

Description of Services Required (Scope of Works)

Purpose of Assignment:

Rehabilitation and upgrading of the existing UN House 202m exit gravel road to bituminous standard.

Scope of Works:

The scope of work shall include the following:

- a) The rehabilitation and upgrading of the existing 202m exit gravel road to bituminous standard.
- b) Construction of paved bell mouths for selected property access points along the road.
- c) Construction of a V-shape earth side-drain on both sides of the road with kerbs equally on both sides along its alignment; the earth drain will discharge into the municipal drain.
- d) Installation of road signage.

Contractor's Responsibilities:

The Contractor will be responsible for the following:

- a) The Contractor shall develop and submit a Construction Method Statement (CMS) for review and approval by UNDP prior to the actual commencement of work. The Construction Method Statement (CMS) shall include the following:
 - Construction programme
 - Broad plan of the construction works, highlighting the various stages and their context within the whole project
 - Details of the Environmental Management Plan, including restricted operations, site access and housekeeping procedures
 - Health and Safety (H&S) Management Plan
 - Quality Management Plan (QMP)
 - Site working hours
 - Details of operations likely to result in disturbance, with an indication of the expected duration of each phase with key dates. This should include a procedure

for prior notification and relevant statutory and non-statutory (including neighbours) parties so that local arrangements can be agreed upon.

- b) The Contractor shall provide technical supervision, skilled manpower, tools, equipment and suitable highest quality materials necessary to complete the works. The following will be the minimum required technical supervision and manpower required from the Contractor:

- Project Engineer
- Site Civil Engineer
- Quantity Surveyor
- Road surveyor
- Earthworks Foreman
- Asphalt Foreman
- Materials Technician
- Health, Safety, And Environment Officer
- Construction Equipment Operators
- Construction Laborers

- c) The Contractor shall immediately notify the UNDP Facilities Manager upon coming across any utility services before, during and after the course of works.
- d) The Contractor shall be responsible for obtaining the necessary and required permits covering the works from state agencies and local units of government.
- e) The Contractor shall provide as-built drawings of all construction works upon completion.
- f) The Contractor shall ensure that the materials and workmanship needed to complete the project are of high quality and acceptable to the UNDP. All materials whose pot life has expired shall be rejected and removed from the site.
- g) The Contractor shall be responsible for and comply with standard safety requirements (safety shoes, vest, hard hat, safety harness, lifeline) in working areas; any equipment or work considered dangerous shall be immediately discontinued.
- h) At all stages of the project and after completion, all damaged or altered areas of the premises shall be touched up and restored at the Contractor's expense. All methods of repair and reinstatement must be acceptable to the UNDP.

Delivery, Storage and Protection:

- a) All materials to be used on-site shall have to be opened and approved in the presence of the UNDP Facilities Manager as per an agreeable consignment quantity before use.
- b) Products, equipment (machinery and tools) and other materials shall be delivered to the site at such a time as required for proper coordination of the work. The premises has minimal storage space and therefore, cannot make accommodations to store materials for an extended period.
- c) All equipment and unused material shall be removed at the conclusion of the project; the work area shall at all times be clean and tidy.
- d) The Contractor shall arrange material and equipment (machinery) storage so as not to interfere with UNDP's or other stakeholder's operations.
- e) Store all materials in properly protected and dry storage facilities until ready for use; installation of used materials will not be accepted.
- f) The Contractor shall be responsible for coordinating and receiving all deliveries and shipments.
- g) The Contractor shall hold UNDP harmless from any loss arising from lost or damaged materials and equipment (machinery and tools) stored at the job site.
- h) All materials shall be stored in a proper manner protected from natural elements to avoid contamination and deterioration.

Quality Assurance and Quality Control:

Soil Tests			
No.	Test Name	Count	Interval
1.	In-Situ CBR Testing	21	<ul style="list-style-type: none">• Prior to commencement of each layer works• Every 30 metres
2.	Compaction test - Proctor density test	12	<ul style="list-style-type: none">• To be tested on every layer after compaction• Every 50 metres

3.	Specific Gravity Test	3	<ul style="list-style-type: none"> • Prior to commencement of each layer works • To be tested on every layer
4.	In-situ Moisture Content	3	<ul style="list-style-type: none"> • Prior to commencement of each layer works • To be tested on every layer
5.	Particle Size Distribution Test	3	<ul style="list-style-type: none"> • Prior to commencement of each layer works • To be tested on every layer
6.	Marshall Test	2	<ul style="list-style-type: none"> • Prior to paving of asphalt
7.	Penetration test of Bitumen	2	<ul style="list-style-type: none"> • Prior to paving of asphalt

- The minimum CBR value for subgrade in cut material shall not be less than 25%
- The minimum CBR value for imported subbase material shall not be less than 20%
- The minimum CBR value for base course material shall not be less than 80%
- The bitumen penetration value should at least be in the range 60/70 or more conforming to the requirements of AASHTO M20 at standard test conditions
- The emulsion for prime shall be in accordance with AASHTO M140 or M208
- The imported aggregate shall have good adhesion to bituminous material and durability for heating. They shall also have sufficient uniformity, cleanliness, strength, durability and be free of deleterious quantity of flat or elongated particles, dirt, mud, organic matters etc
- If quality control tests show that the scarified and processed in-situ subgrade material cannot achieve the required compaction, the layer shall be replaced with suitable excavated material
- The thickness of the finished layers shall be checked every 25 metres
- Any imported material that does not meet the requirements highlighted in the SoW and relevant road construction standards and specifications shall be removed from the site and replaced with suitable material at the Contractor's expense.

Warranty:

The contract further guarantees that if, during a period of 12 months from the date of the certificate of practical completion any such defects will be repaired by the contractor at his own cost.

Timeframe:

The estimated timeframe for this assignment is 5 weeks from the commencement of work.

Payment Schedule:

Payment will be done in percentage milestones in the following breakdown:

No.	Milestone/Deliverable	Percentage (%)	Expected Due Date
1	Site mobilization	50	≤ Day 5 weeks
2	Completion of works	45	
3	Retention payment	5	12 months From the date of practical completion

Type of Supervision:

The proposed works will be supervised by the UNDP Construction and Facilities Management Analyst.

Eligibility Criteria:

- Minimum of 5 years' experience in the provision of construction and civil engineering services.
- Project Engineer/Expert with a minimum of 5 years' experience in the provision of construction and civil engineering services.
- 3 references for similar work performed within the past three years.

Certification:

- Registered with the Engineering Institution of Zambia.
- Registered with the National Council for Construction (NCC) under grade 5R or above.

Evaluation Criteria:

Technical Proposal Evaluation		Score Weight	Points Obtainable	Company		
				A	B	C
Expertise of Firm / Organization						
1	Minimum of 5 years' experience in the construction of roads or standalone infrastructure such as bridges, road over bridges	40%	10			
Expertise of Personnel						
2	Project Engineer/Expert with a minimum of 5 years' experience in the design and supervision of roads or standalone infrastructure works such as bridges, road over bridges	30%	10			
Quality Management Plan (QMP)						
3	Quality assurance and quality control	10%	10			
Proposed Work Methodology and Timeframe						
4	Program of works/ Implementation schedule	10%	10			
Health and Safety Plan						
5	Health and safety Management strategies and implementation plans that will apply to its employees and subcontractors to ensure compliance	10%	10			

	Total	100%				
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