

MAHINDRA WORLD CITY, JAIPUR
AMENDED BOQ FOR SEWERAGE WORKS ENGG. EXT.-2

S.NO.	DESCRIPTION	Unit	Qty	RATE	Amount
1	Earthwork				-
1.1	Excavation				
1.1	Earth work in excavation in foundation trenches or under grade/ raft slab etc. from existing NGLand stacking the excavated material within 2 km including dressing of bottom , sides strutting, timbering, shoring, trimming of sides, dewatering, all leads and lifts, incidentals, etc. complete with ramming of bottom, surface preparation as per specifications to receive the PCC. Excavation shall be payable only for vertical cut up to the outer edge of foundation lean concrete as indicated in drawings through out the pit depths. Cost of extra excavation required for working space, supporting side shuttering of foundations and retaining walls and that required for making slopes for stability of excavation shall be deemed to be included in the rate quoted.				
	(Note: The Line & levels in the drawings shall be strictly followed and excess excavation if any shall be made good by contractor free of cost as per the instructions of the Owner) To organize the space for stacking of excavated earth for using the same in back filling will be responsibility of the contractor only. (All depths of excavation as per drawing included in rates.)				
1.1.1	All kinds of soils for all leads and lifts UPTO 500 Meter	Cum	17066		
1.1.2	All kinds of soils for all leads and lifts from 500 Meter to 1KM	Cum	775		
1.1.3	All kinds of soils for all leads and lifts beyond 1KM	Cum	RO		
1.2	Earth Filling				
1.2.1	Filling with selected, suitable excavated earth already available at site in plinths, back of retaining walls, foundations and trenches and spreading the remaining soil for specified location as directed by the Owner and shall be done in layers, not exceeding 20cm in depth and consolidating each deposited layer by mechanical means, ramming and watering as per specifications including re-excavation, transportation, loading, unloading, carriage to dumping spot and all incidentals at all depth, levels, leads and lifts complete. (Net consolidated area fill volume will be computed from the initial and final levels. Volume in slopes, embankments etc. will be computed applying appropriate formula, as per CPWD specification). Note: filling shall be done by the excavated earth available at site or adjacent plots stacked by the Contractor and/ or by the Owner.	Cum	16291		
1.2.2	Supply selected/ approved earth brought from outside MWCCJ site and filling the same in plinths, back of retaining walls, foundations and trenches and spreading in landscaping and other location as directed by the Project Manager and shall be done in layers, not exceeding 20cm in depth and consolidating each deposited layer by mechanical means, ramming and watering as per specifications including transportation, cost of soil, royalty, loading, unloading, carriage to dumping spot and all incidentals at all depths and levels, for all leads and lifts complete (Net consolidated area fill volume will be computed from the initial and final levels. Volume in slopes, embankments etc. will be computed applying appropriate formula, as per CPWD specification).	Cum	RO		
2.0	PLAIN CEMENT CONCRETE (PCC)				-
2.1	Providing and laying Ready Mix plain cement concrete of specified grade as encasing pipe all around including bed concrete under foundation, bases for rafts, underground water tank, building machine equipments, column footing, under floor landings, below road and pathways, cill, coping, screeding at deck roof to required slope and other locations as called for laid, consolidated and cured etc. complete including finishing the top surface to receive the next course / layer as per specification and drawing including the cost of centering and shuttering.				
2.1.1	M 7.5	Cum	51		-
2.1.2	M10	Cum	10		
2.1.3	M-15	Cum	RO		
3.0	REINFORCED CEMENT CONCRETE				-
3.1	Providing & laying in position ready mix concrete of pre approved design mix of specified grade using pump with 20mm down gauge coarse aggregates excluding cost of centering, shuttering and steel reinforcement but including cost of making shear keys and provision of construction / control joints in various locations, laid, consolidated and cured, item to include all structural items like base raft, ramp, column, column capitals, wall, footings, equipment foundations, fins, mullions, beams, lintels, pergola, chajja, fascia, parapet, railing, slab, trenches, drains and sumps etc. of any shape and sizes. The rates of concrete to include the cost of admixtures /plasticisers/superplasticers/micro fine materials/ bonding agent to achieve specified strength and to facilitate pumpable concrete etc complete for all height and level. (As conforming IS 3812 Allowable fly ash shall be used maximum upto 25% of cement content)				
3.1.1	M20 grade concrete (Note:- Minimum Cement content in M-20 to be @ 300 kg/cum).	Cum	RO		
3.1.2	M25 grade concrete (Note:- Minimum Cement content in M-25 to be @ 330 kg/cum).	Cum	RO		
4	Sewage works				-

4.1	Laying the following dia uPVC pipes class SN 8 , SDR-34, confirming to IS 15328—2003 and relevant specials including in the joints with rubber / lubricant fixing , holding wherever necessary and making good of the dismantled portion with necessary connections etc. , complete in all respects and as per drawing.				
	uPVC Pipes shall be issued free of cost by MWCJ. Reconciliation of Qty to be submitted along with every RA Bill.				
4.1.1	i) 200mm dia UPVC pipe	Metre	937		
4.1.2	ii) 250mm dia UPVC pipe	Metre	399		
4.1.3	iii) 300mm dia UPVC pipe	Metre	367		
	Note:- The contractor shall submit along with every running bill (on account or interim bill) materialwise reconciliation statements supported by complete calculations reconciling total issue, total consumption and certified balance (diameter/section-wise in the case of steel) and resulting variations and reasons therefore. Engineer-in-Charge shall (whose decision shall be final and binding on the contractor) be within his rights to follow the procedure of recovery as per relevant contract clause at any stage of the work if reconciliation is not found to be satisfactory.				
4.2	Supply, install precast circular reinforced concrete manholes of M-40 grade circular manhole chamber having 1200 mm internal diameter & depth, including required excavation of earth in all types of soils such as murrum, sand, sandy silt, black cotton soil, hard soil, kankar etc. backfilling & disposing of surplus excavated material within a lead of 50 meter. The work includes laying of 150mm thick plain cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 20 mm nominal size), 1800 mm dia bedding in foundation, providing and laying of plain cement concrete 1:2:4 (1 cement: 2 coarse sand : 4 graded stone aggregate) in channel & circular starter base wall up to 50 mm above outer dia. of sewer pipe and P&F in position of 125 mm thick, 150/225 mm high pre-cast M40 grade cement concrete ring at bottom and consecutive standard size 300 mm high rings. The work includes P&F pre-cast reinforced cement concrete eccentric conical piece of M40 grade, 125 mm thick having 560 mm and 1200 mm internal diameter at top & bottom respectively, fitted with Ferro-cement cover of 33 kg cast iron double seal ring & frame (heavy-duty) etc to withstand for class AA loading including supply and fixing of Ferro-cement foot steps and sealing of all joints with cement mortar 1:1 complete job as per detailed specifications, drawings and directions of Engineer-In charge.				
4.2.1	Invert Depth of 0 and upto 1680 mm	Each	RO		
4.2.2	Invert Depth of 1680 & upto 2290 mm	Each	15		-
4.2.3	Invert depth of 2290 & upto 3290 mm invert depth	Each	3		-
4.3	Construction of Pre-cast RCC M-40 grade circular manhole chamber having 1500 mm internal diameter & depth, including required excavation of earth in all types of soils such as murrum, sand, sandy silt, black cotton soil, hard soil, kankar etc. backfilling & disposing of surplus excavated material within a lead of 50 meter. The work includes laying of 150mm thick plain cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 20 mm nominal size), 1800 mm dia bedding in foundation, providing and laying of plain cement concrete 1:2:4 (1 cement: 2 coarse sand : 4 graded stone aggregate) in channel & circular starter base wall up to 50 mm above outer dia. of sewer pipe and P&F in position of 125 mm thick, 150/225 mm high pre-cast M40 grade cement concrete ring at bottom and consecutive standard size 300 mm high rings. The work includes P&F pre-cast reinforced cement concrete eccentric conical piece of M40 grade, 125 mm thick having 560 mm and 1500 mm internal diameter at top & bottom respectively , fitted with Ferro-cement cover of 33 kg cast iron double seal ring & frame (heavy-duty) etc to withstand for class AA loading including supply and fixing of Ferro cement foot steps and sealing of all joints with cement mortar 1:1 complete job as per detailed specifications, drawings and directions of Engineer-In charge.				
4.3.1	Invert depth of 3300 & upto 4290 mm invert depth	Each	10		-
4.3.2	Invert depth of 4300 & upto 5290 mm invert depth	Each	23		-
4.4	Providing & fixing RCC spun vent shaft with cowl 125 mm and 225 mm internal and external dia respectively at top, 300 and 450 mm internal and external dia respectively at bottom and 9.00 m overall length, bottom 1.25 m below ground level fixed in a pit 90x90x150cm with cement concrete 1:4:8 (1 cement:4 coarse sand: 8agg 20 mm nominal size) 25 cm in bed and 20 cm all around with top 15 cm in cement concrete 1:2:4 (1 cement :2coarse sand :4 agg 20 mm nominal size) junction of vent shaft and concrete grouted with cement mortar 1:1 (1 cement: 1 fine sand) including making connection with sewer manhole with 150 mm diameter cement concrete pipe of required length complete as approved by engineer in charge.	Nos.	RO		-
5	Misc Works				-
	RCC Pipes shall be issued free of cost by MWCJ. Reconciliation of Qty to be submitted along with every RA Bill.				
5.1	Connection with existing pipeline	Nos.	5		-
5.2	Laying non pressure NP3 class medium duty R.C.C pipes with Spigot and socket jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement :2 fine sand) including testing of joints etc. complete under road for heavy traffic				-
5.2.1	300mm dia RCC pipe	Metre	70		-
5.2.2	450mm dia RCC pipe	Metre	35		-
	Total :				-

Note:-

1. Rate is inclusive of cess, all charges ,labour charges except GST, GST is nil in SEZ.
2. Time is essence of the Contract. Work to be completed within 60 days.

3. Any extra Items /increase in qtys. other than BOQ shall be pre-intimated before execution. Such Items shall be recorded in Site Instruction book and same shall be paid as per approval by Engineer-in Charge based on proper rate analysis (in case of extra items) by Contracts Deptt and the same shall be paid in final invoice.

4. Bidder has to take LUT/ Bond for working in SEZ