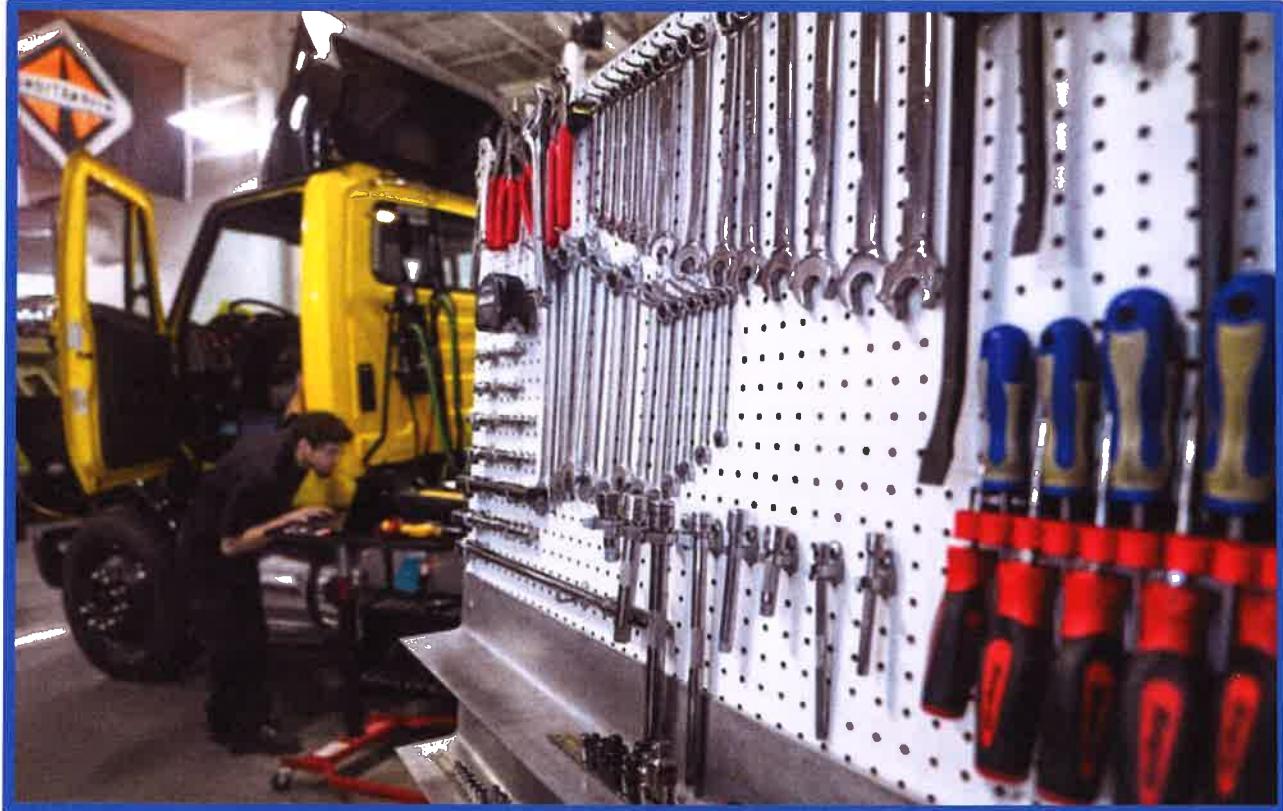


**PROJECT NAME**  
**JSB Heavy Duty Machinery & Equipment**  
**Sales & Services Center**

**2021**



**Company Info: JSB Investments Inc**

**Block R, Public Road, Sosedyke, EBD**

**Contact Info: - Tel: +(592) 261-4363, 3046; Cell: +(592) 698-8225**

**Email: jsbinvestmentsgy@gmail.com**

**Prepared by: Roubinder Rambarran BSc, PGDip, MBA**

**Date : December 10, 2021**

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**Appendix I:** Layout of Machinery & Equipment Sales and Services Center.

**Appendix II:** Proposed Site Plan for Project Area

**Appendix III:** GLSC Plan X-1051

**Appendix IV:** Current pictures of the location and its surroundings in

## 1.0 PROJECT SUMMARY

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<b>TITLE</b>	: JSB Machinery & Equipment Sales & Services Center
<b>INVESTMENT</b>	: (a) Infrastructure & Equipment G\$ 85 Million (b) Machinery & Equipment Inventory – G\$ 3 billion
<b>LAND LOCATION</b>	: Tract 'B', Being Portion of Mining Licence No. 19/99 All Being Portion(s) of State Land, Situate at Yarowkabra, Eastern Side of the Linden Soesdyke/ Highway, Right Bank of Demerara River, in the County of Demerara, Guyana.
<b>LAND SIZE</b>	: Approximately 5 acres
<b>CONSTRUCTION DURATION</b>	: 6 Months
<b>NO. PERSONS TO BE EMPLOYED</b>	: Construction Period - 40 persons : Full Time after establishment - 20 persons

## 2.0 INVESTOR PROFILE

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J.S.B. Investments Inc. is a locally registered company, incorporated under the Guyana's Companies Act in March 2017. Its principal activities in its initial stage of business are the importation of stone (granite) and the exportation of sand. Due to prudent management of the company affairs, their business activities and interest expanded to the establishment and operations a wharf facilities located at Block R Soedyke on the East Bank of Demerara. J.S.B continue to expand and evolves into heavy duty machinery and equipment sales and rentals, transportation of cargoes overland and river, provide river and sea logistics for exportation and importation of cargoes.

J.S.B. Investments Inc registered office Tract 'D' Timehri Public Road, East Bank Demerara and its Principals are:

1. Mr. Jason Bhaskaran: Mr. Bhaskaran is the proprietor of a group of businesses Armoroc Trading- Sand exportation and stone importation with a distribution channel and retailing outlet, Trident Marine Trading- loam mining and sand mining and Ultra Prints- printing and graphics. Mr. Bhaskaran possesses extensive experience in Operations Management. He controls the company's daily operations and shipping logistics.
2. Mrs. Remaliah Bhaskaran: Mrs. Bhaskaran is the Secretary of J.S.B. Investments Inc. She performs the company's daily financial activities, which is evidence of her wealth of operation management.

J.S.B. Investments Inc. is currently adding to its business line of activities; a brick/ block/ paver making facility, which would comprise of infrastructural facilities such as: a brick/ block/ paver making plant, brick/ block/ paver storage, bond office, relevant equipment and motor vehicles. This facility is currently in construction at Tract 'A', Being Portion of Mining Licence No. 19/99 All Being Portion(s) of State Land, Situate at Yarowkabra, Eastern Side of the Linden Soesdyke/ Highway, Right Bank of Demerara River, in the County of Demerara, Guyana. The total investment cost for the Block Making Facility is estimated at GY\$110 million. These investments are tie to the country's rapid expansion in the construction and infrastructure development sector of Guyana since the realization of Oil and Gas.

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## 3.0 PROJECT DETAILS

The project entails the design, layout and construction of a State of the Art Heavy Duty Machinery & Equipment Sales and Services Center. This center will be house on a two acres plot of land that will be fully utilize for the following:

- ✓ Heavy Duty Services Center
- ✓ Machinery & Equipment Showroom
- ✓ Wash Bay
- ✓ Administrative Block
- ✓ Fuel & Lubricants Storage and Dispensation Building
- ✓ Area designated for Waste and Refuse collection and temporary storage.
- ✓ Internal Roads & Drains

See Appendix I for the design and layout of the site for Machinery & Equipment Sales and Services Center.

This propose project will be developed over a period of 3-6 months after receiving all approvals, permissions and licensing to establish and operate such a center. Table I is the project development activities and time lines.

**Table I. Propose Project Schedule of Activities and Timelines**

No.	Project Details/ Activities	Timelines					
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6
1	Land/ Site Clearing/ Preparation						
2	Surveying and Layout of Site						
3	Ordering and Purchasing of Materials, Equipment & Supplies						
4	Construction of Buildings, Internal Roads, Parking Lot, etc						
5	Installation of Workshop Equipment						
6	Commissioning of Facility						

### ***3.10 Constructions Details***

The physical structures/ facilities outlined in item 3.30 below will be constructed using pre-fabricated steel, concrete blocks for all internal and external walls, ready-mix concrete for the flooring with zinc roof including transparent zincs for light penetration. The roof and walls will have extractor fans install to keep the environment as cool as possible. All building will be fitted with adequate gutters to harvest rainfall water for use and to avoid erosion of in the area.

The Showroom will be an open space build with sand, loam and stone.

### 3.20 Source of Utility Services

**Electricity:** The power/electricity required for this workshop and its auxiliary services will be provided by generators for heavy demand and the lighting will be power by solar energy.

**Water Supply:** The water required for the construction and day-to-day use for the project will be harvest from rainfalls and stored in large tanks and reservoirs. Water will have to transport by water tankers, which will be filled from nearby creeks. There will also be a private well in the near future.

**Communications:** Communications will be done via Mobile Phone and Landlines that are available in the area.

### 3.30 Facilities

The physical structures/ facilities identified and will be in place are:

- ✓ Heavy Duty Services Center
- ✓ Display Showroom
- ✓ Wash Bay
- ✓ Administrative Block
- ✓ Fuel & Lubricants Storage and Dispensation Building

See Drawings of the Facilities outlined in **Appendix II**.

### 3.40 Waste Management

**Wastes:** There will be no significant amount of industrial and hazardous wastes that will generate from this operation. The following are the types of wastes that will be emanating from the operation:

- ✓ Waste Oil and Lubricants that will be derived from machinery and equipment when routine and urgent mechanical and maintenance work is carry out,
- ✓ Machinery & Equipment Batteries
- ✓ Murky Water that will be derived from washing of Machinery & Equipment,
- ✓ Domestic wastes such as food boxes, pet bottles that will be use by employees,
- ✓ Domestics Wastewater from hand washing sinks, etc.,

- ✓ Scrap Metals that will be derived from welding and fabrication activities, metal oil and fuel filters that are used on machinery and equipment, etc
- ✓ Used/ damage Tires & Tubes when changing/replacing same

**Waste Disposal Methods:** With regard to collecting and disposing of waste generated at the site, the following systems will be put in place.

- ✓ For disposal of industrial waste, skip bins will be place at suitable location for the collection of all types of industrial/ commercial waste emanated from the business operations. Systems will be put in place for the separation of waste. Each type of categories of waste will be place in separate containers.
- ✓ Machinery and Equipment Batteries will be place in a secure area and will sold to organization that purchase it for export purpose.
- ✓ Domestic/Household waste will be place in small receptacles lined with plastic bags and place in the skip bin when fill.
- ✓ Biodegradable waste will be placed into a composer and compose will be use as manure/ fertilizer for plant in the compound.
- ✓ There will a holding tank where all wastewater will diverted to holding tanks for treatment and tested before being release to the ground and unto green areas and root of trees.
- ✓ Septic tanks will be constructed for the collection, storage and treatment of sewage. These tanks will be pump out and clean as required.
- ✓ Tires will be stored separately in a designated area and will spray regularly to avoid the breading and multiplying of vectors/ mosquitos. A system will put in place to either send to any institution that are doing recycling or send to the approved disposal site on a monthly basis.

A contract will be establish with a Waste Collection and Disposal Company to collect, transport and dispose of all waste to approved waste/ landfill site at regular intervals and as required.

#### 4.0 PROPOSED PROJECT SITE

The project site for the establishment of JSB Machinery & Equipment Sales & Services Center is situated at Yarowkabra on the Linden Sosedyke Highway, Region 4. The site is approximately 4.2 miles from the junction of Linden – Sosedyke Highway and East Bank Demerara road.

The surrounding communities from the site are Kuru Kururu Housing Scheme & Swan Village which is approximately 3 miles to the North and Yarrowkabra Housing Scheme which is approximately 2.15 miles South East. The map below is an extract from Google Map showing the location where the manufacturing of the blocks and pavers will take place.



As noted on the map, the geographic coordinates are 6°29'38.97"N and 58°12'52.15"W using WGS 84 datum.

The land required for this project is approximately 2.0 acres of State Land, situate at Yarowkabra, Eastern Side of Soesdyke Linden Highway. The tract commences at a point with coordinates E365940 N718499 being N303° 47' 35" (tr), 400 feet from the Soesdyke Linden Highway and the Emerald Tower Road, thence N303° 47' 35" (tr), 871.20 feet in facade, thence N213° 47' 55" (tr), 2000 feet for a mean depth, as shown on GLSC Plan No. X-1051. See Extract of Plan X-1051 attached as per **Appendix III**.

The current land use for this area and the contiguous areas are in use for sand mining. There will be no intake or discharge of structures close to the location. Please find current pictures of the location and its surroundings in **Appendix IV**.

## 5.0 PROJECT SIZE

**4.10 Investment:** This project will be one of the first on the Linden Sosedyke Highway in Region 4. The estimated level on Invest for this project is G\$ 85,000,000 for construction of the required building, infrastructure and procurement of machinery & equipment. There will also be Heavy Duty Machinery and Equipment, Trucks and Construction and road building equipment inventory to an estimated value of G\$ 3,000,000,000.

The finance for the construction of the required building, infrastructure and procurement of machinery & equipment will be finance by a debt to equity ratio of 40% to 60 %. The Inventory of Heavy Duty Machinery and Equipment, Trucks and Construction and road building equipment will be done using a partial finance and partial Joint Venture with the suppliers of the required inventory. The areas of investment are outline in **Table II**.

**Table II: INVESTMENT PROFILE**

No.	Area of Investment	Amount in G\$
1	Land Preparation and Layout	5,000,000
2	Building & Infrastructures	30,000,000
3	Machinery & Equipment	45,000,000
4	Startup Working Capital	5,000,000
<b>Total</b>		<b>85,000,000</b>

**A Prototype of the Workshop**



### Heavy Duty Machinery Lift Type



**4.20 Employment:** The facility will also provide employment for a minimum of 20 persons in the following categories.

No.	Designation	Number of Persons
1	Managers	2
2	Supervisors	2
3	Mechanics	2
4	Servicemen	5
5	Salesmen	2
6	Clerks	2
7	Electrician	1
8	Security Personnel	2
9	Labourers/ Handymen	2
<b>Total</b>		<b>20</b>

Preference of employment will be given to the persons living within the surrounding communities.

#### 4.30 Operations Capacity:

##### **Service Center**

The Service Center will be a fully equip one to adequately repair and maintain any heavy duty machinery and equipment. Emphasis will be place on the following machinery and equipment:

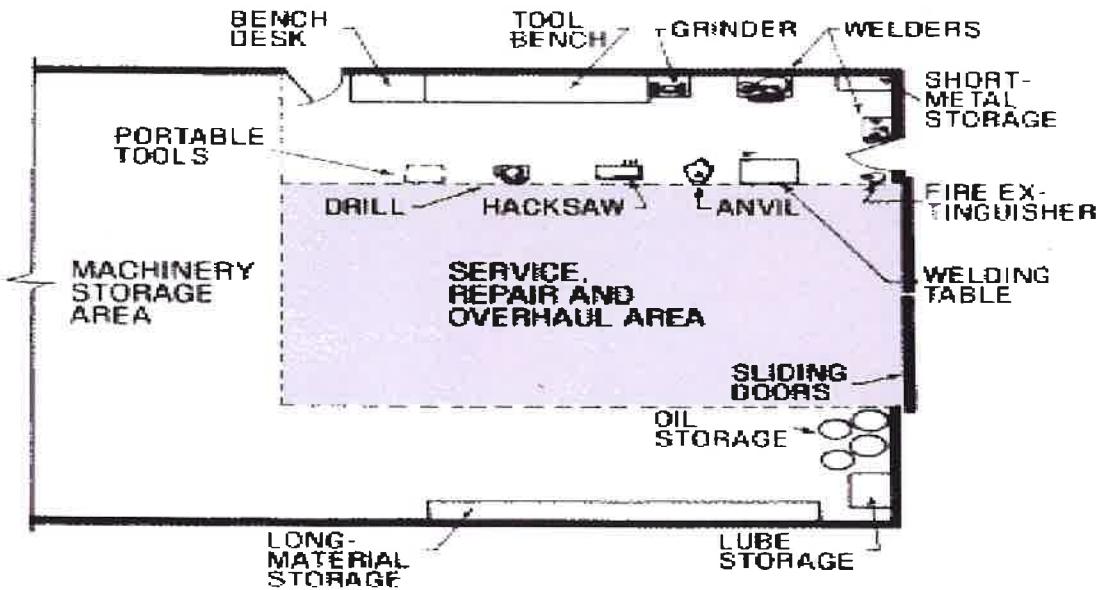
- ✓ Excavators
- ✓ Bulldozers
- ✓ Front End Loaders
- ✓ Trucks
- ✓ Tractors/ Haulers

In addition, all spare and accessories will be available at the service center including tires and all oil and lubricants. Heavy Duty lift, crane and tele-handler will use in the operation of the service center. A complete diagnostic computerized system including power tolls will be available for use to provide professional service.

Services to be offer will include the following but not limited to:

- ✓ Routine Service of Engine and Transmission,
- ✓ Electronics & Electrical System Scanning, diagnose and fix,
- ✓ Repairs, Overhaul and Rebuild Engine & Under Carriage
- ✓ Spray Painting

The propose layout of the mechanical workshop is displayed below.





### **Machinery & Equipment - Display**

The display area will be an open system with no structures. Several pieces of machinery and equipment will be on display for sale. A quantity of at least two – for of all heavy duty machinery and equipment will always be available and at least 12 dump trucks that are mostly in use such as Mack, DAF, etc. The following is an insight on what and how it will be display.





**4.40 Marketing Strategies:** With the establishment of this new facility, the first of a kind on the Linden – Sosedyke Highway, JSB Investment Inc will be attracting, if not all, most of the users traversing the Highway. This workshop will be a one-stop workshop where you will get everything fix. Marketing Officers will promote the company services to major mining companies all over Guyana.

**4.50 Human Resources & HSE Requirements:**

JSB Investments Inc will ensure that all of employees, equipment, plant and machinery are equipped with the required safety clothing and devices to ensure that the business operates accident free.

Employee will be outfitted with all the required PPE Gears. All equipment will be fitted with strobe lights, which will activate when in use and will reverse and operation alarm system. Overhead signs and notices will be place to notify employee, clients and visitors of hazardous areas of operation.

## 5.0 POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

An operation of this nature have minimum or nil impact on the environment. However, Table III outlined the potential environmental impacts and the mitigation measures that will put in place to avoid any sort of impact on the environs.

Table III

No.	Environmental Matters and Potential Impact	Significance of Impact	Mitigation Measures
1	<p><b>Land:</b> The land can be eroded because of the intense cleaning and excavation for establishing buildings and required infrastructures.</p>	Minimum	<p>Trees will be planted and revetment will be done with stable soil such as clay to vulnerable areas to curb erosion.</p>
2	<p><b>Soil:</b> Soil erosion and degradation can occur as a result of the deforestation of the area to establish buildings and required infrastructures, hence poor drainage of water, etc can occur which can result to flooding.</p>	Minimum	<p>The area identified is already de-forested. However, steps will be taken to plant grass and shrubs in the area where there will be no buildings and infrastructures. Trees will also be plant to curb erosion.</p> <p>Further, proper drainage system will be in place with designated area for capturing run off water from rain to mitigate soil erosion.</p>
3	<p><b>Water:</b> The only wastewater that will emanate for this project are the ones related to domestic/ household use.</p>	Minimum	<p>Two reservoirs will be built to capture all wastewater since there are no current drainage system in place. Systems</p>

			will be put in place to allow for all waste water diverted to the primary reservoir and then filtered and transfer to a secondary reservoir for treatment and tested before being release to the ground into green areas and root of trees. This will be exercise will be done on regular intervals as required.
4	<p><b>Air:</b></p> <p>There will be no environmental effect to the air during the operations of the project since no significant amount of dust or carbon monoxide will be letting out in the atmosphere.</p>	None	
5	<p><b>Natural Resource Use:</b></p> <p>There will be no damage to any Natural Resources since this project will not be extracting and natural resources.</p>	None	All materials that will be acquired from this project will be acquired from licensed suppliers, hence there will be no damage or disruption to any natural resources.
6	<p><b>Oil Spill:</b></p> <p>Oil spill can occur during the removal of waste oil, fuel and lubricants from vehicles tanks, engines etc.</p> <p>Any spill containing oily substance will have a</p>	Medium	To eliminate oil spill, adequate extraction, collecting and storage system will be put in place. The use of automatic suction pumps

	<p>negative effect on soil, water and any bio-diversity that exist in the immediate surroundings.</p>		<p>and tanks will be use at all time.</p> <p>In addition, all areas will be equip with oil spill kits which can be easily access and put into use immediately in case of a spill.</p>
7	<p><b>Noise:</b></p> <p>Because the workshop will be carrying out mostly mechanical work on heavy duty machinery and equipment, there will be loud noise emanating from banging on metal, acceleration of engine during test, etc.</p>	Medium	<p>All employees will be outfitted with ear mufflers when any activity that will make noise above the normal decibel.</p> <p>The workshop will be enclosed with extractors fans fitted on the roof to extract any toxic gas/air, hence, the noise will be reduced and mostly contained within the workshop.</p> <p>Further, due to the distance between the location of the workshop and the closest residential area, the noise emanating from the workshop operations will not be heard in these communities.</p>

## 6.0 CONCLUSION

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A project of this nature will see an increase in the standard of heavy duty mechanical services in Guyana. With the influx of numerous foreign investors, the need for one stop workshop that are ISO certified is critical to local content.

Further, a workshop of this capability is most suited in an area where there is less traffic, residential buildings and dwelling immediately next to it, hence the area identified will be most suitable.



# J.S.B. INVESTMENTS INC.

Office: Tract D Timerhi Public Road, East Bank

Demerara, Guyana

Email: [jsbinvestmentsqy@gmail.com](mailto:jsbinvestmentsqy@gmail.com)

Tel: 592-618-4777; 592-698-8225, 592-261-4363

Operational Yard: Block R Public Road, Soesdyke, East Bank, Demerara,

GUYANA

April 10, 2022

The Executive Director  
Environmental Protection Agency  
Ganges Street, Sophia  
**GEORGETOWN**

Dear Sir,

**RE: SUBMISSION OF ADDITIONAL INFORMATION REQUESTED FOR THE ESTABLISHMENT AND  
OPERATION OF THE PROPOSED HEAVY DUTY MACHINERY & EQUIPMENT SALES & SERVICES  
CENTER.**

I am pleased to provide you with the additional information listed hereunder as requested for the project as per captioned.

**1. Generator:**

**a. Specifications**

Cat C7.1 Diesel Generator sets. **(See Full Specifications Attached in Appendices I)**

**b. Fuel Consumption**

Fuel Consumption range from 23.4 - 49.5 liters per hour. **(See Full Specifications Attached in Appendices I)**

**c. Mitigation Measures in place to mitigate air and noise**

- i. The Generator will be a silent generator with the housing built with composite materials in the housing of the generator. These composites will catch noise and muffle sound.
- ii. The Generator will be place in an enclosed concrete building with Acoustic Foam Panels fitted inside on the walls to reduce noise.
- iii. The Generator Room will be at least 50 feet away from the main building to help reduce noise.
- iv. The Generator will be place on Heavy-duty rubber mats as needed to reduce vibration, hence noise.
- v. The exhaust will be erect vertically and connected to special made quiet box that will reduce noise significantly.

vi. The Exhaust system of the Generator will be fitted with catalytic reactors for eliminating or reducing gaseous pollutants into the air.

## 2. Fuel Storage:

### a. Number of Tanks

There will be three (3) tanks for storing fuel. Fuel stored will be use for the business operations. Fuel Tanks will mounted on Concrete Stands under a shed that will fully cover the space. The floor will be concrete and there will be a solid cast perimeter wall of approximately two (2) feet high. There will also be inner perimeter drains that leads into a small underground concrete tank to capture any spill.

To avoid any spill, the tanks will be fitted with suitable intake lines to pump fuel in and a metered pump for pumping fuel out.

### b. Capacity of Tanks

The tanks capacity will be as follow:

- I. Diesel 2 x 500 Imperial Gallons
- II. Gasoline 1x 100 Imperial Gallons

### c. Types of Fuel

The types of fuel that will be stored on site are:

- III. Diesel
- IV. Gasoline

### d. Mitigation Measures in place to mitigate a potential spill

The mitigation measures in place to mitigate a potential spill are:

- Tanks will be examine on a regular basis (Twice Weekly) for any corrosion, damage seals, etc.
- Fire extinguisher will be mount in the area.
- There will be Sand in Buckets place in areas that is easily accessible.
- There will be fuel absorbent materials/ spill kit and containers to capture any spill results from leakage of any tank.

## 3. Lubricants:

### a. Types of Lubricants & Methods of Storing

Lubricants will be stored in the containers when they are procure from the Supplier. The containers will range from 1 liter, 4 liter, 22.7 liters, 220 liters and 3,605 liters. The containers will be plastics bottles, drums and IBC Tote Containers.

Oil will be store in a secured bond and on shelves, on the matt place on ground. Oil will be dispenses in the fuel storage and supply area.

The mitigation measures in place in case of a spill will be the same as outlined in item 2(d) above.

### b. Estimated amount per year

No	Type of Oil	Qty in Liters per Year
1	Engine Oil	10,000
2	Hydraulic Oil	5,000
3	Transmission Oil	2,000
4	Heavy Duty Oil ( 90)	1,000
5	2 Stroke Oil	500

**4. Systems to be in place for the collection, storage and disposal of Waste Oil From Engines, Transmission, Filters etc.:**

**a. How it will be captured**

Waste Oil will be collected using oil drain tank that can collect and stored approximately 90 liters of oil. Below is a picture of the tank.



The oil will also be pump out of area that seems to be too difficult to use installed drainage system. Below is a prototype of the pump that we will have in place.

80W



**(b)** Oil filters changed will be punched, place in an open drum that is fitted with mesh approximately 18 inches into the drum to avoid the filters to fall into the waste oil. This system will allow for the draining of the oil out from them before being place into a separate container



to be collect by scrap metal dealers or disposed.

**b. Storage**

Waste oil will be stored in IBC/Tote Tanks under a shaded building to avoid it from rain, etc.

**c. Disposing**

When the IBC Tank is fill, they will be collect by a company that is being authorize to collect and dispose of waste oil.

**d. Estimated Amount per month**

No	Type of Oil	Qty in Liters per Year
1	Engine Oil	720
2	Hydraulic Oil	360
3	Transmission Oil	140
4	Heavy Duty Oil ( 90)	90

**e. Name of Company collecting and disposing**

The company that will be collecting and disposing of all waste oil will be Puran Brothers Disposal Inc or Cevons Waste Management Services.

**5. Underground Concrete Tanks:**

**a. Number**

The will be 4 underground concrete tanks that will be used for capturing and filtering and neutralizing waste water before being let out.

**b. Sizes**

The sizes of the Tanks will be 20 feet length x 12 feet width and 6 feet in depth.

**c. How the waste water will be treated before being release**

Wastewater will be treated and purified with chemicals such as chlorine, hydrogen peroxide, sodium chlorite, and sodium hypochlorite (bleach) before being release. A sample will be collected and the Ph is tested to ensure that it is safe. Attached as per **Appendix II** is the types of cleaning agents that will be used along with their Safety data.

**6. Spray Painting:**

Spray Painting will be done indoors in an enclosed area where fumes will be extracted using roof extraction fans.

**a. Mitigation Measures**

The following are the mitigation measures for the spray painting area:

- i. Thinners use for cleaning will tools and equipment will be collect and store in separate containers in the waste oil shed.

ii. Staff will use Supplied-air respirators (SARs) when spraying.



iii. Spilled paint will be clean up using spill kit.

## 7. Fabrication and Mechanical Workshop

### a. Layout

See Layout in **Appendix III**.

### b. Potential Environmental Impacts and mitigation measures from Fabrication and Mechanical Workshop.

Concerning the potential environmental impacts from fabrication, please be informed that there will be no fabrication activities in the workshop. As outlined in previous document, the business activities is Heavy Duty Machinery & Equipment Sales and Services Center.

From the mechanical part of the workshop, there will be no significant impact. The matrix below is the Potential Environmental Impacts and mitigation measures that was submitted in the original submission.

No.	Environmental Matters and Potential Impact	Significance of Impact	Mitigation Measures
1	<b>Land:</b> The land can be eroded because of the intense cleaning and excavation for establishing	Minimum	Trees will be planted and revetment will be done with stable soil such as clay to

	buildings and required infrastructures.		vulnerable areas to curb erosion.
2	<p><b>Soil:</b>  Soil erosion and degradation can occur as a result of the deforestation of the area to establish buildings and required infrastructures, hence poor drainage of water, etc can occur which can result to flooding.</p>	Minimum	<p>The area identified is already de-forested. However, steps will be taken to plant grass and shrubs in the area where there will be no buildings and infrastructures. Trees will also be plant to curb erosion.</p> <p>Further, proper drainage system will be in place with designated area for capturing run off water from rain to mitigate soil erosion.</p>
3	<p><b>Water:</b>  The only wastewater that will emanate for this project are the ones related to domestic/household use.</p>	Minimum	<p>Two reservoirs will be built to capture all wastewater since there are no current drainage system in place. Systems will be put in place to allow for all waste water diverted to the primary reservoir and then filtered and transfer to a secondary reservoir for treatment and tested before being release to the ground into green areas and root of trees. This will be exercise will be done on regular intervals as required.</p>
4	<p><b>Air:</b>  There will be no environmental effect to the air during the operations of the project since no significant amount of dust or carbon monoxide will be letting out in the atmosphere.</p>	None	
5	<p><b>Natural Resource Use:</b>  There will be no damage to any Natural Resources since this project will not be extracting and natural resources.</p>	None	<p>All materials that will be acquired from this project will be acquired from licensed suppliers, hence there will be</p>

			no damage or disruption to any natural resources.
6	<p><b>Oil Spill:</b> Oil spill can occur during the removal of waste oil, fuel and lubricants from vehicles tanks, engines etc.</p> <p>Any spill containing oily substance will have a negative effect on soil, water and any bio-diversity that exist in the immediate surroundings.</p>	Medium	<p>To eliminate oil spill, adequate extraction, collecting and storage system will be put in place. The use of automatic suction pumps and tanks will be used at all time.</p> <p>In addition, all areas will be equipped with oil spill kits which can be easily accessed and put into use immediately in case of a spill.</p>
7	<p><b>Noise:</b> Because the workshop will be carrying out mostly mechanical work on heavy duty machinery and equipment, there will be loud noise emanating from banging on metal, acceleration of engine during test, etc.</p>	Medium	<p>All employees will be outfitted with ear mufflers when any activity that will make noise above the normal decibel.</p> <p>The workshop will be enclosed with extractors fans fitted on the roof to extract any toxic gas/air, hence, the noise will be reduced and mostly contained within the workshop.</p> <p>Further, due to the distance between the location of the workshop and the closest residential area, the noise emanating from the workshop operations will not be heard in these communities.</p>

## 8. Wash Bay

### a. Layout

See Layout in **Appendix III**

### b. Methodology of Washing Vehicles

Machinery, Equipment and Vehicles will be washed using the following methods:

- i. They will firstly sprayed with bio-degreaser and liquid soap detergent to remove all dirt, oil and grease from the exterior and bottom as required.
- ii. Thereafter, they will be pressure wash with water.
- iii. They will then spray again with liquid soap detergent and hand wipe with cloth.
- iv. They will then be pressure wash again with lower water pressure to remove to remove the liquid soap.
- v. They will then be move to another area where the interior will be vacuum, dry the exterior by wiping same with special cloth.
- vi. Apply polisher in the exterior and outside as required.

**c. Methodology of Capturing and Treating Waste Water**

As outlined in the Wash Bay Lay Out, the entire area will be enclosed and concrete with adequate drains, pipe, and catchment area with filtration systems to capture sediments emanating from the process. The water from the entire washbay facility will be directed to wastewater treatment tanks where it will be store, treated and neutralize before being let out to be soak away in areas designated as green space.

**9. Mechanism that will be available for removal and treatment of battery acid (if any).**

The mechanism that will be in place for the removal and treatment of battery water are as follow:

- i. Batteries will be place in a drum, which is secure with a safe system to allow the water to drain into the drum.
- ii. The water collected will treated with banking soda or other ecofriendly chemical to neutralize it before being let out into the main wastewater collection system.
- iii. The pipe will install on the drum to allow for discharge the water collect and store in the drum.
- iv. The used batteries stored in a designated area awaiting the collection by business and individuals that are in the business of used batteries.

**10. Mechanism that will be available at the facility for disposal of waste oil and other hazardous waste.**

The mechanism for disposing of waste oil and oil filters are outline in item 4. c and b. above respectively . Other hazardous waste will be oily rags and used and damage batteries. The disposal of batteries is outline in item 9.

Oily Rags will be collected and store in separate containers and will be collect and dispose of by certified disposal companies that will be contracted.

**11. The estimated Quantity of hazardous material utilized or handled by the facility.**

No	Estimated Types of Hazardous Waste	Units	Qty
1	Engine Oil	Liters	720
2	Hydraulic Oil	Liters	360
3	Transmission Oil	Liters	140
4	Heavy Duty Oil ( 90)	Liters	90

5	Batteries	Each	20
6	Oil Filters	Each	60
7	Oily Rags	Lbs	75

**12. List of equipment that will be used at the facility and how plans to reduce the noise making equipment.**

No.	List of Equipment	Noise Level (dBA)	Mitigation Measures
1	Diesel Generator	75 within 1 meter Range	Generator is equip with sound pressure system. Please refer to Appendix I
2	Electric Arc Welding Machine bx1-400	None	
4	4 HP MOTO Electric Air Compressor	< 80	Staff will be wearing Ear Muffs and Operation Section will be enclosed to reduce noise.
5	Air Power Tools	<70	Staff will be wearing Ear Muffs and Operation Section will be enclosed to reduce noise.
6	Pressure Washing System	None	
7	Industrial Vacuum System	None	

Yours sincerely,

  
Aleah Bhaskaran  
Company Secretary



**Appendix I – Generator Specifications**

**Appendix II - Types of cleaning agents and their Safety data.**

**Appendix III – Layout Plan of the Proposed Facility**