



National Rural Infrastructure Development Agency

(Ministry of Rural Development, Government of India)
5th Floor, 15- NBCC Tower, Bhikaji Cama Place, New Delhi- 110065



Advertisement no. – NRIDA/NQM/02/2021

Empanelment of National Quality Monitors (NQMs) For inspection of Road and Bridge Projects under PMGSY (Rolling Advertisement)

Pradhan Mantri Gram Sadak Yojana (PMGSY) is a flagship programme of Government of India to provide good quality road connectivity in rural areas of the country. This is a centrally sponsored scheme implemented by respective States/UTs as per technical specifications prescribed by Indian Roads Congress (IRC) and Ministry of Rural Development. National Rural Infrastructure Development Agency (NRIDA), under Union Ministry of Rural Development (MoRD), provides technical and managerial support to States/UTs for implementing the Programme.

NRIDA proposes to empanel senior civil engineers, retired from Central/ State Government Departments/ Organisations, Public sector undertakings (PSUs) and serving/ retired faculty members of Government engineering colleges/IITs/ NITs/Government research institutes, etc. who have worked/ consulted in the field of roads/ bridges construction, to work as National Quality Monitors (NQMs). The NQMs shall be required to carry out field inspection of roads and bridge projects spread over 2-3 districts in a State, in a span of 10-12 days in a month.

The details of eligibility and selection criteria, application format, guidelines for inspection, honorarium and travelling allowances admissible to NQMs etc. may be seen at www.pmgysy.nic.in under advertisement/circular tab, in vacancies section.

The application shall be sent only through e-mail on **NQMSELECTION2021@GMAIL.COM**. Interested candidates should send their duly recommended application, complete with all documents in one consolidated pdf file (*not more than 10 MB size*) in the prescribed format. No hard copies of Applications will be entertained.

The NQM shall be empanelled separately for inspection of road projects, bridge projects and road & bridge projects. The Details of selection criteria for empanelment as NQM, is given at **Annexure-I**. The CV format for empanelment as national quality monitor is given as **Annexure-II**. The format of recommendation to be furnished by the employer of the candidate (*as applicable for retired or serving officials*) is enclosed as **Annexure-III(a)** and **Annexure-III (b)**. Upon selection, the provisionally empanelled NQM is required to sign a code of conduct given at **Annexure-IV** and has to undergo a mandatory orientation program before empanelment. The guidelines for quality monitoring by NQMs is given at **Annexure-V** and the details of honorarium and travelling allowances etc. payable to NQMs are given at **Annexure-VI**.

Note: As this is a rolling/ continuous call for applications, there is no last date of receiving applications. Applications, complete in all respects, will be considered for empanelment at periodic intervals.

Advertisement No. – NRIDA/NQM/02/2021
Selection criteria for empanelment of
National Quality Monitors (NQMs)

Criteria No. 1 - The candidate should be a Graduate in Civil Engineering from a recognized University.

Criteria No. 2

(i) – **For inspection of Road Projects**- The candidate should have retired from the post not below the level of Superintending engineer or equivalent from a Govt. organization, Central/ State public sector undertakings (PSUs) or their subordinate offices with a minimum one year of service at SE level. Serving and retired faculty members of Government engineering colleges/ IITs/NITs/ Government research institutes, etc. who have worked / consulted in the field of road construction can also apply.

(ii) – **For inspection of Bridge projects** - The candidates should have retired from the post not below the level of Executive Engineer or equivalent who have worked in Govt. organization, Central/ State public sector undertakings (PSUs) or their subordinate offices. Serving and retired faculty members of Government engineering colleges/ IITs/NITs/ Government research institutes associated with bridge design, supervision and consultancy work can also apply.

Criteria No. 3 - No applicant would be allowed to work as NQM after completing the age of 67 years, therefore, the applicant should not have attained the age of 65 years on the last date of application so that the applicant is able to work as NQM for 2 years, subject to satisfactory performance.

Criteria No. 4 - A candidate who has not worked with any organization cumulatively for 3 years after retirement shall not be eligible. This will be applicable only to those candidates who apply after 5 years of their retirement.

Criteria No. 5

(i) – **For inspection of Road Projects** - The candidate (retired Government engineer) should possess the experience of working in the field of construction of roads for at least 5 years in last 10 years before his retirement from Government service. Also, in last 5 years, he should have worked at least for 2 years in the field of roads (any field out of planning and designing, execution or management of construction or maintenance of roads). The serving and retired faculty members of Government Engineering colleges/ IITs/ NITs/ Government research institutes, should possess minimum 10 years experience in the field of planning/ design/ supervision/ execution/ consultancy of construction and maintenance of roads.

(ii) – **For inspection of Bridge Projects**- The candidate (retired Government engineer) should possess the experience of working in the bridge sector (any field out of planning / design / execution) for at least 8 years, out of which at least 4 years should be in execution of bridge projects. Such candidates must have supervised /constructed at least 10 numbers of long span bridges of span 50 m and above, over a period of last eight years of service. Candidates from bridge specific organisations will be preferred.

Faculty members (serving / retired) of Government engineering colleges/ IITs/ NITs/ Government research institutes should have minimum 08 years of experience of design / supervision consultancy of Bridge Projects.

The candidates would be required to furnish the list of bridge works in which they were associated at the planning / design/ execution/ supervision level. This should be certified by the department, where engineer/Faculty has worked.

Criteria No. 6: Recommending Authority:

(i)- The candidate, who has retired from *Government/PSU*, should have been recommended by the concerned State Government or by Government of India organization or administrative head of the PSUs, as applicable, clearly indicating that his integrity is not questionable.

(ii)- For serving & retired faculty members of the State Government engineering colleges/ State Government research institutes/ IITs/ NITs/ research institutes of Central Government, the candidature should be recommended by the head of the institute. While recommending, the head of the institute should also certify that the candidate has high ethical standards and his/her integrity is not questionable.

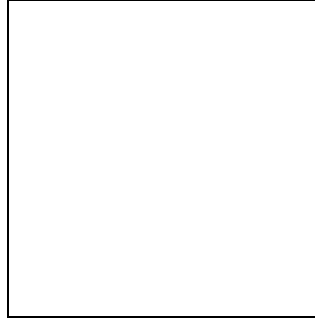
Criteria No.7 - The candidate should be willing to work as National Quality Monitor with high ethical standards and sign the code of conduct.

Criteria No. 8- The reporting is to be done through web & mobile based application. The candidate, therefore, should have working knowledge of computers and smart phones or be willing to learn the same.

NRIDA's Advertisement No.: NRIDA/NQM/02/2021

The application should be mailed to NQMSELECTION2021@GMAIL.COM

CV format for Empanelment as National Quality Monitor



(passport size coloured photograph of candidate to be pasted in the box)

1. **Name:**
(as per service records):

2. **Date of Birth:**
Date/ Month/ Year
(in words)

3. (i) **Date of Retirement from Govt. Service:**
Date/ Month/ Year
(in case of retired officer)

- (ii) **Date of Regular Appointment in Academic/ Research Institute:** ...
Date/ Month/ Year
(in case of working officials)

4. **Communication Address:**

5. **Contact Information:**

(a) Residence Land line phone:

(b) Mobile No(s) . :

(c) e-mail Id. (in CAPITAL LETTERS):

6. **Educational & Professional Qualifications:**

(as per Selection Criteria No. 1)

Sl. No.	* Degree	Year of Passing	Subject / Discipline / Specialization	University	Remarks
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1.	Bachelors Degree				
2.	Masters Degree				
3.	Doctoral Degree				
4.	Other Degree				
5.					
6.					

* enclose copy of Certificates

7. (i) PAN** number-
- ** enclose copy of documents

8. **Employment record of last 10 years of Government service:**
(as per Selection Criteria No. 5)

Sl. No.	Organisation/ Department	Post Held / Level ***	Duration		Details of work experience
			From	To	

*** SE / Addl. CE/ CE/ E-in-C/Secretary/Equivalent/ Professor/ Associate professor

9. **Employment record post retirement:**
(as per Selection Criteria No. 4)

Sl. No.	Organisation	Position held	Duration		Details of work experience
			From	To	

10. **Field of Specialization / Special Interest (if any):**

11. **Post from which retired:** (as per Selection Criteria No. 2)

12. **Other Details (Membership of professional bodies, authorship of technical papers, consultancies, etc.):**

13. **Application made for Inspection of:** (Check any ONE BOX)

Road Projects:

Bridge Projects:

Road & Bridge Projects:

Please attach the list of bridge works associated with:

(if applying for inspection of bridge projects or bridge and road projects)

14. **Whether any departmental enquiries / corruption cases initiated against the candidate, during service period:** (Yes/No)

If yes, - results of the same:

15. **Whether the recommendation of the concerned State Govt. /Govt. of India organization enclosed:** *(as per Selection Criteria No. 6):* (Yes/No)

(if no, whether it will be provided by last date ?)

16. **Willingness to work as NQM:**

- (a) The undersigned is maintaining good health and is willing to take up field inspection assignments and other office works as National Quality Monitor under PMGSY.
- (b) I understand that I may be assigned to carry out field inspections in any State in accordance with the Guidelines.

Declaration: I hereby declare that the details furnished above are true and correct to the best of my knowledge. In case any of the above information is found to be false or misleading or misrepresenting, I am aware that I may be held liable for it and my empanelment as NQM may be immediately cancelled and necessary action, as deemed fit, may be taken against me.

Signature.....

Name of applicant:.....

Date:

Annexure-III (a)

Recommendation for Empanelment as National Quality Monitor

(For retired government engineers and retired faculty members)
(On the letter head of the recommending authority)

Date.....

To,

The Director General,

National Rural Infrastructure Development Agency,
Ministry of Rural Development, Government of India,
5th Floor, 15 NBCC Tower, Bhikaji Cama Place,
New Delhi- 110065

Subject: Recommendation for Empanelment as National Quality Monitor
(NQM) under PMGSY.

Sir,

Shri.(name of the candidate), was a regular employee of the(name of the State government department/ Government of India organisation/ PSU/ technical institute/ IITs/ NITs/ research institute) and has retired from the active service on(date of retirement).

2. Shri (name of candidate) has high ethical standards and his/ her integrity is beyond doubt. No penalty was imposed on him during his active government service and no departmental enquiry is pending against him.

3. I hereby forward the CV along with documents signed by Shri.....(*name of the candidate*) for further necessary action. This department has no objection for his empanelment as National Quality Monitor, under PMGSY.

Yours sincerely,

Signature of the recommending authority
(Name and designation)

Recommendation for Empanelment as National Quality Monitor

(For serving faculty members)
(On the letter head of the recommending authority)

Date.....

To,

The Director General,

National Rural Infrastructure Development Agency,
Ministry of Rural Development, Government of India,
5th Floor, 15 NBCC Tower, Bhikaji Cama Place,
New Delhi- 110065

Subject: Recommendation for Empanelment as National Quality Monitor (NQM) under PMGSY.

Sir,

Shri.(name of the candidate), is a regular faculty member of this of the(name of the State government engineering college/State government research institute/IITs/ NITs/ research institute of central government) and has joined this institute as regular employee on(date of joining the institute).

2. Shri (name of candidate) has high ethical standards and his/ her integrity is beyond doubt. No penalty has been imposed on him during his active government service and no departmental enquiry is pending against him.

3. I hereby forward the CV along with documents signed by Shri.....(*name of the candidate*) for further necessary action. This department has no objection for his empanelment as National Quality Monitor, under PMGSY.

Yours sincerely,

Signature of the recommending authority
(Name and designation)

FOR INFORMATION - NOT TO BE SUBMITTED ALONG WITH THE APPLICATION
(to be signed and submitted after selection as NQM)

Annexure-IV

**Code of Conduct for National Quality Monitors (NQMs), Engaged by
National Rural Infrastructure Development Agency (NRIDA),
Ministry of Rural Development, Government of India**

Introduction

The purpose of Code of Conduct is to ensure an ethical conduct in the third party inspection of works under Pradhan Mantri Gram Sadak Yojana (PMGSY).

Under the third tier of quality management mechanism operational for the National programme, PMGSY, the inspection of works by National Quality Monitors (NQMs) is an independent assessment of quality of works executed in under this programme. The objective of third tier of quality management mechanism is to independently verify that the quality of road works executed by States confirms to the prescribed Standards and to see whether the prescribed quality management mechanism in the State is effective. The role of this tier is also to provide guidance to the State implementation machinery and the field engineers rather than '*fault finding*', as such; the basic duty of the NQM is to inspect the road works as per the guidelines prescribed by NRIDA and prepare inspection report giving clearly his findings and suggestions for improvement. High ethical conduct is expected of the person who is engaged as National Quality Monitor.

A code of conduct is necessary and appropriate for the National Quality Monitors because of the trust placed in the independent quality management system. The Code of Conduct extends beyond the definition of independent quality monitoring to include two essential components:

1. Principles that are relevant to the profession and practice of independent quality monitoring of road works;
2. Rules of Conduct that describe behavioral norms expected of Independent Quality Monitors. These rules are an aid to interpreting the Principles into practical applications and are intended to guide the ethical conduct of National Quality Monitors.

Applicability

This Code of Conduct applies to both individuals and entities that provide independent quality monitoring services under PMGSY.

Principles

National Quality Monitors are expected to apply and uphold the following principles:

✓ **Integrity**

The integrity of National Quality Monitors establishes trust and thus provides the basis for reliance on their judgment.

✓ **Objectivity**

National Quality Monitors exhibit the highest level of professional objectivity in gathering, evaluating and communicating information about the activity or process being examined. National Quality Monitors make a balanced assessment of all the relevant circumstances and are not unduly influenced by their own interests or by others in forming judgments

✓ **Confidentiality**

National Quality Monitors respect the value and ownership of information they receive and do not disclose information without appropriate authority unless there is a legal or professional obligation to do so.

✓ **Competency**

National Quality Monitors apply the knowledge, skills and experience needed in the performance of independent quality monitoring services.

Rules of Conduct

1. Integrity

National Quality Monitors:

- 1.1. Shall perform their work with honesty, diligence and responsibility.
- 1.2. Shall observe the law and make disclosures expected by the law and the profession.

- 1.3. Shall not knowingly be a party to any illegal activity or engage in an act that brings discredit to the profession or to the organization for which the NQM is working.
- 1.4. Shall respect and contribute to the legitimate and ethical objectives of the organization for which NQM is working.
- 1.5. Shall not take Spouse/Close relations during inspection visits.

2. Objectivity

National Quality Monitors:

- 2.1. Shall not participate in any activity or relationship that may impair or be presumed to impair their unbiased assessment. This participation includes those activities or relationships that may be in conflict with the interests of the organization and the programme for which the NQM is working.
- 2.2. Shall not accept anything that may impair or be presumed to impair their professional judgment.
- 2.3. Shall disclose all material facts known to them that, if not disclosed, may distort the reporting of activities under review.
- 2.4. Shall endeavor in guiding the executing machinery on correct technical procedures in Rural Road building.

3. Confidentiality

National Quality Monitors:

- 3.1. Shall be prudent in the use and protection of information acquired in the course of their duties.
- 3.2. Shall not use information for any personal gain or in any manner that would be contrary to the law or detrimental to the legitimate and ethical objectives of the organization or the programme for which the NQM is working.

4. Competency

National Quality Monitors:

- 4.1. Shall perform independent quality monitoring in accordance with the *Guidelines issued from time to time by National Rural*

Infrastructure Development Agency (NRIDA), Ministry of Rural Development, Government of India.

- 4.2 Shall continually improve their proficiency and the effectiveness and quality of their services.

The upper age limit for working as NQM shall be upto the age of 67 years' subject to satisfactory performance and good conduct.

I am aware that as NQM, I may be assigned the duty for inspection of PMGSY projects in any State/ region of the country and I will abide by it. I am also aware that empanelment as NQM not necessarily means that I shall be assigned duty every month.

As NQM, I will attend assignment of inspection within three months of successfully attending the orientation-cum-training programme, failing which; I can be de-empaneled as NQM. I will also not work as State Quality Monitor (SQM), for any State upon successfully attending the Orientation-cum-training programme as NQM in NRIDA.

I, hereby give my acceptance to the Code of Conduct to work as National Quality Monitor.

Signature.....

Name.....

Address.....

.....

.....

Contact No.....



Pradhan Mantri Gram Sadak Yojana

Guidelines
for
Quality Monitoring by National Quality Monitors
under
Third Tier of Quality Mechanism

National Rural Roads Development Agency

Ministry of Rural Development,

Government of India

January, 2007

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2. Annexure 2 – Procedure to use PMGSY website.
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1. Introduction

The State Governments are responsible for implementation of Pradhan Mantri Gram Sadak Yojana (PMGSY) in the State, as such; it is the responsibility of the State Government to ensure quality of road works under this programme. However, since the programme lays special emphasis on the quality and timely completion of road works, a three tier quality management mechanism has been operationalised.

The standards for quality of works have been prescribed under the publication ‘Ministry of Rural Development, Specifications for Rural Roads published by IRC in August, 2004’ (hereinafter referred to as Specifications). The comprehensive details about rural roads are provided in Rural Roads Manual IRC SP: 20, 2002. In order to provide detailed guidance to the field engineers about the tests and testing procedures, the NRRDA has published Quality Control Hand Book (being revised by IRC) and for recording the test results, Quality Control Registers have been prescribed.

The *first tier* of quality management mechanism is envisaged as in-house quality control system to ensure the implementation of quality standards by way of carrying out mandatory tests, however, the *second tier* is envisaged as independent quality check and monitoring mechanism to be operationalised by the States. Whereas, the State Governments are responsible for quality management through operationalization of the first two tiers, the National Rural Roads Development Agency (NRRDA) arranges for quality monitoring through independent monitors termed as National Quality Monitors (NQMs). The objective of this *third tier* of quality mechanism is to monitor the quality of road works executed by the States with a view to ensure that the road works under the programme confirm to standards and to see whether the quality management mechanism in the State is effective. The role of this tier is to provide guidance to State implementation machinery and the field engineers rather than ‘fault finding’, as such; the shortcomings are identified by the NQMs and a feedback is provided to the States for improvement.

The National Quality Monitors are performing inspection of works since March, 2002. The guidelines for inspection and reporting formats were prescribed during the initial period of operationalization of this tier of QM; however, based on the feedback from various stakeholders, the guidelines and reporting formats were revised in July, 2004. Having gathered the experience of independent Quality Monitoring of rural roads in last four years and based on the valuable suggestions and feedback has been provided not only by the State officials and NQMs but also by the field officers and auditing agencies, it is felt that certain revisions in respect of the following items are necessary.

1. The attention of the third tier of QM should focus on the quality of work, guidance related to quality rather than other aspects.
2. The observations of the NQMs should be objectively based on defined methods.
3. The NQM should be more accountable for the observations he has made.

Therefore, as an endeavor to continuously update to achieve the targets of best of the quality, the guidelines and reporting format for inspection of works under third tier are being revised and the process of continuous performance evaluation of National

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Quality Monitors by way of periodic review of reports and field verification by reputed institutions is envisaged.

Under the revised guidelines, the PIU and the NQM would also be required to use OMMAS website www.pmgsonline.nic.in extensively. The NQM would be required to download the list of works in the district to be visited by him/her and make mandatory online entry of sub-item grading in the website which would generate the item grading as well as the overall grading and also enable the States, PIUs and the NRRDA to carry out the further analysis of NQM reports. To enable the NQM to make online entry, he/she would be given the log-in and the password for limited data entry. The PIU would be able to generate Part-I Work Information from the OMMAS using the PIU Log-in.

2. Arrangements of Inspection

The NQMs shall be given the programme to inspect the works in designated State and designated districts during the designated months. The States shall continue to making necessary arrangements for visit of NQMs. The detailed guidelines for arrangement of inspection of NQMs are given below:

1. The National Quality Monitors will be sent the letter of request with programme of inspection of works. The copy of the letter will also be endorsed to the States for making necessary arrangements and for information to concerned PIU.

2. On receipt of the letter the SQC shall contact the NQM and get the tentative programme of inspection. In case, the SQC does not contact the NQM, the NQM may take initiative. As soon as the programme of inspection is finalized, the NQM shall invariably inform NRRDA about the programme of his visit in the prescribed Fax/ Mail Back Form only and in no other way. It has been observed that sometimes, some NQMs keep on trying to contact the SQC without any results, in such cases; the NQMs shall fax the programme to SQC. ***It shall be the duty and responsibility of the SQC to contact the NQM and concerned PIU and finalize the dates and programme of NQM as per mutual convenience of NQM and PIU.***

3. It shall be responsibility of the SQC to ensure adequate arrangements for inspection of NQM. In these revised guidelines, it is mandatory for the NQM to make observations on the basis of quality control tests/ hand-feel tests/ measurements performed under his personal supervision for which necessary equipments, staff and implements would be required; therefore, ***it shall be the personal responsibility of the SQC to ensure that requisite staff and equipments are provided to NQM for performing/ getting performed required tests*** (List of equipments and staff required for inspection is enclosed as **Annexure- 1**).

4. The details of schedule of visit will be available on website www.pmgsonline.nic.in in the last week of the preceding month to enable the SQC and PIUs to make necessary arrangements. Detailed procedure to use website for viewing schedule, taking list of work and online data entry for sub-item grading is given in 'User Manual for NQMs' at **Annexure-2**.

5. The NQM is required to inspect maximum of three districts in a single visit in one State in a month. In case of hill States where connectivity is poor and more time is taken in travel, the NQM may be allotted less number of districts also.

6. *In the present format, the NQM is required to perform/ get performed the prescribed tests which would take time and it would not be possible to make desired observations in a day for one completed work of maximum 3km length or 2 ongoing works each of maximum 3km length in which about 50% work has been completed, as such; the NQM should finalize a suitable programme to spend not more than 3 days in each district inspecting not more than 1 completed work or 1 completed and one on-going work in just initial stages or 2 on-going works both with less than 50% physical progress. The inspection of 1-2 road works is suggested with a view that normally, a road in PMGSY would not be of a length more than 3 Km, however; if the length of*

*road work is more, every 3 Km length or part thereof shall be treated as another work. It must be clearly understood that the observations required during the work should be made with due care and diligence. **In no case, the superficial inspection/ observations would be accepted by NRRDA.***

7. The NQM is expected to make his own arrangements to travel up to nearest rail/ air head of one of the District Headquarters of the State allotted to him. The PIU shall make necessary arrangements for transport required for inspection of works within the District and from one District to the next. The PIU may make arrangements of boarding of NQM in Government Guest Houses/ Inspection Bungalows but in case of non-availability of such an accommodation, the NQM may stay in private Hotels/ Guest Houses and the reimbursement to NQM for boarding charges will be done by NRRDA as per '*Honorarium and Traveling Allowance Bye Laws 2006 for National Quality Monitors*'.

8. The programme of inspection is valid for the inspection of works for only the months mentioned in letter of request; therefore, in no case should the inspection spill over to the next month. This is necessary as the same district might have been allotted to another NQM for the next month. The inspection of works would therefore not be valid for purposes of reimbursement of expenses by NRRDA for a month other than the allotted one.

9. The NQM shall not be entitled for remunerations including travel expenses etc. for such inspections which are carried out in contravention to the guidelines or found to be superficial.

3. Prioritization of Works for Inspection

It has been noticed that the NQMs are not able to inspect the works as per the priorities given in the guidelines. It is also noticed that either the PIUs have tendency to offer the works of their choice for inspection or some NQMs prefer to inspect the works which are situated at convenient locations. It has been therefore decided that the NQM before proceeding to the concerned district for inspection would log on to PMGSY website and obtain the list of works in the district and after obtaining the list, he will select the works as per the criteria for prioritization of works given in this guidelines. The NQM is required to not only take the list from website but also required to enter the grading of work online. Therefore, the arrangements to provide access for data entry regarding the inspections are being made. *(the module for online entry of the reports and grading etc is being developed, therefore; the reporting for the month of January and February, 2007 shall be done in hard copy, however, as soon as the module is ready User Manual and process to enter the reports online shall be separately communicated)*. **Guidelines for NQMs to use website www.pmgsonline.nic.in for taking the list of works is given in Annexure- 2.**

While inspecting the works, the NQM shall prioritize the selection of roads as follows:

1. **Priority 1** shall be to inspect works which are at earthwork stage. This is with a view to examine the system and procedures which is being followed by the PIU and the Contractor. NQM intervention at this stage would help in ensuring that subsequent stages of the work are carried out after system deficiencies are removed. Under this category it would be sufficient that only one work of the contract package is examined. (As the PIU and Contractor would be common). In the next visit, the other NQM should inspect any other road in progress under the same package.
2. **Priority 2** ongoing works (excluding Phase I and II works) which have not been inspected at all by NQM before.
3. **Priority 3** shall be ongoing works that have not been inspected by NQM in the last 8 months.
4. **Priority 4** shall be inspection of completed works and which have not been inspected by NQM in the 6 month period upon completion.
5. Works of Phase I and II shall not be inspected by NQM unless specifically requested by SQC or NRRDA.
6. The same ongoing road work shall not be inspected if the previous inspection by NQM is less than 8 months earlier and no ongoing or complete road work shall be inspected if it has been inspected twice before by any NQMs.
7. If the NQM is inspecting any road after the inspection by a SQM, he shall inspect the work with a view to analyze the quality of work in light of the observations made by SQM also.
8. Complaint cases and ATR cases shall be got inspected on case to case basis.

4. Information and Details to be furnished to NQM by PIU

The SQC shall ensure that the information as detailed in the following paragraphs is provided to NQM by the head of PIU.

1. The PIU shall furnish the phase-wise list of road works to the NQM in the format given below in which the details about previous inspections shall compulsorily be mentioned. The PIU shall also make available a road map showing the location of roads to enable planning of the itinerary and selection of works to be inspected.

Name of PIU _____ Date _____

Name of Road	Phase and Date of Start	% Progress	Details of Inspt. (if any) by SQM/ NQM		Action Taken/ Rectification Done and whether re-inspected
			Name of NQM/SQM	Date of Inspt.	

2. The NQM shall compare the above list with the list obtained from web and inconsistencies shall be pointed out to PIU. The NQM shall select roads out of this list in accordance with the priority given in the guidelines, and shall enclose a copy of the list of roads given to him by the Programme Implementing Unit indicating the comparison and inconsistencies observed in the list along with his report to the SQC and NRRDA.
3. After the NQM selects the roads to be visited, the PIU shall provide the necessary works information in respect of the road in Part I of the Inspection Report Format (enclosed as **Format 1**). The PIUs are supposed to update data on OMMAS, as such; majority of information prescribed in Part I - Work Information shall be available in the OMMAS database. *The arrangements for downloading the information from website are being made and in future, the format of Part I – Work Information would be downloaded by the PIU from his own login and handed over to the NQM after filling information in the blank spaces.* It is expected that the PIU would provide this information to the NQM without wasting any time.
4. The PIU shall produce to NQM the original DPR of the work being inspected along with working drawings.
5. The PIU shall produce the Quality Control Registers Part I and Part II to enable the NQM to understand the details of tests conducted.
6. The NQM shall get some hand feel tests and field test conducted under this personal supervision as such, the PIU shall necessarily provide the essential equipment and facilities and manpower to NQM for the purpose.

7. The road which has already been inspected by NQM earlier may also be selected by NQM for inspection (*the road inspected by NQM shall not be inspected by other NQM till 6 months after the inspection of earlier NQM*). The PIU shall provide the copy of report of SQM/NQM to NQM, so that while inspecting the work, the NQM could look into the issues raised by SQM/ NQM. If, there is marked difference in the observations of NQM/SQM made during the previous visits, the NQM is also required to analyze the reasons for difference in observations, therefore; **it is mandatory for PIU to provide copy of NQM/SQM inspections conducted earlier.**

5. Inspection, Observation and Grading of Works

The objective of third tier of Quality Monitoring under PMGSY, i.e. inspection of road works by national level independent monitors is to identify shortcomings in respect of quality of road works and to guide the PIUs about the specifications, good practices and effective execution of works with desired quality. The role of these monitors is to critically examine the road works and give feedback about quality of road works and quality management related shortcomings to the State level quality management team and NRRDA to enable systemic improvements. After the selection of work for inspection as detailed in Chapter 3, the PIU would furnish the details of work in the prescribed format as detailed in Chapter 4. The NQM should visit the work and perform **critical inspection** of the entire work.

How to make observations: There could be many methods of inspecting, making observations and evaluating various items and sub-items involved in construction of a rural road. With a view to achieve uniformity, objectivity in observations and evaluation, the efforts have been made to standardize the methods of observations and evaluation. Various items and sub-items involved in construction of a rural road have been listed in **Annexure-3**. Each of the sub-items shown in the Appendix shall be examined by NQM as per the method of observation mentioned in column – 4 and as per the frequency mentioned in column – 5. The quality of the sub-item/item would be quantified in one of the 2/3 grades prescribed in column – 6. **The NQM shall base his observations on the method of field tests, hand feel tests, measurements and visual observations as specified in column – 4 of the Annexure 3 only and in no other way.**

The NQM shall record observations at the space provided in Format-1 Part-II.

How to organize inspection: The NQM is expected to traverse through the entire road length to ascertain the quantum of work such as length of road, number of CDs, protection works, side drains, catch water drains, rigid pavement and other aspects of the work. After the traverse, the NQM would decide about the locations for detailed observations.

In case of on-going work/item of work it is easier to take samples of material; however, in case of completed work/item it may be difficult to take samples. As can be seen from **Annexure-3**, the tests are generally required to be made in one kilometer, as such, in case of completed work, it is suggested that after traversing the entire length of the road, the NQM should select one such spot in every kilometer, which is fairly representative of the overall quality of the road in that kilometer. The observations can be made on this spot by digging a pit either on pavement or at half pavement and half shoulder, as decided by the NQM.

Grading of Works: The quality of every item and sub-item of work would be evaluated by the NQM on the basis observations made as per prescribed standard method. The grading would be recorded in every item and abstracted at appropriate space provided in Part III of the format. The grading of work would be done with an intention to quantify the observations showing level of **satisfaction in relation to the specification** of the work/item under observation. The objective would be to indicate to the Executing Agency, as to whether the material or workmanship is acceptable, or unacceptable. If the item is unacceptable, the improvement could be done by either

replacement of the entire material/portion of work or by rectification in workmanship or material. The grading should be able to indicate to the PIU/ State, the level of intervention required for improvement. Therefore, based on the type of item and method of observation, each item/ sub-item of work would be graded in any of the categories i.e. '*Satisfactory (S)*', '*Requires Improvement (RI)*' or '*Unsatisfactory (U)*' out of the categories prescribed as per column 6 of the **Annexure 3**. Based on grading, the PIU shall take action for rectification of defect, therefore, it is very important to record the defect as well as the suggestive method by which the rectification could be done. The NQM shall record, in the space provided in Part II observation sheet, **the grade as well as clear and express reasons for grading the item of work as 'RI' or 'U' along with his suggestions for improvement**. The reasons and suggestions shall be recorded clearly in such a way that there are no ambiguities or contradictions with observations in other items. The detailed method of making observations and grading of item/ sub-item of works is given in paragraphs below.

How to fill up the reporting format and grade the items/ sub-items of the work: The detailed guidelines for making observations, filling up of the inspection format and grading are given below. It shall be ensured by the NQM that space provided for observations are not left blank without any observations. *The space for observations in respect of items not executed should be filled up by writing "Item not executed" but if material is available at site, testing shall be done and observations be made for the quality of material.*

Observations on Quality Arrangements: In case of ongoing works this item shall be examined. The observations about establishment of field laboratory would be made. It should be carefully seen that whether the field laboratory has adequate equipments and whether the equipments are being used to actually test the material and workmanship of the road work.

If field laboratory has not been established, 'U' grade would be awarded; if laboratory is established but does not have sufficient equipments or the equipments have not been used, 'RI' grade would be awarded; if field laboratory with sufficient equipments has been established and equipments are being used 'S' grade would be awarded.

Attention to Quality: Two types of observations are required to be made in this item. The first observation is regarding the maintenance of Quality Control Register Part I and II in case of ongoing works. It should be carefully seen that whether adequate number of tests as per prescribed mandatory frequency have been carried out or not (see abstract of tests in Quality Control Register). The other observation would be about the verification of test results recorded by the Contractor/PIU. In the subsequent paragraphs, the process for sampling and field testing is mentioned, the results of field tests carried out by NQMs shall be cross referenced with the test results recoded in Quality Control Register Part-I and the comment on correctness of the test results shall be recorded by the NQM.

If, record of tests is properly maintained and monitored through Quality Control Register Part I and II, all the tests as per prescribed frequency have been carried out 'S' grade would be awarded. If, the above items have been partly attended 'RI' grade would be awarded and if, these items have not been attended by PIU 'U' grade would be awarded.

On verification of the test results recorded by the PIU, the sub-item about verification of test results would be graded. The grading would be 'S' if test results recorded by Contractor/PIU reasonably matches with the test results obtained by NQM after field testing at the same location otherwise the item would be graded 'U'.

Observations on geometrics: In case of ongoing and completed works, the observations shall be made for this item. The measurements about the road way width, carriage way width and adequacy of camber shall be made at a selected RD and shall be tabulated in reporting format. The observations about execution of horizontal curve, superelevation and extra widening *as per the provisions of DPR* shall be made and entered at relevant space in the reporting format. If, it is felt that the provisions about camber, superelevation, extra widening etc. has not been made in DPR but are required as per field conditions, in such cases, clear observations should be made in the space provided under 'General Observations' at the end of reporting format. If above items have been executed properly as provided in DPR 'S' grade would be awarded otherwise 'U' grade would be awarded.

Observations about the quality of work- General: The observation about the quality of work is required to be made for every item and sub-item of construction in the manner given in subsequent sub-paragraphs. In case of flexible pavements the observation about sub-grade, sub-base, base-course and surface course are required to be made for on-going as well as completed works. In case of on-going works/items under observations, it is easy to take samples; however, in case the item under observation is already complete or the entire work is complete it is required to take at least one observation pit of appropriate size and depth in every Km. The observations in case of completed works shall be based on tests performed on samples drawn from these observation pits. After reconnaissance, a location of fairly representative quality of road may be identified for digging a pit. The size of pit could be about 30cm x 30cm and upto a depth where the sub-grade starts. The pit should be dug with the help of appropriate tools but the observation should start right from application of the digging tool. Needless to add that the observation about sub-base course, base-course and sub-grade can be taken from the same pit and it may not be generally required to dig more than one pit in one Km.

From the surface course, the material of PMC/surface dressing may be removed and kept separately. The top layer of WBM can be removed, thickness of layer can be measured and course aggregate and fine aggregates can be separated easily. The gradation test can be performed on these samples of aggregate. The hand-feel tests for plasticity may be performed on fine aggregates. For ascertaining the adequacy of compaction, hand-feel test is mentioned in sub-para b of sub-para C below. The same process can be repeated in other layers of WBM. If it is difficult to distinguish between the different layers of WBM, still the gradation tests can be performed and fair assessment about the gradation of the aggregates, adequacy of compaction, plasticity of the screening/filler material may be done.

After making observations about WBM, the observations about thickness, gradation and plasticity of material can be easily made for GSB but for adequacy of compaction, sand replacement/core cutter method may be adopted. After making observations about GSB, the observations about the sub-grade could be easily made.

Observation of Earth Work and Sub-grade: The Earth Work in rural roads could be either for embankment construction or for formation cutting. The observations shall be made for ongoing as well as completed works. The award of grades shall be done for earthwork in embankment and for cutting based on the type of works involved. There may be situations where either of the two sub-items would be involved but in exceptional cases where both the items have been executed, the grading of both the items may be suitably done. The NQM shall make the observations in the following manner.

(a) Earthwork and Sub-grade in Embankment:

(i) Suitability of material for embankment construction: The NQM shall make detailed observations at-least at one location per kilometer and the RD at which observation is made shall be recorded in the table given in the reporting format. The NQM shall make observation about the suitability of the soil by visual classification of soil as prescribed in Annex 5.1 of Operations Manual and clear observations regarding the suitability should be made in reference to Specifications clause 301. In case of completed works or completed item of work the observations shall be based on test pit.

If soil is suitable “S” grade would be awarded otherwise “U” grade would be awarded.

(ii) For making observations about adequacy of compaction, the NQM shall carry actual field test for field density of the sub-grade/embankment. The field density shall be taken either by core cutter method or by sand replacement method, for ascertaining the OMC & MDD the NQM shall examine the QC Registers and record the value in reporting format.

In case of on-going works at-least one test per Km for field density shall be done. If the compaction work is on-going, one test for Field Moisture Content of the soil shall also be done to understand whether the compaction is being done at OMC or not.

The findings shall be recorded in the report in the prescribed table. The observation sheet shall be enclosed with the report.

If degree of compaction is found to be adequate “S” grade would be awarded otherwise “U” grade would be awarded.

(iii) The visual observation about the side slopes and profile shall be made and recorded for *completed work only*.

If proper side slopes with proper profile exist “S” grade would be awarded otherwise “U” grade would be awarded.

(b) Earthwork and Sub-grade in Cutting:

The visual observations about stability and workmanship of cut slopes and adequacy of slope protection shall be made by the NQM. If cut slopes with adequate stability exist, “S” grade would be awarded, if the defects can be rectified by some improvement, ‘RI’ grade would be awarded and otherwise, “U” grade would be awarded.

Observation of Granular Sub-base: The construction of Granular Sub-base is required to be done as per clause 401 of specifications, as such; the NQM is required to make observations about quality of material as well as workmanship for ongoing as well as completed works.

(a) Quality of Material: At-least one test of gradation shall be carried out by the NQM for every kilometer of road. The observation sheet for the gradation test

result shall be enclosed with the report. For the assessment of plasticity of the material, it may not be possible to carry out the tests for liquid limit and plasticity index; however, the NQM can carry out hand feel tests of making ball by mixing small quantity of water in the material and try to make balls. If, well defined ball can be made by hands, the material would generally be plastic enough to be ranked as unsuitable and if ball cannot be made by hands the material is treated non-plastic to the desired extent. If the material is of suitable gradation and plasticity “S” grade would be awarded otherwise “U” grade would be awarded.

- (b) Workmanship and Compaction:** Generally the field density test by sand replacement method shall be carried out but if it is not be possible to carry out detailed test about the compaction of GSB material, the adequacy of compaction may be judged by making visual observations about the density of compacted layer. In case of on-going works or in case of completed item, the observations about the denseness of GSB layer can be made at time of application of pick axe or crow bar while digging the test pit. If degree of compaction is found to be adequate “S” grade would be awarded otherwise “U” grade would be awarded.

Observations of Base Course: In rural roads, generally the base-course is being constructed with WBM. The construction of WBM base course is required to be done as per the provisions contained in clause 405 of Specifications for Rural Roads. The observations about WBM shall be made for completed as well as ongoing work by NQM in the following manner:

- (a) Quality of Material:** At-least one test for gradation of aggregate of every layer of WBM shall be done for each kilometer in case of on-going works as well as completed works. The observation sheet for the gradation test result shall be enclosed with the report. For the assessment of plasticity of the crushable aggregate used as fillers or screenings, it may not be possible to carry out the tests for liquid limit and plasticity index, however, the NQM can carry out hand feel tests of making ball by mixing water into the material and make observations as to whether the material is non-plastic to the desired extent or is plastic enough to be ranked as unsuitable.

If grading of course aggregate/ fine aggregate and plasticity of crushable aggregate/ filler is suitable “S” grade would be awarded otherwise “U” grade would be awarded.

- (b) Compaction:** The exact assessment of compaction in a WBM is quite difficult, however; it is quite simple to make fair assessment about the fact that whether the compaction has been adequately done or not. For assessing the adequacy of compaction, the NQM is supposed to carry out the volumetric analysis. After digging the pit course and fine aggregates can be separated by sewing or by manual measures and comparative quantity of fillers and course aggregate can fairly be judged, the course aggregate can be refilled in the same pit and it should be observed that how much bulging has taken place above the level of compacted surface. This process will give a fair idea as to whether the proper compaction has been done. The NQM shall make all the observations about the compaction only after carrying out the above hand feel test. It may however be noted by NQMs that by even the visual observations during the process of application of pick axe or crow bar also the compactness of WBM layer can be fairly assessed.

If compaction is found to be adequate “S” grade would be awarded otherwise “U” grade would be awarded.

Observations on Bituminous Construction: In Rural Roads, generally the BT surfacing is being done over prime coat, tack coat. BT work generally consists of 20mm premix carpet with seal coat. In few cases, surface dressing is constructed, whereas, in some other cases, modified penetration macadam is also constructed. It is rare to have BM or other types of BT surfacing under PMGSY. The observations about BT surface shall be made by NQM in the following manner:

(a) Quality of BT surface in case of completed work: At the selected location the observation on a pit shall be tabulated in which thickness of layer shall be assessed. The observations in a pit shall reveal the fact that whether the BT surface has been constructed after proper cleaning of the granular surface or not, this observation should be assessed and recorded. Quality of workmanship shall be assessed in light of surface evenness, surface colour and texture, camber etc.

In case of ongoing works/item of works, based on the stage of construction, the observations about cleaning of granular surface receiving BT, Prime coat, Tack coat etc. shall be made. The observations about gradation of aggregate by gradation test and verification of grade of bitumen by examination of original test report of the manufacturer shall be done. The observations will include the quality of aggregate, quality and quantity of binder, temperature at mixing point and laying temperature, rolling and other aspects.

If material and workmanship is found satisfactory, ‘S’ grade shall be awarded otherwise ‘U’ grade shall be awarded.

Observations on Shoulders: The NQM should make observations about the classification of soil and if suitable soil is used for shoulders “S” grade would be awarded otherwise “U” grade would be awarded. The NQM should make visual observation about the shoulders and ascertain whether the shoulder has been constructed simultaneously with GSB and record observation carefully. If compaction is found to be adequate “S” grade would be awarded otherwise “U” grade would be awarded.

Observations on Cross Drainage Works: The NQM shall inspect at least 50% of CDs situated on roads. In Rural Roads generally flushed causeways and vented causeways with hume pipes are built. Box culverts and Slab culverts are also common. The NQM shall give details about the span and type of CDs with their numbers. Detailed observations about every inspected CD work with reference to Material and Workmanship shall be made by NQMs. In the reporting format the observations about Causeways of all the spans and Culverts upto 6 m. span shall be recorded, however, for Culverts/ bridges beyond 6 m. span separate observation sheet shall be enclosed in which detailed observations about quality of material and workmanship shall be made by NQM, at present detailed format is not being prescribed. The effect of quality grading of CD beyond 6 m. span shall be decided by NRRDA on case to case basis.

General observation about quality of material used in CD works shall be made and recorded by the NQM. If proper CD work is found “S” grade would be awarded, if CD work requires improvement ‘RI’ grade would be awarded, if work is not upto the standards “U” grade would be awarded.

General observation about workmanship of CD works shall be made and recorded. If workmanship in CD work is found satisfactory “S” grade would be

awarded, if it requires improvement 'RI' grade would be awarded, if work is not upto the standards "U" grade would be awarded.

Observations on Side Drains and Catch Water Drains: In Rural Roads situated in plain areas Kuchha Side Drains are required and these drains are required to be integrated with Cross Drains. In hilly and rolling terrain Catch Water Drains are constructed. Detailed observations should be made about these drains.

If proper drainage work is found "S" grade would be awarded, if CD work requires improvement 'RI' grade would be awarded, if work is not upto the standards "U" grade would be awarded.

Observations on Cement Concrete Pavements and Associated Drains: The observations about CC Pavements or other type of rigid or semi-rigid pavements and Associated Side Drains should be made in respect of Material and Workmanship. If quality and workmanship is found acceptable, "S" grade would be awarded otherwise "U" grade would be awarded.

Observations on Road Furniture and Markings: Main Informatory Board, Citizen Information Board and Logo Board is required to be fixed during the construction of work, however, other signage are fixed after the work is completed. It is prescribed that all the information in the boards should be displayed in local language and it is essential that information should be provided in such a way that it is well understood by the local people. The observations about signage fixing, language used and quality of signage should be made by NQM. If furniture are found properly fixed with information in understandable language and the quality and workmanship is acceptable in case of ongoing and completed works (as specified), "S" grade would be awarded otherwise "U" grade would be awarded.

General Observations of NQMs: The NQM is expected to interact with the PIU staff and Engineers of Contractors or Consultants. The work of NQM is guidance rather than fault finding, as such, the interaction with the personal should be oriented towards guidance. The NQM is expected to make observations about progress of work with reference to works programme and the action taken by PIU for liquidated damages etc. In case of ongoing works, the NQM should find out whether the work has been completed within sanctioned cost or not. The NQM should specifically focus his general observations about the action taken by PIU on observation made by senior officers/SQMs and other NQMs and make clear remarks about the efficacy of action taken. In addition, the NQM is free to make other observations but it is clarified here that the NQMs should not make such observations which are in contravention to guidelines of PMGSY or provisions of specifications. **It should be clearly understood by NQM that his observations should not amount to direct or indirect un-due advantage to either contractor, consultants or other personal involved in the work.**

Sub-item/Item wise Grading and Overall Grading of Work: The sub-item wise grading of every item of work would be entered in the table at para 15 of reporting format and the item grading would be the lowest of the grading of sub-items within that item. The overall Item Grading would be entered in the table at Para 16 (table also given below) of the reporting format and the overall grading of work shall be calculated in the following manner **(In case of online entry of the grading, the NQM would enter only**

the sub-item grading and the system would be able to generate item grading and the Overall grading of work).

#	Item	Awarded Grade
1	Quality Control Arrangements	
2	Attention to Quality	
3	Geometrics	
4	Earthwork and Sub-grade in Embankment/Cutting	
5	Granular Sub-base	
6	Base Course Non-Bituminous and shoulders	
7	Bituminous Surfacing	
8	Shoulders	
9	CD Works	
10	Side Drains and Catch Water Drains	
11	CC/Semi-Rigid Pavement and Associated Pukka Drains	
12	Road Furniture and Markings	
	Overall Grading	

If, any of the items in item no. 4, 5, 6 and 7 are graded as 'U', overall grading of the work shall be 'U' i.e. 'Unsatisfactory'.

If, all the items given in above four items are 'S' but grading in any of other items is 'U' or 'RI', the overall grading of work shall be 'S-RI' i.e. Satisfactory but Requiring Improvement.

If grading of all items is 'S', the overall grading of work shall be 'S' i.e. 'Satisfactory'.

6. Reporting, Entry in Website and Performance Evaluation of NQMs

The observations of the NQM shall be recorded by NQM in his own handwriting and in no case, the staff of PIU shall be engaged for the recording of observations. The reporting format shall be prepared in 4 copies, one copy shall be handed over by NQM to the PIU immediately after the inspection is over and in all cases before the NQM leaves the district where the works have been inspected. One set each of the observations should be sent to State Quality Coordinator of the concerned State and Chief Quality Coordinator of NRRDA soon after the inspection is over in that State. The reports should be sent to officers by name.

The NQMs are aware that for online monitoring and management of the programme, a website www.pmgsonline.nic.in is operational. The module for data entry is being developed and the access of the relevant module of this website would be provided to the NQM. In future, the NQM would be able to upload online the grading of work as specified in para 15 of reporting format, i.e. **Part-II of Format 1**.

The performance of NQMs shall be evaluated in NRRDA on the basis of observations recorded in reporting formats. A Performance Evaluation Committee would evaluate the reporting formats selected on random basis for a sample of about 5%, as per the guidelines of NRRDA prescribed from time to time. Generally, the performance of NQM would be evaluated on the following points:

- a. Whether the NQM has carried out inspection as per the guidelines,
- b. Is there lack of application of mind by NQM in recording observations,
- c. Is there a tendency to avoid desirable technical observations,
- d. Whether the NQM has left inspection format incomplete without any reasons.

The report of performance evaluation would be produced to the Independent Selection Committee constituted by NRRDA for empanelment and performance review of NQMs. The continuation of NQMs would depend on the performance not only related to the quality of field inspections and reporting but also on the observance of Code of Conduct.

Requirement of Man power, Equipments and Implements for making the Observations by National Quality Monitor

The following Man power, Equipments and Implements are required for making the Observations by National Quality Monitor during the inspection of a roadwork under PMGSY.

1. One or two unskilled laborers are required to dig the pit and take the samples of the material depending upon the work involved.
2. In addition, the following equipments and implements will also be required:

#	Observation	Method of Observation	Equipments/ Implements Required
1	2	4	6
Item – Geometrics			
1	Widths	Actual Measurements	Measuring tapes of 20m, thread, spirit level and straight edge.
2	Camber		
3	Horizontal Curve, Super elevation and Extra widening		
4	Longitudinal Gradient		
Item - Earth Work and Sub-grade in Embankment			
1	Quality of Material	Visual Classification of Soils	Visual Observation
2	Compaction	Field Density Test by sand replacement/ Core Cutter method.	Rapid Moisture Meter, Sand Replacement Test/ Core Cutter Apparatus.
Item - Sub-Base			
1	Quality of Material		
	a. Grain Size	Gradation Test	Standard Sieves.
	b. Plasticity	Hand-feel test.	
2	Compaction	Field Density Test by sand replacement/ Core Cutter method.	Rapid Moisture Meter, Sand Replacement Test/ Core Cutter Apparatus.
3	Total Thickness of Layer	Measurement	Measuring Tape and Steel Scale of 30cm.

Item - Base Course – Water Bound Macadam			
1	Quality of Material		
	a. Grain Size of Course Aggregate	Gradation Test	Standard Sieves.
	b. Suitability of Course Aggregate in respect degree of hardness.	Hand-feel test .	
	c. Plasticity of Crushable Aggregate used as fillers	Hand-feel test.	
2	Adequacy of Compaction through volumetric analysis.	Hand-feel test.	Pick axe, crow bars and steel Scale of 30 cm.
3	Thickness of every layer of WBM.	Measurement.	Steel Scale of 30cm.
Item - Bituminous Layer – Premix Carpet (PMC)/ Surface Dressing (SD)			
1	Gradation of Aggregate	Gradation Test.	Standard Sieves.
3	Mixing Temperature of Mix.	Measurement.	Thermometers.
4	Laying Temperature of Mix.	Measurement.	Thermometers.
5	Thickness of layer	Measurement.	Steel Scale of 30cm.
Item - CC/ Semi Rigid Pavements and Associated Pukka Drains			
3	Thickness of Layer	Measurements	Steel Scale of 30cm.

National Rural Roads Development Agency
Fax/Mail Back Form 1 (Fax to 011/41000475 or mail to director.cqc@gmail.com)

Response Sheet of National Quality Monitors

With reference to your D.O. letter No. P-14013/2/2002-NRRDA Dated / /
 (Please tick the relevant box)

1. I am able to undertake the visit for the month of..... Probable Dates
2. I am sorry; I am unable to undertake visits proposed for the month.
3. In case of 2 above the reasons are as follows;

(Please fill up the following if any change in address, telephone/ fax no. and e-mail Id)

My correct addresses:

My Telephone Number: 1. STD code Number

 2. STD code Number

My Fax Number: STD code Number

My e-mail Id.

(Signature)
(Name of NQM)

To,
The Director (P-III),
National Rural Roads Development Agency,
5th Floor, 15-NBCC Tower, Bhikaji Cama Place,
New Delhi – 110 066.

Procedure to use PMGSY website for obtaining list of works

1. Open website <http://pmgsyonline.nic.in>
2. On left side go to “Quality Monitoring”

Pradhan Mantri Gram Sadak Yojana - Microsoft Internet Explorer

Address: <http://pmgsyonline.nic.in/government/security/login/dologin.asp?q=se#>

PRADHAN MANTRI GRAM SADAK YOJANA PMGSY

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The Pradhan Mantri Gram Sadak Yojana (PMGSY), was launched by the Govt. of India to provide connectivity to unconnected rural Habitations as part of a poverty reduction strategy. Government of India is endeavoring to set high and uniform technical and management standards and facilitating policy development and planning at State level in order to ensure sustainable management of the rural roads network. In the first phase, habitations (hamlets) of population of 1000 (500 in the case of Hill States, tribal and Desert areas) and above will be covered. In the second phase habitations of population of 500(250 in the case of Hill States, tribal and Desert areas) will be covered. About 368,000 km of new road construction and 370,000 km of upgradation/renewal is expected to be done at a cost of about \$26 billion.

Works: 29524, Road Works in Progress: 23116, Total Length: 170167.56 Km

Quality Monitoring

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National Quality Monitors
 NQM Reports (Abstract/Roadwise/Monitorwise)
 SQM Reports
 Schedule Of Inspections
 State Quality Monitors
 NQM And SQM Inspection Report
 INSP: Inspection Details
 INSPFI: Work Information

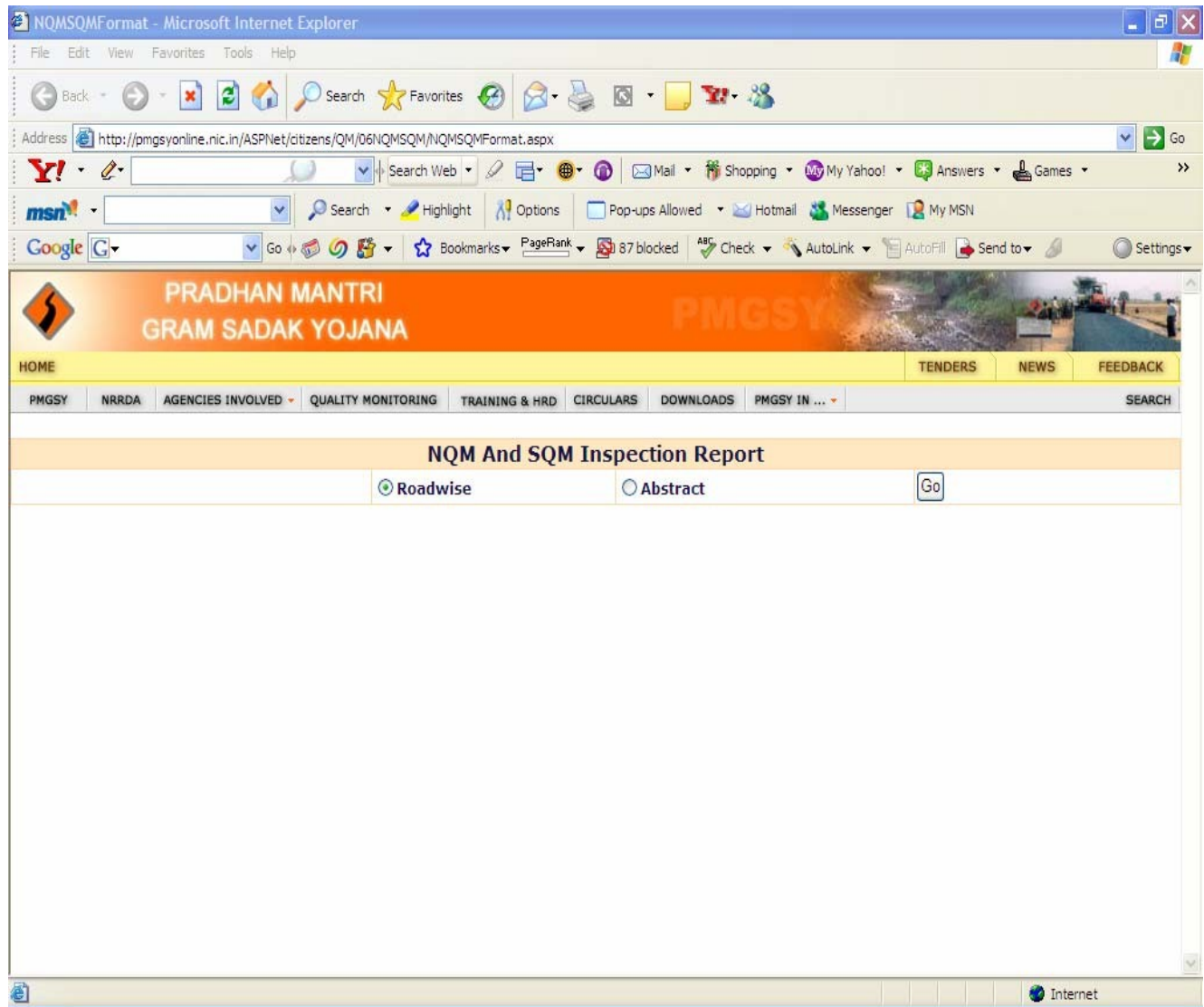
Best Packaged Application 2002, Runner Up

Visitor No 3855244

Best viewed in 800 x 600 pixels - I.E. 4.x.
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619806/2021/Dir(F&A)

3. Click on “NQM and SQM Inspection Report”. The below screen will appears and then select Road wise report.



619806/2021/Dir(F&A)

4. After selecting Road wise report option, following screen will appear and then select State and District, select year, status, and monitors and click GO button. You will get the list of Roads Inspected by SQM and NQM for the selected State and district.

NQMSQMReport - Microsoft Internet Explorer

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Address <http://pmsgyonline.nic.in/ASPNet/citizens/QM/06NQMSQM/NQMSQMReport.aspx>

PRADHAN MANTRI GRAM SADAK YOJANA PMGSY

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State: District: Year:

Status: Monitors:

[Select State,District,Year,Status,Monitor and click Go]

Done Internet

Statement showing item-wise observations, their method, frequency and awardable quality grading

#	Sub item for observation	In case of work	Method of Observation	Frequency	Grades
1	2	3	4	5	6
Item 1 - Quality Arrangements					
	Quality Arrangements	On-going	Verification of field laboratory and availability of equipments.	General observation	S/RI/U
Item Grade					S/RI/U
Item 2 - Attention to Quality					
a	Maintenance of QC Registers	On-going	Verification of QC Register I and II	General observation	S/RI/U
b	Verification of test results	On-going/ Complete	Verification of test results on the basis of field tests.	Not Specified	S/U
Item Grade					S/RI/U
Item 3 – Geometrics					
a	Road way width	Ongoing or complete	Actual Measurements	2 per Km	S/U
b	Carriageway width		Actual Measurements	2 per Km	S/U
c	Camber		Measurement	2 per Km	S/U
d	Superelevation & Extra Widening at Curves		Measurement	2 per Km	S/U
e	Longitudinal Gradient in case of road in hilly/rolling terrain.	Ongoing/ complete	Visual Observation/ Measurements	2 critical stretches in a Km	S/U
Item Grade					S/U
Item 4 - Earth Work and Sub-grade in Embankment/ Cutting					
a	Quality of Material for Embankment/ Sub-grade	Ongoing or complete	Visual Classification of Soils	1 per Km	S/U
b	Compaction		Field Density Test by sand replacement/core-cutter method.	1 per Km	S/U
c	Side Slopes and Profile	Complete	Measurement	4 Observations per Km	S/U
d	Stability and Workmanship of Cut Slopes (in case of hilly/ rolling terrain)	Ongoing or complete	Visual Observation	4 per Km	S/U
e	Adequacy of Slope Protection (in case of high embankments/hilly/ rolling terrain)		Visual Observation	4 per Km	S/U
Item Grade					S/U

619806/2021/Dir(F&A)

Item 5 - Sub-Base					
	Quality of Material				
a	Grain Size	Ongoing or complete	Gradation Test	1 per Km	S/U
b	Plasticity		Hand-feel test of ball making with moisture content	1 per Km	S/U
c	Compaction	Ongoing or complete	Field Density Test by sand replacement/ core cutter method.	1 per Km	S/U
d	Total Thickness of Layer	Ongoing or complete	Measurement by taking pit for full layer thickness	1 per Km	S/U
Item Grade					S/U
Item 6 - Base Course – Water Bound Macadam					
	Quality of Material				
a	Grain Size of Course Aggregate	Ongoing or complete	Gradation Test	1 per Km	S/U
b	Plasticity of Crushable Aggregate used as fillers		Hand-feel test of ball making with moisture content	1 per Km	S/U
c	Adequacy of Compaction through volumetric analysis.		Hand-feel test by digging pit and volumetric analysis.	1 per Km	S/U
d	Thickness of every layer of WBM.		Actual Measurement by taking pit	1 per Km	S/U
Item Grade					S/U
Item 7 - Bituminous Layer – Premix Carpet (PMC)/ Surface Dressing (SD)					
a	Gradation of Aggregate	Ongoing	Grain Size Analysis (Gradation Test).	1 at hot-mix plant/ 1 per Km	S/U
b	Mixing Temperature of Mix.	Ongoing	Measurement of temperature by thermometer.	1 at hot-mix plant	S/U
c	Laying Temperature of Mix.	Ongoing	Measurement of temperature by thermometer.	1 where laying is in progress.	S/U
d	Thickness of layer	Ongoing or complete	Measurement by taking pit	2 per Km	S/U
e	Surface Evenness	Ongoing or complete	By straight edge	2 per Km	S/U
Item Grade					S/U
Item 8 – Shoulders					
a	Quality of material for shoulders	Complete	Visual classification of soil	1 test per Km	S/RI/U
b	Degree of compaction	Complete	Field Density Test by sand replacement/core-cutter method.	1 test per Km	S/RI/U
c	Camber.	Complete	Measurements	1 test per Km	S/RI/U
Item Grade					S/RI/U

Item 9 - Cross Drainage Works – Causeways of all spans and Culverts upto 6 m. span.					
a	Quality of Material – Concrete, Stone/ brick masonry, Hume pipes including size etc.	Ongoing or complete	Visual observation (for CC verify cube test results from records)	General observation	S/RI/U
b	Quality of Workmanship such as positioning of pipes, wing walls, cushion over H Pipes etc.		Visual observation	General observation	S/RI/U
Item Grade					S/RI/U
Item 10 - Side Drain and Catch Water Drain					
	General quality of Side Drains/ Catch Water Drains and their integration with CDs.	Ongoing or complete	Visual observation	General observation	S/RI/U
Item Grade					S/RI/U
Item 11 - CC/ Semi Rigid Pavements and Associated Pukka Drains					
a	Quality of Material – Concrete, Stone/ Concrete Block Pavement etc.	Ongoing or complete	Visual Observation	1 per 100 m. Length of Pavement	S/U
b	Strength of CC in Concrete Pavement/ Concrete Block Pavement		Strength using appropriate rebound hammers/ verification of cube test results from test records.	1 per 100 m. Length of Pavement	S/U
c	Quality of Workmanship – Wearing surface texture, Adequacy of setting of concrete, Joints, Edges etc.		Visual observation	General observation	S/U
d	Thickness of Layer		Measurements	1 per 100 m. Length of Pavement	S/U
Item Grade					S/U
Item 12 - Road Furniture and Markings					
a	Citizen Information Board, Main Informatory Board, Quality and whether fixed during construction.	Ongoing	Visual observation	General observation	S/U
b	Logo boards, 200 m stones and Km stones, quality and whether fixed after completion.	Complete	Visual observation	General observation	S/U
C	Whether the information in boards is given in local language.	Complete/ Ongoing	Visual observation	General observation	S/U
Item Grade					S/U

**National Rural Infrastructure Development Agency
Ministry of Rural Development, Government of India**

Format QR Version 2021.0- Part I

Format for information to QM for Inspection of Ongoing/Completed Work

PART I- Work Information (To be filled-up by PIU)

1. GENERAL:

- I. Work is (*check✓any one box*) Ongoing Completed
- II. Current stage of work: (*check✓any one box*) Stage-I Stage-II Composite
- III. Date of inspection:
- IV. Name of Quality Monitor (QM): NQM Code
(*check✓relevant box and fill code*) SQM Code
- V. State: District: Block:
- VI. Name of Road:
- VII. Package number.:
- VIII. Sanctioned length: km, Flexible pavement: km, Rigid/Semi-Rigid pavement: km
- IX. Executed length: km, Flexible pavement: km, Rigid/Semi-Rigid pavement: km
(*in case of completed works only*)
- X. Reasons for deviation (*if any*):
- XI. Name of new technology (*if used*) RD from km to km
- XII. Estimated cost (as cleared by GOI): Rs. Lakh
- XIII. Technical sanction cost: Rs. Lakh
- XIV. Awarded cost: Rs. Lakh
- XV. Expenditure: (*if work is ongoing*)
- a. Expenditure done: Rs. Lakh
- b. Bills pending: Rs. Lakh
- Total expenditure (a+b) Rs. Lakh
- XVI. Completion cost: (*if work is completed*) Rs. Lakh

XVII. The work is a case of (*check ✓ boxes as applicable*)

A) New Connectivity Total length: km

(i) Carriageway width (m): 3m 3.75m 5.5m 7m

B) Up-gradation Total length: km

(i) Carriageway width and length:

With widening Existing width m Length km

Proposed width m

Without widening Proposed width m Length km

XVIII. Terrain: (*check ✓ anyone box*) Plain Rolling Hilly

XIX. Date of award of work: (*date/ month/ year*)

XX. Date of start of work:(*date/ month/ year*)

XXI. Stipulated date of completion:(*date/ month/ year*)

XXII. Actual date of completion: (*date/ month/ year*)
(*in case of completed work*)

2. PHYSICAL PROGRESS: (Ongoing/Completed)

I. Construction Programme and Physical Progress:

Item of work (1)	Unit (length/ number) (2)	Quantity As per DPR (3)	Quantity executed (4)	Completed percentage of item (5)	Fill in start and completion dates			Delay in months (9)
					Progress status (6)	Start Date (7)	Completion Date (8)	
i) Preparatory Work					Due			
					Actual			
ii) Earth Work& Subgrade					Due			
					Actual			
iii) CD Works					Due			
					Actual			
iv) Protection works					Due			
					Actual			
v) Sub Base including shoulders					Due			
					Actual			
vi) WBM/ WMM Base Course					Due			
					Actual			
vii) Bituminous Base/Wearing Course					Due			
					Actual			
viii) Bituminous Surface Course					Due			
					Actual			

ix) CC Pavement					Due			
					Actual			
x) Signage etc.					Due			
					Actual			

3. QUALITY CONTROL:

I. Location of field laboratory:

II. Geo-tagged photograph of laboratory uploaded on: (date/ month/ year)

III. Reason for delay in establishment of field laboratory(if so):

IV. Details of contractor, executing the work:

Name of contractor	PAN number	Mobile number	E-mail ID.

V. Details of contractor's engineer available at site: (Responsible for maintaining quality control register part-1)

Sl. no.	Name of contractor's engineer at site	Identity number	Mobile number	Duration of posting at site	
				From	To

VI. Details of contractor's lab technician:

Sl. no.	Name of contractor's lab technician	Identity number	Mobile number	Duration of posting at site	
				From	To

VII. Details of Head of PIU supervising the work:

Sl. no.	Head of PIU (Executive engineer)	Employ number	Duration of posting at site	
			From	To

VIII. Details of Assistant engineer supervising the work and maintaining quality control register Part-II:

Sl. no.	Name of Assistant engineer	Employ number	Mobile number	Duration of posting at site	
				From	To

IX. Details of the Junior engineer supervising the work:

Sl. no.	Name of Junior engineer	Employ number	Mobile number	Duration of posting at site	
				From	To

X. List of equipments available in field lab:

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Table (IX) a

Available equipments that are in working condition (1)	Available equipments that are not in working condition (2)

XI. List of equipments not available in field lab

--

XII. Reasons put forth by PIU for non availability of equipments in field lab:

--

XIII. Equipments and documents ready to be made available to QM before or during the inspection:

--

4. **DETAILS OF MIX DESIGN(s) (if provided in the sanctioned project):**If not provided (check the box)

	Not applicable
--	----------------

Sl. No.	Mix Design	Mix Design Strength	Institute/laboratory where mix design was done	Date
i.	Cement Concrete M20			
ii.	Cement Concrete M 30			
iii.	Dense Bituminous Macadam			
iv.	Semi Dense Bituminous Concrete			
v.	Bituminous Concrete			

5. EARLIER INSPECTIONS BY NQM, SQM or SENIOR DEPARTMENTAL OFFICERS (SEs & CEs) AND ACTION TAKEN STATEMENT:

(Please indicate chronologically name and designation of the officer who had inspected the work):

Date of visit (1)	Name and Designation of inspecting officer (NQM/SQM/CE/SE) (2)	Road distance (RD)		Level of work at the time of inspection (5)	Major observations (6)	Action taken by PIU with date (7)
		From (3)	To (4)			

Signature of the Head of PIU.....

Seal of PIU

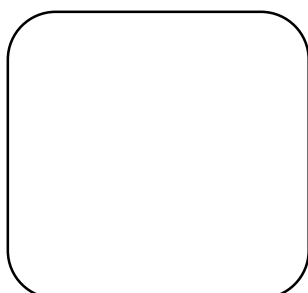
Name and Designation of the Head of PIU

Mobile Number of the Head of PIU.....

E-mail of the Head of PIU.....

Address of the PIU.....

Date:.....



National Rural Infrastructure Development Agency
Ministry of Rural Development, Government of India

Format QR Version 2021.0- Part II

Report of National Quality Monitor (NQM)/State Quality Monitors (SQM)

PART II– Observations of NOM/SOM for Ongoing/Completed Work

(To be filled-up by QM)

1. GENERAL DETAILS:

- I. Date of inspection:
- II. Name of Quality Monitor (QM)

NQM	Code	<input type="text"/>
SQM	Code	<input type="text"/>

(check ✓ relevant box and fill code)
- III. State: District: Block:
- IV. Name of Road:
- V. Package number:
- VI. RD of inspection: From RD: Km to RD: Km
- VII. Current stage of work:

<input type="checkbox"/>	Stage-I construction
<input type="checkbox"/>	Stage-II construction
<input type="checkbox"/>	Composite construction

(check ✓ anyone box)
- VIII. Physical status of work:

<input type="checkbox"/>	Ongoing
<input type="checkbox"/>	Completed

(check ✓ anyone box)
- IX. Present status of work: *(check ✓ boxes as applicable)*

Check ✓	Item	RD from (km)	RD to (km)
	Preparatory Work		
	Earth Work and Subgrade		
	CD Works		
	Protection works		
	Sub Base including shoulders		
	WBM/ WMM Base Course		
	Bituminous Base/Wearing Course		
	Bituminous Surface Course		
	CC Pavement		
	Signage etc.		

2. **QUALITY ARRANGEMENTS-OBSERVATIONS: (in case of ongoing works only):**
(Geo-tagged photograph of the laboratory showing the available equipment's to be uploaded)

- I. Whether field laboratory established: *(check ✓ any one box)* Yes Partly No
- II. Whether location of field laboratory is same as indicated by PIU in format part-I: *(check ✓ any one box)* Yes No
- III. Whether necessary equipments as indicated in part-1 are actually available: *(check ✓ any one box)* Yes Partly No
- IV. Whether equipment's have been used: *(check ✓ any one box)* Yes Partly No
- V. If all necessary equipments are not available, whether you have verified them with the list of deficient equipment's provided by PIU in format Part-I: *(check ✓ any one box)* Yes No
- VI. Whether contractor's engineer as per Part-I of this format, is available at site: *(check ✓ any one box)* Yes No
- VII. If contractor's engineer as per Part-I of this report is not available, whether you are satisfied with alternative arrangement made to maintain QCR-I: *(check ✓ any one box)* Yes Partly No
- VIII. Whether lab technician and other staff is available for testing in the laboratory *(check ✓ any one box)* Yes No

Guiding note: If anyone or more sub-items other than sub-item I above, are "Partly" or "No", overall item grading shall be "SRI", but if the field lab is not established, overall item grading shall be "U".

Item Grading-2:

(Check ✓ any one box)

 S

 SRI

 U

If this item is graded SRI/U, write clear reasons and suggestions for improvement, indicating important deficient equipments:

3. **ATTENTION TO QUALITY (in case of ongoing works only):**

I. Maintenance of QC Registers:

- (a) Based on executed quantities, whether all mandatory tests conducted: *(check ✓ any one box)* Yes Partly No
- (b) Whether QC Register Part I maintained as per provisions: *(check ✓ any one box)* Yes Partly No
- (c) Whether QC Register Part II maintained and test results monitored as per provisions: *(check ✓ any one box)* Yes Partly No

II. (a): Adequacy of quality control tests, as per QCR-1:

Item of Work (1)	Quantity as per DPR (2)	Quantity executed (3)	Name of the test (4)	Number of tests required (as per executed quantity) (5)	Number of tests actually conducted (6)	Testing adequate (Yes/No) (7)
Earth Work / Sub Grade						
Granular Sub-Base						
Granular Base Course						
Bituminous Base Course						
Bituminous Surface Course						
Rigid/ Semi rigid pavement						

(b) If testing found inadequate, the reason for less testing: (check one or more box)

- Negligence
- Lack of equipments in lab
- Lack of knowledge
- Any other, please specify:

(c) Verification of test results: (C: conforming, N: non-conforming)

Quality control tests to be conducted by QM and the results to be matched with test results previously recorded in QCR-I, at or near the test pit of QM.

Location RD (1)	Name of Test (2)	Results of the test conducted by QM at a defined location. (C/N) (3)	Test results as per QCR-I at the nearest location. (Mention the page no. of QC register also) (4)	Results of the test conducted previously by QM at defined location. (C/N) (5)	Whether the test results recorded in QCR-I register and as conducted by QM are conforming/non-conforming (C/N) (6)

Note: QM to choose the location of test pit, which is representative sample of the stretch being inspected by QM and near to the test location recorded in the QCR-I so that it can be compared.

(d) Whether non-conformities recorded in QCR-II by AE, have been rectified and recorded in QCR-I again as conformities, after conducting necessary tests:

(check ✓ any one box)

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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Guiding note: If adequacy of QC test is “inadequate”, overall item grading shall be “SRI”. But if the maintenance of QC registers are reported “Partly” or “No” or verification of test results are non conforming, overall item grading shall be “U”.

Item Grading-3:

(Check ✓ any one box)

<input type="checkbox"/>	S	<input type="checkbox"/>	SRI	<input type="checkbox"/>	U
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If this item is graded SRI/U, write clear reasons and suggestions for improvement, are to be recorded:

4. GEOMETRICS:

The QM should take at least two measurements in every 1 Km length, and if it is found that the roadway and carriageway are inadequate at certain locations, QM should take more observations:

(Photographs of measurement of the roadway or carriageway width, superelevation, camber, and in case of roads in rolling or hilly terrain, longitudinal gradients and slopes should be uploaded by NQM/SQM)

I. Observations: Roadway, Carriageway, and Camber

Location RD	4(I)a Roadway width (m)			4(I)b Carriageway width (m)			4(I)c Camber (%)		
	As per DPR	Actual at site	Grade (S/U)	As per DPR	Actual at site	Grade (S/U)	As per DPR	Actual at site	Grade (S/U)

II. Observations: Superelevation and extra widening at curves. -

Location RD	4 (II)a Super elevation (%)			4(II)b Extra widening provided (m)		
	As per DPR	Actual at site	Grade (S/U)	As per DPR	Actual at site	Grade (S/U)

III. Observations: Longitudinal gradient in case of road in hilly/rolling terrain:
(not applicable in case of plain terrain)

Ref. between RD		4(III)a Longitudinal gradient (%)		
From	To	As per DPR	Actual at site	Grade(S/U)

Guiding note: If anyone of the sub-items are graded as “U”, overall item grading shall be “U”.

Item Grading-4:

(Check ✓ any one box)

 S

 U

QM should bring out the deviations caused due to actual ground conditions vis-à-vis sanctioned DPR.

OBSERVATIONS REGARDING THE QUALITY OF ITEMS OF WORK:

Note:

In a section of 5km, three test pits approximately 1km apart from each other, should be made for filling test results in item number 5 to 12 i.e from Earthwork & Subgrade to Shoulders.

5. EARTHWORK & SUB GRADE:

I. Details of new technology section:

Whether new technology used in this layer (check ✓ any one box)

 Yes

 No

If yes, (a) Name of new technology used:

(if jute/coir is used, details of para “g” to be filled)

(b) Name of new technology provider:

(c) Name of stabiliser used:

(d) Quantity of stabiliser as per DPR:

(e) Quantity of stabiliser used:

(to be checked from invoice)

(f) Unconfined compressive strength (UCS) as per DPR:

 MPa

Location of new technology section RD (km)		UCS value as per mix design (MPa)	UCS value achieved as per records of PIU (MPa)	Whether UCS value achieved on ground is acceptable (Yes / No)
From	To			

(g) If the new technology used in this layer is **Jute** or **Coir**, then provide the following details.:

i) Name of new technology material used:

ii) Name of new technology provider:

iii) Quantity of new technology material as per DPR:

iv) Quantity of new technology material used:

(to be checked from invoice)

v) Whether the test certificate of material is provided by the jute/coir material provider:

(check ✓ any one box)

 Yes

 No

vi) CBR of subgrade as per DPR:

%

vii) Table

Location of new technology section RD (km)		CBR as per mix design (%)	CBR achieved as per records of PIU (%) (based on dynamic cone penetrometer (DCP) test)	Whether CBR achieved on ground is acceptable (Yes / No)
From	To			

Guiding note: If the UCS value or CBR is not achieved on the ground, sub-item grading shall be "U".

Sub-Item Grading 5-I:

 S

 U

(Check ✓ any one box)

(If this sub item is graded U, clear reasons and suggestions for improvement are to be recorded).

II. Quality of material for embankment / sub-grade:

(Group symbol of soil used is to be reported based on visual observation)

Sl. No.	Location (RD)	Group Symbol of soil as per DPR	Group Symbol of soil as observed	Suitability from Plasticity angle (Y/N)	Quality of material used (S/U)
(1)	(2)	(3)	(4)	(5)	(6)

a) Name and location of source:

b) Distance of source of earth (lead): (km)

c) Whether long lead distance for the transportation of material is justified or not:

(check ✓ any one box)

 Yes

 No

- d) i) QM should mandatorily comment on the quality of local earth, if the lead of earth used in the project is more than 5km.
ii) QM should also comment, whether earth has been taken from approved source.

Guiding note: If the quality of material used is “U”, sub-item grading shall be “U”.

Sub-Item Grading 5-II:

 S

 U

(Check ✓ any one box)

(If this sub item is graded U, clear reasons and suggestions for improvement are to be recorded).

III. Compaction for Embankment and Sub-grade Construction:

(Photograph of density tests to be uploaded)

Maximum dry density (MDD) kN/m³, Optimum moisture content (OMC) % - As per lab record.

(Record dry density and % compaction from QCR-I, at the same or nearby RD)

Sl no.	Location (RD)	(As per QCR-I)			Degree of Compaction (Measured by QM)			
		Dry density kN/m ³	% Compaction	Date of test as per QCR-I	Field Moisture Content (%)	Dry Density kN/m ³	% Compaction	Grade (S/U)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Guiding note: If compaction at any location is “U”, sub-item grading shall be “U”.

Sub-Item Grading 5-III:

 S

 U

(check ✓ any one box)

(If this sub-item is graded as U, clear reasons and suggestions for improvement are to be recorded)

IV. **Side slopes and profile of embankment:**

(For this item, the QM should take at least two measurements in every 1 Km length)

(a) Side slope and embankment profile in the plain area

Record side slopes of embankment proposed in DPR:

 2 H: 1 V

 1.5 H: 1 V

(check ✓ any one box)

Sl no.	Location (RD)	Side Slopes Observed by QM- H:V	Whether Side Slopes Satisfactory (Y/N)	Whether profile is Satisfactory (Y/N)	Grading (S/U)
(1)	(2)	(3)	(4)	(5)	(6)

(b) Cut slope and profile in Hilly/Rolling terrain or high embankments:

Sl no.	Location (RD)	Whether cut slopes & profile appears to be stable (S/U)
(1)	(2)	(3)

(c) Whether stability analysis has been carried out in DPR:

 Yes

 No

(check ✓ any one box)

If NO, then write down your observations about adequacy of slopes provided:

Guiding note: If the side slopes/cut slopes or profile is “U”, sub-item shall be graded as “U”.

Sub-Item Grading 5-IV:

 S

 U

(Check ✓ any one box)

(If this item is graded as U, clear reasons and suggestions for improvement are to be recorded).

Guiding note: If anyone of the sub-items are graded as “U”, overall item grading shall be “U”.

Item Grading-5:

 S

 U

(Check ✓ any one box)

(If this item is graded as U, clear reasons and suggestions for improvement are to be recorded).

- VIII. Whether GSB is to be constructed in layers as per DPR: (*check ✓ any one box*) Yes No
 (if yes, *check ✓ the number of layers*) In one layer In two layer In three layer
- IX. Whether GSB has been actually constructed in layers at site: (*check ✓ any one box*) Yes No
 (if yes, *check ✓ the number of layers*) In one layer In two layer In three layer
- X. Whether compaction has been done as per the provision in DPR: (*check ✓ any one box*) Yes No

Guiding note: If UCS value is not achieved on the ground or if any of the sub-item 6b, 6f and 6i of table no.VII is "No", overall item shall be graded as "U".

Item Grading-6

(*check ✓ any one box*)

<input type="checkbox"/>	S	<input type="checkbox"/>	U
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(If this item is graded as U, clear reasons and suggestions for improvement are to be recorded).

7. BASE COURSE: 1st Layer:

- I. Provision made in the first layer in sanctioned DPR: (*Check ✓ any one box*)

<input type="checkbox"/>	WBM Grade II	<input type="checkbox"/>	WBM Grade-III	<input type="checkbox"/>	WMM	<input type="checkbox"/>	Not Provided
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- II. Item execution status:
(*Check ✓ any one box*)

<input type="checkbox"/>	Completed	<input type="checkbox"/>	Ongoing	<input type="checkbox"/>	Not yet started
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- III. Actual execution in first layer of the Base course: (*Check ✓ any one box*)

<input type="checkbox"/>	WBM Grade II	<input type="checkbox"/>	WBM Grade-III	<input type="checkbox"/>	WMM	<input type="checkbox"/>	Not Provided
--------------------------	--------------	--------------------------	---------------	--------------------------	-----	--------------------------	--------------

- IV. Whether new technology used in this layer (*check ✓ any one box*)

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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If yes, (a) Name of technology used:

(b) Name of technology provider:

(c) Name of stabiliser used:

(d) Quantity of stabiliser as per DPR:

(e) Quantity of stabiliser used:
(to be checked from invoice)

(f) Unconfined compressive strength (UCS) as per DPR:

<input type="text"/>	MPa
----------------------	-----

(g) Table:

Location of new technology section RD (km)		UCS value as per mix design (MPa)	UCS value achieved as per records of PIU (MPa)	Whether UCS value achieved on ground is acceptable (Yes / No)
From	To			

V. Reason for change in actual execution at site
w.r.t provision made in DPR: (if applicable)

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VI. Observations- Quality of Material and Workmanship:

(Response in 7b and 7e, will be based on test datasheet of Sieve analysis and volumetric analysis for density)

7a Location (RD)	7b Grading of Aggregates (S/U)	7c Plasticity of Filler material (S/U)	7d Volume of filler material percent of coarse Aggregate	7e Compaction based on volumetric analysis/sand replacement method (S/U)	7f Design thickness as per DPR (mm)	7g Thickness of each layer of WBM/ WMM (mm)	7h Thickness adequate (S/U)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Guiding note: If UCS value is not achieved on the ground or if any of the sub-item 7b, 7c, 7e and 7h of table no.VI is "U", overall item shall be graded as "U".

Item Grading- 7:

	S		U
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(Check ✓ any one box)

(If this item is graded as U, clear reasons and suggestions for improvement are to be recorded).

8. BASE COURSE: 2nd Layer:

I. Provision made in the second layer in the sanctioned DPR: (check ✓ any one box)

	WBM Grade II		WBM Grade-III		WMM		Not Provided
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II. Item execution status:

	Completed		Ongoing		Not yet started
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(Check ✓ any one box)

III. Actual execution in the second layer of the Base course: (check ✓ any one box)

	WBM Grade II		WBM Grade-III		WMM		Not Provided
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IV. Whether new technology used in this layer (check ✓ any one box)

	Yes		No
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If yes, (a) Name of technology used:

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(b) Name of technology provider:

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(c) Name of stabiliser used:

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(d) Quantity of stabiliser as per DPR:

--

(e) Quantity of stabiliser used:

--

(to be checked from invoice)

(f) Unconfined compressive strength (UCS) as per DPR: MPa

(g) Table:

Location of new technology section RD (km)		UCS value as per mix design (MPa)	UCS value achieved as per records of PIU (MPa)	Whether UCS value achieved on ground is acceptable (Yes / No)
From	To			

V. Reason for change in actual execution at site w.r.t provision made in DPR: (if applicable)

VI. Observations- Quality of Material and Workmanship:

(Response in 8b and 8e, will be based on test datasheet of Sieve analysis and volumetric analysis for density)

8a Location (RD)	8b Grading of Aggregates (S/U)	8c Plasticity of Filler material (S/U)	8d Volume of filler material percent of coarse Aggregate	8e Compaction based on volumetric analysis/sand replacement method (S/U)	8f Design thickness as per DPR (mm)	8g Thickness of each layer of WBM/ WMM (mm)	8h Thickness adequate (S/U)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Guiding note: If UCS value is not achieved on the ground or if any of the sub-item 8b, 8c, 8e and 8h of table no.VI is "U", overall item shall be graded as "U".

Item Grading- 8:

 S U

(Check ✓ any one box)

(If this item is graded as U, clear reasons and suggestions for improvement are to be recorded).

9. BASE COURSE: 3rd Layer:

I. Provision made in the third layer in the sanctioned DPR: (check ✓ any one box)

<input type="checkbox"/>	WBM Grade II	<input type="checkbox"/>	WBM Grade-III	<input type="checkbox"/>	WMM	<input type="checkbox"/>	Not Provided
--------------------------	--------------	--------------------------	---------------	--------------------------	-----	--------------------------	--------------

II. Item execution status:
(check ✓ any one box)

<input type="checkbox"/>	Completed	<input type="checkbox"/>	Ongoing	<input type="checkbox"/>	Not yet started
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III. Actual execution in the third layer of the Base course: (check ✓ any one box)

<input type="checkbox"/>	WBM Grade II	<input type="checkbox"/>	WBM Grade-III	<input type="checkbox"/>	WMM	<input type="checkbox"/>	Not Provided
--------------------------	--------------	--------------------------	---------------	--------------------------	-----	--------------------------	--------------

IV. Whether new technology used in this layer (*check ✓ any one box*)

<input type="checkbox"/>	Yes
--------------------------	-----

<input type="checkbox"/>	No
--------------------------	----

If yes, (a) Name of technology used:

(b) Name of technology provider:

(c) Name of stabiliser used:

(d) Quantity of stabiliser as per DPR:

(e) Quantity of stabiliser used:

(to be checked from invoice)

(f) Unconfined compressive strength (UCS) as per DPR:

<input type="text"/>	MPa
----------------------	-----

Location of new technology section RD (km)		UCS value as per mix design (MPa)	UCS value achieved as per records of PIU (MPa)	Whether UCS value achieved on ground is acceptable (Yes / No)
From	To			

V. Reason for change in actual execution at site w.r.t provision made in DPR: (*if applicable*)

VI. Observations- Quality of Material and Workmanship:

(Response in 9b and 9e, will be based on test datasheet of Sieve analysis and volumetric analysis for density)

9a Location (RD)	9b Grading of Aggregates (S/U)	9c Plasticity of Filler material (S/U)	9d Volume of filler material percent of coarse Aggregate	9e Compaction based on volumetric analysis/sand replacement method (S/U)	9f Design thickness as per DPR (mm)	9g Thickness of each layer of WBM/ WMM (mm)	9h. Thickness adequate (S/U)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Guiding note: If UCS value is not achieved on the ground or if any of sub-item 9b, 9c, 9e and 9h of table no.VI is "U", overall item shall be graded as "U".

Item Grading-9:

<input type="checkbox"/>	S
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<input type="checkbox"/>	U
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(Check ✓ any one box)

(If this item is graded as U, clear reasons and suggestions for improvement are to be recorded).

10. BITUMINOUS BASE COURSE:*(Please do not fill this section if not provided in the DPR)*I. Provision made in the sanctioned DPR: *(check ✓ any one box)*

<input type="checkbox"/>	BM	<input type="checkbox"/>	DBM	<input type="checkbox"/>	Not provided
--------------------------	----	--------------------------	-----	--------------------------	--------------

II. Item execution status:

(check ✓ any one box)

<input type="checkbox"/>	Completed	<input type="checkbox"/>	Ongoing	<input type="checkbox"/>	Not yet started
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III. Actual execution at the site: *(check ✓ any one box)*

<input type="checkbox"/>	BM	<input type="checkbox"/>	DBM
--------------------------	----	--------------------------	-----

IV. Whether new technology used in this layer *(check ✓ any one box)*

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
--------------------------	-----	--------------------------	----

If yes, (a) Name of technology used:

(b) Name of technology provider:

(c) Name of new technology material:

(d) Quantity of new technology material as per DPR:

(e) Quantity of new technology material used:

(f) Location of new technology section: From RD

Km to RD

Km

(g) Evaluation of new technology section:

 S UV. Thickness of layer as per DPR: mm

VI. Type and grade of binder used:

VII. Brand name of bitumen:

(as per record)

VIII. Whether the invoices for the whole quantity of bitumen used at site are available: *(check ✓ any one box)* Yes No

IX. If the invoice of sufficient quantity not available reason thereof:

X. Bitumen content as per DPR: %XI. Whether prime coat is applied on non bituminous course *(check ✓ any one box)* Yes No

XII. Laying temperature of the mix as per QCR-1:

 °CXIII. Whether mix design is done: (in case of BM or DBM) *(check ✓ any one box)* Yes No

XIV. Marshal stability as per mix design (in case of BM or DBM):

 KN

XV. Design density as per mix design (in case of BM or DBM):

 gm/ccXVI. Whether inspection of hot mix plant done by PIU/SE: *(check ✓ any one box)* Yes No

Date of inspection:.....

XVII. Table (Note: Fill bitumen content in the 6th column compulsorily)

10a Location (RD)	10b Grading of Coarse Aggregates (S/U)	10c Density of BM/DBM achieved at site	10d % Compaction of BM/DBM w.r.t design density (S/U)	10e Bitumen content %			10f Observed thickness of layer (mm)	
				As per QCR-I	As measured by QM	S/U	As measured by QM	S/U
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Guiding note: If any of the sub-item no. 10b, 10d, 10e and 10f of table no. XVII are “U”, overall item grading shall be U.

Item Grading-10:

<input type="checkbox"/>	S	<input type="checkbox"/>	U
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(Check ✓ any one box)

(If this item is graded as U, clear reasons and suggestions for improvement are to be recorded).

11. BITUMINOUS SURFACE COURSE:**I. Provision made in the sanctioned DPR: (check ✓ any one box)**

<input type="checkbox"/>	OGPC & seal coat	<input type="checkbox"/>	SDBC	<input type="checkbox"/>	Mix Seal Surface
<input type="checkbox"/>	Surface dressing in one layer	<input type="checkbox"/>	Surface dressing in two layer	<input type="checkbox"/>	Bituminous Concrete

**II. Item execution status:
(check ✓ any one box)**

<input type="checkbox"/>	Completed	<input type="checkbox"/>	Ongoing	<input type="checkbox"/>	Not yet started
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III. Type of bituminous surface executed: (check ✓ any one box)

<input type="checkbox"/>	OGPC & seal coat	<input type="checkbox"/>	SDBC	<input type="checkbox"/>	Mix Seal Surface
<input type="checkbox"/>	Surface dressing in one layer	<input type="checkbox"/>	Surface dressing in two layer	<input type="checkbox"/>	Bituminous Concrete

IV. Whether new technology used in this layer (check ✓ any one box)

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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If yes, (a) Name of technology used:

(b) Name of technology provider:

(c) Name of new technology material:

(d) Quantity of new technology material as per DPR:

(e) Quantity of new technology material used:

(f) Location of new technology section: From RD

 Km to RD Km

Guiding note: If degree of compaction or camber or sectional parameters is graded as “U”, the overall item shall be graded as “SRI”. But If the quality of material reported as “U” or UCS value is not “Acceptable”, the overall item shall be graded as “U”.

Item Grading-12:

<input type="checkbox"/>	S	<input type="checkbox"/>	SRI	<input type="checkbox"/>	U
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(check ✓ any one box)

(If this item is graded as SRI/U, clear reasons and suggestions for improvement are to be recorded).

13. CROSS DRAINAGE WORKS: (Pipe Culverts):

- I. Total number of pipe culverts as per sanctioned DPR:
- II. Minimum cushion over pipe culverts as per DPR: cm
- III. Class of pipes provided in DPR: (write numbers of each type) NP2 NP3
- IV. Grade of concrete for headwall as per DPR: (Check ✓ any one box) M15 M20

V. Table

RD at which CD is located (1)	Class of pipe used at site (2)	Measured cushion over pipes (cm) (3)	Strength of concrete used in head walls as per QCR (4)	Quality of material and workmanship (S/U) (5)

- VI. If cushion over the pipes is inadequate, whether appropriate protection to the pipes as concrete cover or concrete jacketing has been provided: (check ✓ any one box) Yes NO
- VII. Whether invert level of pipe at upstream end has been appropriately placed to avoid silting of pipes: (check ✓ any one box) Yes NO

Guiding note: If the quality of material and workmanship is reported as “U” or the cushion over pipes is reported as “No” and concrete jacketing not done, the overall item shall be graded as “U”.

Item Grading-13:

<input type="checkbox"/>	S	<input type="checkbox"/>	U
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(Check ✓ any one box)

(If this item is graded as U, clear reasons and suggestions for improvement are to be recorded).

14. CROSS DRAINAGE WORK: (Slab Culverts):

I. Grade of concrete for slab culvert as per DPR: M15 M20 M25
(check ✓ any one box)

II. Total number of slab culverts as per sanctioned DPR:

III. Table:

RD at which CD is located (1)	Thickness of slab			Grade of concrete proposed as per DPR (5)	Strength of concrete used in head walls as per QCR (6)	Quality of material and Quality of workmanship is acceptable(Y/N) (7)
	As per DPR (mm) (2)	As measured by QM (mm) (3)	Grading (S/U) (4)			

Guiding note: If thickness of slab or the quality of material and workmanship is reported as “U”, the overall item shall be graded as “U”.

Item Grading-14:

(check ✓ any one box)

S U

(If this item is graded as U, clear reasons and suggestions for improvement are to be recorded).

15. PROTECTION WORK:

I. Whether sanctioned DPR has the provision of protection works: Yes No
(check ✓ any one box)

II. Type of protection work: (check ✓ boxes as applicable, and write the corresponding length)

<input type="checkbox"/>	Retaining wall	Length	m	<input type="checkbox"/>	Breast wall	Length	m
<input type="checkbox"/>	Parapet wall	Length	m	<input type="checkbox"/>	Any other type of Protection work	Length (m)	
					a.		
					b.		
					c.		

III. Total length of all protection work provided in DPR: (m)

IV. Quality of Materials:

Location / RD (1)	Structure type (Retaining Wall/ Breast Wall/ Parapets) (2)	Type of protection work (CC/ masonry/ gabions) (3)	General quality of material conforms to specifications (Y/N) (4)	Average width and height mm x mm		Whether compressive strength of material is as per design from QCR-I (Y/N) (7)
				As per DPR (5)	As per records (6)	

V. Workmanship of retaining structures:

Location / RD (1)	Workmanship of retaining structures (S//U) (2)	Whether honeycombing/any other defects are observed (Y/N) (3)	Have weep holes been provided (Yes/No) (4)	Spacing of weep holes (if provided) (mm)	
				As per drawing (5)	Actual at site (6)

VI. In case, Stone masonry is used in retaining structure:

a) Workmanship of stone masonry is acceptable:
(check ✓ any one box)

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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b) Bond stone has been provided in stone masonry:
(check ✓ any one box)

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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Guiding note: If quality of material is non conforming or weep holes and bond stones (in case of stone masonry) have not been provided, the overall item shall be graded as "U".

Item Grading-15:

<input type="checkbox"/>	S	<input type="checkbox"/>	U
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(Check ✓ any one box)

(If this item is graded as U, clear reasons and suggestions for improvement are to be recorded).

16. CRASH BARRIERS AND ROAD SAFETY SIGN BOARDS:

I. Whether sanctioned DPR has the provision of crash barriers & road safety boards:

(check ✓ any one box)

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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II. Total length of crash barriers as per DPR: (m)

III. Total length of crash barriers erected at site: (m)

IV. Table

Location (RD)	Type of crash barrier	Overall quality of safety measures in road (S/U)	Mandatory and cautionary signboards fixed at appropriate location (Yes / No)
(1)	(2)	(3)	(4)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

V. Total number of road safety sign boards in DPR:

VI. Total number of road safety sign boards erected at site:

Guiding note: If quality of safety measures is “U” or mandatory/cautionary signboards are not fixed, the overall item shall be graded as “U”.

Item Grading-16:

<input type="checkbox"/>	S	<input type="checkbox"/>	U
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(check ✓ any one box)

(If this item is graded as U, clear reasons and suggestions for improvement are to be recorded).

17. SIDE DRAINS AND CATCH WATER DRAINS: (Earthen)

I. Whether sanctioned DPR has the provision of side drains and catch water drains:

(check ✓ any one box)

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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II. Whether the drains have adequate longitudinal slope:

(check ✓ any one box)

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
--------------------------	-----	--------------------------	----

III. Table

Location (RD) where side drains constructed.		Location (RD) of drain at which observation made. (3)	Whether general quality of the side drains/catch-water drains is acceptable. (Y/N) (4)	Whether side drains are integrated to outfall. (Y/N) (5)
From (1)	To (2)			

Guiding note: If the general quality of earthen drain is not acceptable, the item shall be graded as “SRI”, but if side drains are not integrated to outfall or longitudinal slope is inadequate, the overall item shall be graded as “U”.

Item Grading-17:

(Check ✓ any one box)

	S		SRI		U
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(If this item is graded as SRI/U, clear reasons and suggestions for improvement are to be recorded).

18. CEMENT CONCRETE/SEMI-RIGID (SR) PAVEMENTS:

- I. Item execution status: Completed Ongoing Not yet started
(check ✓ any one box)
- II. Type of Cement Concrete Pavement: Conventional Cell filled Panelled concrete
(check ✓ any one box)
- Interlocking concrete block pavement (ICBP)
- Roller compacted concrete pavement (RCCP)
- III. Grade of Concrete as per DPR: M30 M35 M40
(check ✓ any one box)
- IV. CC /SR pavement length proposed as per sanctioned DPR: Proposed length: (m)
Executed length: (m)

V. Table (Note: Observation should be made for each portion of CC course)

Reference RD of CC / SR pavements (m)		RD at which observation made (m)	Quality of material concrete/ stone/ CC blocks pavements etc. (visual inspection) (S/U) (4)	28 days Strength of concrete as per QCR-I MPa (5)	Quality of workmanship wearing surface, joints, edges etc. (S/U) (6)	Thickness		
From (1)	To (2)					As per DPR (mm) (7)	As Measured by QM (mm) (8)	Acceptable (Y/N) (9)

- VI. Whether strength of extracted cc core or strength from rebound hammer is acceptable: *(check ✓ any one box)* Yes No
- VII. Whether Expansion/construction joints are provided as per requirement: *(check ✓ any one box)* Yes No
- VIII. Quality of cuts and joints is acceptable: *(check ✓ any one box)* Yes Partly No
- IX. Whether the joints have been properly filled with a sealant *(check ✓ any one box)* Yes Partly No
- X. Whether surface texture of the pavement is acceptable: *(check ✓ any one box)* Yes Partly No
- XI. Whether any honeycombing observed on edges of pavement: *(check ✓ any one box)* Yes Partly No
- XII. Whether adequate camber is provided: *(check ✓ any one box)* Yes No
- XIII. Whether CC pavement was existing earlier and credit for the same was given in DPR: *(check ✓ any one box)* Yes No

Guiding note: If answer to any of the sub-items from sl.no. VII to XIII is “Partly” or “No”, the item shall be graded as “SRI”. But if the quality of material or thickness of pavement or pavement strength is not acceptable, the item grading shall be “U”.

Item Grading-18:*(Check ✓ any one box)*
 S SRI U

(If this item is graded as U, clear reasons and suggestions for improvement are to be recorded).

19. CEMENT CONCRETE PUCCA DRAINS:

- I. Whether sanctioned DPR has the provision of side drains and catch water drains:
(check *√any one box*) Yes No
- II. Shape of CC/Pucca side drain as per DPR:
(check *√any one box*) U V L
- III. Length of CC drain as per DPR: m
- IV. Item execution status:
(check *√any one box*) Completed Ongoing Not yet started
- V. Grade of concrete proposed for side drains:
(check *√any one box*) M15 M20 M25

VI Table Note: Observation should be made for the each portion of the drain

Location (RD) of CC/Pucca side drains		RD at which observatio n made	Cross-section size			Strength of Concrete as per QCR –I MPa	General quality of material and work- manship (S/U) (8)
			size as per DPR B x D in mm	size as measured B x D in mm	size of drains is acceptable (Y/N)		
From	To	(3)	(4)	(5)	(6)	(7)	(8)
(1)	(2)						

- VII. Whether the provision of CC/pucca side drains made in DPR is justified in your opinion:
(check *√any one box*) Yes NO
- VIII. Whether the side drains have been constructed as per the DPR:
(check *√any one box*) Yes NO
- IX. If not, in your opinion, whether the pavement performance is likely to be
adversely affected:
(check *√any one box*) Yes NO
- X. Whether surface texture of the drain is acceptable:
(check *√any one box*) Yes NO
- XI. Whether surface of the drain is free of honeycombing:
(check *√any one box*) Yes NO
- XII. Whether longitudinal gradient is sufficient:
(check *√any one box*) Yes NO
- XIII. Check that drain is terminating in stormwater drain:
(check *√any one box*) Yes NO
- XIV. Slope of gap between pavement and drain is towards drain:
(check *√any one box*) Yes NO
- XV. Whether the drains provided are serving the purpose of
stormwater drain:
(check *√any one box*) Yes NO

Guiding note: If answer to any sub-item from X to XV is “No”, the overall grading shall be “SRI”. But if the general quality of material and workmanship is “U”, the overall grading shall be “U”.

Item Grading-19:

<input type="checkbox"/>	S	<input type="checkbox"/>	SRI	<input type="checkbox"/>	U
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(Check ✓ any one box)

(If this item is graded as U, clear reasons and suggestions for improvement are to be recorded).

20. ROAD FURNITURE AND MARKINGS:

I. Observations - Quality of Road Furniture and Markings (in case of ongoing/completed works):

(Photographs to be uploaded)

- a) Main Informatory Board Fixed: (check ✓ any one box)
- | | | | |
|--------------------------|-----|--------------------------|----|
| <input type="checkbox"/> | Yes | <input type="checkbox"/> | NO |
|--------------------------|-----|--------------------------|----|
- b) Citizen Information Board Fixed: (check ✓ any one box)
- | | | | |
|--------------------------|-----|--------------------------|----|
| <input type="checkbox"/> | Yes | <input type="checkbox"/> | NO |
|--------------------------|-----|--------------------------|----|
- c) Maintenance Board Fixed: (check ✓ any one box)
(in case of completed works only)
- | | | | |
|--------------------------|-----|--------------------------|----|
| <input type="checkbox"/> | Yes | <input type="checkbox"/> | NO |
|--------------------------|-----|--------------------------|----|

II. Observations - Quality and Quantity of Road Furniture and Markings (in case of completed works):

Furniture Type:	Number of furniture to be provided	Furniture provided at site	Number of furniture provided is adequate (Y/N)	Quality of furniture (S/SRI/U)
Logo Boards Fixed				
200 m Stones Fixed				
1 Km. Stone Fixed				
Guard Stones fixed on Curves				

III. Whether the information on boards is given in local language:

<input type="checkbox"/>	Yes	<input type="checkbox"/>	NO
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(check ✓ any one box)

Note: Numbers and quality of the furniture should be taken into consideration while grading for this item

Guiding note: If the number of furniture provided is inadequate or the quality of furniture is “U” or boards are not written in local language, the grading of the item shall be “SRI”. But if answer to any sub-item of I (a), (b) and (c) above is “No”, the item shall be graded as “U”.

Item Grading-20:

<input type="checkbox"/>	S	<input type="checkbox"/>	SRI	<input type="checkbox"/>	U
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(Check ✓ any one box)

(If this item is graded as SRI/U, clear reasons and suggestions for improvement should be recorded).

21. **General Observations of QM, (including the observations made during the interaction with PIU staff and Contractor/Consultant Engineers):**

A. Observations about deficiency in project preparation: (Give detailed observations about deficiencies in general and items which have been left but are required as per site conditions):

(check✓ I or II)

I. No deficiency in project preparation noticed during the interaction with PIU staff and contractor/consultant engineers:

II. Deficiencies observed: (check✓ one or multiple box)

Nomenclature of BOQ Items is not clearly stated such as what type of binder (VG Grade/Emulsion) is to be used and the quantity of such items.

Location & invert levels of cross drainage structures are incorrect and causing flooding situation.

Numbers of CD structures are insufficient as per the site's hydrological condition.

No provision of side drain in DPR but as per site conditions it is required.

Hydraulic design & calculation for CD structures and side drains not provisioned in DPR.

Junction design and its selected parameter (i.e. Junction's radius, Sightline, Island size) are inappropriate and can lead to accidents.

Guard stone/crash barrier/road studs shall be provisioned in DPR on horizontal curves.

Deviation from proposed alignment.

Proposed earthwork quantity (in Cut & fill) is not balanced, hence required external source of material for earthwork and subsequently increased project cost.

Proposed pavement layers & thickness is not as per projected traffic.

• **Any other comment :**

B. Whether the work has been completed/is in progress as per work programme or the delay has occurred. If delay has occurred, whether the liquidated damages have been withhold or recovered: (check ✓ relevant boxes and fill details)

<div style="border: 1px solid black; display: inline-block; padding: 2px 10px; margin-bottom: 5px;"><input type="checkbox"/> Completed</div> <p>Whether there was delay</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; display: inline-block; padding: 2px 10px;"><input type="checkbox"/> Yes</div> <div style="border: 1px solid black; display: inline-block; padding: 2px 10px;"><input type="checkbox"/> No</div> </div> <p>If yes, fill below details</p> <p>Period of delay (in months) <input style="width: 80px;" type="text"/></p> <p>Amount is <div style="display: inline-block; border: 1px solid black; padding: 2px 10px; margin-right: 10px;"><input type="checkbox"/> Withheld</div> <div style="display: inline-block; border: 1px solid black; padding: 2px 10px;"><input type="checkbox"/> Recovered</div></p> <p>Amount (in lakh) <input style="width: 180px;" type="text"/></p> <p>Any other comment:</p> <div style="border: 1px solid black; height: 100px; width: 100%; margin-top: 5px;"></div>	<div style="border: 1px solid black; display: inline-block; padding: 2px 10px; margin-bottom: 5px;"><input type="checkbox"/> In progress</div> <p>Work progress is</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid black; display: inline-block; padding: 2px 10px;"><input type="checkbox"/> As per schedule</div> <div style="border: 1px solid black; display: inline-block; padding: 2px 10px;"><input type="checkbox"/> Extension of last date completion</div> </div> <p>If extension of last date, fill below details</p> <p>Period of extension (in mo) <input style="width: 80px;" type="text"/></p> <p>Withheld amount refunded <div style="display: inline-block; border: 1px solid black; padding: 2px 10px; margin-right: 10px;"><input type="checkbox"/> Yes</div> <div style="display: inline-block; border: 1px solid black; padding: 2px 10px;"><input type="checkbox"/> No</div></p> <p>Amount (in lakh) <input style="width: 180px;" type="text"/></p> <p>Amount of penalty on contractor : <input style="width: 180px;" type="text"/></p> <p>Any other comment :</p> <div style="border: 1px solid black; height: 100px; width: 100%; margin-top: 5px;"></div>
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C. Whether the work has been completed within the sanctioned cost, if not, what is the action taken by the PIU (in case of complete works): (check ✓ relevant box and fill details)

Whether the work is completed within the sanctioned cost

Yes

No

If **no**, fill the below details

Sanctioned cost (in lakh)

Completion cost (in lakh)

Reason for extra cost

Action taken by PIU

Check ✓ one or more items:

- The revised DPR has been prepared
- Change in scope of work approved by competent authority
- Variation in quantites approved by competent authority
- Expenditure for additional cost approved by competent authority
- Other: (Please describe)

D. Observations about the action taken by the PIU on the observations of inspecting officers including SQMs and NQMs. (clearly offer comments about the action taken on the observations of Departmental Officers, State Quality Monitors and National Quality Monitors).

As filled in Para-5 of Part-1			Your observation about PIU's action
Previous QM's Designation NQM /SQM /DO	Previous QM's observation	Action taken by PIU	

E. Comments about difference in observations made by NQMs/SQMs in earlier inspections (the NQM/SQM shall study the earlier inspection reports of NQMs/SQMs, if any and offer his clear comments about the differences in observations, if any). (check ✓ relevant box and fill details)

Whether any difference found from previous observations of QMs

 Yes

 No

If yes, your comment on difference in observation

F. Other observations, if any:

22. QUALITY GRADING OF ITEMS AND SUB-ITEMS OF WORK:

The grading of every sub- item and item of work is given below.

#	Sub item for observation	Status of work	Awardable Grades	Awarded Grades
1	2	3	4	5
1. General details				
Item 2 - Quality Arrangements				
a	Quality Arrangements	On-going	S/SRI/U	
	Item Grading		S/SRI/U	
Item 3 - Attention to Quality				
a	Maintenance of QC Registers	On-going	S/SRI/U	
b	Verification of test results	On-going/ Complete	S/U	
	Item Grading		S/SRI/U	
Item 4 – Geometrics				
a	Road way width	Ongoing / complete	S/U	
b	Carriageway width		S/U	
c	Camber		S/U	
d	Super elevation		S/U	
e	Extra Widening at Curves		S/U	
f	Longitudinal Gradient in case of road in hilly/ rolling terrain.		S/U	
	Item Grading		S/U	
Item 5 - Earth Work and Sub-grade in Embankment/ Cutting				
a	Assessment of New Technology section	Ongoing or complete	S/U	
b	Quality of Material for Embankment/ Sub-grade		S/U	
c	Compaction		S/U	
d	Side Slopes	Complete	S/U	
e	Profile	Complete	S/U	
f	Adequacy of Slope Protection (in case of high embankments /hilly / rolling terrain)	Ongoing or complete	S/U	
	Item Grading		S/U	

Item 6 – Granular Sub-Base (GSB)				
a	Assessment of New Technology section	Ongoing or complete	S/U	
b	Grain Size		S/U	
c	Plasticity		S/U	
d	Compaction		S/U	
e	Total Thickness of Layer		S/U	
Item Grading			S/U	
Item 7 - Base Course – Water Bound Macadam (WBM-Grade-II)				
a	Assessment of New Technology section	Ongoing or complete	S/U	
b	Grain Size of Course Aggregate		S/U	
c	Plasticity of Crushable Aggregate used as fillers		S/U	
d	Adequacy of Compaction through Volumetric analysis.		S/U	
e	Thickness of every layer of WBM.		S/U	
Item Grading			S/U	
Item 8 - Base Course – Water Bound Macadam (WBM-Grade-III)				
a	Assessment of New Technology section	Ongoing or complete	S/U	
b	Grain Size of Course Aggregate		S/U	
c	Plasticity of Crushable Aggregate used as fillers		S/U	
d	Adequacy of Compaction through Volumetric analysis.		S/U	
e	Thickness of every layer of WBM.		S/U	
Item Grading			S/U	
Item 9 - Base Course – Wet Mix Macadam (WMM)				
a	Assessment of New Technology section	Ongoing or complete	S/U	
b	Grain Size of Course Aggregate		S/U	
c	Plasticity of Crushable Aggregate used as fillers		S/U	
d	Adequacy of Compaction through Volumetric analysis.		S/U	
e	Thickness of every layer of WMM.		S/U	
Item Grading			S/U	
Item 10- Bituminous Base Course: Bituminous Macadam (BM) and Dense BM				
a	Assessment of New Technology section	complete	S/U	
b	Grading of Coarse Aggregate		S/U	
c	Bitumen Content		S/U	
d	Thickness of Layer		S/U	
Item Grading			S/U	

Item 11 - Bituminous Surface Course: – OGPC and Seal coat/ Surface Dressing (SD) / SDBC				
a	Assessment of New Technology section	Ongoing or complete	S/U	
b	Gradation of Aggregate	Ongoing	S/U	
c	Laying Temperature of Mix.	Ongoing	S/U	
d	Bitumen content	Ongoing	S/U	
e	Thickness of layer	Ongoing or complete	S/U	
f	Surface Evenness	Ongoing or complete	S/U	
Item Grading			S/U	
Item 12 – Shoulders				
a	Assessment of New Technology section	Ongoing or complete	S/U	
b	Quality of material for shoulders	Complete	S/SRI/U	
c	Degree of compaction	Complete	S/SRI/U	
d	Camber.	Complete	S/SRI/U	
Item Grading			S/SRI/U	
Item 13 - Cross Drainage Works (Pipe Culvert)				
a	Cushion over Hume pipes including size etc.	Ongoing or complete	S/U	
b	Quality of Workmanship such as positioning of pipes, wing walls, cushion over Hume Pipes etc.		S/U	
Item Grading			SU	
Item 14 - Cross Drainage Works (Slab Culvert)				
a	Thickness of Slab	Ongoing or complete	S/U	
b	Quality of material & workmanship		S/U	
Item Grading			S/U	
Item 15- Protection Work (Retaining wall /Breast wall/Parapets:				
a	Quality of Material	Ongoing or complete	S/U	
b	Workmanship of retaining structure		S/U	
Item Grading			S/U	
Item 16- Crash Barriers and Road Safety Sign Boards				
a	Overall quality of safety measures in road	Completed Projects	S/U	
b	Fixing of mandatory and cautionary sign boards		S/U	
Item Grading			S/U	

Item 17 - Side Drain and Catch Water Drain (Earthen)				
a	General quality of Side Drains/ Catch Water Drains and their integration with CDs.	Ongoing or complete	S/SRI/U	
	Item Grading		S/SRI/U	
Item 18 – Cement Concrete / Semi Rigid Pavements				
a	Quality of Material – Concrete, Stone/ Concrete Block Pavement etc.	Ongoing or complete	S/U	
b	Strength of CC in Concrete Pavement/ Concrete Block Pavement		S/U	
c	Quality of Workmanship – Wearing surface texture, Adequacy of setting of concrete, Joints, Edges etc.	Ongoing or complete	S/U	
d	Thickness of Layer		S/U	
	Item Grading		S/U	
Item 19- Cement Concrete Pucca Drains				
a	Thickness of concrete layer	Ongoing or complete	S/U	
b	Strength of concrete		S/U	
c	General Quality of material and Workmanship		S/SRI/U	
	Item Grading		S/SRI/U	
Item 20 - Road Furniture and Markings				
a	Citizen Information Board, Main Informatory Board, Quality and whether fixed during construction.	Ongoing	S/U	
b	Logo boards, 200 m stones and Km stones, quality and whether fixed after completion.	Complete	S/U	
c	Whether the information in boards is given in local language.	Complete/ Ongoing	S/U	
	Item Grading		S/SRI/U	

23. OVERALL GRADING OF WORK:

The overall grading calculated on the basis of item and sub-item wise grading is given below:

#	Item	Awardable Grades	Awarded Grade
1	General details		
2	Quality Control Arrangements	S/SRI/U	
3	Attention to Quality	S/SRI/U	
4	Geometrics	S/U	
5	Earthwork and Sub-grade in Embankment/Cutting	S/U	
6	Granular Sub-base	S/U	
7	Base Course (WBM-II)	S/U	
8	Base Course (WBM-III)	S/U	
9	Base Course (WMM)	S/U	
10	Bituminous Base Course (BM and DBM)	S/U	
11	Bituminous Surface Course (OGPC and Seal coat/SD/SDBC)	S/U	
12	Shoulders	S/SRI/U	
13	Cross Drainage Work (Pipe Culvert)	S/U	
14	Cross Drainage Work (Slab Culvert)	S/U	
15	Protection Work (Retaining wall /Breast wall/Parapets)	S/U	
16	Crash Barriers and Road Safety Sign Boards	S/U	
17	Side Drains and Catch Water Drains	S/SRI/U	
18	Cement Concrete / Semi Rigid Pavements	S/SRI/U	
19	Cement Concrete Pucca Drains	S/SRI/U	
20	Road Furniture and Markings	S/SRI/U	
Overall Grading		S/SRI/U	

Guiding notes for overall grading:

- If all work items are “S”, the overall quality of work shall be “S”.
- If all items from sl.no 5 to 11 are rated as “S” and other items are either SRI or U, The overall quality of work shall be “SRI”.
- If any item from sl.no 5 to 11 is rated as “U”, the overall quality of work shall be “U” irrespective of the quality grading of other items.

Whether the work can be considered as **excellent** based on the test results and visual observations made by the quality monitor (*check✓any one box*)

	Yes		No
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Signature of QM:.....

Name Of QM:.....

Date of uploading the report on OMMAS: / /

NRRDA-P017 (23)/1/2017-FA
National Rural Infrastructure Development Agency
(Ministry of Rural Development)
5th Floor, 15 Bhikaji Cama Place,
New Delhi

Date: 06.10.2020

Circular

Subject: - Honorarium and Travelling Allowance Bye Laws 2006 for National Quality Monitors- issue of consolidated and updated guidelines.

In supersession of the consolidated and updated guidelines on the captioned subject, issued vide NRIDA Circular of even number dated 28.09.2020, the revised set of instructions containing the updated entitlements of NQMs are hereby circulated for reference, as given below:-

1. Journey by Rail/Air/Sea:-

The NQMs will be entitled to reimbursement of fares for journeys performed on official duty by different means of transports as given below subject to actual expenditure:-

- i. NQMs are allowed travel by Economy Class in case of Air Travel.
- ii. The NQMs should submit all their documents in support of the claim in original for reimbursement.
- iii. The journey should be undertaken by the shortest route, as laid down in Government of India rules and regulations.
- iv. All Air Journeys should be undertaken by Air India. Pvt. Airlines should be used only when Air India flights are not available on the sector. In case where Air India is not available a certificate to this effect would need to be furnished by the NQMs, duly signed.
- v. To and fro booking of tickets for air journeys should be made in advance after finalizing the inspection programme with the concerned SQCs /PIUs.
- vi. Air bookings should be made either directly through the airlines website or the Govt. of India authorized travel agents viz. Balmer & Lawrie, Ashok Tour Travels & Indian Railway Catering and Tourism Corporation (IRCTC)
- vii. Any cancellation of the tour programme may be made only after receipt of written communication from NRIDA.

2. Journey by Road

- i. All NQMs may travel by road by any public transport and will be reimbursed actual fare subject to production of the ticket.
- ii. If the NQM travel by taxi, the reimbursement will be restricted to rail fare as per entitlement subject to actual. The claims should be supported by a bill/ receipt for travel by taxi. Taxi fare at rates prescribed from time to time will be allowed in cases where places are not connected by rail. The current prescribed rate for taxi is Rs. 24 per km.
- iii. Full rate of road mileage may also be allowed in cases where travel by road is in public interest and sanction of the competent authority under SR 31 is accorded [GID 1 below SR 31.]
- iv. For travel by own car, claim will be regulated as in sub-Para-ii or iii above, as applicable.

3. Mileage Allowance

- i. NQM will be entitled to claim Mileage allowance at a fixed rate prescribed from time to time, for each journey between residence to railway station/bus-stand/air-port and back. Similar allowance will be paid from railway station/bus-stand/air-port to the district Head Quarter allotted for inspection and back. The present rate fixed for mileage allowance is Rs. 350 per journey.
- ii. No mileage allowance will be paid where taxi charges at prescribed rates under rule 2(ii), 2(iii) or 2(iv) are being paid.
- iii. No mileage allowance will be paid where Project/Government vehicle is provided.
- iv. To claim mileage allowance NQM is required to give certificate that no transport was provided by State/ Project/NRIDA for the journey for which Mileage Allowance has been claimed.

4. Daily Allowance

- i. Daily Allowance for each day of absence from his Headquarters will be paid at the rate prescribed from time to time. The present rate is Rs. 500 per day.
- ii. No Daily Allowance will be payable if the absence from his headquarter in a day is less than six hours.
- iii. If the NQM is provided free board by NRIDA/Project/State Government half daily allowance will be paid.
- iv. If both boarding and lodging are provided free of cost by NRIDA/Project/State Government, 1/4th Daily Allowance will be admissible.

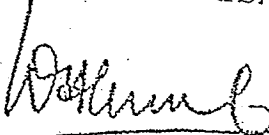
5. Lodging Charges during journey

- i. In case arrangement for stay is made by NRIDA/Project/State no lodging charges will be payable. However, where no lodging arrangement are made by NRIDA/Project/State, NQM will be paid actual lodging charges limited to Rs. 3500/- in case of principal cities and upto Rs. 2500/- in other places subject to production of original receipt.
- ii. In cases where NQM stay in guest houses/circuit houses of State Government/ PSUs etc. reimbursement for lodging charges will be as per actual of these guest houses on production of original receipts.
- iii. The Hotel/Guest House bill should be in the proper bill form indicating the bill no, date, TIN No., GST no. etc.
- iv. Name of the officer who stayed in the Hotel should be clearly mentioned.
- v. The necessary certificate that the payment of the Hotel bill has been made by the concerned NQM should be endorsed on the bill.
- vi. A certificate should be clearly given on the TA bill that lodging /boarding arrangement has not been made by project/state authority. In case lodging arrangement is made by the project/state authority no reimbursement of lodging charges will be made.

6. Reporting Allowance

- i. NQM's will be paid Reporting Allowance to cover the charges for report preparation and postage etc. at the prescribed rates. The present rate is Rs. 400/- per district.
- ii. A sum of Rs. 200/- per month expenditure on account uses of internet Connectivity on Mobile Hand set during road inspections would be paid to the NQMs only for those months during which at least five inspections have been conducted by them. In case of less than five inspections in a month, no payment would be made to the NQM.

7. Honorarium
- I. Honorarium for each day of field inspection and discussions with PIUs and the other concerned staff will be paid at prescribed rate from time to time. The present rate of Honorarium is Rs. 5000/- per day.
 - II. Rs. 5000/- per day for attending Regional Review Meeting (RRMs) and Meeting in NRIDA inclusive of scrutiny of DPRs etc.
 - III. Honorarium will be paid only for the days of inspection/duty in NRIDA and discussions with PIU and other concerned staff.
 - IV. Honorarium is normally restricted to a maximum of 10 days per month, as per guidelines.
8. Revision of rates
The rates may be revised by competent authority from time to time.
9. Interpretation
In interpretation of any clause, the decision of Director General, NRIDA shall prevail.
10. Power to relax
Power to relax in exceptional circumstances rests with the Director General, NRIDA.


(Deepak Ashish Kaul)
Director (F&A)

To:

1. Director P-I/P-II/P-III/F&A/Consultant Director Tech
2. All Jt. Directors /Dy. Directors and Asstt. Directors
3. PPS to DG, NRIDA