# PROJECT SUMMARY

M and Ali’s Scrap Iron

Proprietor: Muntaz Ali

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# Projection Description

M & Ali's Scrap Iron is a prospective company that will focus on the collection, storage, processing, and export of scrap metal to international markets. The facility will handle a wide range of ferrous and non-ferrous scrap materials, including but not limited to iron, steel, copper, brass, and aluminium. Additionally, the company will manage electronic waste, such as obsolete computers, household appliances, and various electronic components, ensuring proper sorting and handling before export.

Scrap materials will be sourced from various suppliers, including industrial operations, construction and demolition sites, automotive repair shops, and other commercial and residential entities. These materials will be purchased, transported to the facility, and systematically processed to ensure quality and compliance with export standards. The facility will implement stringent procedures for sorting, cleaning, and packaging the scrap metal before shipment to designated foreign markets.

Ferrous and non-ferrous metals are distinguished primarily by their iron content and properties:

1. Ferrous Metals
    - Contain iron as their primary component.
    - Magnetic and prone to rust when exposed to moisture.
    - Typically, stronger and used in construction and heavy machinery.
    - Examples: Iron, steel, cast iron, and wrought iron.
2. Non-Ferrous Metals
    - Do not contain significant amounts of iron.
    - Corrosion-resistant and non-magnetic.
    - Lighter and more malleable, making them ideal for electrical and aerospace applications.
    - Examples: Copper, aluminium, brass, zinc, and lead.

The operating Process is as follows:

A scrap metal yard operates through a structured process to collect, process, and prepare metal waste for recycling or export. The key steps involved are:

1. **Collection & Intake**

    - Scrap metal is sourced from industries, demolition sites, vehicle dismantlers, and individuals.
    - Materials are transported to the facility via trucks, containers, or roll-off bins.

2. **Inspection & Sorting**

    - Incoming scrap is inspected for contaminants, hazardous materials, or nonrecyclable items.
    - Metals are sorted into ferrous and non-ferrous categories using magnets, density tests, or manual segregation and stored at the facility until exploration.

3. **Processing & Preparation**

    - Shredding – Large pieces of metal are shredded for easier handling.
    - Shearing – Hydraulic shears cut thick metals into manageable sizes.
    - Baling – Compresses lightweight metals into compact blocks for storage and transport.
    - Melting (if applicable) – Some facilities melt metals into ingots or bars for resale.

4. **Storage & Handling**

    - Processed metal is stored in designated areas based on type and quality.
    - Safety measures are implemented to prevent environmental contamination.

5. **Export & Distribution**

    - Proper documentation and compliance with export regulations are ensured.
    - Scrap metal is loaded onto trucks, containers, or ships for transport to international recycling facilities, CANU and members of Customs witness the loading.

## Site Description

M&Ali's Scrap Iron will be at Tract "MN" Grant 1399, Crabwood Creek, Corentyne, Berbice, Region 6. The facility is planned as a storage and loading bay for scrap metal, serving as a key hub for the collection, sorting, and export of various ferrous and non-ferrous materials. The site will be designed to facilitate the efficient handling of scrap while ensuring safety, environmental compliance, and operational effectiveness.

**Operating Hours**

M &Ali's Scrap Iron will operate from 08:00 hrs to 17:00 hrs, Monday to Saturday. The facility will remain closed on Sundays and public holidays unless otherwise specified.

**Site Layout and Features** 1. **Entrance & Access Control**

- The facility will have a single controlled entry and exit point to regulate vehicle and personnel movement.
- A security post will be positioned at the main entrance, equipped with surveillance cameras and a visitor log system to ensure only authorized personnel and suppliers have access.
- The yard will be enclosed with perimeter fencing to prevent unauthorized entry and theft.

2. **Scrap Metal Storage Zones**

- The yard will have designated areas for ferrous and non-ferrous metals, ensuring proper segregation to facilitate sorting and processing.
- Ferrous Scrap Storage: Includes metals such as iron and steel, which will be stored in open or covered areas depending on their condition.
- Non-Ferrous Scrap Storage: Includes copper, aluminum, brass, and electronic waste, which will be kept in separate storage units to prevent contamination.
- All scrap materials will be stored on a hard-surfaced, drained area to prevent environmental contamination and facilitate easy loading.

3. **Sorting & Processing Area**

- This section will be used for manual and mechanical sorting of scrap materials to separate valuable metals from unwanted debris.
- Sorting stations will be equipped with conveyor belts, magnets, and density separators to ensure precise classification.
- Processing Equipment: Hydraulic shears, balers, and shredders will be installed to cut and compress metal scrap for efficient handling and transportation.
- A dust and noise control system will be implemented to minimize environmental impact on surrounding areas.

4. **Weighing & Inspection Station**

- A truck scale (weighbridge) will be installed at the entrance to accurately measure incoming and outgoing scrap loads.

Scrap materials will be inspected upon arrival to ensure compliance with quality and safety standards.

- Records of weight, supplier information, and material type will be documented for tracking and regulatory purposes.

5. **Loading & Export Bay**

- A dedicated loading area will be used to transfer processed scrap metal onto trucks or shipping containers for export.
- The area will be equipped with forklifts, cranes, and other handling equipment to streamline loading operations.
- Proper stacking and bundling procedures will be followed to maximize storage efficiency and meet export requirements.

**6. Administrative & Support Buildings**

- The facility will include a small office building to accommodate administrative staff, provide space for record-keeping, and manage daily operations.
- The office will be equipped with computerized tracking systems to monitor inventory, sales, and compliance documentation.
- Staff amenities such as restrooms, a break room, and a first-aid station will be provided for employee well-being.

**Volume and Type of Raw Materials**

The facility will handle an estimated **500-800 metric tons per month** of scrap metal. This volume includes a combination of **ferrous** and **non-ferrous metals**, as well as electronic waste.

**Ferrous Metals**

- **Iron**: Structural metal, beams, rods, and iron plates.
- **Steel**: Scrap steel from construction, demolition, and manufacturing waste.
- **Cast Iron**: Items such as engine blocks, brake drums, and pipes.
- **Wrought Iron**: Ornamental iron fencing, railings, and scrap from old industrial machinery.

**Non-Ferrous Metals**

- **Copper**: Copper wire, plumbing pipes, electrical cables, and copper scrap from industrial sources.

  **Aluminum**: Aluminum cans, window frames, vehicle parts, and aluminium foil.

- **Brass**: Plumbing fixtures, decorative hardware, and electrical components.
- **Zinc**: Items such as old batteries (not including lead-acid), roofing materials, and certain alloys. **Electronic Scrap**
- **Computers**: Discarded computers, desktops, laptops, and related peripherals.
- **Household Appliances**: Refrigerators, microwaves, washing machines, and other discarded home electronics.
- **Electronic Components**: Printed circuit boards, old wiring, and other parts of electrical equipment.

**Future Expansion**

The facility will be developed in accordance with local environmental regulations and industry best practices to ensure sustainability.

Plans for future expansion may include additional storage capacity, improved processing equipment, and extended operational hours based on market demand.

# Potential Impacts

**Potential Environmental Impacts and Mitigation Measures**

The operation of M&Ali's Scrap Iron at Tract "MN" Grant 1399, Crabwood Creek, Corentyne, Berbice, Region 6 has the potential to impact the environment through various activities such as metal storage, processing, and transportation. The following are the key environmental concerns and the measures that will be implemented to mitigate them.

**1. Air Pollution (Dust and Emissions)**

**Potential Impact:**

- Dust emissions from metal sorting, cutting, and vehicle movement.

- Airborne metal particles from grinding and shredding.
- Exhaust emissions from trucks and machinery.

**Mitigation Measures:**

Implement dust suppression methods, such as water spraying and misting systems, in high-traffic areas.

- Regularly clean and sweep processing areas to reduce dust buildup.
- Ensure all machinery and vehicles undergo routine maintenance to minimize exhaust emissions.

**2. Water Pollution and**

**Contamination Potential Impact:**

- Rainwater runoff may carry oil, grease, and heavy metals into nearby drainage systems and water bodies.
- Accidental spills of hazardous materials such as lubricants, fuel, and metal residues.

**Mitigation Measures:**

- Construct a sealed drainage system with oil-water separators to prevent contaminated runoff from entering nearby water sources.
- Store oils, fuels, and chemicals in designated, leak-proof containment areas with secondary containment measures.
- Implement a spill prevention and response plan, including spill kits and staff training.

**3. Soil Contamination Potential**

**Impact:**

- Leaching of heavy metals, oil, and other pollutants into the soil.
- Long-term accumulation of metallic residues in operational areas.

**Mitigation Measures:**

- Cover storage areas with impervious surfaces such as concrete to prevent soil absorption of contaminants.

- Conduct periodic soil testing to detect contamination early and take corrective actions.
- Properly manage and dispose of waste materials in accordance with environmental regulations.

**4. Noise Pollution Potential Impact:**

- Noise from machinery (crushers, balers, shredders) and vehicle operations.
- Increased traffic noise from trucks entering and leaving the site.

**Mitigation Measures:**

- Install noise barriers or acoustic panels around the facility to minimise noise pollution in surrounding areas.
- Limit noisy operations to designated daytime hours (08:00 hrs to 17:00 hrs, Monday to Saturday) to reduce disturbances.
- Regular maintenance of equipment to prevent excessive noise from faulty machinery.

**5. Solid Waste Generation Potential**

**Impact:**

- Accumulation of non-recyclable waste, such as plastic coatings, insulation from cables, and electronic scrap waste.
- Inadequate waste disposal leads to unsanitary conditions.

**Mitigation Measures:**

- Segregate recyclable and non-recyclable waste materials.
- Partner with licensed waste disposal companies for the proper handling of nonrecyclable waste.
- Establish waste reduction and recycling programs to minimise landfill contributions.

**6. Fire Hazards and Safety Risks:**

**Potential Impact:**

- Risk of fire from combustible materials such as lubricants, fuel, and electrical components.

- Injuries due to improper handling of sharp metals and heavy machinery.

**Mitigation Measures:**

- Install fire extinguishers, fire suppression systems, and emergency water supply tanks across the facility.
- Maintain a strict no-open-burning policy for waste disposal.
- Conduct regular safety drills and training sessions for employees.
- Ensure workers wear appropriate Personal Protective Equipment (PPE), including gloves, safety boots, and eye protection.

## Conclusion

Upon completion, M&Ali's Scrap Iron will serve as a key facility for the collection, storage, processing, and export of scrap metal, contributing to the recycling industry while maintaining environmental responsibility and operational efficiency. While implementing strict environmental management and monitoring measures to minimise negative impacts on air, water, soil, noise levels, and community well-being. The facility will comply with local and international environmental regulations to ensure sustainable operations.

1 Site Plan
Scale: 1/16" = 1'-0"

NOTES:

**Land Size:**
100'-0" X 82'-0"

**Regulation:**
No building shall be constructed within 10' of the Property's Boundary

**Utilities/Buildings to be constructed:**
Offices/Housing w/ Washrooms, Guard hut, Water tank w/Pump Room, Septic tank, Open Storage Area, Offloading Area, Compactor



2 Site Image
Scale: NTS



3 Site Image
Scale: NTS



4 Site Image
Scale: NTS

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|---|---|
| TITLE | PROPOSED SCRAP METAL SITE LAYOUT |
| CLIENT | Muntaz Ali *(Muntaz Scrap Metal)* Contact: 592-660-9361 |
| LOCATION | 1 Vryheid's Lust, Railway Embankment, East Coast of Demerara, Guyana. |
| DRAWINGS | Site layout Concept<br>Site Images |
| ISSUE DATE | June 2024 |
| DESIGNED BY | Excellos Architecture |
| SCALE | As Shown |
| DRAWN BY | EBS |

**Excellos Business Solutions**
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