

M O R E I R A R O B A L O

M O I T A D E D E U S

A r c h i t e c t s

Largo Serra do Marão, 112, 3º Esq., 2785 – 815, S. Domingos de Rana
E-mail: info@lmmdarquitecto.com · Mobil: 937 750 720 · Site: www.lmmdarquitecto.wix.com/cascais

Embassy Lisbon of United States of America

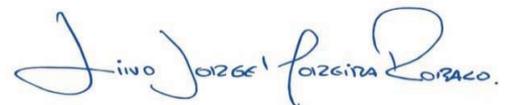
Installation of a new gate and fence

TASK 3

DESIGN COMPLETION & BIDDING – FINAL DESIGN SUBMITTAL (100%)

3 – MAP OF QUANTITIES

Approved by Design Coordinators:



Lino Moreira Robalo, Architect
Ordem dos Arquitectos N° Member 6873



Luis Moita de Deus, Architect
Ordem dos Arquitectos N° Member 6744

FEBRUARY, 2013

UNITED STATES DEPARTMENT OF STATE

TASK 3 - DESIGN COMPLETION & BIDDING – FINAL DESIGN SUBMITTAL (100%) - FEBRUARY, 2013

BREAKDOWN OF PRICE BY UNIT - MANTRAP

Designation	Units	Amounts	Prices - Sale		
			Unit Price	TOTAL	
				excluding VAT	including VAT (23%)
					1,23 €
NOTE: In the measurement and accomplishment of the work, the constructor will have to enter into account with all required yard and creating a complete set of factors for the perfect functioning of the Work, and everything done according to the items described in the drawings, specifications and requirements of the Embassy. Any discrepancy or inconsistency found between this documents must be submitted for approval by the developer or his representative.					
1. General Requirements/ Mobilization					
Mobilization and assembly of the construction site.	overall value (ov)	1,00		- €	- €
Exploration, maintenance and use of construction site, including the implementation of health and safety plan.	ov	1,00		- €	- €
Disassembly and demobilization of the construction site, including final cleaning and replacement of any element temporarily changed to allow the execution of the construction.	ov	1,00		- €	- €
Execution and suply of the "as built" drawings and delivery of two copies in paper suport and one in CD (.dwg) with all drawings.	ov	1,00		- €	- €
SubTotal				- €	- €
2. Site Work					
2,1 Removal of existing equipment (lights, cell, camera, video deck, etc.) and replacement of same, all equal to the existing solution in perfect working order and repair.	ov	1,00		- €	- €
2,2 Removal of static bollards and fundation as necessary (attention to limit).	un.	2,00		- €	- €
2,3 Removal of asphalt pavement and bases as necessary, and transportation to dump legally authorized.	m2	105,00		- €	- €
2,4 Removal of sidewalk pavement, incl.removal of the bases as necessary and transportation to dump legally authorized of non-reusable materials.	m2	23,00		- €	- €
2,5 Removal of sidewalk curb, incl.removal of the foundation as necessary and transportation to dump legally authorized of non-reusable materials.	ml	9,00		- €	- €
2,6 Suply and execution of the asphalt pavement incl. compaction of the earth and execution of sub base and base as necessary.	m2	105,00		- €	- €
2,7 Suply and execution of the new sidewalks pavement, to match the existing, incl. compaction of the earth and execution of sub base and base as necessary. (the use of left over material that is in good condition will depend of the supervision approval)	m2	22,00		- €	- €
2,8 Suply and execution of the new curb, incl. the foundation. (the use of left over material that is in good condition will depend of the supervision approval)	ml	8,20		- €	- €
2,9 Supply and application of the great seal (1200mm diameter).	un.	1,00		- €	- €
2,10 Supply and installation of new sewer manhole (diam 1250mm) incl. cap equal to the existing, and all connection work to the existing collector.	un.	1,00		- €	- €
2,11 Supply and installation of drains for the bollards as required (diam 40mm) incl. all connection work to the new sewer manhole.	ov	1,00		- €	- €
2,12 Supply and execution of all works for widening the door of the hut, to install the power unit and execution of the base as required.	ov	1,00		- €	- €
2,13 Supply and installation of new linear drainage trench , includind all sewers connections to the new SDMH as shown in the drawings and specifications	m	4,00		- €	- €
2,14 Supply and installation of new Light Liquid Separator system according to SECTION – LIGHT LIQUID SEPARATOR (LLS), or equivalent:					
2,14,1 Supply and installation of new Light Liquid Separator OLEOPATOR P 3/450 (Article 3903.80.00) Class 1, prefabricated in high density polyethylene for installing buried, with integrated removable coalescing filter, model "OLEOPATOR P", NG 3 standard dimensions for a flow rate of 3 l / s in accordance with the standards EN 858/1 and EN 858/2, decanter incorporated with 450 liters, a storage capacity of 240 liters of oil separated and a total capacity of 775 liters, including all drain connections, excavation and landfill, re-pavimentation of damaged areas, as shown in the drawings and specifications.	un	1,00		- €	- €

2,14,2	Supply and installation of the alarm device ACO Passavant, model 2001 SecurAT SK2, for installation in light liquid separators (Article 704797) - A central control SECURAT with audiovisual signaling and ready to connect, a probe oil level indicator, which is sending the signal when truck 4/5 of the maximum storage capacity of oils separate, fitted with a connecting cable with 5 meters long, a probe indicator of the level of accumulation, which is sending the signal when the tab reaches the maximum storage capacity of oils separate, fitted with a connecting cable with 5 meters long, two accessories for interconnection cables of the probes, the cables that will connect to the central control, including all electrical conduits and cabling to CAC 2, as shown in the drawings and specifications.	un	1,00	- €	- €
2,14,3	Supply and installation of the top section with cover Class D 400 (Art 3301.16.00), EN124, with rim concrete and cast iron cover, clear opening of Ø600, raising tube from polyethylene, load distributor plate concrete Ø1500 x 200 mm and dimension of admission T between 885 and 1860 mm. Weight 985 kg, including all works, as shown in the drawings and specifications.	un	1,00	- €	- €
SubTotal				- €	- €
3. Concrete					
The Contractor shall provide all necessary construction craft labor (whether direct hire or subcontract), supervision, materials, tools and equipment for all aspects of the project and according to SECTION - EXCAVATION AND LANDFILL, SECTION - CONCRETE and drawings.					
3,1,1	Excavation and landfill for foundations, including the re-pavimentation of damaged areas necessary to excavation.	m³	38,02	- €	- €
3,1,2	Supply of all labour and material necessary for the application of a 5 cm layer of Rough Concrete at the base of the foundations.	m³	1,34	- €	- €
3,1,3	Supply of all labour and material necessary for the application of Steel Reinforcement in structural concrete elements, footings, columns and base wall.	kg	2530,01	- €	- €
3,1,4	Supply of all labour and material necessary for the application of formwork, metallic panels or other compatible with the required level of quality for the concrete surfaces - Apparent Concrete.	m²	117,07	- €	- €
3,1,5	Supply of all labour and material necessary for the application of formwork, metallic panels or other compatible with the required level of quality for the concrete surfaces - Non Apparent Concrete (Bollards Foundation).	m²	8,50	- €	- €
3,1,6	Supply of all labour and material necessary for the application of Structural Concrete (C20/25) in construction elements footings, columns, base wall and Bollard's foundation.	m³	39,26	- €	- €
SubTotal				- €	- €
4. Masonry					
4,1	Supply and execution of double masonry concrete blocks (400x200x200mm) filled with concrete, reinforced (rebar ø12) and grouted to the existing wall, as designed.	m2	14,00	- €	- €
4,2	Supply and execution of prefabricated concrete capping equal to the existent and grouted to the existing wall, as designed.	ml	28,00	- €	- €
4,3	Supply and execution of plastered with mortar cement and sand (trait 1:5), including reinforcing metallic mesh, all finishing equal to existing. Before the plastered with mortar its also included the execution of a sprinkling of grout fluid with 600 Kg of cement per cubic meter of aggregates with dimensions between 2 mm and 6 mm.	m2	17,80	- €	- €
SubTotal				- €	- €
5. Metals					
5,1	Supply and execution of metalwork made up of different types of profiles and sections, pickled metal, anti-corrosion treatment and finishing painting, according to drawings and SECTION 02833 - ORNAMENTAL METAL FENCES specification.				
5,1,1	Anti climb fence				
	Panel 6,880 m	un.	1,00	- €	- €
	Panel 6,794 m	un.	1,00	- €	- €
5,1,2	Gate				
	Supply and execution of automated metal swing gate with 4.5 x 4.18meters, 2 sheets, composed of different types of profiles and sections, pivoting joints to 1000kg, all according to SECTION 02842 - ANTI-CLIMB GATE SYSTEMS and drawings.				
	Metal work and painting	un.	1,00	- €	- €
	Automatism	ov	1,00	- €	- €
5,1,3	Ramp handrail				

Supply and execution of double handrail on both sides of the ramp for the disabled, constructed in stainless steel tube AISI 316, brushed, diam. 40mm, 90 and 75cm in height.	ov	1,00		- €	- €
SubTotal				- €	- €
6. Wood and Plastic ---					
SubTotal				- €	- €
7. Thermal and Moisture ---					
SubTotal				- €	- €
8. Doors and Windows ---					
SubTotal				- €	- €
9. Finishes					
9.1 Painting for exterior on plastering exterior walls of CAC2 applied according to the manufacturer's specifications and SECTION 09912 - PAINTING, the coats needed for a perfect finish equal to that existing in color.					
CAC 2	m2	320,00		- €	- €
Existing wall (inside mantrap)	m2	62,00		- €	- €
Existing wall (outside mantrap)	m2	42,00		- €	- €
Power unit house (inside and outside)	m2	30,00		- €	- €
9.2 Paintings in metal, applied according to the manufacturer's instructions and SECTION 09912 - PAINTING, in coats needed for a perfect finish.	m2				- €
9.3 Varnishing of the exposed concrete with exterior varnish colorless, applied according to the manufacturer's instructions and SECTION 09912 - PAINTING, in coats needed for a perfect finish.	m2	69,09		- €	- €
9.4 Supply and execution of paintings of the lines (100mm), with floor paint road according to the manufacturer's specifications, drawings and SECTION 09912 - PAINTING.	ml	22,20		- €	- €
9.5 Supply and execution of paintings of the parking signal places for disabled, with floor paint road according to the manufacturer's specification, drawings and SECTION 09912 - PAINTING..	un.	1,00		- €	- €
SubTotal				- €	- €
10. Specialties ---					
SubTotal			does not apply	- €	- €
11. Equipment ---					
SubTotal			does not apply	- €	- €
12. Furnishings ---					
SubTotal			does not apply	- €	- €
13. Special Construction ---					
SubTotal			does not apply	- €	- €
14. Conveying Systems ---					
SubTotal			does not apply	- €	- €
15. Mechanical ---					
SubTotal			does not apply	- €	- €
16. Electrical					
16,1 Supply					
16,1,1 Electric Board's					
16,1,1,1 New Electric Board according with the drawings.	ov	1,00		- €	- €
16,1,1,2 Adjustments to the existing electric board.	ov	1,00		- €	- €
16,1,1,3 Circuit Identification Labels in sufficient quantity to All Circuits.	ov	1,00		- €	- €
16,1,2 Cables and pipes cables					

16,1,2,1	XG(frs) 3G4 mm2	m	100,00	- €	- €
16,1,2,2	XG(frs) 4G4 mm2	m	80,00	- €	- €
16,1,2,3	XG(frs) 5G4 mm2	m	50,00	- €	- €
16,1,2,4	XG(frs) 5G6 mm2	m	10,00	- €	- €
16,1,2,5	XG(frs) 2x4 mm2	m	30,00	- €	- €
16,1,2,6	(frs) 2x1,5 mm2	m	80,00	- €	- €
16,1,2,7	(frs) 2x2x1,5 mm2	m	30,00	- €	- €
16,1,2,8	(frs) 6x2x1,5 mm2	m	300,00	- €	- €
16,1,2,9	(frs) 10x1,5 mm2 (form bollards control)	m	300,00	- €	- €
16,1,2,10	Tube VD AÆ40 and all necessary accessories	m	80,00	- €	- €
16,1,2,11	Flexible Tube VD AÆ40 and all necessary accessories for gate transition	m	2,00	- €	- €
16,1,3 Raceway					
16,1,3,1	Opening pit, put pipes and manholes and then closing pit - Guard booth to Gate.	m	45,00	- €	- €
16,1,3,2	Opening pit, put pipes and then closing pit - Guard booth to main building. (IF NECESSARY)	m	200,00	- €	- €
16,1,3,3	New manholes - concrete box + steel cover with lock system.	un.	3,00	- €	- €
16,1,3,4	Benefiting existing manholes. (IF NECESSARY)	ov	9,00	- €	- €
16,1,3,5	Pipe - PEAD AÆ40	m	200,00	- €	- €
16,1,3,6	Pipe - PEAD AÆ110	m	120,00	- €	- €
16,1,3,7	Pipe - PEAD AÆ110 for the existing raceway. (IF NECESSARY)	m	600,00	- €	- €
16,1,3,8	Ground rod.	un.	3,00	- €	- €
16,1,3,9	Groud Cable - H07VV-F 1G4 mm2	m	10,00	- €	- €
16,1,4 Equipments					
16,1,4,1	Gate electric-hydraulic system, including motors, photocells, light indicator and control unit according to SECTION 02842 - ANTI-CLIMB GATE SYSTEMS .	ov	1,00	- €	- €
16,1,4,2 Barricade Systems:					
16,1,4,2.1	Supply to the site of construction of the Barricade System in accordance with SECTION 02845 - Hydraulic BOLLARD BARRICADE SYSTEMS specification, including 3 individual bollards, 2 vehicle loops, up/down sensors, semaphore, Master and Slave commands in (this equipments will be provided by the USA Embassy until the date of start of construction):				- €
	DSC720(H) HIGH SECURITY HYDRAULIC BOLLARD SYSTEM 35" HIGH AND A 12.75" DIAMETER RISING BOLLARD				- €
	**IN ACCORDANCE WITH DEPARTMENT OF STATE SPECIFICATION FOR VEHICLE CRASH TESTING OF PERIMETER BARRIERS AND GATES SD-SDT-02.0 (APRIL 1985). REV A ASSESSMENT PER DOS SPECIFICATION: K12				
	DSC720(H) - 3 BOLLARD SYSTEM (THREE BOLLARDS SHARING ONE COMMON PUMP) EXPORT PREPARATION, UP TO FOUR BOLLARDS	un.	1,00	- €	- €
	BASIC SYSTEM CONSISTS OF:	un.	1,00	- €	- €
	* CRASH RATED BOLLARD(S) AS ABOVE				
	* HYDRAULIC POWER SYSTEM, DELTA				
	* EMERGENCY FAST OPERATION				
	* WHITE ENAMEL PAINT W/YELLOW AND BLACK WARNING TAPE (OPTIONS AVAILABLE)				
	* STANDARD CONTROL CIRCUIT				
	* THREE HP MOTOR, THREE PHASE (ALTERNATIVES AVAILABLE)				
	* ONE SET HYDRAULIC INTERCONNECT LINES/BARRICADE 50FT. EACH				
	* COMPLETE INSTRUCTIONS, START UP AND TROUBLE-SHOOTING MANUAL				
	DSC720(H) SYSTEM OPTIONS: (NOT INCLUDED WITH BASIC SYSTEM)				
	Suggested options are extended				
	Panel options 19 icxn rack mount				
	B1036TL MASTER CONTROL PANEL W/ RESET & OVERRIDE, SINGLE LANE CONTROL	un.	1,00	- €	- €
	B1086TL REMOTE CONTROL SLAVE PANEL W/ANNUNCIATOR	un.	1,00	- €	- €
	NEMA 4 Master and Slave desk top models available				
	B1061TL MASTER CONTROL PANEL W/ RESET & OVERRIDE, SINGLE LANE CONTROL	un.	0,00	- €	- €
	B1111TL REMOTE CONTROL SLAVE PANEL W/ANNUNCIATOR	un.	0,00	- €	- €
	Safety Options				
	MPL-10 STOP GO SIGNAL LIGHT(S)	un.	2,00	- €	- €
	MPL-20W 48" HIGH POST W/ 12" SQUARE MOUNTING FLANGE, WHITE	un.	1,00	- €	- €
	3546-DCNP DIGITAL LOOP DETECTOR , DUAL RELAY VERSION, POWER RESUMPTION SAFETY	un.	2,00	- €	- €
	OC02-11 DETECTOR HARNESS, 11 PIN, DELTA SCIENTIFIC ASSEMBLY	un.	2,00	- €	- €
	Bollard options				
	B2015 BOLLARD FULLY DOWN AUXILIARY LIMIT SWITCH	un.	3,00	- €	- €
	B2016 BOLLARD FULLY UP AUXILIARY LIMIT SWITCH	un.	0,00	- €	- €
	DSC701-CA DECORATIVE POWDER COATED-ALUMINUM CASTING,	un.	0,00	- €	- €
	STANDARD BRONZE COLOR (OPTIONS AVAILABLE)				
	HPU options				
	B1215 HYDRAULIC PUMPING UNIT ENCLOSURE	un.	1,00	- €	- €
	B1325 EMERGENCY MANUAL OPERATING SYSTEM, HAND PUMP	un.	1,00	- €	- €
	B1255 3- PHASE POWER MONITOR (SPECIFY MOTOR VOLTAGE)	un.	1,00	- €	- €
	B1260 POWER UNIT MOUNTED ELECTRICAL DISCONNECT	un.	1,00	- €	- €
	B1155 BATTERY BACK-UP (CONTROLS ONLY)	un.	1,00	- €	- €
	B1190 OIL RESERVOIR HEATER, DELTA UNITS, 500W	un.	1,00	- €	- €
	B1195 OIL RESERVOIR COOLER - WATER TYPE	un.	0,00	- €	- €
	B1175 SUMP PUMPS	un.	0,00	- €	- €
16,1,4,2.2	Installation of the Barricade System according to SECTION 02845 - Hydraulic BOLLARD BARRICADE SYSTEMS specifications and drawings, including all civil works and the responsibility to ensure the maintenance and operation of the system during the period of warranty .	ov	1,00	- €	- €
16,1,4,3	Electromagnetic Retainer	un.	2,00	- €	- €
16,1,4,4	Outdoor lighting, equal to the	un.	4,00	- €	- €
16,1,5	Various				

16,1,5,1	Magnetic Switch	un.	1,00	- €	- €
16,1,5,2	Junction Boxes and respective connection terminals	un.	4,00	- €	- €
16,1,5,3	Master command panel according drawings for gate control - Supplied by E. USA	un.	1,00	- €	- €
16,1,5,4	Slave command panel according drawings for gate control - Supplied by E. USA	un.	1,00	- €	- €
16,1,5,5	Siren	un.	1,00	- €	- €
16,1,5,6	Photoelectric cell	un.	1,00	- €	- €
16.2 Labor					
16,2,1	Wiring all electric equipment according to technical rules of existing standards.	ov	1,00	- €	- €
16,2,2	Mountig and wiring of motors, photocells, magnetic switch, electromagnetic retainers, lighth indicator, control panels.	ov	1,00	- €	- €
16,2,3	Mountig and wiring of hydraulic power unit, vehicles loops, command panels, lighth indicator.	ov	1,00	- €	- €
16.3 Civil Work					
16,3,1	Perform all the civil work necessary to place the installations inside the Guard Booth at CAC2 and inside the Main Building till POST1 as they were before the work.	ov	1,00	- €	- €
16.4 Assembly					
16,4,1	Functionality tests.	ov	1,00	- €	- €
16,4,2	Provide training to users on how to operate the new equipment.	ov	1,00	- €	- €
SubTotal				- €	- €
TOTAL				- €	- €