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Proposal for the Installation and Operation of a Concrete Batching Plant
McDoom, Georgetown, Guyana

Developer:
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1. PROJECT SUMMARY

Superior Concrete proposes to install and operate a concrete batching plant on one acre of land at the GYSBI Annexe, PLot 7, an existing industrial area located at Plantation Roman, McDoom, Georgetown, Guyana. The location is within an existing developed compound with a sub-base of compacted sand, geotextile material and crusher run, with a fenced perimeter and gate. The adjacent areas of the compound are used for oil and gas industry equipment and operations.

The batching plant will have a mixer unit, two sealed vertical cement silos and an aggregate hopper/weighing unit. Sand and coarse aggregate (crushed stone) will be stored in heaped piles on site. There will also be a containerised office, water tank, storage container and toilet.

The concrete batching process involves the cement, sand, aggregate and water delivered by conveyor to the mixer unit and combined to produce a batch of the designed mix of concrete. The batch of concrete is delivered to the concrete mixer truck for delivery to a construction site outside of the compound.

The potential hazards associated with concrete batching are listed below, along with the mitigation for each hazard:

a. Cement dust in the environment, on the ground and in water courses.
   Cement will be delivered in bulk, via sealed tanker truck, and vacuumed into the cement silos. The cement is delivered from the silo to the mixer unit by a closed pipe. Once the cement is mixed with the aggregates and water in the mixer unit, it is no longer a dust hazard.
   The concrete batching area is contained by a sand berm to collect and prevent any potential cement water running off of the surface into the drainage system.

   A washout bund will be installed on site, for waste concrete products to be stored in. The water will evaporate or be pumped out of the bund and recycled. The dried concrete waste will be crushed and recycled.

b. Waste concrete.
   Waste concrete shall be utilised to make concrete blocks for general use or stored in the washout bund to cure and be crushed when dry.

c. Concrete washout
   Concrete washout shall be stored in the washout bund to cure and be crushed when dry.

d. Noise from the batching plant and 548KW generator.
   The batching plant uses electric motors and does not generate significant noise.
   The generator is contained within a sound attenuating enclosure and will not emit noise above ambient noise for the industrial area.

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2. SSHE

The company has a complete SSHE system in place for all aspects of the delivery, installation and operation of the concrete batching plant. The operation shall be governed in accordance with the SSHE system. THINK SAFE BE SAFE!
A Waste Management Plan is in place to ensure a clean and safe working environment with recycling of materials optimised where possible.

3. SCOPE

This proposal sets out the company, personnel, equipment, schedule and methodology proposed, to install and operate a concrete batching plant in the country of Guyana.

4. COMPANY

The Company, Superior Concrete Inc. was registered in Guyana on 16th February, 2021. Superior Concrete is the premier provider of high quality, full specification concrete in Guyana. With a new, state of the art concrete batching plant operated by expert batchers and an initial fleet of three US standard reconditioned mixer trucks, Superior Concrete Inc. will deliver solid, consistent results with every batch of concrete.

5. MANAGEMENT TEAM

Superior Concrete Inc.'s Principals Maxwell Snow and Ian Jones have an extensive background in construction/engineering and business investment. A summary of their portfolio is as follows:

Maxwell Snow – Managing Director – is an American entrepreneur, his international portfolio has a primary business focus in real estate, sales and has made several investments into manufacturing, construction, and logistics. Maxwell has invested and worked in Russia, France, UK, USA, Japan, Germany, Afghanistan, Denmark, and Kyrgyzstan.

Ian Jones – Technical Director – has worked in the construction and engineering industry for the past 25 years. Ian has been living in Guyana since November 2019 and formerly worked as the Project Manager on the Exxon headquarters build for Nabi/KCL. Ian has delivered construction projects throughout the Caribbean since 2006 and is a former board member of the Digicel Foundation in Haiti.

- All senior management shall undergo initial and regular refresher SSHE training and shall always wear full PPE when active for Superior Concrete Inc.

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Operations Personnel

Batch Plant Operator: Kenroy Thomas

Mr. Thomas, a Jamaican national, is an experienced concrete batch plant operator and has 16 years of experience with Pre-Mix, the premier concrete company in Jamaica.

- The Batching Plant Operator shall undergo initial and regular refresher SSHE training and shall always wear full PPE when active for Superior Concrete Inc.

Mixer Truck Drivers: TBC

Truck drivers are to be recruited locally in Guyana.
Full evaluation and training will be mandatory for safe operation of the vehicle on the roads and safe, competent operation of the concrete mixing and delivery equipment mounted on the truck.

- All drivers shall undergo initial and regular refresher SSHE training and shall always wear full PPE when active for Superior Concrete Inc.

Banksman/Activity Based Safety Observer: TBC

Banksman/ABSO are to be recruited locally in Guyana.
Full training will be given for safe operation of the Superior Concrete Inc. compound and marshaling of the vehicles from the compound to handover to the site banksman at the construction area gate.

- All drivers shall undergo initial and regular refresher SSHE training and shall always wear full PPE when active for Superior Concrete Inc.

6. SCHEDULE

The key milestones are set out below:

April 2021: Concrete batching plant and silo arrive in Georgetown, Guyana

May 2021: Concrete mixer truck x 2 arrive Guyana.

August 2021: Set up batching plant yard, perimeter fence, office, place pre-cast foundations

August 2021: Concrete mixer trucks and loader to site

August 2021: Start assembly of concrete batching plant and silos on foundation

September 2021: Complete assembly of concrete batching plant and silos

September 2021: Batching plant operator and mixer truck drivers start operation

September 2021: Commission concrete batching plant and test mixes, plant operational

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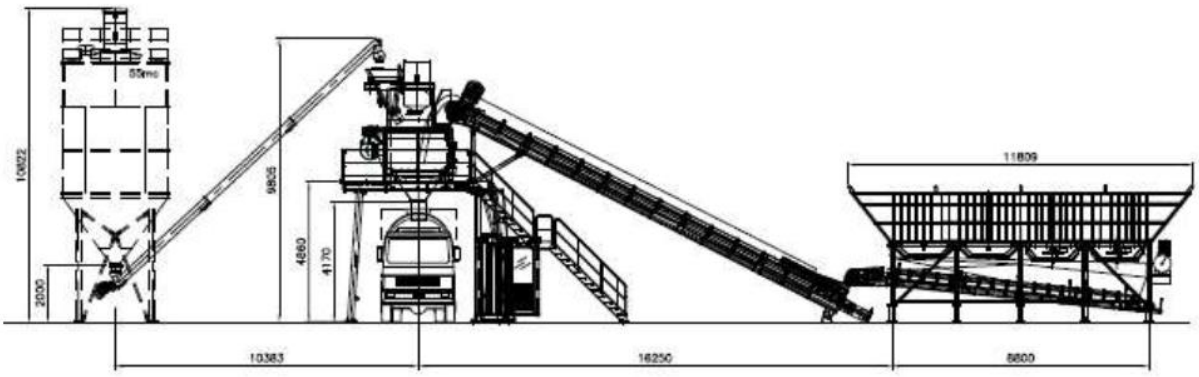
7. CONCRETE BATCH PLANT SPECIFICATIONS

The concrete batch plant is a semi-mobile Batching Plant, 100 ORU DNK, manufactured by IMER, with dimensions and specifications shown below:

IMER ORU DNK 100



Overview

Mobile batching plant for the concrete wet production, equipped with twin shaft mixer, hourly output 100 m³/h.

Technical Features

TECHNICAL CHARACTERISTICS - (Standard configuration)

		ORUDNK 80	ORUDNK 100	ORUDNK 120	ORUDNK 130
Hourly production	m³/h	80	100	120	130
Batch capacity (vibrated concrete)	m³	2	2,5	3	3,35
Power required	kW	105	140	162	180
Twin shaft mixer	mod	ORUMD 3000/2000	ORUMD 3750/2500	ORUMD 4500/3000	ORUMD 5000/3350
Loading conveyor belt (length)	m	15	15	15	15
Loading conveyor belt (width)	m	0,8	1	1	1
Cement weighing hopper	l	1400	1400	1900	1900
Water weighing hopper	l	600	1000	1000	1000
Weighing system (approved-Type)	mod	by load cells	by load cells	by load cells	by load cells
Aggregates storage (capacity)	m³	80÷120	80÷120	80÷120	80÷120
Management unit	mod	HPS 2100V	HPS 2100V	HPS 2100V	HPS 2100V

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8. Foundations

The batching plant and silo pad foundations are to be pre-cast off-site and transported and lifted into place by suitable lifting machinery on site.
The structural design check and slab dimension calculations have been determined and signed off by CRES in accordance with the location soil conditions.

9. Equipment

Concrete Mixer Trucks

Superior Concrete Inc. has/is importing 3 no. US reconditioned concrete mixer trucks from Princeton, Texas, USA. The trucks have a 300 point inspection and full refurbishment.
2007 Mack CTP713, capacity 10.5cy – in transit to Guyana
2008 Mack GU813, capacity 10.5cy – in Guyana
2009 Mack GU813, capacity 10.5cy – in Guyana

Mixer Truck Extras:
CBWM 10.5 YD Paving Mixer
NUMO UTI/UMI Repairs DOT Ready
PM - UTI - UMI
Southern Star Full Detail
State Inspection
Weight Ticket
Blast & Paint w/Body Work

Wheeled Front Loader
2021 SEM 655 Wheeled Front loader, capacity 5 tonnes – in Guyana

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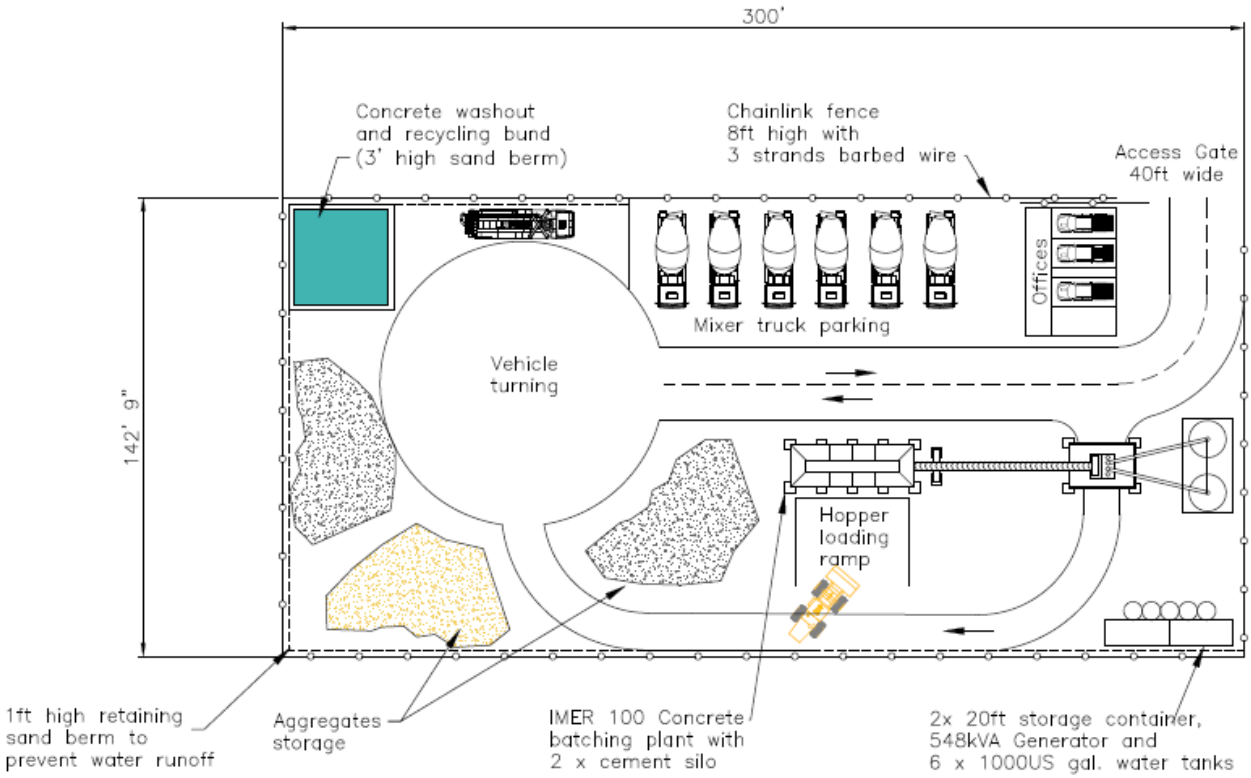
10. Location

The proposed location is indicated on the aerial view and the layout plan below. The layout shall be in accordance with the space allocated within the existing GYSBI industrial compound. The perimeter shall be fenced with a chain link fence and gate at the NE corner of the compound, for entry and exit.

Plan view showing the concrete batching plant layout - Appendix A



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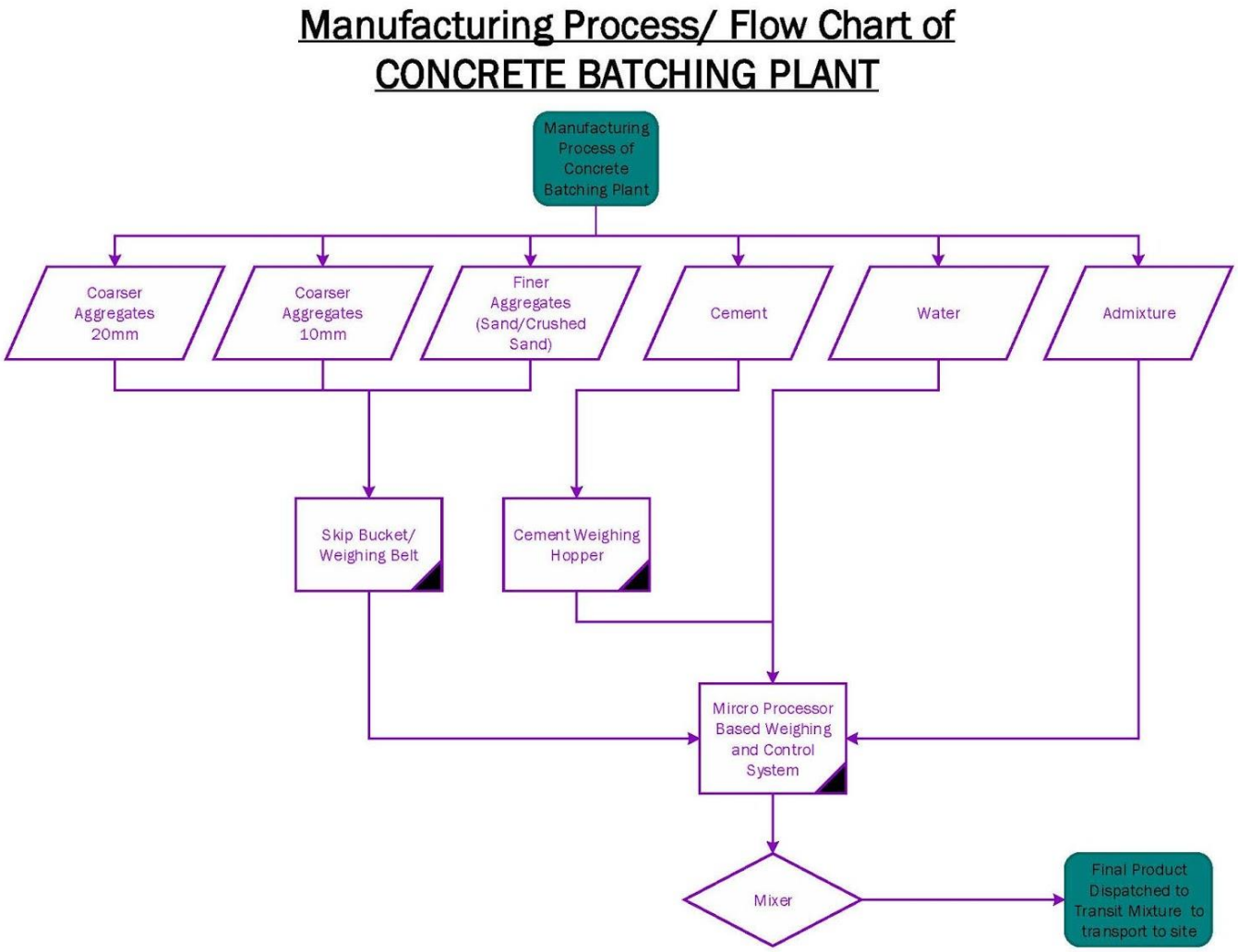
11. Concrete Specifications and Mixing Process

- All aggregates shall have chemical analysis and sieve test results available for submittal.
- Water chemical analysis is available for submittal.
- Admixture material data sheets shall be available for submittal.
- All mix designs shall be batched in accordance with ACI and BSI concrete batching standards and a library of all mix designs maintained.
- All batches produced shall have cube tests in accordance with ACI and BSI standards and a test record maintained.



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12. Material Suppliers, Specifications and Storage on Site

Cement: Rockhard Cement.
120m3 of cement to be stored on site in 2 x 60m3 vertical steel silos.
Delivery by cement tanker with vacuum loading into silos by sealed pipe loading mechanism.

Aggregates: Aracara Quarry
Crushed stone to be delivered by tipper lorry and stored in heaps on site.
Sand to be delivered by tipper lorry and stored in heaps on site.

Water: GWI
Water to be stored on site in 5 x 1000US. Gal. tanks. GWI water supply to be connected.

Admixtures: Fosroc (supplied by SCL Guyana) See attachment.
Admixtures to be stored on site in a locked 20ft steel shipping container.

13. Appendices

Appendix A
Superior Concrete Inc. – Concrete Batching Plant Layout Plan

Appendix B
Superior Concrete Inc. - Organisation August 2021

Appendix C
Superior Concrete Inc. – Batching Of Concrete Method Statement 2021

Appendix D
Superior Concrete Inc. – Waste Management Plan 2021

END