SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

This document shall be read and understood in conjunction with the BOQ, and design drawings provided. The vendor shall consult the supervising Civil Engineer where clarification is required.

1 GENERAL

Together with Section 2 of the ITB/RFQ Document "Instructions to Bidders" this section directs the contractor to the relevant information necessary for pricing the Bills. It is therefore essential that the text contained therein be read in conjunction with the measured items which shall be priced accordingly.

It is assumed that the contractor's supervisory and estimating staff are fully conversant with the normal standards of good workmanship and relevant publications of trade and technical organisations.

2 Project Location

The project is located at Ngarannam, Mafa LGA, Borno State (11°54'45.00"N, 13°34'54.36"E) at the entrance to Ngarannam, Mafa "Maiduguri – Dikwa Road" (Entry into Ngarannam as shown in Figure 1a)

3 SCOPE OF WORK

The scope of work consists of SUPPLY AND INSTALLATION OF HESCO POLICE CHECKPOINT AND ASSOCIATED WORKS AT NGARANNAM, MAFA L.G.A BORNO STATE which includes the below works:

3.1 Supply of HESCO standardized materials

- a. Supply of HESCO materials to construct HESCO sand-filled guard post measuring 4.8m x 4.8m x 2.5m complete with standard HESCO roofing, 1 entrance door and 4windows.
- b. Supply of HESCO materials for the construction of L-U shape barricades of 62.4m length as detailed in Figure 1 (a&b).

3.2 Site clearance

This generally includes clearing of area of 80 sqm measuring 10m x 80m from all forms of trees, shrubs and earth materials and carting away from site.

3.3 Installation of HESCO materials, Drum Barricades and Concertina Barb wires

- a. Installation of HESCO sand-filled material for L-U shape barricades of 62.4m length as detailed in Figure 1Construction of 75.6 m long barricades built with sand filled metal drums including all civil works.
- b. Fabrication of Y-angle iron and Installation of 3layers of concertina to over 62.4m length as provided in the drawings.

3.4 Construction of Armored Vehicle/Gun Truck Carport:

Construction of car port measuring 4800mm x 4400mm x 150mm concrete plinth on 450mm block work and having 100mm round metal galvanized pipes as columns as shown in attached design drawings. Figure 2. All necessary civil works for the foundation including block works, filling with boulders, ramming and concrete overlayed shall be according to the supervising engineer's instruction.

3.5 Construction of VIP Toilet/Bathing Shelter:

Construction of VIP Toilet/Bathing shelter measuring 2400mm x 1200mm with superstructures made of 0.55 gauge long span aluminum as walls and 50 x 50 x 2.5mm square pipe as columns with bracing timbers. Pit excavation details measuring 2200mm x 2685mm x 3000mm and other details as provided in the attached design drawings. *All necessary civil works for the foundation including block works, filling with boulders, ramming and concrete overlayed and location/sitting of the VIP toilet/Bathing shelter shall be according to the supervising engineer's instruction.*

4 DELIVERY PERIOD

The delivery period for all the items mentioned in the scope of works, BoQs and drawings is **Eight (8)**Weeks as per the below schedule.

Table 1: Contract Duration

Activity	Duration /Time	Responsible Unit/Reporting		
Signing the new contract or Variation Order	Within 1-week of awarding the contract	Procurement/Vendor		
Handing over the site	Within 1-week after signed contract	Engineering Team/Govt. Partner		
Mobilization	Within 1-week of site handover	Contactor and engineering team		
Works' commencement date	End of Mobilization Period	Engineering Team/Vendor		
Works' duration	3 weeks from site handover date	Contractor/Supervising Engineers		
Project closure and hand over	8Weeks from contract signed Date	Engineering Team/Govt Partner/ Vendor		
Defect period	24 Weeks after project closure and handover	Engineering Team/Govt Partner/ Vendor		

5 TECHNICAL SPECIFICATIONS

5.1 GENERAL SPECIFICATIONS

- 1. All works and processes shall be carried out using equipment, tools and methods that comply with applicable construction Health, Safety and Environmental regulations, standards, and policies. The use of PPE, safety caution tapes and symbols are mandatory. Safety first!
- 2. All excavations, demolition works, removal & arranged construction materials must be clearly encircled with safety caution tapes during works.
- 3. Ordinary Portland cement shall be used for all masonry and concrete works and must be lump free.

- 4. Fine aggregates for filling of HESCO shall be sieved and free of organic matter and other impurities.
- 5. Water-Cement ratio by weight shall not exceed 0.55. The quantity of water used in the mixing of the concrete must be adequate to ensure proper hydration of the cement and to bring the mass to a proper consistency and to a workable mix.
- 6. Concrete shall be placed gently and not tipped or dropped from a height, it shall then be thoroughly rammed into positions to fill the forms and surround the reinforcement without displacing it and without the formation of voids or cavities.

5.2 Alternative materials, components and goods specified

- HESCO has a standardized material which must be supplied to site with contractor bearing the cost of shipment, clearing and all import duties.
- Wherever materials, components, and goods, whether basic or proprietary, are specified the Contractor may, subject to approval in writing, use materials, components and goods from an alternative source providing the quality, properties and design are similar.
- All materials, components and goods shall be used and fixed in an approved manner and, where applicable, in accordance with the manufacturer's instructions.

5.3 Measurement and Valuation

This contract will be Fixed Sum or Lump Sum Contract such that payments will be based on agreed milestones. Measurement and valuation process will involve checking and verifying that the milestone against which payment claim is made, is indeed complete and in accordance with the requirements of the specifications.

5.4 Tests on Completion

The contractor shall submit to UNDP designated engineer, not less than 7 days before the date the contractor intends to commence the Tests on Completion a detailed programme showing the intended timing and resources required for these tests.

As soon as the Works have, in the Contractor's opinion, passed the tests on Completion, the contractor shall submit a certified report of the results of these tests to the Engineer. The Engineer shall review such a report and may give a Notice to the contractor stating the extent to which the results of the tests do not comply with the contract.

In considering the results of the tests on completion, the engineer, shall make allowance for the effect of any use of the Works by the beneficiaries on the performance of other characteristics of the Works.

5.5 Taking Over

Upon completion of the works, the contractor shall request for a joint final inspection of the completed works. The Engineer will prepare a punch list where necessary upon conduction the final inspection for the contractor to rectify. Once the punch list has been attended to and works are certified complete then the contractor will hand-over the works to the communities through the district council.

5.6 Defects and Defect Notification Period

A defect in this context is defined as any observance of a physical problem that may cause structural weakness or failure hence less effective for the intended purpose. The defects can either be patent (obvious, easy to fix and often merely aesthetic) or latent (not easy to find and tend to be somehow problematic). Construction defects may arise from the materials used or workmanship during construction.

The works will have a defects liability period of 24 weeks within which any defects arising will be documented and the contractor will be instructed to make good of the same unless the defect is due to a force majeure. Failure to attend to the defects without giving any proper reason will result in forfeiture of the retention money withheld by the UNDP Nigeria.

5.7 closure

Project closure will be upon completion and certification of the works by the engineer designated by UNDP Nigeria who will review and sign off on the deliverables. The completed works will be subject to defects liability period as may be determined in the contract document.

5.8 Insurance

The contractor shall have a "Contractor's All Risks (CAR)" insurance during the execution period for the contract to cover the works, equipment, personnel, other people's lives, and property.

5.9 Liability

The Contractor shall not be liable for the defects arising from the design or specifications. However, the Contractor shall be liable for the defects arising from the materials and workmanship.

5.10 Project Success

Success of the project as expected by the sponsor, beneficiaries and other stakeholders is dependent on completion of all contractual obligations according to the contract, SOW and BOQ. Success, therefore, requires adherence to standards, quality workmanship and use of quality materials during construction.

5.11 Requirements

UNDP Nigeria through their representative will require certifying any completed works in accordance with the milestones before processing any payment for the completed milestone

6 CONTRACT PRICE AND PAYMENT

The Contract Price will be fixed in Nigeria Naira (NGN) and the currency of payment is Nigerian Naira. UNDP Nigeria will pay the Contractor upon completing a milestone as outlined in section 5A (SOW attached) to the ITB. The amounts payable for each completed milestone will be determined at the time of drafting a contract.

6.1 Conditions for Release of Payment

Table 2: Contract Milestone Payments Schedule

Milestone No.	Milestone's Description and Required Activities & Documentations	Payment Amount (NGN)	Completion Date
Milestone No. 1	 20% payment upon completing not less than 20% of contract amount. This includes: Signing the contract Handing over of site/Taking over of sites Supply of HESCO materials as specified in the SoW/BoQ Excavation of pit for Toilets and 20% work progress for Car park UNDP Engineer inspect and certify work done with valuation prepared Submit 20% hard copy invoice and project progress report includes pictures to UNDP Engineer. 	20%	(1-4 weeks from the commencem ent of contract)
Milestone No. 2	 75% payment completing 100% of contract amount <i>plus</i>: Handing over of site/Taking over of site by the contractor Complete 100% items of works as specified in the SoW. UNDP Engineer inspect and certify project as 100% completed. Submit list of workers not less than 30 (with 10% being women) who MUST have worked for minimum of 7Days on the project Submit practical completion report and hardcopy invoice for 75% contract amount to UNDP Engineer. If holding existing contract, Payment milestone shall be according to the milestone of existing contract with UNDP 	75%	(4-8 weeks from the commencem ent of contract)
Milestone No. 3	Final payment which is the retention of 5% shall be paid after post-completion inspection and certification report by the authorized UNDP nominated engineer that defects which occurred within 6 months of practical completion have been satisfactorily repaired.	5%	24 weeks after the substantial completion date.

Note: The Contractor is required to submit a detailed measurement sheet of the actual work done along with each invoice for each milestone approved by the UNDP Engineer. Payment will only be made upon submission of detailed measurement sheet certified by UNDP Engineer.

7 CONTRACTOR KEY PERSONNEL

The following personnel shall be provided for this works only without duplication of personnel in other projects.

a. One (01) Resident Qualified Civil/Site Engineer (Full Time available in the site): A minimum of 5 years work experience in the rehabilitation/construction works & must have handled at least 1 project of similar nature and complexity equivalent to this assignment. Minimum of a bachelor's degree in Civil

Engineering and MUST be ready to reside in Project Location. COREN Registered with CV and certificates provided in the attached UNDP format attached in the ITB document.

b. Two (02 Foremen (Full time available in the site): A Qualified Foremen with 5 years of experience in civil works (construction/rehabilitation), should have minimum of Diploma in Civil Engineering/Building/Architecture with CV and certificates provided in the attached UNDP format attached in the ITB document.

8 COMPANY PREVIOUS EXPERIENCE & FINANCIAL STANDING

Minimum 5 years of relevant experience (Renovation / Construction / Rehabilitation works).

Evidence of Minimum 2 contracts of similar value, nature and complexity implemented over the last 5 years with one (1) of PO exceeding NGN 25,000,000.00.

Statement of Satisfactory Performance/Completion Certificate or substantial completion Certificate from the Top three (3) Clients in terms of Contract Value for similar assignments over the last 5 years.

Please submit Latest Audited Financial Statement (Income Statement and Balance Sheet) including Auditor's Report for the past three years [2018 onwards].

Bidders having completed and certified Audited Financial Statements for 2021 can also submit to be considered for evaluation.

Minimum annual turnover of NGN 25,000,000.00 in the past last 3 years (2018 onwards).

9 General Requirements

9.1 Reports, Meetings and Work-Plan (Time-schedule)

The contractor is expected to submit weekly progress report, mentioning in his report the following:

- The activities which have been done during that week,
- The materials provided to the site.
- The weather conditions,
- The challenges and delay in the project.
- The number of labours for each day of the week.
- Progress of work related to the quantities.
- Photographs showing progress of works.

There will weekly meeting between UNDP engineer and the contractor.

The contractor is expected to follow submitted and approved work schedule (work-plan) and changes should be communicated and approved by Supervising Engineer before proceeding.

The contractor must submit the milestone progress report with each request for milestone payment. The Asbuilt drawings should be submitted with the progress report of milestone No. 3.

9.2 Health and Safety

The contractor is fully responsible for the safety of operations in the site.

Contractor must follow the below:

- 1. Provide his staff with PPEs, helmet, vest and safety shoes.
- 2. Provide the project site and the holes with safety tape.
- 3. Provide first Aid kit to the site.

9.3 COVID 19

Complying with Covid-19 protection measures on site is mandatory and the Contractor will have to their work in such a way that workflow is not disrupted in the process of adhering to the measures. The contractor must provide his staff with face masks and keep the social distance at work.

The Contractor will observe and follow safety guidelines on the construction site as instructed by the engineer or any party designated by UNDP Nigeria.

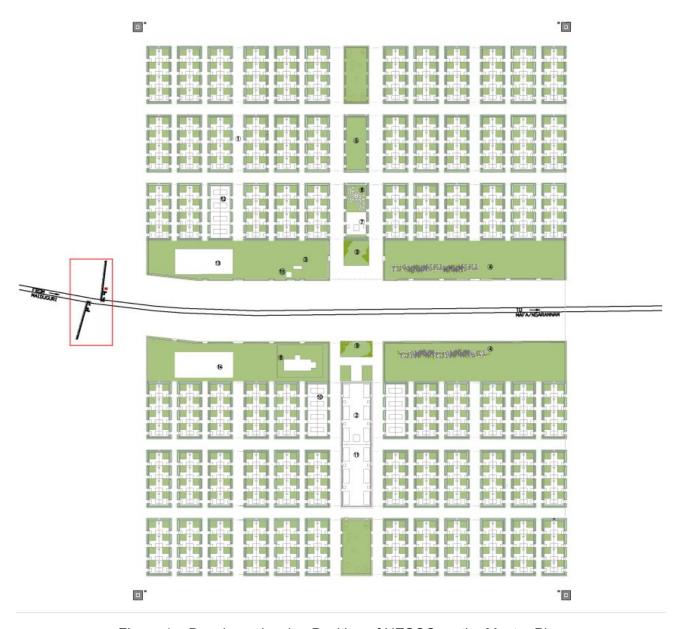


Figure 1a: Drawings showing Position of HESCO on the Master Plan



