


Government of Nepal
Ministry of Industry
Special Economic Zone Development Committee
Babarmahal

Procurement of Works
(National Competitive Bidding -NCB)
for
Construction of internal roads and land development works
inside Garment Processing Zone of Simara SEZ, Simara,
District Bara

(Technical Specification)
(VOLUME – II)

Contract Identification No. : MOI/SEZDC/Works/41-073/74

Issued on:

Invitation for Bids No.: 42-073/074

April 2017

The standard specification for this contract will be "STANDARD SPECIFICATION for Road and Bridge Works" published by GoN, Ministry of Physical Infrastructure and Transport, Department of Roads (DoR). The contractor is required to purchase the book at his own cost.



Section – 5(b2): Special Specifications

INTRODUCTION

- A. These SPECIAL SPECIFICATIONS shall take precedence over the following document in so far as the following additional Clauses, amendments, deletions, substitutions and additions are applicable:

STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES published by GoN, Ministry of Physical Infrastructure and Transport, Department of Roads.

These Special Specifications form part of the Contract Documents as Volume II, Section 5(b2): Special Specifications.

- B. VARIATIONS TO THE STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES

These SPECIAL SPECIFICATIONS contain:

- Elaboration on the requirements of the Standard Specifications.
- Changes to the Standard Specifications, and
- Specifications for the item those are not included in the Standard Specifications.

The following sections are arranged in the same order as the main parts of the Standard Specifications.

Materials and equipment complying with equal or higher published standards to those quoted in the Standard Specifications and Special Specifications will also be accepted subject to the approval of the Engineer.

- C. LAND FOR WORKS



The land available to the contractor free of charge shall be that to be occupied by the permanent works. Any extra land required for temporary works diversion, access roads, camp-establishments and for his own uses and conveniences will be arranged and managed by the Contractor at his own risks and cost.

SECTION 1 GENERAL

This section covers matters, which relate to the construction work as a whole. Definitions, phrases or wording which would otherwise require repetition in other sections of the Specifications are also covered by Clauses in this section.

If particular standards to which equipment or materials must comply are cited and the Contractor wishes to use goods complying with other standards, such standard must be of and equal or higher quality than the standard mentioned. Such goods will only be accepted with the prior agreement of the Engineer.

1.1 OFFICE FOR RESIDENT ENGINEER

Offices for Engineer's Representative

General

The contractor shall provide and maintain site office at Simara, Vehicles, Furnishings and Equipment's for the use of Engineer's Representative as described herein. The quantity is indicated in the bill of quantities. All facilities provided shall be new.

Site Office

The contractor shall provide a site office for exclusive use of Engineer's Representative. The quantity and units are indicated in the bill of quantities.

The site office at Simara shall be of net area 200 sq.m. Comprising of seven rooms and with a room for laboratory, a storeroom, kitchen and bathroom facilities. The office at Simara shall be provided with air conditioning.

The details of location, layout and type of construction of the buildings that the contractor proposes to provide shall be submitted to the Engineer's Representative for his approval.

In addition to the above, covered parking for Engineer's Representatives vehicles shall be provided adjacent to the buildings.

All rooms of the site office shall be provided with sufficient ventilation, household electrical supply with ceiling lights, A/C and power outlets. All doors shall have a lock with two keys and all opening windows shall be fitted with mosquito screens. All room shall be provided with floor carpets and curtains.

The contractor shall be responsible for providing drinking water for domestic use to the office building and for hygienic methods for the treatment and disposal of water borne sewage, waste water and refuse from the building all to be approved by Engineer's Representative.

The contractor shall be responsible for ensuring that the facilities provided for Engineer's Representative are secure, **employ day and night watchmen** for the office building and take any other measures agreed with the Engineer's Representative.

The maintenance of the office building, furnishing and equipment provided for the use of Engineer's Representative shall be the responsibility of the contractor.

The contractor shall supply all consumable stores including stationary, printed forms, field sheets for the office and laboratory and required by the Engineer's Representative.

The contractor shall **provide one (1) Overseer having experience of Building and two (2) Construction Supervisor** for assistance of Engineer during construction supervision period.

Measurement and Payment

Provide, maintain and supply services to the site office (including laboratory) for Engineer's Representative including personnel indicated above.

The service provided shall be measured in months and paid. The cost of providing, maintaining and supplying services to the site office building and personnel as stated above shall be deemed to be included in the rates inserted under the relevant items of the Bill of Quantities. The quoted rates shall include all expenses as stated in the general preamble to Bill of Quantities.

Furnishing and Equipment

The office and laboratory shall be fully furnished and equipped by the contractor in accordance with the schedules. The details sizes and types of furniture and equipment are given in the schedules are approximate and the contractor shall supply full details of the furniture and equipment which he intends to supply for the approval of Engineer's Representative. Tableware, Carpets, Curtains and other items shall be provided to the satisfaction of the Engineer's Representative.

Schedule of Furnishings and Equipments

The following schedules listing the Furniture and Equipments are attached and the contractor shall provide these for the Engineer's Representatives offices and laboratory.

A. Schedule of Office Furniture of Equipment

B. Schedule of Laboratory Equipment

Note: Where brand/model names are given, they are indicative only of the quantity/standard of the equipment that should be provided and the contractor can propose to provide other brands. Models, all subject to the approval of the Engineer's Representative.

All equipment, except consumable/expendable item shall revert to the contractor's ownership on completion of the contract. The contractor shall be responsible for maintenance and replacement of all item if becomes unserviceable or damaged.

A. SCHEDULE OF OFFICE FURNITURE'S AND EQUIPMENTS

Type	Item Description	No of Items	
A) Furniture	Desk 70x140cm with drawers and locking arrangements	3	
	Arm Rest Chair with Cushion	3	
	Book Shelves	2	
	Filing cabinet with 3 drawers	2	
	Office Chairs	4	
	Steel Almirah locking type	3	
	Upholstered settee (3 seats)	1	
	Upholstered settee (1 seats)	2	
	Double Bed with mattress, pillows and covers	4	
	Single Bed with mattress, pillow and covers	3	
		Coffee Table	2
		Water Filter	5
		Floor Fan	2
		AIR CONDITON	2 SET
		Desk & chair sets for computer and	2 Set

	accessories	
A) Equipment	Laptop Specification Processor – i7, minimum 2.7GHz frequency RAM – 8 GB Graphics Card – 512 MB or higher Hard Disk – 512 GB HDD or 256 GB SSD Screen resolution - 1920 x 1080 (or similar) Ethernet Cable support – Yes USB ports – Yes, Multiple Operating System - Windows 8 or higher Softwares – Anti-virus, Microsoft Office 2016	3 Set
	Printer: HP Laser Jet 1100	2
	UPS Smart UPS (600 VA)	1
	Voltage Regulator 1 KVA	2
	Inverter Back up	1
	Programmable Calculator: Casio-PB 2000	5
	Total Station with Standard Accessories with 2 spare battery and Aluminium Tripod	1 Set
	Single Prism with Tribrach Complete Set	2
	3 mtr. 3 Section Aluminum Ranging Rod	2
	Level With Stand	1 Set
	Metal Leveling Staves 5 m Telescope	2
	Fibre Tape – 50m	1
	Fibre Tape – 30m	1
	Metal Tape – 5m	2
	Ranging Rods 2m	4
	Drawing Board	1
	Survey Umbrella	1
	Clip Board and materials as required	2
	Heavy Duty Punching Machine	1
	Heavy Duty Stapling Machine	1
	Miscellaneous Office Items Including Staplers, Punchers, Files, Waste Paper Baskets Etc.	As required

Note: Stationary and other office consumables are to be provided under the relevant items in the bill of quantities.

B: SCHEDULES OF LABORATORY EQUIPMENT

The following items of laboratory equipment shall be provided in the laboratory, as a minimum, however, this does not relieve the Contractor of his responsibility to equip the laboratory with all equipment needed to perform the full range of tests required by the Specification:

S.No.	Particulars	Nos
1	Generator 10 KVA sound proof with establishment and wiring all complete as instructed and directed by the Engineer	1 set
2	CTM (Automatic) 1500 KN Capacity (Compressive strength)	1 set
3	Mortar Vibrator	1 set
4	Cone Penetrometer (IS 11196) for Atterberg Limit Test	1 Set
5	Hot Air Oven 24 inch * 24 inch	1 Set
6	Proving Ring 30 KN	1 Set
7	Ductility Test Apparatus for Bitumen	1 Set
8	Softening Point Apparatus for Bitumen	1Set
9	Lechatelier Apparatus for cement soundness test (IS 4031)	1 Set
10	Borossil Cylinder 100 ml glass	2 Nos

11	Plastic Limit Apparatus (IS 2720 Part V)	1 set
12	Marshall Moulds 100mm dia	6 Nos
13	Compaction Rammer 4.89 kg	2 Nos
14	Tripod for CBR moulds	3 Nos
15	Sieve 450mm dia – 10mm size opening	1 Set
16	Sieve 200 mm dia – 90 micron size	1 set

The contractor shall also be responsible for all other tests e.g. strength of reinforcing bars, Los Angeles abrasion test, Soundness test, and all other tests as specified by codes, practices and specifications.

The site laboratory equipments shall be the property of the employer till the contract period.

Measurement and Payment

Provide furnishings and equipment to site office (including laboratory) for Engineer's Representative at Simara.

The service provided shall be measured in number of houses to be furnished and equipped.

The quoted rates shall include all expenses as stated in general preamble to bill of quantities.

Regarding consumable supply for office and laboratory shall be measured in each month. The quoted rates shall include all expenses as stated in general preamble to bill of quantities.

Communication Facilities

The site office for Engineer's Representative at Simara shall be supplied with a direct telephone line and internet services (3 mbps speed) for the exclusive use of Engineer's Representative and his staff. The contractor will be responsible for the cost of installation, maintenance and all telephone calls within Nepal.

Measurement and Payment

Regarding supply and maintenance of telephone line the supply of telephone line shall be paid on a lump sum basis and the cost provided for maintenance and payment made for all call charges shall be measured in month basis. It is estimated that the cost for maintenance and payment made for all call charges shall be around Nepalese Rupees 4000.00(Four Thousand) per month.

On acceptance of supply and installation of communication facilities by the Project Manager, 75 % of the eligible quoted amount shall be paid to the contractor. On completion of contract duration, the remaining 25 % of the eligible quoted amount shall be paid to the contractor.

1.2 Supply of Computer with UPS

The contractor shall supply two assembled Desk top computers with multi media set, key board, modems and mouse for the exclusive use of Engineer's Representative and his staffs. The minimum requirements of the computer are given below.

Processor	Intel® Core™ i3
RAM	4 GB
Hard Disc Drive	500 Gb
CD Drive	DVD R/w
Monitor	LCD 17" Colour monitor
Graphics	2 Gb Nvidia or equivalent
Sound Cards	Integrated 7.1 Channel Audio
And	
UPS	Smart UPS (600 VA)

The quantity is as indicated in the bill of quantities. They shall be supplied only on order from the Engineer's Representative and will remain the property of the .

Measurement and Payment

Supply of computer for Engineer's Representative shall be measured in number supplied. And be paid as inserted under the relevant items of the bill of quantities. The quoted rate shall also include all expenses as stated in the general preamble to bill of quantities.

1.3 Supply of Laptop Computer

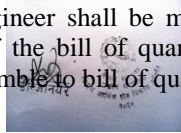
The contractor shall supply branded Laptop computers with carry bag, adaptors for the exclusive use of Engineer and his staffs. The minimum requirements of the Laptop computer are given below.

Processor	i7, minimum 2.7GHz frequency
Operating System	Genuine Windows 10, 64-bit
LCD Panel	Glossy, widescreen 15.4 inch display (1280x800)
Memory	6GB
Hard Drive	Min 500GB
Graphics	2 GB Nvidia or equivalent
Sound Card	High Definition Audio 2.0
Wireless Networking Cards	Wireless-N Card
Battery Options	56 Whr Lithium Ion Battery (6 cell)
System Color Option	Any

The quantity is as indicated in the bill of quantities. They shall be supplied only on order from the Engineer's Representative and will remain the property of the SEZDC.

Measurement and Payment

Supply of Laptop computer for Engineer shall be measured in number supplied. And be paid as inserted under the relevant items of the bill of quantities. The quoted rate shall also include all expenses as stated in the general preamble to bill of quantities.



1.4 Vehicles

(Supply of Vehicle)

The contractor shall supply the following type's vehicle for the exclusive use of Engineer's Representative and his staffs. The minimum requirements of the vehicle are given below.

Displacement (cc)	>3500cc
Air Bag	Not less than 2
Engine type	Diesel Turbo
Wheel drive	4-wheel drive
Door type	4 doors
Front Suspension	Suspension with gas dampers, coil spring and joint mounted stabilizer bar
Rear Suspension	Coil Spring, gas dampers and rubber mounted anti-roll bar
Font Brakes	Disc
Rear Brakes	Disc
Ground Clearance	Min. 200 mm
Fuel Tank Capacity	Min. 90 liter

The quantity is as indicated in the bill of quantities. The Vehicle shall be supplied only after the order from the Engineer's Representative.

Measurement and Payment

Supply and transfer of vehicle for Engineer's Representative shall be measured month. It is the quantity is as indicated in the bill of quantities. The vehicle shall be supplied only on order from the Engineer's Representative.

1.5 PROGRESS PHOTOGRAPHS and VIDEO CASSETTES

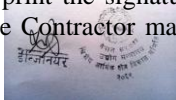
The Contractor, shall supply digital and uncounted positive colour prints of all photographs, of such portions of the Works in progress and completed, as may directed by the Engineer and specified herein. The digital and print shall not be retouched. The digital of each photograph shall be the property of the employer and shall be delivered to the Engineer's Representative with prints. No prints from this digital shall be supplied to anyone without the written permission of the Engineer. The photographs shall be of two categories:

- (a) progress photographs (not less than 10 photographs monthly)
- (b) Video cassette (not less than 3 for the total project)

Both categories of photographs shall be properly referenced to the approval of the Engineer and on the back of each print shall be recorded the date of the photograph and the direction in which the camera was facing and identifying description of the subject and the reference.

The Contractor shall supply eight prints of each progress photographs taken at location and times determined by the Engineer.

Photographs taken for the record purposes as ordered by the Engineer shall be supplied with three prints, having on the reverse of one print the signature of the Contractor and the Engineer for the purpose of attestation. If required, the Contractor may at his own expense have an additional print similarly attested for his retention.



Payment

Payment shall be made for providing photographs and monthly albums as stated above and shall be considered to be included with other related items of the work in the Bill of Quantities.

1.6 NIGHT WORKING

The Contractor may be permitted to carry out restricted work during the night. In this respect, the Contractor shall submit full details of the methods of working and lighting and any other information, which the Engineer may request. The Contractor shall use the lighting (including guiding light) and safety apparatus as necessary to carry out the works. No night working shall be carried out without the Engineer's approval and the Engineer has the right to withhold or withdraw approval if, in his opinion, such work presents undue hazard or disturbance to the public, or in any other way is unsatisfactory.

Without prejudice to the foregoing paragraphs, work, which may be considered suitable for night working includes site clearance, general earthworks, and preparatory work for concreting temporary works and diversion of local services.

When working at night, red lanterns or warning lights of similar type shall be mounted on barricades and kept lit throughout from sunset to sunrise.

The Contractor may be permitted to make road closures during night (from 9 P.M. to 4 A.M.) with the prior permission of the Employer. In such case the Contractor shall submit the times and period of closures to the Employer at least 14 days in advance, to enable the Employer to issue relevant notices.