






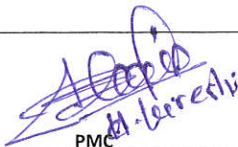
 NCC Limited	NCC LTD.				
	STATE WATER AND SANITATION MISSION				
	CLIENT: JJM / SWSM / DWSM				
GORAKHPUR-UP					
SIEVE ANALYSIS OF PEA GRAVELS (SIZE-1.6 mm to 4.8 mm)					
(As per IS : 460 and IS: 4097)					
Date of Testing :	20/10/2021				
Test report no :	NCC/EXT-5/08/021				
SL NO.	DESCRIPTION	OBSERVATIONS			
1	Source of material :	Lalkwan, Uttarakhand.			
2	Location :	Block Name-	BELGHAT		
		G.P Name-	GAUR GANJ.		
3	Date of sampling :	79/10/2021			
4	Lab. Test no :	21			
5	Sample no. :	21			
6	Total wt. of sample (gm) :	1000gm			
SIEVE ANALYSIS					
IS Sieve Size	Wt. retained (gm)	Cumulative wt. Retained (gm)	Cumulative % wt. Retained	% passing	Acceptable / Not Acceptable
6.3 mm	82	82	8.2	91.8	OK
4.75 mm	160	242	24.2	75.8	OK
2.36 mm	668	910	91.0	9.0	OK
1.18 mm	84	994	99.4	0.6	OK
Pan	06	1000			
Total(gm)=					
The Hardness of Material is= 8					
Note:- The Hardness value should not be less than 5 in Moh's scale.					
 NCC LTD.		 PMC/TPIA		 CLIENT	

	NCC LTD.		
	STATE WATER AND SANITATION MISSION		
	CLIENT: JJM / SWSM / DWSM		
CONSULTANT: Medhaj Techno Concepts Private Ltd.			
SPECIFIC GRAVITY OF PEA GRAVELS- 1.6 mm to 4.8 mm			
As per IS : 2386 (Part-3)			
Date of Testing-	20/10/2021		
Test report no -	NCC/GK/5/08/2021		
SL NO.	DESCRIPTION	OBSERVATIONS	
1	Source of material :	Lalkuan, uttarakhand.	
2	Location :	NAME OF THE BLOCK -	BELCHAT
		NAME OF THE GRAM PANCHAYAT -	GAUR-GANJ
3	Date of sampling :	19/10/2021	
4	Lab. Test no :	21	
5	Sample no :	21	
SPECIFIC GRAVITY TEST AT ROOM TEMPERATURE			
6	Weight of the Jar, W1 (gm)=	355	
7	Weight of Jar + Gravel, W2 (gm)=	565	
8	Weight of Jar + Gravel + Water, W3 (gm)=	987	
9	Weight of the Jar + Water, W4 (gm)=	850	
10	Specific Gravity =	$\frac{W2 - W1}{(W2 - W1) - (W3 - W4)}$	$\frac{210}{73} = 2.876$
Note : The Specific Gravity should not be less than 2.5			
			
NCC LTD.		CLIENT: Babbar yadav	



TECHPRO ENGINEERS PVT. LTD.

(Laboratory Division)

Lab Add. 131, Ram Ganga Housing Society, Naramau, Kanpur- 209217,

Tel.: 0512-2525759, 09793209918, Web site: www.techproindia.com

e-mail: tepllab@gmail.com, info@techproindia.com,

Doc No.: TEQR-36C, Issue No.: 02, Issue Date: 18/08/20, Rev. No. : 01, Rev. Date: 10/12/2020

TEPL/MT/2020-21/117

Dated: 11.10.2021

TEST REPORT

Name of Customer	:	Jal Nigam, Gorakhpur
Project	:	SWSM-JJM Project (Har Ghar Jal Mission) at Gorakhpur.
Reference No.	:	SWSM-UP/GKP/QC/TPE/001
Sample supplied to Lab by	:	Customer representative
Name of Contractor/ Agency	:	NCC Ltd.
Sample Particulars	:	Pea-Gravel

Sample Receipt Date	:	08-10-2021	Job No.	:	MT117/1
Condition of sample	:	Satisfactory	SRF No.	:	2021/55
Type of Sample	:	Pea-Gravel	ULR No.	:	NA
Source of sample	:	Lalkuan (Uttarakhand)	Period of Testing	:	08/10/2021 to 11/10/2021

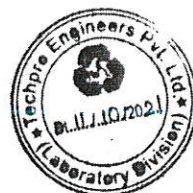
Terms & Conditions:

1.	Results relate only to the test sample provided by customer.
2.	This report is under copyright of Techpro Engineers Pvt. Ltd. (Laboratory Division) and is not to be reproduced, copied, handed over third party or used for any purpose other than for which it has been loaned.
3.	The tested samples are retained for three months after issue of test report (if not collected by customer).
4.	The unique identification of sample is as Job No. / Chainage No. /BH. No./SI. No. But only SI. No is mentioned in results.



Checked By:

(Technical Manager)



Approved By:

Arvind Kumar Garg
(Quality Manager)



TECHPRO ENGINEERS PVT. LTD.

(Laboratory Division)

Lab Add. 131, Ram Ganga Housing Society, Naramau, Kanpur- 209217,

Tel.: 0512-2525759, 09793209918, Web site: www.techproindia.com

e-mail: tepplab@gmail.com, info@techproindia.com,

Doc No.: TEQR-36C, Issue No.: 02, Issue Date: 18/08/20, Rev. No. : 01, Rev. Date: 10/12/2020

I. PHYSICAL TEST RESULT

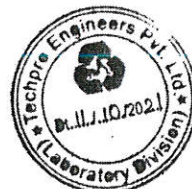
Sample Unique ID: MT117/1

Sl. No.	Particular of Test	Test-1 Passing %	Test-2 Passing %	Avg. Passing %	Test Method	Remark	
1.0	Sieve Analysis (% by weight)	6.3 mm	100	100	100	IS 2386 (Part-1)-1963, RA-2016	-
		4.75 mm	49.928	52.412	51.17		
		3.35 mm	18.992	23.930	21.461		
		2.00 mm	13.116	17.926	15.521		
		1.18 mm	6.412	8.016	7.214		
		0.600 mm	2.562	3.410	2.986		
		0.300 mm	0.164	0.818	0.491		
		0.150 mm	0.134	0.354	0.244		
		0.075 mm	0.092	0.254	0.173		
2.0	Elongation Index (% by weight)	0.0	0.0	0.0	IS 2386 (Part-1)-1963, RA-2016	Partical Size >6.3	
3.0	Hardness Test (Number)	7.40	8.66	8.00	IS 13630 (Part-13)-2006	-	
4.0	Specific Gravity	2.66	2.66	2.66	IS 2386 (Part-3)-1963, RA-2016	-	



Checked By:

(Technical Manager)



Approved By:

Arvind Kumar Garg (Quality Manager)



TECHPRO ENGINEERS PVT. LTD.

(Laboratory Division)

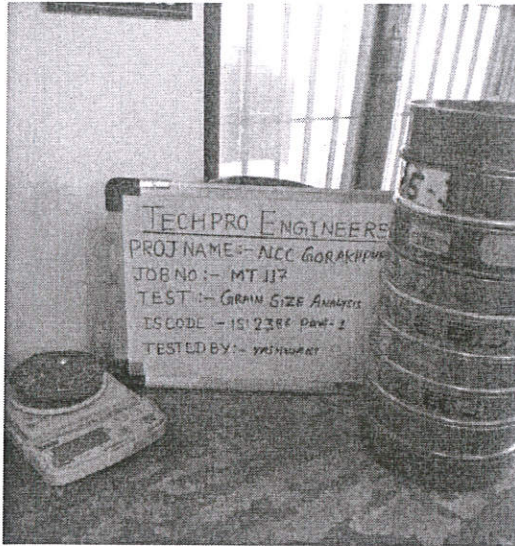
Lab Add. 131, Ram Ganga Housing Society, Naramau, Kanpur- 209217,

Tel.: 0512-2525759, 09793209918, Web site: www.techproindia.com

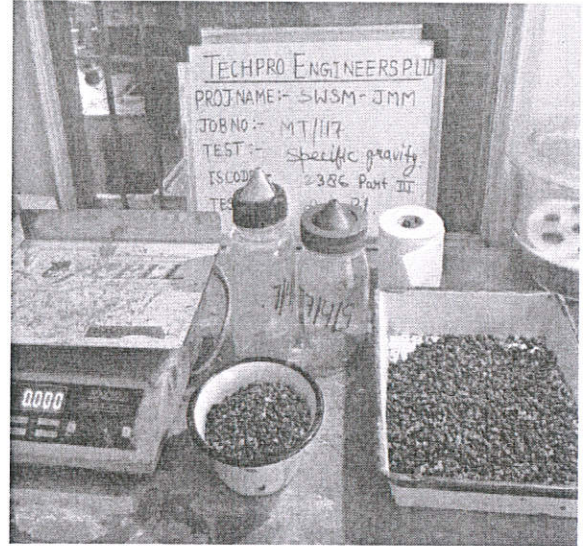
e-mail: tepllab@gmail.com, info@techproindia.com,

Doc No.: TEQR-36C, Issue No.: 02, Issue Date: 18/08/20, Rev. No. : 01, Rev. Date: 10/12/2020

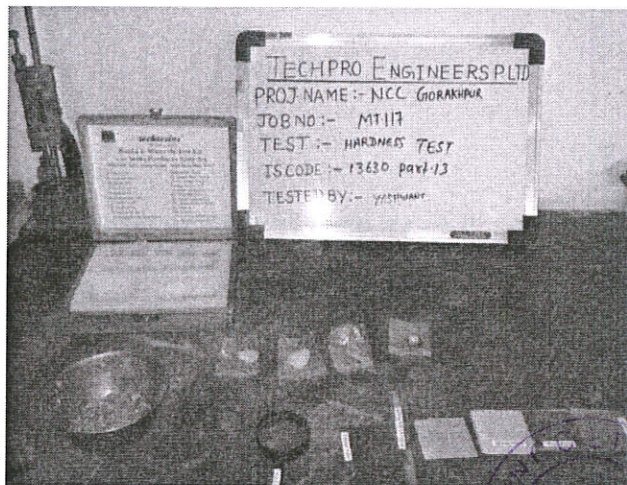
PHOTOGRAPHS



SIEVE ANALYSIS



SPECIFIC GRAVITY



HARDNESS TEST



Checked By:

(Technical Manager)



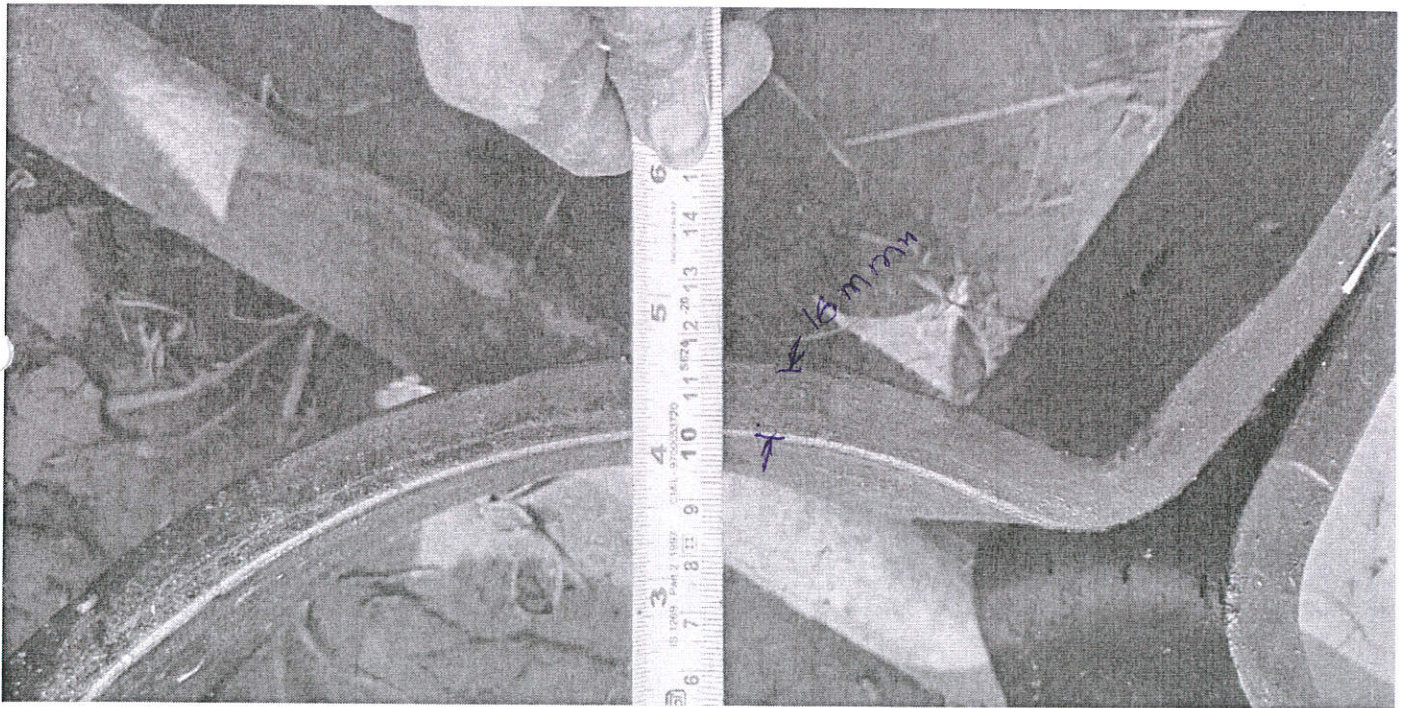
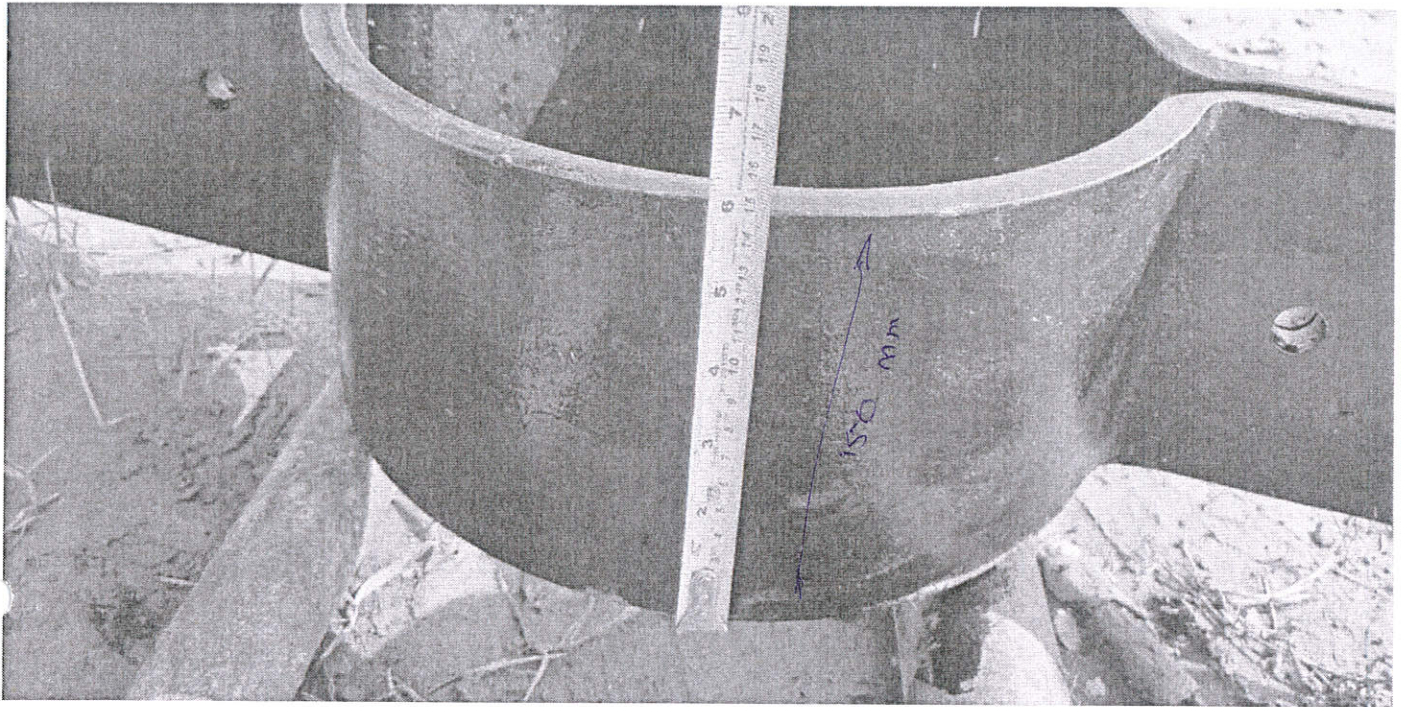
Approved By:

Arvind Kumar Garg
(Quality Manager)

END OF REPORT

Gaur Ganj

Snap - 1 - Clamp.





NCC SWSM PROJECTS – UP – GORAKHPUR

Project Name : Survey, Design, Preparation of DPR, Construction, Commissioning and O&M for 10 years of Various Rural Water Supply Project in the State of Uttar Pradesh – Gorakhpur District
 Client : SWSM/DWSM-UP-GKP
 Consultant : Medhaj Techno Concept Pvt. Ltd.
 Contractor : NCC Limited

Request For Inspection

RFI No:	SWSM-UP-GKP/S/ TW/20/R ₁	Date And Time - 24/10/21	
Description:	Compliance		
Location:	Block - Belghat G.P. - Gram Gony		
Preceding RFI No.	SWSM-UP-GKP/S/ TW/20		
Commencement of work:	24/10/21		
Submitted By:	Ajay Kumar		
Signature:	<u>Aj</u>		
Designation:	JE Civil		
Concessionaire:	Proceed	Hold	
Name:			
Designation:			
Comments:	<p>①</p> <p>② Pipe clamp is 150mm flat & 18mm thick.</p> <p>③ Bail Plug found as per standard.</p> <p>④ welding is satisfactory.</p> <p>⑤ per General was not stacked in proper way</p> <p>⑥ 2-coat painting not done with anti corrosive paint.</p>		

Aj
 Signature
 Contractor Representative

A. K. Singh
 Signature
 Consultant Representative

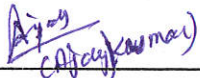
 Signature
 Client Representative

NCC**SWSM PROJECTS – UP – GORAKHPUR**

Project Name : Survey, Design, Preparation of DPR, Construction, Commissioning and O&M for 10 years of Various Rural Water Supply Project in the State of Uttar Pradesh – Gorakhpur District
Client : UP – JAL NIGAM
Consultant : Medhaj Techno Concept Pvt. Ltd.
Contractor : NCC Limited

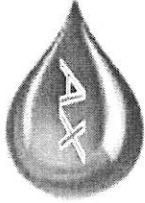
Request For Inspection

RFI No:	SWSM-UP-GKP(S)/TW/20	Date / Time 23-10-2021	
Description:	Lowering of Pipe with assembly and filling of P-Gravel.		
Location:	Block- Belghat, GP, Gaur Ganj.		
Preceding RFI No.			
Commencement:	24-10-2021.	Position:	
Submitted By:	Sanjay Kumar Singh.	DAM [MEA]	
Signature:		Date	Time
Concessionaire:		Proceed	Hold
Comments:	<p>① Pca Gravel not stacking in proper way. ② 2 coat painting not done with anti corrosion paint ③ Bail plug not as per standard. ④ Pipe clamp MS flat 125mm It should be 150 ⑤ welding defects found on pipe and ring welding</p>		
APPROVED			


 Signature
 Contractor Representative


 Signature
 Consultant Representative


 Signature
 Client Representative



Aqua Xplore

(Groundwater Assessment & Allied Services)

243/5, New Colony Jiyamau, Hazratganj, Lucknow – 226001

Mob. 9918202546 / 9889323322, Email-aquaxplorelko@gmail.com

Advisor- Dr. R. A. Yadav, ex- Manager(Groundwater), U. P. Jal Nigam

Ref 1023 - G/ AX- 2021

Date 23.10.2021

Geophysical Borehole Logging Report

Name of the site : Gaur Ganj, Block- Belghat

District : Gorakhpur

Date : 23.10.2021

Depth logged : 138.0 mbgl

Depth drilled : 145.0 mbgl

Logged by : Aqua Xplore

Presence : Representative of M/S NCC Limited, Gorakhpur - South

Based on the interpretation of geophysical logs, following information may be deciphered, particularly with respect to salinity of the formation water;

Sl.No.	Depth range(mbgl)	Thickness(m)	Remarks
1	16.0--20.0	4.0	Good all
2	40.0--56.0	16.0	
3	80.0--102.0	22.0	
4	122.0--132.0	10.0	

Note. Sl. No. 3 is intermixed with kankar.

for Aqua Xplore

CC;

1. Executive Engineer, C.D. (E/M), U.P.Jal Nigam, Gorakhpur.
2. M/S NCC Limited, Gorakhpur –South, SWSM.

BORE WELL DEVELOPMENT CHART (E/M)

SWSM/DWSM
NCC LTD.- GORAKHPUR (UP)

NAME OF THE DISTRICT- GORAKHPUR
NAME OF THE BLOCK- BELGHAT
NAME OF THE GRAM PANCHAYAT- CHAKUR CHAW
NAME OF THE VILLAGE-

TYPE OF RIG M/C- RL
SIZE OF BORE- 500 mm ϕ
STATIC WATER LEVEL- 12 MTR
J.E Incharge E. Nandy (Nandy) A.E Incharge E. Babbar Yadav

DEPTH B.G.L. IN METER	BORING CHART	STRATA	EXECUTED ASSEMBLY	ASSEMBLY DETAILS
0M			AGL-0.50 NGL	200 mm Dia Housing Pipe A.G.L.- 0.50 m
				200 mm Dia Housing Pipe m to 36.02 m
				200/150 mm Dia Reducer 35.52 m to 35.72 m
				150 mm Dia BLIND pipe 35.72 m to 89.38 m
16.0M		SANDY CLAY		150 mm Dia SLOTTED pipe 89.38 m to 101.42 m
		MEDIUM SAND		150 mm Dia BLIND pipe 101.42 m to 125.50 m
22.0		CONCRETE CLAY		150 mm Dia SLOTTED pipe 125.50 m to 131.51 m
		SANDY CLAY		150 mm Dia BLIND pipe 131.51 m to 137.56 m
32.0		SANDY CLAY	35.5 2MTR 35.72 MTR	
		MEDIUM SAND		
42.0		MEDIUM SAND		
		CONCRETE CLAY		
56.0		CONCRETE CLAY		
		SANDY CLAY		
68.0		SANDY CLAY		
		MEDIUM SAND WITH KANKAR	89.38 MTR	
84.0		MEDIUM SAND WITH KANKAR		
		CONCRETE CLAY	101.42 MTR	
104.0		CONCRETE CLAY		
		MEDIUM SAND	125.50 MTR	
124.0		MEDIUM SAND		
		MEDIUM SAND	131.51 MTR	
134.0		MEDIUM SAND		
		CLAY	137.56 MTR	
145.0		CLAY		
			BAIL PLUG	

Total Assembly = 137.56 m + A.G.L (m) = 0.50 = 138.06 MTR

ABSTRACT

1. Drilling Started- 18/10/2021
2. Drilling Completed/Lowering- 22/10/2021
3. Drilling Depth (m)- 145.0 MTR
4. Assembly Lowered (m)- 138.06 MTR
5. Housing Pipe (m)- 36.02 MTR
6. Plain Pipe (m)- 83.99 MTR
7. Slotted Pipe (m)- 18.05 MTR
8. Reducer (m)- 0.20 MTR

LOGGING REPORT

- 1- 16 - 20 → 4.0 MTR
- 2- 40 - 56 → 16.0 MTR
- 3- 80 - 102 → 22.0 MTR
- 4- 122 - 132 → 10.2 MTR
- 5-
- 6-
- 7-
- 8-
- 9-
- 10-

SOUND TEST-

VERTICALITY TEST-

(Signature) NCC LTD. (Signature) J.E & A.E (Signature) F.M.C.T.P.I.A. (Signature) E.E

CIN :U28111DL2006PTC148810

ISO 9001:2015

DADU PIPES (P) LIMITED

Manufacturers & Exporters of MS ERW Black Pipes, Steel Tubular Poles & Hollow Sections



Corporate Office : C-101, Dadu Dayal House, RDC, Raj Nagar, Ghaziabad-201002 (U.P.) India.

Email : info@dadupipes.com, Website : www.dadupipes.com

Regd. Office : B-231, Okhla Industrial Area, Phase-1, New Delhi-110020

Contractor Name: NCC Limited

Client Name: State Water and Sanitation Mission

Project Name: Gorakhpur South Project

PO No.: NCC/ROK/SWSMUP-G(S)/PO/23 Dt.: 19.08.2021

TECHNICAL DATASHEET OF STEEL TUBES USED FOR WATER WELLS

S.No.	Parameter	Unit	Requirement	Vender data
1.	Name of Manufacturer			M/S Dadu Pipes Ltd
2.	Ref IS No.		IS:4270-2001	IS:4270-2001
3.	Type		ERW/HFIW	ERW/HFIW
4.	Ends (Plain/Bevel/Screwed)		Plain	Plain
5.	Size	mm	300mm, 200mm, 150mm	300mm, 200mm, 150mm
6.	Specified Thickness	mm	7.1mm	7.1mm
7.	Tolerance on thickness	%	As per BIS	As per BIS
8.	Tolerance on OD	mm	± 1% of OD	± 1% of OD
9.	Length of Pipe	Mtr.	As per order	As per order
10.	Tolerance on Mass	%	± 10%	± 10%
11.	Tensile strength	MPa	410 MPa (Min.)	410 MPa (Min.)
12.	Yield Strength	MPa	235 MPa (Min.)	235 MPa (Min.)
13.	Elongation percent	%	15% (Min.)	15% (Min.)
14.	Flattening Test	%	On weld = 66% remaining On material = 33% remaining	On weld = 66% remaining On material = 33% remaining
15.	Embossing details	--	Embossing on every metre of Manufacturer Name/logo, IS:4270, Grade & ISI Logo with CM/L No. and Size. Thickness. Grade & Batch No. stenciling on each pipe	Embossing on every metre of Manufacturer Name/logo, IS:4270, Grade & ISI Logo with CM/L No. and Size. Thickness. Grade & Batch No. stenciling on each pipe
16.	Bituminous Coating	°C	At 0°C & 65°C	At 0°C & 65°C
17.	Bead Height	%	60% Max. of specified thickness	60% Max. of specified thickness
18.	Straightness	mm	Max. 1 in 600 of any length	Max. 1 in 600 of any length
19.	Make of Steel		Tata/SAIL/Reputed make	SAIL TC to be submitted
20.	Chemical composition certificate	%	As per IS: 10748, Grade-3	Raw material certificate & manufacturer test certificate to be provided
21.	Leak Proof Test	MPa	7 MPA for at least 5 sec.	7 MPA for at least 5 sec.

For Dadu Pipes (P) Ltd.

Auth. Signatory



Recommended for approval with condition that
negative tolerance in thickness is not allowed

A.E. 73
C.D. (E/M) UPJN
Gorakhpur



अधीक्षण अभियन्ता
23वां मण्डल (वि०
उ० प्र० जल निगम)
अयोध्या

DADU PIPES PVT. LTD.

A-72, Industrial Area, Sikandrabad, Bulandshahar (U.P.)

QUALITY PLAN FOR ERW M.S. ERW PIPES (DADU MAKE)

SIZE :- 100 MM NB TO 300 MM NB CONFORMING AS PER IS:4270-2001.

Contractor Name:- NCC Limited.

Client Name:- UP Jal Nigam

Project Name:- State Water & Sanitation Mission Gorakhpur

DOCUMENT NO. DPPL/OP/01

REV. 0

NO. OF PAGES 2

PAGE NO. 1/2

Sr. No.	Component/ Operation	Characteristics	Class	Type of Check	Extent of Check	Reference Document	Acceptance Norms	Format of Records	Scope of Inspection		Remarks	
									DPPL	TPI (If Any)		
1	RAW MATERIALS H/R CIOL SKELP	1 CHEMICAL COMPOSITION	4 MAJOR	5 CHEMICAL ANALYSES	6 VERIFICATION OF SUPPLIER T.C	7 IS:10748 & IS:4270	8 AS PER IS:4270	9 SUPPLIER TC & DPPL TEST REPORT	10 SUPPLIER/ DPPL QC	11 R	12	
		2 PHYSICAL PROPERTIES	MAJOR	MECHANICAL	DPPL QC REPORT	DO	DO	DO	DPPL QC	R		
		3 DIMENSIONS THICK & WIDTH.	MAJOR	DIMENSIONAL	100%	DO	DO	DO	DPPL TEST REPORT	DO	R	
		4 VISUAL	MINOR	VISUAL	100%	DO	DO	DO	DO	DO	R	
2	IN PROCESS INSPECTION	1 DIMENSIONS DIAMETER	CRITICAL	DIMENSIONAL	ONE HOUR PRODUCTION	AS PER IS:4270	DO	DPPL TEST REPORT	DPPL QC	R		
		THICKNESS	--DO--	--DO--	DO	DO	DO	DO	DO	DO	R	
		LENGTH	MINOR	--DO--	DO	DO	DO	DO	DO	DO	R	
		WEIGHT	--DO--	--DO--	DO	DO	DO	DO	DO	DO	R	
		STRAIGHTNESS	--DO--	--DO--	DO	DO	DO	DO	DO	DO	R	
		SURFACE & END FINISH	--DO--	--DO--	VISUAL	DO	DO	DO	DO	DO	R	
		PLAIN, BEVEL / SCREWE AND SOCKET	--DO--	--DO--	VISUAL	DO	DO	DO	DO	DO	R	
		AND SOCKET	--DO--	--DO--	VISUAL	DO	DO	DO	DO	DO	R	
		2 PHYSICAL PROPERTIES FLATTENING / BEND	CRITICAL	MECH. TEST	TWO SAMPLE PER SHIFT	DO	DO	DO	DO	DO	R	
		TENSILE STRENGTH	--DO--	--DO--	DO	DO	DO	DO	DO	DO	R	
		3 PRESSURE / LEAK TEST	MAJOR	HADRAULIC TEST	100%	DO	DO	DO	DO	DPPL TEST REPORT	DO	R
		4 WORKMANSHIP & PROTECTIVE COATING	MAJOR	VISUAL	RANDOM	AS PER IS:4270	AS PER IS:4270	AS PER IS:4270	AS PER IS:4270	REPORT	DO	R

AE

E.E.

200

7. NO.	COMPO-NENT/ OPERATION	3	4	5	6	PAGE NO.		9	10		11
						7	8		12	13	
1	FINAL INSPECTION	1	DIMENSIONAL	MAJOR	MEASUREMENT & VISUAL	IS:4711-2078	— DO —	— DO —	— DO —	— DO —	W
2		TENSILE & BEND / FLATTENING	CRITICAL	MECHANICAL TEST	As Per IS:4270	— DO —	— DO —	— DO —	— DO —	W	
3		LEAK TEST	MAJOR	HYDRAULIC TEST	IS	AS PER IS:4270	AS PER IS:4270	— DO —	— DO —	W	
4		IDENTIFICATION & MARKING	MAJOR	VISUAL	— DO —	— DO —	— DO —	— DO —	— DO —	R	
5		WORKMANSHIP	MAJOR	VISUAL	— DO —	— DO —	— DO —	— DO —	— DO —	W	

NOTE: WE GIVE OUR MANUFACTUR TEST CERTIFICATE.

R = REVIEW OF DOCUMENT
W = WITNESS
V = VERIFICATION

PREPARED BY— Deep Naresh Singh
QUALITY CONTROL ENGINEER
DABU PIPES (P) LIMITED

APPROVED BY—



Recommended

A.E. C.D. (E/M) UPJN
E.E. Gorakhpur

अधीक्षण अधिकारी
23वाँ मण्डल (वि०/११)
उ० प्र० जल निगम
अयोध्या

TUV INDIA PRIVATE LIMITED

INSPECTION RELEASE NOTE / CERTIFICATE

IRN -8116448356-NCC/ROK/SWSMUP-G(S)/PO/23- Sr. No 1.- Rev. 00



TUV India Control Or SAP Number: 8116448356 Date: 01-09-2021

Project Name & Location: SWSM-Gorakhpur-South Project Gorakhpur (U.P) TUV India Branch Name: Noida

TUV India Client Name: M/S. DADU PIPES PVT LTD End User Name: NCC LIMITED

Contractor Name & Location: NCC LIMITED

Vendor Name & Location: M/s. Dadu Pipes (P) Ltd. A-72, Ind. Area, Sikandrabad Bulandshahar (U.P) P.O. Number: NCC/ROK/SWSMUP-G(S)/PO/23 DT:-19.08.2021 (Client PO on Vendor)

Sub Vendor Name & Location: (If applicable) Not Applicable P.O. Number: Not Applicable (If applicable - Vendor PO on Sub Vendor)

Item Description:

PO Item No.	Item Code Item Description	UOM	P.O. Quantity	Offered Quantity	Accepted Quantity	Cumulative accepted Quantity
1	300 MM Dia MS ERW Plain pipe 6 Mtr Length, WT:7.1 MM Thick as per IS:4270 Plain end	Mtrs	462	474	462	462
2	200 MM Dia MS ERW Plain pipe 6 Mtr Length, WT:7.1 MM Thick as per IS:4270 Plain end	Mtrs	36	48	36	36
3	150 MM Dia MS ERW Plain pipe 6 Mtr Length, WT:7.1 MM Thick as per IS:4270 Plain end	Mtrs	180	192	180	180
4	MS ERW PLAIN END SLOTTED PIPE 150 MM Dia, Wt:7.10 mm conforming to IS:4270(Slotting as per IS:8110 & Zig Zag slots of length 75 mm x width 1.20 mm. & 780 Slot (+/- 10%) per Mtr	Mtrs	162	162	162	162

Reference Documents:

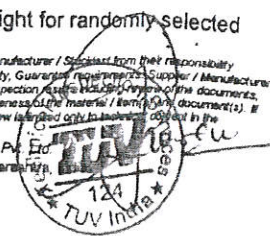
Sr. No.	Document Name	Client Document Number	Vendor Document Number	Approval Status
1)	PR / MR / ARM	Not Applicable	Not Applicable	Not Applicable
2)	QAP / ITP / QCP	DPPL/443/QP/01 Rev 0	Not Applicable	Not Applicable
3)	Drawing(s)	Not Applicable	Not Applicable	Approved by client
4)	Datasheet(s)	Not Applicable	Not Applicable	Not Applicable
5)	Procedure(s)	Not Applicable	Not Applicable	Not Applicable
6)	Others (Specify)	IS 4270, IS 8110, IS 4711	Not Applicable	Not Applicable
				Approved

Stages Witnessed:(For PO sr.no 4- Scope as per QAP sr. no 3.1, 3.4,3.5 only & All for rest)

- 1) Total offered quantity verified.
- 2) QAP Sr.No 3.5 Visual inspection done for surface defects, workmanship and protective coating for all items- found satisfactory.
- 3) QAP Sr.No 3.1 Final dimension inspection done Thickness, Outer Diameter, Length & weight for randomly selected

Disclaimer: The inspection by TUV India Pvt. Ltd., review of Test Certificates / Reports and issue of Inspection Release Note / Certificate does not relieve Client / Supplier / Manufacturer / Subcontractor from their responsibility towards the Client / End User to supply the genuine material / Item(s) and document(s) in full compliance with applicable Order, Specification, Technical, Quality, Warranty, Guarantee requirements. Supplier / Manufacturer / Subcontractor is wholly legally responsible for genuineness of the material / Item(s) supplied and document(s) submitted. TUV India's responsibility is only limited to correctness of inspection. TUV India is not responsible for the documents, the calibration certificate(s) for the measuring instrument(s) / equipment(s) used during inspection do not have traceability to NABL / Other certifying bodies, then the scope of review is limited only to the extent stated in the calibration certificate.

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Salient Feature

Name of the State : Uttar Pradesh
 Name of the District : Gorakhpur
 Name of the Block : Belghat
 Name of the Programme : Jal Jeevan Mission
 Name of the Gram Panchayat : Gaur Ganj
 No. of Village/Habitations : 1

Table 1: List of village and Habitation

District	Sub District	Block	Gram Panchayat	2011 Census Code	Revenue Village	Habitat ion Sr. No	Habitation Name
Gorakhpur	Gorakhpur	Belghat	Gaur Ganj	187345	Gaur Ganj	1	Gaur Ganj

Table 2: Gram Panchayat Population Summary

S. NO.	DESCRIPTION	TOTAL	SC/ST	HOUSE HOLDS
1	As Per Census 2011	1241	63	198
2	Initial Stage 2022	1771	90	283
3	Intermediate Stage 2037	2919	148	466
4	Ultimate Stage 2052	4557	231	727

Rate of Water Supply : 64.70 LPCD (Added 15 % losses over 55 LPCD)
 Nature of Sources : Ground Water
 Source of Development : Tube Well
 Daily Water Demand Summary :
 a) Initial Year 2022 : 115KLD
 b) Intermediate Year 2037 : 189 KLD
 c) Ultimate Year 2052 : 295KLD
 Number of Tube Wells : 1
 Nature of Treatments : Chlorinator through HDPE Tank (100L) and Dosing metering pump (0-6LPH)
 Average Dosing Capacity : 0.50 PPM
 Pumping plant for Tube Well
 a) No. and Type of Plant : 2
 b) Anticipated Discharge : 500LPM
 c) Total Working Head : 44m
 d) Motor (HP) : 12.5 HP



Service Storage

- a) Quantity : 1
b) Capacity : 150 KL
c) Staging : 15m

Pipeline Summary

Table 3: Rising Mains

Pipeline Type	From	To	Material	Class	Diameter (mm)	Length (m)
Rising Mains	TW - 1	OHT-1	DI	K-9	100	35
Total Length of Rising Main (m)						35

Table 4: Distribution Network Summary

Sr.No.	Pipe Material	Pressure Class	Diameter	Length (m)
			(mm)	
1	HDPE, PE100	PN6	63	3,125
2	HDPE, PE100	PN6	75	1,283
3	HDPE, PE100	PN6	90	86
4	HDPE, PE100	PN6	110	242
5	HDPE, PE100	PN6	125	67
6	HDPE, PE100	PN6	140	141
7	HDPE, PE100	PN6	160	62
Total Pipe Length (m)				5006

Estimate for Gaur ganj Gram Panchayat
Water Supply Scheme
Under - SWSM
Block- Belghat District- Gorakhpur

BOQ Item No.	Description	Unit	Qty	Rate	Amount
	Survey, Design & Preparation of DPR				
1.01	All the works including Hydrological survey, topographical survey, Design charges including preparation and approval of DPR	LS	1.00	190155.00	190155
2.00	Drilling of Borehole for Tubewell construction by DC/RC/DTH Rig Machine including transportaion, erection, dismantling of Rig and assosiated T&P complete in all respect including required all material labour etc.				
	RIG Transportation for Tube Well Construction				
2.01	Transportation, Installation Dismantling of Rig machine and logging of bore hole	Job	1.00	159478.88	159479
	Tube Well Construction- Drilling of Borehole				
	DC/RC Drilling up to 100Mtr.				
2.03	400 MMØ	Mtr.		1638.27	
2.04	450 MMØ	Mtr.		1834.20	
2.05	500 MMØ	Mtr.	100.00	2013.00	201300
2.06	600 MMØ	Mtr.		2422.00	
2.07	DC/RC Drilling from 101 Mtr. To 200 Mtr.Deep				
2.08	450 MMØ	Mtr.		1960.88	
2.09	500 MMØ	Mtr.	45.00	2144.00	96480
2.10	600 MMØ	Mtr.		2510.25	
2.11	DC/RC Drilling from 201 Mtr. To 300 Mtr.Deep				
2.12	450 MMØ	Mtr.		2831.63	
2.13	500 MMØ	Mtr.		3014.75	
2.14	600 MMØ	Mtr.		3381.00	
2.15	DC/RC Drilling from 301 Mtr. To 400 Mtr.Deep & above				
2.16	450 MMØ	Mtr.		3319.35	
2.17	500 MMØ	Mtr.		3502.48	
2.18	600 MMØ	Mtr.		3868.72	
2.19	DTH Drilling upto 200.0 Mtr.Deep				
2.20	200/165 MMØ (in over burden/Hard Rock)	Mtr.		1250.00	
2.21	Development / Flushing of tubewell	Hr.		2900.00	
2.22	Tubwell Assembly (Supply + Fittings & Specials)				
3.01	MSERW plain pipe,As per IS 4270				
3.02	100 MMØ	Mtr.		927.50	
3.03	150 MMØ	Mtr.	76.00	1900.00	144400
3.04	200 MMØ	Mtr.	36.00	2550.00	91800
3.05	300 MMØ	Mtr.		3800.00	
3.06	MSERW Pipe slotted pipe as per IS 8110				
3.07	100 MMØ	Mtr.		1366.85	
3.08	150 MMØ	Mtr.	18.00	2800.00	50400
3.09	200 MMØ	Mtr.		3833.80	
3.10	300 MMØ	Mtr.		5188.59	
3.11	MS fittings such as clamp, bail plug, reducer, well cap, girder & support structure	LS	1.00	32295.00	32295
3.12	MS fittings such as ring & centre guide	RM	130.00	471.68	61318
	Tubwell Assembly Lowering Works				
	Lowering of above assembly with welding of parts complete in all respect with all required material, T&P, labour, etc.				
4.01	Lowering up to 100 Mtr. Deep				
4.02	100 MMØ MSERW Plane/Slotted Pipe	Mtr.		129.45	
4.03	150 MMØ MSERW Plane/Slotted Pipe	Mtr.	64.00	281.00	17984
4.04	200 MMØ MSERW Plane/Slotted Pipe	Mtr.	36.00	376.50	13554
4.05	300 MMØ MSERW Plain/Slotted Pipe	Mtr.		472.00	
4.06	Lowering from 101 Mtr. To 200 Mtr. Deep				
4.07	150 MMØ MSERW Plane/Slotted Pipe	Mtr.	30.00	376.00	11280

BOQ Item No.	Description	Unit	Qty	Rate	Amount
4.08	200 MMØ MSERW Plane/Slotted Pipe	Mtr.		499.19	
4.09	300 MMØ MSERW Plane/Slotted Pipe	Mtr.		745.58	
4.10	Lowering from 201 Mtr. To 300 Mtr. Deep				
4.11	150 MMØ MSERW Plane/Slotted Pipe	Mtr.		385.19	
4.12	200 MMØ MSERW Plane/Slotted Pipe	Mtr.		459.00	
4.13	300 MMØ MSERW Plane/Slotted Pipe	Mtr.		606.62	
4.14	Lowering from 301 Mtr. To 400 Mtr. Deep & above				
4.15	150 MMØ MSERW Plane/Slotted Pipe	Mtr.		426.53	
4.16	200 MMØ MSERW Plane/Slotted Pipe	Mtr.		499.00	
4.17	300 MMØ MSERW Plane/Slotted Pipe	Mtr.		643.94	
Supply and Packing of Gravel Works					
5.00	Supply and unconsolidated packing of gravel with suitable size	Cum	38.00	7500.00	285000
Development of Tube well					
6.01	Tranportation, Installation Dismantling of 150 PSI Compressor	Job		42120.00	
6.02	Charges for Development by 150 PSI Compressor per hour	Hr.		2544.52	
6.03	Tranportation, Installation Dismantling of 250/400/600 PSI Compressor	Job	1.00	42120.00	42120
6.04	Charges for Development by 250 PSI Compressor per hour	Hr.	60.00	3027.00	181620
6.05	Charges for Development by 400 PSI Compressor per hour	Hr.		3154.10	
6.06	Charges for Development by 600 PSI Compressor per hour	Hr.		4062.20	
6.07	Tranportation, Installation Dismantling of 0.5 Cusec OP Unit and Yield test, water test	Job		22321.28	
6.08	Charges for Development of TW by 0.5 Cusec OP Unit	Hr.		785.42	
6.09	Tranportation, Installation Dismantling of 1 Cusec to 3 Cusec OP Unit and Yield test, water test	Job	1.00	67225.00	67225
6.10	Charges for Development of TW by 1 cusec OP Unit	Hr.	100.00	959.00	95900
6.11	Charges for Development of TW by 3 cusec OP Unit	Hr.		1196.00	
6.12	Tranportation, Installation Dismantling of 2 Cusec OP Unit and Yield test, water test	Job		89317.00	
6.13	Charges for Development of TW by 2 cusec OP Unit	Hr.		1119.00	
Pumping Plant:-					
7.00	SITC of Pumping plant including pumps with motors starter, pannel, cable, complete in all respect with all required material T&P labour etc.				
7.01	1 HP	Nos		32518.98	
7.02	2 HP	Nos		35843.14	
7.03	3 HP	Nos		46249.21	
7.04	5 HP	Nos		65037.95	
7.05	7.5HP	Nos		228500	
7.06	10 HP	Nos		230200	
7.07	12.5 HP	Nos	1.00	238800	238800
7.08	15 HP	Nos		252100	
7.09	17.5 HP	Nos		276504.56	
7.10	20 HP	Nos		295500	
7.11	25 HP	Nos		334043.48	
7.12	30 HP	Nos		366163.04	
7.13	35 HP	Nos		393723.7	
7.14	40 HP	Nos		426547.83	
7.15	Variation in HP due to change of site locations increased/decreased in per HP of the proposed pumping plants.	Rate/HP		30467	
8.00	Pressure Transmitter	Nos	1.00	43120	43120
A.I - 13 Electrically operated Sluice Valve:-					
A.I - 13.01	Electrically operated Sluice Valve PN 1.0 dia 80 mm	Nos	2.00	125000	250000
A.I - 13.02	Electrically operated Sluice Valve PN 1.0 dia 125 mm	Nos		125000	
9.00	Electrically operated Sluice Valve PN 1.0 dia 100 mm	Nos		125000	
9.01	Electrically operated Sluice Valve PN 1.0 dia 150 mm	Nos	1.00	125000	125000
9.02	Electrically operated Sluice Valve PN 1.0 dia 200 mm	Nos		150000	
A.I - 14 Check Valve:-					
A.I - 14.01	Check Valve PN 1.0 DPCV dia 80 mm	Nos	1.00	27519.8	27520
9.03	Check Valve PN 1.0 DPCV dia 100 mm	Nos		27519.8	
9.04	Check Valve PN 1.0 DPCV dia 150 mm	Nos		51145.45	
9.05	Check Valve PN 1.0 DPCV dia 200 mm	Nos		73485.9	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
A.1 - 15	Dismantling Joint :-				
A.1 - 15.02	Dismantling Joint PN 1.0 dia 80 mm	Nos		3923.92	
A.1 - 15.01	Dismantling Joint PN 1.0 dia 125 mm	Nos		5605.6	
9.06	Dismantling Joint PN 1.0 dia 100 mm	Nos	2.00	3923.92	7848
9.07	Dismantling Joint PN 1.0 dia 150 mm	Nos	1.00	5605.6	5606
9.08	Dismantling Joint PN 1.0 dia 200 mm	Nos		7367.36	
9.09	SITC of Chain Pulley Blocks				
9.10	1 Tonne	Nos	1.00	46305	46305
9.11	2 Tonne	Nos		58432.5	
10.00	Turbidity & Chlorine analyzer	Nos	1.00	273000	273000
11.00	Hydrostatic Level Sensor:- Providing and installation hydrostatic level sensor at all tubewell pumping system including all accessories etc. complete in all respect as per instructions of Engineer -in -charge.	Nos	1.00	126000	126000
12.00	Stabalizer				
12.01	2 KVA	Nos		12777.78	
12.02	5 KVA	Nos		25555.56	
12.03	7.5 KVA	Nos		44722.22	
12.04	10 KVA	Nos		127777.78	
12.05	15 KVA	Nos		166111.11	
12.06	20 KVA	Nos		191666.67	
12.07	25 KVA	Nos		204444.44	
12.08	30 KVA	Nos		230000	
12.09	40 KVA	Nos		281111.11	
12.10	50 KVA	Nos		319444.44	
12.11	60 KVA	Nos		345000	
13.00	Column Pipe:- SITC of Column pipe of MS pipe for connecting submersible pumps				
13.01	32 mm Dia size - MS pipe	Mtr.		500	
13.02	40 mm dia size - MS pipe	Mtr.		666.67	
13.03	50 mm dia size - MS pipe	Mtr.		921	
13.04	65 mm Dia size - MS pipe	Mtr.		1066.67	
13.05	80 mm Dia size - MS pipe	Mtr.	30.00	1400	42000
13.06	100 mm Dia size - MS pipe	Mtr.		1567	
13.07	150 mm Dia size - MS pipe	Mtr.		2167	
14.00	Chlorinating System:- Supply , Installation of chlorinating system with dosing pump 0-6 LPH capacity with 100 Litres(1w+1s) tanks, valves ,pipes with required accessories (Automatic dosing system for chemical injection)	JOB	1.00	112000	112000
15.00	Fluoride Removal Plant:- Supplying, installation, testing, commissioning of Fluoride removal plant for required capacity including transportation and labour charges as complete. (vendor have to select the technology based on capacity (Electrolytic-de fluoridation plant or media based system). Rates for 400 KLD/ 500 LPM	LS		8062500	
16.00	Iron Removal Plant:- Supplying, installation, testing, commissioning of Iron removal plant which includes vessel, media, piping valves etc. for required capacity including transportation and labour charges as complete. Rates for 400 KLD/ 500 LPM	LS		6062500	
17.00	Arsenic Removal Plant:- Supplying, installation, testing, commissioning of Arsenic removal plant which include vessel, media, piping valves etc. for required capacity including transportation and labour charges as complete. Rates for 400 KLD/ 500 LPM	LS		9000000	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
18.00	TDS and Hardness Removal Plant:- Supplying, installation, testing, commissioning of reverse osmosis plant which includes pump, micron cartridge filter, high pressure pump, reverse osmosis membrane, cleaning system and required piping and valves etc. complete for required capacity including transportation and labour charges as complete. Rates for 400 KLD/ 500 LPM	LS		13125000	
19.00	Tube Well Electrification:- Internal electrification of tube well	LS	1.00	20000	20000
20.00	Solar Power Plant:- SITC of Solar power plant (for complete plant) including solar panel, Structure, inverter etc. complete in all respect with required material, T&P labour	KW	22.00	86800	1909600
21.00	Boundary Wall:- Construction of 1.3 m high and 115mm thick boundary wall with 230 mm x 230 mm thick pillar made in Brick masonry in 1 cement and 4 sand mortar, the spacing between two pillar should not be more than 3.0 m c/c and the depth of foundation should not be less than 0.60m, at the site of water works as per departmental type design and drawing, and, as per specifications given in the bid document including supply of all materials, labour T&P etc. for proper completion of work as per instructions of Engineer-in-charge. (Drawing No.D-1)	Rmt	135.20	6400	865280
22.00	MS Gate:- Supply and fixing of 3.6 m x 1.20 m MS gate including fabrication and supply of steel and construction of boundary wall pillars of size 1.35m x 0.23m x 0.23m with ornamental brick work 115mm th. around RCC, as per departmental type design and drawing (Drawing No. D-1) and as per specifications laid down in the bid document, including supply of all material, labour, T&P etc. required for proper completion of work as per instructions of Engineer-in-charge.	No.	1.00	52000	52000
23.00	MS Wicket Gate :- Supply and fixing of 1.2m wide MS wicket gate including fabrication and supply of steel and construction of boundary wall pillars etc. as per specifications laid down in the bid document, including supply of all material, labour, T&P etc. required for proper completion of work as per instructions of Engineer-in-charge.	No.	1.00	19000	19000
24.00	Interlocking Pavement:- Construction of Interlocking pavement for approach to water works, as per departmental type design and drawing and as per specifications laid down in the bid document, including supply of all materials, labour, T&P etc. required for proper completion of work as per instructions of Engineer-in-charge.	Sqm.	242.40	1070.5	259489
25.00	Granular Sub Base:- Construction of granular sub base by providing coarse grade materials, spreading in uniform layers including watering and compaction complete.	Cum	48.48	2800	135744
26.00	Construction of WBM:- Construction of WBM by providing grade materials, spreading in uniform layers including watering and compaction complete.	Cum	60.60	3029	183557

BOQ Item No.	Description	Unit	Qty	Rate	Amount
27.00	Earth Filling:- Earth filling work for proper leveling of water work site, in accordance with the contour map and Grid map of existing site enclosed (Drawing no.D-1), including leveling, dressing, excavation and filling of earth where necessary and also including all labour, materials, T&P etc.required for proper completion of works and also including carriage of earth from within a distance of about 8 km. from the site of works as per instructions of Engineer -in -charge.	Cum		890	
28.00	Semicircular Drain:- Provision for inside semicircular drain 200mm dia including supply of all materials, labour and T & P etc. complete.	Rmt	140.00	1607.14	225000
29.00	Pump House (3.6x3.0x3.0):- Provide all materials, labour, T&P etc. complete and construct Pump house size (3.6x3.0x3.0)m Chlorinating room size (2.5x1.8x3.0)m as per departmental type design and drawing (drawing no-D-2) and as per the specifications for civil work given in the bid document, including supply of all material, labour and T&P etc complete as per instructions of Engineer -in - charge.	Job		597000	
30.00	Pump House (2.5x3.0x3.0):- Provide all materials, labour, T&P etc. complete and construct Pump house size (2.5x3.0x3.0)m Chlorinating room size (1.5x1.3x3.0)m as per departmental type design and drawing (drawing no-D-2) and as per the specifications for civil work given in the bid document, including supply of all material, labour and T&P etc complete as per instructions of Engineer -in - charge.	Job	1.00	404000	404000
31.00	Bye-pass Chamber:- Provide all materials, labour, T&P etc. complete and constructed Bye-pass chamber for pump house (1000 (L) x 1000 (W) x 1150 (H) mm) drawing (drawing no.D-3) and as per the specifications for civil work given in the bid document, including supply of all material, labour and T&P etc complete as per instructions of Engineer -in -charge.	No.	1.00	14600	14600
32.00	OHT:- Supply of all materials labour T&P etc. for complete construction of R.C.C. Over Head Tank of following capacity and staging above ground level with main components, including cost of soil testing and assuming bearing capacity of soil as 8 MT, with supply of design and drawings.All the water retaining components of OHT shall be casted in M-30 concrete and minimum grade of concrete of foundation and staging should be M-25 with approved cement, coarse sand and stone grit as per I.S. 11682 and I.S.456 Seismic effects and wind load should be taken into consideration as per I.S. 1893 for earthquake resistance and I.S. 875 part-III for wind load on structure and including 1M wide RCC staircase, 1 m wide R.C.C. M30 balcony, M.S. ladder made of 50x50x6 mm angle section and 20mm plain M.S. bars with hand rails of 20mm medium class G.I. pipes, One aluminum ladder inside the tank from top dome to bottom dome, R.C.C. railing with 20mm dia medium class G.I.pipe (in 3 rows) on both sides of stair case, supported on 50x50x6mm M.S. angle section, spaced at intervals not more than 1.5m, Proper ventilator at top dome in circular shape of 1.2 m dia, Water level indicator fabricated with sensor connecting to automation, Lightening conductor as per I.S.S.2309 or its latest amendments of latest electricity rules, consisting of proper elevation				
32.01	50 KL 10 M Staging	Job		1712500.00	
32.02	50 KL 12 M Staging	Job		1788750.00	
32.03	75 KL 10 M Staging	Job		2150000.00	
32.04	75 KL 12 M Staging	Job		2242500.00	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
32.05	100 KL 12 M Staging	Job		2886250.00	
32.06	100 KL 16 M Staging	Job		3073750.00	
32.07	150 KL 12 M Staging	Job	1.00	3241250.00	3241250
32.08	150 KL 16 M Staging	Job		3457500.00	
32.09	175 KL 12 M Staging	Job		3441250.00	
32.10	175 KL 16 M Staging	Job		3732500.00	
32.11	200 KL 12 M Staging	Job		3843750.00	
32.12	200 KL 16 M Staging	Job		4040000.00	
32.13	200 KL 18 M Staging	Job		4105000.00	
32.14	225 KL 12 M Staging	Job		4170000.00	
32.15	250 KL 12 M Staging	Job		4537500.00	
32.16	300 KL 12 M Staging	Job		4877500.00	
32.17	300 KL 16 M Staging	Job		5508750.00	
32.18	350 KL 14 M Staging	Job		6093750.00	
32.19	400 KL 14 M Staging	Job		6830000.00	
32.20	400 KL 16 M Staging	Job		7021250.00	
32.21	500 KL 14 M Staging	Job		7457500.00	
32.22	25 KI 10 M Staging	Job		1296250.00	
32.23	25 KI 12 M Staging	Job		1363750.00	
32.24	For 2 m Staging (5% additional per Meter)	Rm	3.00	162062.50	486188
33.00	Excavation:- Excavation of earth in ordinary soil (loam, clay or sand) for pipe line and rising main trenches including lift upto 1.50 m and lead upto 50 m and refilling watering, ramming of the excavated earth into the trench and also disposal of surplus earth upto 50m from the center of the trenches including supply of all material labour, T&P etc complete as per instructions of Engineer -in -charge.				
34.00	Ordinary Soil	Cum	1822.56	214.61	391141
35.00	Mixed Soil with Kankar	Cum	1822.56	249.27	454311
36.00	Soft Rock	Cum		943.82	
37.00	Hard Rock	Cum		1319.18	
Additional	Disposal of Surplus Earth top 300 mm ht.	Cum			
38.00	Sand Bedding:- Sand Bedding in trenches in layers not exceeding 10 cm. in depth, consolidating each deposited layer by ramming and watering complete as per instructions of Engineer.	Cum	9.70	1656.00	16057
39.00	Retaining Wall:- Construction of Retaining Wall for Protection Survey, Investigation, Soil Testing, Planning, construction, commissioning etc. as per design and drawing provided by the contractor all in accordance with the relevent latest I.S. Codes and approved by the Engineer as per conditions of the bid documents. The design and drawings provided by the contractor should be betted by any IIT Institute or Government Engineering College approved by the Engineer, on contractor's cost. For construction of R.C.C. retaining wall including excavation of earth in hard rock/soft rock/ Kankar /morrum /bajri etc. for foundation, Plain Cement Concrete 1:4:8 (one cement four fine aggregates and eight coarse aggregates) and supply of steel as per drawing including bending ,binding with all type of binding materials including wastage of steel Reinforced Cement Concrete (M20) 1:1½:3(one cement one and half fine aggregates and three coarse aggregates) including cost of all arrangement of shuttering ,scaffolding and water with supply of all materials, labors T&P etc. required for proper completion of works as per the directions of the Engineer (Provisional)	Cum		16400.00	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
40.00	Ductile Iron Pipes:- Supply of following sizes (D.I.) pipes for rising main/distribution system conforming to latest/relevant I.S. 8329/2000 Specifications- with all jointing materials such as specials conforming to latest /relevant I.S. specifications, suitable for D.I pipes, as per IS-1239 /2000 and IS 8329/2000 or their latest amendment including F.O.R. destination and all taxes and insurance etc. with loading, unloading and Carting up to site of work, also including specials for these pipes and lowering them into the trenches and laying true to alignment and gradient and jointing etc. complete (including testing of pipe lines and cutting of pipes for making up the length but excluding the cost of trenches).all complete as per instructions of Engineer -in -charge.				
	Ductile Iron Pipe (K-9)				
40.01	300 mm dia Ductile Iron K-9	m		3877.6	
40.02	250 mm dia Ductile Iron K-9	m		3103.5	
40.03	200 mm dia Ductile Iron K-9	m		2332.32	
40.04	150 mm dia Ductile Iron K-9	m		1728.48	
40.05	125 mm dia Ductile Iron K-9	m		1411.41	
40.06	100 mm dia Ductile Iron K-9	m	35.00	1191.41	41699
40.07	80 mm dia Ductile Iron K-9	m		905.41	
	Ductile Iron Pipe (K-7)				
40.08	300 mm dia Ductile Iron K-7	m		3151.6	
40.09	250 mm dia Ductile Iron K-7	m		2564.5	
40.10	200 mm dia Ductile Iron K-7	m		1848.32	
40.11	150 mm dia Ductile Iron K-7	m		1497.48	
40.12	125 mm dia Ductile Iron K-7	m		1301.41	
40.13	100 mm dia Ductile Iron K-7	m		1007.11	
40.14	80 mm dia Ductile Iron K-7	m		909.49	
41	HDPE Pipes PN6, PE 100:- Supply of following sizes pipes for distribution system conforming to latest/ relevant I.S. 4984/1995 Specifications with all jointing materials and specials conforming to latest /relevant I.S. specifications including F.O.R. destination and all taxes and insurance etc. with loading, unloading and Carting up to site of work, also including specials for these pipes and lowering them into the trenches and laying true to alignment and gradient and jointing etc. complete (including testing of pipe lines and cutting of pipes for making up the length but excluding the cost of trenches) all complete as per instructions of Engineer -in -charge.				
41.01	90 mm dia HDPE Pipe PN6, PE 100	m	86.00	229.5	19737
41.02	75 mm dia HDPE Pipe PN6, PE 100	m	1283.00	169.2	217084
41.03	63 mm dia HDPE Pipe PN6, PE 100	m	3125.00	125.8	393125
42.00	Valves:- Supply and carting up to site of work of the following dia DI butterfly /sluice valves, class I, working pressure 10 Kg/cm2 conforming to IS: 780/1969 or its latest amendments, including valve fittings & Dismantling Joints as per requirement F.O.R. destination, and lowering them into the already prepared trenches, fixing in position and jointing them with pipelines and testing etc. complete and also including supply of jointing materials etc. complete .including all taxes and insurance, as per instructions of Engineer -in -charge.				
	Isolating Sluice Valve				
42.01	Sluice valve - 300 mm dia	Nos		64042.00	
42.02	Sluice valve - 250 mm dia	Nos		48109.00	
42.03	Sluice valve - 200 mm dia	Nos		27304.00	
42.04	Sluice valve - 150 mm dia	Nos		17626.00	
42.05	Sluice valve - 125 mm dia	Nos		14505.00	
42.06	Sluice valve - 100 mm dia	Nos	2.00	14455.00	28910

BOQ Item No.	Description	Unit	Qty	Rate	Amount
42.07	Sluice valve - 80 mm dia	Nos	1.00	12401.00	12401
42.07.1	Sluice valve - 65 mm dia	Nos.	4.00	10650.00	42600
42.07.2	Sluice valve - 50 mm dia	Nos.		9700.00	
A.I - 16	Scour Valve				
A.I - 16.01	Scour valve - 65 mm dia	Nos		10160.84	
42.08	Scour valve - 80 mm dia	Nos	1.00	10160.84	10161
42.09	Scour valve - 100 mm dia	Nos		12535.28	
42.10	Scour valve - 150 mm dia	Nos		17625.57	
42.11	Scour valve - 200 mm dia	Nos		27304.03	
42.12	Scour valve - 250 mm dia	Nos		48109.48	
42.13	Pressure Relief Valve				
42.14	PRV 80 mm dia	Nos		54219.00	
42.15	PRV 100 mm dia	Nos		80025.00	
42.16	PRV 150 mm dia	Nos		124575.00	
42.17	Single / Double ball type Air Valve:- Supply and installation, testing etc. of single/double ball type air valve conforming to latest/relevant I.S. specifications including all taxes and insurance, carting up to site of work and lowering them into the trenches, fixing in position and jointing them with pipelines and testing etc. complete (including supply of jointing materials and Valve fittings etc complete) as per instructions of Engineer.				
42.18	20 mm	Nos	5.00	10229.21	51146
42.19	50 mm	Nos		23170.33	
42.20	80 mm	Nos		23170.33	
42.21	150 mm	Nos		41024.88	
42.22	Fire Hydrant:- Supply of under ground sluice valve type fire hydrant consisting of 80 mm dia sluice valve, 80mm dia tail pieces, 80mm dia duck foot bend and 80 mm dia standard makes iron coupling with cap and etc. complete conforming to latest/relevant I.S.specifications including all taxes and insurance up to site of work and lowering them into the trenches, fixing in position and jointing them with pipelines and testing etc. complete (including supply of jointing materials and Valve fittings etc. complete as per instructions of Engineer -in - charge.	Nos	2.00	24500.00	49000
43.00	Valve Chambers:- Construction of following type chambers as per department type design and drawing including Heavy duty M.S. Manhole Cover and all materials, labour, T&P etc complete for proper completion of work as per instructions of Engineer -in -charge.				
43.01-43.02	Sluice Valve Chamber (Masonry Type):- Dia upto 200 mm - 1000 (L) x 1200 (W) x 1300 (H) mm	No.	5.00	25800.00	129000
43.03	Sluice Valve Chamber (Surface Box Type):- Dia upto 200 mm - 1000 (L) x 1200 (W) x 1300 (H) mm	No.		5000.00	
43.04	Fire Hydrant chamber (800 (L) X 1250 (W) X 1000 (H) mm)	No.	2.00	18500.00	37000
43.05	Air Valve Chamber				
43.06	350 (L) x 350 (W) x 500 (H) mm	No.	5.00	9000.00	45000
43.07	Scour Valve Chamber				
43.08	dia upto 200 mm - 1000 (L) x 1200 (W) x 1300 (H) mm	No.	1.00	29670.00	29670
43.09	PRV Valve Chamber - 1000 (L) x 1200 (W) x 1300 (H) mm	No.		28380.00	
44.00	Design and construct Thrust Block:- Design and construct Thrust Block made in R.C.C. with cement, coarse sand & 20 mm gauge stone ballast in proportion of 1:1.5:3, for pipe line, including supply of MS reinforcement wrought to equired shape as necessary ,its bending, fixing & binding the same with 0.50 mm thick binding wire in position & necessary centering & shuttering including curing and supply of all materials, labour, T & P etc. required for proper completion of the work and as per specifications for RCC work as per instructions of Engineer -in -charge.				

BOQ Item No.	Description	Unit	Qty	Rate	Amount
44.01	Reinforced Cement Concrete:- Design and construct Thrust Block made in Reinforced Cement concrete (1:1.5:3), with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement, as per technical requirements.	Cum	0.64	13656.33	8685
44.02	Shuttering:- Providing shuttering for Thrust block using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete works curved or straight including fitting fixing and striking out after completion of works.	Sqm	7.20	420.00	3024
44.03	Reinforcement of Thrust Block:- Providing reinforcement of Thrust block for reinforced concrete work including distribution bars, stirrups, binders etc. initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with wire at every inter-section, complete as per drawing and direction.	MT	0.04	109838.98	4107
45.00	Staff Quarter / Office Room:- Provide all materials labour, T&P etc. and construct single room staff quarter / office room at water works site identified by the Engineer-in-charge as per department type design and drawing and specifications of civil works laid down in the bid document, including all material labour, T&P etc complete for proper completion of work as per instructions of Engineer -in -charge. (Drawing No.D-7)	No	1.00	970600	970600
46.00	Recharge Mechanism:- Water recharge Mechanism within the water works campus	Sqm	16.00	52500.00	840000
47.00	Backfilling of Earth:- Backfilling of abandoned tube well with available Earth	Cum		107.00	
48.00	Assest replacement Items				
48.01	Pumping Plant:- SITC of Pumping plant including pumps with motors, starter, pannel, cable, complete in all respect with all required material T&P labour etc.				
48.02	1 HP	Nos		32518.98	
48.03	2 HP	Nos		35843.14	
48.04	3 HP	Nos		46249.21	
48.05	5 HP	Nos		65037.95	
48.06	7.5HP	Nos		228500.00	
48.07	10 HP	Nos		230200.00	
48.08	12.5 HP	Nos		238800.00	
48.09	15 HP	Nos		252100.00	
48.10	17.5 HP	Nos		276504.56	
48.11	20 HP	Nos		295500.00	
48.12	25 HP	Nos		334043.48	
48.13	30 HP (discharge 1000 LPM Head 62 m)	Nos		366163.04	
48.14	35 HP	Nos		393723.70	
48.15	40 HP	Nos		426547.83	
48.16	Turbidity & Chlorine analyzer	Nos		273000.00	
48.17	Hydrostatic Level Sensor:- Providing and installation hydrostatic level sensor at all tubewell pumping system including all accessories etc. complete in all respect as per instructions of Engineer -in -charge.	Nos		126000.00	
48.18	3Mtr. Long Column Pipe				
48.19	32 mm Dia size - MS pipe	Nos		1500.00	
48.20	40 mm dia size - MS pipe	Nos		2000.01	
48.21	50 mm dia size - MS pipe	Nos		2763.00	
48.22	65 mm Dia size - MS pipe	Nos		3200.01	
48.23	80 mm Dia size - MS pipe	Nos		4200.00	
48.24	100 mm Dia size - MS pipe	Nos		4701.00	
48.25	150 mm Dia size - MS pipe	Nos		6501.00	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
49.00	Tubewell Automation System:- Installation of suitable capacity simple T.W. automation system to control operation of the pumping plant with respect to high/low water level in OHT with RTU panel , 7" HMI screen , surge device including energy meter inside the pump house with arrangement for communication of data with GSM and GPRS system to show required parameters including all accessories etc. complete in all respect as per instructions of Engineer -in -charge.	Job	1.00	375000	375000
50.00	Dismantling of Roads:- Dismantling of Following type of surfaces including sorting out and stacking of serviceable materials and disposal of unserviceable materials upto a distance of 50m as per instructions of Engineer -in -charge.				
50.01	B.O.E. Surface	Sqm	1221.00	100.00	122100
50.02	Bituminous Surface	Sqm	647.00	200.00	129400
50.03	Interlocking Road	Sqm		155.00	
50.04	C.C. Road	Sqm		329.96	
51.00	Restoration of Roads:- Reinstatement of the following type of road surface with old and new materials including supply of all materials, labour, T&P etc. required for proper completion of the work as per instructions of Engineer -in -charge.				
51.01	B.O.E. Surface (50% of existing bricks to be reused)	Sqm	1221.00	350	427350
51.02	Bituminous surface	Sqm	647.00	1534.82	993029
51.03	Interlocking Road	Sqm		1070.5	
51.04	C.C. Road	Sqm		1560.71	
52.00	Nala/Culvert Crossing:- Provision for following types of Culvert crossing -along the alignment of pipe line complete as per instructions of Engineer -in -charge. (casing of pipe is done by concreting)				
52.01	Nala/Culvert Crossing (width -3.5 m) upto Dia 300 mm	Nos		19000	
52.02-52.03	Trenchless Crossings:- Survey site Investigation Planning , design Drawings as per State Road manual and vetting / checked from State Road Divisional Office and taking NOC for trenchless crossing of National highway road and Railway track(crossing length 15m to 25m), Road for of required dia Rising main pipe with casing pipe as required for proper completion of work required size of MS casing pipe as per drawing and as per (IS:3589 & made from confining to IS:2062) with 750 Micron PU coating internally and 250 micron anti corrosive bituminous paint externally by trenchless technology method at an average depth 3.60 mtr from normal ground level up to top of casing pipe including excavation & filling of Pit, Dewatering arrangement, Supporting system for soil, also including supply and fixing of 2 no Sluice valve ISI Mark, construction of sluice valve chamber etc. all complete work including supply & fixing specials in carrier pipe over main pipe, as per specification given in the bid documents including supply of all materials, labour T&P etc. for proper completion of work as per instruction of Engineer.				
52.04	Railway Line crossing (Upto Dia 350 mm)	Nos		60000	
52.05	National Highway road crossing (Upto Dia 350 mm)	Nos		40000	
52.06	State Highway road crossing (Upto Dia 350 mm)	Nos		27000	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
52.07	Road Crossing:- Excavation in foundation of trench of proper size in soil mixed with moorum, Shingle, Kankar, soft rock, hard rock, including refilling, dressing and ramming earth or sand or bajri, ballast, including providing, supply, carting, lowering, laying and jointing of casing pipe of RCC NP-3 with appropriate size, with rubber ring joint, sand filling in gap inside RCC pipe, insertion of distribution pipe into the encasing pipe including supply of T&P, including concrete of 150 mm thick in with 40mm gauge brick ballast local sand and cement in proportion of 8:4:1, provision for barricading, labour for traffic diversion etc. Complete for proper completion of work as per instruction of Engineer.				
52.08	50 mm dia. Pipe	Nos		1400	
52.09	100 mm dia. Pipe	Nos	22.00	1700	37400
52.10	150 mm dia. Pipe	Nos	3.00	2000	6000
52.11	200 mm dia. Pipe	Nos	4.00	2400	9600
52.12	250 mm dia. Pipe	Nos		3600	
52.13	300 mm dia. Pipe	Nos		3900	
52.14	350 mm dia. Pipe	Nos		4386	
52.15	400 mm dia. Pipe	Nos		4700	
52.16	450 mm dia. Pipe	Nos		5200	
52.17	500 mm dia. Pipe	Nos		6200	
52.18	600 mm dia. Pipe	Nos		7600	
53.00	Functional House Tap Connection:- Making house connection should be done atleast 2 m inside the boundary wall with provision of tap from distribution line to outer wall of house, with supply of 1 m G.I. pipe (15 mm) (above ground) & average 5 mtr. MDPE Pipe (20 mm) (below ground) including specials, saddle, Tap,etc. of suitable size, T&P etc. including excavation, laying and jointing for proper completion of work as per instructions of Engineer as per Dwg 12 (excluding road restoration)	Nos.	283.00	3500	990500
54.00	Stand Post:- Construction of single tap pillar type stand post as per type design	Nos.	5.00	10000	50000
55.00	Operation and Maintenance:- Operation and Maintenance for 10 years of water supply schemes after completion including staff required for operation and maintenance, chemicals, all materials, specials T & P for operation and maintenance excluding electricity charges. (2% of Capex cost for first year of O&M) Note:- 6% Inflation Factor considered for arriving the O&M Cost from Second Year onwards.	Rs			
55.01	Cost of DPR Preparation @ 1% of CAPEX Cost of DPR	%			
56.00	Electromagnetic flow meters				
56.01	150mm	Nos.		150000	
56.02	200mm	Nos.		190000	
56.03	250mm	Nos.		225000	
56.04	300mm	Nos.		260000	
56.05	350mm	Nos.		330000	
56.06	400mm	Nos.		420000	
56.07	450mm	Nos.		500000	
56.08	500mm	Nos.		550000	
A.I-56.09	100mm	Nos.		100000.00	
A.I-56.10	80mm	Nos.	1.00	80000.00	80000
57.00	Soft Starter :-				
57.01	soft starter with RS485 port -400V,7.5KW Rating	Nos		60000	
57.02	soft starter with RS485 port -400V,15KW Rating	Nos		70000	
57.03	soft starter with RS485 port -400V,22KW Rating	Nos		85000	
57.04	soft starter with RS485 port -400V,30KW Rating	Nos		100000	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
57.05	soft starter with RS485 port -400V,45KW Rating	Nos		125000	
57.06	soft starter with RS485 port -400V,55KW Rating	Nos		140000	
57.07	soft starter with RS485 port -400V,75KW Rating	Nos		150000	
57.08	soft starter with RS485 port -400V,90KW Rating	Nos		175000	
57.09	soft starter with RS485 port -400V,110KW Rating	Nos		225000	
57.10	soft starter with RS485 port -400V,132KW Rating	Nos		250000	
57.11	soft starter with RS485 port -400V,220KW Rating	Nos		275000	
57.12	soft starter with RS485 port -400V,250KW Rating	Nos		325000	
57.13	soft starter with RS485 port -400V,312KW Rating	Nos		375000	
57.14	soft starter with RS485 port -400V,450KW Rating	Nos		550000	
58.00	Auto Phase Reversal Unit:-				
58.01	100 Amp rating	Nos		45000	
58.02	125 Amp rating	Nos		50000	
58.03	160 Amp rating	Nos		70000	
58.04	200 Amp rating	Nos		120000	
58.05	250 Amp rating	Nos		135000	
58.06	315 Amp rating	Nos		140000	
58.07	400 Amp rating	Nos		150000	
58.08	500 Amp rating	Nos		190000	
58.09	630 Amp rating	Nos		225000	
59.00	Radar type Level transmitter	Nos	1.00	120000	120000
60.00	Control Panel:- control panel for all power equipments with IP 54 protection	Nos	1.00	120000	120000
61.00	Cabling for Tube Well:- complete cabling for tubewell including all power and control cables of all equipments at pumphouse and OHT	Nos	1.00	60000	60000
62.00	Master Control PLC:- Master control plc with CPU, SCADA software including GSM / GPRS modem, ncessray firewall, ethernet switch, CCTV system	Nos		2665000	
63.00	Installation testing and commissioning	Nos	1.00	60000	60000
Additional Items					
A.I - 1	110 mm dia HDPE Pipe PN6, PE 100	m	242.00	326.71	79064
A.I - 2	125 mm dia HDPE Pipe PN6, PE 100	m	67.00	414.95	27802
A.I - 3	140 mm dia HDPE Pipe PN6, PE 100	m	141.00	513.86	72454
A.I - 4	160 mm dia HDPE Pipe PN6, PE 100	m	62.00	663.92	41163
A.I - 5	180 mm dia HDPE Pipe PN6, PE 100	m		829.93	
A.I - 6	200 mm dia HDPE Pipe PN6, PE 100	m		1016.89	
A.I - 7	Supply Installation of Display board of Size 2M X 1 M for Providing details of proposal of water supply scheme	LS	1.00	25000	25000
A.I - 8	Provision for arboriculture for development of water works	LS	1.00	50000	50000
A.I - 9	Battery Backup with Accessories for 2 Kw Load	Nos		92800	
A.I - 10	40 Watts Solar Street Lights inbuilt with all accessories	Nos	4.00	30000	120000
A.I - 11	SITC of DG for Electricity support				
A.I - 11 - 1	7.5 KVA	Nos		240000	
A.I - 11 - 2	10 KVA	Nos		260000	
A.I - 11 - 3	15 KVA	Nos		306000	
A.I - 11 - 4	20 KVA	Nos	1.00	370000	370000
A.I - 11 - 5	25 KVA	Nos		389000	
A.I - 11 - 6	30 KVA	Nos		405000	
A.I - 11 - 7	40 KVA	Nos		483000	
A.I - 11 - 8	45 KVA	Nos		495000	
A.I - 11 - 9	50 KVA	Nos		555000	
A.I - 11 - 10	62.5 KVA	Nos		569000	
A.I - 12	Electromagnetic flow meters				
A.I - 12 - 1	100mm Electromagnetic flow meters	Nos.		100000	
A.I - 12 - 2	80mm Electromagnetic flow meters	Nos.		80000	

Break up of Cost

SL. No.	Sub Head	Total Cost of work	Building	R.C.C. Reservoir	Pipe Line	Machinery	Misc.
1	2	3.0	4.0	5.0	6.0	7.0	8.0
A. Civil works :							
1	Pump house & Chlorinating room	4,04,000	4,04,000				
2	Rising Main	71,161			71,161		
3	R.C.C. Over head tank(<u> </u> KL/ <u> </u> m staging)	40,51,823		40,51,823			
4	Distribution System	48,31,169		48,31,169			
5	Approach Road	105,18,47	17,34,847				
6	Boundary Wall and approach road	9,36,280	9,36,280				
7	Staff Quarter	9,70,600	9,70,600				
8	Surveying and designing	1,83,355					1,90,155
	(Total A)	1,31,90,035	40,45,727	88,82,992	71,161	-	1,90,155
		12,50,7235					
B. E&M works:							
1	Cost of Tubewell construction	15,52,155				15,52,155	
2	Cost of pumping plant and Chlorinating Plant	12,38,745				12,38,745	
3	Solar plant	19,09,600				19,09,600	
4	Electrification of pump house, SCADA	11,25,000				11,25,000	
	Total (B)	58,25,500	-	-	-	58,25,500	-
	G. Total (A+B)	1,90,15,535	40,45,727	88,82,992	71,161	58,25,500	1,90,155


1,93,28,735

Estimate for Gaur ganj Gram Panchayat
Water Supply Scheme
Under - SWSM
Block- Belghat District- Gorakhpur
Form "J" - Comprehensive Scheme


Sr. No.	Description of Work	Amount (Rs. in Lacs)	%	Amount (Rs. in Lacs)	Govt. of U.P. Share	Govt. of India Share
1	2	3	4	5	6	7
1	Cost of Work	190.16		190.16	183.28	
2	0.14% Discount as per Contract on Cost of work	190.16	-0.14%	0.27		
	Net Cost of Work			189.89	183.03	
3	Add Contingency 2%	189.89	2.00%	3.80	3.65	
	Sub Total (A)			186.69	193.69	96.84
4	Add GST 12 %-B	193.69	12.00%	22.40 23.24	11.62	11.62
5	Add 12.5% Centage-C	193.69	12.50%	23.34 24.21	24.21	
	Grand Total (A+B+C)			232.43	241.14	132.68
6	10% 1st O&M Cost (after DLP)	189.89	2%	3.80 3.80 46.96	1.90	1.90

TOTAL POPULATION A (ULTIMATE YEAR 2052)	4557
Per Capita Cost (NET COST+CONTIGENCY+GST)	4760

PREPARED BY


(तकनीकी प्रकोष्ठ)
राज्य पेयजल एवं स्वच्छता मिशन


CHECKED BY


अधिसारी अधिष्ठाता
उपरो जल निगम
Member Secretary DWSM
Executive Engineer,
U.P Jal Nigam, 10th Div. Gorakhpur


M/S NCC Ltd.

J.E(T) Assistant Engineer

Forwarded As Recommended
by DWSM For SLSSC

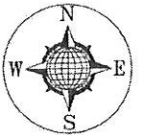

(इं० डी०के० सिंह)
अधीक्षण अभियन्ता
राज्य पेयजल एवं स्वच्छता मिशन


J.E(T) (L & E)

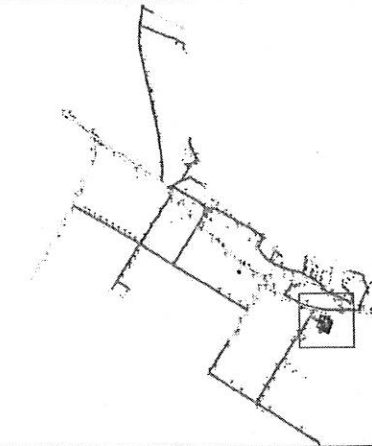

(इं० जी०पी० शुक्ला)
युनिट कोआर्डिनेटर
राज्य पेयजल एवं स्वच्छता मिशन

WATER WORKS TYPICAL LAYOUT PLAN

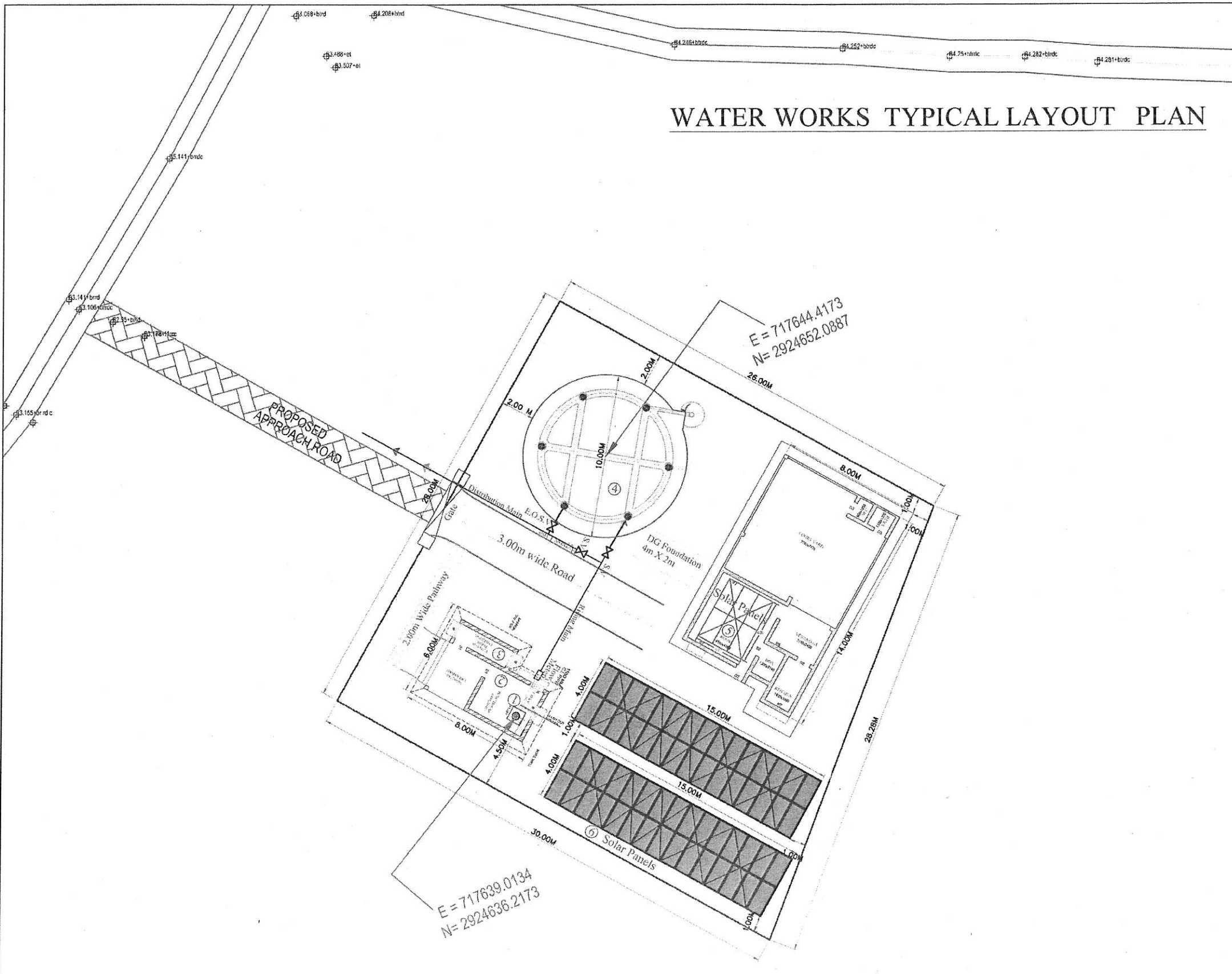
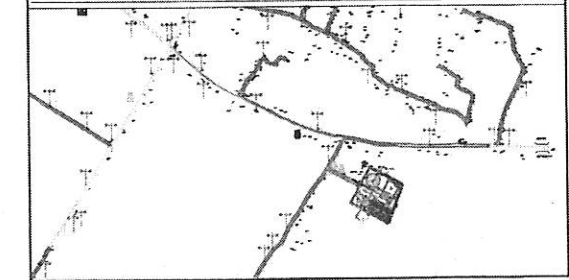
Note :-
All dimensions are in meters



KEY MAP OF GRAM PANCHAYAT :



KEY MAP OF OHT LOCATION :



UNIT SIZING

Sl. No.	Description	Nos.	SIZE (M)
1	Ground Water Bore well	01	-
2	Pump House	01	3.00m (L) x 3.60m (W) x 3.00m (Ht)
3	Chlorine Room	01	3.51m (L) x 1.11m x 3.00m (Ht)
4	Modular Overhead Tank With RCC Staging	01	150 KL @ 15m (Staging Height)
5	Staff Quarters	01	14m (L) x 8m (W)
6	Solar Panels(22KW)	07	3m (L) x 4m (W)

NOTE:

OHT Layout & Bore hole point may be changed on actual ground condition

PROJECT: SURVEY, DESING, PREPARTION OF DPR, CONSTRUCTION AND COMMISSIONING AND O & M FOR 10 YEARS OF VARIOUS RURAL WATER SUPPLY PROJECT IN THE STATE OF UTTAR PRADESH AS PER REQUEST FOR PROPOSAL FOR DIVISION- GORAKHPUR

CLIENT: GOVERNMENT OF UTTAR PRADESH STATE WATER & SANITATION MISSION

CONTRACTOR: NCC LIMITED

TITLE:

OHT LAYOUT PLAN FOR GP GAUR GANJ
BLOCK: BELGHAT
DISTRICT: GORAKHPUR



Signature by
JE (Civil and E&M)
(Jal Nigam)

Signature by
AE (Civil and E&M)
(Jal Nigam)

Verified by
Executive Engineer (Civil)
(Jal Nigam)

Verified by
Executive Engineer (E&M)
(Jal Nigam)

Approved by
Superintendent Engineer
अधीव निमाण मण्डल
उ० प्र० जल निगम (ग्रामीण)
गोरखपुर

SCALE : 1 : 250 SHEET: A3 REVISION: 0

RELEASED FOR PRELIMINARY TENDER INFORMATION APPROVAL CONSTRUCTION