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Contract Agreement

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THIS AGREEMENT made the 6th day of September, 2011, between **Guwahati Metropolitan Development Authority, Government of Assam, Guwahati, Assam, India** (hereinafter "the Employer"), of the one part, and **M/s. IVRCL Infrastructure & Projects Ltd., "MIHIR" H.No. 8-2-350/5/A/24/1B, Road No – 2, Banjara Hills, Hyderabad, India** (hereinafter "the Contractor"), of the other part:

WHEREAS the Employer desires that the Works known as Procurement of Works (Item Rate) for Supply, Installation and Commissioning of M.S. Pipes and HDPE Pipes & Installation and commissioning of D.I. Pipes for Distribution Network in Narakasur & Sonaighuli area of South Central Zone (Contract Identification No. GWSP/LCB/C#07) should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. A In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.

- (i) the Letter of Acceptance;
- (ii) the Letter of Technical Bid;
- (iii) the Letter of Price Bid, Priced Bill of Quantities and Schedule of Adjustment data;
 - (iv) the addenda (following addenda as issued to the Bidders on the date mentioned);
 - Addendum #1: dated June 06, 2011
 - (v) the Particular Conditions;
 - (vi) the General Conditions;
- (vii) the Specification (as issued to the Bidder on Januray 20, 2011 including addenda as above);

Chief Executive Officer Guwahati Metropolitan Dev. Authority

(viii) the Drawings (as issued to the Bidder on Januray 20, 2011 including addenda as above);

- (ix) the completed Schedules (as submitted by the Bidder in Technical Bid);
- Acknowledgment of Compliance with Guidelines for Procurement under Japanese ODA Loans; and
- (xi) Forms:
 - a) Performance Security
 - b) Advance Payment Security
 - c) Retention Money Security

3. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of India on the day, month and year indicated above.

Chief Executive Officer Guwahati Metropolitan Dev. Authority

Signed by: Sri Preetom Saikia, CEO, GMDA for and on behalf of the Employer

in the presence of

Signed by: XI to Chanton

for and on behalf the Contractor

in the presence of

Signature:

Name: <u>C, K, BHUYAN</u> Designation:

Date: 692011

Additional Project Director
Project Implementation Unit (P.I.U.)
JICA funded Guwahati Water Supply Project

in Inia Signature: PAR Name: Designation: Date:

OFFICE OF THE CHIEF EXECUTIVE OFFICER GUWAHATI METROPOLITAN DEVELOPMENT AUTHORITY BHANGAGARH, GUWAHATI-5

Letter of Acceptance

No. GMDA/JICA/21/2011/ 5

August 26, 2011

To:

M/s. IVRCL Infrastructure & Projects Ltd. "MIHIR" H.No. 8-2-350/5/A/24/1B Road No – 2, Banjara Hills Hyderabad – 500 034 , India

This is to notify you that your Bid dated 27th June 2011 for execution of the Works (Item Rate) for Supply, Installation and Commissioning of M.S. Pipes and HDPE Pipes & Installation and commissioning of D.I. Pipes for Distribution Network in Narakasur & Sonaighuli area of South Central Zone (Contract Identification No. GWSP/LCB/C#07) for the Accepted Contract Amount of the equivalent of INR 994,471,776 (Rupees Nine Hundred and Ninety Four Million Four Hundred Seventy One Thousand Seven Hundred and Seventy Six Only), as corrected and modified in accordance with the Instructions to Bidders, is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose one of the Performance Security Forms included in Section IX, Annexed to the Particular Conditions - Contract Forms, of the Bidding Document.

Authorized Signature:

PKSNS (Prectom Saikia)

Name and Title of Signatory: Mr. Preetom Saikia, Chief Executivé Officer, GMDACer Guwahati Metropolitan Dev. Authority Name of Agency: Guwahati Metropolitan Development Authority

Attachment: Contract Agreement

No. GMDA/JICA/21/2011/5 - A

August 26, 2011

Copy to:

- 1) The Project Director, Project Implementation Unit, JICA assisted GWSP, Guwahati
- 2) Japan International Cooperation Agency, JICA India Office, New Delhi, India
- 3) Project Management Consultant, Guwahati, India



Chief Executive Officer

Guwahati Metropolitan Dev. Authority



Letter of Technical Bid

Date: 27/06/2011 LoanNo.:/D-P201 Invitation for Bid No.: GWSP/LCB/C-07/10-11/

101 The Chief Executive Officer, .IICA ODA Loan Project, Guwahati Metropolitan Development Authority 3rd Floor, STATFED Building, GMCH Road, Illiangagarh, Guwahati - 781005, Assam, India

We, the undersigned, declare that:

- (ii) We have examined and have no reservations to the Bidding Document, including Addenda No.:01 issued in accordance with Instructions to Bidders (ITB) 8;
- (b) We offer to execute in conformity with the Bidding Document the following Works: Procurement of Works (Item rate) for Supply, Installation, Construction and Commissioning of MS pipes & HDPE pipes & Installation and commissioning of D.I. Pipes for Distribution Network in Narakasur & Sonaighuli area of South Central Zone (Contract Package No. C-07).
- (c) Our bid consisting of the Technical Bid and the Price Bid shall be valid for a period of 120 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (I) We, including any subcontractors or suppliers for any part of the contract, have or will have nationalities from eligible countries, in accordance with ITB 4.2;
- (ii) We, including any subcontractors or suppliers for any part of the contract, do not have any conflict of interest in accordance with ITB 4.3;
- (I) We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process in accordance with ITB 4.3, other than alternative offers submitted in accordance with ITB 13;

#kined 1 Duly authorized to sign the bid for and on behalf of IVRCL LIMITED Dated on : 2n 4 1

WRCL LIMITED

Guwahati Sub Regional Office :: H. No. 3, Rupknywar Path, Chachal, VIP Road, Guwahati - 781022

Tel: 0361-213785, e-mail: giwaitatioffice@ivrinfra.com

Kolkata Regional Office : Akash Tower, Unit 3-A, 3rd Floor, 781 - Anandapur. Kolkata - 700 107 Tel.: 033-30131600, e-mail: ivik oltara@ivrinfra.com

Head () Mice ; "MIHIR", B-2-350/5/A/24/1-382, Read # 2, Panchavati Colony, Banjara Hills, Hyderabad - 500 034, A.P. Phone : 040-2335 6613/15/18/21/51 to 55, 30931111/1444 (60 line), Fax : 040-2335 6693



Nume: Dilig Gogoi

In the capacity of RCL LIMITED

Chief Executive Officer Guwahat Metropolitan Dev. Awhority



Letter of Price Bid

Date: 27/06/2011 Loan No.: ID-P 201 Invitation for Bid No.: GWSP/LCB/C-07/10-11/

To:

The Chief Executive Officer, JICA ODA Loan Project, Guwahati Metropolitan Development Authority 3rd Floor, STATFED Building, GMCH Road, Bhangagarh, Guwahati - 781005, Assam, India

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Document, including Addenda No.^(p) issued in accordance with Instructions to Bidders (ITB) 8;
- (b) We offer to execute in conformity with the Bidding Document and Technical Bid submitted for the following Works: Procurement of Works (Item rate) for Supply, Installation, Construction and Commissioning of MS pipes & HDPE pipes & Installation and commissioning of D.I Pipes for Distribution Network in Narakasur & Sonaighuli area of South Central Zone.
- (c) The total price of our bid, excluding any discounts offered in item (d) below is: Rs. 99,47,71,776/-

(Rupees Ninety Nine Corcores Fourty Seven Lacs. Seventy One Thousand, Seven Hundred Seventy Six Only)

(d) The discounts offered and the methodology for their application are: 11-47% apply table for all the graded trades of BOQ items,

(e) Our bid shall be valid for a period of 180 days from the date fixed for the bid submission deadline in accordance with the Bidding Document, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

- (f) If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Document;
- (g) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and
- (h) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Name : Dilig Gogoi AN RCL LIMITED In the capa Signed

Duly authorized to sign the bid for and on behalf of IVRCL LIMITED

Dated on : 27.6.2011

IVRCL LIMITED

 Guwahati Sub Regional Office : H. No. 3, Rupknowar Path, Chachal, VIP Road, Guwahati - 781022

 Tel : 0361-213785, e-mail : guwahatioffice@ivrinfra.com

 Kolkata Regional Office : Akssh Tower, Unit 3-A, 3rd Floor, 781 - Anandapur. Kolkata - 700 107

 Tel : 033-30131600, e-mail : wikolkata@ivrinfra.com

 Head Office : "MiHIR", B-2-350/5/A/24(1-382, Road # 2, Panchavati Colony. Banjara Hills, Hyderabad - 500 034. A P

 Phone : 040-2335 6613/15/18/21/51 to 55, 30931111/1444 (60 line), Fax : 040-2335 6693



Chief Executive Officer Guwahati Metropolitan Dev. Authority

Item No.	Item Description	Amount including local transportation, transit insurance etc., but (excluding all taxes and other levies payable, etc.,	Amount all taxes and other levies payable, etc.	Amount (includ	ing local transportation, transit insurance all taxes and other levies payable, etc.,)
		(1)	(2)		(3) = (1) + (2)
				In Figure (Rs.)	In words
1	Survey Work	3054480	0	3054480	(Rupees Thirty Lacs Fifty Four Thousand Four Hundred Eighty Only)
2	Earthwork	112022850	0	112022850	(Rupees Eleven Crores Twenty Lacs Twenty Two Thousand Eight Hundred Fifty Only)
3	Pipelines, Specials and Appurtenances	152515022	1181765	153696787	(Rupees Fifteen Crores Thirty Six Lacs Ninety Six Thousand Seven Hundred Eighty Seven Only)
4	Pipe Jacking	72340810	0	72340810	(Rupees Seven Crores Twenty Three Lacs Fourty Thousand Eight Hundred Ten Only)
5	Valves and Appurtenances	37322955	4350194	41673149	(Rupees Four Crores Sixteen Lacs Seventy Three Thousand One Hundred Fourty Nine Only)
6	Valve Chambers	72059794	0	72059794	(Rupees Seven Crores Twenty lacs Fifty Nine Thousand Seven Hundred Ninety Four Only)
7	Miscellaneous Civil Work	22484287	0	22484287	(Rupees Two Crores Twenty Four Lacs Eighty Four Thousand Two Hundred Eighty Seven Only)
8	Road Restoration	624324700	0	624324700	(Rupees Sixty Two Crores Fourty Three Lacs Twenty Four Thousand Seven Hundred Only)
9	Testing, Trial Runs and Commissioning	20691000	0	20691000	(Rupees Two Crores Six Lacs Ninety One Thousand Only)
	Subtotal (Items 1-8)	1116815898	5531959	1122347857	(Rupees One Hundred Twelve Crores Twenty Three Lacs Fourty Seven Thousand Eight Hundred Fifty Seven Only)
10-12	Day works				
	Subtotal (Items 9)	968280	0	968280	(Rupees Nine Lacs Sixty Eight Thousand Two Hundred Eighty Only)
	GRAND TOTAL	1117784178	5531959	1123316137	(Rupees One Hundred Twelve Crores Thirty Three Lacs Sixteen Thousand One Hundred Thirty Seven Only)
	Discount Offered (11.47%)	128,209,845.22	634,515.70	128,844,360.91	
	Discounted Price	989,574,332.78	4,897,443.30	994,471,776.09	

Summary of Prices Package C#07



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tem No.	Description		Quantity	Un	it Rate		Amount	
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
			11	2	3	4=1 X 2	5= 1X3	6= 4 + 5
1	SURVEY AND INVESTIGATION WORK							
1.1	Topographical survey work using Total Station as directed by the Employer's Representative, including preparation and finalization of survey drawings and CADD files.	km	60	33000	0	1980000	0	1980000
1.2	Preparation of Working drawing including carrying out necessary survey and investigation as per specification and directed by Employer's Representative.	km	407	2640	0	1074480	0	1074480
	Subtotal Item No. 1					3054480	0	3054480
2	EARTHWORK							
2.1	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, masonary work, etc. in all kinds of ordinary soils such as murum, sand, sandy silt, clay, kankar etc. or in combination. Excavation shall include the removal of WBM roadway surfaces, brick surfacing, including dressing, compaction of the bottoms of the excavation, shoring and strutting wherever required, dewatering whenever required, removal of the excavated soil, stockpiling and disposal of surplus excavated soil off-site as directed by the Employer's Renresentative.							
	Excavation will be paid for in the following segments							13

Contract PackageNo.- C#07 : Procurement of Works (Item rate) for Supply, Installation and Commissioning of M.S. Pipes and HDPE Pipes & Installation and Commissioning of D.I. Pipes for Distribution Network in Sonaiahuli and Narkasur of South Central Zone

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tem	Description	Unit	Quantity	Un	it Rate		Amount	
No.				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes Duties, etc.	, Total
(a)	0 to 1.5 m from GL	m ³	371400	92	0	34168800	0	34168800
(b)	above 1.5 m to 3.0 m depth from GL	m ³	43700	99	0	4326300	0	4326300
(C)	above 3.0 m to 4.5 m depth from GL	m ³	21900	119	0	2606100	0	2606100
2.2	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, masonary work, etc. in ail kinds of ordinary rock , Excavation shall include the removal of asphalt and concrete road surfacing, including dressing, compaction of the bottoms, shoring and strutting wherever required, dewatering whenever required, removal of the excavated rock, stockpiling and disposal of surplus excavated rock off-site as directed by the Employer's Representative.							
	Excavation will be paid for in the following segments:							
(a)	0 to 1.5 m from GL	m ³	74300	224	0	16643200	0	16643200
(b)	above 1.5m to 3.0 m depth from GL	m ³	8800	238	0	2094400	0	2094400
(C)	above 3.0 m to 4.5 m depth from GL	m ³	4350	264	0	1148400	0	1148400
2.3	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, etc. in all kinds of hard rock requiring blasting , Excavation shall include dressing, compaction of the bottoms, shoring and strutting wherever required, dewatering whenever required, removal of the excavated rock, stockpiling and disposal of surplus excavated rock off-site as directed by the Employer's Representative							no
	of surplus excavated rock off-site as directed by the Employer's							Chief Executive Of Guwahati Metropolitan De

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tem	Description	Unit	Quantity	Un	it Rate		Amount	
<u>No.</u>				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
_	Excavation will be paid for in the							
(-)	following segments:	3	2500	500	0	1250000	0	1250000
(a)	0 to 1.5 mfromGL	m ³			0	158100	0	158100
(b) (c)	above 1.5m to 3.0 m depth from GL above 3.0 m to 4.5 m depth from GL	<u>m³</u> m³	300 150	527 566	0	84900	0	84900
2.4	Earth work for excavation of foundations, pipe trenches, vaive chambers, thrust blocks, etc- in ai! kinds of hard rock (blasting prohibited), Excavation shall include dressing, compaction of the bottoms, shoring and strutting wherever required, dewatering whenever required, removal of the excavated rock, stockpiling and disposal of surplus excavated rock off-site as directed by the Employer's Representative.							
	Excavation will be paid for in the following segments;							
(a)	0 to 1.5 m from GL	³	47000	705	00	33135000	0	33135000
(b)	above 1.5m to 3.0 m depth from GL	m ³	5500	771	0	4240500	0	4240500
(c)	above 3.0 m to 4.5 m depth from GL	m ³	2750	870	0	2392500	0	2392500
2.5	Backfilling of pipe trenches, foundations, etc. with approved graded excavated soil (excluding rock), including placing in layers not exceeding 20 cm in depth each, and compacting each layer, complete as per the specification and as directed by the Employer's Representative.	m ³	62150	29	0	1802350	0	1802350 Chief Executive Office wahati Metropolitan Dev. A

			Pri	ced Bill of C	Quantities (C#07	7)		
Item No.	Description	Unit	Quantity	Un	it Rate		Amount	
110.				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
	Backfilling of pipe trenches, foundations, etc. with Contractor's supplied approved graded sand, including placing in layers not exceeding 20 cm in depth each, and compacting each layer, complete as per the specification and as directed by the Employer's Representative.	m³	20700	359	0	7431300	0	7431300
2.7	Backfilling of pipe trenches, foundations, etc, with Contractors supplied approved graded gravel, including placing in layers not exceeding 20 cm in depth each, and compacting each layer, complete as per the specification and standard drawings and as directed by the Employer's Representative.	m	1000	541	0	541000	0	541000
	Subtotal Item No. 2					112022850	0	112022850



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pr Chief Executive Officer Gywanati Metropolitian Dev, Authority

			Pri	ced Bill of C	Quantities (C#07	7)		
ltem No.	Description	Unit	Quantity	Un	it Rate		Amount	
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
3	PIPELINES, SPECIALS AND APPURTENANCES							
3.1	Supplying spirally welded MS pipe with internal lining and external coating as per the specification of the following internal diameters and wall thicknesses. The rate shall include third party inspection, transportation, freight charges, loading, unloading and stacking at the project site, with the cost of all labor, material, taxes and duties.							
(a)	300 mm ID 6 mm thick (at NH crossing)	m	90	2553	0	229770	0	229770
()	400 mm ID 20 mm thick (for trenchless pipe laying)	m	300	14178	227	4253400	68100	4321500
(C)	500 mm ID 20 mm thick (for trenchless pipe laying)	m	100	14182	0	1418200	0	1418200
(d)	700 mm ID 6 mm thick	m	5386	9691	119	52195726	640934	52836660
(e)	700 mm ID 20 mm thick (at NH crossing)	m	90	19855	0	1786950	0	1786950
(^f)	1000 mm ID 8 mm thick	m	809	16037	227	12973933	183643	13157576



Chief Executive Officer Guwahati Metropolitan Dev. Authority

ltem					Quantities (C#07	/			
No.	Description	Unit	Quantity	Un	it Rate		Amount		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total	
	Supplying all types of MS Specials plain ended, socket ended and flanged as required with interna! lining and external coating as per the specification, such as bends, tees, tapers, spool pieces, blind flanges, pieces for pipe connection, valve connections, dismantling joints, anchor bolts, straps, air vent pipe, etc, of different diameters, manufactured from Fe 410 grade steel. This item includes loading, transportation to the project site, unloading and stacking, etc. complete with cost of third party inspection, material, labor, taxes and duties.	MT	22	100024	0	2200528	0	2200528	
	Handling, aligning, laying and jointing MS pipes and specials to correct line and level in trenches. The item includes transportation of pipes and specials from the storeyard to the project site, stacking of pipe as per BIS requirements, loading, unloading, hoisting, lowering, marginal cutting and grinding wherever necessary, assembling, jointing, providing temporary supports, lining and coating at joints etc. for pipe of the following diameters and thicknesses. The rate also shall include radiography of field joints, field testing, etc. as specified and shown on the drawings and <u>specification</u> .								
(a)	300 mm ID 6 mm thick (at NH crossinq)	m	90	388	0	34920	0	34920	
(b)	700 mm ID 6 mm thick	m	5386	606	0	3263916	0	3263916 61560191 Execuity Guwahali Metrebolita	officer
(C)	700 mm ID 20 mm thick fat NH crossing)	m	90	684	0	61560	0	6156chief Executiv	n Dev, Auth

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			Pri	ced Bill of G	Quantities (C#07	7)		
ltem No.	Description	Unit	Quantity	Un	it Rate	Amount		
1101		-		Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
(d)	1000 mm ID 8 mm thick	m	809	853	0	690077	0	690077
3.4	Supplying DI Specials and fittings with plain, double socket, socket & flanged and double flanged end connections as required, with lining and coating as per the specification, and IS 9523 with EPDM rubber gaskets as per IS 5382 as required for successful completeion of the work. This item includes third party inspection, transportation, freight, loading and unloading, stacking etc. all complete for various sizes of DI specials and fittings as noted with the following end connections.							
(a)	Tee's, Socket, collar, tail pieces, flanged tapers, socketed tapers, flanged spigot short pipes, flanged socket short piece, all bends, end caps, barrel piece, dismantling joints etc. required for suitable completion of the works.	MT	260	100000	0	26000000	0	2600000
(b)	Double flanged pipe pieces, required for suitable completion of works.	ΜT	26	125000	0	3250000	0	3250000



Chief Executive Officer Guwahati Metropolitan Dev. Authority

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tem	Description	Unit	Quantity	Un	it Rate		Amount	
No.			quantity	Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
3.5	Handling, aligning, laying and jointing of K-9 DI pipe to other pipe and to fittings and specials, with EPDM rubber O-rings (as per IS 5382) and flange gaskets (as per IS 12288) as per specifications. This item includes transportation of pipes, specials and fittings from the storeyard to the project site, stacking of pipe and fittings as per BIS requirements, loading, unloading, hoisting, lowering, marginal cutting and grinding wherever necessary, assembling, jointing, providing temporary supports etc., all complete with approved equipment, for pipe of the following diameters.							
(a)	100 mm DN DI - K9 pipe	m	233034	48	0	11185632	0	11185632
(b)	150mmDNDI - K9 pipe	m	50058	65	0	3253770	0	3253770
(C)	200 mm DN DI - K9 pipe	m	28976	95	0	2752720	0	2752720
(d)	250mmDNDI - K9 pipe	m	22732	125	0	2841500	0	2841500
(e)	300 mmDN DI - K9 pipe	m	13831	170	0	2351270	0	2351270
(f)	400 mm DN DI - K9 pipe	m	18116	237	0	4293492	0	4293492
(g)	500mmDNDI - K9 pipe	m	5411	296	0	1601656	0	1601656
(h)	600 mm DN DI - K9 pipe	m	1082	363	0	392766	0	392766
3.6	Supplying of HDPE (PE80) pipe including all specials confirming to IS 4984 and the specifications, including third party inspection, all taxes and duties, transportation, freight charges, loading and unloading, conveyance to the project site and stacking with cost of all labor and material for following pipe diameters.							Chisf Executive Officer Gaveshati Metropolitan Dev, Au



			Pri	ced Bill of C	Quantities (C#07	')		
ltem No.	Description	Unit	Quantity	Un	it Rate		Amount	
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
(a)	110 mm OD HDPE PE-80 PN6	m	8712	261	5	2273832	43560	2317392
(b)	160 mm OD HDPE PE-80 PN6	m	1136	540	11	613440	12496	625936
(C)	110 mm OD HDPE PE-80 PN10	m	16878	393	8	6633054	135024	6768078
(d)	160 mm OD HDPE PE-80 PN10	m	2853	835	16	2382255	45648	2427903
(e)	225 mm OD HDPE PE-80 PN10	m	630	1645	32	1036350	20160	1056510
(f)	250 mm OD HDPE PE80 PN 10	m	300	2031	39	609300	11700	621000
(g)	315 mm OD HDPE PESO PN 10	m	200	3219	63	643800	12600	656400
(h)	355 mm OD HDPE PESO PN 10	m	100	4084	79	408400	7900	416300
3.7	Handling, aligning, laying and jointing of HDPE (PE80) pipes with specials by butt welding / spigot joints confirming to IS and specifications. The item includes transportation of pipes and specials from store yard to site, stacking of pipe as per BIS, loading, unloading, hoisting, lowering, cutting and grinding wherever necessary, assembling, jointing, providing temporary supports etc., all complete with approved equipment, for pipes of following diameters.							
(a)	110 mm OD HDPE PE-80 PN6	m	8712	30	0	261360	0	261360
(b)	160 mm OD HDPE PE-80 PN6	m	1136	45	0	51120	0	51120
(c)	110 mm OD HDPE PE-80 PN10	m	14878	30	0	446340	0	446340
(d)	160 mm OD HDPE PE-80 PN10	m	1853	45	0	83385	0	83385
(e)	225 mm OD HDPE PE-80 PN10	m	580	70	0	40600	0	40600
	Subtotal Item No. 3					152515022	1181765	153696787
4	PIPE JACKING							



			<u>Pri</u>	ced Bill of C	Quantities (C#07	<u>)</u>		
ltem No.	Description	Unit	Quantity	Un	it Rate		Amount	
NQ.				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
4.1	Pipe jack for National Highway/Railway crossing with Jacking and Pushing method. The item include pushing jointing following diameter MS pipe of required length, construction of Receiving and Jacking pit with suitable shoring and strutting (if required), including installation of jacking platform, thrust resistant arrangement of required capacity including , hydraulic jacking with required accessories, required excavation inside the jacking pipe and disposal the same, etc. all complete as per drawing, specification and as directed.							
(a)	Jacking and pushing of 700 mm ID 20 mm thick MS pipe	m	90	54444	0	4899960	0	4899960
4.2	Laying of pipe and jointing by trenchless technology including construction of pit with required accessories, all civil and mechanical works, disposal of excess earth, etc. all complete as per specification and instruction of Employer's representative.							
(a)	110 mm OD HDPE PE8Q PN10	m	2000	10251	0	20502000	0	20502000
(b)	160 mm OD HDPE PE80 PN 10	m	1000	15144	0	15144000	0	15144000
(C)	225mmODHDPEPE8QPN10	m	50	23547	0	1177350	0	1177350
(d)	250 mm OD HDPE PE80 PN 10		300	23547	0	7064100	0	7064100
(e)	315 mm OD HDPE PE80 PN 10	m	200	27619	0	5523800	0	5523800
(f)	355 mm OD HDPE PE80 PN 10	m	100	27619	0	2761900	0	2761900
(g)	400 mm ID MS Pipe	m	300	35325	0	10597500	0	10597500
(h)	500 mm ID MS Pipe	m	100	46702	0	4670200	0	4670200



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			Pri	ced Bill of G	Quantities (C#07	')		
Item No.	Description	Unit	Quantity	Un	it Rate		Amount	
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
	Subtotal Item No. 4					72340810	0	72340810
5	VALVES AND APPURTENANCES							
	Supplying of following diameters Cast iron double flanged ends Sluice valve as per IS 14864 with end cap and all accessories required for fixing and jointing, and shall include anti-corrosive painting etc. all complete. The rate shall include all local and centra! taxes, third party inspection, transportation, freight charges, loading and unloading, conveyance to storeyard and stacking the same, with cost of all labour and material. The item shall be as per specification, drawing and as directed.							
(a)	80 mm dia (for Fire hydrant) PN1.0	Nos.	22	6605	984	145310	21648	166958
(b)	100mmdiaPNI.O	Nos,	1188	8595	1280	10210860	1520640	11731500
(c)	150 mmdiaPNI.O	Nos.	100	12398	1846	1239800	184600	1424400
(d)	200 mmdiaPNI.O	Nos.	63	22026	3280	1387638	206640	1594278
(e)	250mmdiaPN1.0	Nos.	50	31524	4695	1576200	234750	1810950
· · /	300 mm dia PN1.0	Nos.	41	40347	6009	1654227	246369	1900596
(g)	80 mm dia (for Fire hydrant) PN1.6	Nos.	11	9452	1408	103972	15488	119460
(h)	100 mmdiaPN1.6	Nos.	285	13667	2035	3895095	579975	4475070
(i)	150 mmdiaPN1.6	Nos.	45	21188	3155	953460	141975	1095435
(j)	200 mm dia PN1.6	Nos.	18	38938	5799	700884	104382	805266
(k)	250 mm dia PN1.6	Nos.	7	52416	7806	366912	54642	421554
()	300mmdiaPN1.6	Nos.	20	67181	10005	1343620	200100	1543720



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			Pri	ced Bill of G	Quantities (C#07	7)				
ltem No.	Description	Unit	Quantity	Un	it Rate		Amount			
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total		
	Handling, aligning and installing in true to line and level cast iron double flanged Sluice Valves (IS 14864) of the following diameters, This item includes transportation of valves and accessories from the storeyard to the project site, loading, unloading, hoisting, lowering, assembling and jointing including the cost of all jointing materials such as rubber gaskets, nuts, bolts, etc., and providing temporary supports, as per the specifications and drawings.									
(a)	80 mm dia (for Fire hydrant) PN1.0	Nos.	22	2500	0	55000	0	55000		
(b)	100 mm dia PN1.0	Nos.	1188	3250	0	3861000	0	3861000		
(C)	150 mm diaPNLO	Nos.	100	4000	0	400000	0	400000		
(d)	200mmdiaPN1.0	Nos.	63	4875	0	307125	0	307125		
(e)	250mmdiaPN1.0	Nos.	50	7625	0	381250	0	381250		
(f)	300mmdia PN1.0	Nos.	41	10000	0	410000	0	410000		
(g)	80 mm dia (for Fire hydrant}_PN1.6	Nos.	11	2500	0	27500	0	27500		
(h)	100 mm diaPN1.6	Nos.	285	3250	0	926250	0	926250		
(i)	150mmdiaPN1.6	Nos.	45	4000	0	180000	0	180000		
(j)	200 mm dia PN1.6	Nos.	18	4875	0	87750	0	87750		
(k)	250 mm dia PN1.6	Nos.	7	7625	0	53375	0	53375		
()	300mmdiaPN1.6	Nos.	20	10000	0	200000	0	200000		



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Item	Description	Unit	Quantity	Un	it Rate		Amount	
No.				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
5.3	Supplying of following diameters double flanged Butterfly valves (manually operated) as per IS 13095 with all accessories, including approved anti-corrosive painting. The rate shall include all local and central taxes, third party inspection, transportation, freight charges, loading, unloading, conveyance to storeyard and stacking the same, with cost of all labour, and material. The item shall be as per specification, drawing and as directed.							
(a)	400 mm diaPN1.0	Nos.	10	81699	12167	816990	121670	938660
(b)	500mmdiaPN1.0	Nos.	6	116057	17284	696342	103704	800046
(c)	400 mm dia PN1.6	Nos.	3	114808	17098	344424	51294	395718
(d)	500 mm dia PN1.6	Nos.	1	158170	23556	158170	23556	181726
5.4	Handling, aligning, and fixing in true to fine and level following diameters and rating double flanged Butterfly valves PN 1.6 (manually opereted as per IS 13095) including cost of required jointing material such as rubber packing, nuts bolts etc. The item includes transportation of valves and accessories from store yard to site, loading, unloading, hoisting, lowering, grinding wherever necessary, assembling and jointing, providing temporary supports etc., all complete with approved equipment, for valves of following diameters, for all lead and lift. The item shall be as per specification, drawing and as directed.							
(a)	400mmdiaPN1/0	Nos.	10	13750	0	137500	0	137500
(b)	500mmdiaPN10	Nos.	6	20000	0	120000	0	120000 Chief Executive Office Guwahati Metropolitan Page

			Pri	ced Bill of C	uantities (C#07	')	·····		
ltem No.	Description	Unit	Quantity	Un	it Rate	Amount			
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total	
(C)	400 mm diaPN1.6	Nos.	3	13750	0	41250	0	41250	
(d0	500mmdia PN1.6	Nos.	1	20000	0	20000	0	20000	
5.5	Supplying of following diameters of Double chamber Air valves with in built sluice valve with flanged ends as per IS 14845, with all accessories required, including anti-corrosive painting etc. all complete. The rate shall include all local and central taxes, third party inspection, transportation, freight charges, loading and unloading, conveyance to store yard and stacking the same, with cost of all labour, and material. The item shall be as per specification, drawing and as directed.								
(a)	80 mmdia PN1.0	Nos.	60	14794	2203	887640	132180	1019820	
(b)	100mmdiaPN1.0	Nos.	13	19343	2881	251459	37453	288912	
(C)	150 mmdia PN1.0	Nos.	2	31684	4719	63368	9438	72806	
(d)	80 mm dia PN1.6	Nos.	52	19781	2946	1028612	153192	1181804	
(e)	100mmdiaPN1.6	Nos.	8	24956	3717	199648	29736	229384	
(f)	150 mm dia PN1.6	Nos.	1	40901	6091	40901	6091	46992	

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			Pri	ced Bill of C	Quantities (C#07	')			
ltem No.	Description	Unit	Quantity	Un	iit Rate		Amount		
110.				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total	
5.6	Handling, aligning, and installing in true to line and level following diameters Double chamber Air valves with in built sluice valve with all accessories and as per specifications and drawings. This item includes transportation of valves and accessories from the storeyard to the project site, loading, unloading, hoisting, assembling and jointing, including the cost of jointing materials such as rubber packing, nuts, bolts, etc., as per the specifications and drawings.								
(a)	80mmdiaPN1.0	Nos.	60	4500	0	270000	0	270000	
(b)	100mmdiaPN1.0	Nos.	13	5750	0	74750	0	74750	
(C)	150mmdiaPN1.0	Nos.	2	7000	0	14000	0	14000	
(d)	80mmdiaPN1.6	Nos.	52	4500	0	234000	0	234000	
(e)	100mmdiaPN1.6	Nos.	8	5750	0	46000	0	46000	
(f)	150 mmdiaPN1.6	Nos.	1	7000	0	7000	0	7000	
5.7	Supplying of following diameters Pressure Reducing valve with double flanged ends and shall including anti- corrosive painting etc. all complete. The rate shall include all local and central taxes, third party inspection, transportation, freight charges, loading and unloading, conveyance to storeyard and stacking the same, with cost of all labour, and material. The item shall be as per specification, drawing and as directed.								
(a)	100mm dia PN1.0	Nos.	1	8595	1280	8595	1280	9875	
(b)	150mm dia PNA.0	Nos.	1	12398	1846	12398	1846	14244	Officer
(C)	200mm dia PN1.0	Nos.	1	22026	3280	22026	3280	14244 25306 Chief Execu	Dev. Aut

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			Pri	ced Bill of G	Quantities (C#07	')		
ltem No.	Description	Unit	Quantity	Un	it Rate		Amount	
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
(d)	250mm dia PN1.0	Nos.	5	31524	4695	157620	23475	181095
(e)	300mm dia PN1.0	Nos.	5	40347	6009	201735	30045	231780
(f)	400mm dia PN1.0	Nos.	3	81699	12167	245097	36501	281598
(g)	300mm dia PN1.6	Nos.	2	67181	10005	134362	20010	154372
(h)	400mm dia PN1.6	Nos.	1	114808	17098	114808	17098	131906
5.8	Handling, aligning, and fixing in true to line and level following diameters Pressure Reducing valve double flanged ends. The item includes transportation of valves and accessories from store yard to site, loading, unloading, hoisting, lowering, grinding wherever necessary, assembling and jointing, including cost of jointing materials such as rubber packing, nuts boits etc., providing temporary supports, all complete with approved equipment, for all leads and lifts. The item shall be as per specification, drawing and as directed.							
(a)	100mm dia PN1.0	Nos.	1	3250	0	3250	0	3250
(b)	150mm dia PN1.0	Nos.	1	4000	0	4000	0	4000
(c)	200mm dia PN1.0	Nos.	1	4875	0	4875	0	4875
(d)	250mm dia PN1.0	Nos.	5	7625	0	38125	0	38125
(e)	300mm dia PN1.0	Nos.	5	10000	0	50000	0	50000
(f)	400mm dia PN1.0	Nos.	3	13750	0	41250	0	41250
(g)	300mm dia PN1.6	Nos.	2	10000	0	20000	0	20000
(h)	400mm dia PN1.6 174	Nos.	1	13750	0	13750	0	13750

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			Pri	ced Bill of C	uantities (C#07	7)		
tem No.	Description	Unit	Quantity	Un	it Rate		Amount	
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
5.7	Providing and supplying Fire hydrants as per IS 909, consisting single flanged outlet oblique type hydrant valve, and shall include cost of anti-corrosive painting etc. all complete. The rate shall include all local and central taxes, third party inspection, transportation, freight charges, loading and unloading, conveyance to site and stacking the same, with cost of all labour, and material. The item shall be as per specification, drawing and as directed.							
(a)	80 mm dia PN1.0	Nos.	22	6605	984	145310	21648	166958
(b)	80mmdia PN1.6	Nos.	11	9452	1408	103972	15488	119460
5.8	Handling, aligning, and fixing Fire hydrants true to iine and ievel. The item includes transportation of valves and accessories from store yard to site, loading, unloading, hoisting, lowering, grinding wherever necessary, assembling and jointing with cost of jointing material such as rubber packing, nuts bolts, providing temporary supports etc., all complete with approved equipment, for all leads and lifts. The item shall be as per specification, drawing and as directed.	Nos.						
(a)	80 mm dia PN1.0	Nos.	22	2500	0	55000	0	55000
(b)	80mmdiaPN1.6	Nos,	11	2500	0	27500	0	27500
	Subtotal Item No. 5					37322955	4350194	41673149

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Chief Executive Officer Guwahati Metropolitan Dev. Authority

			Pri	ced Bill of C	uantities (C#07	7)		
Item No.	Description	Unit	Quantity	Un	it Rate		Amount	
N <u>O</u> .				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
6	VALVE CHAMBERS							
6.1	Construction of RCC and Brick masonry chambers for valves, hydrants, flow meters etc, including cost of PCC and RCC work, cost of supply and bending and binding of steel with required shuttering, cost of brick work with plaster from inside and outside, cost of precast slabs and supply and installation of SFRC frame and covers wherever required, including ail the miscellaneous items of work, but excluding the supply and installation of pipes and specials, valves etc. The item shali be as per specification, drawing and as directed.							
(a)	Chamber for Sluice valve TYPE S1	Nos.	1140	32577	0	37137780	0	37137780
(b)	Chamber for Sluice valve TYPE S2	Nos.	45	35397	0	1592865	0	1592865
(c)	Chamber for Wash out valve TYPE W1	Nos.	249	32577	0	8111673	0	8111673
(d)	Chamber for Wash out valve TYPE W2	Nos.	381	31083	0	11842623	0	11842623
(e)	Chamber for Butterfly vaive TYPE B1	Nos.	6	97216	0	583296	0	583296
(f)	Char, iber for Butterfly valve TYPE B2	Nos.	7	118016	0	826112	0	826112
(g)	Chamber for Butterfly valve TYPE B3	Nos.	1	124616	0	124616	0	124616
(h)	Chamber for Air valve TYPE A1	Nos.	112	45149	0	5056688	0	5056688
(i)	Chamber for Air valve TYPE A2	Nos.	17	68245	0	1160165	0	1160165
(i)	Chamber for Air valve TYPE A3	Nos.	3	87351	0	262053	0	262053
(k)	Chamber for Fire hydrant TYPE F1	Nos.	33	32460	0	1071180	0	1071180
(I)	Chamber for Pressure reducing valve/ Flowmeter TYPE P1	Nos.	4	50241	0	200964	0	200964
(m)	Chamber for Pressure reducing valve/ Flowmeter TYPE P2	Nos.	17	106474	0	1810058	0	1810058

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m o.	Description	Unit	Quantity	Un	it Rate		Amount	
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
n)	Chamber for Pressure reducinq valve/ Flowmeter TYPE P3	Nos.	5	113280	0	566400	0	566400
0)	Chamber for Pressure reducinq valve and flow meter TYPE P4	Nos.	1	62481	0	62481	0	62481
P)	Chamber for Pressure reducinq valve and flow meter TYPE P5	Nos.	9	137570	0	1238130	0	1238130
q)	Chamber for Pressure reducinq valve and flow meter TYPE P6	Nos.	3	137570	0	412710	0	412710
	Subtotal Item No. 6					72059794	0	72059794
7	MISCELLENEOUS CIVIL WORK							
.1	Plain Cement Concrete Work							
	concrete (PCC) of one of the following grades for thrust blocks, anchor blocks, floatation blocks, etc. with 20-40mm stone aggreate (crusher broken) including finishing the surface, shuttering and staging, curing etc. as per the specifications and drawings and as directed by the Employer's Representative. This Work is not included in Item 6.	3	2954	6607		10000557		40000557
(a)	Grade M15 concrete	m ³	_ 2851	6607	0	18836557	0	18836557
(b) 7.2	Grade M20 concrete Reinforced Cement Concrete Work Providing and placing reinforced cement concrete (RCC) of one of the following grades with 10-20 mm stone aggregate (crusher broken) including shuttering and staging, curing etc. as per the specifications and drawings and as directed by the Employer's Representative. This Work is not included in Item 6.	m ³	20	6923	0	138460	0	138460
(a)	Grade M20 concrete	m ³	25	7970	0	199250	0	199250
b)	Grade M25 concrete	m ³	20	8342	0	166840	0	166840

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			Pri	ced Bill of C	Quantities (C#07	7)			
Item No.	Description	Unit	Quantity	Un	it Rate		Amount		
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total	
7.3	Reinforcement Steel								
	Providing and fabricating steel reinforcement with Fe 415 grade steel for RCC work including straightening, cuting, bending, placing in position and tying (including cost of tie wire) .taxes and duties, transportation etc. all complete, as per specifications and drawings and as directed by the Employer's Representative. This Work is not included in Item 6.	kg	4050	69	0	279450	0	279450	
7.4	Brick Masonry Work								
	Construction of Brick Masonry for sub/superstructure of 230/350 mm thick walls using cement mortar with a cement to sand ratio of 1:6. This item includes the cost of transportation of all materials, labor, scaffolding, curing etc. as per specifications and drawings and as directed by the Employer's Representative. This Work is not included in Item 6.	m ³	50	5201	0	260050	0	260050	



Chief Executive Officer Guwahati Metropolitan Dev. Authority

			Pri	ced Bill of C	Quantities (C#07	<i>'</i>)		
Item No.	Description	Unit	Quantity	Un	it Rate		Amount	
				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
7.5	Plastering Work							
(a)	Providing and applying cement sand plaster 12 mm thick in a single coat using cement mortar with a cement to sand ratio of 1:4 without neeru finish to concrete or brick surfaces including scaffolding and curing as directed by the Employer's Representative. This Work is not included in Item 6.	m²	50	162	0	8100	0	8100
(b)	Providing and applying cement sand plaster 20 mm thick in a single coat using cement mortar with a cement to sand ratio of 1:4 without neeru finish to concrete or brick surfaces including scaffolding and curing as directed by the Employer's Representative. This Work is not included in Item 6.	m²	50	195	0	9750	0	9750
7.6	Providing and laying boulder soling with boulders 100-200mm size in foundation, packing with locally available mooram and sand, including watering, dressing and leveling, all complete as <i>per</i> drawing and specification and as directed.	m ³	50	1320	0	66000	0	66000
7.7	Providing and laying 100 mm thick brick soling for foundations and under flooring with best quality jhama brick, sand packed and laid to level after preparing the subgrade including all labor and materials and dewatering if necessary, complete and as per the specifications and drawings and as directed by the Employer's Representative. This work is not included in Item 6.	m²	100	1870	0	187000	0	187000
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Item	Description	Unit	Quantity	Un	it Rate	Amount			
<u>No.</u>				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total	
7.8	Structural Steel Work								
	Providing and fabricating structural steel work in rolled sections including joists, channels, angles, beams, etc. including cutting, fabricating, grinding, hoisting, erecting, fixing in position making bolted/welded connections, applying coatings etc., as <i>per</i> the specifications and drawings and as directed by the Employer's Representative.	MT	30	77761	0	2332830	0	2332830	
	Subtotal Item No. 7					22484287	0	22484287	
8	ROAD RESTORATION								
8.1	Reconstruction of Bituminous Asphalt Roads								
a)	Providing and laying of Granular sub base (GSB), as per specification drawing and as directed	m³	54550	2310	0	126010500	0	126010500	
b)	Providing and laying of Prime Coat, as per specification drawing and as directed	m²	208800	46	0	9604800	0	9604800	
c)	Providing and laying of Wet mix macadam (WMM) , as per specification drawing and as directed	m³	80800	2508	0	202646400	0	202646400	
d)	Providing and laying of Dense graded bituminous macadam (DBM), as per specification drawing and as directed	m ³	2150	11880	0	25542000	0	25542000	
e)	Providing and laying of Semi dense bituminous concrete (SDBC), as per specification drawing and as directed	m³	1125	12804	0	14404500	0	14404500	
f)	Providing and laying of Tack coat (TC), as per specification drawing and as directed	m²	10300	21	0	216300	0	216300	
g)	Providing and laying of Bituminous macadam (BM), as per specification drawing and as directed	m³	2650	9240	0	24486000	0	24486000 Chief Executive Off	

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			Pri	ced Bill of C	Quantities (C#07	')				
Item No.	Description	Unit	Quantity	Un	it Rate	Rate Amount				
110.				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total		
h)	Providing and laying of Premix carpet (PC), as per specification drawing and as directed	m²	5150	330	0	1699500	0	1699500		
8.2	Reconstruction of WBM Roads									
·	Providing , laying .spreading and compacting stone aggregates of specific sizes as per specification and drawing to water bound macadam including spreading in uniform thickness, hand packing, roiling with vibratory roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of stone screenings & binding material, and completer as per specification drawing and as directed	m ³	79100	2534	0	200439400	0	200439400		
8.3	Reconstruction of Concrete Roads									
	Providing, placing and finishing Cement Concrete roads to match the existing roadway which was removed, if directed by the Employer's Representative . Grade M20 concrete shaii be used and placed.to the same depth as the existing roadway surface, A screeded finish shall be applied.	m³	1825	8316	0	15176700	0	15176700		



Chief Executive Officer Guwahati Metropolitan Dev. Authority

em No.	Description	Unit	Quantity	Un	it Rate		Amount	
NO.				Basic Rate (CIP)	Applicable Taxes, Duties, etc.	Basic (CIP)	Applicable Taxes, Duties, etc.	Total
8.4	Reconstruction of Brick Roads							
	Providing and laying of bricks on edge for road restoration on earth subgrade. The bricks shall be on edge, diagonally placed, and gap filled up with sand, all complete, as per specification and drawings.	m²	3450	1188	0	4098600	0	4098600
	Subtotal Item No. 8	_				624324700	0	624324700
9	TESTING, DISINFECTION, TRIAL RUNS	AND						
9.1	Hydraulic testing of the distribution system piping of the folowing diameters in segments at the required test pressures. This item includes the costs of water, labor, pumping, etc. all complete, as per the specifications and as directed by the Employer's Representative.							
(a)	80 mm - 200mm internal diameter	km	340	13200	0	4488000	0	4488000
(b)	Above 200 mm - 300 mm internal diameter	km	37	33000	0	1221000	0	1221000
(c)	Above 300 mm - 500 mm internal diameter	km	23	46200	0	1062600	0	1062600
(d)	Above 500 mm - 800 mm internal diameter	km	6	66000	0	396000	0	396000
(e)	Above 800 mm -1000 mm internal diameter	km	1	92400	0	92400	0	92400
9.2	Disinfecting and flushing of pipeline complete as per specificication	km	407	19800	0	8058600	0	8058600
9.3	Trial Runs and Commissioning including the cost of labor, electricity, etc., all complete as per specification and as directed by the Employer's Representative.	km	407	13200	0	5372400	0	5372400
	Subtotal Item No. 9	113				20691000	0	20691000
	GRAND TOTAL (Items 1-9)	116	<u>† </u>			1116815898	5531959	1122347857

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				Unit rate	Amount	
tem No	Description	Quantity	Unit	Local	Local	
10	Daywork - Labour					
10.01	Skilled Labour	50	man days	528	26400	
10.02	Unskilled Labour	50	man days	330	16500	
10.03	Carpenter	20	man days	594	11880	
10.04	Blacksmith	20	man days	594	11880	
1005	Mason	20	man days	660	13200	
10.06	Pipelayer / Fitter	50	man days	660	33000	
10.07	Welder	20	man days	594	11880	
	Subtotal Item No. 10				124740	
11	Daywork - Material					
11.01	Cement - ordinary portland type (43 Grade) in 50 kg bags	50	bags	396	19800	
11.02	Provide Fe 415 steel reinforcing bars up to 20 mm diameter as per the specification	2,000	kg	59	118000	
11.03	Fine aggregate for concrete as per the specification	20	m ³	1584	31680	
11.04	Coarse aggregate for concrete as per the specification	20	m ³	1650	33000	
11.05	First class bricks as per the specification	250	No.	8	2000	
11.06	Primer paint as per the specification	10	liters	106	1060	
11.07	Epoxy paint as per the specification	10	liters	264	2640	
11.08	Welding rods	10	packs	7260	72600	
	Subtotal Item No. 11		· · · · · · · · · · · · · · · · · · ·		280780	
12	Daywork - Equipment					
12.01	Dump Truck {min capacity 4 m ³)	20	days	3960	79200	
12.02	Water tank truck (min capacity 11,000 liters)	20	days	2640	52800	
12.03	Mobile crane (up to 10 ton capacity)	10	days	4400	44000	
12.04	Wheeled bucket excavator (min capacity 0.45 m ³)	20	days	8800	176000	

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	Priced Bill of 0	Quantities - Day	work Package	C#07	
				Unit rate	Amount
Item No	Description	Quantity	Unit	Local	Local
12.05	Wheeled front-end loader (min capacity 0.75	10	days	6600	66000
12.06	Compressor (at least 3.2 m ³ /minute capacity)	10	days	4400	44000
12.07	Generator (at least 15 kw capacity)	20	days	2200	44000
12.08	Dewatering Pump (at least 60 m ³ /hour capacity and 100 mm diameter discahrqe) with piping and valving	10	days	1056	10560
12.09	Concrete Mixer (at least 0.25 m ³ capacity)	20	days	1980	39600
12.10	Portable vibratory plate or ramming	10	days	660	6600
<u>.</u>	Subtotal Item No. 12				562760
	GRAND TOTAL (Items 10-12)				968280



Chief Executive Officer Guwahati Metropolitan Dev. Authority

		Bill of Quan	tities				
ltem No.	Description	Basic Amount in INR	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	operation (E)
2.0	EARTHWORK		а	b	c1	c2	d
2.1	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, etc. in all kinds of ordinary soils such as murum, sand, sandy silt, clay, kankar etc. or in combination. Excavation shall include the removal of WBM roadway surfaces, brick surfacing, including dressing, compaction of the bottoms of the excavation, shoring and strutting wherever required, dewatering whenever required, removal of the excavated soil, stockpiling and disposal of surplus excavated soil off-site as directed by the Employer's Representative.						
	Excavation will be paid for in the following segments:						
(a)	0 to 1.5 m from GL		25%	20%		40%	15%
(b)	above 1.5 m to 3.0 m depth from GL		25%	20%		40%	15%
(c)	above 3.0 m to 4.5 m depth from GL		25%			40%	15%
2.2	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, masonry work, etc. in all kinds of ordinary rock, Excavation shall include the removal of asphalt and concrete road surfacing, including dressing, compaction of the bottoms, shoring and strutting wherever required, dewatering whenever required, removal of the excavated rock, stockpiling and disposal of surplus excavated rock off-site as directed by the Employer's Representative.						
	Excavation will be paid for in the following segments:						
(a)	0 to 1.5 m from GL		25%	20%		40%	15%
(b)	above 1.5m to 3.0 m depth from GL		25%	20%		40%	15%
(C)	above 3.0 m to 4.5 m depth from GL		25%	20%		40%	15%



Chief Executive Officer Guwahati Metropolitan Dev. Authority

		Bill of Quar	ntities				
Item No.	Description	Basic Amount in INR	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	Equipment operation (E)
			а	b	c1	c2	d
2.3	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, etc. in all kinds of hard rock requiring blasting, Excavation shall include dressing, compaction of the bottoms, shoring and strutting wherever required, dewatering whenever required, removal of the excavated rock, stockpiling and disposal of surplus excavated rock off-site as directed by the Employer's Representative.						
	Excavation will be paid for in the following segments:						
(a)	0 to 1.5 m from GL		.25%	20%		40%	15%
(b)	above 1.5m to 3.0 m depth from GL		-25%	20%		40%	15%
(c)	above 3.0 m to 4.5 m depth from GL		25%	20%		40%	15%
2.4	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, etc. in all kinds of hard rock (blasting prohibited), Excavation shall include dressing, compaction of the bottoms, shoring and strutting wherever required, dewatering whenever required, removal of the excavated rock, stockpiling and disposal of surplus excavated rock off-site as directed by the Employer's Representative. Excavation will be paid for in the following segments:						
(a)	0 to 1.5 m from GL		25%	20%		40%	15%
(b)	above 1.5m to 3.0 m depth from GL		25%	20%		40%	15%
(c)	above 3.0 m to 4.5 m depth from GL		25%	20%		40%	15%
2.5	Backfilling of pipe trenches, foundations, etc. with approved graded excavated soil (excluding rock), including placing in layers not exceeding 20 cm in depth each, and compacting each layer, complete as per the specification and as directed by the Employer's Representative		25%	20%		40%	15%
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GWSP/LCB/C#07

		Bill of Quar	tities				
ltem No.	Description	Basic Amount in INR	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	Equipment operation (E)
			a	b	c1	c2	d
2.6	Backfilling of pipe trenches, foundations, etc. with approved graded sand, including placing in layers not exceeding 20 cm in depth each, and compacting each layer, complete as per the specification and as directed by the Employer's Representative.		25%	20%		40%	15%
2.7	Backfilling of pipe trenches, foundations, etc. with approved graded gravel, including placing in layers not exceeding 20 cm in depth each, and compacting each layer, complete as per the specification and standard drawings and as directed by the Employer's Representative.		25%	20%		40%	15%
	Subtotal	` `					
			L	J			
3.0	PIPELINES, SPECIALS AND APPURTENANCES						
3.1	Supplying spirally welded MS pipe with internal lining and external coating as per the specification of the following nominal diameters and wall thicknesses. The rate shall include third party inspection, transportation, freight charges, loading, unloading and stacking at the project site, with the cost of all labor, material, taxes and duties.						
(a)	300 mm ND 6 mm thick (at NH crossing)		25%	3.75%	63.75%	0%	7.5%
(b)	400 mm ND 20 mm thick (for trenchless pipe laying)		25%	3.75%	63.75%	0%	7.5%
(C)	500 mm ND 20 mm thick (for trenchless pipe laying)		25%		63.75%	0%	7.5%
(d)	700 mm ND 6 mm thick		25%	3.75%	63.75%	0%	7.5%
(e)	700 mm ND 20 mm thick (at NH crossing)		25%		63.75%	0%	7.5%
(f)	1000 mm ND 8 mm thick		25%	3.75%	63.75%	0%	7.5%



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		Bill of Quar	tities				
ltem No.	Description	Basic Amount	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	Equipment operation (E)
			<u>a</u>	b	c1	c2	d
3.2	Supplying all types of MS Specials plain ended, socket ended and flanged as required with internal lining and external coating as per the specification, such as bends, tees, tapers, spool pieces, blind flanges, pieces for pipe connection, valve connections, dismantling joints, anchor bolts, straps, air vent pipe, etc. of different diameters, manufactured from Fe 410 grade steel. This item includes loading, transportation to the project site, unloading and stacking, etc. complete with cost of third party inspection, material, labor, taxes and duties.		25%	3.75%	63.75%	0%	7.5%
3.3	Handling, aligning, laying and jointing MS pipes and specials to correct line and level in trenches. The item includes transportation of pipes and specials from the storeyard to the project site, stacking of pipe as per BIS requirements, loading, unloading, hoisting, lowering, marginal cutting and grinding wherever necessary, assembling, jointing, providing temporary supports, lining and coating at joints etc. for pipe of the following diameters and thicknesses. The rate also shall include radiography of field joints, field testing, etc. as specified and shown on the drawings and specification.						
(a)	300 mm ND 6 mm thick (at NH crossing)		25%	20%		40%	15%
(b)	700 mm ND 6 mm thick		25%	20%		40%	15%
(c)	700 mm ND 20 mm thick (at NH crossing)		25%			40%	15%
(d)	1000 mm ND 8 mm thick		25%	20%		40%	15%



Chief Executive Officer Guwahati Metropolitan Dev. Authority

		Bill of Quar					
ltem No.	Description	Basic Amount in INR	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	Equipment operation (E)
			а	b	c1	c2	d
	Supplying DI Specials and fittings with plain, double socket, socket & flanged and double flanged end connections as required, with lining and coating as per the specification, and IS 9523 with EPDM rubber gaskets as per IS 5382 as required for successful completeion of the work. This item includes third party inspection, transportation, freight, loading and unloading, stacking etc. all complete for various sizes of DI specials and fittings as noted with the following end connections.						
(a)	Tee's, Socket, collar, tail pieces, flanged tapers, socketed tapers, flanged spigot short pipes, flanged socket short piece, all bends, end caps, barrel piece, dismantling joints etc. required for suitable completion of the works.		25%	3.75%	63.75%	0%	7.5%
(b)	Double flanged pipe pieces, required for suitable completion of works.		25%	3.75%	63.75%	0%	7.5%
3.5	Handling, aligning, laying and jointing of K-9 DI pipe (Push-on Joint) to other pipe ato fittings and specials, with EPDM rubber O-rings (as per IS 5382) and flange gaskets (as per IS 12288) as per specifications. This item includes transportation of pipes, specials and fittings from the storeyard to the project site, stacking of pipe and fittings as per BIS requirements, loading, unloading, hoisting, lowering, marginal cutting and grinding wherever necessary, assembling, jointing, providing temporary supports etc., all complete with approved equipment, for pipe of the following diameters.						
(a)	100 mm DN DI - K9 pipe		25%	20%		40%	15%
(b)	150 mm DN DI - K9 pipe		25%			40%	15%
(c)	200 mm DN DI - K9 pipe		25%	20%		40%	15%
(d)	250 mm DN DI - K9 pipe		25%			40%	15%
(e)	300 mm DN DI - K9 pipe		25%			40%	15%
(f)	400 mm DN DI - K9 pipe		25%			40%	15%
(g)	500 mm DN DI - K9 pipe		25%			40%	15%
(h)	600 mm DN DI - K9 pipe		25%	20%		40%	15%



Chief Executive Officer Guwahati Metropolitan Dev. Authority

		Bill of Quar	ntities				
Item No.	Description	Basic Amount in INR	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	Equipment operation (E)
			а	b	c1	c2	d
3.6	Supplying of HDPE (PE80) pipe including all specials confirming to IS 4984 and the specifications, including third party inspection, all taxes and duties, transportation, freight charges, loading and unloading, conveyance to the project site and stacking with cost of all						
	labor and material for following pipe diameters.		GEO!	0.750/	00/	00.75%	
(a)	160 mm OD HDPE PE-80 PN6		25%	5 L			7.5%
(b)	110 mm OD HDPE PE-80 PN10		25% 26%				
(c) (d)	160 mm OD HDPE PE-80 PN10		25%	10			7.5%
(e)	225 mm OD HDPE PE-80 PN10		25%				7.5%
(f)	250 mm OD HDPE PE80 PN 10		25%				
(g)	315 mm OD HDPE PE80 PN 10		25%				
(b)	355 mm OD HDPE PE80 PN 10		25%				
3.7	Handling, aligning, laying and jointing of HDPE (PE80) pipes with specials by butt welding / spigot joints confirming to IS and specifications. The item includes transportation of pipes and specials from store yard to site, stacking of pipe as per BIS, loading, unloading,						
	hoisting, lowering, cutting and grinding wherever necessary, assembling, jointing, providing temporary supports etc., all complete with approved equipment, for pipes of following diameters.						
(a)	110 mm OD HDPE PE-80 PN6		25%	2		40%	15%
(b)	160 mm OD HDPE PE-80 PN6		25%	27		40%	15%
(c)	110 mm OD HDPE PE-80 PN10		25%			40%	15%
(d)	160 mm OD HDPE PE-80 PN10		25%			40%	15%
(e)	225 mm OD HDPE PE-80 PN10 Subtotal		25%	20%		40%	15%
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		Bill of Quan	tities				
ltem No.	Description	Basic Amount in INR	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	Equipment operation (E)
			a	b	c1	c2	d
4	TRENCHLESS TECHNOLOGY						
4.1	Pipe jack for National Highway/Railway crossing with Jacking and Pushing method. The item include pushing jointing following diameter MS pipe of required length, construction of Receiving and Jacking pit with suitable shoring and strutting (if required), including installation of jacking platform, thrust resistant arrangement of required capacity including , hydraulic jacking with required accessories, required excavation inside the jacking pipe and disposal the same, etc. all complete as per drawing, specification and as directed.						
(a)	Jacking and pushing of 700 mm ID 20 mm thick MS pipe		25%	3%	64.00%	0%	8.0%
4.2	Laying of pipe and jointing by trenchless technology including						
(a)	110 mm OD HDPE PE80 PN10		25%	3%	64.00%	0%	8.0%
(b)	160 mm OD HDPE PE80 PN 10		25%	3%	64.00%	0%	8.0%
(c)	225 mm OD HDPE PE80 PN 10		25%	3%	64.00%	0%	8.0%
(d)	250 mm OD HDPE PE80 PN 10		25%	3%	64.00%	0%	8.0%
(e)	315 mm OD HDPE PE80 PN 10		25%		64.00%	0%	8.0%
(f)	355 mm OD HDPE PE80 PN 10		25%	3%	64.00%	0%	8.0%
(g)	400 mm ID MS Pipe		25%		64.00%	0%	8.0%
(h)	500 mm ID MS Pipe		25%	3%	64.00%	0%	8.0%
	Subtotal						



Chief Executive Officer Guwahati Metropolitan Dev. Authority

		Bill of Quar	ntities				
ltem No.	Description	Basic Amount in INR	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	Equipment operation (E)
			а	b	c1	c2	d
	VALVES AND APPURTENANCES						
5.1	Supplying of following diameters Cast iron double flanged ends Sluice valve as per IS 14864 with end cap and all accessories required for fixing and jointing, and shall include anti-corrosive painting						
	etc. all complete. The rate shall include all local and central taxes, third party inspection, transportation, freight charges, loading and unloading, conveyance to storeyard and stacking the same, with cost of all labour and material. The item shall be as per specification, drawing and as directed.	2). 					
(a)	80 mm dia (for Fire hydrant) PN1.0		25%	3.75%	63.75%	0%	7.5%
(b)	100 mm dia PN1.0		25%	3.75%	63.75%	0%	7.5%
(C)	150 mm dia PN1.0		25%	3.75%	63.75%	0%	7.5%
(d)	200 mm dia PN1.0		25%	3.75%	63.75%	0%	7.5%
(e)	250 mm dia PN1.0		25%	3.75%	63.75%	0%	7.5%
(f)	300 mm dia PN1.0		25%	3.75%	63.75%	0%	7.5%
(g)	80 mm dia (for Fire hydrant) PN1.6		25%	3.75%	63.75%	0%	7.5%
(h)	100 mm dia PN1.6		25%	3.75%	63.75%	0%	7.5%
(i)	150 mm dia PN1.6		.25%	3.75%	63.75%	0%	7.5%
(j)	200 mm dia PN1.6		25%	3.75%	63.75%	0%	7.5%
(k)	250 mm dia PN1.6		25%	3.75%	63.75%	0%	7.5%
()	300 mm dia PN1.6		25%	3.75%	63.75%	0%	7.5%



Chief Executive Officer Guwahati Metropolitan Dev. Authority

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	Bill of Quantities							
ltem No.	Description	Basic Amount in INR	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	Equipment operation (E)	
5.2	Handling, aligning and installing in true to line and level cast iron		a	b	<u>c1</u>	c2	d	
	double flanged Sluice Valves (IS 14864) of the following diameters. This item includes transportation of valves and accessories from the storeyard to the project site, loading, unloading, hoisting, lowering, assembling and jointing including the cost of all jointing materials such as rubber gaskets, nuts, bolts, etc., and providing temporary supports, as per the specifications and drawings.							
(a)	80 mm dia (for Fire hydrant) PN1.0		25%	20%		40%	15%	
(b)	100 mm dia PN1.0		25%			40%	15%	
(c)	150 mm dia PN1.0		25%	20%		40%	15%	
(d)	200 mm dia PN1.0		25%	20%		40%	15%	
(e)	250 mm dia PN1.0		25%	20%		40%	15%	
(f)	300 mm dia PN1.0		25%	20%		40%	15%	
(g)	80 mm dia (for Fire hydrant) PN1.6		25%	20%		40%	15%	
(h)	100 mm dia PN1.6		25%	20%		40%	15%	
(i)	150 mm dia PN1.6		25%			40%	15%	
(j)	200 mm dia PN1.6		25%	4		40%	15%	
(k)	250 mm dia PN1.6		25%			40%	15%	
(I)	300 mm dia PN1.6		25%	20%		40%	15%	



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Bill of Quantities							
ltem No.	Description	Basic Amount in INR	Non-adjustable	Labour portion (L)	Steel (MS)	Other Materials (MA)	Equipment operation (E)
			a	b	c1	c2	d
5.3	Supplying of following diameters double flanged Butterfly valves (manually operated) as per IS 13095 with all accessories, including approved anti-corrosive painting. The rate shall include all local and central taxes, third party inspection, transportation, freight charges, loading, unloading, conveyance to storeyard and stacking the same, with cost of all labour, and material. The item shall be as per specification, drawing and as directed.						
(a)	400 mm dia PN1.0		25%			0%	7.5%
(b)	500 mm dia PN1.0		25%		63.75%	0%	7.5%
(c)	400 mm dia PN1.6		25%	3.75%	63.75%	0%	7.5%
(d)	500 mm dia PN1.6		25%	3.75%	63.75%	0%	7.5%
5.4	Handling, aligning, and fixing in true to line and level following diameters and rating double flanged Butterfly valves PN 1.6 (manually opereted as per IS 13095) including cost of required jointing material such as rubber packing, nuts bolts etc. The item includes transportation of valves and accessories from store yard to site, loading, unloading, hoisting, lowering, grinding wherever necessary, assembling and jointing, providing temporary supports etc., all complete with approved equipment, for valves of following diameters, for all lead and lift. The item shall be as per specification, drawing and as directed.						
(a)	400 mm diameter PN1.0		25%			40%	15%
(b)	500 mm diameter PN1.0		25%			40%	15%
(C)	400 mm diameter PN1.6		25%			40%	15%
(d)	500 mm diameter PN1.6		25%	20%		40%	15%



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Bill of Quantities								
Item No.	Description	Basic Amount in INR	Non-adjustable a	Labour portion (L) b	Steel (MS)	Other Materials (MA) c2	Equipment operation (E) d	
5.5	Supplying of following diameters of Double chamber Air valves with in built sluice valve with flanged ends as per IS 14845, with all accessories required, including anti-corrosive painting etc. all complete. The rate shall include all local and central taxes, third party inspection, transportation, freight charges, loading and unloading, conveyance to store yard and stacking the same, with cost of all labour, and material. The item shall be as per specification, drawing and as directed.							
(a)	80 mm dia PN1.0		25%		63.75%	0%	7.5%	
(b)	100 mm dia PN1.0		25%		63.75%	0%	7.5%	
(C)	150 mm dia PN1.0		25%		63.75%	0%	7.5%	
(d)	80 mm día PN1.6		25%		63.75%	0%	7.5%	
(e)	100 mm dia PN1.6		25%	3.75%	63.75%	0%	7.5%	
(f)	150 mm dia PN1.6		25%	3.75%	63.75%	0%	7.5%	
5.6	Handling, aligning, and installing in true to line and level following diameters Double chamber Air valves with in built sluice valve with all accessories and as per specifications and drawings. This item includes transportation of valves and accessories from the storeyard to the project site, loading, unloading, hoisting, assembling and jointing, including the cost of jointing materials such as rubber packing, nuts, bolts, etc., as per the specifications and drawings.							
(a)	80 mm diameter PN1.0		25%	20%		40%	15%	
(b)	100 mm diameter PN1.0		25%	20%		40%	15%	
(C)	150 mm diameter PN1.0		25%	20%		40%	15%	
(d)	80 mm diameter PN1.6		:25%	20%		40%	15%	
(e)	100 mm diameter PN1.6		. 25%	20%		40%	15%	
(f)	150 mm diameter PN1.6		25%	20%		40%	15%	



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