



### Format 1- Part I

### Format for information to NQM for Inspection of Ongoing/Completed Work <u>PART I—Work Information</u> (*To be filled-up by PIU*)

	Work is	Ongoing	Completed	
GENI	ERAL:			
1.1.	Date of Inspection:			
1.2.	Name of National Quality Monitor:			
1.3.	State: District:		Block:	
1.4.	Name of Road: From		to	
1.5.	Package No.:			
1.6.	Length:Km Flexible Pavement,Km.	Km. CC/	other Pavement	m, Total.
1.7.	Estimated Cost (As cleared by GOI):	Rs.		Lakh
1.8.	Technical Sanction Cost:	Rs.	Lakh	
1.9.	The Work is a Case of: New conne	ectivity	Up gradation	
1.10.	Terrain Plain Rolling H	lilly		
1.11.	Date of Start of the Work:			
1.12.	Stipulated Date of Completion:			
1.13.	Actual Date of Completion (if work	completed):		
2. Progra	PHYSICAL PROGRESS: (In case amme and Physical Progress:	of On goin	g works only) Co	nstruction

Item	Completed	Dates for	Start	Completion	Delay in
	percentage of Item	completion	Date	Date	Months
Preparatory Work		Due			
		Actual			
Earth Work		Due			
		Actual			
CD Works		Due			
		Actual			
Sub base i/c		Due			
Shoulders		Actual			
Base Course (Non		Due			
Bitu.)		Actual			
Base /Wearing		Due			
Course(Bitu.)		Actual			
CC Pavement		Due			
		Actual			
Signage etc		Due			
		Actual			



### 3. QUALITY CONTROL:

- **3.1.** Location of Field Laboratory:
- **3.2.** Quality Control Register Part-I is maintained by:
- **3.3.** Quality Control Register Part-II is maintained by:

# 4. INSPECTIONS BY NQM, SQM or SENIOR OFFICERS AND ACTION TAKEN:

Inspection by NQMs, SQMs and senior (i.e. SE or CE) departmental officers and action taken statement:

Date of Visit	Inspected By	Observations	Action Taken by PIU with Date

Name and Signature of the Head of PIU, Date:.....



### Format 1- Part II

# Report of National Quality Monitor (NQM) PART II- Observations of NQM for Ongoing/Completed Work

(To be filled-up by NQM, use additional sheets, if required.)

#### 

**Observations:** 

#	Whether laboratory	Field Established	Whether Equipments	necessary available	Whether have been u	Equipments sed (Y/N)
	(Y/N)		(Y/N)			. ,
Grading: Grade: S RI U If this item is graded RI/U, write clear reasons a suggestions for improvement:						r reasons and

### 2. ATTENTION TO QUALITY: (In Case of ongoing works only):

### **Observations – Item 2a: Maintenance of QC Registers:**

#	Based on executed	Whether QC Register Part	Whether QC Register Part	
	quantities whether all	I maintained as per	II maintained and test	
	mandatory tests	provisions.	results monitored as per	
	conducted.		provisions.	
	Yes Partly No		Yes Partly No	

## Observations – Item 2b: Verification of Test Results (P – conforms, F – does not conform):

#	Name of Test	Results of the test conducted by NQM at a defined location.(P/F)	Test result as per QC Register at the same location. (Mention the Page No. of QC Register also)(P/F)	Whether the test results recorded in QC register found correct? (Y/N)



Grade: S RI U If this item is graded RI/U, write clear reasons and suggestions for improvement:							

**3. GEOMETRICS:** The NQM should take at-least two measurements in 1 Km length and if it is found that the roadway and carriageway is inadequate NQM may take more observations:

Observations – Item 3 a, b and c: Road way width, Carriage way and Camber.

Ref. RD	Roadway Width (m)	Carriageway Width (m)	Ref. RD	Roadway Width (m)	Carriageway Width (m)

### Observations – Item 3 d: Superelevation and Extra Widening at curves.

Ref.	Super	Extra	Ref. RD	Super	Extra Widening
RD	Elevation	Widening		Elevation	provided (Y/N)
		provided (Y/N)			

### Observations – Item 3 e: Longitudinal Gradient in case of road in hilly/rolling terrain:

Ref. Between RD& RD	Longitudinal Gradient	S/U	Ref. Between RD& RD	Longitudinal Gradient	S/U



	Grade: S U If this item is graded U, write clear reasons and suggestions for improvement:					
4	Earthwork:	ARDI NG THE QUALITY OF ITE				
Obser #	Location (RD)	On Visual Classification identify the Group Symbol and write	Quality of material is acceptable. (Y/N)			
Grac sugg	de: S U estions for improve	If this item is graded U, write cle ement:	ar reasons and			



# Observation – Item No. 4 b: Workmanship for Embankment and Sub-grade Construction:

#	Location	MDD kN/m <sup>3</sup>	Field	Deg	Degree of Compaction			
	(RD)	(As per	Moisture		Dry Density	Compaction		
		record)	Content	kN/m <sup>3</sup>	kN/m <sup>3</sup>	adequate.		
						(Y/N)		

Grade: S U	If this item is graded U, write clear reasons and suggestions for
improvement:	

### Observation – Item No. 4 c, Side slopes and profile:

#	Location (RD)	Whether Side Slopes	Whether profile is
		Satisfactory (Y/N)	Satisfactory (Y/N)

## Observations- Item No. 4 d and e, Earth work in Hilly/Rolling terrain or high Embankments:

#	Location			Formation is properly
	(RD)	whether appears to be	protection works	dressed and traffic
		stable. (Y/N)	executed. (Y/N)	worthy. (Y/N)



Grade: S U If this item is graded U, write clear reasons and suggestions for
improvement:

### 5. Sub-Base:

### Observations- Item No. 5 a, b, c and d, Quality of Material and Workmanship:

#	Location	Confirms	Suitable	Whether	Observed	Prescribed
	(RD)	to	from	compaction	Thickness	Thickness
		Grading.	plasticity	is adequate.	of Layer	provided
		(Y/N)	angle.	(Y/N)	(in mm)	(Y/N)
		, ,	(Y/N)			, ,
					l	

Grade:	$\mathbf{S} \mid \mathbf{U}$	If this item is graded U, write clear reasons and suggestions
for improv	ement:	



### 6. Base Course:

Observations- Item No. 6 a, b, c and d, Quality of Material and Workmanship of WBM:

#	Location	Thickness	Thickness	Aggregate	Filler	Volume of	Whether
	(RD)	of each	is	confirms to	material is	filler	adequate
	(KD)	layer of	adequate.	Grading	non-plastic	material	compaction
		WBM	(Y/N)	(Y/N)	to desired	percent of	is done.
		(mm)			extent.	coarse	(Y/N)
					(Y/N)	aggregate	

Grade:		U	If this item is graded U, write clear reasons and suggestions for
improver	nent:		

7. Bituminous Course: Premix Carpet/Surface Dressing/ BM/ MPM etc including Seal Coat: Observations- Item No. 7 a, b, and c, Quality of Material and Workmanship of BT Layer (*in case of ongoing works*):

#	Location	Whether	Whether the	Write Mixing	Write Laying
	(RD)	Coarse	binder is of	Temperature	Temperature
		Aggregate	approved grade.	and whether it is	and whether it
		confirms to	(Y/N)	in permissible	is in
		grading.		limits. (Y/N)	permissible
		(Y/N)			limits. (Y/N)



	rade: S U	If this item	n is gradeo	1 U, write	clear reasons	s and suggestions for
		em No. 7 d ar	ıd e, Worl	kmanship	of BT layer (	(in case of completed
#	ks): Location	Th	ickness		Whether	surface evenness is
77	_	Thickness in		thickness		eptable limits. (Y/N)
		mm		ate. (Y/N)		P (1/11)
				(-/)		
-						
	rovement:					and suggestions for
	ks):					s (in case of completed
#	RD o observation		general of the is (Y/N)	Whether quality workman acceptabl		
			<u> </u>			



### 9. Cross Drainage Works: Observations Item No. 9 a and b, Quality of CDs:

#	RD at which	Type of CD	Whether	general	Whether	general
	CD is located		quality of the	material	quality	of
			is acceptable. (	(Y/N)	workmanship	is
					acceptable. (Y/	N)

Grade:	S	RI	U		If this item is graded RI/U, write clear reasons and
suggesti	ons fo	or imp	rovem	ent:	

### 10. Side Drains and Catch water Drains: Observations:

#	Reference of		Whether general quality	
	RDs where side	which	of the side drains/ catch-	are integrated to
	drain	observation	water drains is	cross drains. (Y/N)
	constructed.	made.	acceptable. (Y/N)	
-				
-				

Grade: S R I U	If this	item	is	graded	RI/U,	write	clear	reasons	and
suggestions for improvement:									



### 11. CC/ Semi-Rigid (SR) Pavements and Associated Pucca Side Drains: Item No. 11 a, b, c and d:

	110. 11 4, 1	, , , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
#	Reference of	RD at	Thic	kness	General	General
	RDs, CC/SR Pavements provided.	which observati on made.	Thickness in mm	Acceptable (Y/N)	quality of material is acceptable. (Y/N)	quality of workmanship acceptable(Y/N)

Grade: S U improvement:	If this item is graded U, write clear reasons and suggestions for

### 12. Road Furniture and Markings

Observations - Item No. 12 a: Quality Road Furniture and Markings (in case of ongoing/completed works):

Main Informatory Board Fixed:

Citizen Information Board Fixed:

Yes No

Yes No

Grade:	S	U	If this item is graded U, write clear reasons and suggestions for
improve	ment:		

Observations - Item No. 12 b: Quality Road Furniture and Markings (in case of completed works):

picici			
i.	Logo Boards Fixed:	Yes	No
ii.	200m. Stones fixed:	Yes	No
ii.	1 Km. Stone fixed:	Yes	No
iv.	Guard Stones fixed on Curves:	Yes	No
v.	Mandatory and Cautionary Signage	Yes	No



Grade: S U improvement:	If this item is graded U, write clear reasons and suggestions for
1	

- 13. General Observations of NQM, (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):

**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:



**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*):

**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).

e. Comments about difference in observations made by NQMs/SQMs in earlier inspections (the NQM shall study the earlier inspection reports of NQMs / SQMs, if any and offer his clear comments about the differences in observations, if any).

**14.** Other observations, if any:



# **15. Quality Grading of items and sub-items of work:** The grading of every sub-item and item of work is given below.

1	Sub item for observation	In case of work	Awardable Grades	Awarded Grade
	2	3	4	5
	Item 1 - Qualit	y Arrangements		
	Quality Arrangements	On-going	S/RI/U	
	Item Grading		S/RI/U	
		ntion to Quality	· · · · · · · · · · · · · · · · · · ·	
a	Maintenance of QC Registers	On-going	S/RI/U	
b	Verification of test results	On-going/ Complete	S/U	
	Item Grading		S/RI/U	
	Item 3 –	Geometrics		
a	Road way width		S/U	
b	Carriageway width	Ongoing or	S/U	
c	Camber	complete	S/U	
d	Superelevation & Extra Widening at Curves		S/U	
e	Longitudinal Gradient in case of road in hilly/ rolling terrain.	Ongoing/ complete	S/U	
	Item Grading	S/U	<u> </u>	
	Item 4 - Earth Work and Sub-	-grade in Embai	nkment/ Cutti	ng
a	Quality of Material for Embankment/ Sub-grade	Ongoing or	S/U	
b	Compaction	complete	S/U	
c	Side Slopes and Profile	Complete	S/U	
d	Stability and Workmanship of Cut Slopes (in case of hilly/ rolling terrain)	Ongoing or complete	S/U	
e	Adequacy of Slope Protection (in case of high embankments/hilly/ rolling terrain)	Complete	S/U	
	Item Grading		S/U	
	Item 5 -	- Sub-Base		
a	Grain Size	Ongoing or	S/U	
b	Plasticity	complete	S/U	
c	Compaction	Ongoing or complete	S/U	
d	Total Thickness of Layer	Ongoing or complete	S/U	
	Item Grading		S/U	



	Item 6 - Base Course -	- Water Bound M	Iacadam	
a	Grain Size of Coarse Aggregate		S/U	
b	Plasticity of Crushable Aggregate used as fillers	Ongoing or	S/U	
c	Adequacy of Compaction through volumetric analysis.	complete	S/U	
d	Thickness of every layer of WBM.		S/U	
	Item Grading		S/U	
	Item 7 - Bituminous Layer – Premix	Carpet (PMC)/	Surface Dres	ssing (SD)
a	Gradation of Aggregate	Ongoing	S/U	
b	Mixing Temperature of Mix.	Ongoing	S/U	
c	Laying Temperature of Mix.	Ongoing	S/U	
d	Thickness of layer	Ongoing or complete	S/U	
e	Surface Evenness	Ongoing or complete	S/U	
	Item Grading		S/U	
	Item 8 –	Shoulders		
a	Quality of material for shoulders	Complete	S/RI/U	
b	Degree of compaction	Complete	S/RI/U	
c	Camber.	Complete	S/RI/U	
	Item Grading		S/RI/U	
	Item 9 - Cross	Drainage Works	5	
a	Quality of Material – Concrete, Stone/ brick masonry, Hume pipes including size etc.	Ongoing or	S/RI/U	
b	Quality of Workmanship such as positioning of pipes, wing walls, cushion over H Pipes etc.	complete	S/RI/U	
	Item Grading		S/RI/U	
	Item 10 - Side Drain	and Catch Water	r Drain	
	General quality of Side Drains/ Catch Water Drains and their integration with CDs.	Ongoing or complete	S/RI/U	
	Item Grading		S/RI/U	
	Item 11 - CC/ Semi Rigid Paven	nents and Associa	ited Pukka D	rains
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.		S/U	
d	Thickness of Layer		S/U	
	Item Grading		S/U	
	Item 12 - Road Fu	rniture and Marl	kings	
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/U	

**16. Overall Grading of Work:** The overall grading calculated on the basis of item and sub-item wise grading is given below:

#	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	

Signature:
Name:
Date: