PUBLIC WORKS DEPARTMENT
Government of Uttar Pradesh, India

UTTAR PRADESH STATE ROADS PROJECT
Under IBRD Loan No. 4684-IN

Technical Assistance for Implementation of Institutional Reforms in the Road Sector of Uttar Pradesh

REVIEW REPORT ON IMPLEMENTATION OF REVISED CONTRACT, PACKAGING, ENHANCED CONTRACTOR PRE-QUALIFICATION THRESHOLDS/ SELECTION CRITERIA AND TENDERING PROCESS IMPROVEMENTS (FINAL)

Report No. 38

October 2007

LEA International Ltd., Canada
in joint venture with
LEA Associates South Asia Pvt. Ltd., India
in association with
Ministry of Transportation of Ontario, Canada
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<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>ADT</td>
<td>Average Daily Traffic</td>
</tr>
<tr>
<td>AE</td>
<td>Assistant Engineer</td>
</tr>
<tr>
<td>AQC's</td>
<td>Acceptance quality characteristics</td>
</tr>
<tr>
<td>BoQ</td>
<td>Bill of Quantities</td>
</tr>
<tr>
<td>BOT</td>
<td>Build Operate Transfer</td>
</tr>
<tr>
<td>CBR</td>
<td>California Bearing Ratio</td>
</tr>
<tr>
<td>CE</td>
<td>Chief Engineer</td>
</tr>
<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
</tr>
<tr>
<td>CRF</td>
<td>Central Road Fund</td>
</tr>
<tr>
<td>CRPRI</td>
<td>Central Road Research Institute</td>
</tr>
<tr>
<td>DBC</td>
<td>Dense Bitumen Concrete</td>
</tr>
<tr>
<td>DOT</td>
<td>Department of Transportation</td>
</tr>
<tr>
<td>EE</td>
<td>Executive Engineer</td>
</tr>
<tr>
<td>ESALs</td>
<td>Equivalent Standard Axles</td>
</tr>
<tr>
<td>GO</td>
<td>Government Order</td>
</tr>
<tr>
<td>GOI</td>
<td>Government of India</td>
</tr>
<tr>
<td>GoUP</td>
<td>Government of Uttar Pradesh</td>
</tr>
<tr>
<td>GSDE</td>
<td>Gross State Domestic Product</td>
</tr>
<tr>
<td>HDM</td>
<td>Highway Design Model</td>
</tr>
<tr>
<td>HGV</td>
<td>Heavy Goods Vehicle</td>
</tr>
<tr>
<td>HQ</td>
<td>Head Quarter</td>
</tr>
<tr>
<td>HR</td>
<td>Human Resource</td>
</tr>
<tr>
<td>IBRD</td>
<td>International Bank for Reconstruction and Development</td>
</tr>
<tr>
<td>ICB</td>
<td>International Competitive Bidding</td>
</tr>
<tr>
<td>IDA</td>
<td>International Development Association</td>
</tr>
<tr>
<td>IDS</td>
<td>Institutional Development Strategy</td>
</tr>
<tr>
<td>IDSP</td>
<td>Institutional Development And Strengthening Plan</td>
</tr>
<tr>
<td>IRC</td>
<td>Indian Road Congress</td>
</tr>
<tr>
<td>IRI</td>
<td>International Roughness Index</td>
</tr>
<tr>
<td>ISAP</td>
<td>Institutional Strengthening Action Plan</td>
</tr>
<tr>
<td>JE</td>
<td>Junior Engineer</td>
</tr>
<tr>
<td>LCCs</td>
<td>Life-Cycle Costs</td>
</tr>
<tr>
<td>MDR</td>
<td>Major District Roads</td>
</tr>
<tr>
<td>MLA</td>
<td>Member of Legislative Assembly</td>
</tr>
<tr>
<td>MIS</td>
<td>Management Information System</td>
</tr>
<tr>
<td>MOST</td>
<td>Ministry of Surface Transport</td>
</tr>
<tr>
<td>MoSRTH</td>
<td>Ministry of Shipping, Road Transport &amp; Highways</td>
</tr>
<tr>
<td>MoRTH</td>
<td>Ministry of Road Transport and Highways</td>
</tr>
<tr>
<td>MSS</td>
<td>Mixed Seal Surface</td>
</tr>
<tr>
<td>NCB</td>
<td>National Competitive Bidding</td>
</tr>
<tr>
<td>NH</td>
<td>National Highway</td>
</tr>
<tr>
<td>NHA</td>
<td>National Highways Authority of India</td>
</tr>
<tr>
<td>NIT</td>
<td>Notice Inviting Tender</td>
</tr>
<tr>
<td>O &amp; M</td>
<td>Operation and Maintenance</td>
</tr>
<tr>
<td>ODR</td>
<td>Other District Road</td>
</tr>
<tr>
<td>PBC</td>
<td>Performance Based Contracting</td>
</tr>
<tr>
<td>PCC</td>
<td>Project Coordinating Consultant</td>
</tr>
<tr>
<td>PCI</td>
<td>Pavement Condition Index</td>
</tr>
<tr>
<td>PCU</td>
<td>Passenger Car Unit</td>
</tr>
<tr>
<td>PMMR</td>
<td>Performance based Contracting for the Management and Maintenance of Roads</td>
</tr>
<tr>
<td>PMS</td>
<td>Pavement Management System</td>
</tr>
<tr>
<td>PRS</td>
<td>Performance Related Specifications</td>
</tr>
<tr>
<td>PTR</td>
<td>Pneumatic Type Roller</td>
</tr>
<tr>
<td>PWD</td>
<td>Public Works Department</td>
</tr>
<tr>
<td>QA</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>QMS</td>
<td>Quality Management System</td>
</tr>
<tr>
<td>RES</td>
<td>Rural Engineering Services</td>
</tr>
<tr>
<td>RIDF</td>
<td>Rural Infrastructure Development Fund</td>
</tr>
<tr>
<td>RMMS</td>
<td>Road Maintenance Management System</td>
</tr>
<tr>
<td>ROW</td>
<td>Right of Way</td>
</tr>
<tr>
<td>SDBC</td>
<td>Semi Dense Bitumen Carpet</td>
</tr>
<tr>
<td>SE</td>
<td>Superintending Engineer</td>
</tr>
<tr>
<td>SH</td>
<td>State Highway</td>
</tr>
<tr>
<td>SRF</td>
<td>State Road Fund</td>
</tr>
<tr>
<td>SRP-II</td>
<td>State Road Project-II</td>
</tr>
<tr>
<td>TA</td>
<td>Technical Assistance</td>
</tr>
<tr>
<td>ToR</td>
<td>Terms of Reference</td>
</tr>
<tr>
<td>TQM</td>
<td>Total Quality Management</td>
</tr>
<tr>
<td>UP</td>
<td>Uttar Pradesh</td>
</tr>
<tr>
<td>UPSRP</td>
<td>Uttar Pradesh State Road Project</td>
</tr>
<tr>
<td>VOC</td>
<td>Vehicle Operating Cost</td>
</tr>
<tr>
<td>VR</td>
<td>Village Roads</td>
</tr>
<tr>
<td>WB</td>
<td>World Bank</td>
</tr>
<tr>
<td>WBM</td>
<td>Water Bound Macadam</td>
</tr>
</tbody>
</table>
1. BACKGROUND

The Public Works Department, Government of Uttar Pradesh has embarked upon a programme to implement Institutional Reforms in the State road sector under the IBRD loan assistance with the support of wide ranging technical assistance services. In this context TCE Consulting Engineers Ltd and Tata Consultancy Services carried out a study titled 'Policy Support and Institutional Development Study. Based on the recommendations of this study the Institutional Reforms in the Road Sector of Uttar Pradesh project was evolved. One of the objectives of the institutional reforms is the “development of sound and efficient procurement processes”. The specific required output under this objective is to review the report on implementation of revised contract packaging, enhanced contractor prequalification threshold/selection criteria and tendering process improvements.

The intention was that this Report would review an existing report to implement revised contract packaging, enhanced Contractor prequalification thresholds / selection criteria and tendering process improvements. However that report was not written, hence this Report is a review of the existing procurement systems and practices for evolving a sound and efficient contracts procurement process with specific focus on “Implement revised Contract packaging, enhanced contractor prequalification thresholds/selection criteria and tendering process improvements"
2. SCOPE OF SERVICES

The IDS Consultant recommended strengthening the contract procurement process by increasing contract sizes, raising the qualification requirements for Contractors, streamlining the tendering process, and introducing performance based contracting where possible.

GOUP endorsed the IDS study findings on issues relating to PWD contract procurement process and developed the following action milestones in order to implement the IDS Consultant’s recommendations.

1. Review PWD bidding and contract documents to current GOI standards.

2. Implement revised contract packaging, enhanced Contractor prequalification thresholds/selection criteria and tendering process improvements

3. Implement performance based works contracting generally on PWD projects.

In accordance with these action milestones on procurement issues the output of the TA services shall be in the form of reports as listed below:

Report No.21 : Review PWD Bidding and Contract Documents to Current GOI Standards

Report No.38 : Implement revised Contract packaging, enhanced contractor prequalification thresholds/selection criteria and tendering process improvements

Report No.54 : Implement performance based works contracting generally in PWD projects
3. ACTION PLAN

Reports No. 21 and 54 have been prepared and accepted by the relevant Focus Group and the IDS cell of PWD. As evident from the title given under the action milestones, the main emphasis in the output is to cover the following three distinct issues:

1. Contract packaging
2. Enhanced Contractor prequalification thresholds /selection criteria
3. Tendering process improvements.

This Report considers each of these issues in turn which are addressed as follows:

• Review Present practices
• Study other practices in India
• Recommendations
PART A : CONTRACT PACKAGING

A1. INTRODUCTION

The concept of contract packaging whereby more than one sanctioned works are grouped together under one contract package is not customary in the normal PWD contracting system. Under the normal PWD contracting system each individual contract comprises of one sanctioned works. However, on the World Bank funded projects the system of packaging contracts has been adopted by the State. Under the World Bank funded projects the practice of grouping and packaging two or more sanctioned works to form a contract package is generally followed.

A.2. REVIEW OF VARIOUS PRACTICES OF PACKAGING WORKS

A.2.1 PREVALENT PRACTICE IN UP PWD

No specific guidelines are available regarding packaging of more than one sanctioned works under one contract on normal PWD works. In fact the opposite is the case with Government Orders to the effect that sanctioned works must not be split into smaller components.

The packaging of roads by contract under World Bank funded projects is generally based on the capabilities of the Contractors, geographical location, and cost of the road projects. Grouping and packaging of works by contract is also followed in UP PWD for PMGSY projects.

A.2.2 PRACTICES IN OTHER STATES OF INDIA

The practice of packaging more than one sanctioned work into a contract package is generally followed in all those states of India where externally funded, or PMGSY funded, road works are being implemented.

The Roads and Building Department, Gujarat, whilst deciding the packaging of the works under the road maintenance component funded by the WB, due consideration was given to ensure that medium sized local Contractors in the State could also participate in the bidding process.

In the State of Rajasthan besides the World Bank funded projects and PMGSY the concept of contract packaging has been successfully implemented on road repair works, especially where use of hot mix plant and paver-finisher was involved. In a specific geographical region all contiguous Works for renewals and strengthening of road pavements involving use of hot mix plant and paver-finisher were grouped and packaged under suitable sized contract packages for implementation.

For bituminous works use of mechanized construction equipment, such as hot mix plant, paver-finisher and PTR are inevitable, therefore execution of individual small works of low value is not financially viable. By grouping individual smaller works into a contract package the size of the contract becomes financially viable and attractive to the Contractors.
A.2.3 THE WORLD BANK’S GUIDELINES

The World Bank’s guidelines for procurement under IBRD Loans and IDA credits regarding size and scope of individual contracts are given below:

The size and scope of individual contracts will depend on the magnitude, nature, and location of the project. For projects requiring a variety of goods and works, separate contracts generally are awarded for the supply and/or installation of different items of equipment and plant and for the works.

For a project requiring similar but separate items of equipment or works, bids may be invited under alternative contract options that would attract the interest of both small and large firms, which could be allowed, at their option, to bid for individual contracts (slices) or for a group of similar contracts (package). All bids and combinations of bids shall be received by the same deadline and opened and evaluated simultaneously so as to determine the bid, or combination of bids, offering the lowest evaluated cost to the Borrower.

In certain cases the Bank may accept or require a turnkey contract under which the design and engineering, supply and installation of equipment, and the construction of a complete facility or works are provided under one contract. Alternatively, the Borrower may remain responsible for the design and engineering, and invite bids for a single responsibility contract for the supply and installation of all goods and works required for the project component. Design and build, and management contracting contracts are also acceptable where appropriate.

A.2.4 PMGSY WORKS

The Technical Committee for Review of Standard Bidding Document under PMGSY, April 2006, made the following recommendations regarding packaging of works:

Looking to the vastness of the country and different conditions prevailing in various States, it was felt that in some States there will be a need to attract smaller contractors, whereas, in other States medium contractors and in some other States large and very large contractors may be attracted for execution of PMGSY works. At the same time, in some States a combination of various types of contractors could also be necessary. Thus, with a view to attract more contractors, the Committee recommends that the contract packages may be made in following categories:

I. Category 1: Package cost between Rs. 50 Lacs to Rs.2 Crore.

II. Category 2: Package cost between Rs. 2 Crore to Rs. 10 Crore

III. Category 3: Package cost between Rs.10 Crore to Rs.50 Crore.

IV. Category 4: Package cost between Rs.50 Crore and above.
The States may be allowed to adopt category 1 i.e. package cost between Rs.50 Lakh to Rs.2 Crore subject to the following restrictions and reasons for adopting this category of packaging may be recorded:

i. Packaging may be done for the works situated in hilly/scarcely-populated areas.

ii. The State may adopt repackaging in this category with an intention to break the cartel of the contractors (if a cartel formation is detected).

iii. If, tenders are not received, even after three calls.

A.3. IDS CONSULTANT RECOMMENDATIONS

- The department should revise the current contractor enlistment Rules
- Include upward revision of solvency limiting amount, qualified to higher size, and higher security fees to enable the department to award large contracts’
- Add another class AA category to the existing class A, B, C and D in contractor classification to categorize the bigger contractors for handling large works.

IDS Consultants recommendations are not relevant in the context of grouping and packaging of works by contract. Basically all these recommendations of IDS consultant relates to Contractor enlistment rules, therefore they have been included under Rules, classifications and enlistment of contractors for UP PWD.

A.4. RECOMMENDATIONS FOR IMPLEMENTATION

1) Currently there are no directions from the State Government regarding grouping and packaging of contracts for normal PWD sanctioned works. In order to implement such a packaging system the Government must issue the necessary guidelines and directions.

2) The basic principle of grouping and packaging should be with the aim of maximizing the efficiency of the Contractor by avoiding as far as possible geographical dispersion of road sections, and promoting some degree of specialization for different road types, (for example paved/unpaved, or high or low traffic.).

3) Renewal and/or periodical repair works requiring use of hot mix plant, paver-finisher, and compaction equipment should be invariably grouped or packaged as per principle listed above.

4) The minimum size of a contract package in a geographical region should not be less than Rs.1.00 crores. The maximum size of contract package should not be more than Rs.10 crores. Packaging may be done on the following basis:

Package cost between Rs. 1.00 crores to Rs.5 Crore, and

Package cost between Rs. 5 Crore to Rs. 10 Crore.
5) For a project having large number of similar type of works (construction, rehabilitation, maintenance) in the same geographical region, packaging of works may be done in such a manner that would be attractive to both small and large Contractors.

6) To keep strict watch on the cost of individual works, the BoQ for each individual work should form part of contract.

7) Grouping and packaging as a network may also be adopted for performance based contracting system.
PART B : ENHANCED CONTRACTOR PREQUALIFICATION THRESHOLDS / SELECTION CRITERIA

B.1. INTRODUCTION

The issues related to enhanced Contractor prequalification / selection criteria are listed below and discussed in the following Sections:

B.2 Rules, Classification, and Enlistment of Contractors
B.5 Prequalification of Contractors
B.6 Post qualification of Contractors.

B.2. RULES, CLASSIFICATION, AND ENLISTMENT OF CONTRACTORS

Under the current regime of UP PWD, Contractors must first register and once their registration had been approved they are enlisted with UP PWD and become eligible to bid and execute the normal PWD works. Basically, the objective of registration of the Contractors in PWD is to ensure that the Contractors available for executing the Public works are adequately experienced, equipped and financially sound to meet their contractual obligations.

Based on the strategic importance of the construction sector in the development of any nation, particularly in the road sector, there is need to ensure that there is in place a sustainable contracting capacity to carry out construction works. Further, for sustained improvement in project implementation, the development of a contracting industry in the highway sector is an imperative. Development of the contracting industry in the State of Uttar Pradesh is comparatively slow. Quite a large number of contractors registered with PWD are not able to keep pace with the developments in the State in that they are still following the traditional system of construction where emphasis is primarily on quantity with quality of secondary importance. It is essential to revamp the registration/renewal/up-gradation system of contractors so that the PWD can enforce quality systems in the construction of highways and roads.

Selecting criteria on which to evaluate a Contractor's ability should be based on the principle of commonality. Every endeavour should be made to develop a common set of criteria on which to determine the capability of a Contractor. As far as possible these criteria should be 'common' to most Contractors and not specific to just a few of them. They should be measurable, relevant, and provide the PWD with a clear concept of the capability of each and every Contractor. Spurious factors, such as the number of specific items of plant owned by a Contractor, should be avoided. What is more important is the work history of a Contractor and his proven management capability.

A common set of Contractor capability criteria could be developed by applying factor analysis, and analysing each Contactor's capability under such headings as 'engineering/construction', 'procurement/contract', and 'project managers' etc. A first step in the direction of enhancing the Contractor's prequalification thresholds /selection criteria is to revamp the registration / renewal/ up-gradation system of Contractors in UP PWD on the basic principle of commonality.
B.2.1 RULES, CLASSIFICATION, AND ENLISTMENT OF CONTRACTORS FOR UP PWD

As part of this process UP PWD’s current ‘Rules, Classification and Enlistment of Contractors’ was reviewed and comments for improvement have been made as appropriate.

B.2.1.1 Key requirements in UP PWD for enlistment:

The current ‘Rules, Classification and Enlistment of Contractors for UP PWD’ were enacted vide Government Order No. 2365 MS/23-P.W.-41 MS/1954 dated 24th August 1982 and Engineer – in- Chief’s letter No.362 MTG/70 F-68 dated 8th October 1982. Subsequently these rules were amended by the Government vide circular No. 3503/23-7-2002 –41 SSA/54 PW Section –7 dated 12th September 2002. Presently the classification and enlistment of contractors in UP PWD is governed by these rules.

The Contractors are enlisted in the following categories based on type of works to be undertaken:

- Buildings,
- Bridges,
- Roads works,
- Sanitary and water supply
- Electrical works
- Mechanical works

The Contractors are classified according to technical capacity, equipment finance, and track record. Each category of Contractor is further classified into four classes i.e. A, B, C and D according to the upper financial limit of the works for which an enlisted Contractor of a particular class is eligible to participate in the bidding process. The maximum amount for which the registered Contractors of all categories and classes are eligible to participate in the bidding process is given below in Table No. B.1.

Table No. B.1 : Maximum Amount for which each Category and Class of Contractor is eligible to bid

<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Category</th>
<th>Maximum amount in Rs Lacs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>A Class</td>
</tr>
<tr>
<td>1</td>
<td>Building</td>
<td>More than 50</td>
</tr>
<tr>
<td>2</td>
<td>Bridge</td>
<td>More than 50</td>
</tr>
<tr>
<td>3</td>
<td>Roads</td>
<td>More than 50</td>
</tr>
</tbody>
</table>

The requirements for registration for various categories and classes of Contractors are given in Table No. B.2.
Table No. B.2 : Contractor's Requirements for Registration

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Category</th>
<th>Class A</th>
<th>Class B</th>
<th>C Class</th>
<th>D Class</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Solvency</strong></td>
<td>Building</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>Minimum amount for solvency for enlistment of each class in Rs lacs</td>
<td>Bridges</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>Roads</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>Experience of Works execution</strong></td>
<td>Buildings</td>
<td>20</td>
<td>10</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Minimum value of each of the 5 No. works that should have been executed successfully in Rs in lacs</td>
<td>Bridges</td>
<td>20</td>
<td>10</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>Roads</td>
<td>20</td>
<td>10</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>General Security amount Rs</strong></td>
<td>Building</td>
<td>250000</td>
<td>100000</td>
<td>37500</td>
<td>12500</td>
</tr>
<tr>
<td></td>
<td>Bridges</td>
<td>250000</td>
<td>100000</td>
<td>37500</td>
<td>12500</td>
</tr>
<tr>
<td></td>
<td>Roads</td>
<td>250000</td>
<td>100000</td>
<td>37500</td>
<td>12500</td>
</tr>
<tr>
<td></td>
<td>Pledged to</td>
<td>CE</td>
<td>CE</td>
<td>SE</td>
<td>EE</td>
</tr>
<tr>
<td><strong>Minimum Technical Staff Requirements</strong></td>
<td>Buildings, Bridges Roads</td>
<td>1 Holder of Degree in Civil Engineering</td>
<td>1 Holder of Diploma in Civil Engineering</td>
<td>1 Holder Diploma in Civil Engineering</td>
<td></td>
</tr>
</tbody>
</table>

As well as meeting the above requirements a Contractor desirous to be enlisted in Class A, B and C should have the construction equipment listed in Table No.B.3.

The Engineer-in-Chief and Chief Engineer carry out registration for class A and B Contractors respectively. The Superintending Engineer and Executive Engineer carry out registration of class C and D contractors respectively at Circle or Division level.

The following conditions also apply:

1. A person having a criminal record is not eligible to be enlisted as a Contractor. Contractors already enlisted but subsequently found to have a criminal history will be removed from the register.

2. The contract will be cancelled if it is discovered that a person with a criminal record is executing the work on behalf of a Contractor in whose name the work was awarded.

3. Persons belonging to Scheduled castes and tribes and unemployed engineers shall be exempted up to 50% of the prescribed amount towards minimum solvency and security.
Table No. B.3 : Construction Equipment Required for Registration

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Class A</th>
<th>Class B</th>
<th>Class C</th>
<th>Class D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete mixers</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Vibrators</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Pumps</td>
<td>3</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grinding wheel for buildings</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Diesel winches 65 ton capacity for Bridge work only</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excavating grabs ½ to 1 cum capacity (for bridges only)</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diesel generating Sets 25 KW (for Bridge works)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tractors (for road work only)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sheep foot rollers (for Road works only)</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B.3. COMMENTS ON RULES, CLASSIFICATION AND ENLISTMENT OF CONTRACTORS

As the practice of enlisting contractors evolves, there is growing awareness of the need to refine the basic documents on which it rests—the ‘Rules, Classification, and Enlistment of Contractors to ensure that the PWD ‘Rules, Classification, and Enlistment of Contractors’ D gets the work completed on time, to specification, and within budget. Current rules and procedures for enlistment of contractors in PWD need updating to keep pace with modern construction techniques, methods, and contracting trends.

B.3.1 REVISION IS NECESSARY IN RESPECT TO THE FOLLOWING AREAS

B.3.1.1 Contract Value

According to the existing rules an A class contractor is eligible to bid for a work of value exceeding Rs. 50.00 lacs. The sharp increase in the basic price of construction materials has resulted in the increase in construction cost of projects. In the present day context the work value often exceeds Rs. 50 lacs for many contracts. Moreover with the introduction of a packaging system the contract value of works put to tender will increase considerably. Based on the prevailing market prices, the cost of carrying out periodic maintenance, including heavy pavement preparatory works on a two lane carriageway road, would be around Rs.50 lacs per kilometre. This means that for carrying out maintenance for a kilometre of road, only Contractors registered under class A would be eligible for bidding. The cost of heavy repair to 10 Km of road would be around Rs 5.00 crores for which only an A class Contractor would be eligible to bid. It is therefore time to review the value of works that can be undertaken by each Class of Contractor.
B.3.1.2 Construction Equipment

For constructing superior class of roads use of construction equipment is imperative. Under existing rules the indicated minimum requirement of construction equipment to be owned by the prospecting contractor for enlistment is grossly inadequate, as most of machineries that are essentially required for road building have not been indicated. The minimum requirement of construction equipment list therefore should be revised.

On the other hand cognisance needs to be taken of the current trend for Contractors to hire equipment as and when required. What is more important is not the list of plant owned by a Contractor but his ability to use such equipment regardless of who owns it. And that can only be determined from his working experience.

B.3.1.3 Qualifications of Technical Staff

The minimum technical staffs required for enlistment in each class of Contractor in UP PWD has been specified in Appendix ‘C’ of GO dated 22 August 1982. In this GO requirement only the number of personnel and their qualifications have been stated. Designation, nature and period of professional experience of technical and managerial personnel on the roll of contractor have not been spelt out.

The rule should spell out clearly designation, nature and period of professional experience. Added to this must be the types of works, Client, contract value, and duration of those works on which the senior staff have been involved. As more graduates are entering the profession it may be expedient to review the qualifications and number of graduates on the Contractor’s technical staff.

B.3.1.4 Solvency and General Security

The requirement of amount indicated for Minimum solvency and general security in the existing rules is not commensurate with the present day value of property or other assets. This value should be increased to eliminate non-serious contractors and reflect the increase in the value of works.

B.3.1.5 Financial Capability of Contractor’s

Under the existing system there is no provision to assess the financial capability of a Contractor. For successful implementation of contract works the financial capability of the contractor plays a major role. The minimum assessment regarding the financial capability of a contractor may be on the basis of annual turnover derived from civil construction works. This should cover a period of not less then three years, and for major works should be extended to five years.

Before the PWD awards any contract the Contractor must submit details of his current work load which should cover contract value and anticipated completion dates. It is imperative that the PWD is able to assure themselves that the Contractor is likely to have the necessary financial resources to support the first months of any new works. It is not unknown for Contractor’s to take on more work than they can finance with disastrous consequences for the Client. It is recommended that these parameter should be included in the registration of Contractor’s.
B.3.1.6  Minimum Value of Works Satisfactorily Completed

Under the Appendix ‘E’ of the G.O. dated 24.8.1982 minimum value of each of five works that have been executed satisfactorily for enlistment in each class of Contractor has been specified. However the nature of the works executed has not been specified, neither is there any requirement to give the contract period during which the specified work should have been executed. The value of work stated in this appendix should be commensurate with that of the maximum limit of works for which the contractor is eligible to bid.

B.3.1.7  Contractor’s Proven Ability

The registration system should be more stringent so as to restrict registration to those Contractors who have proven ability to execute quality works. There is no provision in the existing rules regarding the quality system being followed by the prospective Contractor.

It is recommended that AA and A Class Contractors should have:

• Quality policy
• Quality Manual containing quality systems
• Quality Control laboratory.

B.3.1.8  Litigation History

No provision exists to bar a person or Contractor from registration as a Contractor if they have a litigation history in respect of court cases and arbitration matters.

B.3.1.9  Upgrading of Enlisted Contractors

Provision for upgrading an enlisted Contractor from a lower to higher class does not exist in the rules. It would appear that for up-gradation to higher class the Contactor has to start the entire process afresh.

A system should be established whereby, following satisfactory execution of works, a Contractor may be considered for upgrading to a higher class: this might act as an incentive for the Contractor to perform well.

B.3.1.10  Removing a Contractor from the Register

Provision for removing the name of the contractor from the register of classified Contractor exists in the rules. For some minor offence delisting of a Contractor may be too harsh a punishment.

It is recommended that provision of debarring a defaulting contractor for a specific period, or even down-grading to a lower Class, should be included in the rules.
B.3.1.11 Computerised Registration

Currently there is no computer based system for the Registration of Contractors. This would make access easier and available to the entire PWD through their MIS. It might also be possible to develop a system where a Contractor could register on line.

B.3.1.12 Review of Contractor’s Performance

Currently there is no System for reviewing the performance of Contractor. It is recommended that such a system is introduced and that the performance of all Contractors is reviewed every two or three years. System for appraisal of contractor’s performance should be in place. A committee comprising of CE should appraise the performance of high categories of contractors (Class I, II and A) and a committee comprising of SE should appraise the performance of category B to D contractors.

B.4. PRACTICES FOLLOWED ELSEWHERE

The enlistment and registration of Contractors exists in almost all the State PWD’s and Central Government Departments in India. Though the basic concept of enlistment rules and procedures is identical in all Central and State Government Departments the requirements for registration vary from State to State. The following Sections detail some of the differences found elsewhere.

B.4.1 GUJARAT

In the Roads and Buildings Department of Gujarat the Contractors are enlisted under categories I, II and III for road works. A Category I Contractor is eligible to bid for works of unlimited value whereas Contractors in Categories II and III are only eligible to bid for works up to 300 lacs and 100 lacs respectively.

The basic parameters for requirements for registration are based on:

- Solvency amount (Ranges from Rs.100 lacs to Rs.12 lacs)
- Financial capability in the form of Annual Turnover and value of works executed in the previous year (Turn over ranges from Rs.100 lacs to Rs.80 lacs and value of work executed in previous year ranges between Rs. 400 lacs to Rs.100 lacs)
- Technical capability (executed two road works of specified value ranging between Rs 150 lacs to Rs.20 lacs)
- Equipment capability (Availability of specified minimum equipment such as Hot Mix Plant, Paver, Rollers etc.)
- Employment of technical personnel (Degree holder or diploma holder Civil Engineer)

Provisions also exist for renewal, upgradation, and removal of Contractors.
B.4.2 MAHARASHTRA

In Maharashtra PWD Contractors are enlisted in 13 different categories under groups 1, 2 and 3. The highest class of Contractor (1.a) is eligible to bid for works of value up to Rs. 2500 lacs and above, whereas the lowest, class 9, Contractor can bid for work of value up to Rs.2 lacs.

The basic requirements for registration are based on the following parameters:

- Minimum Solvency amount- Ranges between Rs.150 lacs to 0.25 lacs
- Average annual turnover – Ranges between Rs.300 lacs to 0.5 lacs
- Cost of work in hand – Range Rs. 450 lacs to 1.0 lac
- Minimum requirement of Equipment - for classes 1 to 5 only

Other important conditions:

i. For registration of Class I Contractors, turnover is calculated as either 4.5 times the minimum turnover or 3 times the maximum turnover for 3 to 5 years. Which ever gives the highest value shall be considered, but these figures must be proven as in the latest income tax certificate produced by Contractor.

ii. The name of a Contractor who has not tendered for any work, or who has tendered but failed to secure any contract of the Government or Semi-Government bodies, local bodies or registered co-operatives during the period of five years from the date of registration/renewal, should be removed from the register of approved contractors.

iii. In case of private works executed / in hand, if certified by licensed Architect or Chartered Engineers, 50% of the estimated cost of these works shall be considered when calculating the Contractor’s annual turnover.

iv. By 30th of April every year each Contractor shall submit to the Registering Authority concerned an annul return ending March that year, in the form prescribed, with the remarks regarding his performance from the Executive Engineers in whose Division the Contractor has tendered / executed works shown in that annual return.

v. Where there performance was not satisfactory some Contractors may omit these works from their annual return. The Executive Engineer concerned should ensure that whenever the performance of a Contractor is not satisfactory, and some action towards his down grading or removal from a particular category is necessary, he shall report the matter directly to the Registration / Renewal Sanction Authority with full justification for taking necessary action against the Contractor.

B.4.3 CENTRAL PUBLIC WORKS DEPARTMENT (CPWD)

According to CPWD’s Registration rules 2005, Contractors are registered in five classes i.e. Class I to V. The highest Class (Class I) registered Contractor is eligible to bid for works of value Rs10.00 crores whereas the lowest (Class V) Contractor may bid for works of value 7 lacs.
The basic requirements for registration are:

Past experience of completed works in last 5 years (For Contractors in Classes I to 3 works of 1.5 crore each or one work of 8 crores)

Financial soundness (Bankers certificate range Rs.10 crores to 7 lacs)

Engineering Establishment (Engineers with degree and diploma holders)

T&P Machinery Enlistment (WMM Plant, paver and Rollers)

Provision for the following also exists in these rules:

- Disciplinary action
- Demotion to a lower class
- Revalidation
- Annual confidential Report
- Review of approved list
- Suspension of business

The following amendments were subsequently issued:

i. Business may also be suspended with a Contractor for a period of up to one year should he, on two occasions, fail to start the work after an award.

ii. A Contractor can be removed from the list if, on three occasions, he fails to start the work after award of same.

B.4.4 THE WORLD BANK

There is no provision for registration of Contractors under the World Bank’s procurement guidelines. However, the Bank’s procurement guidelines provide explicit directions regarding selection of Contractors for award of works either through the process of prequalification or post-qualification of bidders.

B.4.4.1 Prequalification

According to the World Bank prequalification is usually necessary for large or complex works or in any other circumstances in which the high costs if preparing detailed bids could discourage competition.

The objective of prequalification is to ensure that bidders for a contract will be only those Contractors or Suppliers who have the experience and technical / financial resources necessary to fulfil the contract requirements.
B.4.4.2  Post-qualification Check

The post qualification check according to World Bank’s standard bidding documents is conducted by the Employer based on evaluation of the information submitted by the bidders along with the bid documents. To qualify for the award of a contract, the bidders shall meet the following minimum qualifying criteria:

(a) An average annual financial amount of construction work over the period specified in the bid document

(b) Experience as prime contractor in the construction of at least the number of works of a nature and complexity equivalent to the Works over the period specified in the bid document

(c) Proposals for the timely acquisition (own, lease, hire, etc.) of the essential equipment listed in the bid document;

(d) A Contract Manager with five years' experience in works of an equivalent nature and volume, including no less than three years as Manager; and

(e) Liquid assets and/or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of no less than the amount specified in the bid document.

A consistent history of litigation or arbitration awards against the applicant (Contractor or Supplier) or any partner of a Joint Venture may result in disqualification.

B.5  RECOMMENDATIONS FOR REVAMPING REGISTRATION OF CONTRACTORS IN UP PWD

The IDS Consultants have made the following recommendations in respect of revisions to the system for Registration of Contractors:

i. Make the system more stringent to enable registration of only those Contractors who have proven ability to execute quality works.

ii. Make provision for the physical verification of machinery/equipment owned by the Contractor and proof of same provided by the Contractor in support of his registration.

iii. Computerize the data regarding registration of Contractors.

iv. Periodically renew the Contractor’s registration.

v. Review the performance of the Contractors. Provision should be made to debar or de-list those Contractors whose performance is unsatisfactory.

vi. An in house committee should be established to review the performance of Contractors.

In the light of IDS Consultant’s recommendations, and general review of ‘Rules for Registration’ the following proposals are made:
B.5.1 OBJECTIVES FOR RULES, CLASSIFICATION, AND ENLISTMENT OF CONTRACTORS

Based on a review of the Rules, Classification and Enlistment of Contractors in UP PWD, a review of registration practices in other States, and the need to establish procedures that focus on the need to promote capable Contractors, the following issues need to be addressed:

- Promote capable and dependable Contractors for execution of PWD works.
- Provide a fair and transparent opportunity for Contractors to access PWD work opportunities.
- Facilitate an opportunity to for the development and growth, in terms of works capability, for all Contractors
- Safeguard the public against bogus Contractors
- Provide for a regulated environment
- Provide a framework for developing Contractors.

B.5.2 GENERAL REQUIREMENTS

The Registration Criteria should be clear, detailed, and unambiguous specifying items so that assessment and evaluation may be carried out in a fair and transparent manner.

For Registration of Contractors the following criteria are considered to meet the above requirements:

(i) should possess the technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation and the personnel, to perform the procurement contract;

(ii) have legal status to enter into the procurement contract

(iii) not insolvent, in receivership, bankrupt or being wound up, their affairs are not being administered by a court or a judicial officer, their business activities have not been suspended and they are not the subject of legal proceedings for any of the foregoing.

(iv) have fulfilled their obligations to pay taxes and social security contribution;

(v) have not been convicted of any criminal offence related to their professional conduct or the making of false statement or mis-representation as to their qualifications to enter into a procurement contract or have not been otherwise disqualified pursuant to administrative suspension or disbarment.

The Registering Authority (PWD) may disqualify a Supplier or Contractor if at any time it is found that the information submitted concerning their qualifications was false or material provided inaccurate /incomplete.

At present registration takes place in the Divisions, Circles, and Zones. It would be preferable to establish a centralized system for registration and subsequent enlistment of Contractors or Suppliers at the Zone level.
B.5.3. SPECIFIC REQUIREMENTS

B.5.3.1 Classification of contractors

In the UP PWD the registration system for Contractors comes under the broad categories of the various construction industries related disciplines, namely:

- Buildings,
- Bridges,
- Road works,
- Sanitation, and water supply,
- Electrical and Mechanical work

This system is in line with the best practices being followed all over the World and is prevalent in all State Roads and Building Departments, as well as Central Government Departments.

Presently the Classification of Contractors is based on the perceived capacity of the Contractor to execute works of a particular value. In order to attract really capable and resourceful Contractors to execute works of a larger magnitude in the road sector the classification of Contractors should be revised to six tiers i.e. Spl Class I, Spl Class –II and class A to D.

While suggesting amendments in the classification of contractors, amendments in upper value of works for which contractor is eligible to bid has not been suggested in respect of class B, C and D contractors. The intention of not altering the upper limit in respect of B, C and D class contractors is to ensure that increase in upper value takes places in gradual manner thus avoiding steep rise. It was felt necessary to introduce some higher categories of contractors who may be capable of undertaking works of large magnitude say costing above 1.00 crore. Under the existing rules there is no limit in the upper value of works for the A class contractor.

In the present context with the steep increase in prices of materials and labour, the cost of road works have increased manifold. The estimated cost for periodical renewal of a two lane CW road section, covering one Kilometre of road ranges between Rs.25 to30 lacs. According to the existing rules an A class contractor would only be eligible for participating in bidding process for executing works for periodical renewal of a road section covering about 2 kilometer. If the renewal works are required to be undertaken on a section covering Ten kilometre of road the cost of works would be ranging between 2.5 crores to 3.00 crores for executing such works the same A class Contractor will be eligible who was capable of executing works for 2 km length. For executing works of larger magnitude (costing more than Rs 1.00 crore) availability of resources with the contractor should be of much higher order than a contractor who was just capable of executing works of cost ranging between Rs.50 to 60 lacs.

There are all probabilities that an A category contractor who is capable of successfully executing works costing between Rs 50 to 100 lacs may fail to execute the works costing between Rs.2 to 3.00 crores. To overcome this problem proposal to create higher categories of registered contractors has been mooted.
It has also been recommended in this report that for executing the works costing more than Rs. 5.00 crores the proposed contractors would be selected through prequalification process. It is felt that for executing the works costing above Rs. 50.00 lacs but below Rs. 5.00 crores, resourceful and capable registered contractors should be readily available on the empanelled list of contractors.

The gap which ranges between Rs.50 lacs and Rs 5.00 crores can not be covered by Category A of the registered contractor. This gap should be filled up in such that the upper limit increases in gradual and uniform manner.

Keeping these criteria the following categories are suggested for enlistment of contractors:

Category A – works costing up to Rs.1.00 crores
Category spl-II – Works costing up to Rs. 3.00 crore
Category spl –I – For works costing above Rs.3.00 crores

With the introduction of aforesaid classification of contractors the upper limit of executing the works would increase in gradual manner which will ensure availability of contractors for executing works of all types and costs.

The proposed value of works for which each Class of Contractor is eligible to bid for is given in Table No. B.4.

<table>
<thead>
<tr>
<th>Class</th>
<th>Value of upper limit of works Roads</th>
<th>Value of upper limit of works Bridges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Existing upper limit</td>
<td>Proposed upper limit</td>
</tr>
<tr>
<td>Spl – I</td>
<td>Above Rs. 3.00 crores</td>
<td></td>
</tr>
<tr>
<td>Spl -II</td>
<td>Up to Rs. 3.00 crores</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>Above Rs. 50.00 lacs</td>
<td>Up to Rs. 1.00 crores</td>
</tr>
<tr>
<td>B</td>
<td>Up to Rs. 50.00 Lacs</td>
<td>Up to Rs. 50.00 Lacs</td>
</tr>
<tr>
<td>C</td>
<td>Up to Rs. 25.00 Lacs</td>
<td>Up to Rs. 25.00 Lacs</td>
</tr>
<tr>
<td>D</td>
<td>Up to Rs. 10.00 Lacs</td>
<td>Up to Rs. 10.00 Lacs</td>
</tr>
</tbody>
</table>

It is not unknown for the bigger, Class I and Class II, Contractors to win contracts for which the lower classes of Contractors are eligible. To protect the interest of the smaller Contractors, and thus encourage their growth, it mat be deemed advisable to impose a lower value of works against these bigger Contractors below which they are ineligible to bid. For example; a Class I Contractor can bid for works of greater value that 3.00 crores only, and a Class II Contractor can bid for works of greater value than Rs.1.00 crore but less than Rs.3.00 crores.
B.5.3.2 Annual Turn Over Requirement

In the contracting business the financial capability of a contractor is a very significant factor for successful implementation of the works. It is therefore imperative, for the purpose of registration, renewal and up-gradation, to take into account the average annual turnover of the Contractor for, say, the last 5 years.

The requirement of annual turnover in all cases of civil engineering construction works should remain in the bidding documents. However, this figure should vary for each Class of Contractor and the anticipated range of turnover given for each Class.

The process of assessing the financial capability of a Contractor is not in place in the existing Rules, Classifications and Enlistment of Contractors in the UP PWD. This is a serious omission and the requirement could be included in the following form:

“Minimum average annual turn over of Rs. - calculated as total certified payments received from contracts in progress or completed within last five years”.

Minimum requirement of turnover should be not less than the maximum value of works for which each Class of Contractor is registered. The World Bank prescribes the annual turn over as 2 times the value of work put to tender, which is preferable, and provides more security.

The PMGSY criterion relating to annual turnover is given below:

- **Category 1**: Turnover – amount equal to 60% of amount put to tender and similar work criteria same as presently provided in the SBD.
- **Category 2**: Turnover – amount equal to 75% of amount put to tender and similar work criteria same as presently provided in the SBD
- **Category 3 and 4**: Turnover – from civil engineering – value of works equal to the amount put to tender.

The TA Consultant suggests that the upper value of works for which a Contractor is eligible to bid should be no more than 60% of his proven annual turnover as 60% of. Table No. B.5 indicates the average turnover required for each Class of Contractor.

<table>
<thead>
<tr>
<th>Class</th>
<th>Category / Minimum average annual Turn over during last three years (preceding to registration)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Road works</td>
</tr>
<tr>
<td>Spl-1</td>
<td>Rs. 3.00 Crores</td>
</tr>
<tr>
<td>Spl-II</td>
<td>Rs. 2.00 Crores</td>
</tr>
<tr>
<td>A</td>
<td>Rs 60 lacs</td>
</tr>
<tr>
<td>B</td>
<td>Rs. 50 lacs</td>
</tr>
<tr>
<td>C</td>
<td>Rs. 15 lacs</td>
</tr>
<tr>
<td>D</td>
<td>Rs 6 lacs</td>
</tr>
</tbody>
</table>

Note: The criteria for annual turn over does not figure in the existing rules
B.5.3.3 Minimum Solvency

Solvency of an individual, firm, or company is an indicator of financial creditability. The creditability of a Contractor should be related to the financial capacity of the Contractor i.e. average annual turnover.

Under the existing rules provision is in place for submission of proof of solvency. This may be a certificate signed by the District Magistrate, or a standardized Performa from a scheduled Bank. The current minimum solvency figure indicated under the existing rules is quite inadequate. The minimum solvency figure considered as reasonable is in the range of 60 to 70 % of the average annual turnover of the Contractor, as indicated in Table No. B.6.

<table>
<thead>
<tr>
<th>Class of Contractor</th>
<th>Existing minimum solvency for Bridges/Roads</th>
<th>Proposed Solvency for Bridges (Rs in lacs)</th>
<th>Proposed Solvency for Roads (Rs in lacs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spl-1</td>
<td>200</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Spl-II</td>
<td>120</td>
<td>120</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>15</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>B</td>
<td>10</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>C</td>
<td>5</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>D</td>
<td>2.5</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

B.5.3.4 General Security Requirements

According to Rule 13, a registered Contractor is required to deposit a general security of an amount stated in Appendix-H (Rule-13). With the introduction of higher classes of Contractor the security amount should also be revised.

The proposed amount of general security for the various Classes of Contractors is given in Table No. B.7.

<table>
<thead>
<tr>
<th>Class of Contractor/ Existing Security amount</th>
<th>Spl-1</th>
<th>Spl- II</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing and proposed Security Amount (in Rupees)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existing security for Roads and Bridge category</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bridges</td>
<td>250,000</td>
<td>150,000</td>
<td>100,000</td>
<td>37,500</td>
<td>12,500</td>
<td></td>
</tr>
<tr>
<td>Roads</td>
<td>750,000</td>
<td>500,000</td>
<td>300,000</td>
<td>150,000</td>
<td>50,000</td>
<td>25,000/</td>
</tr>
</tbody>
</table>
The security amount may be in the form of cash, interest bearing government securities, national savings certificates duly pledged in the name of registering authorities.

B.5.3.5 Requirement for Completion of Similar Work

Provision exists for supplying information regarding the minimum value of each of five works executed by the Contractor. The value of work indicated is low and not commensurate with the value of work for which the Contractor is eligible to bid. Moreover, time limit of proceeding years during which the works were executed is not fixed. The nature of work for which the experience will be counted for a particular Class of Contractor should also be part of the requirement. For registration of a Contractor in the roads category the Contractor must have satisfactorily completed 5 road works but within the proposed time limit of the preceding five years.

The requirement for satisfactorily completing the works should continue to remain in the qualification criteria, however, it may be moderated in such a way that the experience of the Contractor should be counted even if he has worked as a proven sub-Contractor (appropriate certificate obtained from the employer of the prime Contractor - while drafting the clause pertaining to sub-contracting; care should be taken to avoid double counting of the experience of the prime Contractor and sub-Contractors).

The requirement for completion of similar work should be modified as follows:

A Contractor who wishes to be enlisted as a Contractor in the UP PWD should have satisfactorily completed, as a Contractor, one work of similar nature during the preceding FIVE financial years. The value of completed works shall be in accordance with the requirements listed in Table No. B.8.

Table No. B.8 : Value of Works Completed by a Contractor within the last 5 Years

<table>
<thead>
<tr>
<th>Class of Contractor</th>
<th>Existing</th>
<th>Works – Roads or Bridges (Proposed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spl-I</td>
<td></td>
<td>1 No work: value Rs 3.00 crores. or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 No works: value of each work Rs.2.0 crores or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 No. works: value of each work Rs. 1.5 crores</td>
</tr>
<tr>
<td>Spl-II</td>
<td></td>
<td>One work of value Rs 2.00 crores or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 No. works: value of each work Rs.1.5 crores or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 No. works: value of each work Rs.1.0 crores</td>
</tr>
<tr>
<td>A</td>
<td>5 works of each Rs.20 lacs</td>
<td>1 No work: value Rs. 75 lacs or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 No. works: value of each work Rs.50.00 lacs or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 No. works: value of each work Rs.40.00 lacs</td>
</tr>
</tbody>
</table>
B.5.3.6 Managerial and Technical Competence

The minimum technical staff required for enlistment for each Class of Contractor in UP PWD has been specified in Appendix ‘C’ of GO dated 22 August 1982, but only with respect to the number of personnel and their qualifications. The GO requirements regarding designation, nature and period of professional experience for a Contractor’s technical and managerial personnel has not been defined. The proposed minimum qualifications of a Contractor’s personnel are given in Table No. B.9.

Table No. B.9 : Managerial and Technical Competence for each Class of Contractor

<table>
<thead>
<tr>
<th>Class of Contractor</th>
<th>Existing provision</th>
<th>Designation</th>
<th>Minimum Technical Qualifications</th>
<th>Professional experience in years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Technical cum Quality Manager</td>
<td>Graduate in Civil Engineering</td>
<td>10 years out of which 5 years must be on road/bridge works</td>
</tr>
<tr>
<td>Spl-I</td>
<td></td>
<td>Quantity surveyor</td>
<td>Diploma in Civil Engineering</td>
<td>3 years on road/bridge works</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Contract Manager</td>
<td>Graduate in Civil Engineering</td>
<td>8 years out of which 4 years must be on road/bridge works</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manager Equipment</td>
<td>Diploma in Mechanical Engineering</td>
<td>4 years working on construction plant and equipment</td>
</tr>
<tr>
<td>Spl- II</td>
<td></td>
<td>Technical cum Quality Manager – 1</td>
<td>Graduate in Civil Engineering</td>
<td>8 years out of which 4 years must be on road/bridge works</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manager Equipment</td>
<td>Diploma in Mechanical Engineering</td>
<td>4 years working on construction plant and equipment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manager (Civil)</td>
<td>Diploma in Civil Engineering</td>
<td>5 years on Road works</td>
</tr>
</tbody>
</table>
### Table

<table>
<thead>
<tr>
<th>Class of Contractor</th>
<th>Existing provision</th>
<th>Designation</th>
<th>Minimum Technical Qualifications</th>
<th>Professional experience in years</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1- Degree Holder Engineer</td>
<td>Technical Manager</td>
<td>Diploma in Civil Engineering</td>
<td>5 years of experience out of which 2 years on roads / bridge works</td>
</tr>
<tr>
<td>B</td>
<td>1- Diploma Holder</td>
<td>Technical Manager</td>
<td>Diploma in Civil Engineering</td>
<td>5 years of experience out of which 2 years on roads / bridge works</td>
</tr>
<tr>
<td>C</td>
<td>1 Diploma holder</td>
<td>Technical Manager</td>
<td>Diploma in Civil Engineering</td>
<td>5 years of experience out of which 2 years on roads / bridge works</td>
</tr>
</tbody>
</table>

### B.5.3.7 Construction Equipment Requirement

For constructing quality roads and bridges construction equipment is imperative. Under the existing rules the indicated minimum requirement for construction equipment to be owned by the Contractor for enlistment is grossly inadequate, as much of the basic equipment essential for quality work have not been indicated. The minimum requirement of key construction equipment for various categories of Contractor is listed in Table No. B.10.
Table No. B.10 : Numbers of Key Construction Equipment to be Owned by Contractor

<table>
<thead>
<tr>
<th>Type of Plant or Equipment</th>
<th>Roads – Class of Contractor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Spl-I</td>
</tr>
<tr>
<td><strong>Road Works</strong></td>
<td></td>
</tr>
<tr>
<td>Hot Mix Plant Batch mix Type 60 ton/hr</td>
<td>1</td>
</tr>
<tr>
<td>Electronic Sensor paver 5 m to 10 m width</td>
<td>1</td>
</tr>
<tr>
<td>Pneumatic tyre Roller 12-18 ton, 9 wheel</td>
<td>1</td>
</tr>
<tr>
<td>Vibratory Roller 8-10 ton</td>
<td>2</td>
</tr>
<tr>
<td>Smooth wheel roller 6-8 ton</td>
<td>2</td>
</tr>
<tr>
<td>Bitumen Distributor 6,000 litres capacity</td>
<td>2</td>
</tr>
<tr>
<td>Tipper 8-10 tons</td>
<td>6</td>
</tr>
<tr>
<td>Wet Mix Macadam plant</td>
<td>1</td>
</tr>
<tr>
<td>Excavator</td>
<td>1</td>
</tr>
<tr>
<td>Excavator cum Loader (JCB)</td>
<td>2</td>
</tr>
<tr>
<td>Grader</td>
<td>1</td>
</tr>
<tr>
<td><strong>Bridge Works</strong></td>
<td></td>
</tr>
<tr>
<td>Diesel winches 65 ton capacity for Bridge work only</td>
<td>2</td>
</tr>
<tr>
<td>Excavating grabs ½ to 1 cum capacity (for bridges only)</td>
<td>4</td>
</tr>
<tr>
<td>Diesel generating Sets 25 KW (for Bridge works)</td>
<td>1</td>
</tr>
<tr>
<td>Concrete batching Plant</td>
<td>1</td>
</tr>
<tr>
<td>Concrete Mixer</td>
<td>2</td>
</tr>
<tr>
<td>Transit Mixer</td>
<td>2</td>
</tr>
<tr>
<td>Needle vibrators</td>
<td>4</td>
</tr>
<tr>
<td>Trucks</td>
<td>4</td>
</tr>
<tr>
<td>Dumpers</td>
<td>4</td>
</tr>
</tbody>
</table>
B.5.3.8  Historical Contract Non-Performance

Under this criteria following three sub criterion are proposed

1. **History on Non-performing Contracts:** Non -Performance of a Contract did not occur within last three years prior to the deadline for application submission for renewal / up gradation for Spl category I, II and class A and B contractors.

2. **Failure to Sign Contract:** There are no instances where the GoUP has forfeited the bid security of the applicant within last two years prior to the deadline for application submission for renewal / up gradation for Spl category I, II and class A and B contractors.

3. **Litigation History**

   Contractors who wish to be enlisted as UP PWD Contractor should furnish information regarding current litigation, or that which took place during the last 5 years, in which he is involved. This information shall include the parties concerned, the disputed amount, and awards. All pending litigation shall in total not represent more than 50% of the Contractor’s net worth. This clause is proposed for Spl class I and II of contractors.

B.5.3.9  Criminal Offence

Neither the Contractor, nor any of his senior staff, must not have been convicted of any criminal offence related to their professional conduct, or the making of false statements, or mis-representation as to their qualifications to enter into a procurement contract, or have not been otherwise disqualified pursuant to administrative suspension or disbarment.

B.5.3.10  Legal Status to Enter into the Procurement Contract

The Contractor/Supplier shall substantiate with documents defining the constitution or legal status, place of registration, and principal place of business, and written power of attorney of the signatory of the application for registration. In the case of registration for Class I, II and III, the Contractor/Supplier shall also submit a financial report, such as profit and loss statement, and an Auditor’s report for the past five years.

B.5.3.11  Quality Management System

Contractors for registration under Spl Classes I and II must have their own Quality Management System in accordance with IRC; SP; 57-2000 Guidelines on Quality Systems for Roads and must submit a declaration to that effect. At the minimum the Contractor’s Quality Management System shall include the following elements:

a) Company’s Quality Policy
b) Organizational Structure
c) Internal Quality systems
d) Inspections and Audits
e) Management Review of System Effectiveness and Improvement
f) Quality Control Testing Laboratory
B.5.3.12. Computerised Registration

Currently in UP PWD computer based system for the Registration of Contractors is not in place. It is recommended to evolve a suitable computerized system for registration of contractors. This would make access easier and available to the entire PWD through their MIS. It might also be possible to develop a system where a Contractor could register on line. The computerized registration should be applicable for all categories of contractors.

B.5.3.13. Review of Contractor's Performance

Currently there is no System for reviewing the performance of Contractor. It is recommended that such a system is introduced and that the performance of all Contractors is reviewed every two or three years.

System for appraisal of contractor’s performance should be in place. A committee comprising of CE should appraise the performance of high categories of contractors (Spl Class I, II, A) and a committee comprising of SE should appraise the performance of category B, C and D contractors. Appraisal forms for various categories of contractors should be standardized and an electronic system for appraisal the performance of the contractors should be introduced.

B.5.3.14. GO for revised Classification and Rules for contractor registration

The existing rules regarding classification and registration of contractors need to be completely modified. The revised rules shall cover procedural and operational of classification and registration of contractors. This will be made effective through a GO.
B.6 PREQUALIFICATION

B.6.1 INTRODUCTION

For successful execution of contracts for large infrastructure projects the essential requirements are that the contracts be awarded to those firms, or combination of firms, who are suitably experienced in the type of work and construction technology involved. They must be financially and managerially sound, and can provide all the equipment required in a timely manner.

A critical factor to the success of a project is the selection of the right Contractor who is able to provide the best overall deal throughout the process of execution and maintenance. The selection protocol for the Contractor should be based on Government procurement principles. This would include best value selection approach, a competitive selection process, and multi-criteria tender evaluation. The project implementing agency should carry out the selection of Contractors based on a prequalification process.

The prequalification process is the basis on which the implementing agency can assess the suitability of a Contractor/Supplier to fulfil a particular contract prior to being invited to submit a bid. Competitive bidding procedures should commence only on completion of the prequalification of bidders. Those firms meeting the specified prequalification criteria being invited to participate in the bidding process.

B.6.2 REQUIREMENTS FOR PREQUALIFICATION OF CONTRACTORS

When establishing the prequalification requirements, the first objective is to select the basic factors that are deemed appropriate to scrutinize. The second objective is to establish the threshold for each of these factors to evaluate the capability and capacity of the bidders on a given project. Together these factors, and the limits imposed, constitute the basis for qualifying or disqualifying any bidder. To obtain the desired prequalification results, and the consequent quality delivery of a project, both selecting the factors and determining the limits for each factor are crucial. They must be given careful attention with due consideration of the prevailing environment (including market conditions, deadlines, need for technology transfer, etc.).

Because of the challenges inherent in execution of large and complex projects, Contractors must be capable and experienced in successfully delivering such projects. Prequalification of Contractors is an attempt to significantly reduce some of the inherent risks facing a Client when executing large and complex projects.

The requirements for prequalification of Contractors should be conducive to achieving a desirable balance among:

a) satisfying the schedule and sequence of contracting,

b) obtaining lower prices by an increase in competition,

c) procuring the timely delivery of a quality project, and

d) fostering the growth of local contractors.
An improper design of prequalification requirements may seriously affect the progress and cost of projects, provide opportunities for collusion, and encourages the winning of contracts through improper practices.

B.6.3 PREQUALIFICATION PRACTICES IN INDIA AND ABROAD

B.6.3.1. Practice in UP PWD

The practice of prequalification of Contractors / suppliers is normally not adopted under PWD bidding for works contracts, therefore guidelines to this effect is not available.

B.6.3.2. World Bank

B.6.3.2.1. Guidelines

The World Bank’s guidelines regarding prequalification of bidders are reproduced below:

Prequalification is usually necessary for large or complex works, or in any other circumstances in which the high costs of preparing detailed bids could discourage competition, such as

- custom-designed equipment,
- industrial plant,
- specialized services,
- some complex information and technology and
- contracts to be let under turnkey, design and build, or management contracting.

This also ensures that invitations to bid are extended only to those who have adequate capabilities and resources. Prequalification shall be based entirely upon the capability and resources of prospective bidders to perform the particular contract satisfactorily, taking into account their:

a) experience and past performance on similar contracts,
b) capabilities with respect to personnel, equipment, and construction or manufacturing facilities, and
c) financial position.

The invitation to prequalify for bidding on specific contracts or groups of similar contracts shall be advertised and notified as prescribed. The scope of the contract and a clear statement of the requirements for qualification shall be sent to those who responded to the invitation. All such applicants that meet the specified criteria shall be allowed to bid. Borrowers shall inform all applicants of the results of prequalification. Soon after the prequalification is completed, the bidding documents shall be made available to the qualified prospective bidders. For prequalification for groups of contracts to be awarded over a period of time, a limit for the number or total value of awards to any one bidder may be made on the basis of the bidder’s resources. The list of prequalified firms in such instances shall be updated periodically. Verification of the
information provided in the submission for prequalification shall be confirmed at the time of award of contract, and award may be denied to a bidder that is judged to no longer have the capability or resources to successfully perform the contract.

B.6.3.2.2. Criteria for Prequalification

General Requirements

The Qualification Criteria and Requirements specified by the World Bank in “Prequalification Document for procurement of works and user’s Guide August 2006 and revised May 2007 “ are:

i. Eligibility

ii. Historical Contract Non-Performance

iii. Financial Situation

iv. Experience

Eligibility Criteria, which the contractor must meet, comprises of:

- Nationality
- Conflict of interest
- Bank ineligibility
- Government Owned entity
- United Nations Resolution or Borrower’s country law.

Specific Requirements

- **History of Non-Performing Contracts**: Non Performance of a contract did not occur within last one/two years prior to deadline for application submission based on all information on fully settled dispute or litigation.

- **Failure to sign Contract**: Not being under execution of a bid Securing Declaration for one/two years.

- **Pending Litigation**: All pending Litigation shall in total represent more than ---- -- (percent) of the applicant's net worth and shall be treated as resolved against the applicant.

Financial Situation

- Financial Performance: Submission of audited balance sheets or other financial statements for the last 5 years to demonstrate:
  
  (a) the current soundness of the applicant’s financial position and its prospective long-term profitability and
  
  (b) capacity to have a cash flow amount of ----.
• **Average Annual Turn Over:** Minimum average annual construction turn over should not be less than 2/1.5 times the estimated annual turn over in the proposed works contract. Calculated as total payment received for contracts in progress or completed within last 5 years

**Experience**

i. **General Construction Experience:** Experience under construction contracts in the role of contractor, sub-contractor, or management contractor for the last 5 years prior to the application submission deadline, and with activity in at least nine months in each year.

ii. **Specific Construction Experience:** Participation as contractor or sub contractor in at least 1/2/3 contracts within the last 5/10 years, each with a value of at least ------ that have been substantially completed and that are similar to the proposed works.

iii. For the above or other contracts executed during the period stipulated i.e. 5/10, a minimum construction experience in the key activities.

**B.6.3.3. Practices in Canada**

The Ontario Ministry of Transportation (MOT) in Canada has developed a system to prequalify Contractors called the Registry, Appraisal and Qualification System (RAQS). The MOT uses an annual Contractor prequalification system that is similar to US Systems but it is a little more reliant on past performance.

All Contractors are prequalified on the basis of financial status, performance appraisals, and infraction report at the end of each project, which establish an overall performance rating. The rating is maintained on a 3 year rolling average. All Contractors must have a financial rating, which is based on assets and cash. Contractors can bid only up to their available financial rating, which is a function of their financial rating, penalty adjustments, and work in hand. Penalty adjustments are made for poor performance through an infraction process and Contractor rating system.

**B.6.3.4. Central Public Works Department (CPWD)**

**Guidelines**

According to the Guidelines issued by the Central Public Works Department (CPWD) of the Government of India, prequalification of Contractors shall be resorted to in the following cases:

a) The estimated cost of the work exceeds Rs. five crores.

b) The estimated cost of the work is up to Rs. five crores but more than Rs. two crores and the ADG concerned, in his discretion and for recorded reasons, may decide to prequalify contractors on the following grounds:

• The work is required to be executed with great speed, which not all contractors are in a position to generate.
• The work is of special nature requiring specialised equipment, which is not likely to be available with all contractors.

• The work is to be executed in sensitive/VIP area.

• Client has requested to restricting the tender.

• Other exigencies of the work to be placed on record.

**Specific Requirements** (Source CPWD Manual appendix -18)

**Completion of Similar works**

Three similar completed works (at least one of them should be in Central Government / Central Autonomous Bodies / Central Public Sector Undertakings) costing not less than the amount equal to 40% of estimated cost put to tender,

Or

Two similar completed works, costing not less than the amount equal to 50% of the estimated cost put to tender,

Or

One similar completed work of aggregate cost not less than the amount equal to 80% of the estimated cost.

**Turnover:**

Average annual financial turnover on construction works should be at least 30% of contract value, during last 3 years ending 31st March of the previous financial year.

**Profit/loss:**

The applicant Contractor should not have incurred any loss in more than two years during the last five years ending 31st March of the previous financial year, duly certified by the Chartered Accountant.
Bid Capacity;

The bidding capacity of the Contractor should be equal to, or more than, the cost of the work. The bidding capacity shall be worked out by the following formula:

\[
\text{Bidding Capacity} = A \times N^2 - B
\]

Where,

\( A = \) Maximum value of construction works executed in any one year during the last seven years, taking into account the completed as well as works in progress.

\( N = \) Number of years prescribed for completion of work for which prequalification application has been invited.

\( B = \) Value of existing commitments and on going works to be completed during the period of completion of work for which prequalification has been invited.

Solvency certificate

The applicant Contractor should have a solvency of the amount equal to 40% of the estimated cost of the work.

Performance reports

A performance report, on Form 'D', should be prepared by the applicant for each work completed within the last 7 years, and in hand. This report should be certified on behalf of the Client by an officer not below the rank of Executive Engineer, or equivalent. It should be delivered in a sealed cover and enclosed with the prequalification document. Before making a final decision the competent authority for prequalification, or the evaluation committee, or any other representative of the competent authority, shall inspect the works of those applicants who otherwise pre-qualify or confidentially obtain reports from their Client / EE.

Construction equipment

The Contractor who wishes to be prequalified should either own construction equipment as specified for the proper and timely execution of the work, or else should certify that he would be able to provide the necessary construction equipment by hiring. In this latter case the applicant should submit the name(s) of the proposed plant hire companies, together with a certified list of plant that will be available for the duration of the works.

Technical and Administrative capability

The Contractor who wishes to be prequalified should have sufficient number of Technical and Administrative employees for the proper execution of the contract. The applicant should submit a list of these employees clearly stating their duties and responsibilities with respect to fulfilment of the contract.

Scoring Method for Evaluation

Details of the scoring for evaluation of the application have been prescribed.
B.6.3.5 National Highways Authority of India

NHAI’s prequalification criteria are broadly based on:

(i) General and particular experience,

(ii) Financial position, personnel: and

(iii) Equipment capabilities etc.

(iv) Other relevant information as demonstrated by the Contractor’s response

The qualifications, capacity and resources of proposed sub-Contractors is not be taken into account in determining an applicant’s compliance with the qualifying criteria.

Provision exists for enhancing the cost of works executed and financial figures to a common base value for works completed, thus taking into account such factors as inflation.

Construction Experience

General Construction Experience

a) The Contractor who wishes to be prequalified must be actively engaged in civil works construction business during last --- years in the role of prime contractor, partner in joint venture, or sub-Contractor.

b) Generated a minimum average annual construction turnover of Rs------ during the last financial year.

The Contractor’s turnover is defined as the total of certified payment certificates for the works completed and in progress.

Particular Construction Experience

The Contractor who wishes to be prequalified must have been awarded at least one project of National Highway (MORT&H) / NHAI of value Rs----- and its progress in the preceding one year should be a minimum of10%, or any contract awarded by NHAI during preceding five years.

Personnel Capabilities

The Contractor who wishes to be prequalified must furnish the management structure of the firm together with confirmation of availability of suitably qualified personnel to fill the specified key positions as required during contract implementation.

Equipment Capabilities

Accessibility to specified key construction equipment (through hire, lease or purchase)
Financial Capabilities

- Access to, or has available, liquid assets (aggregate of working capital, cash in hand and uncommitted bank guarantees), lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the forecast construction cash flow requirements, minimum estimated as 10% of the value of the contract(s) applied for, net of the Applicant’s commitments for other contracts.

- Has adequate source of finance to meet the cash flow requirements of works currently in progress and for future contract commitments.

- Audited balance sheets for the last five years.

- Demonstrate the current soundness of the Applicant’s financial position, and indicate its prospective long-term profitability (including an estimated financial projection for the next two years).

Litigation History

Furnish the last five years of litigation or arbitration history arising from contracts, completed or on-going, in which they have been involved as prime Contractor, sub-Contractor, or Supplier. A consistent history of awards against the Applicant or any partner of a joint venture will result in failure of the application.

Disqualification

Even though applicants may meet the above criteria, they are subject to be disqualified if they, or any of their constituent partners have:

- made misleading or false representation in the forms, statements, or attachments submitted; or

- record of poor performance during the last 5 years, as on the date of application such as:
  a) abandoning the work,
  b) rescinding of a contract for which the reasons are attributable to the non-performance of the Contractor,
  c) inordinate delays in completion,
  d) consistent history of litigation awarded against the Applicant or any of its constituents or
  e) financial failure due to bankruptcy, etc.

Rescinding a joint venture contract for reasons other than non-performance, such as the Lead Partner pulling out, or court directions leading to the break-up of a joint venture before the start of work which are not attributable to the poor performance of the contractor, will not however, affect the prequalification of the individual partner; or
- been debarred by NHAI as on the date of application.
- any contract awarded by NHAI during last five years on which the physical and/or financial progress was less than 10% in the financial year 2001-2002.
- Key personnel (Project Manager / Deputy Project Manager) having lesser experience than that given in Data Sheet Annex - II.

Bid Capacity

The prequalified contractors meeting the minimum qualifications criteria will be invited to submit bids. The bid capacity of the prequalified bidders will be assessed at the time of bidding.

Joint Ventures

Joint Venture partners are limited to three (including the major partner) are permitted. Qualifying Criteria for Joint Ventures has also been laid out.

Public Sector Companies

Majority publicly owned enterprises domiciled in India are eligible to qualify if, in addition to meeting all the above requirements they are also;

a) Commercially oriented legal entities distinct from the employer;

b) Financially autonomous, for which the Public Sector companies must demonstrate with reference to the requirements in their constitutions to provide separate audited accounts and return on capital, powers to raise loans and obtain revenue through sale of goods and services: and

c) Managerially autonomous.

B.6.3.6 Asian Development Bank

Eligibility Criteria

This criteria comprises of the following four sub criteria:

- Nationality
- Conflict of Interest
- ADB Eligibility
- Government-owned Entity
Pending Litigation

All pending litigation shall be treated as resolved against the contractor who wishes to be prequalified and so shall in total not represent more than [Insert figure. The percentage should normally be within the range of 50% to 100% of an Applicant’s net worth,] percent of the Applicant’s net worth.

Historical Financial Performance

Submission of audited balance sheets and income statements or, if not required by the law of the applicant’s country, other financial statements acceptable to the Employer, for the last [Insert number of year in words and figures. The time period should not be less than 3 years.] ----- Years to demonstrate the current soundness of the applicant’s financial position and its prospective long-term profitability. As a minimum, an Applicant’s net worth calculated as the difference between total assets and total liabilities should be positive.

Average Annual Construction Turnover

Minimum average annual construction turnover of US$--- [Insert US Dollar amount. The amount stated should normally not be less than 2 x V/T, the estimated annual turnover or cash flow in the subject contract based on a straight-line projection of the Employer’s estimated cost (V), including contingencies, over the contract duration (T). The multiplier of two may be reduced for very large contracts but should not be less than 1.5.], calculated as total certified payments received for contracts in progress or completed, within the last [Insert number of years in words and figures. The time period is normally 3 years or more,] years. must meet requirement must meet requirement must meet [insert percentage figure, usually 25%] of the requirement must meet [insert percentage figure, usually 40%] of the requirement

Experience Requirements Documents

a) General Construction Experience

Experience under construction contracts in the role of contractor, subcontractor, or management contractor for at least the last [Insert number of years in words and figures. The time period is normally 5 years or more, but may be reduced to not less than 3 years, in agreement with ADB under special country circumstances such as to provide opportunities for a newly privatized construction industry with only a short record of experience] years prior to the applications submission deadline.
b) Specific Construction Experience

(i) Contracts of Similar Size and Nature

Participation as contractor, management contractor, or subcontractor, in at least [Insert number of contracts, The range should be one to three, depending on the size and complexity of the subject contract, the exposure of the Employer to risk of contractor default, and country conditions. For contracts in a developed environment with a high potential supply of construction services, three similar contracts may not limit applications, but would reduce the risk of contractor default] within the last [Insert number of years in words and figures. The range is normally five to ten years, and should be related to the number of similar contracts stated above and to the duration of the subject contract, e.g., ten years for two contracts of about five years’ duration, or six years for two contracts of about three years’ duration] years, each with a value of at least US$ [Insert US Dollar amount, usually 80% of the estimated value of the subject contract], that have been successfully or are substantially completed and that are similar to the proposed works. The similarity shall be based on the physical size, complexity, methods, technology or other characteristics as described in scope of contract.

(ii) Construction Experience in Key Activities

For the above or other contracts executed during the period stipulated in 4.2(a) above, a minimum construction experience in the following key activities:

[List the production rate(s) for the key activity or activities in the subject contract. The rates should be about 80% of the estimated production rates of the key activity or activities in the subject contract as needed to meet the expected construction schedule with due allowance for adverse climatic conditions.]

[X cubic meters of rock placed in rockfill dams in one year] [Y tons of asphaltic concrete per month placed in road paving] [Z cubic meters of concrete placed per ... etc.]
B.7 RECOMMENDATIONS FOR ENHANCEMENT OF CONTRACTORS PREQUALIFICATION THRESHOLDS

B.7.1 GENERAL

Prequalification of contractors should be made mandatory in the following cases:

a) The estimated cost of the work exceeds Rs. five crores.

b) The estimated cost of the work is up to Rs. five crores but more than Rs. two crores and the Chief Engineer concerned, in his discretion and for recorded reasons, may decide to pre-qualify contractors on the following grounds.

i. The work is required to be executed with great speed, which not all contractors are in a position to generate.

ii. The work is of special nature requiring specialised equipment, which is not likely to be available with all contractors.

iii. The work is to be executed in sensitive/VIP area.

iv. Client has requested to restricting the tender.

v. Other exigencies of the work to be placed on record.

B.7.2 CRITERIA FOR PREQUALIFICATION

Based on the review of prequalification criteria and requirements of various aforesaid agencies, the following recommendations are made for UP PWD. The Contractor intending to qualify for work should meet the minimum prequalification requirements listed in Table No. B.11.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Eligibility</td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Nationality</td>
<td>Must be Indian National</td>
</tr>
<tr>
<td>1.2</td>
<td>Laws and regulations</td>
<td>Not having been debarred as a result of the Laws and regulations of GOI and GoUP.</td>
</tr>
<tr>
<td>1.3</td>
<td>Government Owned entity</td>
<td>Eligible provided they are</td>
</tr>
<tr>
<td></td>
<td></td>
<td>i. Legally and financially autonomous</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii. Operate under commercial law</td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii. Not dependent agencies of the UPPWD</td>
</tr>
<tr>
<td>2</td>
<td>Historical Contract Non-Performance:</td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>History on Non-Performing Contracts:</td>
<td>Non -Performance of a Contract did not occur within last Five years prior to the deadline for application submission.</td>
</tr>
<tr>
<td>2.2</td>
<td>Failure to Sign Contract</td>
<td>There are no instances where the GoUP has forfeited the bid security of the applicant within last two years prior to the deadline for application submission.</td>
</tr>
<tr>
<td>2.3</td>
<td>Pending Litigation History</td>
<td>All pending litigation (Arbitration and court cases) in total shall not represent more than 50% of the applicant’s net worth.</td>
</tr>
<tr>
<td>No.</td>
<td>Subject</td>
<td>Requirement</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3</td>
<td>Financial Situation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.1 Financial Performance</td>
<td>Assessment of Current soundness of the applicant's financial position and its prospective long-term profitability, and capacity to a cash flow amount requirement of Rs.------ (usually to meet the requirement of cash flow for 3 months as estimated by the Employer).</td>
</tr>
<tr>
<td></td>
<td>3.2 Profit and loss status</td>
<td>Not incurred any loss in more than two years during the last five years ending 31st March of the previous financial year, duly certified by the Chartered Accountant.</td>
</tr>
<tr>
<td></td>
<td>3.3 Solvency</td>
<td>Capable to produce solvency of the amount equal to 40% of the estimated cost of the work</td>
</tr>
<tr>
<td></td>
<td>3.4 Average Annual Construction Turnover</td>
<td>Average annual financial turn over on construction works should not be less than twice the estimated annual turn over of the proposed works contract.</td>
</tr>
<tr>
<td>4</td>
<td>Experience</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.1 General Construction Experience</td>
<td>Experience under construction contracts in the role of contractor, subcontractor, or management contractor for at least 5 years prior to the application submission deadline and with activity in at least none (9) months in each year</td>
</tr>
</tbody>
</table>
|      | 4.2 Specific Construction Experience | Successfully and substantially completed similar works as Contractor, Management Contractor, or sub-Contractor within last five years of number and value as given below:  
Three works costing Rs.------ ( not less than the amount equal to 40% of estimated value of the proposed work).  
Or  
Two works costing Rs.------ ( not less than the amount equal to 60% of estimated value of the proposed work)  
Or  
One works costing Rs.------ ( not less than the amount equal to 80% of estimated value of the proposed work) |
|      | 4.3 Minimum Construction Experience in key activities | ----- cum per year of bituminous paving work.  
----- cum per year of earthwork  
----- cum per year granular work  
----- cum per year Concrete work  
(80% of the production rate of the key activity in the contract as needed to meet the expected construction schedule with due allowance for adverse climatic condition) |
## No. Subject Requirement

### 5 Bid Capacity
The bidding capacity of the Contractor should be equal to, or more than, the cost of the work and shall be determined using the following formula:

\[
\text{Bidding Capacity} = A^*N^*2-B
\]

Where,

- \(A\) = Maximum value of construction works executed in any one year during the last seven years taking into account the completed as well as works in progress.
- \(N\) = Number of years prescribed for completion of work for which prequalification application has been invited.
- \(B\) = Value of existing commitments and on going works to be completed during the period of completion of work for which prequalification has been invited.

### 6 Construction Equipment
The Contractor who wishes to be prequalified should own construction equipment as specified for the proper and timely execution of the work. Else, he should certify that he will be able to manage the equipment by hiring etc. and submit the list of firms from whom he proposes to hire the plant together with a list of plant and confirmation that it will be made available.

### 7 Technical and Administrative capability:
The Contractor who wishes to be prequalified should have sufficient number of Technical and Administrative employees for the proper execution of the contract. The applicant should submit a list of these employees stating clearly how they would be involved in this work, listing their duties and responsibilities.

The key personnel should be:
- Project Manager – 1 No.- Degree holder with 15 years of experience out of which 10 years on similar work
- Materials Engineer – 1 No – 10 yrs
- Quantity Surveyor
- Structural Engineer
- Highway Engineer

### 8 Quality
The Contractor who wishes to be prequalified must submit a declaration that they have a Quality Management System (QMS) in accordance with IRC; SP; 57-2000 Guidelines on Quality Systems for Roads”. The QMS shall have the following elements as a minimum:

- Company’s Quality Policy
- Organizational Structure
- Internal Quality systems
- Inspections and Audits
- Management Review of System Effectiveness and Improvement
- Quality Control Testing Laboratory
B.7.3 PREQUALIFICATION DOCUMENTS

In the documents the criteria for prequalification along with evaluation system should be clearly spelt out in detail.

The procuring entity (PWD) may engage in prequalification proceedings with a view towards identifying, prior to the submission of tenders, proposals or offers in procurement proceedings, Suppliers and Contractors that are qualified.

If the procuring entity (PWD) engages in prequalification proceedings, it shall provide a set of prequalification documents to each Supplier or Contractor that requests them in accordance with the invitation to pre-qualify and that pays the price, if any, charged for those documents.

The prequalification documents shall include the following information;

(a) instructions for preparing and submitting prequalification applications;

(b) a summary of the principal required terms and conditions of the procurement contract to be entered into as a result of the procurement proceedings;

(c) any documentary evidence or other information that must be submitted by Suppliers or Contractors to demonstrate their qualifications;

(d) the manner and place for the submission of applications to pre-qualify and the deadline for the submission, expressed as a specific date and time and allowing sufficient time for Suppliers or Contractors to prepare and submit their applications, taking into account the reasonable needs of the procuring entity;

(e) Application Forms

(f) Scope of works

The procuring entity (PWD) shall, within a reasonable time prior to the deadline for the submission of applications to pre-qualify, respond to any request by a Supplier or Contractor for clarification of the prequalification documents. The response by the procuring entity (PWD) shall be given within a reasonable time so as to enable the Supplier or Contractor to make a timely submission of its application to pre-qualify. The response to any request that might reasonably be expected to be of interest to other Suppliers or Contractors shall, without identifying the source of the request, be communicated to all Suppliers or Contractors to which the procuring entity provided the prequalification documents.

The procuring entity (PWD) shall make a decision with respect to the qualifications of each Supplier or Contractor submitting an application to pre-qualify. In reaching that decision, the procuring entity shall apply only the criteria set forth in the prequalification documents.

The procuring entity (PWD) shall upon request communicate to Suppliers or Contractors that have not been prequalified the grounds for reaching that decision. But the procuring entity is not required to specify the evidence, or give the reasons, for its finding that those grounds were present.
Standard Application Forms

In order to establish an applicant’s qualification to perform the contract in accordance with the specified qualification criteria and requirements; the applicant is required to furnish the information requested. It is necessary to maintain uniformity in obtaining prequalification information from various applicants, therefore standardization of the forms on which the applicant should furnish the information is imperative.

Standard Prequalification Document

The World Bank has published a standard Procurement document namely, “Prequalification Document for Procurement of Works and user’s guide”. This document is available on the World Bank’s website. A standardized prequalification document may be developed for UP PWD in line with the World Bank’s document. However, some modifications of the World Bank’s document would be necessary to suit the local conditions and criteria suggested in this report.

B.7.4 INVITATION AND NOTIFICATION FOR PREQUALIFICATION

For the projects funded by the World Bank or ADB the notification and the invitation to pre-qualify for bidding should be in accordance with their guidelines.

For projects funded by the State or Central Government the prequalification notification and invitation to pre-qualify for bidding should be in accordance with the applicable rules and procedures of State or Central Government.

The notice invitation for prequalification should normally contain the following:

1. A brief scope and details of the proposed work,
2. Nature of bidding process i.e. ICB or NCB
3. Joint venture allowed or not
4. Time and period for obtaining the prequalification documents
5. Address for obtaining documents and communication
6. Amount of document fee and its mode of payment
7. Brief Procedure for submission of sealed envelope containing the bidder’s application.

A standardized form may be used for the notice inviting prequalification of Contractors. The invitation for prequalification should be advertised in:

• the press (national and regional circulation),
• official gazette,
• in an electronic portal with free access and
• other relevant /available form.
The Employer (PWD) shall allow the contractors who wish to be prequalified sufficient time for studying the prequalification documents, for preparing complete and responsive applications, and for submitting same. Generally not less than forty five (45) days should be provided for preparation and submission of applications. However, for large or complex projects the period may be extended up to sixty (60) days.

The Employer (PWD) shall use the standard prequalification document in which the minimum requirements for prequalification should be specified.

A sample Notice of Invitation for Prequalification (NHAI) is given in Annexure 1.

**B.8 POST-QUALIFICATION CHECK**

In the new bidding and contract documents PWD T-1 and T-2 provision exists for post-qualification check on bidders. The system of post-qualification check is inbuilt in these documents hence enhancing the post-qualification thresholds is not considered necessary.
PART C : TENDERING PROCESS IMPROVEMENTS

C.1 BACKGROUND

The IDS Consultants made the following recommendations in respect of the tendering process:

i. Revise tender documents currently in use for small or large works.

ii. Standardize the tender documents in two categories for major roads and minor roads.

iii. Follow a two stage tender evaluation system for works beyond a certain value. The first stage for prequalification is to be based on financial capability, equipment available, technical, staff and prior experience. The second stage should comprise the financial proposal. The marking system for evaluating the technical base and financial part could be introduced.

iv. The cost estimate of works should be realistic. If the tendered cost of work is more than 10% lower it should be rejected or disqualified. If the tender cost of work is more than 15% there should be a call for re-tender.

v. Contractor’s Performance incentive: Contractor’s performance to be strongly linked to their security money deposits. Contractors should be encouraged to get ISO certification for their quality system.

C.2 REVIEW OF EXISTING SYSTEM

In order to suggest improvements in tendering system, it is considered necessary to review the tendering system which is currently followed in UP PWD. As tendering is an important activity of procurement of works this issue should be examined along with the procurement process.

Uttar Pradesh PWD has not introduced any law to govern public procurement and tendering system in the State. As in the case of the Central government, the financial rules and orders, directives, and procedures issued by Government Departments from time to time provide the guidelines for procurement and tendering operations. The basic requirements are public invitation of tenders (except for small value purchases) and selection of lowest tenderer, which is adjudged to be capable. Selective and single tenders are permitted in appropriate circumstances.

The main deficiencies are the same as with the Central Government. Unsuccessful tenderers do not have the right to know the reasons for the rejection of their bids. There is no system of statutory review of their grievance. In 2001 the World Bank listed the following shortcomings in the tendering process and documents:

(i) Time for bid submission is unrealistic.

(ii) Qualifications for eligible bidders are rarely stated. When stated they are often inappropriate for the works and discriminatory.

(iii) Technical specifications (for equipment) are skewed.
(iv) Criteria and methodology for evaluation and comparison are rarely disclosed: when disclosed they are often discriminatory.

(v) Bid and performance Securities are not always mandated. When mandated they are often ridiculously low for large contracts.

(vi) The conditions of contract place most of the risks on the supplier/contractor.

(vii) Payment terms are not in line with market practice.

(viii) There is no sanction or interest for delay in payments.

C.2.1 PRE-TENDER ACTIVITIES

Under the present system, the tender for a work is invited after fulfilling certain pre-tender activities. The activities listed below are to be accomplished prior to initiating the process for invitation of tender for a particular work:

- Issue of Administrative approval of the work by the competent authority
- Preparation of detailed technical proposal including cost estimates of the proposed work after carrying out field investigations and tests.
- Technical sanction of the work by the competent authority

C.2.1.1 Administrative Approval

According to the Public Works Financial and Accounts Rules and Manual Order N part-1 clause no. 332, 'construction of public works of original nature cannot commence till the competent authority of the Government issues the administrative and technical sanction of that particular work.'


However, in practice the Government issues the administrative sanction for a particular project / work on the basis of detailed cost estimates. Generally the cost estimate of the proposed project / work is made available by the PWD on demand by the Government. The concerned Executive Engineer is responsible for the preparation of the cost estimate after site inspection and collecting field data. The unit rates of items of work are taken from the applicable basic schedule of rates of the concerned circle. The concerned Superintending Engineer scrutinizes the cost estimate which is then submitted to the Government through the Chief Engineer. Normally the administrative approval of works is issued by the Secretary to the Government in charge roads.
C.2.1.2 Preparation of Detailed Technical Proposal

Preparation and sanction of the detailed cost estimate for any works is essential towards the execution of that work. After issue of the Administrative approval the concerned Executive Engineer initiates all such activities necessary for the preparation of the detailed cost estimate. For a road project / works these activities normally comprises topographic surveys, detailed pavement and sub-grade investigation, material investigation, etc. Detailed design of the highway, pavement, or structures is carried out on the basis of field data, tests, investigations, and surveys. During the design stage, specifications for the various items of works are finalized. Generally the concerned Executive Engineer carries out the highway design. The structural design for major bridges, buildings, and complex structures are carried out in the Chief Engineer’s office.

The detail drawings for road and bridge works are mostly prepared in the Executive Engineer’s office.

The cost estimate submitted for administrative approval is further reviewed in the light of the detail designs and drawings. If major variations in the original cost estimate are noted, approval of such variations is obtained from the Government at this stage.

The detailed estimate generally comprises of the following:

1. Technical Report
2. Design calculations for all elements of works
3. Applicable Specifications
4. Drawings
5. Cost Estimates

Normally in state PWD’s the detailed project report is known as the ‘Detailed Estimate of Work.’

C.2.1.3 Technical Sanction

For according technical sanction of works the Government of UP has delegated powers to various officers of PWD. The delegated powers are linked to the estimated cost of work. The technical proposal of works for which the EE is not competent to accord technical sanction is submitted to the SE.

The technical proposal prepared in the Division Office and is approved by the EE/SE/CE as per powers delegated to him. The approving authority scrutinizes the proposal prior to issue of the technical sanction.
C.2.1.4 Approval of Tender Documents

In UP PWD tender document approval system is non-existent. The SE or EE who is responsible to invite tenders compiles the tender documents which comprise of standard forms and Bill of Quantities. The standard forms contain instructions to the tenderer, general conditions of contract and special conditions of contract, if any. Prequalification of tenderers is seldom done for normal PWD works.

C.2.2 TENDERING PHASE

During the tendering stage the following activities are performed:

1. Issue of Notice Inviting tender
2. Publicity of Notice Inviting Tender
3. Pre-bid Conference
4. Issue of tender documents to prospective bidders
5. Receipt of tenders
6. Opening of tenders

C.2.2.1 Issue of Notice Inviting Tender

The authority (SE/EE) who is competent to call for tenders issues the Notice Inviting Tenders and press notification on standard forms. For the purpose of invitation of tenders UP PWD recently adopted a standardized format on the lines of SBD developed by the GoI.

C.2.2.2 Publicity of Tender Notice

There are set rules for wide publicity of NIT. The officer issuing the NIT and press notification forwards the Press notice to the Director of Information, who in turn transmits it to various newspapers for publication. The scope of publicity depends upon the estimated cost of work put to tender. Works of higher cost are published in all India level newspapers, whereas works of a smaller magnitude are published in regional newspapers. The minimum time period required between the issue of NIT and receipt of tenders is also prescribed in the rules.

C.2.2.3 Pre-bid Conference

Previously there was no provision for a pre-bid conference for normal PWD works put to tender. Recently in the revised contract document provision exists for pre-bid conferencing for works costing Rs.40.00 Lacs and above.

C.2.2.4 Sale of Tender Documents

The officer who issued the notice inviting tenders, or his designated officer, sells the tender documents to the registered Contractors of specified class on payment of the tender cost stated in the NIT. The time and period during which the tenders are to be sold is as per the dates prescribed in the NIT.
C.2.2.5 Receipt of Tenders

On the dates specified in the NIT the tenders are received simultaneously in the office of the designated EE, SE, and District Magistrate (DM). The sealed tenders are submitted at specified office within a specified time and date. The tender documents must be dropped in a tender box which is sealed immediately on expiry of the specified time for receipt of tender. The tenders are received in a single envelope system.

C.2.2.6 Opening of Tenders

All tenders documents received at EE and SE level are collected at the DM’s Office. The Government has constituted a standing committee for the purpose of opening bids and their evaluation. This standing committee opens the tenders in the DM’s office, in the presence of those bidder’s representatives who wish to attend, at the time specified in the Tender documents. A tender opening register is maintained wherein entry of all the bids received and opened is made. Members of the standing committee and the bidders, or their representatives, who are present during bid opening, are required to sign the tender opening register.

At the time of Tender opening the standing Committee of the Employer ensures that the required bid security, in the prescribed mode, is furnished by the bidder along with his tender. Bids received without bid security will not be opened.

C.2.3 POST TENDER STAGE

During the post-tender stage the following activities are performed:

- Examination of Tenders
- Evaluation of Tenders
- Approval / Rejection of Tenders
- Award of work

C.2.3.1 Examination of Tenders

Immediately on opening of the tenders the process of examining them is undertaken by the same committee who was empowered to open the tenders. Prior to the detailed evaluation of Bids, the committee determines:

- Whether the Tender meets the eligibility criteria or not
- If the Tender is properly signed,
- If the Tender is accompanied by the required Security deposit; and
- If the Tender if substantially responsive to the requirements of the Tender Documents.
- If there are any arithmetical errors in those Tenders determined to be substantially responsive.
C.2.3.2 Evaluation and Comparison of Tenders

After evaluating the substantially responsive Tenders the Tender Committee prepares a comparative statement of the tenders in the order of ranking. This comparative statement, along with the original tenders, is placed before the Tender Approving Authority for their decision.

C.2.3.3 Approval/ Rejection of Tender

The Approving Authority examines the reasonability of bid prices as compared to the prevailing market rates for works of a similar nature. If the bid price is considered reasonable the Approving Authority approves the Tender. If the Tender price is considered is high the Approving Authority may conduct negotiations with the lowest bidder, or all bidders, to explore the possibility for a reduction in price. The Tender may be rejected if the Competent Authority considers that the rates are high.

C.2.3.4 Award of Contract

On approval of the Tender by the Competent Authority of the PWD, the work is awarded to the bidder whose Tender has been determined to be substantially responsive to the Tender Documents and who has offered the lowest evaluated tender price. The process of signing the agreement is performed after the award of work.

C.3. IMPROVEMENT OPTION

C.3.1 GENERAL

The existing tendering process is based on the traditional approach. To maximize the efficiency of the procurement process, ensuring healthy competition among Contractors, and ensuring transparency on the system, a number of improvements to the system are necessary. Basically the objective of procurement of works should aim to achieve the following:

- Maximizing efficiency in procurement, which will cover the objective quality, desired speed and overall economy.
- Ensuring healthy, equitable, fair and open competition among Suppliers and Contractors;
- Ensuring procurement in a transparent manner;
- Enactment of Legal statute for Transparency in Public procurement
- Accountability and cost effective use of funds

Drawbacks noted in the present system are:

- No legal statute for procurement and tendering
- Poor quality of Technical Proposal or Detailed Project Report
- Information to Tenderers supplied with the tender documents is not adequate
- Lack of transparency in the bid evaluation system.
- Use of ‘muscle power’ to grab the work on the tender opening day.
The present system of tendering is generally satisfactory provided its implementation is carried out in an orderly manner without mutilating the laid down procedure. However, to achieve the objectives and overcome the drawbacks, the procuring entity should take up the following additional measures.

C.3.2. COMPREHENSIVE LEGAL FRAMEWORK AND IMPROVED TRANSPARENCY

Presently there is no law governing the procurement and tendering system in the State. The financial rules and orders, directives, and procedures issued by the Government Departments from time to time provide the guidelines for procurement and tendering operations. In the absence of any legal statute the entire procurement and tendering system has no legal standing in the Court of Law and lacks transparency. An act dealing with Procurement and tendering in Government Departments should be enacted through legislation. The act should include:

- Wide publicity
- Easy availability of tender documents
- Prior disclosure of the criteria for eligibility
- Qualification and evaluation
- Publication of award of contract together with reasons for the decision
- Right to appeal for aggrieved Tenderers
- Negotiations with Tenderers including the circumstances and requirements of same

C.3.3. PREPARATION OF DETAILED PROJECT REPORT (DPR)

The success of procurement of works largely depends upon the quality of project preparation and Bidding documents. It is imperative to prepare a detailed project report, specification, design, and drawings. These should be based on detailed site investigations, and sound engineering design. The BOQ should be accurate and in total concord with the other bid documents.

Some Contractors, in the course of preparing their bid, will visit the site and carry out their own investigations. These investigations may cover the supply of alternative materials which meet the specification, but at a lower unit cost than those proposed. The Contractor may spend time checking the BQ against the specification and drawings looking for any discrepancies that he can use to advantage.

Sadly most of the Detailed Project Reports produced by the PWD fall short of this type of detailed scrutiny, and generally suffer from the following faults:

- Inadequate site appreciation
- Inadequacy of detailed investigations and field-testing
- Design adopted for highways, pavements, and structures are not in conformity with the standards and codes
- Errors in the BQ
- Specifications lack clarity
- Inadequate drawings and detailing
- Lack of clarity in the instructions to bidders
- Haphazard and non-standard bid forms
- Outdated conditions of contracts
- Absence of environmental mitigation plans

The DPR should be prepared with utmost care and include:

- Approval of the Statutory Bodies for Site Plan, Drawings etc. as required.
- Land acquisition details
- Detailed soil investigations.
- Sub-grade investigations and pavement composition
- Construction material investigations
- Design of pavement, structures, and highways to approved standards
- Design of hydraulics for cross-drainage structures
- Detailed longitudinal and cross-sections.
- Detailed structural drawings.
- Detailed cost estimate
- Accurate BQ
- Cash flow forecasts
- Systems to be adopted for project monitoring.
- Works accounting system.
- Quality assurance system/mechanism.
- Environmental mitigation plans
- Bidding Documents and Bidding Systems - single, two parts, pre-qualification, post-qualification.

C.3.4 STANDARD TERMS AND CONDITIONS OF CONTRACT

The tender documents PWD T-1 and T-2, which were enacted by UP PWD in January 2007, address most of the deficiencies in the tendering process and documentation. For very small works the recommend was made to adopt the World Bank’s standard bidding documents which are applicable for works valued at less than Rs.15.00 lacs.
These tender documents include the following:

- Instructions for preparing tenders by the Contractor.
- The criteria for issue of tenders and procedures, to evaluate the qualifications of Suppliers or Contractors.
- Requirements as to documentary evidence that must be submitted by Suppliers or Contractors to demonstrate their qualifications.
- The location where the construction is to be effective, any incidental services to be performed; and desired, or required time, when the goods are to be delivered or construction is to be effective.
- The factors that will be used by the Procuring Entity in determining the successful tenders and any factors, other than price, which will be taken into account, and the related weight of such factors.
- If alternatives with respect to the characteristics of the goods, construction, contractual terms, conditions or other requirements set forth in the tender documents that will be permitted, and statement to that effect together with a description of the manner in which any alternative tenders will be evaluated and compared.
- The means by which Suppliers or Contractors may seek clarifications of the tender documents, and a statement as to whether the procuring entity intends, at this stage, to convene a meeting of Suppliers or Contractors.
- The period of time during which tender shall be valid.
- The place, date and time for opening of the tenders.
- The procedures to be followed for opening and examining the tenders.
- The names, designations and addresses of one or more officers or employees of the Procuring Entity who are authorized to communicate directly with, and to receive communications directly from, Suppliers or Contractors in connection with the procurement proceedings.
- Any formalities that will be required once a tender has been accepted for the procurement contract to enter into force.

C.3.5. EFFECTIVE MONITORING AND AUDITING PROCEDURES

To ensure compliance with the regulations relating to procurement and tendering it is necessary to develop mechanisms for effective monitoring and auditing procedures and their place and role in the organisation.

C.3.6 TENDER DOCUMENT APPROVAL

Currently there is no system for approval of tender documents prior to the issue of the invitation to bid. A minor deficiency in the tender documents may have serious consequences, which may jeopardize the entire tender process. A system for approval of tender documents by the Competent Authority should be established and implemented.
C.3.7 PRE-QUALIFICATION OF CONTRACTORS

Prequalification of bidders should be carried out for works costing Rs. 5.00 crores and above, and for all major bridge works.

C.3.8 IMPROVED CAPACITY

Training should be given to staff engaged in the procurement process to develop professional skill in Circles and Divisions. The staff once trained, should not be changed frequently.

C.4 E - TENDERING

C.4.1 GENERAL

Electronic tendering facilitates the complete tendering process from advertising the requirement through to the placing of the contract. This includes the exchange of all relevant documents in an electronic format. Terms used in this process are:

- RFQ (request for quotation)
- RFT (request for tender)
- e-bidding

Some e-tender solutions are packaged with evaluation tools, which assist in comparing tenders from suppliers in order to select the winning tender. E tendering is similar to Request for Quotation (RFQ). RFQ is sometimes included as part of the functionality of an e-tender system.

C.4.2 BENEFITS OF E-TENDERING

- Reduced tender cycle-time
- Fast and accurate pre-qualification and evaluation, which enables the automatic rejection of bidders that fail to meet the tender specification.
- Faster response to questions and points of clarification during the tender period
- Reduction in the labour intensive tasks of receipt, recording and distribution of tender submissions.
- Reduction of the paper trail on tendering exercises, reducing costs to both Government and bidders.
- Improved audit trail increasing integrity and transparency of the tendering process.
- Improved quality of tender specification and Supplier response.
- Provision of quality management information.
- Manual tender processes are long and cumbersome, often taking three months or longer, which is costly for both Government and bidder organizations. E-Tendering replaces these manual paper-based tender processes with electronically facilitated processes based on best tendering practices which save time and money.
• Procuring Entity is able to manage the tenders coming in, with all tenders stored in one place.
• Procuring Entity can cut and paste data from the electronic tender documents for easy comparison in a spreadsheet.
• Evaluation tools can provide automation of this comparison process.
• Bidder’s costs in responding to invitations to tender (ITT) are also reduced as the tender process cycle is significantly shortened.
• e-tendering offers an opportunity for automating most of the tendering process: from help with preparing the tender specification; advertising; tender aggregation; to the evaluation and placing of the contract.

C.4.3 E - TENDERING PROCESS

Using an e-tendering solution for the procurement of goods and services involves the following steps:

1. Government employees can collaborate on-line to create the electronic ITT document
2. The workflow functionality of the e-tendering system can be used to route the ITT document to all the parties involved in the approval process, such as finance and legal departments
3. The ITT is published via the e-tendering system and is available on-line for interested bidders to view. Bidders would normally access the e-tendering system to view the ITT via the UP PWD website
4. Bidders respond to the ITT by sending their bids using secure e-mail to the e-tendering system’s ‘electronic vault’. In-built security features prohibit the Procuring Entity gaining access to any of the tender responses until a specified time
5. Once the tender deadline has been reached the procurement entity users of the system can view the tenders and collaborate on-line to evaluate the submitted bids. In the case of e-tendering systems, which include bid evaluation tools, much of the evaluation analysis can be automated.
6. The Bidder of the winning bid can be automatically notified of the award via the e-tendering system.
7. In the case of integrated systems, the award automatically becomes a commitment in the Government’s accounts system.
8. Increased awareness about tendering processes among citizens. It may help to create some groundswell of demand for more freedom of information and greater transparency.
C.4.4. SALIENT FEATURES

E-Tendering is a relatively simple technical solution based around secure e-mail and electronic document management. It involves uploading tender documents on to a secure website with secure login, authentication and viewing rules.

Compliance with UP PWD’s own standing orders needs to be considered, and changes made to standing orders if necessary.

Tools available in the current market offer varying levels of sophistication. A simple e tendering solution may be a space on a web server where electronic documents are posted with basic viewing rules. This type of solution is unlikely to provide automated evaluation tools; instead users are able to download tenders to a spreadsheet and compare manually, but in an electronic format. Such solutions can offer valuable improvements to paper-based tendering.

More sophisticated e-tendering systems may include more complex collaboration functionality, allowing numbers of users in different locations to view and edit electronic documents. They may also include an e-mail trigger process control which alerts users such as, for example, a colleague having made changes to a collaborative ITT, or a supplier having posted a tender.

The most sophisticated systems may use evaluation functionality to streamline the tender process from start to finish, so that initial ITT documents are very specific and require responses from vendors to be in a particular format. These tools then enable evaluation on strict criteria, which can be completely automated.

It is necessary to consider if the market sector the Procuring Entity is trying to source from is ready for e-tendering. The loss of bidders due to perceived complexity could be a problem.

Typical features of an e-tendering system may include:

- secure electronic communication allowing the Procuring Entity to post ITT and a bidder to post their tender
- User interface with a list of current tenders
- Controlled access to tenders using passwords, user profiles, and permissions
- Central storage of documentation
- Repository of previous ITTs
- Repository of standard terms and conditions
- Audit trail
- Management information and reporting
Other features that an e-tendering solution may include are:

- Workflow functionality, which routes documents to appropriate people, or alerts individuals of actions in the system
- Collaboration facilities enabling a number of people to work on creating an ITT document or to evaluate tenders
- Automated evaluation of tenders and award notification
- Tools to assist the pre-qualification of Suppliers
- Automated award notification

C.4.5 INTEGRATION OPPORTUNITIES

The benefits of e-tendering can be achieved without the need to integrate with other systems. An e-tendering system may be offered as part of a suite of e-procurement systems. In such situations there may be integration with the e-ordering functionality whereby a winning e-tender creates a purchase order in the order system.

In addition, an e-tendering system may be integrated with the Procuring Entity’s financial systems where a winning bid automatically becomes a commitment on the system and creates an order entry.

C.4.6. EFFORT AND COST

E-tendering solutions are usually offered as web solutions, which are either hosted on the Procuring Entity’s own servers (internet) or by third party service providers. E-tendering systems may also be provided as part of a suite of e-procurement solutions, bundled with an e-ordering, contract management or e-auctioning systems, for example.

The effort and cost involved in implementing an e-tendering solution is relatively low, especially in comparison to some complex e-ordering systems, mainly due to the low-tech nature of many systems and limited necessity for change management and training of either the Procuring Entity or Supplier.

Many end users and Suppliers regard e-tendering as a positive development eliminating many mundane tasks and speeding up the procurement cycle.

The financial benefits of using e-tendering are based around process efficiencies rather than reduced purchase prices.
C.4.7. CONSTRAINTS / CHALLENGES

The following constraints and challenges are perceived in implementing e-procurement, therefore remedial measures must be taken to find solutions of these constraints and challenges:

- Standards and Benchmarks: Specific Technical standards and benchmarks for the transparency of tendering in India have not yet been developed.

C.4.6.1 Lack of Legal Infrastructure.

Full e-procurement can only be possible if electronic documents are given legal status in the Indian Courts of Law. The e-transparency system is limited in a number of ways by legal constraints. The operation of the e-tendering system may be constrained by the absence of "cyber-laws" that would recognise the legitimacy of electronic documents and electronic transactions.

C.4.6.2 Staff Resistance

Some officials may be resentful or fearful about the potential loss of bribe income the system could entail; they tend to manipulate what data goes into the system to their own advantage. Officials lack the skills to use the system and so tend to ignore it. Some officials may be resentful of what they see as an additional workload without any commensurate additional reward.

C.4.6.3 Lack of Broader Engagement / Awareness

The e-tendering system could be used by citizen groups and other NGO’s to maintain pressure on Government to deliver on infrastructure commitments, and to reduce corruption in the tendering process. NGO’s and academic groups could also help spread awareness about the system, and disseminate information drawn from the system.

To overcome these challenges and constraints the following approach is suggested:

Involve citizen groups. Although citizens as individuals can play a role in transparency, that role is better taken on by representative groups such as NGO’s or academic organisations. Such groups should be involved in both the design and implementation of e-transparency systems if those systems are both credible and affect the accountability of government officials.

Don't just focus on technical skills. Lack of technical skills is still an issue for this e-transparency system, both inside and outside government. However, the 'transparency' aspects of the system are more important than that 'e' aspect, and training and change management should focus on introducing more transparent procedures, systems and culture into government.
C.5. E - TENDERING IN ANDHRA PRADESH

Government of Andhra Pradesh has identified ‘e’ procurement as one of the key thrust areas and has taken up e-procurement as one of the core IT initiatives. Government has entered into an agreement with M/s CI India Pvt Limited to develop, operate, and maintain ‘e’ market place as a pilot project initially covering the following four Departments:

1) Andhra Pradesh Technology Services.
2) A.P. State Road Transport Corporation.
3) A.P. Health and Medical Housing and infrastructure Development Corporation.
4) Commissionerate of Tenders (Irrigation, R&B Department).

As a Pilot project ‘e’ procurement shall be adopted in Irrigation, R and Bridges Departments in respect of works coming under the purview of the Chief Engineers / Engineer-in-Chief / Commissionerate for tenders valued at Rs. 1.00 crore and above, that are taken up with State Government funds (including NABARD, AIBP), and N H. Works costing above Rs. 1.00 crore, adopting the guidelines / procedures as indicated in the order.
4. MEETINGS WITH FOCUS GROUP

Two Focus Group D – Contract, Procurement and Management meetings were held on 3rd of October with the Focus Group and 4th of October 2007 with the Chairman who was unable to attend the Focus Group that took place on the previous day, when this Report was discussed, approved and finalised.

The following were present from UP PWD:

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation and Office</th>
<th>Name</th>
<th>Designation and Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shri. Yogesh Mathur</td>
<td>SE, IDS Cell, Lucknow</td>
<td>Shri Onkar Singh Kadam</td>
<td>CE (Building) PWD, Lucknow</td>
</tr>
<tr>
<td>Shri. N. K. Bishayee</td>
<td>EE, RSD-3, Lucknow</td>
<td>Shri. Yogesh Mathur</td>
<td>SE, IDS Cell, Lucknow</td>
</tr>
<tr>
<td>Shri. J. P. Jain</td>
<td>EE, RSD-4, Lucknow</td>
<td>Shri. N. K. Bishayee</td>
<td>EE, RSD-3, Lucknow</td>
</tr>
<tr>
<td>Shri. Rajeev Swami</td>
<td>EE, IDS Cell, Lucknow</td>
<td>Shri. J. P. Jain</td>
<td>EE, RSD-4, Lucknow</td>
</tr>
<tr>
<td>Shri. Rajesh Kumar</td>
<td>AE, IDS Cell, Lucknow</td>
<td>Shri. Rajeev Swami</td>
<td>EE, IDS Cell, Lucknow</td>
</tr>
<tr>
<td>Shri. Sanjay Kumar Srivastava</td>
<td>AE, CD-3 (WB), Lakihmpur</td>
<td>Shri. Rajesh Kumar</td>
<td>AE, IDS Cell, Lucknow</td>
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<tr>
<td>Shri. Pawan Verma</td>
<td>AE, CD-3 (WB), Lakihmpur</td>
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<td>Shri. Anaya K Srivastava</td>
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</table>

The consultant explained through power point presentation on all aspects of the report no.38. Focus group members had detailed discussions on each part of the report and to this effect the Minutes of meeting are drawn as under:

1. Part A: Contract Packaging

The focus group was in agreement with the consultant’s recommendation as contained in the report regarding contract packaging:

2. Part B: Enhanced Contractor Prequalification thresholds /selection criteria

2.1. Section B-5

Focus group advised following changes in chapter B-5 Recommendations for revamping registrations of Contractors in PWD.

a) The classification should be in 6 tiers and categorized as Spl Cat-I, Spl-Cat-II and A,B,C and D.

b) Criteria for historical non-performance of contractor should be included in the requirement for renewal, up-graduation and registration of Spl Cat –I, II, A and B class of contractors.

c) Requirements for construction equipment should be curtailed to make it enforceable.
d) Requirement towards personnel under Managerial and Technical Competence is quite elaborate; the personnel requirement should be trimmed to bare minimum.

e) Provision for Computerization of registered contractors should be modified.

f) Provision for review Performance appraisal of registered contractors should be made more elaborate.

g) Process for implementing revised rules for registration should be included in the report.

2.2. Section B-6

The chairman Focus Group opined that the selection of contractor through prequalification process should be applicable for works costing above Rs.1.00 crores. The consultant explained that provision has been made for prequalification of contractor for works costing Rs.2.00 crores with specific approval from CE. The Chairman was convinced.

The focus group was in agreement with the consultant’s recommendation as contained in the report regarding recommendations on Prequalification of contractors.

3. Section B-8

The focus opined that Post qualification check already exists in doc T-1 and T-2 and they are adequate.

4. Part C: Tendering process Improvements

The focus group was in agreement with the consultants recommendations. The focus group members pointed out that the preparation of DPR as recommended is mandatory as per existing PWD rules, but this rule is not being complied strictly. Mechanism for strict compliance of the Government should be evolved.
5. Action Taken Report on the minutes of Focus Group meeting

The report has been revised after incorporating advice given by the focus group. The individual action taken is reported in table below:

<table>
<thead>
<tr>
<th>Issues</th>
<th>Action Taken</th>
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</thead>
<tbody>
<tr>
<td>1. Part A Contract Packaging</td>
<td>No action required</td>
</tr>
<tr>
<td>The focus group was in agreement with the consultant’s recommendation as contained in the report regarding contract packaging:</td>
<td></td>
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<tr>
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<tr>
<td>Focus group advised following changes in chapter B-5 Recommendations for revamping registrations of Contractors in PWD.</td>
<td></td>
</tr>
<tr>
<td>a) The classification should in 6 tiers and should be categorized as Special Category-I, Special Category-II, and A,B,C and D</td>
<td>a) Renamed as advised please refer table B-4.</td>
</tr>
<tr>
<td>b) Criteria for historical non-performance of contractor should be included in the requirement for renewal, up-gradation and registration of Special Category –I, II, A and B class of contractors.</td>
<td>b) Incorporated in the report under para B.5.3.8: Historical Contract Non-Performance.</td>
</tr>
<tr>
<td>c) Requirements for construction equipment should be curtailed to make it enforceable.</td>
<td>c) Requirements given in Table No. B.12 : Numbers of Key Construction Equipment to be Owned by Contractor revised in accordance with Focus Group comments</td>
</tr>
<tr>
<td>d) Requirement towards personnel under Managerial and Technical Competence is quite elaborate; the personnel requirement should be trimmed to bare minimum.</td>
<td>d) Revised the requirement of personnel in the report under para B.5.3.6: Managerial and Technical Competence.</td>
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<tr>
<td>e) Provision for Computerization of registered contractors should be modified.</td>
<td>e) Incorporated in the report under para B.5.3.12. Computerised Registration</td>
</tr>
<tr>
<td>f) Provision for review Performance appraisal of registered contractors should be made more elaborate.</td>
<td>f) Complied with in the report under para B.5.1.13 Review of Contractor’s Performance</td>
</tr>
<tr>
<td>g) Process for implementing revised rules for registration should be included in the report.</td>
<td>g) Complied with under para B.5.1.14. GO for revised Classification and Rules for contractor registration</td>
</tr>
<tr>
<td>Issues</td>
<td>Action Taken</td>
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<td>-----------------------------------------------------------------------</td>
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<td>No action required</td>
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<td>T-1 and T-2 and they are adequate.</td>
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<td><strong>4. Part C Tendering process Improvements:</strong></td>
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</table>
5. PRESENTATION TO PROJECT STEERING COMMITTEE

<table>
<thead>
<tr>
<th>PWD Focus Group - D</th>
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</thead>
<tbody>
<tr>
<td>Shri Onkar Singh Kadam</td>
</tr>
<tr>
<td>Smt. Chitra Swarop</td>
</tr>
<tr>
<td>Shri Jagdish Prasad Jain</td>
</tr>
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<td>Shri Rajeev Swami</td>
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<td>Shri Rajesh Kumar</td>
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</tbody>
</table>

LEA International Ltd. and LEA Associates South Asia Pvt. Ltd.

Shri S.K. Pancholy | Contract & Procurement Specialist
IDS Consultant (TCE) Recommendations:

Strengthen Procurement process by increasing Contract sizes, raising Contractor’s qualification criteria and streamlining tendering process.

• The department should revise the current contractor enlistment Rules
• Include upward revision of solvency limiting amount, qualified to higher size, and higher security fees to enable the department to award large contracts’
• Add another class AA category to the existing class A, B, C and D in contractor classification to categorize the bigger contractors for handling large works.

Action Milestone:

Implement revised contract packaging, enhanced contractor prequalification thresholds/ selection criteria and tendering process improvements.
ACTION PLAN

Main emphasis is to cover the following issues;
1. Contract Packaging
2. Enhanced contractor prequalification thresholds /selection criteria
3. Tendering Process improvements

Each issue in turn is addressed as follows:
• Review Present Practices in UP PWD
• Study other practices
• Recommendations
Contract Packaging

Contract Packaging means more than one sanctioned works are grouped under one contract

Practice in UP PWD:

• Contract packaging concept is not prevalent for normal PWD works in UP

• Grouping and Packaging of works by contract is followed in UP PWD for
  ➢ World Bank funded: and
  ➢ PMGSY projects

• Packaging of roads by contract under World Bank funded projects is based on:
  ✓ the capabilities of the contractors;
  ✓ geographical locations; and
  ✓ cost of the road projects
PRACTICE ELSE WHERE:

1. **The World Bank**: Size and scope of individual contract depends on the magnitude, nature and location of project.

2. **PMGSY Works**: Recommendation of PMGSY’s Technical committee for packaging of works by contracts.
   
   i. Category 1: Package cost between Rs.50 lacs to Rs. 2 crores
   ii. Category 2: Package cost between Rs. 2 crore to Rs.10 crore
   iii. Category 3: Package cost between Rs. 10 crores to Rs.50 Crores
   iv. Category 4: Package cost between Rs. 50 crore and above.
Final Recommendations for Implementation:

i. Frame and issue guidelines and directions for packaging of contracts for normal PWD works

ii. Basic principle of grouping and packaging should be with the aim of
   - maximize the efficiency of contractor by avoiding geographical dispersions of road sections
   - Promoting specialization for different road types.

iii. Renewal and periodic repair works requiring use of HMP and paver finisher should be invariably grouped and packaged

iv. Minimum size of package: Rs. 1.00 Crore and Maximum size of package: Rs 10.00 crore

v. Packaging basis
   - Cost between Rs.1.00 crore to Rs. 5 crore
   - Cost between Rs 5 crore to Rs. 10 crores

vi. Packaging should be done in such manner that would be attractive to both small and large contractors

vii. BOQ for each individual work should form part of contract

viii. Packaging may be done for Performance based contracts
ENHANCED CONTRACTOR PRE-QUALIFICATION_THRESHOLDS/SELECTION CRITERIA

Issues involved:

i. Rules, classification and enlistment of Contractors
ii. Pre-qualification of Contractors
iii. Post-qualification of Contractors
UP PWD Rules, classification and enlistment of Contractors

Contractor’s are enlisted in class A, B, C and D in following categories:
  - Buildings
  - Bridges
  - Road works
  - Sanitary and Water supply
  - Electrical works
  - Mechanical works

Eligibility in terms of maximum amount

Category - Buildings, Bridges and Road works

Class A - More than Rs.50 lacs
Class B - Up to Rs 50.00 lacs
Class C - Up to Rs. 25 lacs
Class D - Up to Rs. 10 lacs
Existing Requirements for registration in UP PWD

- Solvency
- Experience of work execution
- General Security
- Minimum Technical staff
- Minimum Construction Equipment
- Person of criminal record is not eligible to be enlisted
- Persons belonging to SC and unemployed engineers exempted up to 50% of security and solvency amount
IDS CONSULTANT RECOMMENDATIONS

IDS Consultants recommendations in respect of revisions to the system for Registration of Contractors:

i. Make the system more stringent to enable registration of only those Contractors who have proven ability to execute quality works

ii. Make provision for the physical verification of machinery/equipment owned by the Contractor and proof of same provided by the Contractor in support of his registration

iii. Computerize the data regarding registration of Contractors

iv. Periodically renew the Contractor’s registration

v. Review the performance of the Contractors. Provision should be made to debar or de-list those Contractors whose performance is unsatisfactory

vi. An in-house committee should be established to review the performance of Contractors
Final Recommendations for Implementation

General Requirements

Registration Criteria should be clear, detailed, and unambiguous specifying items so that assessment and evaluation may be carried out in a fair and transparent manner.

i. should possess the technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation and the personnel, to perform the procurement contract;

ii. have legal status to enter into the procurement contract

iii. not insolvent, in receivership, bankrupt or being wound up, their affairs are not being administered by a court or a judicial officer, their business activities have not been suspended and they are not the subject of legal proceedings for any of the foregoing

iv. have fulfilled their obligations to pay taxes and social security contribution;

v. have not been convicted of any criminal offence related to their professional conduct or the making of false statement or misrepresentation as to their qualifications to enter into a procurement contract or have not been otherwise disqualified pursuant to administrative suspension or disbarment.
Specific Requirements:

Capacity: Reclassify as under

<table>
<thead>
<tr>
<th>Class Road works Bridges</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spl I</td>
<td>Above Rs. 3.00 crores</td>
</tr>
<tr>
<td>Spl II</td>
<td>Up to Rs. 3.00 crores</td>
</tr>
<tr>
<td>A</td>
<td>Up to Rs. 1.00 crores</td>
</tr>
<tr>
<td>B</td>
<td>Up to Rs. 50.00 lacs</td>
</tr>
<tr>
<td>C</td>
<td>Up to Rs. 25.00 lacs</td>
</tr>
<tr>
<td>D</td>
<td>Up to Rs. 10.00 lacs</td>
</tr>
</tbody>
</table>
# Requirements

<table>
<thead>
<tr>
<th>Class of Contractor</th>
<th>Minimum average Annual Turn over during last 3 years – Rupees</th>
<th>Minimum Solvency amount Rupees</th>
<th>Minimum Security amount Rupees in lacs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spl-I</td>
<td>3.00 crores</td>
<td>200 lacs</td>
<td>7.5</td>
</tr>
<tr>
<td>Spl-II</td>
<td>200 lacs</td>
<td>120 lacs</td>
<td>5.00</td>
</tr>
<tr>
<td>A</td>
<td>60 lacs</td>
<td>40 lacs</td>
<td>3.00</td>
</tr>
<tr>
<td>B</td>
<td>50 lacs</td>
<td>30 lacs</td>
<td>1.50</td>
</tr>
<tr>
<td>C</td>
<td>15 lacs</td>
<td>10 lacs</td>
<td>0.50</td>
</tr>
<tr>
<td>D</td>
<td>6 lacs</td>
<td>3 lacs</td>
<td>0.25</td>
</tr>
</tbody>
</table>
Value of works completed within the last 5 years

<table>
<thead>
<tr>
<th>Class of Contractor</th>
<th>Works – Roads or Bridges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spl. I</td>
<td>1 No work: value Rs 3.00 crores. or 2 No. works: value of each work Rs.2.0 crores or 3 No. works: value of each work Rs. 1.5 crores</td>
</tr>
<tr>
<td>Spl. II</td>
<td>One work of value Rs 2.00 crores or 2 No. works: value of each work Rs.1.5 crores or 3 No. works: value of each work Rs.1.0 crores</td>
</tr>
<tr>
<td>A</td>
<td>1 No work: value Rs. 75 lacs or 2 No. works: value of each work Rs.50.00 lacs or 3 No. works: value of each work Rs.40.00 lacs</td>
</tr>
<tr>
<td>B</td>
<td>1 No. work: value Rs. 30 lacs or 2 No. works: value Rs 20.00 lac each or 3 No. works: value of each work- 15.00 lacs</td>
</tr>
<tr>
<td>C</td>
<td>Not applicable</td>
</tr>
<tr>
<td>D</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
1. Managerial and Technical professional to include Designation, Minimum Qualification and Professional Experiences

2. Key Construction Equipment – Road building and Bridges

3. **Litigation History**: All pending litigation shall in total not represent more than 50% of the Contractor’s present worth

1. **Criminal Offence**: Not eligible

2. **Legal Status**

3. **Quality Management system**: For Class I and Class II only
PREQUALIFICATION

Practice In India and abroad

- UP PWD - not prevalent for normal PWD works
- The World Bank: Applicable for large complex works- or ICB contracts
- CPWD- Applicable for works costing above Rs.5.00 crores
- NHAI- Applicable for large works
- Asian Development Bank: For large contracts involving ICB
- Canada- An annual prequalification system is used

Recommendations

Applicability

• Applicable for works costing above Rs. 5.00 crores
• May be applied for works costing above Rs 2.00 crore with specific approval from CE

Specific requirement:

Eligibility:

1. Must be Indian National
2. Not Debarred by GOI and GoUP
3. Govt owned company – Eligible if legally and financial autonomous, operate under commercial law and not dependent on UP PWD
Recommendations (Continued)

Specific requirement:

A. Historical Contract Non – Performance

1. History on Non-Performing Contracts- Nil occurrence during preceding 5 years
2. Failure to sign the contract: Nil Occurrence during preceding 2 years
3. Pending Litigation History: Not more than 50% of present worth of the Contractor

B. Financial situation:

1. Financial Performance: Capacity to meet cash flow requirements for 3 months.
2. Profit and Loss status: During preceding 5 years no loss incurred in more than 2 years
3. Solvency: Capable to produce solvency equal to 40% of the estimated cost of work
4. Average Annual Turn over: not less than 2 times the estimated annual turn over
Recommendation (Continued)
1. Experience:
   a. General Construction experience: In preceding 5 years – 9 month in each year
   b. Specific Construction Experience: Completed similar work in preceding 5 yrs
      • 3 works costing 40% of estimated cost of work, or
      • 2 works costing 60% of estimated cost of work, or
      • 1 work costing 80% of estimated cost of work
2. Minimum Construction Experience - Quantities of key items (80% of production rate)
4. Construction Equipment: As per nature and size of project
5. Technical and Administrative capability: As per nature and size of project
6. Quality: QMS

W.B.s Standard PQ Document may be adopted
TENDERING PROCESS IMPROVEMENTS

IDS Consultant Recommendations

- Revise Tender documents currently in use for all small and large Projects
- Standardize the tender documents in two categories - major roads and minor roads
- Follow a two stage tender evaluation systems for works beyond a certain value
- Stage-1, pre-qualification is based on financial capability, equipment available, technical staff, and prior experience etc
- Stage-2 should comprise of the financial proposal
- Form a committee to set criteria (such as 65-80 marks for capability and 35-20 marks for price) for evaluating tenders and awarding of contract
- PWD to have a good cost estimate of the work and while awarding the work, prices should be compared
- Tenders 10% below the estimated value should be rejected or disqualified. If all the bids are 15% above the estimate, fresh tenders should be invited

Contractor Performance

- Contractor Performance to be strongly linked to their security money deposit
- Contractors should be encouraged to get ISO certification for their quality
Deficiencies noted on Review of Existing system

- No law exist to govern the tendering process
- Time of bid unrealistic
- Qualification of eligible bidders rarely stated
- Technical specifications are skewed
- Criteria and methodology for evaluation and comparison not disclosed
- Bid and performance security not mandated
- Conditions of contract place most of the risks on the contractor
- Payment terms are not in line with market practice
- No provision for payment of interest if payments are delayed.

1. Develop legal framework for tendering and improve transparency enacted through an act:
2. Preparation of Detailed Project Report
3. Standardize terms and conditions of Contract
4. Develop Monitoring and auditing procedures
5. Tender Document approval system
6. Prequalification for works costing more than Rs 5.00 crores
7. Improved Capacity – Training
8. e-tendering
ANNEXURE : 1

INVITATION FOR PRE-QUALIFICATION OF CONTRACTORS
(INTERNATIONAL COMPETITIVE BIDDING)

Widening to 4-laning and strengthening of existing 2-lane carriageway of National Highway sections in the State of Jammu & Kashmir, Punjab, Himachal Pradesh, Haryana, Uttar Pradesh, Karnataka, Tamil Nadu and Kerala on North-South Corridor under Phase-II programme of NHDP.

1. National Highways Authority of India (NHAI) intends to carry out the pre-qualification of Contractors for civil works packages of the above mentioned projects. The total length of the project road is about 565.55 km and it consists of 18 packages , the project details may be seen in the website .

2. Pre-qualification is open to contracting firms and voluntarily formed joint ventures from all countries / areas in the world. The applicant may apply for Pre-qualification for the group of packages. Only firms and/or JVs pre-qualified under this procedure will be invited to bid at a subsequent date.

4. Pre-qualification documents can be obtained from 9th January to 9th February, 2004 between 1000 hrs and 1500 hrs on all working days from the address for communication mentioned below on payment of document fee of Rs. 25,000/- or US$ 550 in the form of a Demand Draft favoring National Highways Authority of India, and payable at New Delhi. The document can also be obtained by post in which case, an additional sum of Rs. 250/- or US$ 6 for postage should also be sent along with the request. The pre-qualification documents can also be downloaded from NHAI web site http://www.nhai.org. Downloaded pre-qualification documents submitted without document fee will be summarily rejected.

5. The request for the pre-qualification document must clearly state “Request for pre-qualification document for widening to 4-laning and strengthening of existing 2-lane carriageway of National Highway sections in the State of Jammu & Kashmir, Punjab, Himachal Pradesh, Haryana, Uttar Pradesh, Karnataka, Tamil Nadu and Kerala on North-South Corridor under Phase-II programme of NHDP”.

6. Sealed envelopes containing duly filled up pre-qualification document should reach NHAI at the address for communication given below not later than 1500 hrs on 9th February, 2004 and should be clearly marked “Application for pre-qualification for the project of widening to 4-laning and strengthening of existing 2-lane carriageway of National Highway sections in the State of Jammu & Kashmir, Punjab, Himachal Pradesh, Haryana, Uttar Pradesh, Karnataka, Tamil Nadu and Kerala on North-South Corridor under Phase-II programme of NHDP”.

8. NHAI will not be responsible for any delay in receiving the documents and reserves the right to accept/reject any or all applications without assigning any reason thereof.