

CDB བཟོ་སྐྱོད་གོང་འཕེལ་བཀོད་ཆོག་ས།
CONSTRUCTION DEVELOPMENT BOARD
"Quality in Construction through professionalization and technology"



MONITORING GUIDELINES

2020



དཔལ་ལྷན་འབྲུག་གཞུང་། བོད་ཆུང་གོང་འཕེལ་བཀོད་ཆོག་པ།

ROYAL GOVERNMENT OF BHUTAN
CONSTRUCTION DEVELOPMENT BOARD
THIMPHU : BHUTAN

"Quality Construction; with professionalization and technology"



Date: 23rd March 2021

FOREWORD

The Construction Development Board is entrusted with the mandate to oversee and regulate the Construction Industry in the light of the expanding activities of the Sector. Bestowed with the important responsibilities, CDB has made number of interventions geared towards fostering and improving the Construction Sector. Despite such interventions, the growth of the Sector is confronted with lot of challenges.

Further, with the growing number of Contractors, construction works in the country are believed to be plagued with array of issues like time and cost overrun attributing to defective and substandard quality works. In the Financial Year 2018-2019, about 52.73% of construction works failed to complete on time and 65.76% works had cost overrun. Whilst those barriers stretch across multiple sectors and addressing them could lead to a significant pickup and propel the Construction Industry.

It is therefore, expedient to take apt measures and CDB recognizes that unless the stringent and systematic Monitoring is carried out in all the public construction sites across Ministries, Dzongkhags, Thromdes and other procuring Agencies, the multi facet issues cannot be addressed. It is in this spirit that the **MONITORING GUIDELINE** was developed to supervise and regulate the construction process and the resources committed by the contractors during the submission of their bids and CDB registration.

Thus, in effort to enhance professionalism and building vitality of Construction Industry, the Monitoring Guideline is formulated as the success of construction sector is determined by the level of efficiency, productivity, quality and professionalism which is directly related to the credibility of regulatory action like stringent Monitoring and supervision.

Towards this, the Construction Development Board hereby adopts **Monitoring Guideline 2020** on **23rd March 2021**.

Tashi Delek!

(DORJI TSHERING)
Chairperson, CDB

Ministry of Works and Human Settlement

Ph: 00975-02-326035/326034, Fax: 00975-02-321989,
e-mail: registration@cdb.gov.bt, arbitration@cdb.gov.bt,
promotion@cdb.gov.bt, webmaster@cdb.gov.bt,
website: www.cdb.gov.bt : Post box # 1349

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Introduction

Construction Development Board (CDB) was established in 1987 as an independent interagency representative organization of the Royal Government of Bhutan with mandate to act as promoter and overseer of the construction industry and to develop an efficient & quality based construction industry. The Procurement/Financial Manual empowers CDB to formulate its own working procedures for the administration of the construction industry related activities. Over the past decade, CDB has put in place various developmental system with timely reviews & reforms as necessitated with the changing of time including policy & programs geared towards private construction sector development.

As an overseer of the construction industry, CDB has the challenge to address the multi-faced concern of the construction industry and the construction firms which are complex and often cross sectoral issues. Implementation fall short of commitments because of which we are not able to build infrastructure of expected quality, time and cost. To quote some of the issues:

It is evident that CDB being an overseer of the Construction industry should monitor the compliance of construction firms to their registration requirements and the ongoing works to ensure all procuring agency and construction firms are complying with contract document uniformly.

1. Empowering clause

Section 2.1.1.2, 2.1.3.4 & 2.3.1.1 of Procurement Rules and Regulations impliedly authorizes CDB to formulate guidelines to monitor compliance to the requirements set for prequalification.

2. Objectives

The objectives of the guidelines are:

- 2.1 To ensure all Construction and Consultancy firms equal and fair access to award of work;
- 2.2 To ensure deployment of the committed resources in the contract document at the construction site; and
- 2.3 To ensure implementation of best construction practices and project management.

3. Scope

CDB shall:

- 3.1 Check the compliance to the requirements of registration criteria;
- 3.2 Monitor any public works executed by the registered firms to check the compliance to contract documents;
- 3.3 Monitor private works executed by registered firms upon the request by the firm; and
- 3.4 Carry out desk assessment of data provided by the procuring agencies in the CDB system.

4. Monitoring Process

4.1 Monitoring of office establishment of Registered Firms

In consonance with The Registration Guidelines, the compliance of registered firms shall be as monitored as follows:

- 4.1.1 Monitoring section shall generate information of registered firms such as, class, category, location, contact details, past monitoring records and human resource from CDB database;
- 4.1.2 Monitoring team shall visit and verify the office establishment and other requirements as per the checklist in Annexure – 1 of this guidelines;
- 4.1.3 Monitoring team shall upload the office establishment reports via Mobile APP in the CDB database;
- 4.1.4 Monitoring section shall generate the office establishment report from CDB database and present to the Monitoring Committee;
- 4.1.5 The Monitoring Committee shall take action as per clause 8.1 of this guideline against the defaulting registered firms; and
- 4.1.6 Monitoring section shall record the actions taken against the firm's profile in the 'Monitoring record' of CDB database.

4.2 Monitoring of Ongoing construction works

- 4.2.1 Generate work information from CDB Database and plan the site visit;
- 4.2.2 Monitor the ongoing works as per the Annexure – 2;

- 4.2.3 Upload the ongoing works reports via Mobile APP in the CDB database
- 4.2.4 Generate the ongoing works report from CDB database and present to the Monitoring Committee;
- 4.2.5 Notify to the concern procuring agencies regarding the monitoring observations; and
- 4.2.6 Publish monitoring findings in the annual Construction Development Board report and share with the relevant authorities.

5. Update of private project executed by registered firm in CDB system

- 5.1 A registered firm undertaking private construction works who wish to update their turnover, similar work experience and performance score shall comply with the following procedures:
 - 5.1.1 To update in CDB system, the value of the private project should be at least Nu. Five million;
 - 5.1.2 Registered firm shall apply to Construction Development Board in writing along with documents including contact agreement where applicable, approved drawings, approvals from local government/thromdes and other documents within 14 days from the signing of contract agreement;
 - 5.1.3 Registered Firm shall submit Completion certificate and Average Performance Score (APS) signed by Client's Engineer after the Completion of the work;
- 5.2 The Monitoring Team shall verify the documents mentioned in sub-clause 5.1.2 of this guideline or visit the site for commencement of works;

- 5.3 The Monitoring officials shall visit and update the work in CDB system as prescribed in Annexure – 4 of this guidelines;
- 5.4 The Monitoring officials shall monitor the private construction site from time to time;
- 5.5 For sub-clause 5.1.2 of this guidelines, signing of contract should be prior to the execution of the work;
- 5.6 The final cost of the project exceeding 20% of the initial contract price shall be supported by relevant documents;
- 5.7 Following will be applicable if the project has no Project Implementing Unit or hired consultant on behalf of the client:
 - 5.7.1 Firm shall submit tentative work schedule of the works;
 - 5.7.2 APS shall be rated by CDB monitoring team; and
 - 5.7.3 For sub-clause 5.8.2 of this guidelines, the registered firm shall inform the Monitoring team for rating the performance as per Annexure 4

6. Update of corporate projects executed by registered firm in CDB system

- 6.1 The corporations, projects and other procuring agencies using CiNET must update the work information in the CDB database within 14 days from the signing of contract;
- 6.2 The registered firm executing the works of corporations, projects and other procuring agencies shall communicate to CDB to update the work information in the CiNET within 14 days from the signing of contract if the said procuring agencies refuses or fails to update the work information in CiNET;

- 6.3 For sub-clause 6.2 of this guidelines, signing of contract should be prior to the execution of the work.

7. Desktop monitoring

- 7.1 To ensure effective and responsible use of the CDB system by procuring agencies, and registered firms and professionals in compliance to e-Zotin Terms and Conditions, the Monitoring Section will carry out desk assessment of the available systems bi-annually.
- 7.2 The Desktop monitoring official shall:
- 7.2.1 Verify works awarded and completed at sites but not updated in the system by procuring agencies;
 - 7.2.2 Verify works evaluated and awarded without update of work status in the system by procuring agencies;
 - 7.2.3 Verify works awarded beyond the works in hand limit and financial threshold of construction firms;
 - 7.2.4 Verify discrepancies in works details such as category of works, class, contract price amount, contract duration and APS;
 - 7.2.5 Verify the engagement of resources which includes human resource and equipment beyond their permissible limits;
 - 7.2.6 Cross check the fulfilment of registration requirements by the firms;
 - 7.2.7 Delete the HR registered under the firm's profile, if those HR are found not employed with the firm during monitoring; and

- 7.3 The Construction Regulatory Division shall report the findings of the desktop monitoring to the Monitoring Committee, where necessary.

8. Administrative actions and Reinstatement

8.1 Administrative sanctions

- 8.1.1 Registered firms not having office establishment shall be suspended for 3 months;
- 8.1.2 Registered firms not having office signboard shall be notified for compliance within 7 days or otherwise the firm shall be suspended for 3 months;
- 8.1.3 Registered construction firms not fulfilling the minimum human resource requirements shall be notified to replace the required human resource within 30 days or otherwise the firm shall be downgraded to lower class.;
- 8.1.4 Registered consultancy firms not fulfilling the human resource requirement for registered services shall be notified to replace the required human resource within 30 days or otherwise the services shall be cancelled;
- 8.1.5 When the monitoring team are unable to contact the firms via telephone/mobile during the monitoring, such firms shall be:
 - 8.1.5.1 Suspended until the firms approaches the CDB office with justification;
 - 8.1.5.1 notified through email, SMS, CDB website and where necessary in print media and Construction Association of Bhutan to report to CDB office;

8.1.6 Registered firms changing office location without updating in CDB system shall be:

8.1.6.1 Notified to update the office location within 7 days;
and

8.1.6.2 Noncompliance to sub-clause 8.1.6.1 shall result into suspension of firms till the change of location is updated in the CDB system.

8.2 Reinstatement of CDB Certificate

Once the firm is suspended or downgraded for non-compliance to this guideline, such registered firm shall comply following process:

8.2.1 Lifting of suspension

8.2.1.1 The firm shall write to CDB upon fulfilment of requirements for which the firm was suspended;

8.2.1.2 CDB or its authorized representatives (Dzongkhag/Thromde) shall visit and verify firm's office;

8.2.1.3 Report the monitoring details to the Chairperson of Monitoring Committee and reinstate upon fulfilment of the requirements; and

8.2.1.4 Inform the registered firm and accordingly update in the CDB database.

8.2.2 Upgrade and reinstate the cancelled services

The firm shall follow registration procedure to upgrade or avail the service as per the provision of the Registration Guidelines.

9. Monitoring Committee

9.1 The Monitoring Committee shall consist of the following officials from CDB:

9.1.1 Director, Chairperson;

9.1.2 Chief, Construction Regulatory Division, Member;

9.1.3 Chief, Construction Services Division, Member;

9.1.4 Head of Legal Section, Member;

9.1.5 Head of ICT Services, Member; and

9.1.6 Head of Monitoring Section, Member Secretary.

9.2 The Chairperson mentioned in sub-clause 9.1.1 of this guidelines may increase, decrease, replace and appoint the members of the committee mentioned in clause 9.1 of this guidelines upon approval of chairperson of CDB;

9.3 The decisions required by clause 8 of this guideline shall be made by simple majority; and

9.4 The committee shall comply with this guideline and the Terms of Reference of Monitoring Committee formulated hereunder

10. Miscellaneous

10.1 Amendment

10.1.1 The Construction Development Board may amend this Guidelines from time to time.

- 10.1.2 Such a revision is effective as of the date of adoption thereof by the Construction Development Board and applies to any matter, which is a subject of this Guidelines.

10.2 Definition:

The following terminologies used in this guideline shall mean and include:

- 10.2.1 “**Construction Industry**” means the industry dealing with Construction Works and Consultancy Services;
- 10.2.2 “**Construction Professionals**” includes Construction Professionals and, whether working in public or private sector—
- (a) architects;
 - (b) engineers in all disciplines;
 - (c) special trade professionals; and
 - (d) other professionals/personnel employed or engaged by construction/consultancy firms.
- 10.2.3 “**Certificate**” means the certificate of CDB registration of Contractors, Consultants, Specialized Firms or Construction Professionals, as the case may be;
- 10.2.4 “**Registered firms**” means as may be applicable construction/consultancy/specialized firms registered with Construction Development Board;
- 10.2.5 “**CAB**” means Construction Association of Bhutan
- 10.2.6 “**Site engineer**” means site engineer of the procuring agency overseeing the particular site;
- 10.2.7 “**Down-gradation**” means down-grading a construction firm from a higher to lower class;

- 10.2.8 **“De-Register** “means de-registering a firm as may be applicable from registered services, and
- 10.2.9 **“Private construction work”** means any privately funded construction works.



OFFICE VERIFICATION CHECKLIST FOR LARGE & MEDIUM CLASS CONTRACTORS

Annexure - 1

A. GENERAL INFORMATION :

Name of the Firm : _____

CDB No. : _____ Validity: _____

Contact No. : _____

Classification : L ☐ M ☐

Office establishment : Yes ☐ No ☐

Office Sign board : Yes ☐ No ☐

Proper Filing system : Yes ☐ No ☐

OHS Handbook : Yes ☐ No ☐ Remarks.....

Safety Committee : Yes ☐ No ☐ Remarks.....

Safety Officer/ OHS Officer : Yes ☐ No ☐ Remarks.....

Location changed : Yes ☐ No ☐ If Yes, Which place to which: _____

Dzongkhag/Location/Building No. if any: _____

B. PERMANENT EMPLOYEES FOR LARGE AND MEDIUM CLASS CONTRACTOR:

Cate- gor	Regis- tered Class	Criteria	Large				Medium			
			W1 & W3		W4		W1 & W3		W4	
W1		Manager	1				1			
W3		Engineer (Graduate)	1 (C)		1 (E)		-		-	
		Engineer (Diploma)	1 (C)		1 (E)		1(C)		-	
			1 (C)							
W4		Accountant	1				-		-	
		Site supervisor	1 (C)		1 (E)		1(C)		1(E)	
			1 (C)		1 (E)					

Does the firm fulfils the required Human Resources: YES ☐ NO ☐

GENERAL REMARKS:

I hereby agreed & confirmed that the above information provided by me to the Monitoring Team is true to the best of my knowledge.

1. Name of Proprietor/Representative/CAB Representative : _____

2. Company Seal & signature: _____

Monitoring Team:

1. Name & Signature of Monitoring official : _____

2. Name & Signature of Monitoring official : _____

Date of inspection: ____/____/____



SITE INSPECTION CHECKLIST FOR ON-GOING CONSTRUCTION WORKS

Annexure- 2

General Information

1. Name of the Firm : _____
 2. CDB Reg. No. : _____
 3. Class : ☐ Large ☐ Medium ☐ Small
 4. Name of the Work : _____
 5. Location/Place : _____
 6. Name of the Procuring Agency : _____
 7. Dzongkhag : _____
 8. Start date of work : _____
 9. Proposed completion date : _____
 10. Contract Price : _____
 11. Name the site Engineer of Procuring agency: _____
 12. APS maintained by Government Engineer : Yes ☐ No ☐
- Remarks.....

Office establishment and site management

13. Office set up at site : Yes ☐ No ☐ Remarks.....
14. Installation of project signboard: Yes ☐ No ☐ Remarks.....
15. Store constructed at site : Yes ☐ No ☐ Remarks.....
16. Habitable worker accommodation provided at site: Yes ☐ No ☐
Remarks.....
17. Proper sanitation facilities provided at site : Yes ☐ No ☐
Remarks.....
18. Access to potable water: Yes ☐ No ☐ Remarks.....

19. Project insuranceA. Work insurance: Yes ☐ No ☐ Remarks.....B. Labour insurance: Yes ☐ No ☐ Remarks.....C. Third Party Insurance: Yes ☐ No ☐ Remarks.....**20. Contract Documents at site:**1. Work plan available at site: Yes ☐ No ☐

If yes, Tick status of work progress:

On Schedule	Ahead schedule	Behind schedule	Remarks

2. BoQ available at site Yes ☐ No ☐ Remarks.....3. Conditions of contract available at site: Yes ☐ No ☐ Remarks.....4. Approved drawing available at site: Yes ☐ No ☐ Remarks.....5. Specification of the works: Yes ☐ No ☐ Remarks.....6. Site order book available at site: Yes ☐ No ☐ Remarks.....7. Hindrance register available at site : Yes ☐ No ☐ Remarks.....8. Work plan available at site: Yes ☐ No ☐ Remarks.....9. CMS maintained at site: Yes ☐ No ☐ Remarks.....10. MBs available at site: Yes ☐ No ☐ Remarks.....11. Day work Journal available at site: Yes ☐ No ☐ Remarks.....12. Quality Assurance Plan available at site: Yes ☐ No ☐ Remarks.....13. Quality Control Plan available at site: Yes ☐ No ☐ Remarks.....13. Mandatory test report available at site: Yes ☐ No ☐

Remarks.....

If yes, List down the test report: _____

24. Any local materials used at site : Yes ☐ No ☐

If yes, list: _____

25. Sub-contractor/Specialize trade: Yes ☐ No ☐ Remarks.....

21. OHS and PPE

1. OHS In charge (Site): Yes ☐ No ☐ Remarks.....

2. Safety Signages : Yes ☐ No ☐ Remarks.....

3. Fire Extinguishing Equipment :Yes ☐ No ☐ Remarks.....

4. First Aid Box : Yes ☐ No ☐ Remarks.....

5. Peripheral Boundary of Construction site (Securing of site):
Yes ☐ No ☐ Remarks.....

6. Safe and Proper Electrical Connections and Installations:
Yes ☐ No ☐ Remarks.....

7. PPE (BSB/ISO/ISI certified) implemented at site:

1. Safety Helmet	Yes	No	Numbers	Remarks
2. Safety Boots	Yes	No	Numbers	Remarks
3. Reflective vest/jackets	Yes	No	Numbers	Remarks
4. Goggles	Yes	No	Numbers	Remarks
5. Welding mask/goggles	Yes	No	Numbers	Remarks
6. Dust mask	Yes	No	Numbers	Remarks
7. Safety Harness/belts	Yes	No	Numbers	Remarks
8. Safety Gloves	Yes	No	Numbers	Remarks
9. Ear plug	Yes	No	Numbers	Remarks
Any other.....				

22. Human resource and Labours

1. Total No. of Bhutanese labours available at site: _____Nos.

2. Total No. of non-Bhutanese labours available at site : _____Nos.

3. No. of interns available at construction site : _____Nos.

4. No. of VTI graduate available at construction site : _____Nos.

23. HUMAN RESOURCE :

List of committed Human Resource with CID No. (From e-tool)	List down Human Resources Physically available at construction site with CID No.	Remarks

24. EQUIPMENTS :

List of committed Equipments with registration No. (From e-tool)	List down Equipment Physically available at Construction site with registration No.	Remarks

**1. NAME & SIGNATURE OF CONTRACTOR/
REPRESENTATIVE**

**2. NAME & SIGNATURE OF GOVERNMENT SITE
ENGINEER**

Monitoring Team:

1. Name & Signature : _____

2. Name & Signature : _____

Date of Inspection : ____/____/____



SITE INSPECTION CHECKLIST FOR PRIVATE WORKS

Annexure 3

1. Name of the Firm : _____
 2. CDB No. : _____
 3. Class : ☐ Large ☐ Medium ☐ Small
 4. Name of the Work : _____
 5. Location/Place : _____
 6. Name of the Procuring Agency : _____
 7. Dzongkhag of work place : _____
 8. Work progress during monitoring: _____
 9. Contract price : _____
 10. Contract period : _____
 11. Contract award date : _____
 12. Contract completion date : _____
 13. Final Contract value on completion of works : _____
 14. Office set up at site : Yes ☐ No ☐ Remarks.....
 15. Erection of sign board at site : Yes ☐ No ☐ Remarks.....
 16. Const. of store at site : Yes ☐ No ☐ Remarks.....
 17. Contract document available at site : Yes ☐ No ☐ Remarks.....
 18. Project insured
 - If yes, A. Work insurance : Yes ☐ No ☐ Remarks.....
 - B. Labour insurance: Yes ☐ No ☐ Remarks.....
 - C. Third Party Insurance: Yes ☐ No ☐ Remarks.....
 19. Work plan available at site : Yes ☐ No ☐
- If yes, Tick status of work progress:

On Schedule	Ahead schedule	Behind schedule	Remarks

20. Camp provided to the workers : Yes ☐ No ☐
21. Power supply provided to the workers : Yes ☐ No ☐
22. Sanitary facilities provided to the workers : Yes ☐ No ☐
23. Drinking water supply provided to the workers : Yes ☐ No ☐

24. OHS and PPE

1. OHS In charge (Site): Yes ☐ No ☐ Remarks.....
2. Fire Extinguishing Equipment : Yes ☐ No ☐ Remarks.....
3. First Aid Box : Yes ☐ No ☐ Remarks.....
4. PPE (BSB/ISO/ISI certified) implemented at site:
- | | | | | |
|----------------------------|-----|----|---------|---------|
| 1. Safety Helmet | Yes | No | Numbers | Remarks |
| 2. Safety Boots | Yes | No | Numbers | Remarks |
| 3. Reflective vest/jackets | Yes | No | Numbers | Remarks |
| 4. Goggles | Yes | No | Numbers | Remarks |
| 5. Welding mask/goggles | Yes | No | Numbers | Remarks |
| 6. Dust mask | Yes | No | Numbers | Remarks |
| 7. Safety Harness/belts | Yes | No | Numbers | Remarks |
| 8. Safety Gloves | Yes | No | Numbers | Remarks |
| 9. Ear plug | Yes | No | Numbers | Remarks |
| Any other..... | | | | |

25. Human resource and Labours

1. Total No. of Bhutanese labours available at site : _____Nos.
2. Total No. of non-Bhutanese labours available at site : _____Nos.
3. No. of interns available at construction site : _____Nos.
4. No. of VTI graduate available at construction site : _____Nos.
26. Sub-contractor/Specialize trade: Yes ☐ No ☐ Remarks.....

Human resources details.

Engineer (Name/CID). _____

Site supervisor (Name/CID).. _____

Others (Name/CID). _____

Remarks if any :

**1. NAME & SIGNATURE OF CONTRACTOR/
REPRESENTATIVE**

Monitoring Team:

1. Name & Signature : _____
2. Name & Signature : _____
3. Name & Signature : _____

Date of inspection: ____/____/____



CONSTRUCTION DEVELOPMENT BOARD AVERAGE PERFORMANCE SCORING FORM

(This report to be submitted on completion of the private works to the CDB)

Annexure 4

Name of the Contractor:
 CDB Number::
 Name of the Client:
 Name of the Project::
 Name of Inspecting Engineer:
 Award Amount:
 Date of Start of Project:
 Final Contract Amount:
 Date of Completion:
 Liquidity Damage(LD) Imposed: No. of days Amount (Nu.)...
 Hindrance (No. of days)

Performance Score Table:-

Sl/No	Description	Total Score	Score Obtained
1	On-time completion	30	
2	Quality of execution	70	
Grand Total		100	

Rated by:

Approved by:

Name and Signature
(Client Site Engineer)

Name and Signature
(Client/owner)

Guideline for Average Performance Score from previous work (100 points)

This parameter gives points to the contractor based on its performance for every project the contractor executes.

The 100% performance score will be composed of the following parameters:

1. On-time completion (30%)
2. Quality of execution (70%)

1. On-time completion (30 points)

Scoring for this component of performance will be done by the site engineer of the implementing agency. A contractor can be penalized under this component if (s)he fails to deliver the project as per the initial time-lines committed

The site engineer can penalize the contractor to an extent of 30 points. The quantum of penalty could vary as following:

- **10 points deducted for a minor default from 30 points**
(if the final completion of the project is delayed by 10 - 15% as compared to original project duration)
- **20 points deducted for a medium default from 30 points**
(if the final completion of the project is delayed by 15 - 25% as compared to original project duration)
- **30 points deducted for a major default from 30 points**
(if the final completion of the project is delayed by 25% or more as compared to original project duration)

2. Quality of execution (70 points)

The scoring on this component of performance will be done by the Site Engineer based on the following guideline.

The scoring shall be conducted for each of the following types of construction*:

1. Buildings (W3);
2. Roads(W1);
3. Bridges(W1);
4. Electrical/Telecommunication(W4);

**Incase the scoring pattern in this form is not relevant to the awarded work, the agency may formulate reasonable scoring pattern for Quality of Execution.*

For each of the above, following percentages shall be distributed:

- | | | |
|-------------------------------|---|-----|
| 1. Beginning of construction | - | 35% |
| 2. During the construction | - | 35% |
| 3. Completion of construction | - | 30% |

Scoring pattern:-

1. BUILDINGS

Sl. No.	Construction Components	Scoring %	Score Obtained
I	Beginning phase of Construction		
a	Foundation	10	
b	Mix Design	15	
c	Steel Reinforcement	10	
Sub Total		35	
II	During Construction		

Sl. No.	Construction Components	Scoring %	Score Obtained
a	Mix Design	10	
b	Concreting	7	
c	Formwork	8	
d	Steel Reinforcement	10	
Sub Total		35	
III	Completion phase of Construction		
a	Product Brands	15	
b	Indoor Plumbing	15	
	Sub Total	30	
Grand Total without electrification works		100	
Incase if there is electrification works then the following works to be included			
IV	Electrical Works		
a	Location of electrical fittings & wiring accessories	5	
b	Size and ratings of cables & switchgears	10	
c	Installation of Earthing system	5	
d	Material Brands	10	
Sub Total		30	
Grand Total with electrification works		130	

Note:-The above obtained score is to be scaled down to 70.

Example-1:- If bidder “A” obtains 90 out of 100 (works without electrification) then his score for quality of execution will be as follows:-

$$\text{Score} = (90/100) \times 70 = \underline{63}$$

Example-2:- If bidder “A” obtains 110 out of 130 (works with electrification) then his score for quality of execution will be as follows:-

$$\text{Score} = (110/130) \times 70 = \underline{59.23}$$

2. ROADS

Sl. No.	Construction Components	Scoring %	Score Obtained
I	Beginning of Construction		
a	Alignment Setting	10	
b	Plants and Equipments	10	
c	Key Technical Personnel	7	
d	Documents	8	
Sub Total		35	
II	During Construction		
a	Formation Cutting	15	
b	Pavement Layers (Flexible pavement): - Sub-Grade preparation (5) - Sub-Base (5) - Base Course (5) - Wearing Course (5)	20	
Sub Total		35	
III	Completion of Construction		
a	Pavement Roughness Index	10	
b	Shoulder Width	10	
c	Permanent Works	10	
Sub Total		30	
Grand Total		100	

Note: - The above obtained score is to be scaled down to 70.

3. BRIDGES

Sl. No.	Construction Components	Scoring %	Score Obtained
I	Beginning phase of Construction		
a	Plant and Equipments	5	
b	Key Technical Personnel	10	
c	Documents (contract agreement, design, drawings)	5	
d	Bridge Layout and Alignment	15	
Sub Total		35	
II	During Construction		
a	Foundation	5	
b	Mix Design	10	
c	Concreting & Formwork	10	
d	Reinforcement details	5	
e	Structural Steel	5	
Sub Total		35	
III	Completion phase of Construction		
a	Finishes	10	
b	Drainages	10	
c	Bridge Approaches	10	
Sub Total		30	
Grand Total		100	

Note: - The above obtained score is to be scaled down to 70.

4. ELECTRICAL/TELECOMMUNICATION WORKS

Sl. No.	Construction Components	Scoring %	Score Obtained
I	Beginning phase of Construction		
a	Plant and Equipments	5	
b	Key Technical Personnel	10	
c	Documents (contract agreement, design, drawings)	5	
d	Layout and Alignment	15	
Sub Total		35	
II	During Construction		
a	Use of specified materials	10	
b	Quality of work executed	15	
c	Work executed as per drawing	10	
Sub Total		35	
III	Completion phase of Construction		
a	Finishes	10	
b	Material Brand	10	
c	Testing	10	
Sub Total		30	
Grand Total		100	

Note: - The above obtained score is to be scaled down to 70.