

Ref No: NCC/SWSM UP-GKP/QC(S)/0.55

Dated: 12/01/2022

To,
The Executive Engineer
E&M, Jal Nigam
Gorakhpur, Uttar Pradesh

Sub - Compliance of NCR - Reg. - Reg.
Ref: - MTCPL/SWSM/TP/A-CLUSTER-9/2021-22/15247 Dated: - 11 Jan 2022.

Respected Sir,

This has reference to the letter cited above. We are furnishing here under the rectifications carried out in the compliance to the observations in the NCR mentioned.

Sr No.	Non - Conformities Reported	Category of Defect	Location	Action Taken	Remarks
1	Trolley mounted DC Rig Machine is used at site, but fitness certificate is not provided.	Major	Baidauli Village, Gagaha Block,	All Rig machines are fit for doing the drilling work up to required depth as DPR.	
2	Pea Gravel is not stacked in trapezoidal Way.	Major		Pea Gravel stacked in Trapezoidal Way	Snap - 02
3	Pipe Assembly not painted with coat anti-corrosion paint.	Major		we use anti corrosion paint to paint assembly.	Snap - 03

This is for your kind information & record.
Thanking you and assuring best services all the time.

For NCC Limited
Authorized Signatory
CC: Medhaj Techno Concepts Pvt. Ltd.

Encl: Annexure I

Received By
Date: 13-1-2022

NCC Limited
(Formerly Nagajuna Construction Company Limited)
CIN: L72200AP1990PLC01146
Site Office: Plot No: 287 & 412, Village-Rudrapur, Near Kushmi Bazar, Tahsil-Chouri Chaura, Dist-Gorakhpur, Uttar Pradesh, PIN-273002.

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/N/S/ Tw/48/K1	Date And Time	05/01/2022
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Description:	Redirection of Compliance.
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Location:	Bhuk-Nagaha, G.P. Baidauli.
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Precing RFI No.	At SWSM-UP-GKP/S/ Tw/48
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Commencement of work:	05/01/2022
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Submitted By:	M. Bha. Khan
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Signature:	
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Designation:	AE
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Concessionaire:	Proceed	Hold
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Name:	
Designation:	


① Pcc layout staked in Topozoidal shape. - not staked. Slightly taken as per transfer of work. Measure not.

② Pipe Assembly fitted with 2-coat synthetic enamel finish. Compliance issued by MC.

Contractor Representative



Consultant Representative



Client Representative



055/12/22

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/N/S/T/0/46	Date And Time	4-1-2022/3:00 pm
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Description:	Laying of Pipe with assembly and filling of P-gravel.
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Location:	Block - GPKG - GP - Badauli
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Preceding RFI No.	
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Commencement of work:	5-1-2022.
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Submitted By:	M. K. Baidya
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Signature:	
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Designation:	M.E.
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Concessionaire:	Proceed	Hold	
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Name:	
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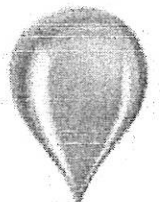
Designation:	
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Comments:	<p>① P&G gravel not spreading in proper manner. ② Pipe assembly not painted with 2 coat anti corrosion paint.</p>
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Signature
Contractor Representative

Signature
Consultant Representative

Signature
Client Representative



Aqua Xplore

(Groundwater Assessment & Allied Services)

243/5, New Colony Jiyamau, Hazratganj, Lucknow - 226001
Mob. 9918202546 / 9889323322, Email-aquaxploreilko@gmail.com

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

Ref 1229 - B / AX - 2021 Date 29.12.2021

Geophysical Borehole Logging Report

Name of the site : Baidauli, Block- Gagaha

District : Gorakhpur

Date : 29.12.2021

Depth logged : 150.0 mbgl

Depth drilled : 155.0 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;

SI.No.	Depth range(mbg)	Thickness(m)	Remarks
1	20.0--40.0	20.0	Good all
2	46.0--56.0	10.0	
3	60.0--64.0	4.0	
4	88.0--98.0	10.0	
5	104.0--112.0	8.0	
6	134.0--147.0	13.0	

Note. SI. No. 5 is fine sand intermixed with kankar.

Good

for Aqua Xplore

Verified as per logs provided.

G.R.

03/01/22
ASSISTANT HYDROGEOLOGIST
YANTRIK MANDAL
U.P. JAL NIGAM (RURAL)
PRAYAGRAJ

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

CC:

NCC LTD. <i>[Signature]</i>	PMC/TPIA <i>[Signature]</i>	CLIENT <i>[Signature]</i>
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Note : The Specific Gravity should not be less than 2.5

10	Specific Gravity =	(W2 - W1) - (W3 - W4)	=	$\frac{215}{215-133}$	=	2.62
9	Weight of the Jar + Water, W4 (gm)=	226 gm				
8	Weight of Jar + Gravel + Water, W3 (gm)=	459 gm				
7	Weight of Jar + Gravel, W2 (gm)=	467 gm				
6	Weight of the Jar, W1 (gm)=	253 gm				




SPECIFIC GRAVITY TEST AT ROOM TEMPERATURE

5	Sample no :	48
4	Lab. Test no :	48
3	Date of sampling :	03/01/2022
2	Location :	NAME OF THE BLOCK - GAGGAHA NAME OF THE GRAM PANCHAYAT - BALDHWATI RABU
1	Source of material :	Lakshmi, Noida, Uttar Pradesh
SL NO.	DESCRIPTION	OBSERVATIONS

Date of Testing-	04/01/2022
Test report no :	NCC/CEP-5/04/04

As per IS : 2386 (Part-3)

SPECIFIC GRAVITY OF PEA GRAVELS (SIZE- 1.6 mm to 4.8 mm)

NCC Limited	NCC LTD.
NCC	STATE WATER AND SANITATION MISSION
NCC Limited	CLIENT: JIM / SWSM / DWSM
	GORAKHPUR-UP
	



NCC LTD.
 STATE WATER AND SANITATION MISSION
 CLIENT: JIM / SWSM / DWSM

NCC
 NCC Limited

SIEVE ANALYSIS OF PEA GRAVELS (SIZE-1.6 mm to 4.8 mm)
 (As per IS : 460 and IS: 4097)

GORAKHPUR-UP

Date of Testing : 04/01/2022
 Test report no : NCC/LR-5/B/L/048

SL NO.	DESCRIPTION	OBSERVATIONS
1	Source of material :	Lakshmi, Noida, Uttar Pradesh
2	Location :	Block Name- GORAKHPUR G.P Name- BAIYAPALI BAGU
3	Date of sampling :	03/01/2022
4	Lab. Test no :	48
5	Sample no. :	48
6	Total wt. of sample (gm) :	1000 gm

SIEVE ANALYSIS

IS Sieve Size	retained	Cumulative wt. Retained (gm)	Cumulative % wt. Retained	% passing	Acceptable / Not Acceptable
6.3 mm	22	22	2.2	97.3	
4.75 mm	177	204	20.4	79.6	
2.36 mm	703	907	90.7	9.3	
1.18 mm	89	996	99.6	0.4	
Pan	04				
Total(gm)=					

The Hardness of Material is = 88

Note:- The Hardness value should not be less than 5 in Moh's scale.

NCC LTD.
(Signature)

P/MC/TP/A
(Signature)

CLIENT
(Signature)

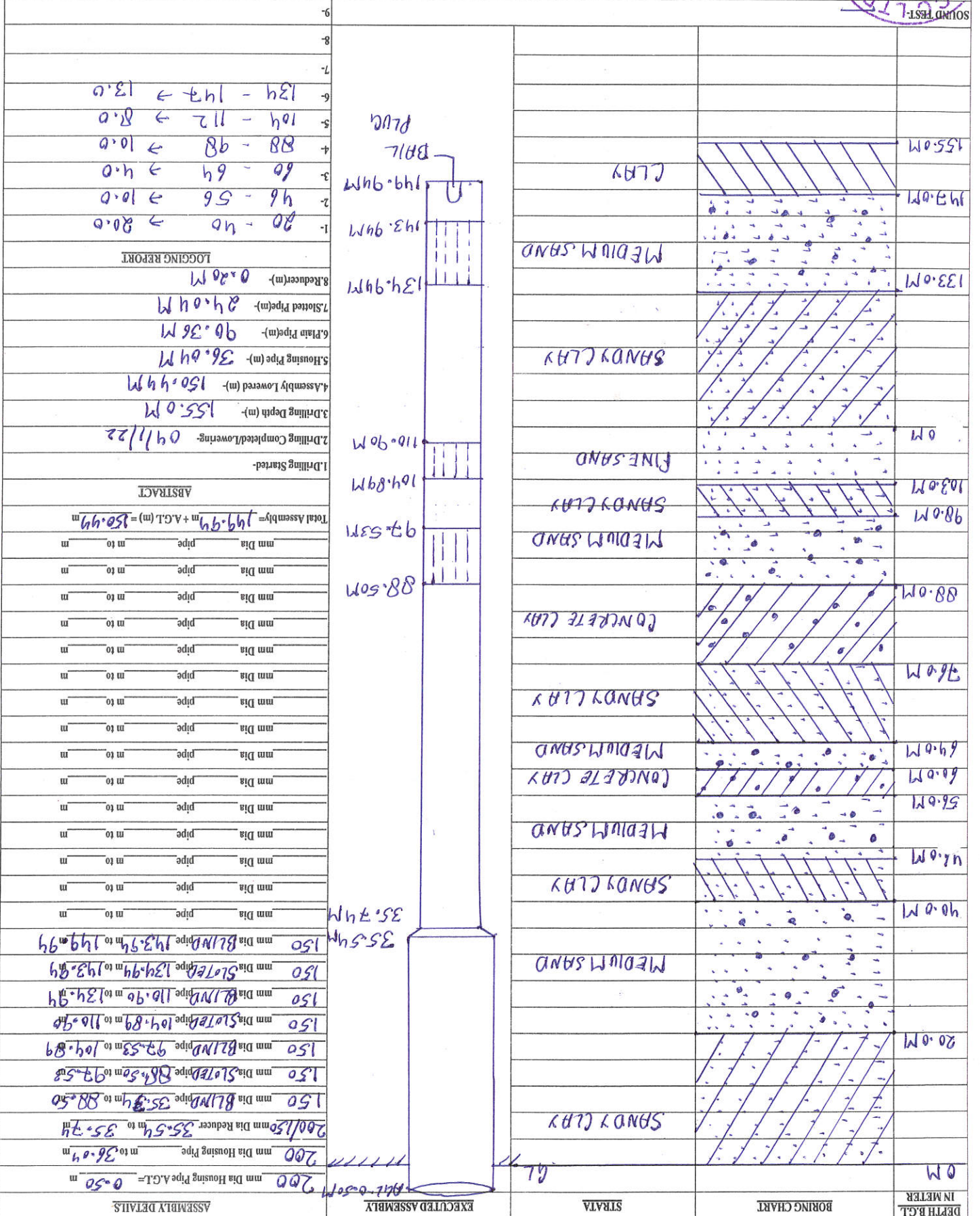


(Nendu/Anand) (Sobhrajyoti) JE & AE

(Mukherjee) P.M.C.T./I.A

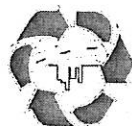
E.B. *Sm*

10- 9- 8- 7- 6- 5- 4- 3- 2- 1-



NAME OF THE DISTRICT:	GORAKHPUR
NAME OF THE BLOCK:	GACHHA
NAME OF THE GRAM PANCHAYAT:	BHAIBAUTI
NAME OF THE VILLAGE:	
TYPE OF RIG M/C:	RC
SIZE OF BORE:	530/500 mm φ
STATIC WATER LEVEL:	12M
A/E Incharge:	

DISCHARGE - 550 LPH



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: teplab@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

Dated: 05-03-2022

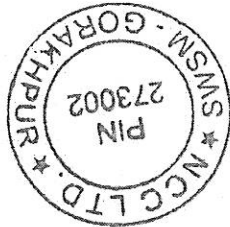
TEST REPORT

Name of Customer	: Jal Nigam, Gorakhpur
Project	: SWSM-JJM Project (Har Char Jal Mission) at Gorakhpur U.P.
Reference No.	: SWSM-UP/GKP/QC/77
Sample supplied to Lab by	: Customer representative
Name of Contractor/ Agency	: NCC Ltd.
Sample Particulars	: Pea-Gravel

Sample Receipt Date	: 03/03/2022	Job No.	: MT136
Condition of sample	: Satisfactory	SRF No.	: 2022/29
Type of Sample	: Pea-Gravel	ULR No.	: NA
Source of sample	: Lalkuan (Uttarakhand)	Period of Testing	: 03/03/2022 to 05/03/2022

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.



Alok Chauhan

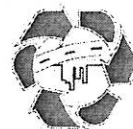
Checked By:

Alok Kumar Chauhan
(Technical Manager)

Arvind Kumar Garg

Approved By:

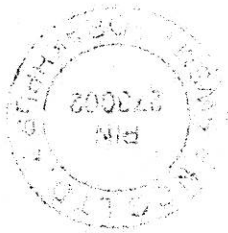
Arvind Kumar Garg
(Quality Manager)




1. PHYSICAL TEST RESULT OF PEA GRAVEL

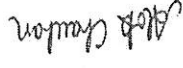
Sample Unique ID: MT136/TEPL/02

Sl. No.	Particular of Test	Test Passing %	Specification As Per IS (383 & 4097)	Test Method	Remarks
1.0	Sieve Analysis (% by weight)	12.5 mm	100	IS 2386 (Part-1) 1963, RA-2016	
		8.0 mm	100		
		6.30mm	100		
		4.75 mm	80.90		
		3.35 mm	14.40		
		2.00 mm	8.60		
2.0	Combined Flakiness & Elongation Index (% by weight)	0.0	40 Max	IS 2386 (Part-1)-1963, RA-2016	Partical Size >6.3
		0.90	5 Max	IS 2386 (Part-3)-1963 RA-2016	
3.0	Water Absorption (% by weight)	0.90	5 Max	IS 2386 (Part-3)-1963 RA-2016	
4.0	Specific Gravity	2.66	2.1 - 3.2	IS 2386 (Part-3)-1963 RA-2016	
5.0	Hardness Test (Number)	7.3	5 Min	IS 13630 (Part-13)-2006	
		1.59	NA	IS 2386 (Part-3)-1963 RA-2016	
6.0	Bulk Density, Kg/litre	1.49	NA	IS 2386 (Part-3)-1963 RA-2016	
		1.59	NA	IS 2386 (Part-3)-1963 RA-2016	

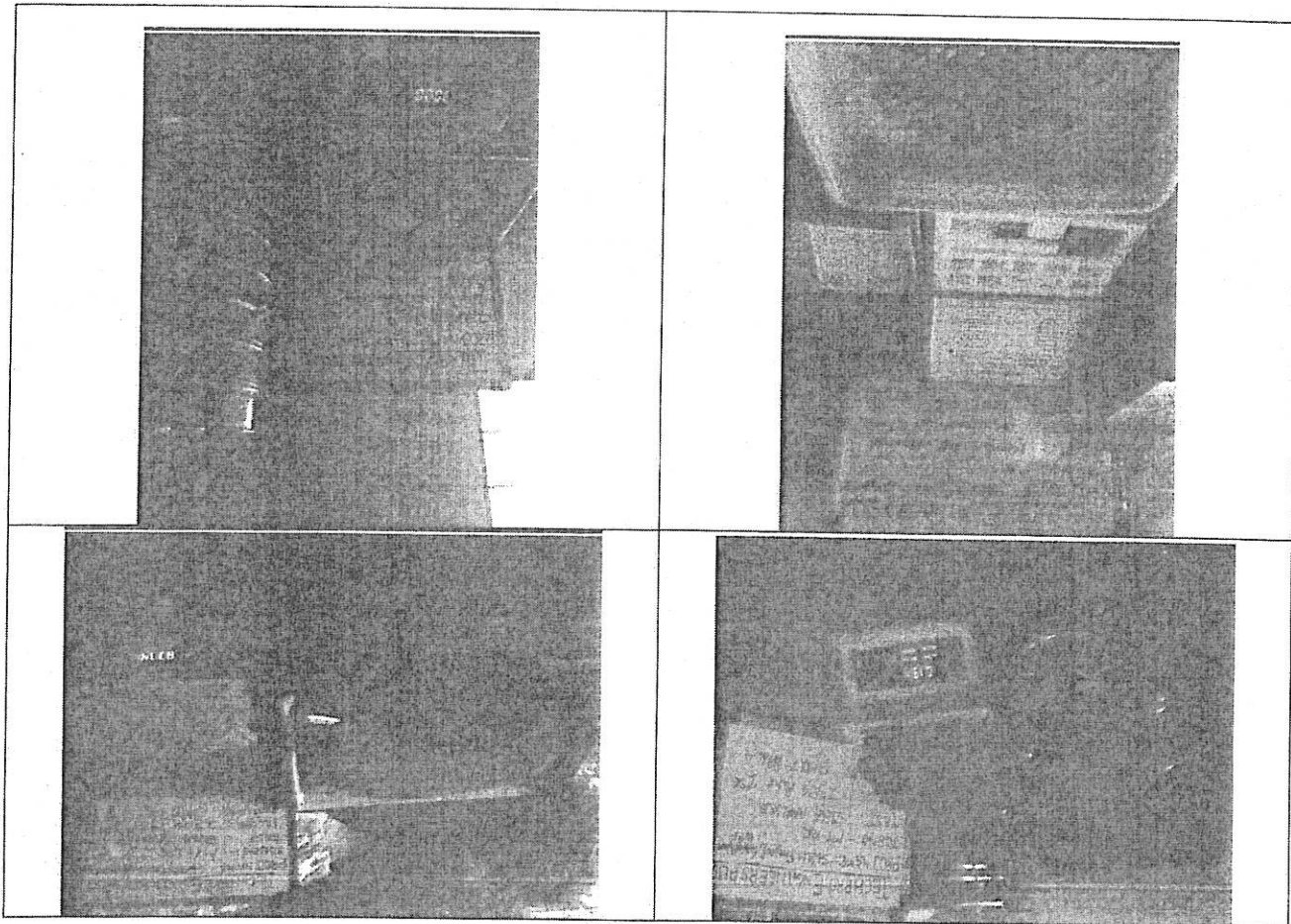


Approved By: 
 Arvind Kumar Garg
 (Quality Manager)



Checked By: 
 Alok Kumar Chauhan
 (Technical Manager)

PHOTOGRAPHS



END OF REPORT

S. NO	DESCRIPTION	GROWTH FACTOR WRT Y-2011	POPULATION	SC/ST	HOUSE HOLDS
1.	As per Census 2011	1	4910	1486	783
2.	Initial Stage 2022	1.28	6298	1906	1004
3.	Middle Stage 2037	1.67	8191	2479	1306
4.	Ultimate Stage 2052	2.05	10084	3052	1608

Table 2: Gram Panchayat Population Summary

S. No	District Name	Sub District Name	Block Name	Gram Panchayat	2011 Census Code	Revenue Village Name	Habitations Name
1	GORAKHPUR	Bansgaon	Bansgaon	Baidauli Baboo and Karhal	0	Baidauli Baboo	Baidauli Baboo
2		Bansgaon	Bansgaon	Baidauli Baboo and Karhal	0	Karhal	Karhal
3							Mathia Tola

Table 1: List of village and Habitation

- Name of the state : UTTAR PRADESH
- Name of the District : GORAKHPUR
- Name of the Tehsil : Bansgaon
- Name of the Block : Bansgaon
- Name of the Programme : Under Jal Jeevan Mission
- Name of the GP : Baidauli Baboo
- No. of Village/Habitations : 2/3

Salient Feature



Table 4: Distribution Network Summary

Total Length (m)						
Pipeline Type	Details of Tube well Location	Material	Class	Diameter (mm)-OD	Length (m)	
Rising Mains	New Tube Well	DI	K-9	200	35	35
	In Water Works					

Table 3: Rising Mains

Pipeline Summary

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	: 408 KLD
b) Intermediate Year 2037	: 530 KLD
c) Ultimate Year 2052	: 653 KLD
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	: 1
b) Anticipated Discharge	: 1400 LPM
c) Total Working Head	: 43 m
d) Motor (HP)	: 25 HP
Service Storage	:
a) Quantity	: 1
b) Capacity	: 400 KL
c) Staging	: 14 m

Estimate for BAIDAVLI BABOO & KARHAL Gram Panchayat
Water Supply Scheme
Under - SWSM
Block - BANSGAON, District- Gorakhpur

Boq Item No.	Description	Unit	Qty	Rate	Amount
1.01	All the works including Hydrological survey, topographical survey, Design charges including preparation and approval of DPR	LS	1.00	328018.00	328018
2.00	Drilling of Borehole for Tubewell construction by DC/R/C/DTH Rig Machine including transportation, erection, dismantling of Rig and associated T&P complete in all respect including required all material labour etc.				
2.01	RIG Transportation for Tube Well Construction Transportation, Installation Dismantling of Rig machine and logging of bore hole Tube Well Construction - Drilling of Borehole DC/R/C Drilling up to 100Mtr.	Job	1.00	159478.88	159479
2.03	400 MMØ	Mtr.		1638.27	
2.05	450 MMØ	Mtr.		1834.20	
2.06	500 MMØ	Mtr.		2013.00	
2.06.01	550 MMØ	Mtr.	60.00	2422.00	145320
2.07	600 MMØ	Mtr.	40.00	2422.00	96880
2.08	DC/R/C Drilling from 101 Mtr. To 200 Mtr.Deep	Mtr.		1960.88	
2.10	500 MMØ	Mtr.		2144.00	
2.11	550 MMØ	Mtr.	56.00	2510.25	140574
2.12	DC/R/C Drilling from 201 Mtr. To 300 Mtr.Deep	Mtr.		2831.63	
2.13	450 MMØ	Mtr.		3014.75	
2.14	500 MMØ	Mtr.		3381.00	
2.16	DC/R/C Drilling from 301 Mtr. To 400 Mtr.Deep & above	Mtr.		3319.35	
2.17	450 MMØ	Mtr.		3502.48	
2.18	500 MMØ	Mtr.		3868.72	
2.19	600 MMØ	Mtr.			
2.20	DTH Drilling upto 200.0 Mtr.Deep	Mtr.		1250.00	
2.21	200/165 MMØ (in over burden/Hard Rock)	Mtr.		2900.00	
2.22	Development / Flushing of tubewell Tubewell Assembly (Supply + Fittings & Specials) MISERW plain pipe,As per IS 4270	Hr.			
3.01	100 MMØ MISERW plain pipe,As per IS 4270	Mtr.		927.50	
3.03	150 MMØ	Mtr.		1900.00	
3.04	200 MMØ	Mtr.	68.00	2550.00	173400
3.05	300 MMØ	Mtr.	36.00	3800.00	136800
3.06	MISERW Pipe slotted pipe as per IS 8110	Mtr.		1366.85	
3.07	100 MMØ	Mtr.		2800.00	
3.08	150 MMØ	Mtr.		3833.80	
3.10	300 MMØ	Mtr.		5188.59	
3.11	MS fittings such as clamp, ball plug, reducer, well cap, girder & support structure	LS	1.00	32295.00	32295
3.12	MS fittings such as ring & centre guide Tubewell Assembly Lowering Works Lowering of above assembly with welding of parts complete in all respect with all required material, T&P, labour, etc.	RM	140.00	471.68	66035
4.01	Lowering up to 100 Mtr. Deep				
4.02	100 MMØ MISERW Plain/Slotted Pipe	Mtr.		129.45	
4.03	150 MMØ MISERW Plain/Slotted Pipe	Mtr.		281.00	
4.04	200 MMØ MISERW Plain/Slotted Pipe	Mtr.	64.00	376.50	24096
4.05	300 MMØ MISERW Plain/Slotted Pipe	Mtr.	36.00	472.00	16992
4.06	Lowering from 101 Mtr. To 200 Mtr. Deep	Mtr.			

BoQ Item No.	Description	Unit	Qty	Rate	Amount
4.07	150 MMØ MSERW Plane/Slotted Pipe	Mtr.		376.00	
4.08	200 MMØ MSERW Plane/Slotted Pipe	Mtr.	40.00	499.19	19968
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	
5.00	Supply and unconsolidated packing of gravel with suitable size	Cum	50.00	7500.00	375000
6.01	Development of Tube well				
6.01	Transportation, 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	Transportation, 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	Transportation, 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	Transportation, 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.		959.00	
6.11	Charges for Development of TW by 3 cusec OP Unit	Hr.	1.00	1196.00	1196
6.12	Transportation, 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	
7.00	Pumping Plant:- SITC of Pumping plant including pumps with motors starter, panel, 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		238800	
7.08	15 HP	Nos		252100	
7.10	20 HP	Nos		276504.56	
7.11	25 HP	Nos		295500	
7.12	30 HP	Nos		334043.48	
7.13	35 HP	Nos		366163.04	
7.14	40 HP	Nos		393723.7	
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
9.00	Electrically operated Sluice Valve:-				
9.00	Electrically operated Sluice Valve PN 1.0 dia 100 mm	Nos		125000	
A.1 9.00	Electrically operated Sluice Valve PN 1.0 dia 80 mm	Nos		125000	
9.01	Electrically operated Sluice Valve PN 1.0 dia 150 mm	Nos	2.00	125000	250000
9.02	Electrically operated Sluice Valve PN 1.0 dia 200 mm	Nos	1.00	150000	150000
9.03	Check Valve PN 1.0 DPCV dia 100 mm	Nos		27519.8	
9.03.01	Check Valve PN 10 DPCV dia 80 mm	Nos		27519.8	
9.04	Check Valve PN 1.0 DPCV dia 150 mm	Nos	1.00	51145.45	51145
9.05	Check Valve PN 1.0 DPCV dia 200 mm	Nos		73485.9	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
9.06	Dismantling Joint :- Dismantling Joint PN 1.0 dia 100 mm	Nos	1.00	3923.92	3924
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	Nos			
9.10	1 Tonne	Nos		46305	
9.11	2 Tonne	Nos	1.00	58432.5	58433
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	Stabilizer				
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		12777.78	
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.		1400	
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(1+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	37.00	86800	3211600
21.00	Boundary Wall:- Construction of 1.3 m high and 15mm thick boundary wall with 230 mmx230 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 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	125.20	6400	801280
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 1.35mx0.23mx0.23m with ornamental brick work 15mm 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.	232.20	1070.5	248570
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	46.44	2800	130032
26.00	Construction of WBM:- Construction of WBM by providing grade materials, spreading in uniform layers including watering and compaction complete.	Cum	58.05	3029	175833

BoQ Item No.	Description	Unit	Qty	Rate	Amount
27.00	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	156.50	1607.14	251517
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 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	597000	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 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	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

BOQ Item No.	Description	Unit	Qty	Rate	Amount
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	
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		3241250.00	
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		4587000.00	
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	1.00	6830000.00	6830000
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		341500.00	

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 rod with 5 or more fork points as prescribed in ISS 2309-1969 and ISS 3013-1966, C.I. manhole of min 60x60cm size with locking arrangement, Supply, fixing, jointing of D.I.D/F Pipes of appropriate size with D.I.D/F specials conforming to IS 8329/2000 as vertical pipes for inlet, outlet, overflow and washout as per latest / relevant I.S. specifications with all jointing materials for proper completion of work, Construction of bed blocks in 1:2:4 PCC with cement, coarse sand and approved stone grit, Construction of washout / overflow chamber and chambers for sluice / butter fly valves as per departmental type design and drawing, Supply of 200 mm dia PVC pipe as per I.S.- 4985/2000 for disposal of water from overflow and washout chamber to suitable point outside the water works compound, Painting of all concrete surface and steel pipe works with three coats of

32.00

BOQ Item No.	Description	Unit	Qty	Rate	Amount
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, 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	8701.74	214.61	1867480
35.00	Mixed Soil with Kankar	Cum	2188.62	249.27	545557
36.00	Soft Rock	Cum	943.82		
37.00	Hard Rock	Cum	1319.18		
Additional	Disposal of Surplus Earth top 300 mm hc.	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		1656.00	
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 relevant 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 vetted 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 /mortum /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	
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. 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.				
40.01	Ductile Iron Pipe (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	35.00	2332.32	81631
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		1191.41	
40.07	80 mm dia Ductile Iron K-9	m		905.41	

No.	Description	Unit	Qty	Rate	Amount
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	Supply of following sizes pipes for distribution system conforming to latest/relevant I.S. 4984/1995 Specifications with all joining 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	522.00	229.5	119799
41.02	75 mm dia HDPE Pipe PN6, PE 100	m	1076.00	169.2	182059
41.03	63 mm dia HDPE Pipe PN6, PE 100	m	10110.00	125.8	1271838
42.00	Supply and carting up to site of work of the following dia DI butterfly valves:- 780/1969 or its latest amendments, including valve fittings & sluce valves, class I, working pressure 10 Kg/cm ² conforming to IS; 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 joining materials etc. complete including all taxes and insurance, as per instructions of Engineer - in-charge.				
42.01	Sluce valve - 300 mm dia	Nos		64042.00	
42.02	Sluce valve - 250 mm dia	Nos		48109.00	
42.03	Sluce valve - 200 mm dia	Nos	1.00	27304.00	27304
42.04	Sluce valve - 150 mm dia	Nos	1.00	17626.00	17626
42.05	Sluce valve - 125 mm dia	Nos	1.00	14505.00	14505
42.06	Sluce valve - 100 mm dia	Nos	2.00	14455.00	28910
42.07	Sluce valve - 80 mm dia	Nos		12401.00	
42.07.1	Sluce valve - 65 mm dia	Nos.		10650.00	
42.07.2	Sluce valve - 50 mm dia	Nos.		9700.00	
42.08	Sluce Valve				
42.08	Scour valve - 80 mm dia	Nos	10.00	10160.84	101608
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 joining materials and Valve fittings etc complete) as per instructions of Engineer.				
42.18	20 mm	Nos	9.00	10229.21	92063
42.19	50 mm	Nos	2.00	23170.33	46341
42.20	80 mm	Nos		23170.33	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
42.21	150 mm	Nos		41024.88	
42.22	Fire Hydrant:- Supply of under ground sluce valve fire hydrant consisting of 80 mm dia sluce 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 joining them with pipelines and testing etc. complete (including supply of joining materials and Valve fittings etc. complete as per instructions of Engineer -in - charge.	Nos	3.00	24500.00	73500
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	Sluce 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	Sluce 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.	3.00	18500.00	55500
43.05	Air Valve Chamber				
43.06	350 (L) x 350 (W) x 500 (H) mm	No.	11.00	9000.00	99000
43.07	Scour Valve Chamber				
43.08	dia upto 200 mm - 1000 (L) x 1200 (W) x 1300 (H) mm	No.	11.00	29670.00	326370
43.09	PRV Valve Chamber - 1000 (L) x 1200 (W) x 1300 (H) mm	No.		28380.00	
44.00	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 equated shape as necessary, its bending, fixing & binding the same with 0.50 mm thick binding wire in position & necessary centering & shuttering including curting 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.				
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	3.05	13656.33	41652
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	14.80	420.00	6216
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	0.20	109838.98	22072
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 labour, T&P etc complete for proper completion of work as per instructions of Engineer -in -charge. (Drawing No.D-7)	No	1.00	97060.00	970600

BOQ Item No.	Description	Unit	Qty	Rate	Amount
46.00	Recharge Mechanism:- Water recharge Mechanism within the water works campus	Sqm	4.00	52500.00	210000
47.00	Backfilling of Earth:- Backfilling of abandoned tube well with available Earth	Cum		107.00	
48.00	Assesst 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		36163.04	
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	Nos		1500.00	
48.19	32 mm Dia size - MS pipe	Nos		2000.01	
48.20	40 mm dia size - MS pipe	Nos		2763.00	
48.21	50 mm dia size - MS pipe	Nos		3200.01	
48.22	65 mm Dia size - MS pipe	Nos		4200.00	
48.23	80 mm Dia size - MS pipe	Nos		4701.00	
48.24	100 mm Dia size - MS pipe	Nos		6501.00	
48.25	150 mm Dia size - MS pipe	Nos			
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:- stacking of servicable materials and disposal of unservicable materials upto a distance of 50m as per instructions of Engineer-in-charge.				
50.01	B.O.E. Surface	Sqm	2899.81	100.00	289981
50.02	Bituminous Surface	Sqm	783.16	200.00	156631
50.03	Interlocking Road	Sqm		155.00	
50.04	C.C. Road	Sqm	593.97	329.96	195986
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	2899.81	350	1014933
51.02	Bituminous surface	Sqm	783.16	1534.82	1202005
51.03	Interlocking Road	Sqm		1070.5	

BQ Item No.	Description	Unit	Qty	Rate	Amount
51.04	C.C. Road	Sqm	593.97	1560.71	927014
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	2.00	19000	38000
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&F 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	1.00	40000	40000
52.06	State Highway road crossing (Upto Dia 350 mm)	Nos	1.00	27000	27000
52.07	Road Crossing:- Excavation in foundation of trench of proper size in soil mixed with moorum, Shingle, Kanakar, 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 casing pipe including supply of T&F, 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		1700	
52.10	150 mm dia. Pipe	Nos		2000	
52.11	200 mm dia. Pipe	Nos		2400	
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	

BOQ Item No.	Description	Unit	Qty	Rate	Amount
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 joining for proper completion of work as per instructions of Engineer as per Dwg 12 (excluding road restoration)	Nos.	1004.00	3500	3514000
54.00	Stand Post:- Construction of single tap pillar type stand post as per type design	Nos.	9.00	10000	90000
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. Cost of DPR Preparation @ 1% of CAPEX Cost of DPR Electromagnetic flow meters	Rs	%		
56.01	150mm	Nos.	150000	150000	150000
56.02	200mm	Nos.	190000	190000	
56.03	250mm	Nos.	225000	225000	
56.04	300mm	Nos.	260000	260000	
56.05	350mm	Nos.	330000	330000	
56.06	400mm	Nos.	420000	420000	
56.07	450mm	Nos.	500000	500000	
56.08	500mm	Nos.	550000	550000	
A1-56.09	100mm	Nos.	100000	100000	
A1-56.10	80mm	Nos.	80000	80000	
57.01	soft starter with RS485 port -400V,7.5KW Rating	Nos.	60000	60000	
57.02	soft starter with RS485 port -400V,15KW Rating	Nos.	70000	70000	
57.03	soft starter with RS485 port -400V,22KW Rating	Nos.	85000	85000	
57.04	soft starter with RS485 port -400V,30KW Rating	Nos.	100000	100000	
57.05	soft starter with RS485 port -400V,45KW Rating	Nos.	125000	125000	
57.06	soft starter with RS485 port -400V,55KW Rating	Nos.	140000	140000	
57.07	soft starter with RS485 port -400V,75KW Rating	Nos.	150000	150000	
57.08	soft starter with RS485 port -400V,90KW Rating	Nos.	175000	175000	
57.09	soft starter with RS485 port -400V,110KW Rating	Nos.	225000	225000	
57.10	soft starter with RS485 port -400V,132KW Rating	Nos.	250000	250000	
57.11	soft starter with RS485 port -400V,220KW Rating	Nos.	275000	275000	
57.12	soft starter with RS485 port -400V,250KW Rating	Nos.	325000	325000	
57.13	soft starter with RS485 port -400V,312KW Rating	Nos.	375000	375000	
57.14	soft starter with RS485 port -400V,450KW Rating	Nos.	550000	550000	
58.00	Auto Phase Reversal Unit:-				
58.01	100 Amp rating	Nos.	45000	45000	
58.02	125 Amp rating	Nos.	50000	50000	
58.03	160 Amp rating	Nos.	70000	70000	
58.04	200 Amp rating	Nos.	120000	120000	
58.05	250 Amp rating	Nos.	135000	135000	
58.06	315 Amp rating	Nos.	140000	140000	
58.07	400 Amp rating	Nos.	150000	150000	
58.08	500 Amp rating	Nos.	190000	190000	
58.09	630 Amp rating	Nos.	225000	225000	
59.00	Radar type Level transmitter	Nos.	120000	120000	
60.00	Control Panel:- control panel for all power equipments with IP 54 protection	Nos.	1.00	120000	120000

Estimate for BAIDAVLI BABOO & KARHAL Gram Panchayat

Water Supply Scheme

Under - SWSM

Block - BANSGAON, District - Gorakhpur

Form "J" - Comprehensive Scheme

SLSSC - 368/64
MNC - 265/22
DIL - 379/21

Sr. No.	Description of Work	Amount (Rs. in Lacs)	%	Govt. of U.P. Share	Govt. of India Share
1	Cost of Work	332.85		0	
2	0.14% Discount as per Contract on Cost of work	332.85	-0.14%	-0.47	
	Net Cost of Work	332.38			
3	Add Contingency 2%	332.38	2.00%	6.65	
	Sub Total (A)	339.03		169.51	169.51
4	Add GST 12 % - B	339.03	12.00%	40.68	20.34
5	Add 12.5% Contingency - C	339.03	12.50%	42.38	42.38
	Grand Total (A+B+C)	422.09		232.24	189.86
6	1st O&M Cost (after DLP)	332.38	2%	6.65	3.32
	Per Capita Cost (NET COST+CONTINGENCY+GST)	10084			
	TOTAL POPULATION A (ULTIMATE YEAR 2052)	3766			

M/S NCC Ltd.

Asst. Engineer (T)

Member Secretary DWSM

Executive Engineer,

U.P. Jal Nigam, 10th Div. Gorakhpur

Superintending Engineer,
23rd Circle
U.P. Jal Nigam, Ayodhya

Superintending Engineer,
XVII Circle
U.P. Jal Nigam, 10th Div. Gorakhpur

Chief Engineer
Gorakhpur Zone

Forwarded As Recommended
by DWSM For SLSSC

(Go Office. Varanasi)

(Go Office. Varanasi)

(Go Office. Varanasi)

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	5,97,000	5,97,000		1,45,851	2,91,702	
2	Rising Main	1,45,851					
3	R.C.C. Over head tank 400 KI/14 m staging	72,91,829 72,91,829		72,91,829			
4	Distribution System	1,43,59,484		1,43,59,484			
5	Approach Road	10,40,953	10,40,953				
6	Boundary Wall and approach road	8,72,280	8,72,280				
7	Staff Quarter	9,70,600	9,70,600				
8	Surveying and designing	3,16,983					3,28,018
	(Total A)	2,43,96,450	34,80,833	2,16,51,313	1,45,851	2,91,702	3,28,018
B. E&M works:							
1	Cost of Tubewell construction	18,17,016				18,17,016	
2	Cost of pumping plant and Chlorinating Plant	14,12,196				14,12,196	
3	Solar plant	32,11,600				32,11,600	
4	Electrification of pump house, SCADA	12,38,000 11,78,000				12,38,000	
	Total (B)	76,78,813	-	-	-	76,78,813	-
	G. Total (A+B)	3,20,15,262	34,80,833	2,16,51,313	1,45,851	79,70,515	3,28,018