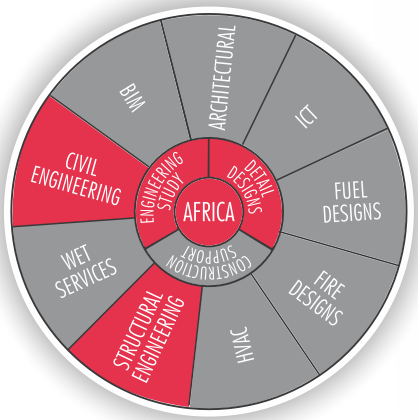
NURIZON
CONSULTING ENGINEERS

CASE STUDY 2025

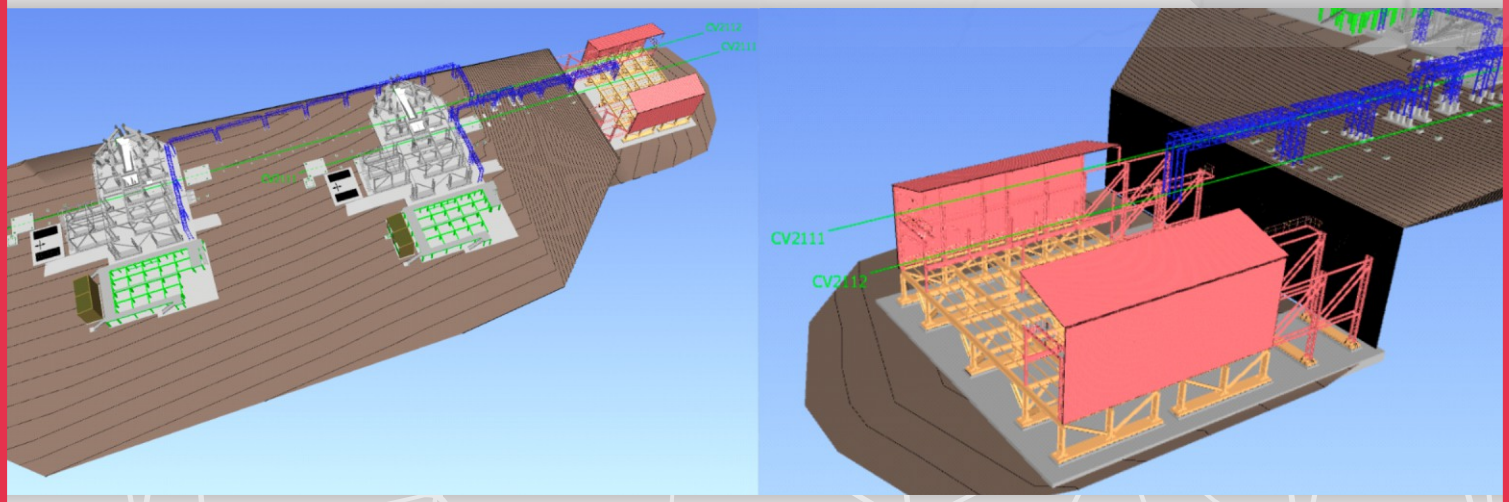
Rio Tinto – Simandou Project

Project Overview



CLIENT	MMD Mineral Sizing (Africa) (Pty) Ltd
LOCATION	Guinée Forestière Region, Republic of Guinea, West Africa
SECTOR	Mining Infrastructure
PROJECT DURATION	Feasibility Design Completed September 2022

The Simandou Project represents one of the most ambitious mining developments in West Africa, targeting an initial 60Mtpa (dry) of iron ore production with potential expansion to 100Mtpa. MMD Mineral Sizing (Africa) (Pty) Ltd commissioned Nurizon Consulting Engineers to conduct the civil and reinforced concrete structural feasibility design for the Primary and Secondary Crushing Facilities.



Nurizon's Scope of Work

Nurizon's engagement encompassed the following engineering services:

- Civil Engineering (platform design, silt traps, drainage planning)
- Structural Engineering (reinforced concrete foundation and slab design)

Key deliverables included:

- 3D site modelling of crusher areas
- Platform layouts to accommodate site drainage and infrastructure
- Concrete silt trap sizing for 1:20-year return stormwater events
- Reinforced raft foundations for crushers, MCCs, E-houses, conveyors, and dust suppression units

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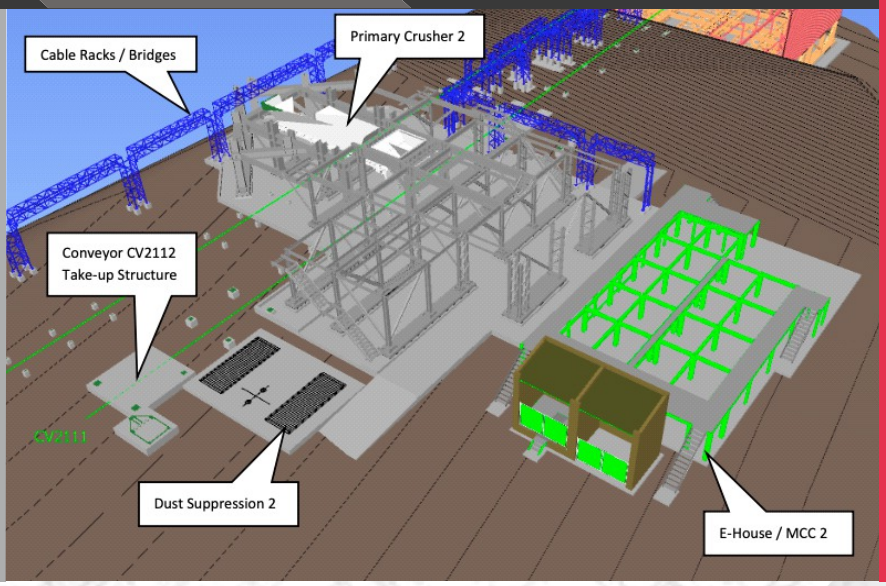

This collaboration showcases Nurizon's ability to design heavy industrial infrastructure in remote, geotechnically complex regions while adhering to international standards.

Design Approach

Nurizon utilised Eurocodes and Prokon software to ensure structural integrity, incorporating seismic and wind loading into design scenarios.

Outcome

The feasibility design produced robust, detailed solutions for critical infrastructure within the crushing facilities. Nurizon's civil and structural packages provided the client with accurate quantities, drawings, and technical specifications, enabling the next project phase.

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Engineering **Solutions**
Inspired by **Vision**

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