

**OFFICE OF THE EXECUTIVE ENGINEER
ANAND AGRICULTURAL UNIVERSITY
AN AND**

Name of work : Construction of farm protection wall at AAU Kaknpur(in farm after drain).

LIST OF MATERIAL TO BE USED FOR WORK :-

Sr. no.	MATERIAL	MAKE/PLACE
1	TMT BAR	TATA TISCO, KAMDHENU, NATIONAL, GALENT, NRE, NILKANTH, VINAYAK, FRIENDS MAKE ONLY.
2	CEMENT	O.P.C- ONLY MAJOR PLANT- ACC, ELEPHANT, AMBUJA, SIDDHI, LOTUS, ULTRA TECH CEMENT, BINANNI CEMENT, SANGHI MAKE.
3	KAPACHI/ METAL	BLACK TRAP ONLY
4	SAND	SANKHEDA/BADALPUR/BODELI ONLY
5	M.S. ANGLE	TATA, JINDAL, AMBIKA, MARUTI, SAIL,VIZAG, STEELCO.
6	BARBED WIRE	AS PER ITEM.

Only above said material is to be used as per site condition/situation.

Contractor's sign

Executive Engineer

T E N D E R

Name of work : Construction of farm protection wall at AAU Kaknpur(in farm after drain).

Employer: - : Anand Agricultural University
Anand

Site: - : Anand Agricultural University
Khambholaj

Name of work : Construction of farm protection wall at AAU Kaknpur(in farm after drain).

-: SPECIFICATION :-

All the works shall be done as per the specification laid down in the Bombay P.W.D. hand book Volume, I, II 9th edition and latest I.S.S. specifications and according to the order of the Executive Engineer, Anand in conformity with the following addition and alterations. In case of dispute, the decision of the Executive Engineer, Anand Agricultural University, Anand shall be considered as final and binding to the contractor.

All the materials required for the work is to be used as per details specification attached with the tenders for material's or approved by Executive Engineer.

MEASUREMENTS:-

Mode of measurement has been specified in each item however in case where details are not provided standard procedure.

1. All damages to floor, walls, roads sides of buildings etc. during the process of fixing water supply, drainage and Sanitary installations shall be restored to the original condition by the contractor of his own cost.
2. All the pipes, fittings and appliances shall be thoroughly cleaned before fixing and particular care shall be taken to see that no materials gets into them during fixing.
3. All the joints shall be of the same diameters of the inside before expect wherever mentioned.
4. All the joints shall be rendered leak proof and tested for the same to ensure efficient functioning of pipes and appliances.
5. All diameters of pipes shall be of the same diameters of the inside before expect wherever mentioned.
6. Entire water supply and sanitary items arrangements shall be subjected to pressure test in accordance to IS Code at the contractors cost prior to commissioning.
7. All the water supply and sanitary items shall be carried out by the experienced plumber to the entire satisfaction of Engineer-in-charge.
8. Rate of each items are including of testing of its and connection and pipe etc for no leakage.

Contractor

Executive Engineer

**ANAND AGRICULTURAL UNIVERSITY
ANAND.**

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REFERENCE SHEET

Sr. No	Description	Vo l	Page No	Item No	Para No	Remarks
1	Excavation	I	29	4.0.0(A)	1.0 to 6.2	for 2.50m deep & all lead & lift
2	P/L cement concrete 1:4:8 mix.	I	38	5.3.2(A)	1.2 to 2.7.2	
3	P/L brick work	I	53 51	6.19(B) 6.13(B)	1.0 to 3.2 1.0 to 2.2.	Incl. curing , racking out joints in true line & level
4	P/Laying OCC 1:2:4 for R.C.C, Coping	I	35	5.4.1(A)	1.0 to 2.3	
5	P/L twisted TMT bar reinforcement	I	45	5.4.11	1.0 to 3.4	Binding in true line & level
6	P/L brick work for superstructure above plinth level	I	53 51	6.19(B) 6.13(B)	1.0 to 3.2 1.0 to 2.2.	Incl. curing , racking out joints in true line & level
7	P/A 15mm thick smooth cement plaster	I	120 121	17.58(II) 17.69	1.0 to 2.2 1.1 to 1.4	Read 15mm instead of 10mm thick
8	P/A three coats of white washing with lime on wall.	I	125 126	18.11 18.13	1.0 to 3.9 1.0 to 1.1.	
9	P/F 0.80 mt. high barbed wire fencing with 1.70 mt long M.S. angle 40 x40 x6mm	II	-	-	-	Separate sheet

Contractor :-

Executive Engineer

S P E C I F I C A T I O N

Note:

The Various items of works shall be carried out in general as per relevant ISS specification and that or the latest addition of P.W.D. hand book volumes I and II along with the following specification where there is contradiction between the following specifications and P.W.D. hand book the following specification and P.W.D hand book the following specification shall be govern in matters or interpretation etc. the design of the Director of purchase and Properties / Architect shall be final and binding on the contractor.

- 1) The contractor is to allow for executing any work which in the Engineer/ Architect opinion is like to cause and annoyance to occupaints in the vicintly at times as the Architects may directs.
- 2) The contractor shall deliver deliver daily to the Engineer in charge of works a report as to the number of operative employed in all treaders and deliver to the side.
- 3) The teasuretrove coins or objects of a quantity which may be found on the site shall handed over to the employees.
- 4) The contractor is to provides at all times curing the progress of work and maintenance period proper mean of the access with leaders and aways etc. the necessary attendance to move and as per as directed for the inspection or measurement of the work by architect consulting Engineer structural engineer and D.P.P. authorities or their representatives.
- 5) The contractor is to allow for general attendance upon sun contractor including the free use of plot and scaffolding and the provision and special scaffolding required and is allow their operative the use of latrine water closest mess room & lock up shop for each.
- 6) The contractor is to set up and level the work and will be responsible for the security of same. He is approved all instruments and attendance require by the Architect consulting Engineer and University authorities or their representatives for checking their work.
- 7) The Contractor is to cover up[and protected the works from weather and is to suspend all set operations during weather which is in the Engineer/Architects opinion will be determental to the work.

8) The contractor is to allow for general foreman to be constantly on the works through out the period of their execution and for supervision as required under the conditions of contract.

9) The contractor shall provides erect and maintain proper shades and temporary buildings for the storage and protection of materials etc. and for the execution of works which may be fabricated or brought on the site.

10) The contractor shall provide and erect and maintain proper shade mess rooms for the operatives with adequate lighting attendance etc.

11) The contractor shall provide and erect in approved positions all necessary sanitary conveniences with the rules and regulations of the authority maintain in a clean and or dearily condition.

12) The Contractor shall provide erect and maintain on office for the general foreman with desk drawers etc and adequate lighting and attendance.

13) The contractor shall provide erect and maintain for the Engineer in charge with desk drawers on office etc. and adequate lighting and attendance.

14) The Contractor shall provide erect and maintain office with desk, drawers etc. and adequate lightening and attenance for the architects representatives.

15) The contractor shall allow for paying all rates, takes and others charges which may be made by local or other authorities in the condition with offices sheds and other temporary building erected fro the purpose of the contractor.

16) Board:

A board of size approximately 8' X 6' as per drawings shall be made be up to at approved place on the site. This board shall be pointed in approved colours the name of :

1. The Proposed construction and the employer.
2. The Architects.
3. The buildings contractors.
4. The structural consultants.
5. Any other specialist consultant and
6. Consulting Engineer as directed by the Architects. This shall be provided the contractor at his own expenses.

17) Samples of each class of materials and workmanship at be submitted by the contractor for the approval of the Engineer /Architects and after such approval these samples shall be

deposited in the office of the Engineer incharge and the contractor will be required to Perform all the works of his contract in accordance with these samples.

18) If the contractor wants to make any item No. of at his workshop or at any other place and not on site written application for permission to do so shall have to be submitted to the Engineer Incharge /stating clearly the item of work place of its making etc. If the said application is rejected by the Engineer incharge the same item of work shall have to be carried out on site at no extra cost.

19) On completion all works must be cleaned down rubbish removed and the works and land cleared of rubbish surplus materials and other accumulations and ever their left in a clean and orderly condition./The contractor shall to this work at his own expenses as per the instructions of the Engineer in charge.

20) The contractor shall prepare a sample of any work required by the Engineer/Architects and get in the Engineer/architects approval before proceeding with the quantity work. The contractor from sthe site at his cost shall remove the rejected sample. The contractor shall not be eligible for any compensation for preparing for removing the sample.

21) No extra shall be paid on any item on account of the floor lead except where specifically mentioned.

22) All quantities mentioned in the schedule of quantities are only approximate and the contractor shall not be eligible for any claim due to any variation in or commission of any item of works.

Contractors Signature

Executive Engineer

Place :

Date:

-: ANNEXTURE - 'A' :-

Rates of different materials and site required for the excavation of work s per specification & wages of labours for the satisfaction completion of the work as per details

Specification:-

(A) For labour :	Category	Rate /Unit
i) Skilled labour	Mistry grade – I Maission grade – I Carpenter grade –I Plumber grade – I Black smith grade – I Wiremen grade – I Painter Any other if required	
ii) Semi skilled labour	Bhisti Maission grade – II Carpenter – II Plumber grade – II Black smith grade –II Any other if required white washer	
iii) Unskilled labour	Male helper Female helper	

(B) **For materials:**

Sr. No	Materials	Unit	Rate /Unit	lead in kms
1	Cement	M/.Tonne		
2	Conventional brick	1000 Nos		
3	Coarse sand	Cumt		
4	Fine sand	Cumt		
5	Kapchi 12mm to 20mm size	Cumt		
6	Bricks bats	Cumt		
7	Lime	Kg		
8	Water proof cement paint	Kg		
9	Oil paint	Litre		
10	French polish	Litre		

Executive Engineer

ANAND AGRICULTURAL UNIVERSITY
ANAND

Details regarding works executed / on hand by the contractor

- | | | | |
|----|--|-----------------------|------|
| 1) | Name of the firm | | |
| 2) | Partners | : | |
| 3) | Qualified staff | : | |
| 4) | Tools, plants & Equipments | : | |
| 5) | Important works | : | |
| A) | Carried out as so far | Employer
Architect | Cost |
| B) | On hand | | |
| 6) | Additional information if any | : | |
| 7) | Rate analysis with basic rates
of materials for major tender item | : | |

Contractor

Executive Engineer

Item No. 9 :

Providing & Fixing 0.80 mt. high barbed wire fencing with 1.70 mt long MS angle 40 x 40 X 6mm size as a pole having 0.80mm straight and 0.45 mt both side inclined part as per detail drawing design fixed at 3.00 m c/c in CC 1:2:4 as per drawing in CC block with seven horizontal line and four diagonal as per drawing using 12x14 TATA make GI barbed wire weighting app. 9.38 kg/100 mt strained and fixed with GI staples including one coat of premix red lead paint and two coat of synthetic enamel oil paint of approved brand, shade and make etc complete as directed by engineer in charge.

The work shall be carried out in general specification of PWD hand book 701-I & II latest addition and as per the general instruction given by Engineer in charge during the execution of the work and as per drawing.

Fixing post & struts : Post & struts shall be of M.S. angle of size 40x40x6mm size shall be used those shall be require shape size and shall confirm to I.S. 226-1985. The M.S. angle shall be free from the defects and shall have a smooth finish. The angle shall be free from loose mill scale , rust pits & other defects affecting the strength and durability M.S. angel shall be fixed at 3.00 mt. c/c distance & double at expansion joint or at turning and embed in wall and CC block trough coping fixing angle post shall be done in true line level during casting of CC block & then casting of coping shall be done so, that the post of struts rigidly fixed in wall. The M.S. angle post shall be inclined both side 0.45 mts. and 0.80 mt. straight as per detailed drawing and directed by Engineer in charge. The M.S. angle post shall be painted with one coat of primer with approved brand red oxide paint & two coats of synthetics enamel oil paint of approved quality brand and shade. The detailed specification of oil painting over new steel surface.(CC block will paid separately)

Fixed of barbed wire :- The barbed wire shall be galvanized steel confirm to I.S. 278-1978 of weighting not less than 9.39 kg/Rmt stretched & fixed in number of seven(three + two +two) horizontal rows or as specified & four diagonals rows to the post. The bottom raw shall be 0.10 m above wall and rest at suitable distance , center to center or as directed by Engineer in charge. The diagonals shall be starched between adjacent post from top wire of straight part of one post to the bottom part of 2nd post.

The barbed wire shall be fixed to the M.S. angle post hole by means of G.I. bonding wire or G.I. staples true block & straining bolts shall be used at end posts as directed.

Measurement :- The length of fencing shall be measured correct to @ C.M. for the finished work from center to center of the posts.

Rates :- The rate shall be in running meters units. It shall include the cost of labour involved and all required materials, curing etc complete.