



PAPUA NEW GUINEA PUBLIC SERVICE

JOB DESCRIPTION – SENIOR CIVIL ENGINEER**1. IDENTIFICATION**

AGENCY: <i>Works and Highways</i>	SYS. POSN. NO:	REF. NO: 60HMSM06	
WING <i>Highways Management</i>	DESIGNATION/CLASSIFICATION: <i>Senior Civil Engineer – Grade 15</i>		
DIVISION:	LOCAL DESIGNATION: <i>Senior Civil Engineer – Tactical Planning and Programming</i>		
BRANCH:	REPORTING TO: <i>First Assistant Secretary – HSMD</i>	SYS. POS. NO:	REF. NO: 60HMSM06
SECTION: <i>Tactical Planning and Programming</i>	LOCATION: <i>Headquarters - Boroko</i>		

HISTORY OF POSITION

FILE REF.	DATE OF VARIATION	DETAILS
111-60-A00	10/12/2021	<i>Recommendation: Re-no, Redesign</i>

2. PURPOSE

Implement a program with an annual budget of approximately PGK1.0 billion requires a large number of discrete projects that need to be linked and aligned with the overall strategic objectives. Alignment and cost-effective implementation cannot be achieved by communication of high-level strategic objectives alone. It requires the development of consistent interpretations of the high-level objectives by individuals who have institutional knowledge of the site and the project. We used several types of tactical plans:

3. DIMENSIONS

- 3.1** *Accountable to First Assistant Secretary (Highways Systems Management & Development) on Engineering and Technical Issues of Department of Works and Highways relating to Feasibility Studies, Scooping, Design, Documentation and implementation of The National Government's Infrastructure Development Programs on Road Transport (Roads & Bridges) Network in Papua New Guinea.*
- 3.2** *Facility wide tactics for broad media or risk categories that were useful as a communication tool with the regulatory agencies and other stakeholders and provided a basis for consistency for the large number of projects*
- 3.3** *High-level tactics that provide focus toward the end point of the project and the basis for metrics employed by upper management to assess the overall progress of the project*
- 3.4** *The tactical plan is typically prepared by onsite technical program staff with extensive institutional knowledge of the site. External resources are acquired for niche expertise as needed. The plan provides key project direction, but can be updated by the project team. Stakeholder input and new information often leads to such changes. Milestones are selected to provide for communication between the program staff and the project team to ensure continued alignment and opportunity for feedback.*

4. PRINCIPLE ACCOUNTABILITIES

- 4.1 Ensure project tactical plans define the overall goals for each project, in alignment with the high-level objectives, that essentially functioned as the Request for Proposal (RFP). Project teams produced a scope, schedule, and budget for funding approval in response to the tactical plan.
- 4.2 Ensure new development of highway routes strip maps for national roads are conveniently aligned to the economical corridors but avoiding restricted areas by Conservation & Environmental Protection Authority (CEPA).
- 4.3 Continuous training of Planning and Programming Engineers and Technicians on how to update roads and bridge data and conditions and Software's and technologies used for better implementation of projects.
- 4.4 Ensure Budget allocations on the Recurrent Budget are sufficient to purchase office equipment and materials required for the smooth operations of the Branch.
- 4.5 Responsibilities include drawing up work schedules and budgets, delegating tasks, analyzing project specifications and finding cost-effective ways to meet them, liaising with contractors and suppliers, managing resources, and communicating with surveyors, managers, and other engineers. You should be able to analyze data, write reports, and deliver presentations to various stakeholders.

5. MAJOR DUTIES

- 5.1. Manage and direct all functions of Tactical Planning and Programming Branch and maintaining quality and accurate data for planning, programing and budgeting.
 - 5.1.1. Implement all relevant programs for projects relating to Roads and Bridges feasibility studies, scoping and scheduling, corridor development and documentation functions as programmed in the yearly Annual Work Plan.
 - 5.1.2. Coordinate project concept development of Roads and Bridges and relevant Scoping and Technical Specifications for submissions and approval by the Department of Works and Highways.
 - 5.1.3. Liaise and provide design data and information on projects involved by the branch to other relevant branches and divisions within the Department.
 - 5.1.4. Develop and include new plans/programs for the development of an integrated Road Network for Papua New Guinea.
 - 5.1.5. Monitor, advice and provide reports on roads engaged by the National Forest Authority, Department of Mining and Petroleum, Department Agriculture and Livestock, etc. to comply with Department of Works and Implementation Specifications and Standards.
 - 5.1.6. Coordinate and direct to carryout feasibility studies and route locations as approved by the Department for the integrated road network in Papua New Guinea.
 - 5.1.7. Participate in the development of Road Safety and traffic Management Programs in close cooperation with the Department of Transport and National Road Safety Council.
 - 5.1.8. Prepare the Branches Yearly Development and Recurrent Budget Estimates Submissions and implement approved Budgets.
- 5.2. Monitor the branch staff performances, taking appropriate corrective measures to ensure efficient and effective performances.
- 5.3. Advice and inform the First Assistant Secretary, Highways Systems Management & Development) on all inventories, audits, scoping/Scheduling, planning, programming and operational activities involved by the branch.
- 5.4. Participate in the management of the Division by providing information and advice to First Assistant Secretary (Highway Systems Management & Development) and Executive Director (Highways Management) when required.

- 5.1 *Coordinate and assist the training and development of staff through Human Resources Development Branch (HRDB) within the Department.*
- 5.2 *Other relevant duties and tasks as directed by the First Assistant Secretary (Highways System Management & Development).*

6. NATURE AND SCOPE

The position is within the senior management level of the organization and reports directly to the divisional head (FAS - HSMD) as depicted on the structural framework.

6.1 WORKING RELATIONSHIP

6.1.1 Internal

Reporting to First Assistant Secretary (Highways Systems Management & Development) and Executive Director (Highways Management) as well as liaising with other Branches and Divisions within Department of Works & Highways (DoW&H)

6.1.2 External

Liaise with relevant Government Departments, Authorities, Agencies, Consultants, Members of Parliament and General Public relating to matters concerning Department of Works & Implementation design standards and specifications, as well as documentation and construction of various roads and bridge infrastructures in PNG land transport networks.

6.2 WORK ENVIRONMENT

Management of all Project Tactical Planning and Programming on behalf of Department of Works & Highways (DoW&H) for the National Government of Papua New Guinea on Road Transport (Roads and Bridges) Network for a safe and easy accessibility for the people of Papua New Guinea

7. CONSTRAINTS FRAMEWORK AND BOUNDARIES

7.1 Rules/procedures

7.1.1 The National Government through Department of Transport's National Transport Strategy Policy Guidelines for Road Transport Networks for upgrading and rehabilitation works has identified the sixteen (16) priority road network sections including the missing links in the Medium-Term Development Programs (MTDP).

7.1.2 Department of Works & Highways (DoW&H) shall be confined and limited to meet these policy guidelines as stated in the MTDP as a result when implementing these development projects.

7.1.3 All engineering design data, scoping/scheduling, planning, programming and documentation shall be focused on these road networks within the country subject to annual development budget funding as a result of these policy guidelines.

7.2 Decision

7.2.1 The Government through Department of Transport has the mandated role and obligation to decide and include other relevant sections of road network throughout the country into the MTDP for implementing that will open accessibility to the rural population for economic and social developments.

7.2.2 This decision will not only alleviate poverty but also improve living conditions of the rural population through delivery of services such as health, education and other social improvements as well as agricultural developments.

7.3 Recommendations

7.3.1 It is recommended that other policy guide lines be developed to include other missing sections of road network and funding to be made available through the Department National Planning and Monitoring.

8. CHALLENGES

- 8.1. The current challenges with respect to this position are non-recruitment of experience engineers and technicians to support and perform the specific tasks and duties involved in order to produce the required outcomes and meet deadlines on the various road and bridge projects involved.**
- 8.2. Various road and bridge projects procurement and planning out-sourced to the consultants are done without proper scope of work, procurement briefs and terms of references (TOR) to guide these consultants to comply with Department of Works Design Standards and Specifications.**
- 8.3. The difficult corridor conditions, data management technologies, high software licensing costs, skill gaps in the division are obvious in achieving high level data.**
- 8.4. The division in the Department would not possibly attract and employ experienced and qualified engineers and technicians unless the salary and employment conditions are promising; the current is governed by the Governments Public Service Remuneration Conditions, which is not attractive.**

9. QUALIFICATIONS, EXPERIENCES AND SKILLS

9.1. Qualifications

- 9.1.1. Appropriate University Bachelor Degree in Civil Engineering or Masters of Engineering Studies or equivalent from a recognized university.**
- 9.1.2. Registered member of Institute of Engineers Papua New Guinea (IEPNG)**
- 9.1.3. Current Registration of Competency Based Assessment (CBA) Certificate**

9.2. Knowledge

- 9.2.1. Significant experience in procurement, planning, programming and documentation of variety of road projects or bridge projects ranging from rural to urban applications.**
- 9.2.2. Sound construction knowledge and experience in compliance to the Department of Works & Highways Specifications and standards.**
- 9.2.3. Sound management and administrative knowledge in financial, personnel, resources and project planning are essential at this management level.**

9.3. Skills

- 9.3.1. Significant experience in various design, planning, programming and CAD software applications used to produce relevant roads or bridge design projects in compliance to Department of Works & Highways design standards and construction specifications.**
- 9.3.2. Sound management and administrative skills in financial, personnel, resources and project planning are essential at this management level.**

9.4. Work Experience

- 9.4.1. Minimum 12 years extensive experience in all aspects of Civil Engineering works in design and documentation phases on variety of roads or bridge projects is essential at this level to guide and implement the design projects involved.**