



NAYA RAIPUR DEVELOPMENT AUTHORITY

**Tender Document for the
Infrastructure Development for Sector 7, 15 & 16 (Phase-I) in
Naya Raipur**

(Following Three-Envelope Tender Procedure)

**Schedule – A
Price Tender
To be submitted in ENVELOPE-3**

NIT No.: 77 / I D P-I /S-7, 15, 16/ EE C-IV / CE (E) / NRDA / 2013-14, Raipur,

Dated: 04.03.2014

Issued by: Chief Executive Officer,
Naya Raipur Development Authority (NRDA)
1st floor, Utility block, Capitol Complex, Sector-19,
Naya Raipur 492 002, Chhattisgarh
E-mail: ceo@nayarapur.com

Tender Document Contains

- (a) Only schedule "A" and Section-I of schedule "D" are to be filled & signed by the tenderer
 (b) All the certificates as per pre qualification criteria shall be appended with relevant forms of schedule "D"

1. PART ONE (NRDA F-1)-(Attached herewith, to be submit along the tender)

Part (A)

- a) Press Notice
 b) Detailed NIT

Part (B)

a) Schedule-A

- (i) Cost Abstract
 (ii) Bill of Quantities

- b) Schedule-B –NIL
 c) Schedule-C –NIL
 d) Schedule-D

Section-I..... Technical tender forms

- (i) Letter of Technical Tender
 (ii) Tenderer's Information Sheet
 (iii) Annual Turnover
 (iv) Specific Construction Experience
 (v) Declaration
 (vi) Check list for Technical tender evaluation

Section –IIScope of work

Section –III..... Technical specifications of work

Section –IV..... Special Conditions of Contract

Section –V..... List of approved makes

Section –VI..... Drawings

- e) Schedule-E
 f) Schedule-F

2. PART TWO (NRDA F-2/3)-Standard form (Not Attached herewith, and not to be submitted along the tender) Important note: - Link site <http://nayarapur.com/documents/gcc.pdf>

1. General Guidelines
2. Tender
3. General rules and directions
4. Conditions of contract
5. Clauses of contract
6. Model rules relating to labour, water supply and sanitation in labour camps safety code
7. Contract forms
 - (a) Draft Format for Performance Security
 - (b) Earnest Money Deposit Form (Bank Guarantee)
 - (c) Format of Contract Agreement
 - (d) Draft Format for Performance Guarantee for Water Proofing and Anti-termite Works
 - (e) Indemnity Bond
 - (f) Indenture Bond
 - (g) Notice for Appointment of Arbitrator
8. Proforma of schedules (Schedule 'A' to Schedule 'F')

Naya Raipur Development Authority (NRDA) Raipur, Chhattisgarh

Document details

Name of work: Infrastructure Development for Sector 7, 15 & 16 (Phase-I) in Naya Raipur

Name of Tenderer:

Details

- a) Cost of Tender Document : Rs
- b) EMD : Rs

Signature of Tenderer

Date: _____

Signature of Contractor.....

Signature of NRDA.....

COST ABSTRACT Infrastructure Development for Sector 7, 15 & 16 (Phase-I) in Naya Raipur			
Sl. No.	Description of Items	Amount in Figures (In INR)	Amount in Words (In INR)
A	ROAD AND DRAINAGE WORKS	Rs. -	
B	WATER SUPPLY AND SEWERAGE WORKS	Rs. -	
Total		Rs. -	

BILL OF QUANTITY						
Infrastructure Development for Sector 7, 15 & 16 (Phase-I) in Naya Raipur						
Sl. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
A	ROAD AND DRAINAGE WORKS					
1	Excavation for roadway in soil using including loading in truck for carrying of cut earth to embankment site with all lifts and lead .	cum	110450.00			-
2	Construction of Embankment with Material Deposited from Roadway Cutting (Construction of embankment with approved materials deposited at site from roadway cutting and excavation from drain and foundation of other structures graded and compacted to meet requirement of table 300-2)	cum	182500.00			-
3	Construction of embankment with Material obtained from borrow pits (Construction of embankment with approved material/selected soil having C.B.R>5 (unless specified otherwise in the contract) obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement of table 300-2)	cum	228125.00			-
4	Construction of sub-grade and earthen shoulders with approved material obtained from borrow pits with all lifts & leads, transporting to site, spreading, grading to required slope and compacted to meet requirement of table No. 300-2	cum	238230.00			-
5	Construction of median and Island above road level with approved material brought from borrow pits, spread, sloped and compacted as per clause 407	cum	6970.00			-
6	Compacting Original Ground supporting embankment Loosening, leveling and compacting original ground to facilitate placement of first layer of embankment, scarified to a depth of 150 mm, mixed with water at O.M.C. and then compacted by rolling so as to achieve minimum dry density as given in table 300-2 for embankment construction	cum	19053.00			-

Sl. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
7	Sub Base/ Base Course					
a	Construction of Granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401 - Grade III Material - Plant Mix Method	cum	66539.00			-
b	Providing, laying, spreading and compacting graded stone aggregate to Wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.	cum	72023.00			-
8	Bituminous Course					
a	Providing and applying primer coat with bitumen emulsion on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.85 kg/sqm using mechanical means.	Sqm	261900.00			-
b	Providing and applying tack coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.25 kg/sqm on the prepared bituminous/granular surface cleaned with mechanical broom.					
i	Prime surface	Sqm	261900.00			-
ii	Bituminous surface	Sqm	261900.00			-
c	Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 4.0 to 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 507 complete in all respects.- Grade-I (40mm Nominal Size) with Sensor Paver Finisher	cum	15714.00			-

Sl. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
d	Providing and laying bituminous concrete with 100-120 TPH batch type hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with bituminous binder @ 5.4 to 5.6 per cent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 509 complete in all respects- Grade -1 (19mm Nominal Size) with Sensor Paver Finisher	cum	12048.00			-
9	Footpaths and Separators (Construction of footpath by providing a 150 mm compacted granular sub base as per clause 401 and 25 mm thick cement concrete grade M15, over laid with pre-polished cement concrete floor tiles confirm to IS 1237:1980 (Reaffirmed in 1996) for heavy duty tiles (Exterior Grade) of 22-25mm thick in cement mortar 1:4 including provision of all drainage arrangements but excluding kerb channel..) as per pattern, size and colour as approved by engineer	Sqm	8500.00			-
	Footpaths and Separators (Construction of footpath 25 mm thick cement concrete grade M15, over laid with pre-polished cement concrete floor tiles confirm to IS 1237:1980 (Reaffirmed in 1996) for heavy duty tiles (Exterior Grade) of 22-25mm thick in cement mortar 1:4 including provision of all drainage arrangements but excluding kerb channel..) as per pattern, size and colour as approved by engineer	Sqm	36000.00			-
10	Precast interlocking concrete paver blocks: Providing & laying factory made confirm technical specification of Bureau of Indian Standards 15658 of 2006 of heavy duty pavers resulting in consistent and uniform quality, rubber moulded, white cement based, pigmented block lacquer coating and cured through drying process mechanically vibrated and compacted precast interlocking premium concrete paver blocks in M40 grade, 60mm thickness of approved size, design and colour with providing and laying in position over 40 mm thick average complete coarse sand bed with joints of 3mm thick filled by fine sand including leveling with surface vibrator, temping and sweeping etc. complete. Coloured pigment precast interlock concrete blocks. as per direction of engineer in charge.	Sqm	66000.00			-
11	Cast in Situ Cement Concrete M20 kerb (top and bottom width 115 and 165 mm respectively, 250mm high in M20 grade PCC on M10 grade foundation on 150mm thick, foundation having 50mm projections beyond kerb stone, kerb stone rate laid with kerb laying machine all complete as per clause 408	RM	77182.00			-

Sl. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
12	Cast in Situ Cement Concrete M20 kerb (top and bottom width 115 and 165 mm respectively, 250mm high in M20 grade PCC on M10 grade foundation on 150mm thick, kerb channel 300mm wide, foundation having 50mm projections beyond kerb stone, kerb stone rate laid with kerb laying machine all complete as per clause 408	RM	33078.00			-
13	Road Marking with Hot Applied Thermoplastic Compound with Reflectoring Glass Beads on Bituminous Surface (Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectoring glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35-1997. The finished surface to be level, uniform and free from streaks and holes.)	Sqm	21370.00			-
14	Retro- reflectorized Traffic signs (Providing and fixing of retro- reflectorized cautionary, mandatory and informatory sign as per IRC:67-2012 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminum sheeting, 1.5 mm thick supported on a mild steel frame of size 40 x 40 x 5 mm and mild steel angle iron post 75 mm x75 mm x 6mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45cm x 60cm, 60 cm below ground level as per approved drawing)					
a	90 cm equilateral triangle	Nos.	465.00			-
b	60 cm equilateral triangle	Nos.	245.00			-
c	60 cm circular	Nos.	160.00			-
d	80 cm x 60 cm rectangular	Nos.	235.00			-

Sl. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
e	60 cm x 45 cm rectangular	Nos.	100.00			-
f	60 cm x 60 cm square	Nos.	165.00			-
g	90 cm high octagon	Nos.	155.00			-
15	Providing & Fixing; Object Marker of size 30 cm equilateral Triangle made of 1.5 mm thick Aluminum sheet pasted with High intensity Grade Retro Reflective Sheeting duly treated with HLVA complete with post of angle size 50x50x5 mm of 0.75 m and fixing the same in M 15 concrete block of size 30x30x30cm including transportation etc. complete.	Nos.	330.00			-
16	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits. In all types of soil	Cum.	156333.00			-
17	Extra for every additional lift of 1.5 m or part thereof. In all types of soil	Cum.	50819.00			-
18	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M.	Cum.	57428.00			-
19	Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of form work.					
a	1:4:8 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size).	Cum.	1700.00			-

Sl. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
b	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size).	Cum.	12181.00			-
20	Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in all works upto floor five level excluding cost of form work.					
a	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	Cum.	150.00			-
b	1:2:4 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	Cum.	180.00			-
20	Providing and laying Reinforced Cement Concrete pipe NP 3 / prestressed concrete pipe on first class bedding (Laying Reinforced cement concrete pipe NP3 /prestressed concrete pipe for culverts, including 150mm thick layer of first class bedding of granular material, fixing collar with cement mortar 1:2 but excluding excavation, protection works, backfilling, concrete and masonry works in head walls and parapets .)					
a	450 mm dia	Meter	4709.00			-
b	600 mm dia	Meter	1850.00			-
c	900 mm dia	Meter	240.00			-
d	1000 mm dia	Meter	150.00			-
e	1200 mm dia	Meter	60.00			-

Sl. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
21	Providing 1 st class bedding below pipes with graded sand or other granular materials passing through 5.6 mm sieve as per clause 2904.	Cum.	7765.50			-
22	Plain cement concrete in sub-structure complete as per drawing and Technical Specifications					
a	PCC Grade M 15	Cum.	50.00			-
b	PCC Grade M 20	Cum.	287.60			-
23	Providing and laying design mix reinforcement cement concrete with crushed graded stone aggregate 20mm nominal size using batching plant, transit mixer and concrete pump, in all works upto floor five level excluding cost of reinforcement and form work.					
	M-20 (using minimum cement 390 kg/cum concrete)	Cum.	40020.00			-
24	Providing and laying precast and prestressed cement concrete of M-35 grade in superstructure including form work but excluding reinforcement complete as per drawing and specifications.	Cum	9225.00			-
25	Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire all complete: Thermo-Mechanically treated bars (Fe 500)	kg	2265270.00			-
26	Providing and fixing formwork including centering, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for					
a	Foundations, footings, base of columns and plinth beam in any shape and size.	sqm	15600.00			-

Sl. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
b	Wall of any thickness including attached pilasters, buttresses etc.	sqm	129000.00			-
56	Brick work with modular fly-ash lime bricks (FALG Bricks) confirming to IS:12894-2002 of class designation 40 in foundation and plinth in:					
a	Cement Mortar 1:6 (1 cement : 6 coarse sand)	Cum	240.00			-
57	12mm thick cement plaster of mix:					
a	In Cement Mortar 1:5 (1 cement : 5 fine sand)	Cum	1600.00			-
58	15 mm thick Table rubbed polished Granite stone slab flooring laid over 20mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry including rubbing and polishing etc. complete. (Area of slab should					
a	Granite stone black	sqm	450.00			-
b	Granite stone grey/pink	sqm	950.00			-
59	Supply and laying raised planters for the tree court cum seater with black random rubble stone masonry works with pointing at the front as batch work as per the design.Rate shall be inclusive of required manpower, tools and tackles, as per specifications					
a	Coursed rubble masonry (Second sort) with hard stone in foundation and plinth in Cement mortar 1:6 (1 cement : 6 coarse sand).	cum	850.00			-
b	Coursed rubble masonry with hard stone (Second Sort) in superstructure above plinth level and up to floor five level in Cement mortar 1:6 (1 Cement : 6 Coarse sand).	cum	950.00			-
	Plantation					

Sl. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
60	Supplying and stacking of good earth at site including royalty, loading, unloading and carriage upto 10 km (earth measured in stacks will be reduced by 20% for payment).	Cum	33600.00			-
61	Planting of Trees and their Maintenance for one Year (Planting of trees by the road side (Avenue trees) in 0.60 m dia. holes, 1 m. deep dug in the ground, mixing the soil with decayed farm yard/sludge manure, planting the saplings, backfilling the trench, watering, fixing the tree guard and maintaining the plants for one year)	Nos.	2025.53			-
62	Planting flowering plants and shrubs in central verge	Rmt	6000.00			-
63	Maintenance of flowering plants and shrubs in central verge for one year	Rmt	6000.00			-
64	Providing and planting following sherbs in garden including preparation of soil, base plantation, providing and spreading different fertilizers, soil and sand:					
	Carpet grass and Maintenance of Lawns (G-2 Hybrid grass) or Turfing of Slopes :- Procuring with G-2 Hybrid grass obtained from a healthy and properly maintained lawn free from weeds and other foreign materials and laying on the supplied soil medium with garden soil mixture of farmyard manure, river sand and red earth in appropriate ratios to an average depth of 0.15m, as dibbling, the location and other details as per the drawings and specifications. Rate to include for all plant cost, leveling, rolling the soil, transport, soil preparation, installation, labour, disposing the surplus earth, maintenance for two years, as per specifications and as directed by the Engineer-in-charge etc; all complete.	sqm	7000.00			-
65	Supplying and fixing of foundation bolts in RCC work 700mm length of 20mm diameter for fixing of electrical poles as directed by the Engineer-in-charge etc; all complete.	Each	5000.00			-
66	Supplying and laying double wall HDPE pipe standard as per IS: 1490 part-I & II 2001 (amended upto date) having corrugation on the outer wall and plan surface on inner wall in ground below road, path etc at a depth not less than 130 cm including excavation, dismantling of road if required and refilling the trench etc. as required					

Sl. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
a	50 mm dia.	meter	2500.00			-
	SUB TOTAL; ROAD AND DRAINAGE WORKS					-

BILL OF QUANTITY						
Infrastructure Development for Sector 7, 15 & 16 (Phase-I) in Naya Raipur						
SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
B	WATER SUPPLY AND SEWERAGE WORKS					
1	Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and leveling of pits complete as per specifications and as directed by the Engineer etc.					
a	In all types of soil	Cum	147835.00			-
b	In ordinary rock	Cum	14784.00			-
2	Extra for every additional lift of 1.5 m or part thereof. complete as per specifications and as directed by the Engineer etc					
a	All types of soil					
i	1.50m up to 3.00m depth	Cum	73918.00			-
ii	3.00m up to 4.50m depth	Cum	59134.00			-
iii	4.50m up to 6.00m depth	Cum	8832.00			-
b	Ordinary or hard rock					

Sl. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
i	1.50m up to 3.00m depth	Cum	7392.00			-
ii	3.00m up to 4.50m depth	Cum	4435.00			-
iii	4.50m up to 6.00m depth	Cum	2957.00			-
3	Extra rate for lead of soil for every 50m average lead upto 500 m beyond 50 m free lead and 1.5 m free lift: complete as per specifications and as directed by the Engineer etc.	Cum	44351.00			-
4	Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. and lift upto 1.5 M. complete as per specifications and as directed by the Engineer etc.	Cum	103485.00			-
5	Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc. complete.	Cum	5247.00			-
6	Providing, lowering, laying, aligning, fixing in position at and jointing at all level/ depth ISI marked DWC HDPE pipe pressure class SN8 (amended upto date) structured wall polyethelene piping systems with non-smooth external annular corrugated and smooth internal surface (double wall) for non-pressure underground sewerage & Drainage application as per ISO 21138-3 & EN:13476-3 of following outer dia with all accessories and specials complete including all material, labour, hydraulic testing and commissioning as per Technical Specifications and as per direction of Engineer. Internal Dia (ID) / Outer Dia (OD)					

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
a	170mm ID / 200mm OD	RM	2010.00			-
b	250mm ID / 295mm OD	RM	2980.00			-
c	400mm ID / 480mm OD	RM	6000.00			-
d	600mm ID / 715mm OD	RM	12100.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
7	<p>Supplying , Installation testing and commissioning of prefabricated HDPE manhole: Providing, lowering, laying, aligning, fixing in position at all level/ depths High Density Poly Ethylene (HDPE) manhole conforming to EN 13598-2:2009, man entry type of 1000mm diameter for depth specified below, shall be of single wall construction OR modular construction conforming to EN 681-1 with triple safety seal (three side lip/element) made of 100% virgin PE material without recycling or foam content, including connecting the according to EN 681-1 and the manholes shall be safeguarded against uplift pressure with solid horizontal reinforcement ribs of appropriate thickness and with at regular intervals all along the outside of the manhole. The item is inclusive of Excavation, Dewatering, Layerwise backfilling and compaction of granular material ,</p> <p>Provision of corrosion resistant steps at a vertical distance of 25cm</p> <p>Providing and fixing of FRP Manhole frame and cover with locking arrangement fitting to 600mm dia manhole openings.</p> <p>Providing and fixing of Precast RCC M35 grade load distribution ring 1050mm OD & 635mm ID and designed to handle heavy load as approved by Engineer placed around the neck of the manhole of 150mm thickness including reinforcement.</p> <p>Providing RCC M20 grade concrete thick 200mm slab (Dia 1500mm outer dia and inner dia 635mm) around the manhole below the Precast RCC distribution Ring.</p> <p>Providing and laying Manhole bottom PCC (1:3:6) of 200mm thick and 1.5m dia. All the inlet, outlet connections to the manhole shall be complete with all accessories/ fittings, material, labour, jointing materials , testing and commissioning as per detailed specifications, drawings all complete as directed by Engineer in charge</p>					
a	Up to 1.20m depth	No	22.00			-
b	1.20m up to 1.50m depth	No	22.00			-
c	1.50m up to 1.80m depth	No	102.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
d	1.80m up to 2.60m depth	No	155.00			-
e	2.60m up to 3.20m depth	No	161.00			-
f	3.20m up to 3.80m depth	No	153.00			-
g	3.80m up to 4.20m depth	No	162.00			-
h	4.20m up to 4.80m depth	No	135.00			-
i	4.80m up to 5.40m depth	No	148.00			-
j	5.40m up to 6.00m depth	No	124.00			-
9	Providing, laying and jointing socket & spigot centrifugally cast (Spun) Ductile Iron pressure pipes with in side cement mortar lining(classK-9)Conforming to IS8329/2000 with suitable Rubber Gasket (Pushon) joints as per IS:5382/85 including testing of joint (laying Conforming to IS 12288 : 1987)					
a	80mm. dia. Pipe	RM	1093.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
b	100mm. dia. Pipe	RM	2912.00			-
c	150mm. dia. Pipe	RM	1364.00			-
d	200mm. dia. Pipe	RM	619.00			-
e	250mm. dia. Pipe	RM	13195.00			-
f	300mm. dia. Pipe	RM	8646.00			-
g	350mm. dia. Pipe	RM	2309.00			-
h	400 mm. Dia. Pipe	RM	1728.00			-
i	450mm. dia. Pipe	RM	1912.00			-
j	500mm . Dia. Pipe	RM	1566.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
k	600mm. dia. Pipe	RM	1456.00			-
7	Providing & Supplying D.I.Specials & Fittings Fo rall types of specials, bends, tees.. etc.					
a	80mm. To 300 mm dia. Pipe	kg	197175.00			-
b	300mm. And above dia. Pipe	kg	62906.00			-
8	Providing & fixing of Cast iron double flanged sluice valves as per I.S.:14846-2000 fitted with cast iron cap including jointing & testing with cost of jointing material such as bolts,nuts,rubber insertions etc. all complete. (Steel Spindle) (Make : IVI / VAG / Krilosker)					
	Sluice Valve					
a	600 mm dia.	Nos	13.00			-
b	500 mm dia	Nos	11.00			-
c	450 mm dia.	Nos	17.00			-
d	400 mm dia	Nos	32.00			-
e	350 mm dia	Nos	28.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
f	300 mm dia.	Nos	19.00			-
g	250 mm dia.	Nos	24.00			-
h	200 mm dia.	Nos	6.00			-
i	150 mm dia.	Nos	41.00			-
j	100 mm dia.	Nos	30.00			-
9	Supply of Single Chamber D.I. Airvalve with body and cover in ductile iron of grade SG50 or equivalent grade as per I.S.3896-part2-1985 and subsequent revisions. All internal parts such as float shell etc. all cover bolts of stainless steel and gasket sand seals of EPDM.Epoxy powder coating (EP-P) inside and outside colour blue.Drilled as per IS:153					
a	200 mm dia.	Nos	14.00			-
b	150 mm dia.	Nos	11.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
10	Providing and constructing Brick masonry (FALG Bricks) valve chamber with 15 cm thick 1:3:6 proportion PCC bedding excluding excavation, Brick masonry in C.M.1:6 proportion, cement concrete grade M-15 (Nominal mix) with stone aggregate 20 mm Nominal size for benching, precast RCC as directed by Engineer-in-Charge. (Note:-Wall thickness:0.23 M for depth of 1.2 M and 0.35 M for balance depth exceeding 1.2M. 12mm plaster 1:3 inside chamber).					
a	Size 0.9m x 0.9m, depth 1.2 M with cover	nos	400.00			-
b	Size 1.2m x 1.2m, depth 1.2 M with cover	nos	240.00			-
c	Size 1.5m x 1.5m, depth 1.5 M with cover	nos	962.00			-
d	Add 30 cm or part thereof for chamber of Size (1.5m x 1.5m, depth 1.5 M with cover)	nos	300.00			-
11	Providing, laying, Jointing & field testing of High Density Polyethylene pipes, (HDPE) Conforming to IS 4984/14151/12786/13488 with necessary jointing material like mechanical connector or jointing pipes by heating to the ends of pipes with the help of Teflon coated electric mirror/heater to the required temperature and then pressing the ends together against each other, to form a monolithic & leak proof joint by thermo setting process. It may be required to bed one with Jacks/Hydraulic Jacks/But fusion machine. (50mm & above fusion jointed & below 50 mm mechanical jointed) PE 100 (10 KG/ CM ²)					
a	90mm. dia. Pipe	RM	2293.00			-
b	110mm. dia. Pipe	RM	1803.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
c	160mm. dia. Pipe	RM	4457.00			-
d	200mm. dia. Pipe	RM	5228.00			-
e	250mm. dia. Pipe	RM	8437.00			-
f	315mm. dia. Pipe	RM	5047.00			-
g	355mm. dia. Pipe	RM	1294.00			-
h	400 mm. Dia. Pipe	RM	1263.00			-
i	450mm. dia. Pipe	RM	1306.00			-
j	500mm . Dia. Pipe	RM	873.00			-
k	630mm. dia. Pipe	RM	413.00			-
12	Providing and laying Bend 90 Conforming to IS specifications.					

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
a	90mm. dia. Pipe	nos	23.00			-
b	110mm. dia. Pipe	nos	19.00			-
c	160mm. dia. Pipe	nos	44.00			-
d	200mm. dia. Pipe	nos	52.00			-
e	250mm. dia. Pipe	nos	85.00			-
f	315mm. dia. Pipe	nos	51.00			-
g	355mm. dia. Pipe	nos	13.00			-
h	400 mm. Dia. Pipe	nos	13.00			-
i	450mm. dia. Pipe	nos	13.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
j	500mm . Dia. Pipe	nos	22.00			-
k	630mm. dia. Pipe	nos	20.00			-
13	Providing and laying Bend 45 Conforming to IS specifications.					
a	90mm. dia. Pipe	nos	41.00			-
b	110mm. dia. Pipe	nos	103.00			-
c	160mm. dia. Pipe	nos	56.00			-
d	200mm. dia. Pipe	nos	87.00			-
e	250mm. dia. Pipe	nos	93.00			-
f	315mm. dia. Pipe	nos	103.00			-
g	355mm. dia. Pipe	nos	24.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
h	400 mm. Dia. Pipe	nos	26.00			-
i	450mm. dia. Pipe	nos	32.00			-
j	500mm . Dia. Pipe	nos	34.00			-
k	630mm. dia. Pipe	nos	28.00			-
14	Providing and laying Equal Tee Conforming to IS specifications.					
a	90mm. dia. Pipe	nos	36.00			-
b	110mm. dia. Pipe	nos	99.00			-
c	160mm. dia. Pipe	nos	108.00			-
d	200mm. dia. Pipe	nos	67.00			-
e	250mm. dia. Pipe	nos	140.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
f	315mm. dia. Pipe	nos	94.00			-
g	355mm. dia. Pipe	nos	23.00			-
h	400 mm. Dia.Pipe	nos	25.00			-
i	450mm. dia. Pipe	nos	31.00			-
j	500mm . Dia.Pipe	nos	37.00			-
k	630mm. dia. Pipe	nos	30.00			-
15	Providing and laying Pipe end Conforming to IS specifications.					
a	90mm. dia. Pipe	nos	35.00			-
b	110mm. dia. Pipe	nos	109.00			-
c	160mm. dia. Pipe	nos	108.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
d	200mm. dia. Pipe	nos	67.00			-
e	250mm. dia. Pipe	nos	140.00			-
f	315mm. dia. Pipe	nos	94.00			-
g	355mm. dia. Pipe	nos	23.00			-
h	400 mm. Dia. Pipe	nos	25.00			-
i	450mm. dia. Pipe	nos	27.00			-
j	500mm . Dia. Pipe	nos	31.00			-
k	630mm. dia. Pipe	nos	15.00			-
16	Providing and laying Reducer 10kg/sq.cm: Conforming to IS specifications.					
a	90mm. dia. Pipe	nos	26.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
b	110mm. dia. Pipe	nos	72.00			-
c	160mm. dia. Pipe	nos	39.00			-
d	200mm. dia. Pipe	nos	23.00			-
e	250mm. dia. Pipe	nos	119.00			-
f	315mm. dia. Pipe	nos	81.00			-
g	355mm. dia. Pipe	nos	22.00			-
h	400 mm. Dia. Pipe	nos	18.00			-
i	450mm. dia. Pipe	nos	19.00			-
j	500mm . Dia. Pipe	nos	18.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
k	630mm. dia. Pipe	nos	18.00			-
17	Providing and laying End Cap Conforming to IS specifications.					
a	90mm. dia. Pipe	nos	34.00			-
b	110mm. dia. Pipe	nos	32.00			-
c	160mm. dia. Pipe	nos	18.00			-
d	200mm. dia. Pipe	nos	58.00			-
e	250mm. dia. Pipe	nos	138.00			-
f	315mm. dia. Pipe	nos	86.00			-
g	355mm. dia. Pipe	nos	22.00			-
h	400 mm. Dia. Pipe	nos	20.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
i	450mm. dia. Pipe	nos	18.00			-
j	500mm . Dia. Pipe	nos	17.00			-
k	630mm. dia. Pipe	nos	14.00			-
18	Providing & fixing of Cast iron double flanged sluice valves as per I.S.:14846-2000 fitted with cast iron cap including jointing & testing with cost of jointing material such as bolts,nuts,rubber in sertions etc. all complete. (Steel Spindle) for garden					
a	Sluice Valve 600 mm dia.	Nos	18.00			-
b	500 mm dia	Nos	7.00			-
c	450 mm dia.	Nos	8.00			-
d	400 mm dia	Nos	9.00			-
e	350 mm dia	Nos	11.00			-

SI. No	Description	Unit	Quantity	Rate [In INR]	Rate in Words [In INR]	Amount [In INR]
f	300 mm dia.	Nos	34.00			-
g	250 mm dia.	Nos	60.00			-
h	200 mm dia.	Nos	15.00			-
i	150 mm dia.	Nos	19.00			-
j	100 mm dia.	Nos	18.00			-
19	Supply of Single Chamber D.I. Air valve with body and cover in ductile iron of grade SG 50 or equivalent grade as per I.S.3896-part2-1985 and subsequent revisions. All internal parts such as float shell etc.all cover bolts of stainless steel and gasket sand seals of EPDM.Epoxy powder coating (EP-P) inside and out side colour blue.Drilled as per IS:1538 for garden					
a	200 mm dia.	Nos	47.00			-
b	150 mm dia.	Nos	34.00			-
SUB TOTAL; WATER SUPPLY AND DRAINAGE WORKS						-