ROYAL GOVERNMENT OF BHUTAN ROYAL CIVIL SERVICE COMMISSION

POSITION DESCRIPTION

1. JOB IDENTIFI	<u>CATION:</u>
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1.1	Position Title:	Engineer	
1.2	Position Level:	P4	
1.3	Major Group: Group	Architecture	& Engineering Services
1.4	Sub-Group:	Engineering	Services
1.5	Job Code No.:	02.200.05	
1.6	Ministry:	Complete as appropriate):; Department: ; Unit:	; Division:
1.7	Title of First Level S Executive Engineer.	upervisor (Official title of	the Supervisor): Deputy

PURPOSE, DUTIES & RESPONSIBILITIES (Describe the main duties and responsibilities, indicating what is done and how it is done. Duties should be presented in decreasing order of percentage of time spent on them, or in order of relative importance):

Purpose: To perform the engineering functions of survey, design, estimates and supervision that are required for the execution of projects.

Duties & Responsibilities	% Of Time
Participates in the preparation of plans and specifications for	
infrastructure/services projects	
Researches project design requirements	
Prepares designs, drawings and estimates of engineering projects	
Prepares estimates for new or modified services and projects	
Monitors physical implementation and provides quality control	
supervision to programs and projects	

Carries out physical verification and ensures all constructions are	
as per the design drawings	
Scrutinizes structural drawings and estimates for proposed projects	
Prepares specifications of materials and works	
Prepares analysis of rates	
Prepares tender documents for civil works and goods	
Assists in the administration of contracts for engineering projects	
Reviews technical sanction for works and goods	
Evaluates tender bids and technical proposals	
Assists in selection and engagement of consultants for projects	
Conducts laboratory testing of materials	
Carries out sub-soil investigations	
Performs EIA of projects and programmes	

- **3 KNOWLEDGE AND SKILLS REQUIREMENTS** (Minimum requirement for performance of work described Level of Knowledge, Skill and Ability):
 - **3.1 Education**: Bachelors in Engineering
 - 3.2 Training:
 - 3.3 Length and type of practical experience required: Entry
 - **3.4** Knowledge of language(s) and other specialized requirements: He/she should have good command over written and spoken Dzongkha as well as English. Knowledge of other dialects of the country would be considered as added advantage
- 4 <u>COMPLEXITY OF WORK</u> (The nature, number and intricacy of tasks, steps, processes or methods involved in work; difficulty and originality involved in work):

The duties of an Engineer require the application of complex engineering principles into practice in the field. Substantial analysis using complex software programs is required in the study and design of projects. The difficulty of work is

further compounded by the non-correspondence of theoretical data and formulae to actual ground situations. Design of structures and projects require thorough knowledge of the design principles and estimation of projects require a thorough and laborious approach to ensure that no items are left out which could later lead to cost overruns and disputes with the contractors. Supervision of works entails the interpretation of vague and not easily understood contract clauses that are read differently by the engineers and the contractors often leading to disputes.

SCOPE AND EFFECT OF WORK (Describe the purpose, breadth of work performance, and the effect the work has on the work of others or the functions of the organization):

The work of an Engineer involves establishing design criteria in the absence of accepted parameters through empirical relations, which form major inputs into the formulation of projects. This would have an impact on all other design works carried out by professionals in other organizations, government or private. The rates of works and the specifications that are prepared are used extensively in the preparation of projects and their costs throughout the country by both the government as well as the private sector.

6 INSTRUCTIONS AND GUIDELINES AVAILABLE

6.1 Instructions: (Describe controls exercised over the work by the superior; how work is assigned, reviewed and evaluated)

The supervisor provides objectives, priorities and targets and assists him when he faces problems. He then plans and conducts his work according to accepted engineering principles through extensive utilization of analytical procedures. Completed work is checked for technical soundness.

6.2 Guidelines: (Indicate which written or unwritten guidelines are available, and the extent to which the employees may interpret, adapt or devise new guidelines):

Guidelines are available in the form of Engineering Codes and Standards, Traditional Architectural Guidelines, and other reference books and guides. 7 WORK RELATIONSHIP (Indicate the frequency, nature and purpose of contacts with others within and outside the assigned organization other than contacts with superiors):

Personal contacts are with other professionals from both within and outside the organization working in similar technical fields to discuss issues common to their technical field. There would be contacts with contractors and their representatives during the implementation of projects and with general members of the public that

8 SUPERVISION OVER OTHERS (Describe responsibility for supervision of other employees, including the nature of supervisory responsibilities and classification and number of subordinates):

rely on the services and infrastructure provided.

Plans, directs and co-ordinates the work of two or more units of junior engineers working in the field. The work may involve multi-unit program co-ordination and evaluation.

9 JOB ENVIRONMENT (Describe physical exertion required, such as walking, standing, lifting heavy objects, etc., and/or any risks or discomforts such as exposure to chemicals, climbing to heights, extreme weather conditions, or other severe discomforts):

The work involves frequent visits to the project sites to ensure the quality of work supervised by his subordinates and the conformity to project schedules and targets. It involves physical exertion and the constant exposure to extreme weather conditions, or exposure to irritant chemicals or other risks and discomforts greater than average exposure.