

Government of Nepal
Ministry of Physical Infrastructure and Transport
Department of Roads
Quality, Research and Development Center
Chakupat, Lalitpur

Guideline for Work Acceptance

2021

Foreword



All types of works under the DoR shall be accomplished as per stated specification and engineering norms. As per the rule 117(4) of Public Procurement Regulation-2064, the works shall be acceptable only after appropriate tests/ investigation to ensure the fulfillment of objective of the contract.

Before acceptance of the completed works, Employer shall verify and assure that such works are within the set objective, quality and are appropriate to operate and use.

This guideline will be useful to all DoR professionals to take appropriate decision at field/ implementation level before final acceptance of contract works.

Thank You

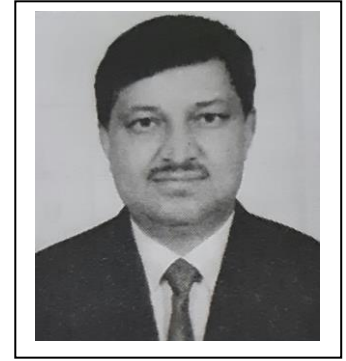
A handwritten signature in black ink, appearing to read 'Arjun Jung Thapa', written over a horizontal dotted line.

Er. Arjun Jung Thapa
Director General
Department of Roads
April 2021

**PERSONNEL OF THE DEPARTMENTAL
GUIDELINE/MANUAL/STANDARDS DRAFTING AND REVIEW
COMMITTEE
(As on 2077.12.02)**

1. Jha, Prabhat Kumar, Superintendent Engineer, Department of Roads - Coordinator
2. Bhatta, Laxmi Dutt, Senior Divisional Engineer, Department of Roads - Member
3. Khatri, Prem Prakash, Senior Divisional Engineer, Department of Roads - Member
4. Mishra, Jlbendra, Senior Divisional Engineer, Department of Roads - Member
5. Khanal, Shankar, Engineer, Department of Roads - Member
6. Adhakari, Shivraj, Ret. Acting Superintendent Engineer, Department of Roads - Invitee-Member

Acknowledgement



This Guideline for Work Acceptance 2021 has been prepared from the departmental committee of DOR.

I should Like to take this opportunity of expressing my sincere thanks to six members of drafting and review committee, Er. Prabhat Kumar Jha(SE), Er. Laxmi Dutt Bhatta(SDE), Er. Prem Prakash Khatri(SDE), Er. Jibendra Mishra(SDE), Er. Shankar Khanal and Er Shiva Raj Adhikari for their immense effort in developing this guideline.

I believe that this guideline will be helpful to all DOR engineers to take appropriate decision before final acceptance of contract works

A handwritten signature in black ink, appearing to be 'Dr. Bijaya Jaishi', written in a cursive style.

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Dr. Bijaya Jaishi
Director
Quality, Research and Development Center
Department of Roads

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1.0 Background

The work acceptance means acceptance of the work done defined in Scope of Work of the Contract. The works to be carried out under the Contract shall be generally described in the Bid / Contract Documents as well as in the Bill of Quantities/ Activity Schedule furnished in the Bid / Contract Documents (the Letter of Acceptance, the Letters of Technical and Price Bid including the Addenda, the Special Conditions of Contract, the General Conditions of Contract, the Specifications, the Drawings, Bill of Quantities or Schedules of Prices for lump sum contracts).

The works to be performed shall also include all general works preparatory to the construction of roads, bridges, canal crossings, drainage and all due and satisfactory construction, completion and maintenance of works to the intent and meaning of the drawings and these specifications and further drawings and other instruction that may be issued by the Engineer from time to time.

The scope of work shall include compliance by the Contractor with all conditions of Contract whether specifically mentioned or not in the various Clauses of the Specifications, all materials, apparatus, plant, equipment, tools, fuel, water, strutting, timbering, transport, offices stores, workshop, staff, labour and the provision of proper and sufficient protective works, diversions, temporary fencing and lighting. It shall also include safety of workers at construction site, provision of first-aid equipments, suitable accommodation for the staff and workmen with adequate sanitary arrangements, the effecting and maintenance of all insurances, the payment of all wages, salaries, fees, royalties, duties or other charges arising out of the erection of works and the regular clearance of rubbish, reinstatement and clearing-up of the site as may be required on completion of work, safety of the public and protection of the works and adjoining land.

The Contractor shall ensure that all actions are taken to build in quality assurance (QA) in the planning, management and execution of works. The quality assurance shall cover all stages of work such as setting out, selection of materials, selection of construction methods, selection of equipment and plant, deployment of personnel and supervisory staff, quality control testing, etc.

Under the general condition of contract, 'Finishing of Contract' of a contract agreement, there is a provision to that before acceptance of the completed works, Employer shall verify and assure that such works are within the set objective, quality and appropriate to operate and use.

2.0 Broader Work Cluster under DoR

Department of Roads is doing construction and maintenance of roads and bridges as assigned by GoN via National Budgetary Mechanism. The work can be clustered in broader way as :

Road Sector	
1	Roadway Construction in Hill by Excavation
2	Roadway Construction in Terai/Valley by Embankment
3	Gravelling
4	Black Topped road construction/ Upgrading with Asphalt
5	Black Topped road construction/ Upgrading with Surface dressing/Otta Seal
6	Premix Carpeting Works
7	Overlay Works- DBM / Asphalt Concrete
8	Overlay Works-Surface Dressing
9	Wall Construction
10	Drain Construction
11	Rigid Pavement
12	Slope Stability activities
13	Landslides Removal
14	Road and Bridge Maintenance (Recurrent)
15	Road Safety Works
Bridge/ X-Drainage Sector	
16	Culvert Construction
17	Vented Causeway Construction
18	Bridge Construction
19	River Training

3.0 Legal Compliance

Under the rule 117(4) of Public Procurement Regulation-2064, the work shall be acceptable only after appropriate test/ investigation of the works to ensure the fulfillment of objective of the contract. Based on the rule, Public Procurement Monitoring Office has issued a circular (secretary level decision, dated 2076.03.03) to all public entities to prepare and implement guideline for Work Acceptance.

4.0 Acceptance Parameters

The work acceptance parameters for each type of the work cluster shall be referred to the particular sections in Standard Specifications for Road and Bridge Works 2073 published by DoR as mentioned below:

Road Sector
1 Roadway Construction in Hill by Excavation
By Physical Verification: Level/ Surface Regularity satisfying the Table 11.1,11.2(1), & 11.4(1)
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP : Satisfying the requirement of Specification
2 Roadway Construction in Terai/ Valley by Embankment
By Physical Verification: Level/ Surface Regularity satisfying the Table 11.1,11.2(1), & 11.4(1)
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP: Satisfying the requirement of Specification
3 Graveling
By Physical Verification : Level/ Surface Regularity satisfying the Table 11.2(1,2), & 11.4(1,2)
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP: Satisfying the requirement of Specification
4 Black Topped road construction/ Upgrading with Asphalt
By Physical Verification: Level / Surface Regularity satisfying the Table 11.2, 11.3 & 11.4
Permissible Variations in the Actual Mix from the Job Mix Formula as per Table 13.31 (for DBM) and Table 13.34 (for Asphalt Concrete)
Density requirements as per 1301.7(h)
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP: Satisfying the requirement of Specification
5 Black Topped road construction/ Upgrading with Surface dressing/ Otta Seal
By Physical Verification/Tolerance: Line/Level / Surface Regularity satisfying the Table 11.2(1,2,3), & 11.4(1,2)
By Physical Verification/Tolerance: The final average overall width of the surface dressing measured at six equidistant points over a length of 100 m shall be at least equal to the width specified or instructed. At no point shall the distance between the centreline of the road and the edge of the surface dressing be narrower than that instructed by more than 13 mm.
The actual rate of application of binder across the lane width shall not vary by more than $\pm 5\%$ of the rate ordered and for each single run of the spray it shall not vary from the specified rate by more than 0.03 lit per square meter.
The actual rate of application of chipping along and across the lane width for each single run of the chip-spreader shall not vary by more than $\pm 5\%$ of the rate ordered.
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP : Satisfying the requirement of Specification
6 Premix Carpeting Works
By Physical Verification : Line/ Level/ Surface Regularity satisfying the Table 11.2(1,2,3), & 11.4(1,2)
Design Compliance along with As-Built Drawing

By Quality Control Tests results as per QAP: Satisfying the requirement of Specification
7 Overlay Works- DBM / Asphalt Concrete
By Physical Verification: Level/ Surface Regularity satisfying the Table 11.2(4), & 11.4(4). Permissible Variations in the Actual Mix from the Job Mix Formula as per Table 13.31 (for DBM) and Table 13.34 (for Asphalt Concrete)
Density requirements as per 1301.7(h)
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP: Satisfying the requirement of Specification
8 Overlay Works-Surface Dressing
By Physical Verification/Tolerance: The final average overall width of the surface dressing measured at six equidistant points over a length of 100 m shall be at least equal to the width specified or instructed. At no point shall the distance between the centreline of the road and the edge of the surface dressing be narrower than that instructed by more than 13 mm.
The actual rate of application of binder across the lane width shall not vary by more than $\pm 5\%$ of the rate ordered and for each single run of the spray it shall not vary from the specified rate by more than 0.03 lit per square meter.
The actual rate of application of chipping along and across the lane width for each single run of the chip-spreader shall not vary by more than $\pm 5\%$ of the rate ordered.
By Quality Control Tests results as per QAP: Satisfying the requirement of Specification
9 Wall Construction
Line and Level as per Drawing. Also refer to Slope Stability Activities below.
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP: Satisfying the requirement of Specification
10 Drain Construction
Line and Level shall not vary by more than ± 25 mm as specified in Drawing
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP : Satisfying the requirement of Specification
11 Rigid Pavement
By Physical Verification : Level/ Surface Regularity satisfying the Table 11.2, 11.3 & 11.4
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP: Satisfying the requirement of Specification
12 Slope Stability activities
Is foundation of structure in stable area (below the slip surface) ?
Are weep holes provided in structure adequate?
Are there cracks in any part of structure?
Is there any noticeable movement of structure?
Is Survival rate of vegetation more than 50 %?
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP : Satisfying the requirement of Specification
13 Landslides
Safe Disposal of Debris
Cross Section Details and Photos
14 Road and Bridge Maintenance (Recurrent)
Site Clearance
Fulfillment of Scope of the Works
By Quality Control Tests results as per QAP: Satisfying the requirement of Specification
15 Road Safety Works

Line and Level as per Drawing In case of Crash Barriers, the overall horizontal alignment of rails shall not depart from the road alignment by more than ± 30 mm, nor deviate in any two successive lengths from straight by more than 6 mm and faces shall not vary more than 12 mm from the edge of 3m straight edge. Barriers shall be at the specified height as shown in the drawings above the edge of the nearest adjacent carriageway or shoulder, within a tolerance of ± 30 mm.
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP: Satisfying the requirement of Specification
Bridge/ X-Drainage Sector
16 Culvert Construction
Line and Level as per Drawing
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP: Satisfying the requirement of Specification
17 Vented Causeway Construction
Line and Level as per Drawing
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP: Satisfying the requirement of Specification
18 Bridge Construction
Line and Level as per Drawing The tolerance for total bridge length shall be ± 500 mm, while for any span ± 200 mm
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP: Satisfying the requirement of Specification
Bridge Load Test as per IRC:SP:51 - "Guidelines for Load Testing of Bridges" & IRC:SP:37-2010 GUIDELINES FOR EVALUATION OF LOAD CARRYING CAPACITY OF BRIDGES (First Revision)
19 River Training
Line and Level as per Drawing
Design Compliance along with As-Built Drawing
By Quality Control Tests results as per QAP: Satisfying the requirement of Specification

Note: All the referred tables are of Standard Specifications for Road and Bridge works, 2073

QAP means Approved Quality Assurance Plan which has submitted by Contractor

5.0 Acceptance Decision

Based on the section 3.0 Legal Compliance & 4.0 Acceptance Parameters, the Office Chief/ Project Manager shall have to take decision on Acceptance of Work.