BILL OF QUANTITIES FOR WORKS ON PROTECTION OF THE BUILDINGS OF HEALTH CENTRE AND HOSPITAL IN LOZNICA FROM UNDERGROUND AND ATMOSPHERIC WATERS

Note: Bidder shall price all items in the tender documentation in RSD excluding VAT.

Bill of Quantities-Atmospheric sewerage

Note: Bidder shall price all items in the tender documentation in RSD excluding VAT.

Item No.	Description of position	U.m.	quantity	Price	Total
I	**PRELIMINARY AND GEODETIC WORKS**				
1.	**MARKING THE ROUTE**				
	Before the start of work on the excavation it is necessary to mark the route of the pipeline designed with all the necessary design elements and X, Y and Z coordinates. Data on the geodetic points at that location to be taken from the cadastral register. Setting up of solid points with wooden or metal stakes on axis of revision shafts, at maximum length of up to 30m', if the revision shafts are at the greater distance than 30m', and placing of insurance firm points on 3m to the left or right of the axis of revision shafts or anchors, and setting of wooden pegs at every 2m to ensure straight-line excavation. The calculation is per m' of designed or executed pipeline route.				
	collector	m¹	460.40		
	gutter connection	m¹	124.61		
2.	**TRENCHING UNDERGROUND INSTALLATIONS**				
	Trenching to determine the exact position of existing installations. Trench every 50m along the route of the newly designed network, or in places of existing underground installations, established on the basis of the information about their position by the relevant institutions. The unit price includes all work on the manual excavation of trenches in depth of 1.0-2.5m and length 3-5m and working with material on securing of the excavation trench. Measurement and calculation per piece of the trench profile	pcs.	10		

3.	DEMOLITION OF ASPHALT PAVEMENT average thickness d = 15 cm				
	Mechanical cutting of the existing asphalt along the trench for pipe laying 20 cm wider than the width of the trench on each side. After cutting, perform mechanical and manual breaking of the asphalt (AB + BNS) to pieces of the average thickness 12 cm with loading and transport to the landfill designated by the supervisory authority or the city dump. The calculation is done per m2 of destroyed asphalt pavement.	m^2	500.05		

TOTAL PRELIMINARY AND GEODETIC WORKS:	

II EARTH WORKS

1.	**MECHANICAL AND MANUAL EXCAVATION**				
	Mechanical and manual excavation of trenches in soil of III category for laying of the pipes, all in accordance with the designed layout and longitudinal profile. The width of the trench is defined by design. The excavated material is deposited on 1.0m from the edge of the trench or loaded on a truck. During the excavations immediately execute complete support of the trench so as to ensure full work safety. The unit price includes excavation and loading. Out of the total amount, 80% of the excavation will be done mechanically and 20% manually. In the zone of crossing with existing installations manual excavation is foreseen. Calculation per m3 of excavated soil in all according to the profile in the design.				
	Excavation - H <2 m				
	mechanical excavation of 80%	m^3	758.34		
	manual excavation of 20%	m^3	189.58		
	Excavation - H> 2 m				
	mechanical excavation of 80%	m^3	15.15		
	manual excavation of 20%	m^3	3.79		
	manual excavation of earth for the gutter connection (average depth of the trench 1.10m, the average trench width 0.8m	m^3	125.50		

2.	**MANUAL EXCAVATION SOIL FOR MANHOLES**				
	Manual widening of trench for manholes. Position includes manual excavation pit at 60 cm wider on each side in relation to the manholes plus the width of metal sheeting 2 x 25cm. The calculation is per m3 of excavated material in a fused state	m^3	104.75		
3.	**PLANNING OF BOTTOM TRENCH**				
	Positions included that needs correction trench (excavation and backfilling) to obtain required fall. Fine planning of the trench bottom according to the given elevations and downs of the project (+/- 1 cm) and subsoil compaction, vibro plate to the required compactness. Compaction must be achieved min is 15Mpa, in the event that at some places can not reach the required compactness, tamping will continue with the addition of sandy-gravel material until the achievement of the required compactness. The calculation is performed by m2 planned and compressed trench bottom surface.				
	collector	m^2	586.43		
	gutter connection	m^2	99.69		
4.	**MECHANICAL AND MANUAL COVERED WITH SAND UNDER, AROUND AND ABOVE PIPELINE**				
	This position is included in the planning and spreading sand for formation level with accuracy +/- 1cm all in accordance with the projected elevations and slopes. The thickness of the formation level is d = 10 cm. After completion of the planning and conduct the examination of the formation level jamming capacity. Capacity of the formation level should be at least 95% of the maximum compaction under standard laboratory "Proctor" -ovom procedure or via compression modulus Me> 1.5kN / cm2. Backfill the trench with sand around and above the pipes is carried out to a height of 30 cm from the top of the pipe, the layers of 10-20cm with simultaneous compacting and wetting. Upon completion backfill carry out testing capacity. Below roads compaction fill should be at 100% of the maximum under standard laboratory compaction "Proctor" -this procedure or via compression modulus Me = 2.5kN / cm2.				

	Below pedestrian and bicycle paths, parking, filling capacity should amount to 98% of the maximum under standard laboratory compaction "Proctor" -this procedure or through a compression modulus Me = 2.0kN / cm2. The calculation is done per m3 of material embedded in a compacted state				
	collector	m^3	368.20		
	gutter connection	m^3	53.32		
5.	**MECHANICAL AND MANUAL l BACKFILL GRAVEL**				
	Filling these and backfill test plackets done in layers with compaction of materials and at the same time removing the supporting of the trench, wherein the thickness of the layer compaction must match the type of material and applied machine for compaction. Backfill performed to the lower corners of the placenta road, ie cycling and walking paths, parking. The compaction performed to project the required density, a check is carried out for each layer of the spacing between two adjacent manholes sewage. Below the roads fill compaction should be at 100% of the maximum under the standard laboratory compaction "Proctor" -this procedure or through module compressibility Me = 2.5kN / cm2. Below pedestrian and bicycle paths, parking lots, filling capacity should amount to 98% of the maximum under standard laboratory compaction "Proctor" -this procedure or through a compression modulus Me = 2.0kN / cm2. The calculation is done per m3 of material embedded in a compacted state.				
	collector	m^3	570.86		
	gutter connection	m^3	53.83		
6.	Removal of excess material from the trench				
	This position is included in the loading, transport, unloading and rough planning unloaded excess material to the city dump. The calculation is per m3 of soil were taken in bulk, plus soils coefficient Cr = 1.2.	m^3	1,436.53		

TOTAL EARTH WORKS:	

III CARPENTRY WORKS

1.	**Supporting of trench with formwork**				
	Supporting of trench for the construction of sewage collection metal casing, the depth of the trench up to 2m over 2m. Support doing duplex for safe work in the trenches. The price includes preparation of the formwork, setting up and dismantling during backfilling the trench. Support is the entire surface of the trench from two sides . Calculation per m2 is supported by roof surface.				
	collector				
	Protection trench <2m	m^2	1,244.29		
	Protection trench >2m	m^2	270.09		
	gutter connection				
	Protection trench <2m	m^2	274.14		

TOTAL CARPENTRY WORKS:	

IV CONCRETE WORKS

1.	**INSTALLATION OF REVISION WINDOW**				
	This position is included supplying, transportation and unloading woterproof prefabricated rings AB (h = 0.25m, 0.5m, 1.0m, cone h = 0.6m) Ø1000mm, of the concrete MB40 and minimum wall thickness d = 12cm, storage, delivery of an additional along the route materials and accessories for the required installation and connection of AB rings, all work on the installation of RO with the opening hole on the side, processing passes through the RO to be watertight, treatment of compounds of prefabricated elements RO spec. cement mortar or other material so as to obtain water resistance. The calculation is done by m' performed an inspection window.	m^1	38.54		

2.	**MAKING CONCRETE SURFACE AND GRAVEL TAMPON**				
	This position is covered by the supply and removal of all the necessary material and all the accessories and the work necessary to complete the preparation of the required positions including: setting up and dismantling of formwork, preparation, installation and curing MB15 d = 10cm. Layer of concrete evenly carried out on a bed of gravel thickness d = 10cm. layer of concrete to create the projected decline with a flat upper surface. The calculation is done per unit built concrete layer, that is tampons m3 of gravel.				
		pcs.	25		
		m^3	11.00		
3.	**MAKING LOWER PLATE OF REVISION WINDOWS**				
	This position is covered by the supply and removal of all required materials including rebar, all the equipment and the work necessary to complete the preparation of the required positions including: setting up and dismantling the necessary skin, straightening, cutting, bending and tying reinforcing bars, preparation and installation of concrete MB30, and more you need to create the required AB RO bottom plate. The calculation is done per piece lower plate RO implemented.	pcs.	25		
4.	**MAKING LOW WATER CHANNEL**				
	The position is covered by the procurement, collection, creation, installation and curing MB20 to produce ducts with cement mortar plastering ducts in two layers and ironing elsewhere layer to black gloss. The calculation is done per piece making low water channel.	pcs.	25		
5.	**TREATMENT OF PASSAGE THROUGH MANHOLES**				
	For the making of revision holle for special attention to the pipes through manhole passages. At the junction between the pipes and the revision stairways set up a rubber ring and sealed by a watertight composition (Aqua stop or the like), 1 = 2 shaft penetration shaft to cascade over 60cm = 3 penetration. The calculation is per piece penetration.	pcs.	74		

6.	**MAKING CASCADE OF CONCRETE OF MB 20 ACCORDING TO DETAIL IN THE PROJECT.**				
	This position is covered by the supply and removal of all the necessary material and all the accessories and the work necessary to complete the preparation of the required positions including: setting up and dismantling the necessary formwork, preparation, installation and curing MB20 and everything else that is necessary to complete the preparation of the required positions works. Measurement and calculation of the per m3 of concrete.	m^3	1.80		
7.	**PENETRATION OF REVISION ENTRANCE**				
	Execute a waterproofing penetration revision entrance in three coats penetrators, or policema saga coating. After this coating R. O. must be waterproof. Calculation per m2 coated R. S	m^2	121.02		
8.	**MAKING REINFORCES CONCRETE RELIEVING RING**				
	This position is covered by the supply and removal of all required materials including rebar, all the equipment and the work necessary to complete the prescribed preparation AB relieving the internal diameter of the ring Ø625mm including: setting up and dismantling the skin, straightening, cutting, bending and tying reinforcing bars, preparation, installation and care concrete MB30, Pre making the releasing ring it is necessary to further control the compaction around the RO. The calculation is done per share derived releasing the ring.	pcs.	25		

TOTAL CONCRETE WORKS:	

V MONTAGE WORKS

1.	**MONTAGE OF PVC PIPES**				
	Supplying, load, transport and unloading of PVC pipes for temporary landfill construction sites - local transport to the route, set up along the trench and installation of pipes according to the manufacturer's instructions. Before taking to review the layout is correct, pipes and pass to the projected level after. The unit price position has all the necessary small material and labor including the necessary cuts. The calculation is per m' mounted pipeline				
	PVC S-16 (SDR34) SN8 Ø300mm	m¹	339.52		
	PVC S-16 (SDR34) SN8 Ø200mm	m¹	245.49		
	PVC S-16 (SDR34) SN8 Ø160mm	m¹	124.61		
	KGF editorial manhole Ø300mm	pcs.	32		
	KGF editorial manhole Ø200mm	pcs.	18		
	KGF editorial manhole Ø160mm	pcs.	23		
2.	**PVC fittings**				
	Supply, load, transport and unloading PVC fittings on a temporary landfill construction sites and assembly according to the manufacturer's instructions. Before installation inspect the appearance and correctness pieces. The unit price position has all the necessary chores materials and labor. The calculation is per piece mounted fitting				
	PVC frog cover Ø300mm	pcs.	1		
	KGR reducer Ø110 / 160mm	pcs.	24		
	KGB arch 45 ° Ø160mm	pcs.	48		
3.	**CAST-IRON RAIN PIPE DRAIN**				
	Supply, load and montage cast-iron rain pipe drain Ø110mm.The calculation is per piece	pcs.	24		
4.	**LG manhole covers**				
	Supply, transport and installation hard, flat cast-iron manhole covers, Ø625mm, with holes, with the frame, the load of 400kN. LG cover installed on a given corner of the lid. The lid stiffen cement mortar, and concrete pads around 0.30m3 concrete MB20. The calculation is per piece embedded covers.	pcs.	25		

5.	**Creepers**				
	Supply, transport and installation of cast iron ladders according to DIN 1211 in the manhole, each 30 cm in height, alternately in two rows at the distance of 20 cm with a hand chisel holes and processing with cement mortar. The calculation is per piece fitted creepers..	pcs.	129		

TOTAL MONTAGE WORKS:	

VI OTHER WORKS

1.	**NEW SEWAGE CONNECTION TO THE EXISTING DISPERSION DRAW WELL**				
	The position covers all necessary chisel existing disperision draw well retractable sewage pipes and treatment of the compound in order to ensure the water resistance of the same with the procurement of necessary materials and driveway. Measurement and calculation is performed by one fully-built connectors	pcs.	1		
2.	**RINSE SEWAGE**				
	Rinse Drainage online tests with hydraulic manually remove all types of materials that entered the pipeline during the flushing of the pipeline installation with high-pressure tanks (acterised) and slurry pump out the water from pipeline. The calculation is per m' of instruction pipeline route.	m¹	585.01		
3.	**HYDRAULIC TEST**				
	Upon completion of the installation of individual stocks of pipeline most 100m ', perform their examination and revision silage for the waterproofing, with the obligatory presence of the Supervisory Authority, and all in accordance with the terms of the utility and the applicable regulations for this type of work (water column hydrostatic pressure). All possible rectify any faults before backfilling the trench. The calculation is per m 'made the route of the pipeline.	m¹	585.01		
4.	**SECURITY OF SITE**				
	The positioning of protective fence around the trench and tape alerts. Calculation per meter.	m¹	585.01		

5.	**RECORDING OF BUILT STATUS FOR CADASTRE**				
	In the course of and after the completion of the pipeline installation contractor is obliged to carry out surveying built drawings and all amendments designed sheet is transferred to the situation and the corresponding longitudinal profile and details. Calculation per m' of executed work.	m^1	585.01		
6.	**MAKING AS BUILT PROJECT**				
	Upon receiving the information on the completion of the pipeline (geodetic survey of built status) recorded the condition of the situation and draw longitudinal profile with other necessary information such as the details. Study drawn up in 6 copies, which will be signed by the contractor and supervision, and submit it to the Investor . Calculation per m carried pipeline route.	m^1	585.01		
7.	**BRINGING CURRENT ASPHALT DRIVEWAY TO ORIGINAL CONDITION**				
	After backfilling and compacting the trench to the required compaction restoring pavement to its original condition, the thicknesses and layers of pavement. The calculation is done per m2 asphalt surface.	m^2	500.05		
8.	**UNFORESEEN WORKS**				
	This position includes the performance of small works that are not included in the main project because they could not be predicted due to incomplete data from the route of the pipeline and necessary to carry out during the construction works smooth functioning of the working process on the development of the pipeline (removing traffic signs, advertisements that located on the route, white for underground installations for gas, telecommunication, electricity and other similar obstacles). The calculation is per m' derived route.	m^1	585.01		

9	**FINISHING WORK ON SITE**				
	This position includes cleaning, refilling materials, supplying construction sites in a regulated state, sheltering from the site operational base, canopy, storage of materials, equipment, surplus materials from landfills, machinery, eliminating minor objections and willingness site for technical acceptance. Calculation per m' derived route.	m¹	585.01		

TOTAL OTHER WORKS:	

SUMMARY OF WORKS ON ATMOSPHERIC SEWERAGE:

I	**PRELIMINARY AND GEODETIC WORKS**	
II	**EARTH WORKS**	
III	**CARPENTRY WORKS**	
IV	**CONCRETE WORKS**	
V	**MONTAGE WORKS**	
VI	**OTHER WORKS**	

TOTAL ATMOSPHERIC SEWERAGE	

Bill of Quantities-Drainage system

Note: Bidder shall price all items in the tender documentation in RSD excluding VAT.

Item No.	Description of position	U.m.	quantity	Price	Total
I	**PRELIMINARY AND GEODETIC WORKS**				
1.	MARKING THE ROUTE				
	Before the start of work on the excavation it is necessary to mark the route of the pipeline designed with all the necessary design elements and X, Y and Z coordinates. Data on the geodetic points at that location to be taken from the cadastral register. Setting up of solid points with wooden or metal stakes on axis of revision shafts, at maximum length of up to 30m', if the revision shafts are at the greater distance than 30m', and placing of insurance firm points on 3m to the left or right of the axis of revision shafts or anchors, and setting of wooden pegs at every 2m to ensure straight-line excavation. The calculation is per m' of designed or executed pipeline route.	m¹	161.11		
2.	TRENCHING UNDERGROUND INSTALLATIONS				
	Trenching determines the exact position of existing installations. Trenches work every 50m along the route of the newly designed water supply network, or in places of existing underground installations, established on the basis of the information about their position by the relevant institutions. The unit price includes all work on the manual excavation trench depth of 1.0-2.5m and length 3-5m and working with material on securing the excavation trench. Measurement and calculation of the per piece of trenching profile	pcs.	4		

3.	DEMOLITION OF ASPHALT PAVEMENT average thickness d = 15 cm				
	Position includes mutual mechanical cutting of the existing asphalt along the trench for pipe laying and 20 cm wider than the width of the trench on each side. After cutting to perform automatic and manual breaking the asphalt (AB + BNS) to pieces the average thickness d = 12 cm with loading and transport to the landfill designated by the supervisory authority or the city dump. The calculation is done per m2 of destroyed asphalt pavement.	m^2	19.31		

TOTAL PRELIMINARY AND GEODETIC WORKS:	

II EARTH WORKS

1.	MECHANICAL AND MANUAL EXCAVATION				
	Mechanical and manual excavation trench in soil III categories for taking pipes, all in accordance with the projected situation and longitudinal profile. The width of the trench is defined bill of works. The excavated material is deposited on 1.0m from the edge of the trench or loading a truck. During the excavations immediately execute and overall support elements of the trench so as to ensure full safety of the tunnel. the unit price positions are included excavation and shipping. Out of the total amount of 80% of the excavation will be done mechanically and 20% manually. In the zone marked crossing with existing installations foreseen manual excavation. Calculation per m3 of excavated soil in all, according to the profile of the project.				
	Excavation - H <2 m				
	mechanical excavation of 80%	m^3	194.01		
	manual excavation of 20%	m^3	48.50		
	Excavation - H> 2 m				
	mechanical excavation of 80%	m^3	64.77		
	manual excavation of 20%	m^3	16.19		
2.	MANUAL EXCAVATION SOIL FOR MANHOLES				
	Manual excavation trench for making the discharge pipe from the well to the audit revision entrances.	m^3	7.63		

3.	MANUAL EXCAVATION SOIL FOR WATER COLLECTOR WELL				
	Manual expansion trench for depressed wells. Position includes manual excavation pit at 60 cm wider on each side than the width plus the well cubical metal sheeting, 2 x 25cm. The calculation is per m3 of excavated material in a fused state.	m^3	75.85		
4.	PLANNING OF BOTTOM TRENCH				
	Positions included that needs correction trench (excavation and backfilling) to obtain required fall. Fine planning of the trench bottom according to the given elevations and downs of the project (+/- 1 cm) and subsoil compaction, vibro plate to the required compactness. Compaction must be achieved min is 15Mpa, in the event that at some places can not reach the required compactness, tamping will continue with the addition of sandy-gravel material until the achievement of the required compactness. The calculation is performed by m2 planned and compressed trench bottom surface.	m^2	128.89		
4.	SUPPLYING, TRANSPORT AND INSTALLATION GRANULES GRAVEL IN DRAINAGE TRENCH				
	Supply, transport and installation of granulated gravel fractions 20-40mm.	m^3	119.82		
5.	MECHANIC AND MANUAL BACKFILL WITH DREDGED MATERIALS				
	Filling these and backfill test plackets done in layers with compaction of materials and at the same time removing the supporting of the trench, wherein the thickness of the layer compaction must match the type of material and applied machine for compaction. Backfill performed to the lower corners of the formation level road, ie cycling and walking paths, parking. the compaction performed to project the required density, a check is carried out for each layer of the spacing between two adjacent manholes sewage.				

	Below the roads fill compaction should be at 100% of the maximum under the standard laboratory compaction "Proctor" -this procedure or through module compressibility Me = 2.5kN / cm2. Below pedestrian and bicycle paths, parking lots, filling capacity should amount to 98% of the maximum under standard laboratory compaction "Proctor" -this procedure or through a compression modulus Me = 2.0kN / cm2. The calculation is done per m3 of material embedded in a compacted state.	m^3	202.22		
6.	Removal of excess material from the trench				
	This position is included in the loading, transport, unloading and rough planning unloaded excess material to the city dump. The calculation is per m3 of soil were taken in bulk, plus soils coefficient Cr = 1.2.	m^3	245.68		

TOTAL EARTH WORKS:	

III CARPENTRY WORKS

1.	Supporting of trench with formwork				
	Supporting of trench for the construction of sewage collection metal casing, the depth of the trench up to 2m over 2m. Support doing duplex for safe work in the trenches. The price includes preparation of the formwork, setting up and dismantling during backfilling the trench. Support is the entire surface of the trench from two sides . Calculation per m2 is supported by roof surface.	m^2	808.68		

TOTAL CARPENTRY WORKS:	

IV CONCRETE WORKS

1.	MONTAGE OF WATER COLLECTOR WELL				
	This position is included supplying, transportation and unloading of prefabricated AB rings (h = 0.25m, 0.5m, 1.0m, cone h = 0.6m) Ø1000mm, of the concrete MB40 and minimum wall thickness d = 12cm, storage, delivery of additional materials along the route and accessories for prescribed installation and connection of AB rings, all work on the installation of wells with opening holes on the side, passes through the treatment well and treating the compounds of prefabricated elements. The calculation is done by m' performed an inspection window.	m^1	16.00		
2.	MAKING CONCRETE SURFACE AND GRAVEL TAMPON				
	This position is covered by the supply and removal of all the necessary material and all the accessories and the work necessary to complete the preparation of the required positions including: setting up and dismantling of formwork, preparation, installation and curing MB15 d = 10cm. Layer of concrete evenly carried out on a bed of gravel thickness d = 10cm. layer of concrete to create the projected decline with a flat upper surface. The calculation is done per unit built concrete layer, that is tampons m3 of gravel.				
		pcs.	3		
		m^3	1.32		
3.	MAKING LOWER PLATE OF REVISION WINDOWS				
	This position is covered by the supply and removal of all required materials including rebar, all the equipment and the work necessary to complete the preparation of the required positions including: setting up and dismantling the necessary skin, straightening, cutting, bending and tying reinforcing bars, preparation and installation of concrete MB30, and more you need to create the required AB RO bottom plate. The calculation is done per piece lower plate RO implemented.	pcs.	3		

4.	TREATMENT OF PASSAGE THROUGH WELL				
	For themaking of the water collector well special attention to the passages through the tube wells. At the junction between the drain pipes and water collector wells a small rubber ring and sealed by a watertight composition (Aqua stop or the like). The calculation is per piece penetration.	pcs.	9		
5.	MAKING OF REINFORCED CONCRETE RELIEVE RING				
	This position is covered by the supply and removal of all required materials including rebar, all the equipment and the work necessary to complete the prescribed preparation AB relieving the internal diameter of the ring Ø625mm including: setting up and dismantling the skin, straightening, cutting, bending and tying reinforcing bars, preparation, installation and care concrete MB30, Pre making the releasing ring it is necessary to further control the compaction around the RO. The calculation is done per piece of executed releave ring.	pcs.	3		

TOTAL CONCRETE WORKS:	

V MONTAGE WORKS

1.	MONTAGE OF DRAINAGE PIPES RE 80				
	Supply, transport and installation of drainage pipes PE 80s. The calculation is per m 'mounted pipeline.				
	PE 80 drainage pipe Ø 110 mm perforated by 360 degrees	m¹	151.57		
2.	MONTAGE RE PIPES				
	Supplying, transport and installation of HDPE polyethylene pipes SDR 17 (S8) NP10 bar.				
		m¹	9.54		
	KGF editorial manhole Ø110mm	pcs.	6		
3.	LG manhole covers				
	Supply, transport and installation hard, flat cast-iron manhole covers, Ø625mm, with holes, with the frame, the load of 400kN. LG cover installed on a given corner of the lid. The lid stiffen cement mortar, and concrete pads around 0.30m3 concrete MB20. The calculation is per piece embedded covers.	pcs.	3		

4.	CREEPERS				
	Supply, transport and installation of cast iron ladders according to DIN 1211 in the manhole, each 30 cm in height, alternately in two rows at the distance of 20 cm with a hand chisel holes and processing with cement mortar. The calculation is per piece fitted creepers..	pcs.	54		
5.	PUMPING AGGREGATE				
	Drainage, submersible pump Lowara DOMO 7VX. The characteristics of the pump: pump capacity-Qnom = 2.85 l / s; Voltage-Hnom = 4.51 m; number of rotation n = 2900 r / min; Dimensions of flow Rp 1 ½ " Casing and impeller are made of cast iron and the stainless steel shaft. The pump in monobloc execution associated with an electric motor. The characteristics of electric motors: Output forces at work within 0.55 kW; frequency-50 Hz; Labor Effort -230 V, degree of protection IP-X8;-speed 2,880 o / min Number of poles 1-ph; Nominal current 3.91-A;F DM switch, adequate electricity, to protect the pump from overload. The calculation is done per piece built-in pump	pcs.	3		
6.	Fittings				
	Supply, load, transport and unloading the cast-iron fittings on a temporary landfill construction sites and assembly according to the manufacturer's instructions. Before installation inspect the appearance and correctness pieces. The calculation is per piece mounted fitting				
	FF piece DN50/1000	pcs.	13		
	Ff piece DN50/300	pcs.	9		
	Q arch with flange 90 ° DN 50	pcs.	3		
	Filler DN 50 with flange Ø63x3,8mm	pcs.	9		
	N piece DN50	pcs.	3		
	Frog cover DN50	pcs.	1		

TOTAL MONTAGE WORKS:	

VI OTHER WORK

1.	PROTECTION DRAINAGE FILTER				
	Supply, transport and installation of geotextile 300 gr / m2. When installing geotextiles based compounds leave the switch. Temporary anchorage is carried out in an excavated trench using wedges or hanging on the bulkhead at the distance of 1.0 m. When working to comply with the technical requirements for this type of work. Area billing increased by 5% compared to the calculated due to switching (151.57h3.6) h1.05 = 572.94 m2. When working to comply with the technical requirements for this type of work. Calculation per m2 is set geotextiles.	m^2	572.94		
2.	Groundwater lowering				
	Eventual underground, atmosphere water or other origin draw from generation technology proposed by the contractor based on its own technical equipment. It is necessary to ensure that the pipes are laid only in dry trench. Position is included in all work, materials, transport, equipment and all belonging costs at pumping water out of the trench and distribution to recipient .Calculation per m' of trench.	m^1	151.57		
3.	SECURITY OF SITE				
	The positioning of protective fence around the trench and tape alerts. Calculation per meter.	m^1	151.57		
4.	RECORDING OF BUILT STATUS FOR CADASTRE				
	In the course of and after the completion of the pipeline installation contractor is obliged to carry out surveying built drawings and all amendments designed sheet is transferred to the situation and the corresponding longitudinal profile and details. Calculation per m' of executed work.	m^1	151.57		
5.	MAKING AS BUILT PROJECT				
	Upon receiving the information on the completion of the pipeline (geodetic survey of built status) recorded the condition of the situation and draw longitudinal profile with other necessary information such as the details. Study drawn up in 6 copies, which will be signed by the contractor and supervision, and submit it to the Investor . Calculation per m carried pipeline route.	m^1	151.57		

6.	BRINGING CURRENT ASPHALT DRIVEWAY TO ORIGINAL CONDITION				
	After backfilling and compacting the trench to the required compaction restoring pavement to its original condition, the thicknesses and layers of pavement. The calculation is done per m2 asphalt surface.	m^2	19.31		
7	UNFORESEEN WORKS				
	This position includes the performance of small works that are not included in the main project because they could not be predicted due to incomplete data from the route of the pipeline and necessary to carry out during the construction works smooth functioning of the working process on the development of the pipeline (removing traffic signs, advertisements that located on the route, white for underground installations for gas, telecommunication, electricity and other similar obstacles). The calculation is per m' of executed route.	m'	151.57		
8.	FINISHING WORK ON SITE				
	This position includes cleaning, refilling materials, supplying construction sites in a regulated state, sheltering from the site operational base, canopy, storage of materials, equipment, surplus materials from landfills, machinery, eliminating minor objections and willingness site for technical acceptance. Calculation per m 'derived route.	m^1	151.57		

TOTAL OTHER WORK:	

SUMMARY OF WORKS ON DRAINAGE SYSTEM:

I	**PRELIMINARY AND GEODETIC WORKS**	
II	**EARTH WORKS**	
III	**CARPENTRY WORKS**	
IV	**CONCRETE WORKS**	
V	**MONTAGE WORKS**	
VI	**OTHER WORKS**	

TOTAL DRAINAGE	

Bill of Quantities-Pressure line to the stream

Note: Bidder shall price all items in the tender documentation in RSD excluding VAT.

Item No.	Description of position	U.m.	quantity	Price	Total
I	**PRELIMINARY AND GEODETIC WORKS**				
1.	MARKING THE ROUTE				
	Before the start of work on the excavation it is necessary to mark the route of the pipeline designed with all the necessary design elements and X, Y and Z coordinates. Data on the geodetic points at that location to be taken from the cadastral register. Setting up of solid points with wooden or metal stakes on axis of revision shafts, at maximum length of up to 30m', if the revision shafts are at the greater distance than 30m', and placing of insurance firm points on 3m to the left or right of the axis of revision shafts or anchors, and setting of wooden pegs at every 2m to ensure straight-line excavation. The calculation is per m' of designed or executed pipeline route.	m^1	10.00		
2.	TRENCHING UNDERGROUND INSTALLATIONS				
	Trenching determines the exact position of existing installations. Trenches work every 50m along the route of the newly designed water supply network, or in places of existing underground installations, established on the basis of the information about their position by the relevant institutions. The unit price includes all work on the manual excavation trench depth of 1.0-2.5m and length 3-5m and working with material on securing the excavation trench. Measurement and calculation of the per piece of trenching profile	pcs.	1		
TOTAL PRELIMINARY AND GEODETIC WORKS:					

II EARTH WORKS

1.	MANUAL EXCAVATION SOIL FOR MANHOLES				
	Manual excavation of trench for laying pipes in according to the projected situation and longitudinal profile. The width of the trench is defined bill of works. The excavated material is deposited on 1.0 m from the edge of the trench or loading a truck. During the excavations carried out immediately and the entire trench support elements so to ensure complete safety of the tunnel. the unit price positions are included excavation and shipping. Out of the total amount of 80% of the excavation will be done mechanically and 20% manually. in the zone marked crossing with existing installations is scheduled for manual excavation. Calculation per m3 of excavated soil in all, according to the profile of the project.	m^3	4.00		
2.	PLANNING OF BOTTOM TRENCH				
	Positions included that needs correction trench (excavation and backfilling) to obtain required fall. Fine planning of the trench bottom according to the given elevations and downs of the project (+/- 1 cm) and subsoil compaction, vibro plate to the required compactness. Compaction must be achieved min is 15Mpa, in the event that at some places can not reach the required compactness, tamping will continue with the addition of sandy-gravel material until the achievement of the required compactness. The calculation is performed by m2 planned and compressed trench bottom surface.	m^2	8.00		
3.	MECHANIC AND MANUAL BACKFILL WITH DREDGED MATERIALS				
	Filling these and backfill test plackets done in layers with compaction of materials and at the same time removing the supporting of the trench, wherein the thickness of the layer compaction must match the type of material and applied machine for compaction. Backfill performed to the lower corners of the formation level road, ie cycling and walking paths, parking. the compaction performed to project the required density, a check is carried out for each layer of the spacing between two adjacent manholes sewage.				

	Below the roads fill compaction should be at 100% of the maximum under the standard laboratory compaction "Proctor" -this procedure or through module compressibility Me = 2.5kN / cm2. Below pedestrian and bicycle paths, parking lots, filling capacity should amount to 98% of the maximum under standard laboratory compaction "Proctor" -this procedure or through a compression modulus Me = 2.0kN / cm2. The calculation is done per m3 of material embedded in a compacted state.	m^3	5.80		
4.	Removal of excess material from the trench				
	This position is included in the loading, transport, unloading and rough planning unloaded excess material to the city dump. The calculation is per m3 of soil were taken in bulk, plus soils coefficient Cr = 1.2.	m^3	0.96		

TOTAL EARTH WORKS:	

III CONCRETE WORKS

1.	OPENING AND TREATMENT OF PASSAGE THROUGH THE WELL				
	Position included demolition of the existing despersion well, retractable price derived through holes through the walls of the existing despersion well of AB, for pipe diameter Ø300mm and Ø160mm and processing of tube wells to the wall, with the procurement of necessary materials and driveway. At the junction between the pipes and wells water collector well set a rubber ring and sealed by a watertight composition (Aqua stop or the like). The calculation is per piece penetration.	pcs.	2		

TOTAL CONCRETE WORKS:	

IV MONTAGE WORKS

1.	MONTAGE PE PIPES				
	Supply, transport and installation of HDPE polyethylene pipes SDR 17 (S8) NP10 bar.				
		m^1	8.25		

2.	Pumping Aggregate				
	Well pump Xylem brand Lowara Vogel 8125 2 / 2B-L6W SD Pump characteristics: The capacity of the pump-Qnom = 43.5 l / s; Voltage-Hnom = 8 m; n = number of rotation 2900 r / min; Dimensions thrust Rp 5 " diameter pumps working round ø132 mm. Pump in monobloc execution associated with an electric motor. Characteristics of electric motors: Output forces at work within 11 Labor Effort-400 V; Protection degree IP 68; Speed-o 2.855 / min; Number of poles 3-ph; Nominal current 3.91-A; F DM switch, adequate electricity, to protect the pump from overload. The calculation is done per piece in pump	pcs.	2		
	The support pressure pipeline	pcs.	2		
	well head	pcs.	2		
	Supporting clout pressure pipeline	pcs.	4		
3.	CAST-IRON FITTING				
	Supply, load, transport and unloading the cast-iron fittings on a temporary landfill construction sites and assembly according to the manufacturer's instructions. Before installation inspect the appearance and correctness pieces. The calculation is per piece mounted fitting				
	Non-refundable vent pipe DN150	pcs.	2		
	Butterfly valve DN150	pcs.	2		
	RE bushing Ø160 with flanges	pcs.	1		
	Q piece DN 150	pcs.	3		
	FF piece DN 150/500	pcs.	2		
	FF piece DN 150/700	pcs.	1		
	FF piece DN 150/900	pcs.	2		
	FF piece DN 150/1000	pcs.	4		
	FFR piece DN125/DN150	pcs.	1		
	T piece DN150	pcs.	1		
4.	Creepers				
	Supply, transport and installation of cast iron ladders according to DIN 1211 in the manhole, each 30 cm in height, alternately in two rows at the distance of 20 cm with a hand chisel holes and processing with cement mortar. The calculation is per piece fitted creepers..	pcs.	4		
5.	REMOVAL OF EXISTING PLATFORM				
	Position included cutting and removal of the existing platform of sheet thickness 5mm, cutting and removal of the substructure of the HOP profile dimensions 40/20 / 2mm. The calculation is done arbitrarily.	Lump.			

6	CONSTRUCTION OF STEEL PLATFORM				
	Position is included in the construction of a new platform modeled on the existing one, with necessary chiselling AB constructions of wells for the installation of steel supporting constraint forces HOP 40/20 / 2mm, on which are placed steel plates 5mm thick with anticipated inspection lid in place atmospheric sewage outfall into the well .				
	Steel under construction in HOP 40/20/2 mm	kg	28.38		
	Front plate thickness 5mm	kg	277.30		

TOTAL MONTAGE WORKS:					
V	**WORKS ON OUTFLOW CONSTRUCTION**				
1.	MANUAL EXCAVATION SOIL FOR MOLTEN BUILDING				
	The position is covered by manual excavation of land for the construction of molten building on the exit pressure pipe in according to the projected situation and longitudinal profile. Excavated material is dumped at 1.0m from the edge of the trench or loading a truck. . The unit price positions are included excavation and loading. Calculation per m3 of excavated soil in all, according to the profile of the project.	m^3	0.50		
2.	MAKING MOLTEN BUILDING OF AB CONCRETE				
	Position covers procurement and disposal of all necessary material and all the accessories and the work necessary to complete the preparation of the required positions including: setting up and dismantling the necessary formwork, straightening, cutting, bending and tying reinforcing bars, preparation, installation and care of waterproof concrete MB40 thickness d = 10 cm, all in accordance with the Design detail. The calculation is done per m3 AB walls made of rectangular manhole.	m^3	0.20		

3.	MONTAGE OF FITTING IN MOLTEN BUILDING				
	Supply, transport and installation of cast iron fittings command. Position it includes all labor and materials necessary prescribed for making these papers. The calculation is done by the built-piece fitting.				
		pcs.	1		
		pcs.	1		
		pcs.	1		
TOTAL WORKS ON OUTFLOW CONSTRUCTION:					

VI OTHER WORKS

1.	RINSE SEWAGE				
	Rinse Drainage online tests with hydraulic manually remove all types of materials that entered the pipeline during the flushing of the pipeline installation with high-pressure tanks (acterised) and slurry pump out the water from pipeline. The calculation is per m 'of instruction pipeline route.	m¹	10.00		
2.	SECURITY OF SITE				
	The positioning of protective fence around the trench and tape alerts. Calculation per meter.	m¹	10.00		
3.	RECORDING OF BUILT STATUS FOR CADASTRE				
	In the course of and after the completion of the pipeline installation contractor is obliged to carry out surveying built drawings and all amendments designed sheet is transferred to the situation and the corresponding longitudinal profile and details. Calculation per m'of executed work.	m¹	10.00		
4.	MAKING AS BUILT PROJECT				
	Upon receiving the information on the completion of the pipeline (geodetic survey of built status) recorded the condition of the situation and draw longitudinal profile with other necessary information such as the details. Study drawn up in 6 copies, which will be signed by the contractor and supervision, and submit it to the Investor . Calculation per m carried pipeline route.	m¹	10.00		

5.	UNFORESEEN WORKS				
	This position includes the performance of small works that are not included in the main project because they could not be predicted due to incomplete data from the route of the pipeline and necessary to carry out during the construction works smooth functioning of the working process on the development of the pipeline (removing traffic signs, advertisements that located on the route, white for underground installations for gas, telecommunication, electricity and other similar obstacles). The calculation is per m 'derived route.	m¹	10.00		
6	FINISHING WORK ON SITE				
	This position includes cleaning, refilling materials, supplying construction sites in a regulated state, sheltering from the site operational base, canopy, storage of materials, equipment, surplus materials from landfills, machinery, eliminating minor objections and willingness site for technical acceptance. Calculation per m 'derived route.	m¹	10.00		

TOTAL OTHER WORKS:	

SUMMARY OF WORKS ON PRESSURE LINE TO THE STREAM:

I	**PRELIMINARY AND GEODETIC WORKS**	
II	**EARTH WORKS**	
III	**CONCRETE WORKS**	
IV	**MONTAGE WORKS**	
V	**WORKS ON OUTFLOW CONSTRUCTION**	
VI	**OTHER WORKS**	

TOTAL PRESSURE LINE TO THE STREAM	

BILL OF QUANTITITES - LANDSCAPING

Note: Bidder shall price all items in the tender documentation in RSD excluding VAT.

1. SURGERY BUILDING

Item No.	Description of position	U.m.	quantity	Price	Total
	1.I Demolition and dismantling				
1	Demolition of concrete sidewalks around the building. Demolition should be performed with hand or mechanical way. A rubble should be brought, loaded on a truck and taken to a landfill to 15 km, at the option of investors. Calculation per m3 of demolished concrete	m^3	21.08		
2	Demolition of the channel walls of reinforced concrete.Demolition should be carried out carefully. The price includes and cutting fittings and etc. A rubble should be brought, loaded on a truck and taken to a landfill to 15 km, at the option of investors. Calculation per m3 of demolished concrete.	m^3	9.66		
3	Demolition of the brick walls that serve as protection of the existing HI basement walls. Brick should be cleaned and packed on the construction site landfill. A rubble should be brought, loaded on a truck and taken to a landfill to 15 km, at the option of investors. The price includes the extra scaffolding. Calculation per m2 of demolished surface	m^2	230.00		
4	Removal of treatment (mortar, stone etc.), with plinths and walls. Burglarize mortar and clamps clean joints to a depth of 2 cm. The surfaces of the bricks cleaned with steel brushes and wash the walls with water. A rubblr should be brought, loaded on a truck and taken to a landfill to 15 km, at the option of investors.	m^2	125.00		
5	Dismantling the existing rain pipe drain (or PVC knee). , A rubblr should be brought, loaded on a truck and taken to a landfill to 15 km, at the option of investors. Calculation per piece dismantled rain pipe drain	pcs.	18		

Item No.	Description of position	U.m.	quantity	Price	Total
6	Careful removal and installation of gutter half verticals, window sills, pipes, etc. To the smooth execution of works on processing plinth. Dismantled material disposed at a place determined by the investor. After working on the same material installed in its original position. The price includes all materials and labor required for complete execution of the position. The calculation of the lump	Lump.			
	Total of demolition and dismantling:				

1.II Earth works

1	Making the lawn along the main entry on the site where the destroyed. Through fine-planned field to perform sowing grass mixture: - Festuca rubra 40% - Festuca ovina 30% - Poa pratensis 20% - Trifolium repens 10% Sowing grass seed executed straight from the two cross directions and at quiet weather without precipitation and wind. On completion of sowing seeds embedded in the ground with iron hedgehog and then a roller to roll and carry out intensive watering to the full emergence of grass. Watering continue daily until the surrender papers. Calculation per m2 area sown.	m^2	183.00		
2	Purchasing and planting roses. At the location where they had previously been, dig pits square shape of dimensions 0,40x0,40 m. Carry out planting roses by adding fertilizer 3-5 kg for each seedling. After planting the land well watered. The price includes and all material and preliminary work necessary to complete the execution of the position. Calculation per piece of planted rose.	pcs.	62		

Item No.	Description of position	U.m.	quantity	Price	Total
3	Mechanical excavation of earth material of III category in naturally moist soil to support placement site to avoid the possibility of collapse. Participation manual excavation ranges from 20-40%. The excavated soil is stored in the temporary landfill which is located on a site in order to use them when filling. In cost of inputs and support work. Calculation per m3 of excavated soil.	m^3	634.80		
5	Filling the earth from the excavation. Earth backfilled in layers of 20 cm,wet with water, and stick to compaction MS = 20 MPa. For the filling use the land deposited during excavation. Calculation per m3 of filled earth	m^3	634.80		
	Total of Earth works				

1.III Masonry works

1	Plastering of Plinth with cement mortar ratio 1: 3 in two layers over the wire netting. Before plastering mechanical anchoring wire netting over the PVC waterproofing. Anchoring carried out alternately in two rows-since the mid plinth to the " up ". Places where the insulation is punctured close elastic waterproof putty. Over wire netting apply grout. The first layer, grunt, working with cement mortar, scale 1: 4 thickness up to 2 cm of sieved gravel, "unit" and cement. Mortar continuously mixed to cement milk is not isolated. The plaster applied over substrates and cut for better acceptance of the second layer. The second layer, scale 1: 4 to get fine and clean sand without impurities silt and organic matter. Parget with wetting and ironing small scrapers. The plastered surface must be flat, without making the waves, and the edges sharp and flat. Malter wet to prevent rapid drying and "burn-out". Calculation per m2 plastered plinth.	m^2	115.00		
	Total of Masonry works				

Item No.	Description of position	U.m.	quantity	Price	Total

1.IV Concrete works

1	Development of the pavement easily reinforced concrete thickness of 10 cm, a width of 1 m, the brand MB 20. Sidewalk reinforced in the lower region with the Q131 and concreted. The upper surface of the track process" mop "to remain rough concrete and nurtured. For every 1.5 m leave the dilation width of 1 cm. Dilatation meet bituminous resin. The price includes the formwork, reinforcement, production and filling dilatation. Calculation per m2 which is made sidewalks.	m^3	34.50		

	Total of Concrete works				

1.V INSULATION WORKS

1	Supply of material and construction of waterproofing along the walls of the basement by the following layers: * GEOTEXTILE Gr.-2 500 mm * SIKA PLAN 14,6-1x2 mm (or equiv.) * GEOTEXTILES 500 gr. * HDPE dimpled sheet 1-mm Working in accordance with instructions of the manufacturer of material over dry substrates. The price includes the scaffold, and all preparations. Calculation per m2 fully executed item.	m^2	609.50		
2	Supply of material and construction of waterproofing along the walls of the basement by the following layers: * GEOTEXTILE Gr.-2 500 mm * Sika PLAN 14,6-1x2 mm (or equiv.) Working in accordance with instructions of the manufacturer of material over dry substrates. The price includes the scaffold, and all preparations. Calculation per m2 fully executed item	m^2	115.00		

Item No.	Description of position	U.m.	quantity	Price	Total
3	Supply and setting up the basement walls insulating plate, Stirodur 2800 C BASF, 3 cm thick, from extruded polystyrene foam, weight 30 kg / m3. In the basement level, below ground, the panels installed without drilling HI (welding). Stirodur in level plinths anchoring in wall and treated with two layers of construction glue between which there is fiberglass mesh, it included in the price. Calculation per m2 set panel.	m^2	238.14		
	Total of Insulation works				

1.VI METAL WORKS

1	Production and installation of the flume pipe plastic-coated sheet, with a full width (RHQ) to 60 cm, cross-section 14x14 cm, thickness 0.80 mm. Some parts flume pipe sneak into each other a minimum of 50 mm and glue putty. Plastic-coated clamps with brackets set at a distance of 200 cm. Over the clamp to place a plastic trim strip. the pipes must be removed from the wall at least 20 mm. End pipes in a down boot. Calculation per m1 built-in gutters.	m^1	26.00		
2	Supply and installation of metal drain-rain pipe drain. Drainpipe drain connected to guttering vertical and pipe storm sewer to allow drainage of rainwater from the roof and cleaning the rain pipe drain. The price includes and all labor and materials complete enforcement positions. Calculation per piece of embedded rain pipe drain.	pcs.	18		
	Total of Metal works				

1.VII FACADE WORKS

1	Supply of materials and processing plinth" "Culir-cloak" "modeled on the existing texture. Apply foundation and surface treated according to the manufacturer's instructions. The price includes all the material and past papers. Calculation per m2 fully executed item.	m^2	115.00		
	Total of Facade works				

Item No.	Description of position	U.m.	quantity	Price	Total

SUMMARY SURGERY

1.I	**DEMOLITION AND DISMANTLING**	
1.II	**EARTH WORKS**	
1.III	**MASONRY WORKS**	
1.IV	**CONCRETE WORKS**	
1.V	**INSULATION WORKS**	
1.VI	**METAL WORKS**	
1.II	**FACADE WORKS**	

	TOTAL SURGERY BUILDING	

2. PAEDIATRICS BUILDING

Item No.	Description of position	U.m.	quantity	Price	Total

2.I Demolition and dismantling

1	Demolition of concrete sidewalks around the building. Demolition should be performed with hand or mechanical way. A rubble should be brought, loaded on a truck and taken to a landfill to 15 km, at the option of investors. Calculation per m3 of demolished concrete	m^3	24.75		
2	Demolition of the staircase with steps and window manholes of reinforced concrete . The demolition carried out carefully. The price includes cutting armature. A rubble should be brought, loaded on a truck and taken to a landfill to 15 km, at the option of investors. Calculation per m3 of demolished concrete.	m^3	9.68		
3	Demolition of the brick walls that serve as protection of the existing HI basement walls. Brick should be cleaned and agree on the construction site landfill. A rubble should be brought, loaded on a truck and taken to a landfill to 15 km, at the option of investors. The price includes the extra scaffolding. Calculation per m2 demolished sutured	m^2	130.68		

Item No.	Description of position	U.m.	quantity	Price	Total
4	Removal of treatment (mortar, stone etc.), with plinths and walls. Burglarize mortar and clamps clean joints to a depth of 2 cm. The surfaces of the bricks cleaned with steel brushes and wash the walls with water. A rubblr should be brought, loaded on a truck and taken to a landfill to 15 km, at the option of investors.	m^2	39.60		
5	Removal of the plaster from the walls of the basement.Removal mortar and cramp clean joints to a depth of 2 cm. Brick surfaces cleaned with steel brushes and wash the walls with water. A rubblr should be brought, loaded on a truck and taken to a landfill to 15 km, at the option of investors. Calculation per m2 burglarized plinth	m^2	261.85		
6	Careful dismantling the protective grate of window manholes. Remove the grate basement with frame and take on the remote dump up to 15 km, at the option of investors. Calculation per piece dismantled the grid.	pcs.	5		
7	Careful removal and installation of half the vertical gutter, pipes, etc. To the smooth execution of works on processing plinth. Demolation material disposed at a place determined by the investor. After working on the same material installed in its original position. The price includes all materials and labor required for the complete execution positions.	Lump.			
	Total of demolition and dismantling:				

2.II Earth works

1	Mechanical excavation of earth material of III category in naturally moist soil to support placement site to avoid the possibility of collapse. Participation manual excavation ranges from 20-40%. The excavated soil is stored in the temporary landfill which is located on a site in order to use them when filling. In cost of inputs and support work. Calculation per m3 of excavated soil.	m^3	151.47		

Item No.	Description of position	U.m.	quantity	Price	Total
2	Filling the earth from the excavation. Earth backfilled in layers of 20 cm,wet with water, and stick to compaction MS = 20 MPa. For the filling use the land deposited during excavation. Calculation per m3 of filled earth	m^3	151.47		
	Total of Earth works:				

2.III Masonry works

1	Plastering of Plinth with cement mortar ratio 1: 3 in two layers over the wire netting. Before plastering mechanical anchoring wire netting over the PVC waterproofing. Anchoring carried out alternately in two rows-since the mid plinth to the " up ". Places where the insulation is punctured close elastic waterproof putty. Over wire netting apply grout. The first layer, grunt, working with cement mortar, scale 1: 4 thickness up to 2 cm of sieved gravel, "unit" and cement. Mortar continuously mixed to cement milk is not isolated. The plaster applied over substrates and cut for better acceptance of the second layer. The second layer, scale 1: 4 to get fine and clean sand without impurities silt and organic matter. Parget with wetting and ironing small scrapers. The plastered surface must be flat, without making the waves, and the edges sharp and flat. Malter wet to prevent rapid drying and "burn-out". Calculation per m2 plastered plinth.	m^2	39.60		
2	Plastering of brick walls with lime mortar in two layers. Before plastering wall surfaces cleaned and sprayed milk. The first layer, grunt, working with lime mortar of sifted gravel," units ". Moisten the substrate, apply the first coat of plaster and burn it. The second layer put fine and clean sand without impurities silt and organic matter and applied over the first layer. Parget with wetting and ironing small scrapers. the plastered surface must be flat, without making the waves, and the edges are sharp and true. Malter wet to prevent the rapid drying and "burn-out". the price includes the extra scaffolding. Calculation per m2 of plastered surfaces.	m^2	261.85		
	Total of Masonry works				

Item No.	Description of position	U.m.	quantity	Price	Total

2.IV Concrete works

1	Development of the pavement easily reinforced concrete thickness of 10 cm, a width of 1 m, the brand MB 20. Sidewalk reinforced in the lower region with the Q131 and concreted. The upper surface of the track process" mop "to remain rough concrete and nurtured. For every 1.5 m leave the dilation width of 1 cm. Dilatation meet bituminous resin. The price includes the formwork, reinforcement, production and filling dilatation. Calculation per m2 which is made sidewalks.	m^3	24.75		
2	Development AB external staircase and window manholes brand MB 30. Development of formwork and foundations, walls and slabs reinforced on both sides with a Q188 net. The walls of manholes must be 15 cm rise in relation to the pavement. Concrete installed and nurtured by the regulations. The price includes the formwork and reinforcement. Calculation per m3 of concrete.	m^3	9.68		

	Total of Concrete works				

2.V Insulation works

1	Supply of material and construction of waterproofing along the walls of the basement by the following layers: * GEOTEXTILE Gr.-2 500 mm * SIKA PLAN 14,6-1x2 mm (or equiv.) * GEOTEXTILES 500 gr. * HDPE dimpled sheet 1-mm Working in accordance with instructions of the manufacturer of material over dry substrates. The price includes the scaffold, and all preparations. Calculation per m2 fully executed item.	m^2	204.93		
2	Supply of material and construction of waterproofing along the walls of the basement by the following layers: * GEOTEXTILE Gr.-2 500 mm * Sika PLAN 14,6-1x2 mm (or equiv.) Working in accordance with instructions of the manufacturer of material over dry substrates. The price includes the scaffold, and all preparations. Calculation per m2 fully executed item	m^2	39.60		

Item No.	Description of position	U.m.	quantity	Price	Total
3	Supply and setting up the basement walls insulating plate, Stirodur 2800 C BASF, 3 cm thick, from extruded polystyrene foam, weight 30 kg / m3. In the basement level, below ground, the panels installed without drilling HI (welding). Stirodur in level plinths anchoring in wall and treated with two layers of construction glue between which there is fiberglass mesh, it included in the price. Calculation per m2 set panel.	m^2	155.33		
	Total of Insulation works				

2.VI Locksmiths works

1	Production and installation of metal bars to protect the opening of the basement. Frame of grille made of a filler from metal plate. Fixed frame, the carrier derived from angles and installed. Grille with bracket cleaned, primed and painted primer paint for metal, twice. To paint it gray finish color, which also included in the price. Calculation per piece of embedded grids.				
	Dimension 65x150 cm	pcs.	5		
	Total of Locksmiths works				

2.VII Metal works

1	Production and installation of the flume pipe plastic-coated sheet, with a full width (RHQ) to 33 cm, ø10 cm, thickness 0.80 mm. Certain parts of the flume pipe sneak into each other a minimum of 50 mm and glue putty. Plastic-coated clamps with brackets set at intervals 200 cm. Over the clamp to place a plastic trim strip. the pipes must be removed from the wall at least 20 mm. Completion of pipes in personal boot. Calculation per m1 built-in gutters.	m^1	10.00		

Item No.	Description of position	U.m.	quantity	Price	Total
2	Supply and installation of metal drain-rain pipe drain. Drainpipe drain connected to guttering vertical and pipe storm sewer to allow drainage of rainwater from the roof and cleaning the rain pipe drain. The price includes and all labor and materials complete enforcement positions. Calculation per piece of embedded rain pipe drain.	pcs.	5		
	Total of Metal works				

2.VIII Facade works

1	Supply of materials and processing plinth" "Culir-cloak" "modeled on the existing texture. Apply foundation and surface treated according to the manufacturer's instructions. The price includes all the material and past papers. Calculation per m2 fully executed item.	m^2	39.60		
	Total of Facade works				

SUMMARY PAEDIATRICS BUILDING

2.I	**DEMOLITION AND DISMANTLING**				
2.II	**EARTH WORKS**				
2.III	**MASONRY WORKS**				
2.IV	**CONCRETE WORKS**				
2.V	**INSULATION WORKS**				
2.VI	**LOCKSMITH WORKS**				
2.VII	**METAL WORKS**				
2.VIII	**FACADE WORKS**				
	TOTAL PAEDIATRICS BUILDING				

Item No.	Description of position	U.m.	quantity	Price	Total

3. POLYCLINIC BUILDING

Item No.	Description of position	U.m.	quantity	Price	Total

3.I Demolition and dismantling

1	Demolition of concrete sidewalks around the building. Demolition should be performed with hand or mechanical way. A rubble should be brought, loaded on a truck and taken to a landfill to 15 km, at the option of investors. Calculation per m3 of demolished concrete	m^3	26.10		
2	Demolition of the window manhole of reinforced concrete. Demolition carried out carefully. The cost of services and cutting of reinforcement. A rubble should be brought, loaded on a truck and taken to a landfill to 15 km, at the option of investors. Calculation per m3 of demolished concrete	m^3	11.93		
3	Demolition of the brick walls that serve as protection of the existing HI basement walls. Brick should be cleaned and agree on the construction site landfill. A rubble should be brought, loaded on a truck and taken to a landfill to 15 km, at the option of investors. The price includes the extra scaffolding. Calculation per m2 demolished sutured	m^2	179.82		
4	Removal of finishing layers (mortar, stone etc.), with plinths and walls. Burglarize mortar and clamps clean joints to a depth of 2 cm. The surfaces of the bricks cleaned with steel brushes and wash the walls with water. A rubblr should be brought, loaded on a truck and taken to a landfill to 15 km, at the option of investors. Calculation per m2 knocked off plinth	m^2	42.90		
5	Careful dismantling the protective grate of window manholes. Remove the grate basement with frame and take on the remote dump up to 15 km, at the option of investors. Calculation per piece dismantled the grid.	pcs.	5		

Item No.	Description of position	U.m.	quantity	Price	Total
6	Careful removal and installation of half the vertical gutter, pipes, etc. To the smooth execution of works on processing plinth. Demolation material disposed at a place determined by the investor. After working on the same material installed in its original position. The price includes all materials and labor required for the complete execution positions.	Lump.			
	Total of demolition and dismantling:				

3.II Earth works

1	Mechanical excavation of earth material of III category in naturally moist soil to support placement site to avoid the possibility of collapse. Participation manual excavation ranges from 20-40%. The excavated soil is stored in the temporary landfill which is located on a site in order to use them when filling. In cost of inputs and support work. Calculation per m3 of excavated soil.	m^3	528.00		
2	Filling the earth from the excavation. Earth backfilled in layers of 20 cm,wet with water, and stick to compaction MS = 20 MPa. For the filling use the land deposited during excavation. Calculation per m3 of filled earth	m^3	528.00		
	Total of Earth works:				

Item No.	Description of position	U.m.	quantity	Price	Total

3.III Masonry works

1	Plastering of Plinth with cement mortar ratio 1: 3 in two layers over the wire netting. Before plastering mechanical anchoring wire netting over the PVC waterproofing. Anchoring carried out alternately in two rows-since the mid plinth to the " up ". Places where the insulation is punctured close elastic waterproof putty. Over wire netting apply grout. The first layer, grunt, working with cement mortar, scale 1: 4 thickness up to 2 cm of sieved gravel, "unit" and cement. Mortar continuously mixed to cement milk is not isolated. The plaster applied over substrates and cut for better acceptance of the second layer. The second layer, scale 1: 4 to get fine and clean sand without impurities silt and organic matter. Parget with wetting and ironing small scrapers. The plastered surface must be flat, without making the waves, and the edges sharp and flat. Malter wet to prevent rapid drying and "burn-out". Calculation per m2 plastered plinth.	m^2	42.90		

	Total of Masonry works				

3.IV Concrete works

1	Development of the pavement easily reinforced concrete thickness of 10 cm, a width of 1 m, the brand MB 20. Sidewalk reinforced in the lower region with the Q131 and concreted. The upper surface of the track process" mop "to remain rough concrete and nurtured. For every 1.5 m leave the dilation width of 1 cm. Dilatation meet bituminous resin. The price includes the formwork, reinforcement, production and filling dilatation. Calculation per m2 which is made sidewalks.	m^3	26.10		
2	Development AB external staircase and window manholes brand MB 30. Development of formwork and foundations, walls and slabs reinforced on both sides with a Q188 net. The walls of manholes must be 15 cm rise in relation to the pavement. Concrete installed and nurtured by the regulations. The price includes the formwork and reinforcement. Calculation per m3 of concrete.	m^3	11.93		

	Total of Concrete works				

Item No.	Description of position	U.m.	quantity	Price	Total

3.V Insulation works

1	Supply of material and construction of waterproofing along the walls of the basement by the following layers: * GEOTEXTILE Gr.-2 500 mm * SIKA PLAN 14,6-1x2 mm (or equiv.) * GEOTEXTILES 500 gr. * HDPE dimpled sheet 1-mm Working in accordance with instructions of the manufacturer of material over dry substrates. The price includes the scaffold, and all preparations. Calculation per m2 fully executed item.	m^2	233.10		
2	Supply of material and construction of waterproofing along the walls of the basement by the following layers: * GEOTEXTILE Gr.-2 500 mm * Sika PLAN 14,6-1x2 mm (or equiv.) Working in accordance with instructions of the manufacturer of material over dry substrates. The price includes the scaffold, and all preparations. Calculation per m2 fully executed item	m^2	42.90		
3	Supply and setting up the basement walls insulating plate, Stirodur 2800 C BASF, 3 cm thick, from extruded polystyrene foam, weight 30 kg / m3. In the basement level, below ground, the panels installed without drilling HI (welding). Calculation per m2 set panel.	m^2	163.17		

	Total of Insulation works				

3.VI Locksmiths works

1	Production and installation of metal bars to protect the opening of the basement. Frame of grille made of a filler from metal plate. Fixed frame, the carrier derived from angles and installed. Grille with bracket cleaned, primed and painted primer paint for metal, twice. To paint it gray finish color, which also included in the price. Calculation per piece of embedded grids.				
	Dimension 75x255 cm	pcs.	5		

	Total of Locksmiths works				

Item No.	Description of position	U.m.	quantity	Price	Total

3.VII Metal works

1	Production and installation of the flume pipe plastic-coated sheet, with a full width (RHQ) to 33 cm, ø10 cm, thickness 0.80 mm. Certain parts of the flume pipe sneak into each other a minimum of 50 mm and glue putty. Plastic-coated clamps with brackets set at intervals 200 cm. Over the clamp to place a plastic trim strip. the pipes must be removed from the wall at least 20 mm. Completion of pipes in personal boot. Calculation per m1 built-in gutters.	m¹	1.00		
1	Production and installation of the flume pipe plastic-coated sheet, with a full width (RHQ) to 60 cm, cross-section 14x14 cm, thickness 0.80 mm. Some parts flume pipe sneak into each other a minimum of 50 mm and glue putty. Plastic-coated clamps with brackets set at a distance of 200 cm. Over the clamp to place a plastic trim strip. The pipes must be removed from the wall at least 20 mm. Completion of pipes in personal boot. Calculation per m1 built-in gutters.	m¹	12.00		
2	Supply and installation of metal drain-rain pipe drain. Drainpipe drain connected to guttering vertical and pipe storm sewer to allow drainage of rainwater from the roof and cleaning the rain pipe drain. The price includes and all labor and materials complete enforcement positions. Calculation per piece of embedded rain pipe drain.	pcs.	6		

	Total of Metal works				

3.VIII FACADE WORKS

1	Supply of materials and processing plinth" "Culir-cloak" "modeled on the existing texture. Apply foundation and surface treated according to the manufacturer's instructions. The price includes all the material and past papers. Calculation per m2 fully executed item.	m^2	42.90		

	Total of Facade works				

Item No.	Description of position	U.m.	quantity	Price	Total

SUMMARY POLYCLINIC BUILDING

3.I	**DEMOLITION AND DISMANTLING**				
3.II	**EARTH WORKS**				
3.III	**MASONRY WORKS**				
3.IV	**CONCRETE WORKS**				
3.V	**INSULATION WORKS**				
3.VI	**LOCKSMITH WORKS**				
3.VII	**METAL WORKS**				
3.VIII	**FACADE WORKS**				

	TOTAL POLYCLINIC BUILDING				

SUMMARY OF LANDSCAPING WORKS:

1	**SURGERY BUILDING**				
2	**PAEDIATRICS BUILDING**				
3	**POLYCLINIC BUILDING**				

				TOTAL	

SUMMARY OF WORKS ON PROTECTION OF THE HEALTH CENTRE AND HOSPITAL IN LOZNICA FROM UNDERGROUND AND ATMOSPHERIC WATERS

1.	**ATMOSPHERIC SEWERAGE**	
2.	**DRAINAGE**	
3.	**PRESSURE LINE TO THE STREAM**	
4.	**LANDSCAPING**	

TOTAL:	

Note: Bidder shall price all items in the tender documentation in RSD excluding VAT.