

	<b>05.01.BILL OF QUANTITIES FOR BUILDING AND TRADE WORKS</b>				
PROJECT: SOCIAL-HOUSING MULTI-FAMILY BUILDING, CADASTRAL LOT - KP 473, CADASTRAL MUNICIPALITY - KO KOMAREVA HUMKA, PALILULA MUNICIPALITY, BELGRADE					
CLIENT: City of Belgrade, Belgrade Land Development Public Agency					
0.0	<b>GENERAL CONDITIONS FOR EXECUTION OF BUILDING AND TRADE WORKS</b>				
All BoQ items imply execution of each item of work in a strictly professional way, precisely as specified, and in good quality, fully in line with approved drawings, technical descriptions, technical specifications, and details given in the elaborate building physics report, structural analysis, details, and any details supplied subsequently by the Designer, applicable technical regulations, YUS standards, and Engineer's/Designer's instructions, unless otherwise specified in the particular BoQ item.					
All provisions of these general conditions and other general descriptions make an integral part of the contract signed between the Client and the Contractor.					
All the work and materials referred to in particular BoQ item descriptions shall be included in the prices/rates offered by the Contractor.					
The contracted prices are Contractor's selling prices and they include: all labor expenses, material including usual waste (unless the Client provides material for some items of work), external and internal transport, scaffolds and formwork for execution of works (if they are not specified in the BoQ for some items of work), water, lighting, fuel and energy for machines, digging and backfilling the lime maturing pit, material storage areas, temporary offices on the site, Contractor's overheads, Contractor's profit, and all other expenses under current regulations for fixing the selling price of construction products, and all expenses arising from special working conditions as provided for in the construction industry constants, and as specified in the preceding two items.					
Completed works shall be measured and classified according to average constants in the construction industry, which is mandatory both for the Client and the Contractor, unless otherwise specified in the description for any particular BoQ item.					
Also mandatory for the Contractor are all descriptions from the mentioned constants, unless otherwise specified in the description of any particular BoQ item or its general description.					
The general description given for any type of work and material binds the Contractor to execute all such works under other BoQ items according to such description, regardless of the fact that this particular BoQ item refers to the general description, unless the work is described otherwise in that BoQ item.					
In all construction and specialist trade works it is mandatory to employ proper labor and use material of good quality and in compliance with current technical regulations, standards and descriptions given in the BoQ items.					
The Contractor shall furnish the Engineer with the quality compliance certificate for every material before its use. In disputed cases regarding quality, samples shall be submitted to the Institute for Testing of Materials, whose results shall be relevant both for the Client and the Contractor.					
Any material identified by the Client's representative as non-compliant to the agreed BoQ and prescribed quality shall be immediately removed from the site by the Contractor, and the Client will suspend the work if the Contractor makes an attempt to use such material.					
Before starting any work the Site Manager shall ask the Client's representative well in advance for any explanation of plans and instructions for any work not sufficiently defined in the specific design documentation.					
The Works and the entire site shall be maintained by the Contractor in an organized and clean manner, and after completion of works, before commissioning, any pits, cesspits, and holes from scaffolds shall be backfilled, tamped and leveled off by the Contractor, in such a way that no settlement occurs there later.					
For technical inspection and commissioning, the Contractor shall clear the entire building and building parcel from any debris, surplus material, tools and equipment, and temporary works and structures.					
Any access to the building, platforms, stairs and paths, and floors in all rooms shall be completely cleared/clean, as well as all doors and windows, metalwork, glazed surfaces, and roofs.					
Pavement and sidewalks damaged by work or transport shall also be made good for technical inspection and commissioning of the Works. No specified finishing work shall be paid separately, since they shall be included in the contract prices.					
In case of a need for works without an agreed prices in the BoQ, the Contractor shall have approval by the Client for such works, set the price for them, and log all the details in the building journal. Prices for such works shall be set based on the pricelist of all materials and labor that shall be submitted by the Contractor along with the offer.					

In addition to all temporary structures the Contractor may need for execution of works, the Contractor shall ensure a room for the Engineer's office. During the works, the Contractor shall maintain this room, and ensure the necessary lighting, fuel, cleaning, and the required office equipment and supplies.					
If the Contractor needs to occupy the surrounding land and sidewalks, in addition to the building parcel, in order to organize the construction site and fit materials together, the Contractor shall provide approval for such use by competent authorities, i.e. the owner. The costs for such use shall be borne by the Contractor and cannot be charged to the Client.					
The Contractor shall prepare the safety-at-work study for the construction site according to the Rules on safety at work in construction industry, Off. Journal No. 42/68.					
Measurement book and building journal shall be kept by the Contractor according to applicable regulations, by entering daily all the required data, with each page checked and signed every day by the Client's representative.					
In addition to these general conditions, the Client's particular conditions, applicable technical and legal regulations, and the entire technical documentation make an integral part of the contract.					
All works shall be executed, with all their structural parts, fully in accordance with the Designer's details.					
Throughout the construction period, the Contractor shall have a highly qualified and experienced expert on the site, who will be in charge of technical control and proper fulfillment of all of the Contractor's obligations.					
For all works from the BoQ requiring formwork and scaffolding, the Contractor shall supply them and erect them properly, which is not to be paid separately, but is already included in the price quoted for the respective work.					
Any openings and grooves in walls and ceilings needed for installations and various units shall be executed by the Contractor exactly according to details and layout plans, and after installations, the area around pipes and grooves shall be patched and rendered. This work will not be paid separately, but is already included in the price of particular BoQ items.					
The Contractor accepts all obligations specified in these general descriptions as an integral part of the contract signed with the Client, and shall undertake them without any limitations and fulfill them without any objections and complaints.					
<b>A. CONSTRUCTION WORKS</b>					
<b>IT.</b>	<b>DESCRIPTION</b>	<b>UoM</b>	<b>QTY</b>	<b>PRICE</b>	<b>TOTAL</b>
<b>I PRELIMINARY WORKS</b>					
1.1.	Site clearance, including cutting and removal of shrubs, scrub, and similar vegetation, stems of different diameters, with stump and roots removing, incl. transport to the city dump site. The ground is to be cleared 2 m from the above-ground part of the building on the northwest side, 3.8 m from the southwest side of the building, 4 m from the above-ground ramp line on the entrance side, as required for the access road, and in full width of the building on the northeast side all the way to the access road. Calculation per m2 of cleared surface area.				
	<b>TOTAL</b>	<b>m2</b>	<b>1,325.24</b>		
1.2.	Setting out the works on the site in the presence of the Engineer, and staking out the required profiles, including the necessary surveying, i.e. transferring the data from the design to the ground. Lump sum calculation.				
	<b>TOTAL</b>	<b>Lump sum</b>	<b>1.00</b>		
1.3.	Manufacturing and putting up a notice board on building works, including the frame structure, indicating the basic information on the project, contractor, client and designer, fully in line with the Prevention and protection plan. Dimensions of the board 200 x 100 cm. Calculation per piece.				
	<b>TOTAL</b>	<b>pcs</b>	<b>1.00</b>		

	<b>PRELIMINARY WORKS - TOTAL:</b>				
<b>II EARTWORKS</b>					
All earthworks shall be performed by qualified workers, using modern machines designed for this type of work. Earthworks shall be performed under proper technical supervision.					
All works shall be performed properly, in designed geometrical shapes, i.e. to be in full compliance with technical specifications and documentation, the geomechanical study with respect to the soil category, and to the Cut and Fill Schedule that makes part of the technical documentation.					
<p>If the work is carried out in adverse weather conditions, the Contractor shall take full protection measures for all earthworks. Protection measures shall be kept in place until they are not needed anymore. Protection measures taken in this way do not affect the already agreed price of work. Measurement shall be done per unit, as indicated for each BoQ item. Unit price of work includes completing the entire BoQ item (supply of material, external and internal transport, installation, measures to protect the work and workers, any horizontal and vertical transport, working scaffolds and strutting forms as needed, and strutting and maintaining the stock pile throughout earth unloading and other operations required for quality performance.</p> <p>This description makes an integral part of each particular BoQ item described here, and does not exclude any of the general construction industry constants and regulations applicable in this specific field.</p> <p>BoQ includes earthworks only within the project area, as much as needed to found the building and its access platform, ramps and stairs.</p> <p>Geotechnical supervision is mandatory during excavation and foundation works.</p>					
<b>IT.</b>	<b>DESCRIPTION</b>	<b>UoM</b>	<b>QTY</b>	<b>PRICE</b>	<b>TOTAL</b>
2.1.	Mechanical stripping of top soil in a 30 cm-thick layer. Calculation per m2. including haulage of earth to the city dump site, truck loading and unloading, and rough leveling on the dump site.				
	<b>TOTAL</b>	<b>m2</b>	<b>746.00</b>		
2.2.	Mechanical excavation of II category soil for strip foundations. 90% mechanical, 10% by hand. Excavation shall be fully in line with the Cut and Fill Schedule and specified levels. Since soil under strip foundations needs to be substituted, the pit shall be wider than the strip foundation by 50 cm from both sides. The pit shall be 25-74 cm deep from the cleared ground level with top-soil removed. The absolute pit floor level is 69.90 m, i.e. 70.15 m at the lower cascade of strip foundations. Side walls shall be cut clean, and the floor shall be leveled off. Excavated soil shall be stockpiled on the site to be used later for backfilling. Calculation per m3, in the original natural condition.				
	to level 69.90: $219.01 \cdot (h \cdot 0.4 - 0.74)$		125.00		
	to level 70.15: $245.86 \cdot (0.25 - 0.65)$		56.00		
	<b>TOTAL</b>	<b>m3</b>	<b>181.00</b>		
2.3.	Supply, transport, filling, spreading and tamping of a 30-cm thick bedding, made of broken stone fraction 0-64, laid to substitute the soil under strip foundations. The broken stone shall be completely clean, free from organic impurities. Calculation per m2.				
	$219.01 + 245.86 = 464.87$				
	<b>TOTAL</b>	<b>m2</b>	<b>464.87</b>		

2.4.	Supply, transport, filling, spreading and tamping of a 20-cm thick bedding, made of gravel fraction 0-32, under strip foundations. The gravel shall be completely clean, free from organic impurities. Mechanical tamping of gravel to the required compaction degree of 40 Mpa. Calculation per m2.				
	TOTAL	m2	464.87		
2.5.	Backfilling, spreading, and tamping of soil from the stock-pile on the site, as required for filling operations. Calculation per m3.				
	181.00*1.3=235.3				
	TOTAL	m3	235.30		
2.6.	Supply, transport, backfilling, spreading, and tamping of a natural gravel mix (uncleaned gravel) between strip foundations up to 10 cm below the floor slab level, and around the building to the level of planned footpaths. Backfilling shall be done in layers, with each 30 cm gravel layer tamped mechanically. Calculation per m3.				
	1091-156=935				
	TOTAL	m3	935.00		
2.7.	Supply, transport, filling, spreading and tamping of a 10-cm thick bedding, made of gravel fraction 0-32, under the floor slab and sidewalk around the building, including fine leveling with the elevation tolerance +-1cm. The gravel shall be completely clean, free from organic impurities. Calculation per m2.				
	under the floor slab and the staircase foundation	m2	452.83		
	under the access platform and the staircase	m2	55.04		
	under the sidewalk	m2	88.28		
	TOTAL	m2	596.15		
2.8.	Measurement of ground compaction under strip foundations. Required compaction degree 40 Mpa. Compaction degree shall be measured once at each axis of the strip foundation, and in case of changes in the ground, at every place of change. Measurements shall be taken after excavation, after forming a layer of broken stone and a gravel bedding, and the compaction degree shall be proven by certificates issued by authorized laboratories. Calculation per number of measurements.				
	TOTAL	pcs	14.00		
2.9.	Measurement of ground compaction under the floor slab. Required compaction degree 30 Mpa. Compaction degree shall be measured once at every 50 m2 of the floor slab, and in case of changes in the ground, at every place of change. Measurements shall be taken after forming a layer of gravel fill and a gravel bedding, and the compaction degree shall be proven by certificates issued by authorized laboratories. Calculation per number of measurements.				
	483.92/50				
	TOTAL	pcs	10.00		

2.10.	Measurement of ground compaction under the paths around the building. Required compaction degree 20 Mpa. Compaction degree shall be measured once at each axis of the path, and in case of changes in the ground, at every place of change. Measurements shall be taken after forming a layer of gravel fill and a gravel bedding, and the compaction degree shall be proven by certificates issued by authorized laboratories. Calculation per number of measurements.				
	TOTAL	pcs	4.00		
2.11.	Pumping water with a slurry pump out of the excavation pit for strip foundations, in case of groundwater penetration. If excavating close to the mean groundwater table, provide for removing water from foundation pits with a pump if needed (according to the geomechanical study, the measured groundwater table in May 69.5-70.0). The need for water removal by pumping shall be determined by the Contractor together with the Engineer. Calculation per hour of work.				
	TOTAL	h	100.00		
	<b>EARTHWORKS - TOTAL:</b>				
<b>III PLAIN AND REINFORCED CONCRETE WORKS</b>					
<p>All concrete works shall be performed by qualified workers, using modern machines designed for this type of work. The quality of concrete shall meet the requirements specified in the technical documentation, and the applicable regulations for this type of work. Only concrete meeting the specified requirements can be used. The sample used to prove the quality of concrete shall be taken on the site - during placement. The Contractor shall ensure conditions for proper placement of concrete, i.e. concrete shall not be dropped from a height in excess of 2.00 m. Concrete mass shall be placed with pervibrators only, in layers not thicker than 50 cm.</p> <p>After removing the formwork, concrete shall be cured, watered depending on outdoor temperature, for at least three days. During temperatures higher or lower than those prescribed, it is mandatory to take concrete protection measures. Protection measures shall be kept in place until they are not needed anymore. Protection measures apply particularly to mixing, transport, placement and curing of concrete. Protection measures taken in this way do not affect the already agreed price of work.</p> <p>Until in formwork, during setting, concrete shall be protected against any tremors.</p> <p>Concreted surfaces shall be flat, free from "nests" and segregation, and of a required shape. In case of any minor damage to a concreted surface, the damaged portion shall be immediately protected with cement mortar, ratio 1:3, prepared with screened gravel.</p> <p>Concrete surfaces that will either stay visible or be painted only (without rendering), shall be smooth, and such concrete shall be mixed with the same type of cement. A single element shall be concreted without interruptions.</p> <p>Formwork shall be clean, completely stable, of required dimensions and geometrical shape, horizontal, vertical, slanted, rounded, or otherwise as specified in the technical documentation. Formwork shall be strutted and shored, fully as required for the given application, and in line with applicable regulations.</p> <p>Formwork for openings shall meet the technical documentation, and ensure unobstructed placement of concrete. Working scaffolds for formwork and concreting shall ensure unobstructed and safe work for workers, i.e. shall be in line with applicable regulations.</p>					
<p>Calculation shall be per unit of measurement, as indicated for every BoQ item (supply of material, external and internal transport, placement, protection measures, any horizontal and vertical transport, working scaffolds, formwork, and other operations), and as required for quality performance. Calculation does not include reinforcement, which makes part of a separate BoQ item. Required class of concrete for all items is C20/25 (MB 25), except for strip foundations - C25/30 (MB 30).</p>					

3.1	Supply of material and concreting of strip foundations under load-bearing walls and chimney blocks with plain concrete C25/30, including double face shuttering and strutting. On top of the strip foundation are horizontal concrete bond beams, 25/20cm in size under perimeter walls, and 20/20cm in size under partition walls. Calculation per m3.				
	40x40		7.92		
	100x40 and 60x40		62.34		
	120x50		25.12		
	TOTAL:	m3	95.38		
3.2	Supply of material and concreting of foundation walls with plain concrete C20/25 in double face shuttering. Perimeter walls are d=25cm thick, interior walls are d=20cm thick. Calculation per m3.				
	46.71-4.28=		42.43		
3.3	Supply of material and concreting of footings for chimneys, 40/40cm, with plain concrete C20/25. Footings shall be concreted from the floor slab to the strip foundation. Calculation per m3.				
	4*0.4*0.4*1.01		0.65		
	4*0.4*0.4*1.26		0.81		
	TOTAL:	m3	1.46		
3.4	Supply of material and casting of concrete C20/25 into the required shuttering for horizontal and vertical reinforced concrete members of small cross-section. The price includes supply and erection of required formwork. Calculation per m3.				
	<b>horizontal bond beams 20/20</b>				
	foundation wall		6.61		
	ground floor		4.08		
	upper floor		3.74		
	<b>horizontal bond beams 25/20</b>				
	Ground floor-stair landing and terrace wall		0.67		
	Upper floor-terrace wall		1.03		
	parapet wall		3.91		
	<b>horizontal bond beams 25/25</b>				
	foundation wall		7.63		
	<b>vertical bond beams</b>				
	foundation wall		4.28		
	ground floor and upper floor		20.02		
	parapet wall		3.29		
	beams above the ground floor		21.65		
	beams above the first floor		16.59		
	Door lintels 0.2*0.2*1.5*16		0.96		
	TOTAL:	m3	94.46		

3.5	Supply of material and construction of a semi-pre-fabricated ceiling made of precast load-bearing beams ("Fert" beams) and inlay bricks, similar to LMT type, 16+4cm thick. The slab and web shall be reinforced according to the design and reinforcement details. Concreting using concrete class C20/25. The price includes all formwork as required, the strutting structure and reinforcement for ceiling beams, whereas the reinforcement mesh for the compressed slab and any additional reinforcement make part of a separate item of works. Calculation per m2.				
	ceiling above the ground level		397.99		
	ceiling above the upper floor		428.71		
	TOTAL:	m2	826.70		
3.6	Supply of material and casting of concrete C20/25 to make the floor slab on the ground floor, d=10cm thick, over a prepared gravel bedding compacted to 30MPa. The price includes all required material, except for the reinforcement mesh that is calculated in a separate item of works. Calculation per m2.				
	under the building, d=10cm	m2	451.03		
	access road and terrace, d=12cm	m2	32.89		
3.7	Supply of material and in-situ construction of flat reinforced-concrete slabs of terraces, loggias and canopies, using concrete C20/25, fully in line with the Design, structural analysis, and reinforcement details. The price includes all required material, except for reinforcement that is calculated in a separate item of works. Calculation per m2, including the required smooth formwork and strutting.				
	cantilevered terraces d=20cm, 6*2.17	m2	13.02		
	loggia (lowered slab) d=14cm	m2	1.57		
	Canopies d=20cm, 2*4.78	m2	9.56		
3.8	Supply of material and concreting of paths around the building, plain concrete C16/20, fully according to the Design, over a finished gravel bedding compacted to 20 Mpa. Paths are 90 cm wide. Expansion joints shall be constructed in the paths, at every 2 m of length, and grouted with bitumen. Provide 2% cross slope for pathways with respect to the surrounding ground, so that the minimum slab thickness is 10 cm. Calculation per m2, including required smooth formwork/shuttering.				
	TOTAL:	m2	88.28		

3.9	Supply of material and construction of sloped stair slabs in the building, at the same time as the steps, reinforced concrete C20/25. Angled slab thickness is 14 cm, step dimensions 15.8/29x18. Work to be done fully in line with the Design, structural analysis, and reinforcement details. Calculation per m2, including required strutting and smooth formwork/shuttering.				
	3.2*2.55*2=17.95				
	TOTAL:	m2	17.95	2,900.00	52,055.00
3.10	Supply of material and construction of exterior/outer staircase, reinforced concrete C20/25. Work to be done fully in line with the Design, structural analysis, and reinforcement details. Slab is 12 cm thick. Calculation per m2, including required strutting and smooth formwork/shuttering.				
	Staircase 6x14.6/33. 6*0.33*2.45		4.85		
	Staircase 5x15/33. 5*0.33*2.45		4.04		
	TOTAL:	m2	8.89		
3.11	Supply of material and construction of the external ramp, reinforced concrete C20/25. Work to be done fully in line with the Design, structural analysis, and reinforcement details. Curbs, 10/10 cm, to be provided on the ramp, according to accessibility regulations. Slab is 12 cm thick. Calculation per m2, including required strutting and smooth formwork/shuttering.				
	Ramp d=12cm, 6.77*2.45=16.59				
	TOTAL:	m2	16.59		
	CONCRETE WORKS TOTAL:				
<b>IV REINFORCEMENT WORK</b>					
<p>All reinforcement works shall be executed by qualified workers, and using modern tools, machines and equipment intended for this type of work. All used materials, steel reinforcement, ties, etc. shall be of prescribed quality, i.e. provided with quality compliance certificates. Steel reinforcement shall be prepared mechanically, finished, without any major traces of corrosion or any other material. Completed works shall be of good quality, tied securely without fail, steel reinforcement shall be in a regular shape, properly distanced from formwork and bedding in order to ensure the prescribed protective layer. Approved spacers - pads shall be used to this end. View and layout of steel reinforcement shall be fully in line with requirements set out in the technical documentation. Calculation shall be per theoretical unit of weight, indicated for each BoQ item. The unit price includes completion of the entire BoQ item (supply of basic material and ties, pads, external and internal transport, placement-tying, all horizontal and vertical transfers to the place of installation, required working scaffolds, and all other activities required for good performance. This description makes an integral part of each of separately described BoQ items, and does not exclude application of current construction industry regulations and requirements in this field.</p>					



4.1	Supply, transport, cutting, bending and installation of rebars B500B and mesh B500B. Quantities of reinforcement as specified in reinforcement details. The price shall also include spacers used to fix the distance between the reinforcement and the formwork. Calculation per kilogram.				
	Mesh B500B	kg	7,096.63		
	B500B	kg	16,485.05		
	TOTAL:				
	<b>REINFORCEMENT WORK - TOTAL:</b>				
<b>V MASONRY WORK</b>					
<p>All masonry works shall be performed by qualified workers.</p> <p>All used materials, elements and binder shall be of prescribed quality.</p> <p>Completed works shall be flat, in designed geometrical shapes, i.e. to be in full compliance with technical documentation.</p> <p>Surfaces to be treated shall be cleaned to be free from any unwanted material. Treated surfaces shall be: flat, clean, and with regular angles and edges. Finishing materials shall only be applied on properly prepared surfaces. Calculation shall be done per unit, as indicated for each BoQ item. The unit price includes completion of the entire BoQ item (supply of material, external and internal transport, placement, protection measures, any horizontal and vertical transport, working scaffolds, formwork, and other operations), and as required for quality performance.</p>					
5.1	Supply of material and building of outer walls with YTONG TERMOBLOK blocks, d=25cm, in compo mortar, ratio 1:2:6. Wall thickness d=25 cm. Calculation per m3.				
	Ground floor, $16.75*2.45+1.26*0.25*2.9+0.15*0.25*31.8$		43.14		
	Upper floor $17.77*2.5+1.3*0.25*3.7+0.2*0.25*37$		47.19		
	Parapet wall $2*(8.3-0.2*1.08-0.2*0.72)*0.25+1.37*10.81$		30.69		
	Loggia parapet d=30cm $2*2.2*0.3*0.2$		0.26		
	TOTAL:	m3	121.28		
5.2	Supply of material and building of inner load-bearing walls using Zorka Klimablok 20 blocks, 200/380/238 mm, in compo mortar, ratio 1:2:6. Wall thickness 20cm. Calculation per m3.				
	Ground floor: $17.2*2.73+0.35*0.2*1*8-(0.2*0.2*0.25)*10$		47.42		
	Upper floor: $16.17*2.68+0.35*0.2*1*8-(0.2*0.2*0.25)*10$		43.80		
	TOTAL:	m3	91.22		
5.3	Supply of material and building of partition walls using hollow bricks, d=12cm, in compo mortar, ratio 1:2:6. At the height of the door lintel beam, casting a concrete bond beam, 12/20cm, reinforced $\pm 2R\Phi 12$ , which is included in the price of the BoQ item. Calculation per m2.				
	*partition walls on the ground floor		243.50		
	$102.92*2.73-(0.8*2.18*9+0.9*2.18*12+1*2.18*3+2*2.5*2)$				
	*partition walls on the upper floor		269.60		
	$123.42*2.68-(0.8*2.13*9+0.9*2.13*22+1*2.13*1)$				
	TOTAL:	m2	513.10		

5.4	Supply of material and building the solid brick infill, brick-on-edge/shiner, d=6.5 cm, in cement mortar, ratio 1:3, for parapet walls on terraces and walls around chimneys. Calculation per m2.				
	Terrace parapets: 0.12*13*1.4		2.18		
	wall around the chimney on the upper floor		2.14		
	TOTAL:	m2	4.32		
5.5	Supply and installation of the chimney system, type "Schiedel" UNI plus, diam. 20 cm, with all pertaining fittings. The chimney system consists of the following elements: - Flue cladding (blocks) made of lightweight concrete, outer dimensions 36/36cm, with airshaft to ventilate the insulation layer, and openings for reinforcement. - Flue liner made of technical ceramics with a condensate collector, an inspection hole, and connecting fittings for the stove. - Insulation layer - rock wool all along the flue liner. The price includes installation of the concrete terminal (cap) Calculation per m <sup>1</sup> .				
	8*8.06				
	TOTAL:	m1	64.48		
5.6	Supply of material and walling around flue liners and airshafts above the top floor slab, and walling behind the gutters, fully in accordance with the architectural details, using solid brick, d=12 cm, in compo mortar, ratio 1:2:6, including construction of reinforced-concrete rings, as prescribed. Calculation per m <sup>2</sup> of unfolded surface area.				
	walling around flue liner:(2.84+2.11+2.4+3.52+3.06+2*2.46+3.06+3.52+4.4) *2.12		63.24		
	eaves, d=12, 45.9*0.2		9.18		
	TOTAL:	m2	72.42		
5.7	Supply of material and construction of the ventilation element, similar to "Schiedel" type, in compo mortar, ratio 1:2:6, with all required elements as specified in manufacturer's instructions. Calculation per m1.				
	single vertical shaft L1 15/20cm, 4*7.93+6*5	m1	61.72		
	main (collector) ventilation duct LS1 22/35.5cm 4*7.93	m1	31.72		

5.8	Supply of material and rendering of internal walls with compo mortar, ratio 1:3:9, in two layers. The first layer, d=1.5 cm thick, with coarse mortar mixed with non-screened sand, and the second layer with mortar mixed with screened sand, d=0.5 cm, thick. Before rendering, surfaces shall be cleaned of any dust, washed, and sprayed with cement slurry with screened sand added to it. Calculation per m <sup>2</sup> of rendered surface, with all necessary preparatory work, material and working scaffolds.				
	ground floor		1,271.72		
	$(100.54+46.38+46.4+46.34+80.12+46.4+82.85+79.67+4*4.1-2.91*10-5.51*4-4*1)*2.61-(8*0.22+1.83+2*1.74)$				
	upper floor		1,372.40		
	$(100.54+28.62+63.66*4+80.13*2+2*21.44-2.91*2-3.39*8-5.51*4-4*1)*2.61-11*0.22-2*2.06+0.96$				
	TOTAL:	m2	2,644.12		
5.9					
	ground floor ceilings		377.02		
	$75.23+21.88*4+55.89+59.2+4.07*2+23.1+3.46+12.24*2$				
	upper floor ceilings		426.85		
	$75.23+41.33*4+2*59.2+25.02+21.44*2$				
	staircase		17.85		
	$3.5*2.55*2$				
	TOTAL:	m2	821.72		
5.10	Supply of material and rendering of the chimney with compo mortar, ratio 1:3:9, in two layers. The first layer, d=1.5 cm thick, with coarse mortar mixed with non-screened sand, and the second layer with mortar mixed with screened sand, d=0.5 cm, thick. Before rendering, surfaces shall be cleaned of any dust, washed, and sprayed with cement slurry with screened sand added to it. Calculation per m <sup>2</sup> of rendered surface, with all necessary preparatory work, material and working scaffolds.				
	$(4.4+3.5+3+2.5)*1.3+2.8*1.55+2.1*1.08+2.4*0.92$	m2	26.22		

5.11	Supply of material and casting of a cement screed, ratio 1:3, as bedding for floors, min. thickness d=4 cm. Screed shall be made with polypropylene fibers, fibrin, added, to improve its mechanical properties. Fibers shall be batched according to manufacturer's specification. Screed shall be spaced from walls with Styrofoam sheets, d=3 cm thick. Top surface shall be floated and prepared for floor work. In sanitary blocks, the screed shall be cast as bedding for waterproofing, and sloped. Cement screeds at the end of terraces and loggias shall replace Styrofoam sheets, resulting in a thicker section, 30 cm wide and 5 cm high, to be executed in full width of loggias and terraces, completely in line with architectural details. Terraces shall be provided with 2% outward slope. Calculation per m <sup>2</sup> .				
	-non-sloped floors: cement screed, d = 4 cm thick	m2	748.35		
	Ground floor 366.67				
	Upper floor 374.2				
	Sills $34*0.9*0.12+18*0.8*0.12+4*0.12*1+8*0.2*1=7.48$				
	- bathrooms: cement screed, average thickness 5 cm	m2	52.49		
	Ground floor 24.54				
	Upper floor 27.95				
	- cantilevered terraces: cement screed, average thickness 5.5 cm + infill in front of Styrofoam sheets	m2	12.60		
	6*2.1				
	- loggias: cement screed, average thickness 5 cm + thicker ends	m2	9.10		
	2*2.2*1.06+2*2.22*1				
	- loggia above the vestibule, average thickness 6 cm	m2	9.21		
	2*1.88*2.45				
	- canopy, average thickness 7.5., min thickness 6 cm	m2	7.65		
	2*1.5*2.55				
	*cement screed, average thickness 5.5 cm - access road, terraces, and ramp	m2	62.79		
	*cement screed, average thickness 5 cm - terrace above heated space with water impermeability admixture added, ADINOL-DM equivalent	m2	2.20		
	1*2.2				

5.12	Supply of material and casting of a cement screed, ratio 1:3, as bedding for floors in closets, thickness d=4 cm. Screed shall be made with polypropylene fibers, fibrin, added, to improve its mechanical properties. Fibers shall be batched according to manufacturer's specification. Top surface shall be floated and prepared for floor work. Screed to be finished by power trowel. Calculation per m <sup>2</sup> .				
	TOTAL:	m2	42.06		
	<b>MASONRY WORK - TOTAL:</b>				
<b>VI CARPENTRY WORK</b>					
All works shall be executed by qualified workers, and using modern tools, machines and equipment intended for this type of work.					
Timber shall be in compliance with technical regulations and YUS standards. The quality of timber shall be tested and subjected to trial loading, the costs of which shall be borne by the Contractor in case of non-compliant results. Timber for roof structure shall be prepared exactly to measures indicated in drawings for particular members of the roof structure, and any joints shall be executed according to regulations for this type of work.					
Calculation shall be per unit of measurement, indicated for each BoQ item. The unit price includes the entire item of work (supply of basic material, external and internal transport, installation, protection measures, all horizontal and vertical transfers, and other operations required for good performance).					
Throughout work, i.e. until commissioning, the Contractor shall undertake all necessary measures to avoid damage to these works. In case of damage in spite of precautionary measures, the contractor shall make the works good, as designed, at his own expense, subject to the Engineer's approval.					
This description makes an integral part of each of separately described BoQ items, and does not exclude application of current construction industry regulations and requirements in this field.					
6.1	Supply of material and construction of a wood roof truss for single-pitch roof, 6° slope, fully as specified in the structural analysis and architectural design. Roof truss shall be made from dry softwood, class II, specifically: wooden rafters 8/14 cm spaced at 80 cm, supported by 2 purlins 14/20, a purlin 14/14, and a wall plate 12/12cm. Horizontal wooden carrying members shall be placed on posts 14/14cm that rest on the floor slab over wooden saddles 14/14/100. Posts at axes k1 and k2 shall be stiffened with diagonal struts at 45°. Completing all specified timber joints between roof members and stiffen the members with iron flat bars, anchors, bolts, clamps, and similar fittings, which is included in the price. The price includes protective coating of the truss against insects and rotting. Calculation per m2 of flat roof projection.				
	45.9*10.53				
	TOTAL:	m2	483.33		
6.2	Supply of material and placement of boarding, 24 mm, for roof cover. The work shall be executed fully according to the Design, general description and technical specifications for this type of work. The price includes protective coating of the boards against insects and rotting. Calculation per m2 of sloped (actual) surface.				

	45.9*10.77				
	TOTAL:	m2	494.34		
6.3	Supply of material and construction of a roof hatch from boards, 24 mm, fixed to rafters, and a wooden lid, size 70/70cm, projecting 20 cm from the roof plane. Make a lid from wooden boards, waterproofed with Izolim, and lined with galvanized flat sheet metal, fully in line with architectural details. Calculation per piece.				
	TOTAL:	pcs	2.00		
6.4	Supply of material, construction and installation of wooden partitions in tenants' closets. Partitions shall be made of staffs 5x8 cm, with infill made of staffs 3/5cm, with the closet door 80/200cm, fitted with a hinge, a latch, and a padlock. Calculation per m2.				
	(3.84+3*5.1+12*1.4)*2.53				
	TOTAL:	m2	90.93		
	<b>CARPENTRY WORKS TOTAL:</b>				
<b>VII INSULATION WORKS</b>					
<p>All insulation works shall be performed by qualified workers, using modern tools and machines designed for this type of work. All used materials, binding and protective agents shall be of prescribed quality, i.e. provided with quality compliance certificates. Works shall be performed in a good quality, in full compliance with applicable regulations, standards and technical documentation. Bedding shall be firm, smooth, dry, and completely flat. Binding compounds shall not have an adverse effect on the bedding, or any material in direct contact with them. Finished surfaces shall be in regular geometrical positions. All installations and all prior works shall be completed and tested before insulation works. Breaks and continuations in insulation works are allowed in exceptional cases only, when there are objective reasons for that. If the works are performed at temperatures higher or lower than those prescribed, measures shall be taken to protect the basic and binding materials used. Protection measures do not affect the already agreed price of work. During works, i.e. until commissioning, the Contractor shall take all necessary measures to avoid damage to these works. In case of damage in spite of precautionary measures, the contractor shall make the works good, as designed, at his own expense, subject to the Engineer's approval. During execution of his works, the Contractor shall save from damage other types of works. Calculation shall be done per unit, as indicated for each BoQ item. The unit price includes completion of the entire BoQ item (supply of basic, binding and protective materials, external and internal transport, execution, protection measures, any horizontal and vertical transport, working scaffolds, cleaning, and other operations, as required for quality performance). This description makes an integral part of each particular BoQ item described here, and does not exclude any of the construction industry regulations applicable in this specific field.</p>					
7.1	Supply of material and damp proofing of the floor slab against ascending moisture. Damp proofing shall be applied over a completely dry and clean bedding. Cold-applied bitulit "A" coating shall be applied with a brush at temperature higher than 10 degrees. Bituminous strips, IZOTEM V4 equivalent, shall be welded with an open-flame torch, by softening the bituminous mass on the adhesive side, and by making it adhere to the bedding by its own weight. The strip shall adhere to the bedding with its entire surface, with min. 10 cm overlaps. On the part toward the access platform, the damp proofing layer shall be left to overhang by 30 cm, and welded to the wall on the outside once the wall is built. Calculation per m2.				
	46.4*(10.65+0.55)				
	TOTAL	m2	519.68		

7.2	Supply of material and water-proofing of the toilet floors with elastic two-component polymer-cement coats, AQUAMAT ELASTIC equivalent. Bedding shall be cleaned thoroughly, to be free from any friable material, grease, and dust. Coating shall be applied continuously in two runs, according to manufacturer's instructions. At places where the damp-proofing system bends (which is an integral part of the item of work), put covings 30 cm up the wall. All covings and other critical points shall be additionally strengthened with glass-fiber fleece mesh, completely according to manufacturer's instructions. Calculation per m2.				
	ground floor		28.07		
	upper floor		29.53		
	TOTAL:	m2	57.60		
7.3	Supply of material and water-proofing of terraces and loggias with elastic two-component polymer-cement coats, AQUAMAT ELASTIC equivalent. Water-proofing shall be applied in two layers, over the sloped cement screed, and over the concrete slab. Bedding shall be cleaned thoroughly, to be free from any friable material, grease, and dust. Coating shall be applied continuously in two runs, according to manufacturer's instructions. At places where the damp-proofing system bends, put covings up the wall to the height of the parapet. All covings and other critical points shall be additionally strengthened with glass-fiber fleece mesh. Calculation per m2 in two layers over the R/C slab and cement screed.				
	$(12.6+9.1+9.21+7.65+2.2)*2$				
	TOTAL:	m2	81.51		
7.4	Supply of material and water-proofing of vertical bond beams at the ground floor slab level with elastic two-component polymer-cement coats, AQUAMAT ELASTIC equivalent. Coating shall be applied continuously in two runs, according to manufacturer's instructions. Calculation per m2.				
	$10*0.25*0.25+21*0.25*0.2+2*0.25*0.25+4*0.25*0.25+37*0.2*0.2+0.25*0.2+4*0.2*0.6+2*0.3*0.25+0.25*0.6$				
	TOTAL:	m2	4.36		

7.5	Supply of material and placement of PVC foil over thermal insulation and sound-proofing system, and under the cement screed on floors. Calculation per m2.				
	904.39-62.79-7.65-2*11.98+42.06				
	TOTAL:	m2	852.05		
7.6	Supply of material and placement of vapor-permeable foil over glass wool on the attic, completely according to manufacturer's instructions. Calculation per m2.				
	475.28-5.29-15*3*0.14-2*0.7*0.7				
	TOTAL:	m2	642.71		
7.7	Supply of material and placement of a vapor barrier under the thermal insulation system, and over the R/C slab. Install, as vapor barrier, a bituminized strip with an alu foil insert, IZOTEKT Al V4 equivalent, over a cold-applied bituminous coat, IBITOL type equivalent. Calculation per m2.				
	ceiling above the upper floor		642.71		
	terrace (flat roof)		2.20		
	TOTAL:	m2	644.91		
7.8	Supply of material and placement of a thermal insulation system over the upper floor slab, in the form of mineral glass wool, d=15cm thick, KNAUF INSULATION CLASSIC 040 type equivalent. Calculation per m2.				
	TOTAL:	m2	642.71		
7.9	Supply of material and installation of a sound-proofing system in floors. System equivalent to <i>AUSTROTHERM EPS T 650</i> , d = 3 cm thick. The installed sound-proofing system shall have properties as specified in the elaborate building physics report. Calculation per m².				
	374.2+27.95-2*11.98+3.36				
	TOTAL:	m2	381.55		



7.10	Supply of material and installation of a heat-proofing system in the sandwich floor. The thermal insulation system is expanded polystyrene 100 kPa, equivalent <i>Austoterm EPS 100</i> , and is to be installed over the reinforced concrete slab. The installed thermal insulation system shall have thermal and mechanical properties as specified in the elaborate building physics report. Calculation per m <sup>2</sup> .				
	*terraces d = 5 cm	m2	18.08		
	$0.75*(2.2+2.22)+1.94*2.45*2+1.25*1.4*3$				
	*Floor on the ground d = 8 cm	m2	437.39		
	$366.67+24.54+42.06+4.12$				
	*terrace (flat roof) d=12cm	m2	2.20		
7.11	Supply of material and installation of the thermal insulation system on the façade of the building. The thermal insulation system is expanded polystyrene, equivalent to <i>Austoterm EPS AF</i> , and is to be installed over the façade wall. The installed thermal insulation system shall have thermal and mechanical properties as specified in the elaborate building physics report. The item of work shall also cover fine finishing of thermally insulated surfaces with an adhesive, in two layers, with PVC mesh 135g/m <sup>3</sup> embedded in the first layer. The sheets shall be fixed additionally with plastic screw anchors (6 pcs/m <sup>2</sup> ) which shall be included in the price. All corners shall be provided with PVC strips for fine edge finish. Calculation per m <sup>2</sup> .				
	Façade walls d = 6 cm	m2	735.22		
	$787.37-(39*2.07+20*3.22+4.83+1.08+2*0.84+4*0.72+4*2.07+2*5.06+2*0.6+2*4.74+2.32)+2.6*1*10+5*1*2.08+2*5.2+2.6*4*2.29+3*2.04$				
	scuncheons, width 16 cm, d=3cm thick	m2	67.56		
	$(39*(2.3*2+0.9)+20*(2.3*2+1.4)+2.3*2+2.1+0.9+2*1.2+2*(2*1.2+0.7)+4*(2*1.2+0.6)+4*(0.9+2.3*2)+2*(2.2+2.3*2)+2*(0.5+1.2*2)+2*(2.37*2+2)+1+2*2.31)*0.16$				

	beams on loggias, 37cm d=3cm	m2	7.33		
	$(5*2.08+4*2.35)*0.37$				
	sound-proofing in shared room, d=2cm	m2	26.90		
	$10.15*2.65$				
	closet walls d=5cm	m2	20.40		
	$4*5.1$				
	closet ceiling d=8cm	m2	40.80		
	under window sills d=1cm	m2	7.74		
	$(31*0.9+8*1.4+0.9+2*0.7+4*0.6+4*0.9+2*0.5)*0.16$				
7.12	Supply and installation of expanded polystyrene boards, equivalent to <i>Austoterm EPS AF</i> , between expansion walls, d=5cm thickness. Boards shall be placed at the time of wall construction, according to the design. Calculation per m2 of installed boards.				
	$3.08*10.9$				
	TOTAL:	m2	33.57		
7.13	Supply of material and installation of a dividing Styrofoam strip, 8 cm wide, Styrofoam thickness 6 cm, to separate façade surfaces of different color. The strip is manufactured in the factory, with a special finish on the visible side in the form of quartz emulsion. Calculation per m1.				
	$24.42+18.36$				
	TOTAL	m1	42.78		
7.14	Supply of material and fixing of powder-coated aluminum expansion sections to Styrofoam on the façade, rš 20, in color as selected by the Designer. Calculation per m1.				
	$2*6.48$				
	TOTAL	m1	12.96		
	<b>INSULATION WORKS TOTAL:</b>				
	<b>B. TRADE WORKS</b>				

<b>VIII-IX JOINERY</b>					
<p>All joinery works shall be performed by qualified workers, using modern tools and machines designed for this type of work. All used materials, joining and binding agents (protective agents) shall be of prescribed quality, i.e. provided with quality compliance certificates. Windows shall be fitted so that they are in the same plane as the old windows. Installation shall be performed by anchoring at max. spacing of 70 cm. After installation, windows shall be sealed between the frame and the wall with appropriate sealants (polyurethane foam, or similar), and proper cover strips shall be fitted. Joints between different materials shall be properly protected by sealing, external and internal trims shall be provided, and designed hardware shall be installed for opening and closing, as well as the locking option. Calculation shall be done per unit, as indicated for each BoQ item. The unit price includes fabrication and installation of the entire BoQ item with glazing (supply of basic, binding and protective material, external and internal transport, installation, protection measures, any horizontal and vertical transport, working scaffolds, any sealing, external and internal trims, all hardware, protection and finish painting, and other operations, as required for quality performance). This description makes an integral part of each particular BoQ item described here, and does not exclude any of the construction industry regulations applicable in this specific field.</p> <p>Before making any joinery item, measures shall be checked on the site. Quality compliance certificates to be provided by the contractor for all joinery items are:</p> <ul style="list-style-type: none"> <li>- Certificate for window</li> <li>- Certificate for air-permeability according to SRPS EN 1026, and to meet quality requirements specified in SRPS EN 12207, at least class II.</li> <li>- Certificate for resistance to water action according to SRPS EN 1027, and to meet quality requirements specified in SRPS EN 12208, at least class II.</li> <li>- Certificate for noise protection (SRPS U.J6.201, class II)</li> <li>- Certificate for heat transfer coefficient (according to SRPS U.J5.060, and to meet quality requirements specified in SRPS U.J5.600)</li> <li>- Certificate for glass (SRPS B.E1.011)</li> <li>- Certificate for hardware.</li> </ul> <p>The Contractor shall provide the Client or the Engineer with a report on measurements taken on the site before manufacturing joinery.</p>					
<b>VIII JOINERY WORK</b>					
8.1	Supply of material, manufacturing and installation of interior hollow-core doors, made with 4 mm plywood panels on each side, cardboard honeycomb core, and whitewood frame. Door leaf is flat, with sharp edges. Jambs in the width of the wall and trims, with a miter joint, shall be made of MDF with flat edges. Leaf, jambs, and trims shall be painted with matte polyurethane finish, in two coats, in white. White rubber sealing gaskets shall be fitted all around the edge of the door leaf. Opening is designed around the end vertical axis. Hardware made of anodized aluminum, three butt hinges, mortise lock with three keys, equivalent to "agb" standard, aluminum door knob.				
	1 90/205 cm	pcs	34.00		
	2 80/205 cm	pcs	18.00		
	3 100/205 cm	pcs	4.00		

8.2	Supply of material, manufacturing and installation of interior hollow-core doors, made with 4 mm plywood panels on each side, cardboard honeycomb core, and whitewood frame. Door leaf is flat, with sharp edges, glazed with PAMPLEX glass 1.3.1. Jambs in the width of the wall and trims, with a miter joint, shall be made of MDF with flat edges. Leaf, jambs, and trims shall be painted with matte polyurethane finish, in two coats, in white. Rubber sealing gaskets shall be fitted all around the edge of the door leaf. Opening is designed around the end vertical axis. Hardware made of anodized aluminum, three butt hinges, mortise lock with three keys, equivalent to "agb" standard, aluminum door knob.				
	4 100/205 cm				
	TOTAL	pcs	1.00		
	JOINERY WORK TOTAL:				
<b>IX PVC DOORS AND WINDOWS</b>					
9.1	Supply of material, manufacture and installation of PVC windows. Window frames and sashes made of five-chamber PVC profiles, in white, equivalent to Vujić s-7000, Uf=1.2w/m2k. Profiles shall be prepared with metal strengtheners protected against corrosion and with appropriate sealing gaskets for frame and glass pane in white. Under the bottom profile of the window frame, a standard PVC profile is to be fitted, 50x40.6 mm in size, equivalent to Vujić type. Glazing shall be with double low-emissivity (low-e) glass 4+9+4mm, argon-filled, with metal coating. Parapet PVC panel, 2 cm thick, white, shall be fitted on the inside. All elements for fixing windows to the wall shall be galvanized, because of higher metal corrosion in YTONG blocks. The price includes the required hardware as per manufacturer's instructions, and shades in the form of Venetian blinds. Exterior sills make part of a separate item under sheet metal works. Calculation per piece.				
	Casement window (one sash) A 90/230cm	pcs	39.00		
	Double casement window (two sashes) B 140/230cm	pcs	20.00		
	Three-piece double-leaf door C 210/230cm	pcs	1.00		
	Casement window (one sash) D 90/120cm	pcs	1.00		
	Casement window (one sash) E 70/120cm	pcs	2.00		
	Casement window (one sash) F 60/120cm	pcs	4.00		
	Two-piece casement window (one sash) G 90/230cm	pcs	4.00		
	Three-piece single-leaf door H 220/230cm	pcs	2.00		
	Casement window (one sash) J 50/120 cm	pcs	2.00		
	TOTAL:				
	PVC DOORS AND WINDOWS TOTAL:				

<b>X METALWORK</b>					
All metal works shall be executed by qualified workers, and using modern tools, machines and equipment intended for this type of work.					
All used materials, joining and binding agents (protective agents) shall be of prescribed quality, i.e. provided with quality compliance certificates. Before starting the work, the Contractor shall prepare detailed shop drawings, and submit them to the Designer for verification.					
The works shall be executed in a good quality, fully in line with regulations, standards, technical documentation, and verified detailed shop drawings. Metal elements shall be made of metal sections, flat and shaped metal sheets, in combination with other materials, as specified in the technical documentation and verified shop drawings.					
Joints between different materials shall be properly protected by sealing, external and internal trims shall be provided, and designed hardware shall be installed for opening and closing, as well as the locking option.					
Throughout work, i.e. until commissioning, the Contractor shall undertake all necessary measures to avoid damage to these works. In case of damage in spite of precautionary measures, the Contractor shall make the works good, as designed, at his own expense, subject to the Engineer's approval.					
Calculation shall be per unit of measurement, indicated for each BoQ item. The unit price includes fabrication and installation of the entire item of work, including glazing (supply of basic, binding and protective material, external and internal transport, installation, protection measures, all horizontal and vertical transfers, working scaffolds, any sealing, provision of gaskets, exterior and interior trims, all hardware items, protective and finish coating - painting, and other operations required for good performance).					
This description makes an integral part of each of separately described BoQ items, and does not exclude application of current construction industry regulations and requirements in this field.					
NOTE: All measurements shall be checked on the spot.					
10.1	Supply of material, fabrication and installation of single-leaf steel doors, made of galvanized steel sheets with honeycomb cardboard core. Door frame shall be made of galvanized steel sections, type Z. Leaf and frame shall be powder coated in white. Ventilation grille, 8/20 cm, with a protective mesh shall be fitted in the bottom zone of the door leaf. Door is designed to open around the end vertical axis. Hardware: powder coated steel door knob on both sides, three-part adjustable steel hinges with ball bearing, cylinder lock. Calculation per piece.				
	IV 100/232	pcs	1.00		

10.2	Supply of material, fabrication and installation of three-part double-leaf entrance door made of aluminum sections, powder coated in white, with thermal barrier, similar to alumil 11000. Doors are glazed with thermal glass 3+1+3+12+ 3+1+3, with both leaves with safety pamplex glass. Door is designed to open around the end vertical axis. The large leaf serves as entrance door, and the small leaf can be opened if needed. The third leaf is fixed. Designed hardware includes: railing made of matte inox on the outside, and aluminum knob on the inside, intercom lock with a button on the inside, hydraulic closer, and hinges. Calculation per piece.				
	II 200/239	pcs	2.00		
10.3	Supply of material, fabrication and installation of three-part double-leaf door to the vestibule, made of aluminum sections, powder coated in white. Doors are glazed with pamplex glass 3+1+3 mm. Door is designed to open around the end vertical axis. The large leaf serves as entrance door, and the small leaf can be opened if needed. The third leaf is fixed. Designed hardware includes: railing made of matte inox on the outside and inside. Calculation per piece.				
	III 200/239	pcs	2.00		
10.4	Supply of material, manufacture and installation of security doors with the leaf structure made of metal sections covered with bulkhead plates, powder coated in white. The door sandwich contains a sound-proofing infill. Doors should have sound-proofing class I, $R_w = 30 - 34$ dB. Door frame is made of steel box sections lined with MDF both on the outside and on the inside. Metal section in the door sill is lined with wood. Both the frame and the leaf are fitted with a double sealing gasket. Door leaf is fitted with a wide-angle door viewer. Door is designed to open around the end vertical axis. Doors are fitted with all required hardware elements: security lack with a coded cylinder, door knob, and three-part metal hinges with ball bearing. Calculation per piece.				
	I 100/205	pcs	15.00		

10.5	<p>Supply, fabrication and installation of protective railing on French balconies on the ground floor, fully in line with metalwork details. The railing consists of the top horizontal rectangular steel seamed pipe, 40/100/2, the bottom horizontal flat steel bar, 5/40mm, and vertical flat bars, 3/40 mm at 12.5 mm center-to-center spacing, and welded to the top and bottom chords. For privacy protection, the railing is fitted with a non-transparent acrylic sheet, Klirit, in color as selected by the Designer, on the back side, with metal clamps welded to the top and bottom chords of the railing. The price includes required fittings to fix the railing to the façade wall: 2 plates, 80/160/2 mm, for the bottom horizontal section with a welded box, 40/100/2, 5 cm long, and 2 plates, 80/160/2mm, with the horizontal flat bar, 5/40mm, 5 cm long, to fix the horizontal flat bar, to be fitted before lining the façade with Styrofoam sheets, using galvanized bolts. All steel members shall be double coated with anti-corrosive paint, and double coated with the finish metal paint, as selected by the designer. The anti-corrosive paint and the protective finish coat shall be included in the prices of steel structure members. Removal of rust and application of the prime coat and intermediate coat shall be done in the shop, and the finish coat shall be applied on the site. Visible welds shall be smoothened with a sander, and additionally coated with 2 anti-corrosive paint coats, and 2 finish paint coats. Calculation per piece.</p>				
	A 90/110	pcs	39.00		
	B 140/110	pcs	8.00		

10.6	Supply, fabrication and fitting of protective railings, made of steel sections, on terraces, loggias, and staircases, fully as specified in the metalwork detailed drawings. The railing consists of the top horizontal rectangular steel seamed pipe, 40/100/2, the bottom horizontal flat steel bar, 40/5 mm, and vertical flat bars, 40/92/5 mm, at 12.5 mm center-to-center spacing, and welded to the top and bottom chords. The price includes required fittings to fix the railing to the façade wall: 2 plates, 60/160/2 mm, for the bottom horizontal section with a welded box, 40/100/2, 5 cm long, and 2 plates, 60/60/2 mm, with the horizontal flat bar, 5/40mm, 5 cm long, to fix the horizontal flat bar, to be fitted before lining the façade with Styrofoam sheets, using galvanized bolts. The bottom horizontal section shall be welded to previously fitted plates on the concrete slab of the terrace, 80/80/2 mm, with a vertical flat bar, 5/40mm, 8-11 cm high. All steel members shall be double coated with anti-corrosive paint, and double coated with the finish metal paint, as selected by the designer. The anti-corrosive paint and the protective finish coat shall be included in the prices of steel structure members. Removal of rust and application of the prime coat and intermediate coat shall be done in the shop, and the finish coat shall be applied on the site. Visible welds shall be smoothened with a sander, and additionally coated with 2 anti-corrosive paint coats, and 2 finish paint coats. Calculation per piece.				
	cantilevered terraces C 426/110	pcs	6.00		
	loggias D 220/110	pcs	5.00		
	loggias E 245/110	pcs	2.00		
	interior staircase F 698/110	pcs	2.00		
	access platform	pcs			
	G1 290/110	pcs	1.00		
	G2 1020/110	pcs	1.00		
	G3 1000/110	pcs	1.00		
	exterior staircase G4 284/110	pcs	1.00		
	ramp railing 3010/110	pcs	1.00		



10.7	Supply of material, manufacture and installation of single-leaf steel attic door with the leaf (lid) made of powder-coated steel sheet, and the frame made of seamed steel box pipes. The door frame is made of seamed steel pipes, rectangular in cross-section, 40x100 mm. The lid is fitted with a handle made of steel pipe. The frame, the lid and the handle shall be powder coated in color as selected by the designer. Door hardware are two hinges for metal doors and security locks with coded cylinders. Clear opening for the door is 70x70 cm. Calculation per piece.				
	attic door V 70/70	pcs	2.00		
10.8	Supply of material and fitting of rain-protection shutters, made of anodized aluminum, with wide slats and wire screen for protection against insects, size 100/300 mm. Calculation per piece.				
		pcs	16.00		
	<b>METALWORK TOTAL:</b>				
<b>XI FLOORING WORKS</b>					
All flooring works shall be executed by qualified workers, and using modern tools, machines and equipment intended for this type of work.					
All used materials, joining and binding agents (protective agents) shall be of prescribed quality, i.e. provided with quality compliance certificates. The works shall be executed in a good quality, fully in line with regulations, standards, and technical documentation.					
The bedding shall be firm, and completely flat. Compounds shall not have an adverse impact on the bedding or materials to be placed. Finished surfaces shall be in regular geometrical positions.					
During work, expansion strips shall be fitted, as required. Before flooring, all installations in the floor shall be laid and tested. No variation in color and tone is acceptable.					
If the works are performed at temperatures higher or lower than those prescribed, measures shall be taken to protect the basic and binding materials used. Protection measures shall be kept in place until they are not needed anymore. Protection measures do not affect the already agreed price of work.					
Throughout work, i.e. until commissioning, the Contractor shall undertake all necessary measures to avoid damage to these works. In case of damage in spite of precautionary measures, the Contractor shall make the works good, as designed, at his own expense, subject to the Engineer's approval.					
During execution of his works, the Contractor shall save from damage other types of works.					
Calculation shall be per unit of measurement, indicated for each BoQ item. The unit price includes fabrication and installation of the entire item of work, (supply of basic, binding and protective material, external and internal transport, fabrication, sanding, protection measures, all horizontal and vertical transfers, working scaffolds, fitting of expansion strips and skirting, cleaning, and other operations required for good performance).					
This description makes an integral part of each of separately described BoQ items, and does not exclude application of current construction industry regulations in this field.					

11.1	Supply of material and installation of laminate flooring, 8 mm thick, as selected by the designer. Laminate flooring shall be installed as floating floor. Laminate shall be strong, durable and high-pressure type, and the core shall be made of HDF, with impregnated edges. The flooring shall be brought indoors, unpacked, left for 24 hours to acclimatize in the room. The prepared surface shall be covered with felt. Expansion joints, 10 mm wide, shall be left all around the walls. The flooring shall be laid and joined carefully, with joints closed completely. The price also includes fitting ready-to-use decorative oakwood edging strips, at the interface between the floor and the walls, previously painted and sanded. Joints shall be executed as miter joints. Edging strips shall be laid next to walls, and fixed to the walls at every 80 cm. Calculation per m <sup>2</sup> .				
	228.09+271.59+7.48				
	TOTAL	m2	507.16		
	FLOORING TOTAL:				
<b>XII CERAMIC TILEWORK</b>					
<p>All ceramic tiling works shall be performed by qualified workers, using modern tools and machines designed for this type of work. All used materials, joining and binding agents, protective agents, shall be of prescribed quality, i.e. provided with quality compliance certificates. Works shall be performed in a good quality, in full compliance with applicable regulations, standards and technical documentation. Class, application, and quality of tiles are specified in the technical documentation. Color and pattern shall be specified by the designer. All invisible installations shall be laid and tested before tiling. For tilework in adhesive, the bedding shall be clean, firm, flat, with regular and sharp edges. Finished surfaces shall be in regular geometrical positions. Expansion strips shall be placed during work, as required. If the works are performed at temperatures higher or lower than those prescribed, measures shall be taken to protect the basic and binding materials used. Protection measures shall be kept in place until they are not needed anymore. Protection measures do not affect the already agreed price of work. During works, i.e. until commissioning, the Contractor shall take all necessary measures to avoid damage to these works. In case of damage in spite of precautionary measures, the contractor shall make the works good, as designed, at his own expense, subject to the Engineer's approval. During execution of his works, the Contractor shall save from damage other types of works. Calculation shall be done per unit, as indicated for each BoQ item. The unit price includes completion of the entire BoQ item (supply of basic, binding and protective materials, external and internal transport, execution, protection measures, any horizontal and vertical transport, working scaffolds, installation of expansion strips, cleaning, and other operations, as required for quality performance). This description makes an integral part of each particular BoQ item described here, and does not exclude any of the construction industry regulations applicable in this specific field.</p>					

12.1	Supply of material and laying of ceramic wall tiles in adhesive. The bedding shall be flat, smooth, firm and clean. Tiles, Class I, to be fixed with adhesive, with minimum space between joints. Edges shall be sanded off manually if needed. Tiled surfaces shall be flat and vertical. Corner joints shall be executed as miter joints. Tilework joints shall be grouted in color as selected by the designer. The price includes all required labor and material, any accidentally damaged tiles shall be charged to the Contractor through the written record produced by the Engineer. Tiles shall be laid in full wall height, except in the kitchen, where they are to be laid to the height of 150 cm. Calculation per m2 of completed tilework.				
	kitchens, h=1.50		144.36		
	$(2.8+2*6.73+4*6.25+4*7.87+4*5.79+3.82)*1.5-1.08-2*2.07$				
	bathrooms, h=2.60		311.86		
	$(5.4*2+7.6*16)*2.6-18*1.64-4*0.72-2*0.84$				
	TOTAL	m2	456.22		
12.2	Supply of material and laying of ceramic floor tiles, in adhesive. Tiles, class I, shall be laid in the pattern selected by the designer. Bedding shall be prepared in advance, and tilework shall be flat. Tilework joints shall be grouted in color as selected by the designer. The price includes all required labor and material, any accidentally damaged tiles shall be charged to the Contractor through the written record produced by the Engineer. Calculation per m2 of tilework				
	kitchens		112.70		
	$6.26*3+5.38*2+3.18+8.86*4+6.35+6.87*3+7.05$				
	bathrooms and toilets		57.61		
	corridors in apartments		38.58		
	TOTAL	m2	208.89		

12.3	Supply of material and laying of granite floor tiles, in adhesive, in the shared room and shared communication paths. Tiles, class I, shall be laid in the pattern selected by the designer. Bedding shall be prepared in advance, and tilework shall be flat. Tilework shall be pointed in color as selected by the designer. Install tile skirting 10 cm up the wall, which is included in the price. The price includes all required labor and material, and any accidentally damaged ceramic tiles shall be charged to the Contractor through the written record produced by the Engineer. Calculation per m2 of tilework				
	shared room		23.10		
	shared communication paths		73.76		
	TOTAL	m2	96.86		
12.4	Laying outdoor anti-skid granite tiles in adhesive (access plateaus and plateau in front of the common room). Tiles, class I, shall be laid in the pattern selected by the designer. Bedding shall be prepared in advance, and tilework shall be flat. Tilework shall be pointed in color as selected by the designer. Install tile skirting 10 cm up the façade wall, which is included in the price. The price includes all required labor and material, and any accidentally damaged ceramic tiles shall be charged to the Contractor through the written record produced by the Engineer. Calculation per m2 of tilework				
	TOTAL	m2	40.80		

12.5	Supply of material and laying of granite floor tiles in cement mortar, d= 2 cm thick layer, on the internal staircase. Tiles, class I, shall be laid in the pattern selected by the designer. Bedding shall be prepared in advance, and tilework shall be flat. Tilework joints shall be grouted in color as selected by the designer. Tread edges shall be fitted with aluminum edging strips. The price includes all required labor and material, any accidentally damaged tiles shall be charged to the Contractor through the written record produced by the Engineer. Calculation per m <sup>2</sup> of unfolded surface area of stairs.				
	$2*(8.85+1.25*0.16*18)$	m2	24.90		
	TOTAL				
12.6	Laying outdoor anti-skid granite tiles in cement mortar, d= 2 cm thick layer, on the external staircase. Tiles, class I, shall be laid in the pattern selected by the designer. Bedding shall be prepared in advance, and tilework shall be flat. Tilework joints shall be grouted in color as selected by the designer. The price includes all required labor and material, any accidentally damaged tiles shall be charged to the Contractor through the written record produced by the Engineer. Calculation per m <sup>2</sup> of unfolded surface area of stairs.				
	$8.09+11*2.45*0.15$	m2	12.13		
	CERAMIC TILEWORK TOTAL:				
<b>XIII GYPSUM-CARDBOARD WORK</b>					
<p>All dry-fitting works shall be performed by qualified workers, using modern tools designed for this type of work. All used materials, joining and binding agents, protective agents, shall be of prescribed quality, i.e. provided with quality compliance certificates. Works shall be performed in a good quality, in full compliance with applicable regulations, standards, technical documentation, and verified detailed drawings. Suspended ceiling shall be installed in the way and direction as specified in the description and details provided in the design, subject to the designer's approval. Specimens of ceiling and strips shall be submitted to the Designer for approval. During works, i.e. until commissioning, the Contractor shall take all necessary measures to avoid damage to these works. In case of damage in spite of precautionary measures, the contractor shall make the works good, as designed, at his own expense, subject to the Engineer's approval. Calculation shall be done per unit, as indicated for each BoQ item. The unit price includes fabrication and installation of the entire BoQ item (supply of basic, binding and protective material, external and internal transport, installation, protection measures, any horizontal and vertical transport, working scaffolds, and other operations, as required for quality performance). Calculation shall be done per unit, as indicated for each BoQ item. The unit price includes completion of the entire BoQ item (supply of basic, binding and protective materials, external and internal transport, execution, sanding, protection measures, any horizontal and vertical transport, working scaffolds, installation of expansion strips, fitting of skirting, cleaning, and other operations, as required for quality performance). This description makes an integral part of each particular BoQ item described here, and does not exclude any of the construction industry regulations applicable in this specific field.</p>					

13.1	Supply of material and single-sided cladding of sewers with moisture-resistant gypsum-cardboard boards, similar to "Rigips" type. Support structure UW and CW sections 50 mm, cladded with single-sided moisture-resistant gypsum-cardboard boards, d= 12.5 mm thick. Space between the sewers and the frame structure shall be filled with mineral wool, d= 5 cm thick. Calculation per m2 of cladding.				
	22*2.62*0.43				
	TOTAL	m2	24.78		
	<b>GYPSUM-CARDBOARD WORK TOTAL:</b>				
<b>XIV PAINTWORK</b>					
<p>All paintwork shall be performed by qualified workers, using modern tools and machines designed for this type of work. All used materials, joining, binding, and protective agents, shall be of prescribed quality, i.e. provided with quality compliance certificates. Works shall be performed in a good quality, in full compliance with applicable regulations, standards and technical documentation. Bedding shall be stable, clean, dry, and completely flat. Before the finish coat, the bedding shall be prepared fully in line with applicable regulations and manufacturer's instructions. Cover coats shall cover the surface completely. Any minor uneven portions on surfaces where no special preparatory work is envisaged shall be leveled with putty. Materials used shall adhere well, be resistant according to their application, impose no health risk, and have no aggressive effects on materials in contact with them, and the finished surfaces shall have sharp contact edges. No variation in color and tone is acceptable. If the works are performed at temperatures higher or lower than those prescribed, measures shall be taken to protect the materials used. Protection measures shall be kept in place until they are not needed anymore. Protection measures do not affect the already agreed price of work. During works, i.e. until commissioning, the Contractor shall take all necessary measures to avoid damage to these works. In case of damage in spite of precautionary measures, the contractor shall make the works good, as designed, at his own expense, subject to the Engineer's approval. During execution of his works, the Contractor shall protect and save from damage other types of works. Calculation shall be done per unit, as indicated for each BoQ item. The unit price includes completion of the entire BoQ item (supply of basic, binding and protective materials, material for skimming and impregnation, external and internal transport, execution, sanding, protection measures, any horizontal and vertical transport, working scaffolds, cleaning, and other operations, as required for quality performance). This description makes an integral part of each particular BoQ item described here, and does not exclude any of the construction industry regulations applicable in this specific field.</p>					
14.1	Supply of material and skimming of fine rendered walls and gypsum-cardboard walls with dispersion putty. Surfaces to be sanded, cleaned and neutralized. Check the surface for minor damage and cracks and seal them with putty. Impregnate and apply dispersion putty in three coats. Calculation per m2 of skimmed wall surface.				
	TOTAL	m2	2,187.90		
14.2	Supply of material and skimming of ceilings with dispersion putty. Surfaces to be sanded, cleaned and neutralized. Check the surface for minor damage and cracks and seal them with putty. Impregnate and apply dispersion putty in three coats. Calculation per m2 of skimmed ceiling surface.				
	Ground floor 377.02+42.06		419.08		
	upper floor		426.85		
	underside of the stairs		17.85		
	Staircase sides 2*0.72*2		2.88		
	TOTAL	m2	866.66		

14.3	Supply of material and painting of skimmed walls with semi-dispersion paints, as selected by the designer. Walls shall be primed and made good with toned dispersion putty, and then painted with dispersion paint in tone as selected by the designer, in two coats. Calculation per m2 of painted surface.				
	(1271.72+1372.40)-(144.36+311.86)				
	TOTAL	m2	2,187.90		
14.4	Supply of material and painting of skimmed ceilings with semi-dispersion paints, as selected by the designer. Ceilings shall be primed and made good with toned dispersion putty, and then painted with dispersion paint in tone as selected by the designer, in two coats. Calculation per m2 of painted surface.				
	TOTAL	m2	866.66		
14.5	Supply of material and treatment of walls and ceilings in closets and a part of the shared room, using adhesive, netting, adhesive, and by painting with semi-dispersion paint. Calculation per m2.				
	Walls 34.8*2.6		90.48		
	ceiling		42.06		
	TOTAL	m2	132.54		
	<b>PAINTWORK TOTAL:</b>				

#### XV FAÇADE WORK

All façade work shall be performed by qualified workers, using modern tools and machines designed for this type of work. All used materials, joining, protective and binding agents shall be of prescribed quality, i.e. provided with quality compliance certificates. Works shall be performed in a good quality, in full compliance with applicable regulations, standards and technical documentation. Bedding shall be stable, clean, dry, and completely flat. Before the finish coat, the bedding shall be prepared fully in line with applicable regulations and manufacturer's instructions. Cover coats shall cover the surface completely. Any minor uneven portions on surfaces where no special preparatory work is envisaged shall be leveled with putty. Materials used shall adhere well, be resistant according to their application, impose no health risk, and have no aggressive effects on materials in contact with them, and the finished surfaces shall have sharp contact edges. If the works are performed at temperatures higher or lower than those prescribed, measures shall be taken to protect the materials used. Protection measures shall be kept in place until they are not needed anymore. Protection measures do not affect the already agreed price of work. During works, i.e. until commissioning, the Contractor shall take all necessary measures to avoid damage to these works. In case of damage in spite of precautionary measures, the contractor shall make the works good, as designed, at his own expense, subject to the Engineer's approval. During execution of his works, the Contractor shall protect and save from damage other types of works. Calculation shall be done per unit, as indicated for each BoQ item. The unit price includes completion of the entire BoQ item (supply of basic, binding and protective materials, material for skimming and impregnation, external and internal transport, execution, sanding, protection measures, any horizontal and vertical transport, working scaffolds, cleaning, and other operations, as required for quality performance). Any projections on the façade are covered through particular items of work, and shall not be calculated separately. For erection of tubular façade scaffolds, the calculation shall include all auxiliary operations, and transfer to 40 m' horizontally , and 20 m' vertically. This description makes an integral part of each particular BoQ item described here, and does not exclude any of the regulations applicable in this specific field.

15.1	Supply of material and painting of the façade and all ventilation ducts and chimneys above the roof cover with decorative two-component mineral façade plaster, similar to "Bavalit" type. Styrofoam sheets shall first be coated with adhesive, then the glass mesh shall be applied, which is included in the price of the item. Styrofoam sheets are not included in the price, and make part of a separate item. Bedding shall be flat, clean, and dry. Calculation per m2.				
	vertical façade surfaces, color 1		739.33		
	vertical façade surfaces, color 2		43.99		
	ventilation ducts and chimney		26.22		
	horizontal surfaces		26.79		
	TOTAL	m2	836.33		
15.2	Painting the plinth with acrylic paint for concrete, in color as selected by the designer. Calculation per m2 of painted surface.				
	$0.95*10.9+0.45*10.9+(0.79+0.43/2)*46.4+5.35*0.75+0.87*1.5+5.7*0.87+9.75*0.74+1.2*0.74+8.35*0.7+12.54*0.48$				
	TOTAL	m2	73.75		
	<b>FAÇADE WORK TOTAL:</b>				
<b>XVI SHEET-METAL WORK</b>					
<p>All sheet-metal works shall be performed by qualified workers, using modern tools and machines designed for this type of work. All used materials, joining and binding agents, protective agents, shall be of prescribed quality, i.e. provided with quality compliance certificates. Sheet-metal work shall be executed fully in line with the technical documentation and verified detailed drawings, using modern methods for joining/splicing sheets. Thermal insulation in sheet-metal sandwich shall be provided with appropriate spacer fit for the use in the sandwich application. Sheet metal shall be protected (galvanized, powder-coated, painted) as specified in the technical documentation. Completed works shall keep their normal geometrical shapes, in length and by surface, in the same items of work. All completed sheet metal works shall be completely fit for the designed purpose. In places where sheet metal is in direct contact with other materials (concrete, brick, etc.), it shall be protected: by coating, with roof paper, etc. Sheet metal supports in direct contact with sheet metal shall be of the same material. During works, i.e. until commissioning, the Contractor shall take all necessary measures to avoid damage to these works, but in case of damage in spite of precautionary measures, the contractor shall make the works good, as designed, at his own expense, subject to the Engineer's approval. Calculation shall be done per unit, as indicated for each BoQ item. The unit price includes fabrication and installation of the entire BoQ item (supply of basic and binding material, external and internal transport, execution and installation, protection measures, any horizontal and vertical transport, working scaffolds, required protection at joints with other materials, thermal infills in sandwich structures, and other operations, as required for quality performance). This description makes an integral part of each particular BoQ item described here, and does not exclude any of the construction industry regulations applicable in this specific field.</p>					



16.1	Supply of material and covering roof surfaces with galvanized powder-coated sheet metal, 0.60 mm thick. Covering shall be executed by bending sheet metal in strips, interconnected with a double standing seam in the direction of the roof pitch, and double flat seam in horizontal direction, staggered by half. Covering shall be executed according to the design, details and designer's instructions.				
	10.9*45.9+68.81*0.2				
	roof		514.07		
	0.86*0.86				
	roof bulkhead		0.73		
	TOTAL	m2	514.80		
16.2	Supply, fabrication and installation of round downpipes using galvanized powder-coated sheet steel, unfolded width 40 cm, cross-section Ø 12 cm, thickness d=0.5 mm. Downpipes end with a bend that enables free flow of rainwater over the ground. All fittings shall be typical, from manufacturer's range of products. Powder coating in color as selected by the designer. Calculation per m <sup>1</sup> .				
	6*6.07				
	-Rš=40 cm unfolded width, downpipes	m1	36.42		

16.3	Supply, fabrication and installation of round gutters using galvanized powder-coated sheet steel, unfolded width, cross-section Ø 18 cm, thickness d=0.5 mm. All fittings shall be typical, from manufacturer's range of products. Powder coating in color as selected by the designer. Supply, with downpipes, brackets made of galvanized flat bar 25x5 mm, unfolded width RŠ 400mm. Calculation per m <sup>1</sup> of installed downpipes.				
	-RŠ=40 cm, unfolded width, downpipes	m1	45.09		
16.4	Supply of material and installation of roof flashing made of galvanized, powder-coated, sheet steel, d=0.6 mm thick, r.š.25 cm unfolded width. The sheet steel is placed under the gutters. Calculation per m1.				
	-RŠ=25 cm unfolded width, flashing	m1	45.09		
16.5	Supply, fabrication and installation of flashing around the chimney and ventilation openings, using galvanized, powder-coated sheet steel, unfolded width 50 cm, 0.6 mm thick. Sheet steel shall be run at least 20 cm up the chimney wall, as per details. Joints shall be soldered only, with double flat seam, and then treated with elastic waterproofing compound. Calculation per m1.				
	-RŠ= 50 cm unfolded width, chimney and ventilation flashing		33.82		
	(4.72+2*(3.92+3.46+2.86)+2.8+2.51+3.24)				
	-RŠ= 50 cm, unfolded width, roof bulkhead		5.60		
	(0.7*4)*2				
	TOTAL	m1	39.42		
16.6	Supply, fabrication and installation of drips made of galvanized, powder-coated sheet steel, unfolded width rš=20 cm, thickness d=0.6 mm, at the edges of terraces. Powder coating of sheet metal in color as selected by the designer. Calculation per m1.				
	-RŠ= 20 cm, unfolded width	m1	36.75		
	2.07*5+4.4*6				
16.7	Supply, fabrication and installation of outlets made of galvanized, powder-coated sheet steel, unfolded width rš=20 cm, thickness d=0.6 mm, at the edges of terraces. Powder coating of sheet metal in color as selected by the designer. Calculation per m1.				
	-RŠ= 20 cm, unfolded width	m1	4.90		
	2.45*2				

16.8	Supply, fabrication and installation of drips with standing seam, made of galvanized, powder-coated sheet steel, unfolded width $r\check{s}=25$ cm, thickness $d=0.6$ mm, on the sides of entrance canopies. Powder coating of sheet metal in color as selected by the designer. Calculation per m1.				
	-Rš= 25 cm, unfolded width, sides of the terrace	m1	6.20		
	1.55*4				
16.9	Supply, fabrication and installation of drips made of galvanized, powder-coated sheet steel, unfolded width $r\check{s}=50$ cm, thickness $d=0.6$ mm, on parapet walls. Drips shall be left to overhang by 3 cm. Flashing shall be executed according to the details and designer's instructions. A layer of bitumen roofing paper shall be placed under sheet metal, which is included in the price of flashing. Powder coating in color as selected by the designer. Calculation per m1.				
	10.7*2+12.7+3.1+18.2+3.1+11.2				
	-Rš= 50 cm, unfolded width, parapet walls	m1	69.70		
16.10	Supply of material, fabrication and installation of window sills, using galvanized powder-coated sheet metal, $d=0.60$ mm thick, unfolded width 25 cm. The price includes all necessary preparatory works and material, fabrication of the drip, screwing the drip to the section under the window, and fixing it with polyurethane adhesive. The sill shall be sloped from the window, together with the drip, 2 cm from the facade surface, fully as detailed in the architectural design. Calculation per m'.				
	7.74/0.16	m1	48.38		
16.11	Supply of material and fabrication of tubular snow guards, made of galvanized, powder-coated, steel rods in two rows, installed with galvanized, powder-coated flat steel bars, to the existing seams on the roof cover. Snow guards shall be installed in two rows, staggered. Calculation per m1.				
	14*3.15+1.8+2.95	m1	48.85		
	<b>SHEET-METAL WORK TOTAL:</b>				

<b>XVII MISCELLANEOUS</b>					
17.1	Supply and installation of dry fire extinguishers, class S-9. Place 1 extinguisher in every corridor of the building, on both floors, and in the shared room on the ground floor. Calculation per unit.				
	TOTAL	pcs	5.00		
17.2	Final cleaning of the building before the technical inspection, including cleaning of all floors, ceramic tiles on walls, sanitary equipment, windows, doors, and all communication paths and shared rooms. Calculation per m2 of gross surface area of the building.				
		m2	1036.17		
17.3	Supply and installation of settlement monitoring marks.				
	TOTAL	pcs	8.00		
17.4	Supply and installation of mail boxes in the vestibule. Calculation per unit.				
	TOTAL	pcs	15.00		
17.5	Fabrication and installation of steel shoe-cleaning grating in front of the entrance to the building. Grating size 90/60cm. Calculation per unit.				
	TOTAL	pcs	2.00		
17.6	Supply and placement of coconut fiber door mats, 90/60 cm. Calculation per piece of the complete item of work.				
	TOTAL	pcs	2.00		
17.7	Supply and installation of Venetian blinds made of aluminum slats, for all PVC windows and doors, except on the shared staircase and shared loggia and windows in closets, as selected by the designer. Blinds to be fabricated according to the details and the Designer's instructions. Blinds to be fitted with a control mechanism for lifting, lowering, and tilting slats. Calculation per m2 of surface area of the openings.				
	$39*0.9*2.3+20*1.4*2.3+2.1*2.3+0.9*1.2+2*0.7*1.2+4*0.6*1.2=$				
	TOTAL	m2	97.64		
	<b>MISCELLANEOUS TOTAL:</b>				

GRAND TOTAL FOR BUILDING AND TRADE WORKS					
A.	CONSTRUCTION WORKS				
I	PRELIMINARY WORKS				
II	EARTWORKS				
III	PLAIN AND REINFORCED CONCRETE WORKS				
IV	REINFORCEMENT WORK				
V	MASONRY WORK				
VI	CARPENTRY WORK				
VII	INSULATION WORKS				
	CONSTRUCTION WORKS TOTAL:				
B.	TRADE WORKS				
VIII	JOINERY WORK				
IX	PVC DOORS AND WINDOWS				
X	METAL WORKS				
XI	FLOORING WORKS				
XII	CERAMIC TILEWORK				
XIII	GYPSON-CARDBOARD PANELING WORK				
XIV	PAINTWORK				
XV	FACADE WORK				
XVI	SHEETMETAL WORK				
XVII	MISCELLANEOUS				
	TOTAL TRADE WORKS:				
	TOTAL BUILDING AND TRADE WORKS:				