

Terms of Reference
Uttar Pradesh Core Road Network Development Project
Consultancy Services for Independent Quality Auditor

1. Background

In the last decade GoUP has made a conscious effort to enhance its transport infrastructure. Rural roads networks have substantially increased in the state and is being supplemented by huge investments planned in state highways and Urban transport infrastructure by GoUP. The state highways are increasingly gaining importance in terms serving mobility needs of people both inter-city and rural/Urban. The Government of Uttar Pradesh (GoUP), through the Department of Economic affairs, Govt. of India has received the assistance of the World Bank for the improvement of State roads comprising a select network of state highways in Uttar Pradesh. The World Bank assistance, delivered through the proposed Uttar Pradesh Core Roads Network Development Project (UPCRNDP). The objective of the assignment is to conformity and quality of the works contract particularly in consistency with the contractual documents, the existence and the compliance with the relevant procedures of contractual documents. Uttar Pradesh Public Works Department (UPPWD) intends that periodic Performance Monitoring and Auditing are carried out by a third-party to enable the UPPWD assess critically the implementation progress, effectiveness and the in-place quality of the projects. This Terms of Reference is for an Independent Quality Audit Consulting Firm (IQAC) to carry out the Performance Monitoring and Auditing of the UPCRNDP;

2. Objective of the Assignment

The objective of assignment is to examine conformity of the works undertaken/being undertaken to the contractual specifications;

- (i) Confirm effectiveness of the quality assurance system (QAS) adopted by the Contractors as well as by the Project Management Consultant (PMC);
- (ii) Identify non conformances and propose remedial as well as corrective actions to minimize future occurrences; and
- (iii) Recommend measures for rectifications and improvements in the QAS.

3. Scope of Services

The scope of work includes:

1. Consultants shall undertake 4 quality audits each for following 3 civil works contracts at approximately four months interval.

S. no.	Name of the road	Category	Length (km)
1	Hamirpur-Rath Road	SH-42	73
2	Gola- Shahjahanpur Road	SH-93	57
3	Badayun-Bilsi-Bijnaur Road	SH-51	79

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2. Preparation of Inception Report, which shall include a detailed Audit Plan, methodology, schedule of carrying out the audits, format of the audit report and the Check-list of audit parameters.
 3. Consultants shall review all required project documents, including source approvals, material submittal requests and approvals, inspection and test plans, approved method statements, approved shop drawings, survey records, quality control files, Request for Inspection (RFI) files, non-conformance reports and various correspondence among contractual parties.
 4. For the completed works, consultants shall complete the desk review of the quality assurance testing regime adopted both by the PMC and the contractor. In addition, the consultants shall plan to audit the completed works by requesting the contractor through Engineer to carry out required quality control tests.
 5. For the ongoing works, the consultants shall participate in at least 5% of the overall quality control test performed by the contractor/consultants.
 6. The audit shall include but not be restricted to the review of adopted Construction procedures, workmanship of the works, sequencing of various construction operations, contractors' work plans, contractors' work practices, storing, consumption procedures, material testing, documentation system – to ensure sound and effective techniques are being employed.
 7. The consultants shall review the calibration certificates of relevant testing and surveying equipment used by the contractor and PMC in carrying quality assurance and control. Wherever feasible, the consultants shall conduct the calibrations checks on these equipments.
 8. The consultants shall endeavor to identify all non-conformances including those previously identified by the contractor and/or the supervision consultant.
 9. The consultants shall review quality assurance system adopted by the contractors and the Project Authority Engineers(PAEs) for its effectiveness. The audit shall perform the aging analysis on open non-conformance reports as a part of this exercise.
 10. Preparation of four Independent Audit Reports. The first audit shall cover all civil works done till the date of audit while the subsequent audit reports shall cover works carried out since the previous audit. The subsequent audit report must also include a review and status of remedial and corrective actions taken by the contractor/consultant on all non-conformances observed during the previous audit.
 11. The consultants shall review and prepare a Status Report of the remedial and corrective actions taken by the Contractors/PSCs on all non-conformances reported during the first audit.
 12. Submission of the Quality Audit Report to UPPWD and the World Bank. Consultants will also be required to participate in relevant review meetings/missions undertaken by the World Bank.

4. Employer's Obligation

Employer shall provide the following to the Consultants:

1. Access to the project sites including offices of supervision consultants and contractors, laboratories, and project documentations required to perform the audits.
2. Contract Documents between Employer and the Construction Contractor(s) for highway projects.
3. Contract Documents between Employer and Project Management Consultant (PMC).
4. Approved Quality Assurance documents, submitted by the Construction Contractor /PMC.

5. Provide an Action Taken Report by the PMC/Contractor within one month of the submission of the audit reports.
6. A copy of all RFI being issued after the appointment through the engineer to enable participation in at least 5% of tests.
7. Availability of contractors' / PAEs' nominated representatives and the Employer's representative during Audit at site.

5. Period of Assignment

The services of the Consultant would be for a period of 24 months starting from date of signing of Contract. The consultant has to undertake 4 quality audits for each construction package and submit reports in accordance with the provision of TOR. Indicative total man-months required are approximately 14 months.

6. Key Professionals

CVs of following Key professionals needs to be submitted with the technical proposal

S. No	Key Professional	Qualifications
1	Team Leader	Bachelor of Civil Engineering with a total experience of 20 years and minimum of 10 years in quality control of highway and bridge construction works.
2	Quality Control Engineer – 1 No	Bachelor of Civil Engineering with a total experience of 15 years and minimum of 7 years in quality control of highway and bridge construction works.
3	Field Engineer – 2 No	Bachelor of Civil Engineering with a total experience of 10 years and minimum of 5 years in quality control of highway and bridge construction works.

7. Time Schedule And Deliverables:

S. No.	Report	No. of Copies	By When
1	Inception Report	5	Within 15 days of signing the contract
2	First Audit Reports (package wise) – 3 no	10	As per the Audit Plan approved as part of the Inception Report.
3	Subsequent Audit Reports (package wise) – 3 no	10	All reports (package wise) must be submitted latest by 4 months after the first audit report of respective package/contract.
4	Status Report on Corrective Actions taken following the audits	10	All reports (package wise) must be submitted latest by 4 months after the first audit report of respective package/contract.