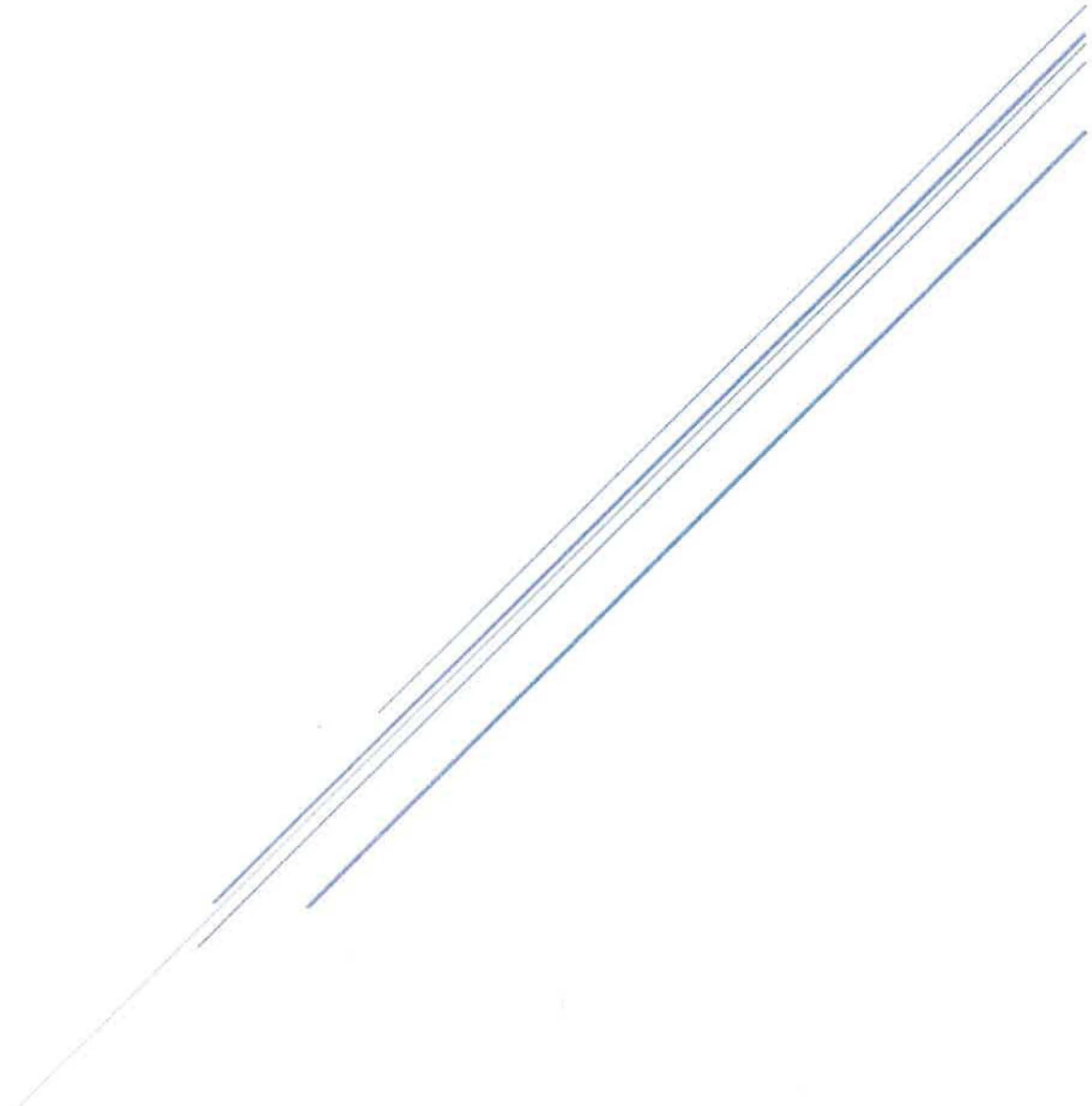
ARMOROC CONSTRUCTION & ENGINEERING INC.



Project Location: Plot "CC" Amelia Ward, Linden, Region 10

NAME OF PROJECT:
Armoroc Construction and Engineering Inc

TYPE OF PROJECT:
Storage of Sand and Stone

LOCATION OF PROJECT:
Plot "CC" Amelia Ward, Linden, Region 10

NAME OF DEVELOPER:
Jason Bhaskaran

DEVELOPER ADDRESS:
Tract "D", Timehri, East Bank Demerara

COMPANY SECRETARY:
Remaliah Bhaskaran

CONTACT DETAILS:
592-698-8225

STAGE OF OPERATION:
Operation phase

DATE PREPARED:
May 7, 2024

Background

Armoroc Construction & Engineering Inc. a subsidiary of Trident Marine Trading Inc. continues to expand its line of business in construction to Region 10, primarily at Plot "CC" Amelia Ward, Linden. With the rapid demand for stone and sand for road construction and building construction, etc., management at Armoroc Construction and Engineering Inc. leased a plot of land at the above address to store Stone (Aggregates) and Sand to use by the Company and for resale purposes.

Site Descriptions

The project site is approximately two (2) acres of prime land located at Plot "CC", Amelia Ward, Linden, Region 10. That is at the junction of Linden-Soesdyke Highway, the storage yard is located on the southern side of the main access road when turning into Linden.

The site will be used for the storing and transportation of various quantities of materials to job sites within Linden and along the Linden-Soesdyke Highway. The project is currently in its operation stage as such the following were done before the stockpiling of materials:

- Land Clearing
- Compaction
- Installation of Scale
- Construction of office building and security space.

- Land Clearing- Unwanted materials that were excavated during this process were taken to the Linden Dumpsite, while some materials were used for landfilling purposes.

- Compaction- After land clearing, the Company embarked on the landfilling and compaction of the area where materials are stored. The compaction process consisted of several tons of sand, loam, and stone were compacted with a two (2) tons Caterpillar compactor to accommodate approximately four hundred tons of material at a given time.

- Installation of Scale, office space, and security building- The installation of the scale, office building and security office were done simultaneously. The twenty tons (20) Avery Weigh scale is used in the day-to-day operation, where by trucks are loaded with sand and stone entered the scale and exit the facility.

Pieces of machinery on site:

The project uses the following heavy-duty machinery from time to time:

- Front end loader;
- Twin axle trucks;
- ~~Excavator~~; ofcavator
- Avery Weigh Scale.

Stockpiling of Aggregates (Stone) and Sand.

Armoroc Construction & Engineering Inc. intends to stockpile large quantities of aggregates and sand at Plot "CC" Amelia Ward, Linden, to accommodate the growing demands for materials.

As such the following quantities of material will be stockpiled at the location.

- Aggregates (Stone)- Approximately 400 tons
- Sand- Approximately 20 tons

As mentioned above, a designated storage area for the materials was allocated and is currently in use. Additionally, maintained to avoid nuisances to surrounding residents. With the above materials, there would be a potential for dust and noise nuisance to emanate from the location.

Impacts

Since the facility is in its operation stage, the potential impact can cause discomfort to employees. As such, the company foresees that dust and noise nuisance can emanate from the above-mentioned material, either by loading, offloading or even storing of such materials. The company strives for the safety and health of its employees and surrounding neighbors. Notwithstanding the aforementioned, the following impacts can be associated with the construction and storing of the aforementioned materials:

- Dust Nuisance;
- Noise Nuisance;
- Surface water
- Waste Management

Dust Nuisance

The following impact can be associated with dust:

- Dust emanates from the grading of land for infrastructural works, mixing of concrete, sawing of timber, and transporting materials to the site.

- Smoke and volatile organic compounds present in the exhaust fumes coming from heavy-duty equipment used at the site will affect the quality of the air in the immediate surroundings. This can present potential risks for persons, particularly those with breathing challenges.

- Onsite generators which will be used in the event of blackouts, may release smoke and pose a risk to human health and the environment.

Mitigation measures

- A dust screen will be erected on the western sides of the facility, where resident's and other businesses are located, this will limit the amount of dust that would be blown in the direction of the affected residents. Further, as mentioned above, designated areas will be allocated for the storing of materials, as such, where applicable, these materials will be covered with heavy-duty tarpaulins.

- During dry periods, the access route will be monitored for dust particles becoming airborne while vehicles and equipment are traversing.
- Truck trays are to be covered when transporting material to and from the site;
- Material stockpiles will to be kept to a minimum height to reduce wind action on materials. A maximum stockpiling height of 10 feet will be maintained.

Noise Nuisance

Noise will be generated mainly from the use of generators and heavy-duty equipment and machinery during the operation phase. These impacts are unavoidable and expected to be short-term and localized.

Mitigation measures

The following measures will be implemented:

- Noise levels will be kept within the GNBS prescribed limit, it should be noted work commences at 8: 00 am and concludes at 16:30hrs daily, Mon-Sat;
- Providing hearing protection for employees;
- Ensuring machinery and equipment are working efficiently and have installed the manufacturer's required muffler devices where practical;
- Machinery not in use will be turned off to mitigate additional noise generated from the site.
- The generator onsite will be located in an enclosed room to mitigate the impact emanating.

Surface Water

Land exposed by aggregate operations can be prone to erosion, leading to the accumulation of silt in nearby waterbodies. In addition, slumping or sliding of unconsolidated material near waterbodies can introduce large quantities of sediment and rocks into the aquatic environment.

Mitigation measures

The following measures will be implemented

- Locate and properly cover stockpiled materials in a designated area, away from water bodies to prevent excessive soil deposits;
- Undertake appropriate containment measures during concrete pours to ensure that uncured concrete or concrete leachate does not enter any watercourse or drainage. Preventative methods include sediment traps;
- Ensure that a perimeter reinforced concrete drain is constructed in the early stages to collect all runoff from the project site.

Waste Management Impact

Possible potential impacts from the project may include;

- Dumping of waste by employees and customers,
- Possible spillage from refueling of machinery, impact to groundwater from spillage.

Mitigation measures

- Garbage receptacles will be placed at strategic locations and emptied twice weekly to avoid overflow and rodent infestations:
- Refueling of machinery will be done away from water-ways and on an impermeable surface, if possible, refueling of vehicles can be done at service stations within the Region.

Construction of office space for employees

An office space was constructed and is utilized for the day-to-day activities of the operation, this may include but is not limited to, the logging of employees' safety gears, vehicle keys, administrative works etc.

Source of Energy

The main source of electricity will be from Guyana Power and Light whereby the facility will run its day-to-day operation; further, a generator system (25 kva) will be onsite on a concrete foundation in an enclosed room.