DEMERARA HARBOUR BRIDGE CORPORATION
SUPERVISORY JOB DESCRIPTION

JOB TITLE:	**CIVIL ENGINEER**	**LOCATION:**	**ASPHALT PLANT**
REPORTS TO:	**PLANT SUPERINTENDENT**	**GRADE:**	**07**
DEPARTMENT:	**PLANT OPERATIONS**	**SECTION:**	**CIVIL**

1. SUMMARY STATEMENT:

Responsible for planning, designing and overseeing construction and maintenance of building structures and facilities at the Asphalt Plant; for preparing budgets and schedules for facilities modifications including estimates on equipment, labour, materials and other related costs.

2. NATURE AND SCOPE OF THE JOB

The **Civil Engineer** is required to assure the structural integrity of fixed structures; and must undertake structural engineering analysis and design of new structures and maintenance and modification of existing structures.

The **Incumbent** must continuously review, manage, monitor and control all facilities construction plans and monitor the construction to ensure consistent and cost effective approaches to the construction activities.

The **Civil Engineer** must also provide civil engineering expertise and participate in the processes of ensuring the engineering/designing of all facilities is safe to construct**.**

The **Incumbent** must determine on an annual basis the **'Major Job Objectives'** for each aspect of the Work Programme of the **Civil Section** and identify and discuss with Subordinates the '*Key Results Areas*' to be used as determinants to their performance results on a quarterly basis.

3. PRINCIPAL ORGANISATIONAL RELATIONSHIPS:

(The incumbent relates to the following areas/titles internally and externally within the Nature and Scope of the Job)

AREA/TITLE:	**RESPONSIBILITY:**
INTERNAL:	
Plant Superintendent	To develop detailed plans; to participate in a multi-disciplinary environment to design Civil/Structure engineering for projects; ensuring that designs meet specifications and industry codes and standards; to resolve design and development problems.
Civil Engineering Technician	To report on the maintenance of the physical premises and renovations done.
EXTERNAL:	
Architect	To resolve design and development problems; to compile specifications and supervise tendering procedures.
Contractors	To schedule material and equipment purchases and deliveries.

4. DUTIES, WORK FIELD, TRAITS:

JOB TITLE: Civil Engineer

DUTIES REQUIRED TO FULFILL JOB RESPONSIBILITIES

DESCRIPTION OF DUTIES:

DIRECTS and **OVERSEES** civil engineering projects to ensure that they are completed to the standards required within agreed timescales and to the agreed budget level.

PREPARES tender documents and project completion certificates.

CARRIES OUT feasibility studies for major and minor works and recommend new projects and extensions to existing projects.

CARRIES OUT any required site visits and inspections to determine the civil engineering aspects of planned works.

ANALYSES survey reports, maps, drawings, blueprints, aerial photography, and other topographical or geologic data to plan projects.

PLANS and **DESIGNS** transportation or hydraulic systems and structures, following construction and government standards, using design software and drawing tools.

COMPUTES load and grade requirements, water flow rates, material stress factors to determine design specifications.

INSPECTS project sites to monitor progress and **ENSURES** conformance to design specifications and safety or sanitation standards.

ADVISES on the purchase of plant and machinery to ensure that it is appropriate for the purposes intended.

LIAISES with other professionals and staff involved in engineering projects to ensure that there is effective overall coordination.

DIRECTS construction operations, and maintenance activities at project site.

DIRECTS or **PARTICIPATES** in surveying to lay out installations and **ESTABLISHES** reference points, grades, and elevations to guide construction.

ESTIMATES quantities and cost of materials, equipment, or labour to determine project feasibility.

PREPARES reports on the civil engineering aspects of projects to ensure that decisions are based on the best possible information and take account of all resource implications and time and budget constraints.

PREPARES or **PRESENTS** public reports, such as bid proposals, deeds, environmental impact statements, and property and right-of-way descriptions.

TESTS soils and materials to determine the adequacy and strength of foundations, concrete, asphalt, or steel.

MAINTAINS knowledge of modern civil engineering techniques and processes and recommend any new systems that will enhance the effectiveness of the civil engineering function.

The above responsibility statements identify specific duties necessary to attain DHBC's overall objectives while not precluding the jobholder from carrying out other related activities that may be inherent in the job.

5. SUPERVISORY JOB DESCRIPTION EVALUATION: QUALIFICATIONS PROFILE

JOB TITLE: Civil Engineer		
FACTORS		**SUBSTANTIATING DATA**
1	**EDUCATION**	University First Degree in Civil Engineering. Must be familiar with gas project civil works and related to shore gas facilities. Proficiency in structural design and analysis software, PCA mats and Mathcad. Ability to manage multiple project priorities. Excellent knowledge of design and visualizations software such as AutoCAD, Civil 3D or similar.
2	**EXPERIENCE/JOB KNOWLEDGE**	A minimum of five (5) years' experience in the infrastructure industry. Proficiency in site layout, grading, utility design, erosion control, regulatory approvals.
3	**TECHNICAL/ PROFESSIONAL**	The Incumbent works in multi-disciplinary determining Civil- structural requirements. There is need to design national codes and standards and equally apply these codes and standards.
4	**PROBLEM SOLVING /DECISION MAKING**	Decisions made in consultation with Superior to achieve the goals and objectives of the Asphalt Plant; and providing the opportunity to use alternative and innovative skills to resolve issues related to the use of resources allocated to the job. Moderately high level decisions required to effect operational plans and activities.
5	**INTERPERSONAL**	Works along with Mechanical and Electrical Engineers to manage multiple project priorities. Ability to coordinate with design staff.
6	**RESPONSIBILITY FOR MATERIALS, CASH, ETC**	Responsible for planning, designing and overseeing construction and maintenance of building structures and facilities at the Asphalt Plant; for preparing budgets and schedules for facilities modifications including estimates on equipment, labour, materials and other related costs.
7	**PROCEDURES/ REGULATIONS/ COMPLIANCE**	The Incumbent must comply with guidelines and regulations including permits, safety etc., and other technical documentation as required. Provide cost estimates for materials, equipment and labour.
8	**TEAMWORK**	The Incumbent may be required to work in a multi-disciplinary project team which is likely to include engineers from other specialist areas as well, during development phase. Maintains professional technical knowledge by attending technical workshops; reviews professional publications, establishes personal networks, and participates in professional societies.
9	**WORKING ENVIRONMENT/ SAFETY OF OTHERS**	Working environment is mainly field locations; wet, humid conditions; works in dusty conditions and mist; ordinary vision within 0.5 metres required; works inside, outside and around people. Exposed to hazards up to 50% of the time.
LICENCES:		
SIGNATURES:		
PREPARED BY: S.V. JONES ASSOCIATES		**DATE:**
REVIEWED BY _____	**DESIG.** _____	**DATE:** _____
APPROVED BY _____	**DESIG.** _____	**DATE:** _____
APPROVED BY _____	**DESIG.** _____	**DATE:** _____