

## PROJECT DESIGN

### EXPANSION PLANS

With water being the main source of products used in the production process, we're currently being supplied by the Guyana Water Inc. (GWI).

However, in the future, there are plans for a bore-well to be constructed so that we will be self-supplied.

We also forethought installing electricity from the Guyana Power & Light Inc. but given certain financial/technical circumstances, that cannot go as planned.

The water that is being supplied by G.W.I, is very rusty and has huge quantities of iron in it which can be very harmful to the human beings.

Before the ice is made the water must be completely filtered which is done in seven different stages:

- 1- ION EXCHANGE AND COAGULATION - This Is the First Step, Water Perfection Process
- 2- SEDIMENTATION
- 3- FILTRATION AND GRANULAR ACITIVATED CARBON
- 4- DISINFECTION
- 5- CARBON FILTERS
- 6- REVERSE OSMOSIS
- 7- STORE PURIFIED WATER

After this process, the purified water from the tank is being stored. It then flows through a fine P.V.C pipeline. The water is then being taken by a water pump to the ice-machine. This is the beginning stages of the ice process.

In Expansion of the project, I have also installed washroom for customers and have extended a part of the property for Customers mainly fishermen, to do other activities such as pack the fishes/load ice.

### DISPOSAL OF WASTE

On the business premises, there are no major waste that is deemed harmful. The only disposed waste would be oil & filter and other sanitary waste which is being disposed of in a garbage bag that is then disposed by Puran Brother's Disposal Services.

## **PROJECT SIZE**

Our overall capital investment totaled to approximately thirty million dollars (\$30,000,000).

We currently have one employee who handles selling ice as well as ensuring the surrounding is clean and tidy.

For production wise if we start working the ice machine from 5:30pm to 6:00 am, the ice bin is most likely full of one hundred and twenty bags of ice. Sometimes hours change depending on the orders for the ice.

Most of the time we don't work throughout the night or day, if ice sales is slow some days and half bin ice is left back we just work half night so the time varies in and out.

Now I would like to explain why we need to work throughout the night into the day. Sometimes, for every 20 minutes it takes to make the ice that's how many bags of ice fall into the bin so every 20 minutes 2 bags of ice is made.

In order to keep our customers, we have to make the ice in advance so that they could have enough time to prepare their fish.

Since we have put down this ice factory it have been a great help to all the fishermen in the community and on the East Coast in general.

Fishermen don't have to go a far distance as it saves them time and help their fish not to spoil since going to a distance can cause their remaining ice to melt and half of their fish to spoil.

As the months goes by we're establishing further the more demand there is for ice so we need to work our machines to cover these orders . Our ice factory from the day it has started to give production we've helped so many fishermen with their time and make things easier for them not so much about the people who buy a large quantity of ice but the people who hustle really hard to make a daily bread who doesn't have enough equipment to store their ice so as soon as they buy the ice they pack down on their fish until its sold

## **DURATION OF PROJECT**

The construction of the building started in the first week in January of 2020.

The first step was to get the framework completed. After which we brought a cobbling container for ice storage.

It took approximately a year before it was partially completed, and we could've begun production.

In February of 2021, we began operating on a very small scale.

After some time, the machine was giving some trouble which took us a few months more to resolve.

Once the machines were up, we began operating again.

### **EFFECTS ON ENVIRONMENT**

In the operations of the Ice Factory, there are a few effects the business might have on the environment.

One being Noise pollution and the other being overflow of excess water from the water tower.

There are no other issues noted up to this point.

In mitigating the noise pollution, we have begun construction to the building to reduce the noise level. This includes padding to the building and ice bin as well as enclosing the building itself.

We have also added drainages to take the water out directly to the main drain.