

## **ATTACHMENT # 3-E SPECIFICATIONS**

The principal features and characteristics of the work that is to be done are detailed below. The work is to be done at the Colombian National Police School in Facatativa (Cundinamarca).

### **GENERAL DESCRIPTION OF THE PROJECT**

The project consists in the maintenance of the ranges for long weapons and short weapons. The works will be realized in the Colombian National Police School in Facatativa (Cundinamarca).

### **DETAILED DESCRIPTION OF THE PROJECT**

As follows the characteristics of the works are enumerated to full cost:

#### **1. PRELIMINARIES**

##### **1.1 Camp and provisional installations**

The contractor shall build a provisional camp constructed of galvanized metal sheeting or wood or install a container. This camp will be to use priority for direction office and supervision, storage (of materials that could suffer loss or deterioration for his exhibition outdoors) and dressing rooms for project personnel the dressing rooms shall be equipped with all elements required for personnel hygiene, comfort, ventilation and protection against the weather.

The camp shall be located at a site agreed on by the contractor, the Battalion Commander and the COR. The contractor shall be responsible for the security of the elements deposited at this site and shall remove the camp upon completion of the work, leaving the area in the same condition as when it was delivered.

##### Provisional bathrooms

The Contractor will provide provisional bathrooms for the physiological needs and personal hygiene of the personnel or will build them with materials similar to the materials of the camp. It won't be permitted to build septic systems or to pour the residual waters product from personnel cleaning or work elements cleaning.

##### Provisional installations

The Contractor will submit a drawing with location of the camp, fencing of the construction site and temporary services (water, energy, telephone, etc.), before starting its installation, for the approval of the COR. All the installations must be removed by the contractor with the approval of the COR when the works are finished. The site will be left as it was found before the start of the constructions, with grass, sidewalks, etc. This removal, along with the installation will be quoted at a global price and will be included in the total cost of the project.

##### Provisional services

The eventual supply of any service by the final user to the contractor will be a not conditioned help and its eventual suspension won't give place to any claim by the contractor. The contractor must provide alternative services for these situations.

##### Security of the construction site

The Contractor must supply the services of security of the construction site and the camps. The Embassy and the final user will not be responsible for the payment of the security services nor for the elements left at the construction site.

##### **1.2 Provisional fencing**

The work site shall be completely isolated from zones or roads surrounding the same. Similarly, if a materials storage area is built, this shall be fenced off in the same manner. A fence will be built for this purpose, consisting of synthetic canvas with wooden posts every two meters, kept taut by means of wires at the top, middle and bottom. Props shall be fitted both side of the access door and whenever there is a change of direction. This fence will have one access point only, a double door through which machinery, vehicles and personnel will enter. While the works are in progress, the contractor will ensure that the fence is maintained and repaired, so that it is always in the best condition.

##### **1.3 Location and replanting**

This item refers to the use of precision topographical instruments in the area to be constructed. This work shall be done by a qualified professional, who must determine the levels in addition to the ground plan.

The contractor shall supply all materials required to establish the planimetric and altimetric benchmarks, such as stakes and field books, etc. The COR may review the location of the axes. However, this does not exonerate the contractor from his responsibility for errors in locating or leveling any portion of the work. Prior to locating and laying out the work, the necessary datum or tie points, both horizontal and vertical, as well as the boundaries of the terrain to be occupied must be defined and approved.

The temporary BM and reference axes are to be placed at sites where they do not interfere with the execution of the work and need not be moved, so as to permit their subsequent control at any point during the course of the work. No marks made with paint of any type, scratches, nails, centering, etc. will be permitted on any current building or structure. Once the layout is complete, the contractor shall submit a scheme for approval, including the location of existing structures and vegetation.

The area of long weapons range is 100 m. length x 50 m. width

The area of short weapons range is 25 m. length x 25 m. width

## **2. EARTHWORK**

### **2.1 Excavation**

The contractor shall make the excavations necessary to execute the works and shall be prepared to excavate in any type of material, using the appropriate methods, equipment and tools. When starting to excavate, the contractor shall have on hand the study of aerial, surface or underground interference, so as not to damage pipes, boxes, wiring, posts, hoses, wells or other elements or structures existing in the work area or adjacent to it. Should the excavation interfere with sewers or pipes, the contractor shall build adequate support or protection for these installations.

The depth of the excavations and fills will vary according to the works to be executed and the calculations done by the Contractor. The excavated material will not be stored in the top of the excavation. It will be lifted immediately to the trucks and transported to an authorized dump located outside the Battalion.

The contractor shall post signs (warning signals) and provisional fencing at all excavation sites. The fencing shall consist of three yellow plastic tape eight (8) centimeters wide and supported by temporary sleepers fastened securely to the ground, placed in order to avoid possible accidents of people, aircraft, vehicles and animals. To prevent their obstruction or damage, the contractor shall keep clear all drains, caps and catch pits in public utility networks near excavation sites.

Any over excavation caused by a cave-in, deficiency of the material existing in the zone or other reasons, will be the Contractor's responsibility, who shall fill at his cost the over excavation with granular material previously approved, until the excavation has the required section.

The material removed from the excavation will be removed as indicated in the general cleaning items. The conduction of surface water and the evacuation of underground water and any other type of water will be the Contractor's responsibility, as will be the supply and maintenance of drainage or pumping systems required to stabilize the slopes and avoid that water get into the excavations.

The contractor shall do cuts on the slopes of the existing long arms range so that they are forming a couple and straight surface in its entire length. The range's area shall be grading with the surface smooth and have a slope of 1 % sideways to evacuate the rainwater. This earthwork is approximately 2225 m<sup>3</sup>.

The short weapons range the area shall be grading, the surface smooth and have a slope of 1 % sideways to evacuate the rainwater.

### **2.2 Filling material**

This item will required the supply, extend and compaction of filling material This item includes the supply of all the labor, materials, equipment and the execution of all the necessary works for the installation of the compacted filling material required by the project. The thickness of the fill will vary according with the area of the foundation, for each of the works. Before initiating the filling works, the terrain that will be the base will be totally clean of any vegetation, organic material and residual material from the construction and the surfaces will not have any inundation or zones with stagnant water.

The filling materials will be obtained from excavations and cuts done in the long weapons range.

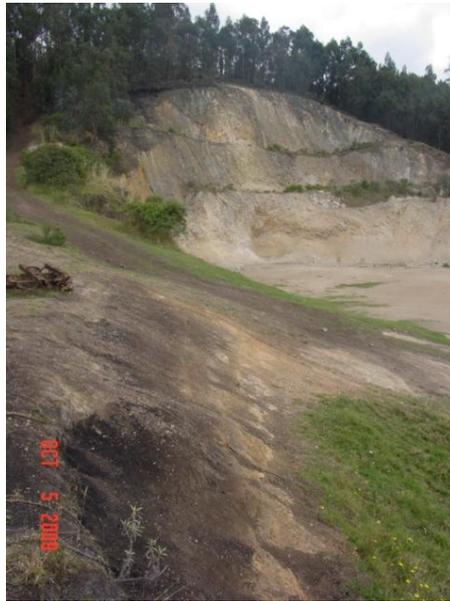
The filling material will be constituted by sandy granular material without organic lime, vegetal material, residues, waste or debris. The filling material will be compacted in symmetric layers.

**NOTE**

- All the works will be realized of such form that it interfere the least possible with the operations and the circulation of the zone.

**LONG WEAPONS RANGE PICTURES**





**SHORT RANGE PICTURES**



