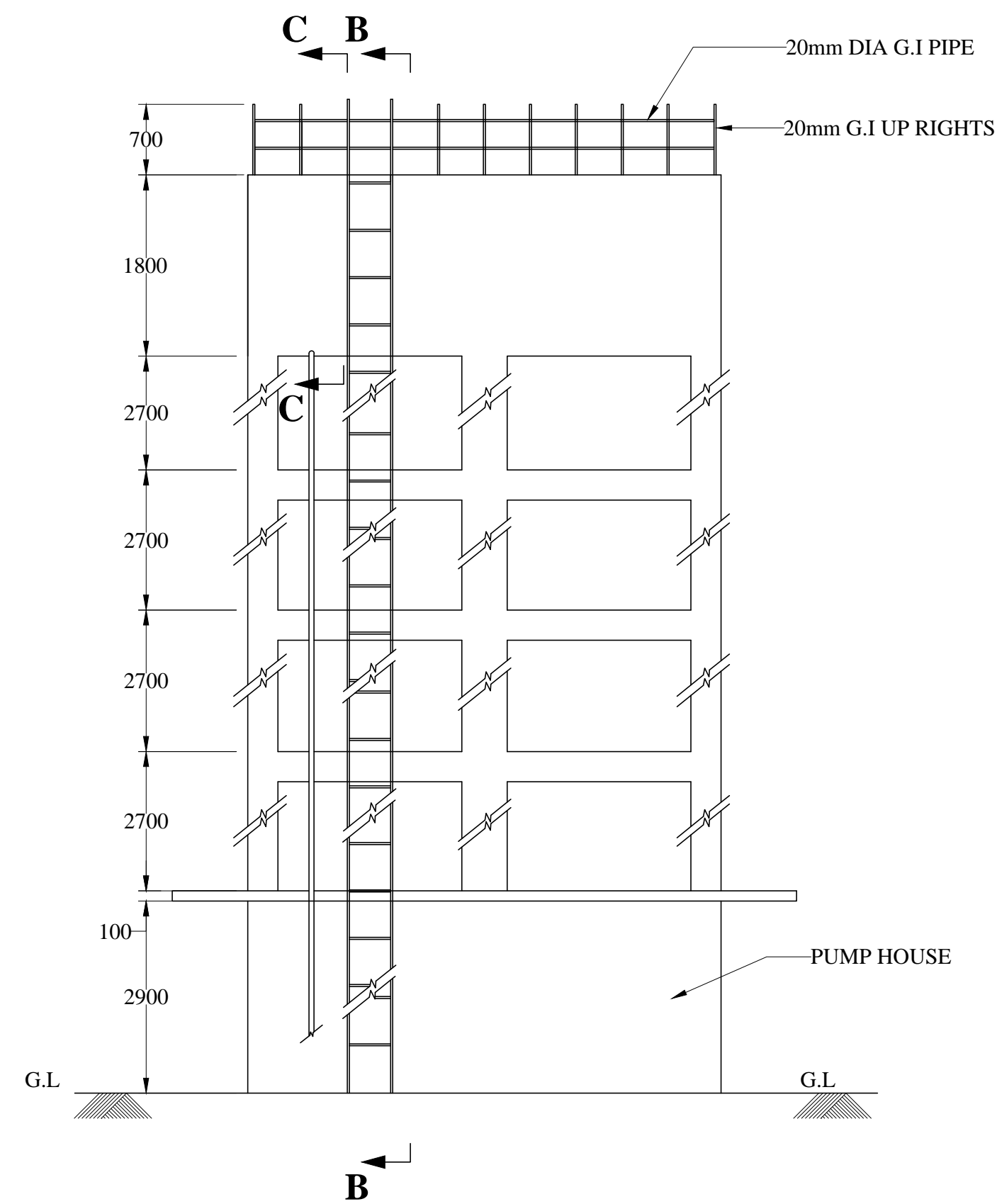
A11. Descripancies:-

Any descripancies in drawings Specifications, Bill of Quantities or any other documents should be brought to the notice of the Employer before tendering.

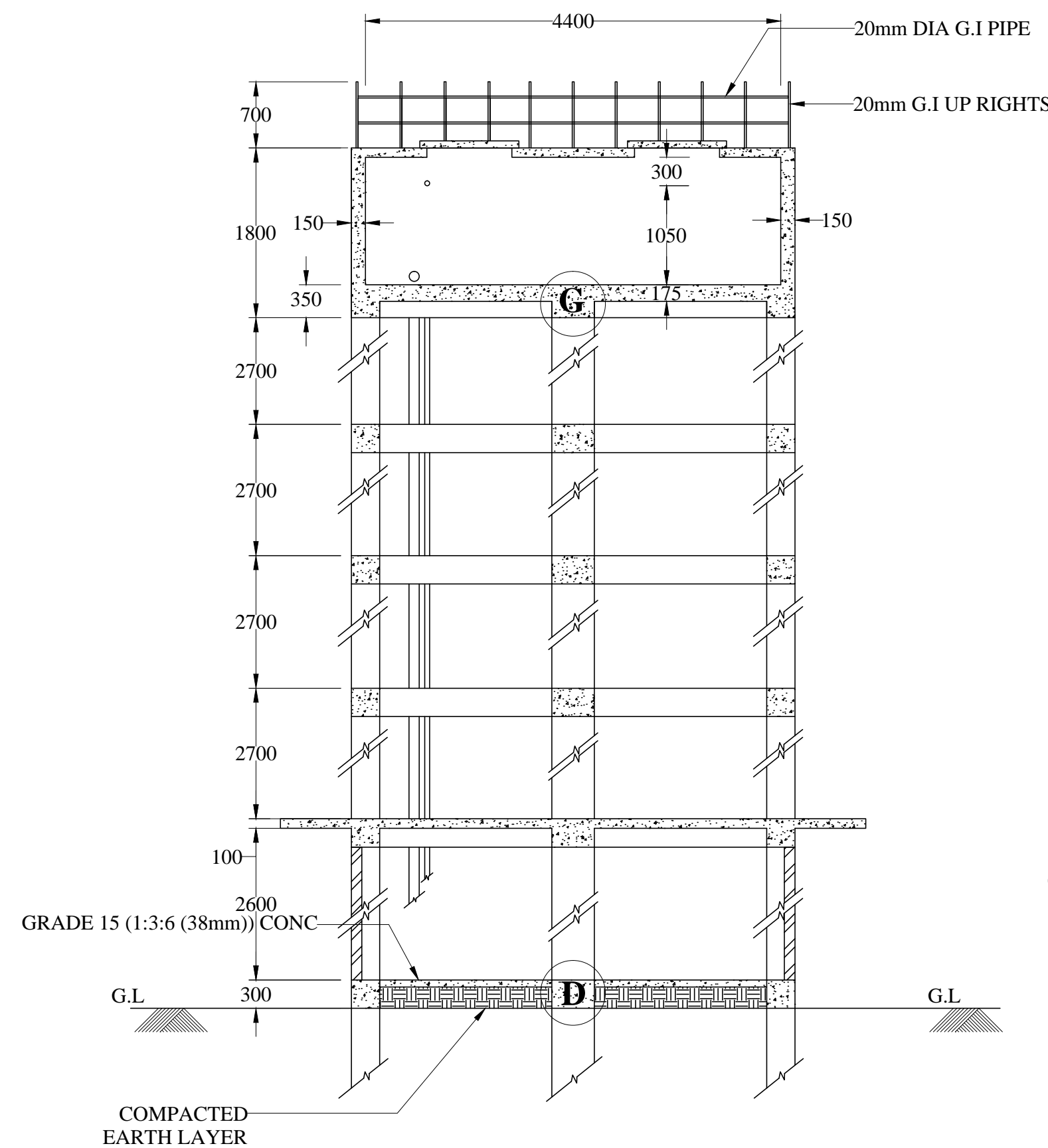
A12. Payments:-

Payments shall be made on actual quantity of work carried out at the site as per Contract.
The quantities given in the bill of quantities are approximate.

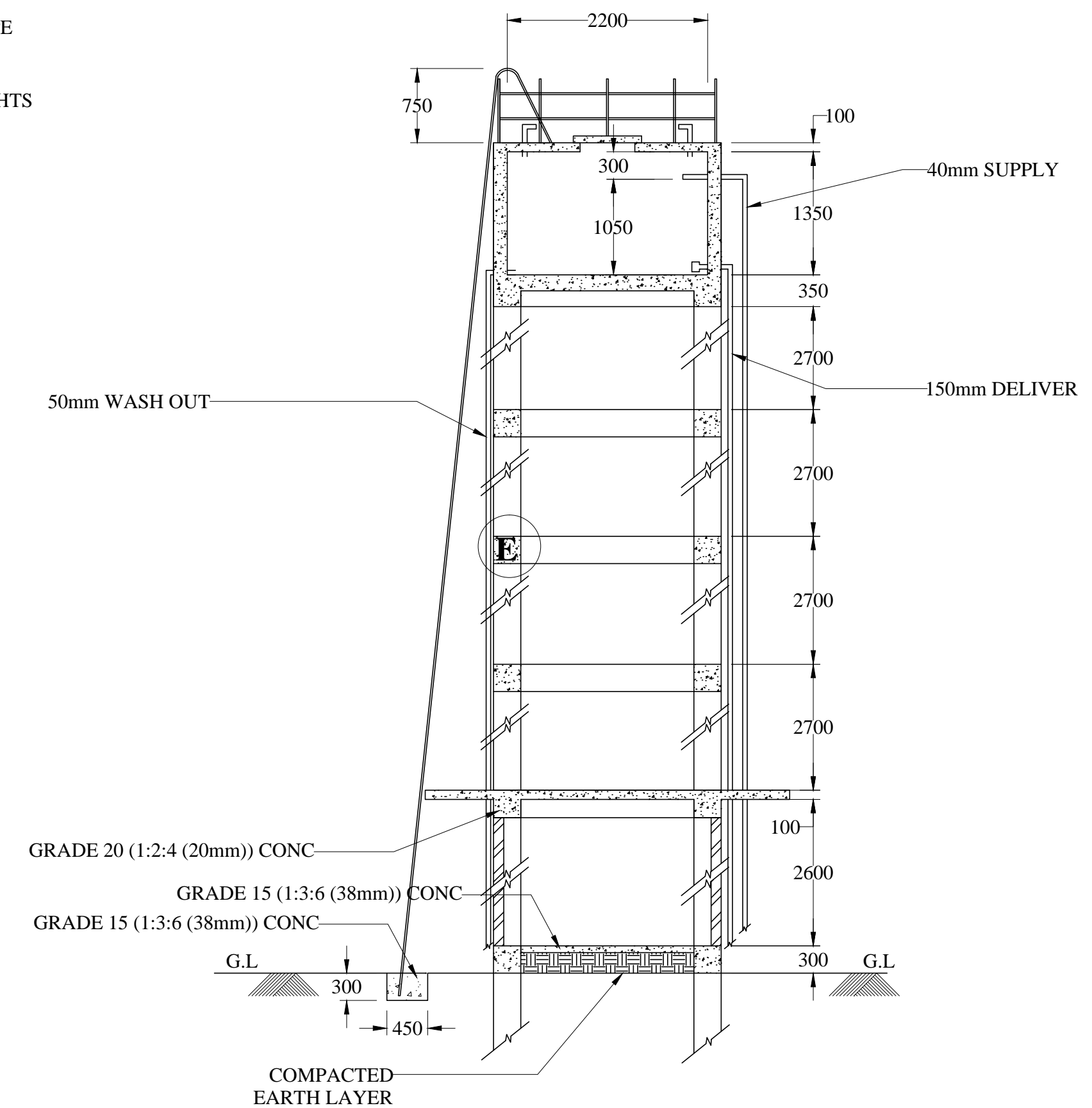
Attention of the tendered is drawn to the requirements of contract, the specifications and any other Particulars of the tender It is the tenderers responsibility to see that his prices include for and any complying with all the requirements of the conditions of contract and any outer documents whether specifically referred to in the bill of quantities or not.



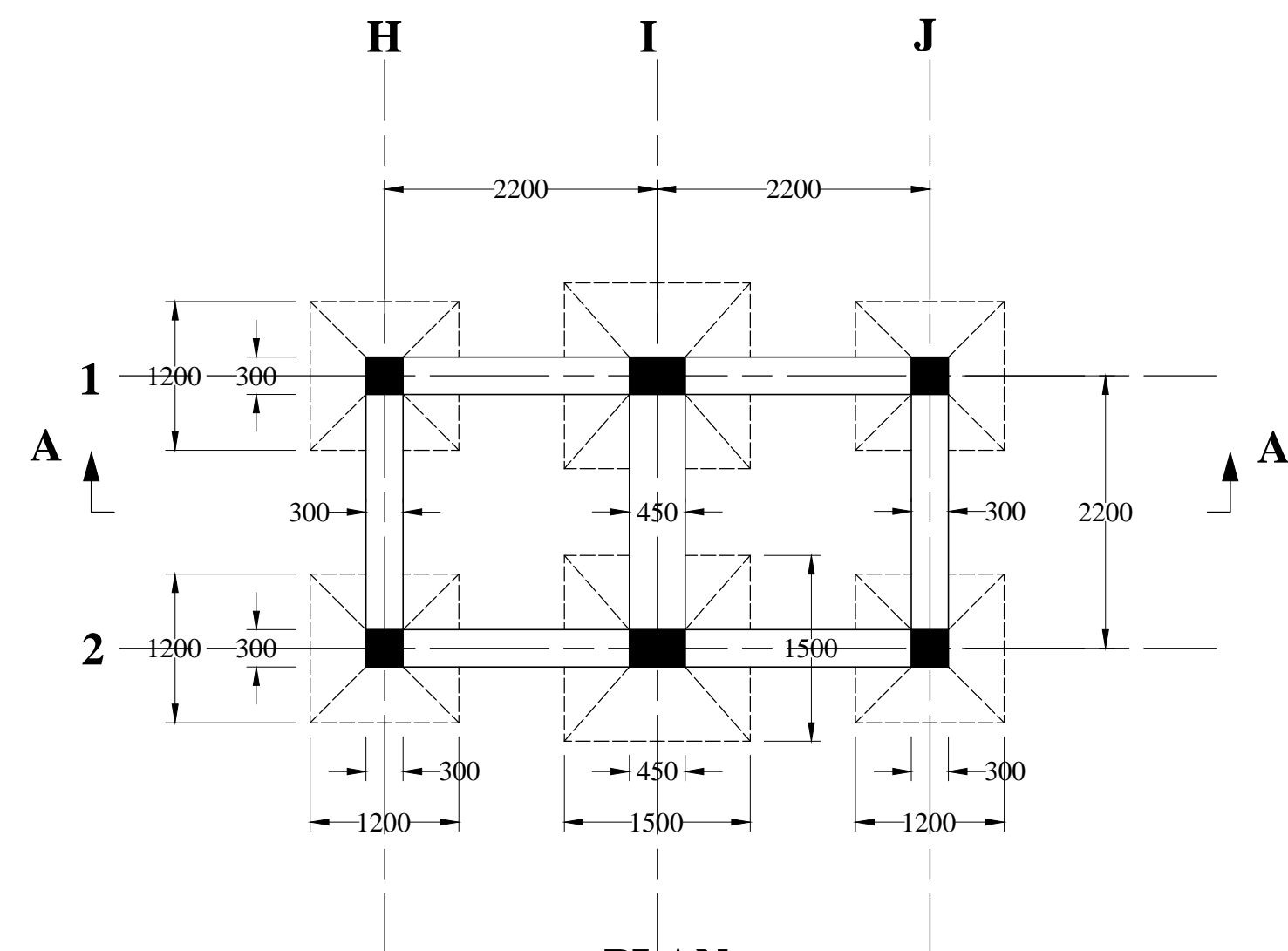
ELEVATION
SCALE 1:50



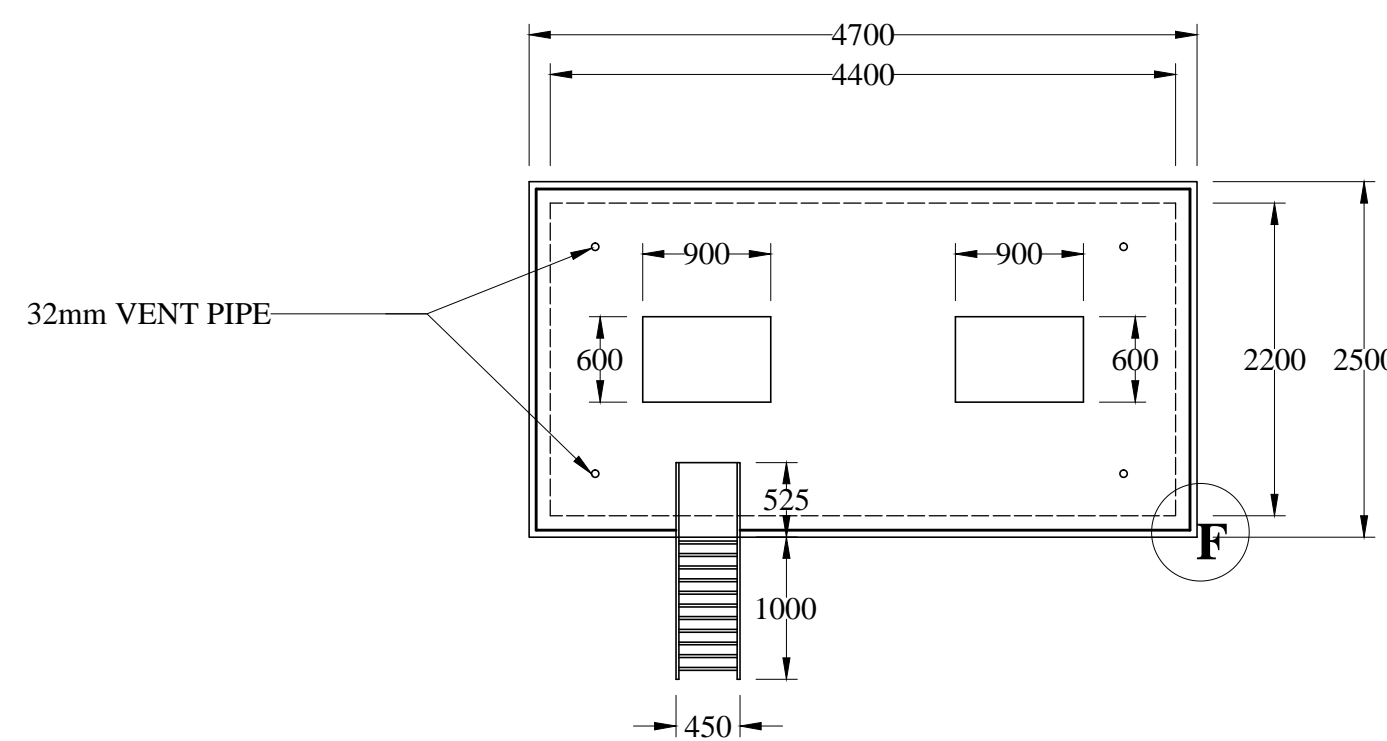
SECTION ON A-A
SCALE 1:50



SECTION ON B-B
SCALE 1:50



PLAN
SCALE 1:50



PLAN FROM ABOVE
SCALE 1:50

NOTE

- ALL DIMENSIONS ARE IN MILLIMETRES
- BAR NOTATION

No OF BARS	20 Y 20	10 -	225T	BAR LOCATION
STEEL TYPE				BAR SPACING
BAR SIZE				BAR MARK
- ABBREVIATION
T - TOP FF - FAR FACE BF - BOTH FACE
B - BOTTOM NF - NEAR FACE
- MATERIAL PROPERTIES
CONCRETE - GRADE 20 (1:2:4 (20mm))
CONCRETE - GRADE 15 (1:3:6 (40mm))
REINFORCEMENT - 460 N/mm² TOR STEEL
- MINIMUM CLEAR COVER SHOULD BE 25 mm FOR COLUMN & BEAM , MINIMUM CLEAR COVER SHOULD BE 50mm FOR TANK.
- LAP LENGTH SHOULD BE 50 x BAR DIAMETER & LAPS SHOULD BE STAGGERED

**PROPOSED 10000l WATER TANK IN AGRICULTURE FACULTY OF
EASTERN UNIVERSITY BATTICALOA SRI LANKA**