



Y&S Aluminum Windows & Doors Factory & Repair Services

Fabricating and Repairing aluminum windows and doors

PROJECT SUMMARY

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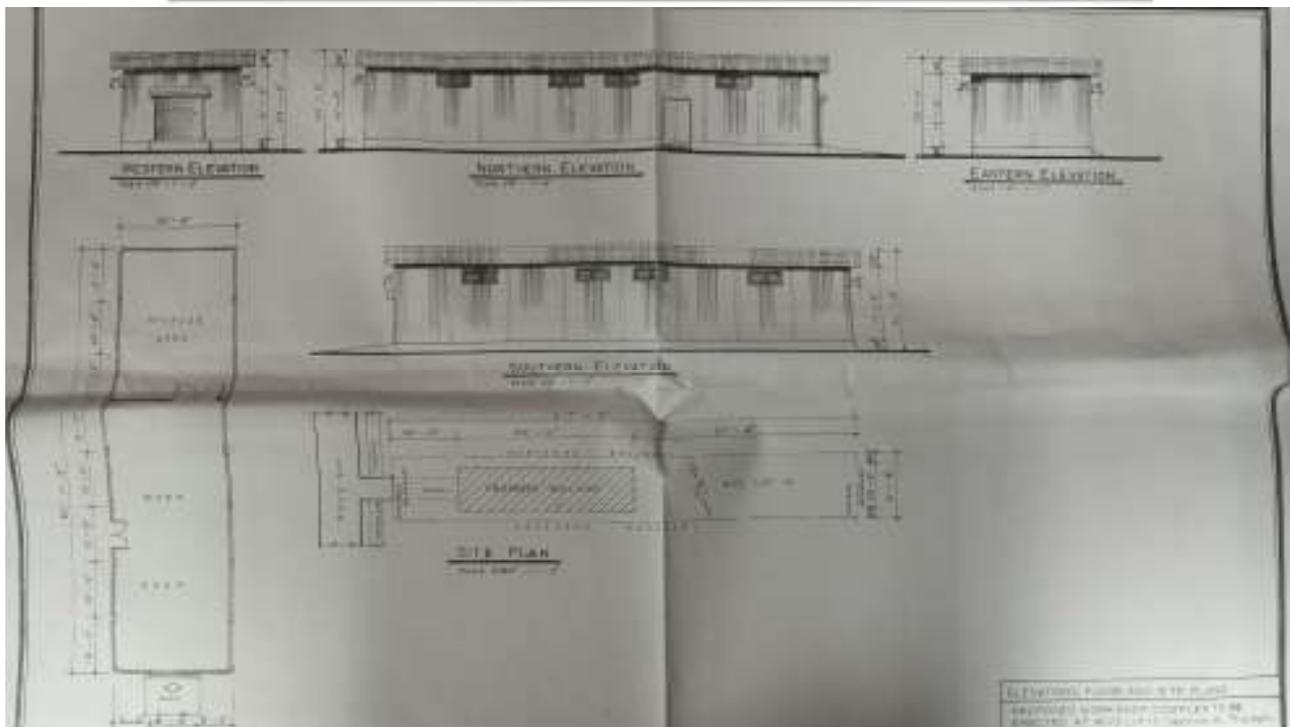
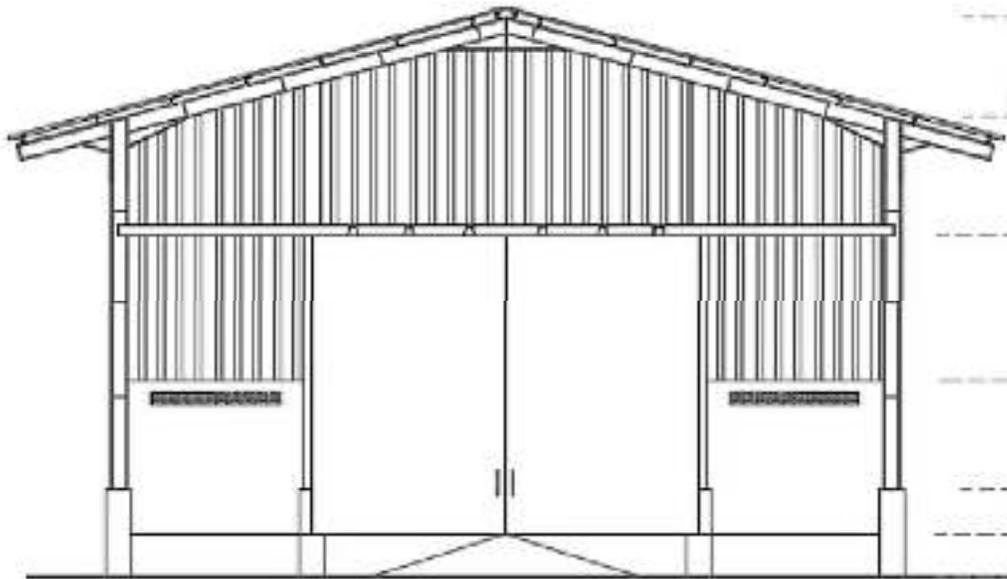
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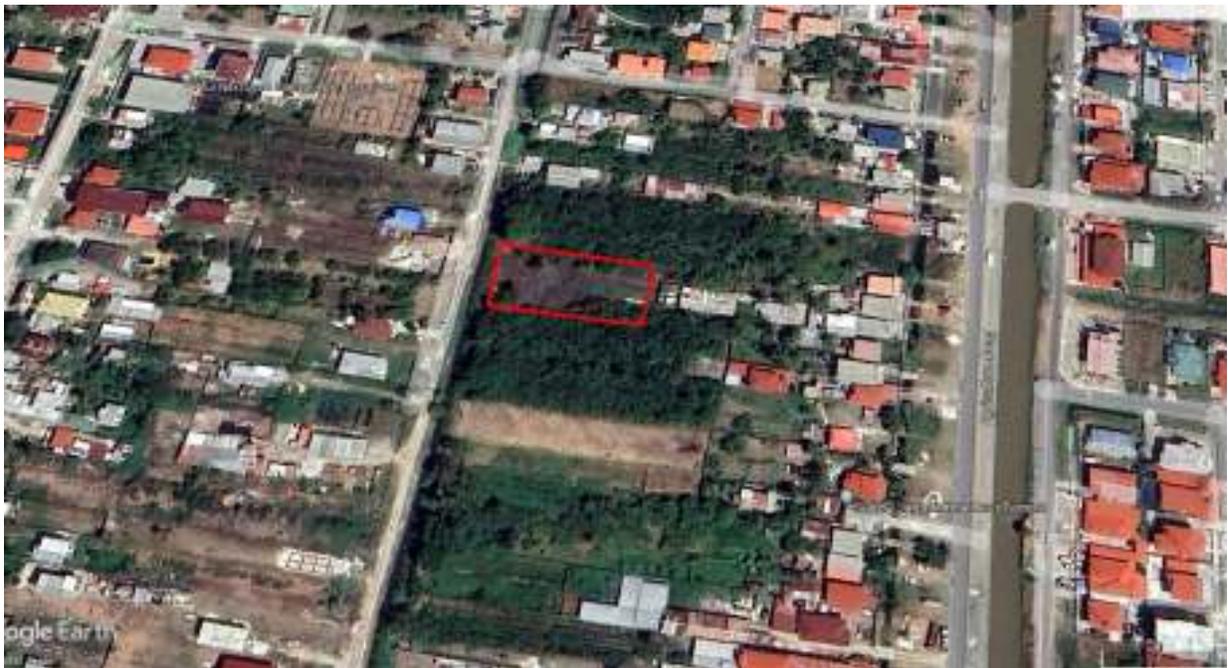
INTRODUCTION

Y&S Aluminum Windows and Doors Factory will specialize in fabricating Aluminium windows and doors since these play a crucial role in enhancing both the aesthetic appeal and functioning integrity of residential and commercial spaces. The company will fabricate windows and doors using materials such as aluminum and glass, it will cater to diverse customer needs, offering solutions that range from secure windows to sturdy entry doors. The capital investment of the company will be approximately 60 million dollars and will seek to employ 5 permanent staff. The company intends to be in operation indefinitely given the construction boom in Guyana and the growing need for the product and services being offered.



Project Location

Y&S Aluminium is located at Lot 10 Section 'A' Triumph Back Lands Beterverwagting Triumph Village District, East Coast Demerara. The facility will be housed in an enclosed warehouse structure with approximately 1600 square feet, the facility will have natural ventilation from windows and doors and zinc roofing designed to allow light into the facility with translucent sheets placed at intervals. There are no immediate neighbours, with the surrounding land being empty lots with vegetation. The facility will utilize Guyana Water Inc. for water sources and the Guyana Power and Light for electricity, additionally, the company will have a 15 KVA quiet-run generator on standby. Currently, the company has four (4) permanent employees and based on the size of a project, additional employees will be hired.



Project Description

Y&S Aluminum Windows and Doors Factory will source approximately 10 tons of raw materials in the form of aluminum windows and door frames with fitting along with precut glass quarterly from Golden Bridge. The main equipment utilized in the process are as follows; Chop saw, manual press, and battery-powered drills. There will be no chemicals or hazardous materials stored at the facility.

Operational Process

Orders will be placed by clients, based on the orders received by the company Aluminium and glass will be taken from the storage and cut to the required lengths and sizes. All materials required for the production of orders will be cut at once. These materials will then be moved to the workstations for assembly, the battery-powered drills will be utilized for drilling holes and inserting screws to connect and secure the parts of the frame in the assembly process for the required products. Once windows and doors are completed, they are stored until the time it has to be delivered to customers. The company anticipates monthly the facility will produce approximately 100 windows and 100-150 doors.

Products;



WASTE PRODUCTION

The production of aluminum windows and doors generates various types of waste. Y&S Windows and Doors will implement effective waste management systems to minimize environmental impact. The main categories of waste produced from the manufacturing facility will be:

1. Aluminium Scrap

Off-cuts and Trimmings: Pieces of aluminum leftover from cutting and shaping processes.

Rejected Components: Defective or off-spec parts that cannot be used.

Shavings and Turnings: Fine metal particles produced during machining (Cutting & Drilling) operations.

2. Packaging Waste

Cardboard and Paper: Used for packaging finished products and components.

Plastic Wrapping: Protective coverings for aluminum profiles and finished products.

Wooden Pallets: Used for transporting materials and products.

3. Process Waste

Adhesives and Sealants: Excess or expired materials used in assembling windows and doors.

4. General Waste

Office Waste: Paper, food packaging, and other everyday waste from office areas.

Maintenance Waste: Used parts, and other materials from equipment maintenance.

Waste Management Strategies

Y & S Aluminium Windows and Doors Factory intends to implement the following waste management strategies:

1. **Recycling:** Aluminium scrap will be collected, and these accumulated scraps will be sold to an authorised scrap metal dealer. Additionally, cardboard, paper, and some plastics will be recycled and used for the packaging of products.
2. **Reuse:** Wooden pallets and some packaging materials can be reused for storage and packaging of finished products.
3. **Waste Minimization:** Optimizing cutting and machining processes to reduce off-cuts and trimmings, and selective cutting to ensure maximum utilization of raw materials.
4. **Proper Disposal:** An EPA authorised company will be contracted to dispose of waste generated from the facility.
5. **Segregation:** Numerous containers will be maintained at the facility to keep different types of waste separate, to facilitate recycling and proper disposal.

POTENTIAL ENVIRONMENTAL IMPACTS

The operation of an Aluminium windows and doors manufacturing factory can have various environmental impacts. Identifying and mitigating these impacts is an essential consideration for sustainable and responsible manufacturing for Y&S Aluminium Windows and Doors Factory.

From the operation of the project, it is anticipated that there are potential impacts on air quality during the construction phase of the project, given that stockpiles of materials will be stored at the site and the potential exists for particulate matter emissions and the release of Nitrogen Dioxide and Carbon Monoxide from the movement of equipment. Moreover, during the operations of the facility, the potential impact anticipated is noise pollution from the operation of equipment during the cutting and assembly process.

Mitigation

To minimize these environmental impacts Y&S will implement the following:

1. **Energy Efficiency:** Invest in energy-efficient machinery and renewable energy sources to reduce greenhouse gas emissions.
2. **Waste Reduction:** Adopt waste minimization techniques, such as optimizing material use and recycling aluminum scrap.
3. **Sustainable Practices:** Source materials from sustainable suppliers and consider the environmental impact of raw material extraction and processing.
4. **Compliance and Monitoring:** Adhere to environmental regulations and continuously monitor environmental performance to identify areas for improvement.
5. **Wet Suppression:** Wet suppression method for stockpile of materials during the construction phase of the project.

By implementing these mitigation strategies, Y&S aluminium windows and doors manufacturing factory can significantly reduce its environmental footprint and contribute to a more sustainable future. Additionally, Noise levels will be managed by maintaining an operational schedule that will limit the type of activities being conducted per day.