



**Republic of Moldova  
Ministry of Transport and Road Infrastructure  
State Road Administration**

**and**

**European Bank for Reconstruction and Development**

**ROAD SECTOR PROGRAM**

**Rehabilitation of R14 Balti-Sarateni Road**

**Lot 1: km 26+600 to km 38+300**

**Lot 2: km 43+000 to km 61+000 and  
km 64+370-km 66+657**

**TENDER DOCUMENTS:**

**PART 2 – REQUIREMENTS**

**PREAMBLE TO THE BILLS OF QUANTITIES**

**Tendering No. RSP/2013/OT/W6**

**Invitation for Tenders No. RSP/2013/OT/W6/01-02**

**Chisinau, 2014**

# **PREAMBLE TO THE BILLS OF QUANTITIES**

## **1 GENERAL**

- 1.1 The Bill of Quantities shall be read in conjunction with the Instructions to Tenderers, General Conditions, Conditions of Particular Application, Tender Data, Technical Specifications, and Drawings.
- 1.2 General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. Where summaries of the work covered by the items are given in the item descriptions they are indicative only and the rates entered by tenderers shall include for all ancillary work or materials not specifically stated but implicit in the item of work. Tenderers should refer to the relevant sections of the contract documentation before entering rates or prices against each item in the Bill of Quantities.
- 1.3 The Technical Specification Clause/Item references given in the Bills of Quantities are for the convenience of tenderers and generally refer to the principal relevant specification clause but do not necessarily represent the whole of the specification requirements for the work required within the item. The presence of a Technical Specification clause reference shall not in any way reduce the Contractor's obligation to complete work in accordance with all the requirements of the Specification.
- 1.4 All rates and prices shall be in Euros and stated to two places of decimals. The tenderer shall be responsible for entering a rate or price against all of the applicable and quantified items in the Bills of Quantities. The cost of execution of items against which the tenderer has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bills of Quantities.
- 1.5 The Bills of Quantities, submitted with tenders that are determined by the Employer to be substantially responsive, will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer in accordance with the provisions of the Tender Documents, Part I, Section I, F – Tender Evaluation and Comparison, 29 – Evaluation of Tenders and Correction of Mathematical Errors.
- 1.4 The rates and prices tendered for the execution of the works items and listed in the Bills of Quantities are all inclusive and the Contractor shall be deemed to have ensured the sufficiency of his rates and prices to take account of all things necessary for the proper execution and completion of the works items and activities, the execution and completion of the Works and the remedying of any defects.

1.5 The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bills of Quantities, and where no items are provided the cost shall be deemed to be distributed among the rates and prices entered for the related items of work. The rates and prices tendered in the priced Bill of Quantities shall include for all Costs including but not limited to:

- all costs and expenses required on and for the construction of the Works
- costs of temporary works and installations which may be necessary
- costs of all general risks, liabilities and obligations set out or implied in the documents on which the tender is based
- taxes, duties and other charges for which the Contractor is liable.

1.6 It will be assumed that establishment charges, profit and allowances for the Contractor's obligations (except those covered by specific Bill of Quantities items) are spread evenly over all the unit rates. Without affecting the generality of the foregoing provisions, the rates and prices entered by the Contractor in the Bills of Quantities shall include the cost and expense of the following:

- The provision, storage, transport, use and maintenance of all materials, equipment, machinery and tools;
- The provision, maintenance and welfare of all staff and labour and their accommodation, transport etc, and the supply of all immigration permits and other requirements;
- Condition surveys, measurements, inspections, supervision and any topographical survey and drawing necessary for the execution or measurement of the work;
- The preparation of Construction Drawings as required by the Specifications Sub-sections 006.02, 101.03 and 101.04
- The preparation of Record Drawings as required by the Specifications Sub-section 006.05 and 101.04
- The preparation and compliance with the Environmental Management Plan as required by the Specifications Chapter 016
- The provision, transport, use and maintenance of all consumable stores, fuel, water, drainage, electricity and telephones, including those required under the Contract by the Engineer and his staff;
- Initial condition surveys of roads to be used by the Contractor for transport and access to the site, the installation of additional safety provisions on such roads, as necessary, and the rectification of any damage to such roads;
- Care of the properties, the safety and the rights of others;

- Sampling, testing and trials, including trial lengths of pavement and checking information given by the Engineer;
- Commissioning and testing of Plant, pipelines, structures and other major components provided under the Contract;
- Damage caused to the works under construction, equipment, materials and consumable stores by weather conditions within the 95% range of normal statistical occurrence probability;
- The provision, erection and removal of all Contractor's offices, equipment yards, stores and temporary works, including fencing and all site restrictions;
- Repair of the Works during the Defects Notification Period;
- The additional costs of the Engineer's supervision of the Works when extended working hours and/or weekend working is permitted;
- The rates shall not include for items for which provisional items are inserted.

1.7 Incidental activities may be required in order to execute and complete the works activities, to execute and complete the Works and to remedy any defects, in accordance with the Contract and with the intentions of the designs. Where any such incidental activities are not expressly included within the specifications applicable to the rates and prices tendered, the cost of all such incidental activities shall be deemed to be included for within the rates and prices listed in the Bills of Quantities.

1.8 Certain items in the Bills of Quantities shall be known as 'fixed rate items' and for the purposes of evaluation in accordance with Sub-Clause 12.3(a) of the Conditions of Contract such items shall not be eligible for consideration of a new rate or price in the event of a change in the quantity of work payable against the item. Fixed rate items in this Contract are:

- Items which apply to machine laid asphaltic material in regulating, binder and wearing course layers;
- Items which apply to the cleaning and sealing of cracks in the asphaltic surfacing;
- Items which apply to the provision and placing of stress absorbing membrane interface (SAMI) layers.

## **2. QUANTITIES AND MEASUREMENT OF WORKS ITEMS**

2.1 The quantities given in the Bills of Quantities are estimated and provisional, and are given to provide a common basis for tendering. The basis of payment will be the actual net quantities of work executed in accordance with the Contract and the Instructions of the Engineer (subject to the Employer's approval), with any defects remedied.

- 2.2 There is no guarantee to the Contractor that he will be required to carry out the quantity of work indicated under any particular item in the Bill of Quantities or that the quantities will not differ in magnitude from those stated in the Bills. The Contractor shall promptly notify the Engineer, with a copy to the Employer requesting authorisation to proceed, of differences between the listed quantities in the Bills of Quantities and the prospective actual quantities which would increase the Contract Price.
- 2.3 The procedure for determining the works quantities for execution shall be as follows:
- A comprehensive initial condition survey of all of the existing elements of the highway shall be jointly carried out by the Engineer, the Designer's Representative and the Contractor.
  - The Contractor shall carry out an initial topographical survey of the highway, verified by the Engineer, carry out a comprehensive photographic survey and prepare strip plans to clearly differentiate between defects included for by the designs and any requirement for additional works.
  - The Contractor shall prepare Draft Construction Drawings, which correct the defects and minimise the estimated Cost of the works to be executed. The Contractor shall submit his Proposal for construction (in accordance with the Draft Construction Drawings), with a detailed Cost analysis and a Programme for execution within the Time for Completion.
  - The Designer's Representative shall Review and agree, or provide comments upon, the conformity of the Draft Construction Drawings with the intentions of the Design and verify the Contractor's Cost analysis.
  - The Engineer shall review the conformity of the Contractor's Programme together with the review of the Designer's Representative, require corrections as necessary and, when he determines the Proposal to be technically and financially acceptable, forward the submission to the Employer for approval as a Variation and (subject to the approval of the Employer), issue the Variation to the Contractor as 'Approved for Construction'.
- 2.4 The method of measurement and computations to be used in determination of quantities of materials furnished and of work performed under the contract will be those internationally recognised as conforming to good engineering practice. The quantities will be computed net with no allowance for bulking, shrinkage or waste in accordance with the provisions of sub-para (a) of Sub-Clause 12.2 (*Method of Measurement*), of the General Conditions of Contract : '*measurement shall be made of the net actual quantity of each item of the Permanent Works*'.

- 2.5 Lump sum items shall include but not be limited to the full inclusive cost of all the temporary and permanent work and all attendant activities necessary to complete the item of work to the satisfaction of the Engineer.
- 2.6 Provisional Sum items shall include agreed direct costs charged by suppliers plus overheads established from the breakdown of the bill prices submitted by the Contractor and as agreed with the Engineer.
- 2.7 Except where expressly stated otherwise in the Contract, only the permanent works shall be measured.
- 2.8 The Engineer shall measure the net authorised Works quantities from the approved Construction Drawings having verified the Contractor's certification of conformity of the quantities and quality of the measured works with the Contract. The Engineer's measurement of quantities on site shall be with the attendance and assistance of the Contractor in accordance with the Contract.
- 2.9 For any item for which measurement is based upon records made before or during construction, the records shall be prepared and agreed between the Engineer and the Contractor. Should the Contractor carry out such work without the prior agreement of the Engineer, the Engineer may request the Contractor to carry out investigations to confirm the extent of the work. The quantity of work certified for payment shall be solely at the Engineer's discretion. The cost of any such investigation shall be borne by the Contractor.
- 2.10 Where excavation works are to be measured, the depth of excavation shall be measured from the commencing surface level to the required level of excavated surface and no allowance shall be made for over-excavation or working space.
- 2.11 For measurement purposes, rock is defined as cement concrete or natural material encountered in the course of excavation works which, in response to notification of any such encounter by the Contractor, the Engineer accepts to be too hard to be excavated with the bucket of a 115KW (150HP) tracked excavator. Road pavement layers are excluded from the definition of rock.
- 2.12 The Engineer's authority to authorise Varied works and instruct additional quantities without the approval of the Employer, shall be limited to the percentage of the Accepted Tender Amount as stated in the Tender Data. Excepting as otherwise provided for in the Contract, any executed quantities of unauthorised Varied works shall be to the account of the Contractor and shall not be certified by the Engineer for payment.

### **3 DAYWORKS**

#### **3.1 DAYWORKS – GENERAL**

- 3.1.1 The Bill of Quantities includes Provisional Sums for use when work is to be executed on a daywork basis, only after approval of the Engineer.
- 3.1.2 Rates shall be entered into the Euro/hr column of the Schedules to cover the types of labour and Contractor's Equipment which the Tenderer anticipates using on the Works.
- 3.1.3 The rates entered by the Contractor as part of his Tender will be used to value any work ordered by the Engineer to be executed on a daywork basis. For the purpose of this Schedule the rates shall be deemed to cover:
- Head Office charges;
  - Site Supervision and Site Staff costs and expenses;
  - Transport of labour and travelling allowances;
  - Use of protective clothing;
  - Any statutory or incidental charges levied on the employment of labour;
  - Overtime, unless specifically ordered or subsequently sanctioned in writing by the Engineer;
  - Time lost due to inclement weather;
  - Insurances of whatsoever nature;
  - Holiday and sickness pay or benefits;
  - Use, repair and sharpening of small tools;
  - All non-mechanically operated equipment, erected scaffolding, staging and trestles, protective clothing, artificial lighting, storage facilities and the like that may be in general use on the site;
  - All other liabilities and obligations whatsoever.

#### **3.1 DAYWORKS – LABOUR**

- 3.2.1 The Labour Schedule rates shall include for the amount of wages to be paid to the work people inclusive of all overheads and profit and such extra payments or differentials as are paid in respect of subsistence payments, condition payments, tool allowances, bonus payments, responsibility, discomfort, inconvenience and risk.
- 3.2.2 The Labour Schedule rates shall include the costs in respect of portable tools such as picks, shovels, barrows, trowels, ladders, hand-saws, buckets, trestles, hammers, chisels and all items of a like nature, which for the purpose of work executed on a Daywork basis shall not be considered as Contractor's Equipment.

- 3.2.3 In the case of equipment, operators and banksmen, the payment shall be calculated using the hours actually worked by the associated equipment.
- 3.2.4 No payment shall be made in respect of the net amount of wages of the Contractor's Site Supervisory or Administrative Staff, the costs in respect of which shall be included within the rates for labour contained in the Labour Schedule rates. Gangers or charge-hands working with their gangs shall not be counted as Site Supervisory or Administrative Staff.

### **3.2 DAYWORK MATERIALS**

- 3.3.1 Where materials supplied by the Contractor are used for Daywork, the Contractor shall be reimbursed the actual net cost of the materials, including delivery to the site, plus a percentage of this cost. This percentage shall be deemed to cover the costs of taking delivery and putting into the store or stockpile, storage and all other charges and costs in respect of or incidental to the procurement and handling of such materials and Contractor's overheads and profit.
- 3.3.2 The actual net costs of materials referred to above is the cost less all trade discount but including all discounts for cash not exceeding five percent.

### **3.3 DAYWORK – CONTRACTOR'S EQUIPMENT**

- 3.4.1 Payment in respect of Contractor's Equipment employed in the execution of the work on a daywork basis, exclusive of drivers and attendants but inclusive of fuel and consumable stores, shall be at the rates entered in the Daywork Equipment Schedule.
- 3.4.2 Such rates shall apply to Contractor's Equipment already on the Site at the time of the relevant Engineer's order to execute work on a daywork basis.
- 3.4.3 Payment for mechanical equipment shall be for the actual hours worked only and the time for which Contractor's Equipment is broken down or during which it is being serviced shall not be paid for. Any labour or other Contractor's Equipment engaged on daywork operations which is unable to work by reason of such breakdown or servicing shall not be paid for. The costs of servicing and breakdown time will be deemed to be included in the rates.
- 3.4.4 If the Contractor should use types of Contractor's Equipment for dayworks that are not included in the Schedule, the Engineer shall fix an appropriate dayworks unit rate analogous to the Contractor's Equipment Schedule's rates.
- 3.4.5 The rates shall include for all costs incurred in owning and operating Contractor's Equipment and shall include Contractor's overheads and profit.