

Objective: Major repair and modernisation works on immovable property with cadastral numbers: 2901303.331.01-study block, 2901303.331.03-dormitory, 2901303.331.04-education and teaching building, with the development of the adjacent territory, located in Cimislia

Object: 2-1-10_TS_Study block

Local estimate

No. 2-1-10

Prepared in current prices

Estimate: Construction works						
No	Symbol standards and Resource code	Works and expenses	U.M	Quantity according to project data	Estimated value (Lei)	
					Per unit of measurement	Total
					Incl. salary	Incl. salary
1	2	3	4	5	6	7
		Chapter 1. Construction works				
1.1	RCsB30D k=3.7	Drilling through holes in concrete structures using a diamond core drill with a diameter of: 50 mm. (k=3.7 for cumulative operations)	pcs	2		
1.2	RCsB30I	Drilling through holes in concrete structures using a diamond core drilling machine with a diameter of: 100 mm. (k=3.7 for the accumulation of operations)	pcs	4		
1.3	RpEJ09A	Filling holes in walls with plaster mortar.	pcs	6		
		TOTAL Chapter 1. Construction works				
		Including wages				

Total	
Social security	24.0000%
Total	
Transport expenses	%
Total	
Storage expenses	%
Total	
Overhead expenses	%
Total	
Estimated profit	%

Total estimate excluding VAT	
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Estimate: Installation work						
No.	Symbol standards and resource code	Works and expenses	U.M	Quantity according to project data	Estimated value (Lei)	
					Per unit of measurement	Total
					Incl. salary	Incl. salary
1	2	3	4	5	6	7
		Chapter 1. Structured cabling network				
2.1	10-06-037-02	Cabinets, boxes and enclosures for pipe installations: Floor cabinet, size, mm, up to: 700x1000 (19" telecommunications floor cabinet, height 42U, 800x800mm, front glass door with lock and ventilation module with thermostat, 1U)	pcs	2		
2.2	10-04-031-01	Separately mounted equipment: Cable junction box for quantity of clamps: 40. (ODF Panel 19", 1U; (Cross FO/Optical Box))	pcs	2		
2.3	10-08-001-11	Receiving devices: Intermediate devices for number of rays: 10 (Firewall 19, 10, 1xUSB Port, 1xConsole Port, 2xGE RJ45 MGMT/DMZ Ports, 2xGE RJ45 WAN Ports, 2xGE RJ45 HA Ports, 12xGE RJ45 Ports, 2x10 GE SFP+ FortiLink Slots, 4xGE SFP Slots, 4xGE RJ45/ SFP Shared Media Pairs (type, FortiGate 100F or similar)	pcs	1		
2.4	10-08-001-11	Receiving devices: Intermediate devices for number of	pcs	1		

		rays: 10 (Aggregation switch, 32-port, Layer 3 switch high-capacity 10G SFP+ and 25G SFP28 Switching Capacity 760 Gbps (type, USW-Pro-Aggreg))				
2.5	10-08-001-11	Receiving devices: Intermediate devices for number of rays: 10 (Switch 48xGE RJ45, 4x10GE SFP+ uplink, Switching Capacity (Duplex) 176 Gbps, Packets Per Second (Duplex) 260 Mpps, MAC Address Storage 32K, VLANs Supported 4K (such as FortiSwitch 148F or similar)	pcs	4		
2.6	10-08-001-11	Receiving devices: Intermediate devices for number of rays: 10 (Switch 24xGE RJ45, 4x10GE SFP+ uplink, Switching Capacity (Duplex) 128 Gbps, Packets Per Second (Duplex) 190 Mpps, MAC Address Storage 32K, VLANs Supported 4K (such as FortiSwitch 124F or similar)	pcs	3		
2.7	10-08-001-11	Receiving devices: Intermediate devices for number of rays: 10 (Switch 8xGE RJ45 and 2xGE SFP, 8 (802.3af/at), Switching Capacity (Duplex) 20 Gbps, Packets Per Second (Duplex) 30 Mpps, MAC Address Storage BK, VLANs Supported 4K (type, FortiSwitch 108E-FPOE or analogue)	pcs	1		
2.8	10-08-001-11	Receiving devices: Intermediate devices for number of rays: 10 (Switch 24x1 Gigabit Ethernet, PoE+ 16x1Gigabit Ethernet, PoE++ 8x1Gigabit Ethernet, SFP+ 2x10 Gigabit Ethernet, In-Band Ethernet Management Ports, Layer 3 (type USW-Pro-24-POE or analogue))	pcs	2		
2.9	11-04-008-01	Detachable and flexible block (PDU (Power distribution unit), 16A, 200-240V, 50/60Hz, 8 safety button sockets, Single Phase, Vertical mounting for rack)	pcs	4		
2.10	10-08-003-03	Power supply and control block (Uninterruptible power supply, 2200VA, 2U, 19" rackmount + battery + mounting kit included (APC Smart-UPS Ultra On-line or similar))	pcs	1		
2.11	10-08-003-03	Power supply and control unit (Uninterruptible power supply, 3kVA, 2U, 19" rackmount + external battery 2kVA + mounting kit included (type: APC Smart-UPS or similar))	pcs	1		
2.12	10-08-001-12	Receiving devices (8 RJ45 ports, Cat6 UTP patch panel, mounting kit, 1U).	pcs	1		
2.13	10-08-001-12	Receiving devices (12 RJ45 ports, UTP Cat6a Patch Panel, 1U).	pcs	10		
2.14	10-08-001-12	Receiving devices (24 RJ45 ports, UTP Cat6a Patch Panel, 1U).	pcs	8		
2.15	10-02-030-02	System telephone (VoIP PBX telephone station, 8 VoIP users, 8 simultaneous calls, 4 VoIP trunks, 8 fixed RJ11 FXS ports, 4 flexible FXS RJ11 ports (Yeastar S-412 VoIP PBX or analogue type))	pcs	1		
2.16	10-08-001-11	Receiving devices: Intermediate devices for number of rays: 10 (10G Cloud Gateway with 100+ device/1,000+client support and 3.5 Gbps IPS routing (type, UDM-Pro or analogue))	pcs	1		
2.17	10-08-001-12	Receiving devices: (Access Point, Wi-Fi IEEE 802.11be, dual-band (2.4/5/6 GHz), total speed 5.3 Gbps; integrated antennas, MU-MIMO, OFDMA, Beamforming; WPA2/WPA3 security, VLAN support; 1xRJ45 GbE port, PoE+ power supply (802.3at) (type U7-PRO or similar)	pcs	21		
2.18	10-08-001-12	Receiving devices: (Access Point, Wi-Fi IEEE 802.11be, dual-band (2.4/5/6 GHz), total speed 2 5.3 Gbps; integrated antennas, MU-MIMO, OFDMA, Beamforming; WPA2/WPA3 security, VLAN support; 1xRJ45 GbE port, PoE+ power supply (802.3at) (type U7 Lite or similar)	pcs	2		
2.19	10-08-001-12	Receiving devices: (Access Point, Wi-Fi IEEE 802.11be, dual-band (2.4/5/6 GHz), total speed ≥ 5.3 Gbps; integrated antennas, MU-MIMO, OFDMA, Beamforming; WPA2/WPA3 security, VLAN support; 1xRJ45 GbE port, PoE+ power supply (802.3at), IP67 (type, U7 Pro Outdoor or similar)	pcs	3		
2.20	10-08-001-12	Receiving devices: (Access Point, Wi-Fi IEEE 802.11be, dual-	pcs	1		

		band (2.4/5/6 GHZ), total speed ≥ 5.3 Gbps; integrated antennas, MU-MIMO, OFDMA, Beamforming; WPA2/WPA3 security, VLAN support; 1xRJ45 GbE port, PoE+ power supply (802.3at), IP67 (type, U7 Outdoor or analogue)				
2.21	11-04-001-02	Frame for equipment, machine support surface.2, pin: 0.5. (Shelf for 19" telecommunications cabinet, with screws (M6) included)	pcs	2		
2.22		Shelf for 19" telecommunications cabinet, with screws (M6) included complete	pcs	2		
2.23	10-04-066-07	Wall-mounted equipment: Cable organiser/Cable management, 1U, 19"	pcs	27		
2.24		Cable organiser/Cable management, 1U, 19"	pcs	27		
2.25		Wall mounting kit, for telephone	pcs	1		
2.26	10-02-051-01	Installation, connection of cables, conductors, bars: (Fibre Optic)	100 pcs	0.40		
2.27		Fibre Optic Pigtail Duplex LC/SM	pcs	40		
2.28		LC Duplex Adapter	pcs	40		
2.29	10-04-066-07	Wall-mounted equipment: SFP modules	pcs	21		
2.30		SFP 10G Multi-Mode Optical Module (type UACC-OM-MM-10G-D-2 or equivalent)	pcs	12		
2.31		SFP module, 10GBase-SR, Duplex LC, 300m (OM3), 550m (OM4) (type FN-TRAN-SFP+SR or equivalent)	pcs	9		
2.32	10-02-051-01	Installation, connection of cables, conductors, bars: (Patch cord)	100 pcs	4.91		
2.33		SFP LC-LC multimode optical patch cord L=1m	pcs	9		
2.34		SFP LC-LC multimode optical patch cord L=3m	pcs	2		
2.35		UTP cat6a connection cable, 0.5m (Patch cord)	pcs	246		
2.36		UTP cat6a patch cord, 3.0m (Patch cord)	pcs	219		
2.37		UTP Cat6 patch cord, 0.5 m (Patch cord)	pcs	8		
2.38		UTP Cat6 patch cord, 3.0 m (Patch cord)	pcs	7		
2.39		RJ-45 connector, UTP cat6a	pcs	27		
2.40		Mounting box, "Eurodoza"	pcs	129		
2.41	08-03-591-9	Non-flush-mounted plug socket, for enclosed installation (RJ-45)	100 pcs	1.29		
2.42		Network data socket with 1 module with frame in set (1RJ-45)	pcs	32		
2.43		Network data socket with 2 modules with frame in set (2RJ-45)	pcs	96		
2.44		Network data socket with 2 modules for furniture mounting in set (2RJ-45)	pcs	1		
2.45	10-06-048-01	Optical cable installation	1 km	0.07		
2.46		FO24 fibre optic cable	m	70		
2.47	08-02-412-1	Insertion of conductors into metal pipes and hoses: first single-core or multi-core conductor in common braiding, cross-section up to 2.5 mm ² .	100 m	96.80		
2.48		FTP cat6a copper cable with a diameter of 24 AWG	m	230		

2.49		UTP cat6a copper cable with 24 AWG diameter	m	9,000		
2.50		UTP cat6 copper cable with a diameter of 24 AWG	m	370		
2.51		Copper cable, UTP Cat 5E LSOH 4x2x0.52/FTP	m	80		
2.52	08-02-396	Metal channel for buildings, consoles, trusses and columns, length 3 m.	100 m	3.40		

2.53		Metal gutter 300x100x3000, with mounting elements in set	m	10		
2.54		Metal gutter 150x50x3000, with mounting elements included in the set	m	300		
2.55		Metal gutter 50x50x3000, with mounting elements included in the set	m	30		
2.56	08-02-409	Vinyl plastic pipe on installed structures, on walls and columns, fastening with clamps, diameter up to 25 mm.	100 m	18.15		
2.57		PVC pipe with D=20 mm	m	1,800		
2.58		High pressure PE pipe with D=25mm	m	15		
2.59		Clip for PVC pipe D=20mm	pcs	1,800		
2.60		Fastening materials for mounting the pipe clip (200 pcs) in set) (6 mm x 40 mm)	set	3		
2.61		Plastic cable ties (set of 100), Facets	set	60		
2.62	10-06-036-12	Steel pipes for low-voltage networks, diameter, mm, up to: 50 (Steel pipe (protective sleeve) D=50mm)	100 m	0.01		
2.63		Steel pipe (protective sleeve) D=50mm	m	1		
2.64	08-02-411-1	Metal hose, outer diameter up to 48 mm (Corrugated tube insulated metal D=18 mm)	100 m	1.8		
2.65		Insulated metal corrugated pipe D=20mm	m	180		
2.66	08-02-390	Plastic ducts with width: up to 40 mm. (Cable duct made of fire-retardant plastic 15x15 mm)	100 m	0.15		
2.67	10-06-034-24	Miscellaneous works: Grounding connection (Set for grounding TE)	pcs	2		
2.68		Grounding kit TE	pcs	2		
		TOTAL Chapter 1. Structured cabling network				
		Including salary				
		Chapter 2. Clock installations				
2.69	10-08-016-01	Single-sided electric secondary clocks for rooms: on wall	piece	10		
		TOTAL Chapter 2. Clock installations				
		Including salary				
		Chapter 3. Call system for people with disabilities "MediCall" type				
2.70	10-08-003-03	Power supply and control unit (Power supply 1+N+PE 230V/50Hz (type NAP or analogue)	pcs	10		
2.71	10-06-037-05	Cabinets, boxes and enclosures for pipe installations: (Control panel central (HU-N type or similar)	pcs	1		
2.72	10-08-002-05	Automatic "OC" alarms: (Acoustic sensor (type AH or analogue)	pcs	1		
2.73	10-01-039-06	Emergency call button (TNV or analogue type)	pcs	3		
2.74	10-02-016-02 apl	Calling devices (telecommunications switches dispatch and executive): (Connection board for HU (type, PD HU or analogue)	pcs	1		
2.75	08-03-594-1	Lighting fixture installed separately on pivots, number of lamps, in fixture lighting, 1.	100 pcs	0.03		
2.76		Lighting fixture (lamp), type SV-P or similar	pcs	3		
2.77		KU68 mounting box	pcs	9		

2.78		IRSB mounting frame	pcs	1		
2.79		IRMA mounting frame	pcs	4		
2.80		IRMC mounting frame	pcs	3		
2.81	08-02-412-1	Insertion of conductors into metal pipes and hoses: first single-core or multi-core conductor in common braiding, cross-section up to 2.5 mm ² .	100 m	2.7		
2.82		Copper cable, UTP Cat 5E LSOH 4x2x0.52/FTP	m	270		
2.83	08-02-409-1	Vinyl plastic pipe on installed structures, on walls and columns, fastened with clamps, diameter up to 25 mm.	100 m	2.7		
2.84		HFX corrugated pipe d=20mm	m	270		
		TOTAL Chapter 3. Call system for persons with disabilities, "MediCall"				
		Including salary				

Total	
Social insurance	24,0000%
Total	
Transportation expenses	%
Total	
Storage expenses	%
Total	
Overhead expenses	%
Total	
Estimated profit	%

Total Estimate without VAT	
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Estimate: Equipment						
No	Symbol standards and resource code	Works and expenses	U.M	Quantity according to project data	Estimated value (Lei)	
					Per unit of measurement	Total
					Incl. salary	Incl. salary
1	2	3	4	5	6	7
		Chapter 1. Structured cabling system				
3.1		19" floor-standing telecommunications cabinet, height 42U, 800x800mm, front glass door with lock and ventilation module with thermostat, 1U	pcs	2		
3.2		ODF Panel 19", 1U; (Cross FO/Optical box)	pcs	2		
3.3		Firewall 19, 10, 1xUSB Port, 1xConsole Port, 2xGE RJ45 MGMT/DMZ Ports, 2xGE RJ45 WAN Ports, 2xGE RJ45 HA Ports, 12xGE RJ45 Ports, 2x10 GE SFP+ FortiLink Slots, 4xGE SFP Slots, 4xGE RJ45/ SFP Shared Media Pairs (such as FortiGate 100F or similar)	pcs	1		
3.4		Aggregation switch, 32-port, Layer 3 high-capacity 10G SFP+ and 25G SFP28 Switching Capacity 760 Gbps (type, USW-Pro-Aggreg)	pcs	1		
3.5		Switch 48xGE RJ45, 4x10GE SFP+ uplink, Switching Capacity (Duplex) 176 Gbps, Packets Per Second (Duplex) 260 Mpps, MAC Address Storage 32K, VLANs Supported 4K (such as FortiSwitch 148F or similar)	pcs	4		
3.6		Switch 24xGE RJ45, 4x10GE SFP+ uplink, Switching Capacity (Duplex) 128 Gbps, Packets Per Second (Duplex) 190 Mpps, MAC Address Storage 32K, VLANs Supported 4K (such as FortiSwitch 124F or similar)	pcs	3		
3.7		Switch 8xGE RJ45 and 2xGE SFP, 8 (802.3af/at), Switching Capacity (Duplex) 20 Gbps, Packets Per Second (Duplex) 30 Mpps, MAC Address Storage BK, VLANs Supported 4K (such as FortiSwitch 108E-FPOE or similar)	pcs	1		

3.8		24x1 Gigabit Ethernet switch, PoE+ 16x1 Gigabit Ethernet, PoE++ 8x1 Gigabit Ethernet, SFP+ 2x10 Gigabit Ethernet, In-Band Ethernet Management Ports, Layer 3 (type, USW-Pro-24-POE or analogue)	pcs	2		
3.9		PDU (Power distribution unit), 16A, 200-240V, 50/60Hz, 8 sockets safety button, Single Phase, Vertical mounting for rack	pcs	4		
3.10		Uninterruptible power supply, 2200VA, 2U, 19" rackmount +battery + mounting kit included (type: APC Smart-UPS Ultra On-line or similar)	pcs	1		
3.11		Uninterruptible power supply, 3kVA, 2U, 19" rackmount +2kVA outdoor battery + mounting kit included (APC Smart-UPS or similar)	pcs	1		
3.12		8 RJ45 ports, Cat6 UTP Patch Panel, mounting kit, 1U	pcs	1		
3.13		12 RJ45 ports, UTP Cat6a Patch Panel, 1U	pcs	10		
3.14		24 RJ45 ports, UTP Cat6a Patch Panel, 1U	pcs	8		
3.15		VoIP PBX telephone station, 8 VoIP users, 8 simultaneous calls, 4 VoIP trunks, 8 fixed RJ11 FXS ports, 4 flexible FXS RJ11 ports (Yeastar S-412 VoIP PBX or analogue type)	pcs	1		
3.16		POE IP phone (type: Yealink SIP-T30P)	pcs	6		
3.17		POE IP phone (type: Yealink SIP-T34W)	pcs	1		
3.18		10G Cloud Gateway with 100+ device/1,000+client support and 3.5 Gbps IPS routing (UDM-Pro or similar)	pcs	1		
3.19		Access Point, Wi-Fi IEEE 802.11be, dual-band (2.4/5/6 GHz), total speed 5.3 Gbps; integrated antennas, MU-MIMO, OFDMA, Beamforming; WPA2/WPA3 security, VLAN support; 1xRJ45 GbE port, PoE+ (802.3at) power supply (U7-PRO or similar)	pcs	21		
3.20		Access Point, Wi-Fi IEEE 802.11be, dual-band (2.4/5/6 GHz), total speed total 2 5.3 Gbps; integrated antennas, MU-MIMO, OFDMA, Beamforming; WPA2/WPA3 security, VLAN support; 1xRJ45 GbE port, PoE+ power supply (802.3at) (type U7 Lite or similar)	pcs	2		
3.21		Access Point, Wi-Fi IEEE 802.11be, dual-band (2.4/5/6 GHz), speed ≥ 5.3 Gbps; integrated antennas, MU-MIMO, OFDMA, Beamforming; WPA2/WPA3 security, VLAN support; 1xRJ45 GbE port, PoE+ power supply (802.3at), IP67 (type, U7 Pro Outdoor or similar)	pcs	3		
3.22		Access Point, Wi-Fi IEEE 802.11be, dual-band (2.4/5/6 GHz), speed ≥ 5.3 Gbps; integrated antennas, MU-MIMO, OFDMA, Beamforming; WPA2/WPA3 security, VLAN support; 1xRJ45 GbE port, PoE+ (802.3at) power supply, IP67 (type U7 Outdoor or similar)	pcs	1		
		TOTAL Chapter 1. Structured cabling network				
		Including salary				
		Chapter 2. Time recording systems				
3.23		Autonomous wall clocks	pcs	10		
3.24		Autonomous power supply	pcs	10		
		TOTAL Chapter 2. Time recording equipment				
		Including salary				
		Chapter 3. Call system for persons with disabilities, "MediCall"				
3.25		Power supply 1+N+PE 230V/50Hz (NAP or analogue type)	pcs	1		
3.26		Central control panel (HU-N type or similar)	pcs	1		
3.27		Acoustic sensor (type AH or similar)	pcs	1		
3.28		Connection board for HU (type PD HU or analogue)	pcs	1		

3.29		Emergency call button (type TNV or analogue)	pcs	3		
		TOTAL Chapter 3. Call system for persons with such as "MediCall"				
		Including salary				

Total	
Storage expenses	%

Total estimate excluding VAT	
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Prepared by:

(position, signature, surname, first name)

Verified:

(position, signature, surname, first name)