Texila American University
Student's Hostel

Project Summary

Introduction

Texila American University (TAU) offers higher education programs to meet international standards at the undergraduate, postgraduate, and doctoral levels. Courses cover Medicine, Nursing, Pharmacy, Allied Sciences, Management, and Information and Technology. TAU offers a portfolio of twenty (20) courses to students from more than forty (40) countries. Over the years, there has been a continuous increase in the number of students, particularly from the Caribbean.

Given the aforementioned, the University has decided to construct a student hostel at the existing location of the TAU Campus Lot 2442 Plantation Providence, East Bank Demerara. The area is currently experiencing high levels of residential, industrial, and commercial development. The TAU campus is situated between a call center (Qualfon) and the new Hyatt Place Hotel.

Proposed Design of Student's Hostel

The student hostel comprises two blocks: girls' and boy's blocks. It comprises 86 two-room apartments, 16 one-room apartments, a warden room, a parent's waiting room, a sick room, a laundry room, an electrical room, a storeroom, etc.

All safety and comfort have been taken into consideration; the building has three emergency exits, 3 staircases for each building, and one lift per building for students with disabilities.

The hostel is designed with solar passive architecture, a highly energy-efficient building, and minimal consumption of resources, especially water and electricity. The building is planned to

receive electricity from three sources Guyana Power Limited, a generator, and a solar plant, and all these are managed through the smart system and metered to serve the student comfort.

The hostel will also have access to a playground, gym, and canteen facility. The hostel is monitored 24/7 with the support of security and security cameras.

Emergency medical support services will be provided through health centers and hospitals as per the emergency response plan.

The hostel will have enough parking space and have access to many amenities. The hostel is strategically located at the reach of restaurants, cinemas, and supermarkets.

Stages of Construction

The hostel building at Providence will take 1.5-2 years to build a 97,000-square-foot hostel with comfortable facilities.

In the process, we have appointed a project manager from Guyana for planning and execution of the project and MS Associates is an architecture company that designed the hostel. We have appointed a local engineer and consultant for architecture to make sure the local conditions and standards are met in Guyana.

Once we receive the respective authorities' approval; we will start executing the project in the following stages:

1. Land preparation and sand filling
2. Survey and Soil test
3. Foundation Works
4. Steel structure works
5. Plumbing
6. Installation of interiors
7. Tile works
8. Electrical and
9. Painting

Design and Architectural Plan

Architectural and structural design was executed by the company which has a good track record both local and international. Local standards with international best practices are taken into consideration with the support of local architect consultants in Guyana.

Survey and Soil test

A detailed survey was conducted by the local company before started our project while we had conducted a geotechnical investigation to stabilize the soil.

Testing and Compliances

- NDC compliance
- Ministry of Housing approval
- Identified the testing centers for concrete and materials.

Selection of Contractors

- Standard Operating Procedures have been followed in selecting contractors such as qualified companies being approached for a quotation; the best of the three quotations will be submitted to the board for final approval.

Procurement and Stock keeping

- A team of 4 members team will be working on procurement and stock-keeping
- Majority of the procurement is sourced from India, China, USA, and Guyana
- All procured materials are stored in the assigned storage place.
- We have our in-house tool to manage the stock-keeping

Safety and Security

- During the construction we have appointed two companies to manage the security of the material and people on-site
- Safety officer was assigned with extensive experience in Guyana and public relations with a community that is in charge of the workers' safety and their practices on-site.

Living Quarters

- For expat workers will be accommodated in the same location of the procurement and storage site, East Bank Demerara; Transportation will be arranged for their living place and to the site.
- A designated cook from India will be catering all three meals on-site and at a living place.

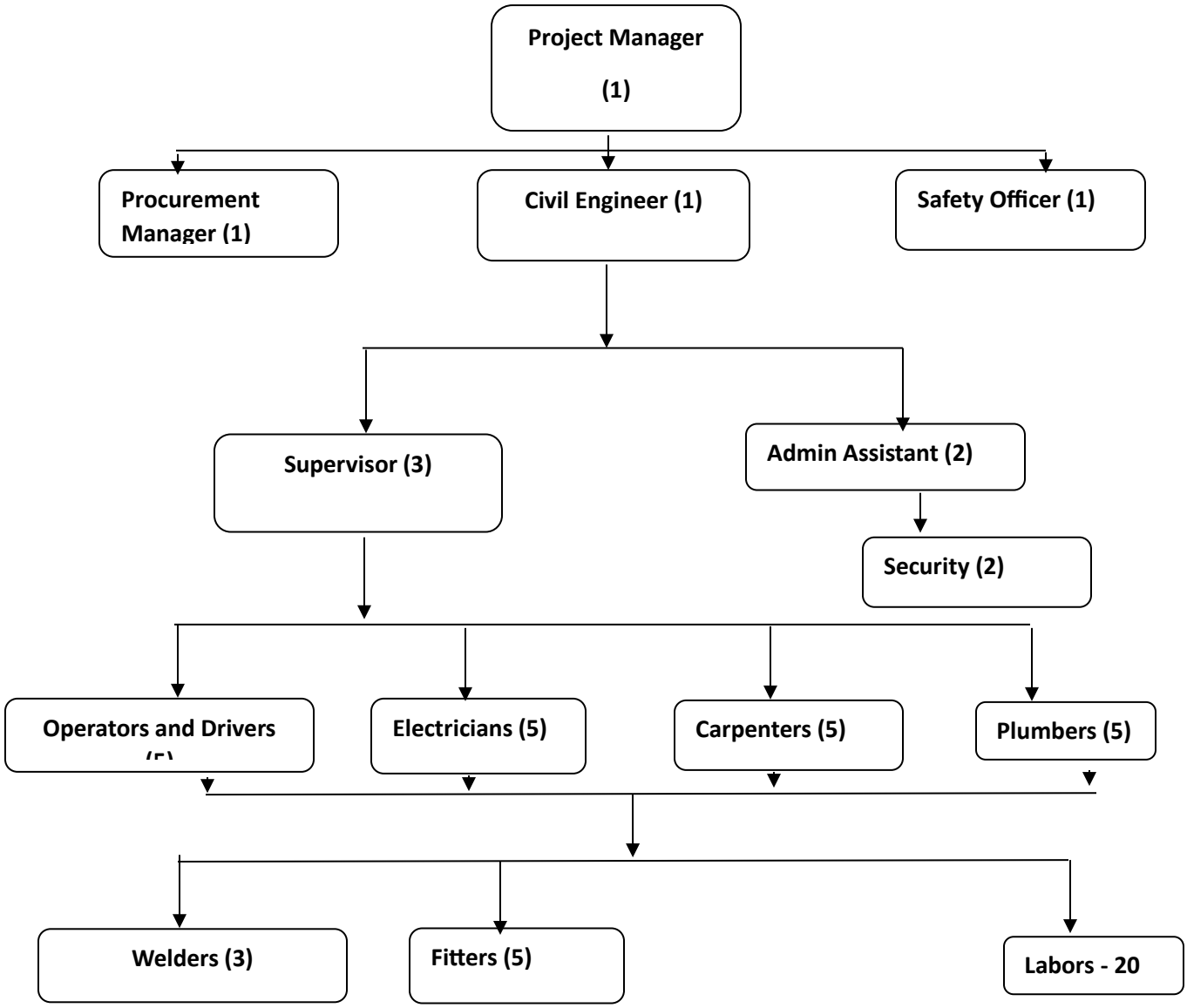
Quality and Control

- A daily report will be sent to the quality team on the progress of the construction
- Workload and Log sheets

Communication Plan

- The site had comfortable container office space with an internet facility to communicate with the team involved online and on-site
- Communication devices were used between supplier and on-site engineers during the concrete works

Structure of the Project Team



Approximately 50-60 Workers will be employed during the construction phase.

Environmental and Sustainability Policy

The University has an Environmental and Sustainability Policy following its *mission, vision, and values* which outlines a commitment to (i) maintain long-term financial viability, adopt environmentally and socially acceptable practices across every aspect of its activities; and (ii) preserve and, when possible, enhance the ecosystem. The policy applies to all TAU members, including those who work on campus, conduct activities there, or use the University's resources,

as well as its affiliated organizations. Matters relating to university development and related policies are addressed through its By-Laws.

E&S risk management is currently carried out through two (2) channels: (i) the University Risk Assessment and Management Committee (URMC), responsible for ensuring that TAU and its controlled entities comply with its environmental regulations, and championing the adoption of sustainable practices across all areas of operations; and (ii) the Building and Estate Committee (BEC) which advises, establishes and promotes systems, programs, and initiatives that support the E&S sustainability policy while meeting regulatory requirements.

Alongside daily operations, construction activity at both project sites may potentially generate the following site-specific impacts and risks: (i) waste generation; (ii) noise emissions; iii) air and dust emissions; (iv) occupational health and safety impacts including those linked to gender; and (v) traffic disturbance, among others. Indirect impacts may potentially include disruption of campus activities during periods of construction or other infrastructural upgrades.

The following interventions will be carried out within the existing boundaries of the University for the construction and operation of the student hostel.

Environmental Impacts and Mitigation Measures during Construction and Operation

There are various types of environmental impacts that are often generated during construction and operation. In this project construction and operation of a student's hostel, TAU will ensure that during construction and operation, impacts will be reduced and or minimized. All impacts of this project will be during the pre-construction and construction phases and to a lesser extent during operation are addressed as follows.

Impacts of Dust/ Particulate Matter

Less dust is expected from the site preparation works, vehicles transporting materials, and by cement works which will be curtailed by dust screens on the project site boundary. Quality materials will be imported that strictly do not bring asbestos, etc., which will affect the quality of air and workers' health conditions. All workers will be using the required safety equipment during the work. The project has the potential to generate dust at a medium level which will not significantly impact the air quality within the project area during construction. However, most of these impacts are expected to be localized and can either be prevented or reduced. There will be no impacts during operation.

Mitigation measures for dust/particulate matter

- All material stockpiles will be properly covered, preventing any loose material to be carried away from wind or rain.
- During the transportation of materials by vehicles, the access roads will be properly stabilized to minimise dust.

Impacts of Noise and Vibration

Noise and vibration will be generated mainly from the use of heavy-duty construction and pile-driving equipment and fuel-powered generators during the construction phase. These impacts are unavoidable and expected to be short-term and localized. TAU will control noise and vibration using international best practices at the work site with reduced drop heights, resilient mats to absorb impact falling, built-in sound suppression systems of mechanical equipment during construction, vehicles transporting materials within the construction site, and loading and unloading of materials. During construction and operation, a generator will be used in the event of a power outage.

Mitigation measures for noise and vibration

- Transport materials leaving the construction site during non-peak hours to minimize traffic noise.
- Using silencers, mufflers, acoustically dampened panels, and acoustic sheds or shields for equipment or when the generator will be in use.
- Use of electric-powered equipment where applicable instead of diesel-powered or pneumatic-powered equipment.
- Noise levels will be kept within the EPA's established limit of 90 decibels during the day and 75 decibels at night.
- Night work will be avoided, to the most practical extent.

Impact on Surface and Ground Water

Wastewater will be generated from construction equipment and foundation excavation and concrete placement. However, wastewater will be generated during operation which will be treated before discharged into water bodies. No hazardous chemicals will be used during operation.

Mitigation measures for surface and ground water

- Discharged of treated wastewater will comply with the discharge limit according to the Guyana National Bureau of Standards and EPA guidelines.
- Domestic sewage from the site will be collected by a local licensed sanitation service provider.
- Wastewater generated from the service areas will be treated on-site before it is safely discharged into surrounding water bodies via drains.
- During operation of the facility there will be no impact to groundwater.

Impacts of Solid and Liquid Waste

The project will generate waste during the construction and operation. TAU's waste management plan will ensure that waste generated during construction and operation will be managed according to EPA's guidelines.

Mitigation measures for solid and liquid waste

- Waste generated during construction and operation will be segregated into organic wastes, inert waste and non- hazardous waste.
- Waste generated during construction and operation will be collected and transported to a designated landfill by a local sanitation service provider.
- Excavated material will be re-used on-site or as far as possible in order to minimize the quantity of material to be disposed.
- A suitable number of portable toilets will be installed at the worksite and will be routinely (weekly) serviced during construction and a septic tank will be in use during operation and will be emptied by a local sanitation service provider.

TAU's Environmental Compliance and Monitoring Strategy

TAU's core objective revolves around achieving strict adherence to environmental regulations and constant vigilance and stewardship through its well-structured environmental monitoring and compliance strategy. The primary goal is to execute this project in full alignment with the stringent legal requirements set forth by the Environmental Protection Agency (EPA) while reducing and or mitigating impacts to the surrounding environment.

The commitment to compliance and vigilant monitoring commences right from the project's early phases and extends throughout its entire contract lifecycle, underscoring a dedication to ongoing improvement. This approach reinforces the notion of shared responsibility among all stakeholders, including staff, contractors, and subcontractors, in upholding environmental compliance standards. It is vital to sustain and enhance the already high level of compliance and to proactively deter any environmental non-compliance incidents during both the construction and operational phases.

Furthermore, the organization places a strong emphasis on meticulous monitoring of various environmental aspects, encompassing noise and vibration levels, air quality, water quality, and waste management practices. These monitoring activities are carried out in strict accordance with the EPA's guidelines and adhere to internationally recognized best practices. This comprehensive approach ensures that potential environmental impacts are consistently assessed, mitigated, and minimized during construction and ongoing operational activities.

Environmental Protection Agency - Guyana

ENVIRONMENTAL AUTHORISATION SCREENING REPORT

NAME OF COMPANY: Texila American University

TYPE OF PROJECT: Construction of University Hostel

PROJECT LOCATION: Lot 2442 Plantation Providence

PROJECT OVERVIEW AND DESCRIPTION

The Environmental Protection Agency received an application for Environmental Authorization on November 20, 2023, to construct the student Hostel building for Texila American University. The Project is located at Parcel 421 & 422, Block III, Ellen Ville East Bank Demerara.

The student hostel will comprise two blocks: girls' and boy's blocks. It comprises 86 two-room apartments, 16 one-room apartments, a warden room, a parent's waiting room, a sick room, a laundry room, an electrical room, a storeroom, etc. The hostel will also have amenities such as a playground, gym, and canteen facility. The building has three emergency exits, 3 staircases for each building, and one lift per building for students with disabilities.

The project site will house a 97,000-square-foot hostel, that is expected to be completed in 1.5-2 years. The stages in development at the project site are as follows:

1. Land preparation and sand filling
2. Survey and Soil test
3. Foundation Works
4. Steel structure works
5. Plumbing
6. Installation of interiors
7. Tile works
8. Electrical and
9. Painting

PROJECT SITE LOCATION

The project is located at Lot 2442 Plantation Providence. It encompasses an area of 2.05 acres and the general land use of the area is classified mostly residential and Commercial. The project site is 88.7 meters from Qualfon and Hyatt Hotel to the west. The topography of the project area is typically low–lying and flat. The soils of the area are a combination of clays and silt.

GOOGLE IMAGE 1: DISTANCES FROM RESIDENTS TO THE PROJECT SITE.

IMAGE 1: SHOW THE PROPOSED EXTERIOR DESIGN FOR TEXILA AMERICAN UNIVERSITY.

CHARACTERISTICS OF POTENTIAL IMPACTS

AIR AND NOISE POLLUTION

During the construction phase, the project area will likely generate a substantial amount of dust emission and noise due to activities such as the usage of heavy-duty machines/vehicles, excavation, land clearing, transporting, stockpiling of construction materials utilizing construction materials (timber, cement, sand, and stone). Heavy traffic from the roadway itself will also cause dust emissions. Smoke, soot (particulate matter), CO, CO2, NO, SO2, and volatile organic compounds present in the exhaust fumes coming from heavy-duty construction equipment used at the site will affect the quality of the air in the immediate surroundings and can contribute to air pollution and pose a health risk to workers and nearby residents. However, the impacts to air quality and noise will occur mostly during the construction phase, as such these impacts will be minimal and short-term.

To mitigate this impact, the project will implement the following measures

- All material stockpiles will be properly covered, preventing any loose material from being carried away from wind or rain.
- During the transportation of materials by vehicles, the access roads will be properly stabilized to minimize dust.
- Transport materials leaving the construction site during non-peak hours to minimize traffic noise.
- Using silencers, mufflers, acoustically dampened panels, and acoustic sheds or shields for equipment or when the generator will be in use.
- Use of electric-powered equipment where applicable instead of diesel-powered or pneumatic-powered equipment.
- Noise levels will be kept within the EPA's established limit of 90 decibels during the day and 75 decibels at night.
- Night work will be avoided, to the most practical extent

WATER QUALITY (GROUND AND SURFACE WATER)

Project actions may discharge liquid effluent that may contaminate waterways such as Canals if not monitored properly. The disturbance of soil and stockpiling of construction

materials such as sand can increase sediments being transported in stormwater runoff into surrounding waterways/drains. Surrounding drains can also be accidentally or intentionally contaminated by the discharge of fuels, waste oils, lubricants, and other hazardous and non-hazardous wastes that have the potential to infiltrate the soil profile and pollute the groundwater.
Potential pollutants such as building materials (cement, sand, and stones) can also get into waterways and negatively impact water quality.

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- Domestic sewage from the site will be collected by a local licensed sanitation service provider.
- Wastewater generated from the service areas will be treated on-site before it is safely discharged into surrounding water bodies via drains.
- During operation of the facility there will be no impact to groundwater.

SOIL

During the construction phase of the school, it is likely that the transportation, handling, and utilization of hazardous materials such as waste oil, fuel, and lubricant may have the potential to contaminate the soil. Activities such as excavation and land clearing can cause soil to be exposed to the elements. The exposure of topsoil can lead to erosion which causes soil destruction.

To mitigate this impact, the project will implement the following measures

- Storage of significant quantities of fuel onsite will be avoided.
- All fuel storage will be done within a contained impervious area with all the safety systems in place.
- Contained area will be drained through an oil-water separator, or be covered to prevent accumulation of rainfall.

WASTE MANAGEMENT (HAZARDOUS AND NON-HAZARDOUS WASTE)

Hazardous waste

Improper handling and management of fuel, lubricants, and waste oil can result in soil and water contamination. Fuel, waste oil, and lubricants are classified as hazardous materials and will require special consideration in terms of transportation, storage, and handling. In addition to contamination, the improper use, storage, and handling of these substances can pose various threats to the workers on-site as well as surrounding communities. Due to the nature of the project, minimal amounts of fuel would be required per day, as such, these will be brought to the site daily as needed. The project is not

expected to require the use of lubricants and chemicals. Lubricants that are required for heavy-duty machines and equipment will be provided during servicing. Nevertheless, if these are to be stored on-site, for any reason, they need to be stored properly, as they can ignite and release dangerous fumes.

To mitigate this impact, the project will implement the following measures：

- Storage of significant quantities of fuel onsite will be avoided.
- All fuel storage will be done within a contained impervious area with all the safety systems in place.
- Storage containers will be labeled as to their content and capacity.
- Efforts will be made to transport fuel to the work area as needed. This would minimize the need to store large quantities of fuel onsite.
- The type of fuel stored in containers will be indicated and signage will include 'No Smoking' and Highly Flammable'. This would warn persons of the dangers of the substances as well as how they should handle these substances;
- Adequate toilet facilities will be provided and maintained onsite based on the number of workers.
- Treatment systems for wastewater from toilet facilities will be provided such as draining into a soak-away system.
- If portable toilets are to be utilized these will have to be maintained and emptied regularly.
- Hazardous waste generated onsite will be carefully collected and removed from the site and disposed of in an approved manner.

Non-Hazardous Waste

This project will generate both liquid and solid waste during the construction and operation phases. If such wastes are not managed properly, they can end up in the waterways. Several waste streams will exist, including domestic garbage which usually consists of a mix of bottles, bags, cans, boxes, plant residues, excess food and packaging material, paper, and other construction waste. In addition, liquid waste will also be generated including sewage waste and wastewater from sanitary facilities.

To mitigate this impact, the project will implement the following measures

- Cleared vegetation will be disposed of at an approved landfill.
- Grubbed topsoil will be stockpiled and reused for landscaping upon completion of work
- Adequate waste collection receptacles will be provided
- Waste will be regularly removed from the site and taken to the Haags Bosch landfill site for disposal.
- Reusable construction waste will be separated for reuse.
- No burning of any type of waste generated will be allowed onsite. All workers are to be made aware of the waste management procedures.

PROJECT SIGNIFICANCE

CRITERION 1 PROJECT LOCATION (FOR EXAMPLE, A DENSELY POPULATED AREA; OR HIGH-DENSITY INDUSTRIAL ZONE).

The project is located at Lot 2442 Plantation Providence. The actual project site is 2.05 acres. The project site is 88.7 meters from Qualfon and Hyatt Hotel to the west.

CRITERION 2 ENVIRONMENTAL SENSITIVITY: WILL THE PROJECT BE LOCATED IN AN ENVIRONMENTALLY SENSITIVE AREA).

The project is not located within an environmentally sensitive area. It is mixed-zoned, where there is a university, commercial, and residence within the immediate area.

CRITERION 3 LEVEL OF PUBLIC CONCERN.

Surrounding residents were unavailable during the site inspection. Hence no interview was conducted.

CONCLUSION AND RECOMMENDATION

It can be concluded based on the project summary, field inspection, and observations, that the impacts from this project activity are minor, minimal, and acceptable due to the scale of activities. It is expected that a limited number of significant environmental impacts will occur once the mitigation measures outlined under the characteristics of potential impacts section of this report are implemented.

Hence, this project is exempted from the conduct of an Environmental Impact Assessment (EIA). It is therefore recommended, that this project be placed on 30 days public notice, and thereafter be moved to permitting once no objections are raised during the publication timeline.

APPENDIX

Picture 1: Shows the cleared area of the project site.

Picture 2: Shows a disposal area on the project site

Picture 3: Shows the project site.

Picture 4: Shows a canal located at the project site.