

Part 2: Setting Up a Blending Operation

2.4 Constructing a Blending Facility

Blending facility



Blending facility



Blending facility



Notore, Nigeria

Blending facility



SEN-Industries Chimiques du Senegal (ICS)

Blending facility



SOLEVO, Cameroon



SOLEVO, Cote d'Ivoire

Blending facility

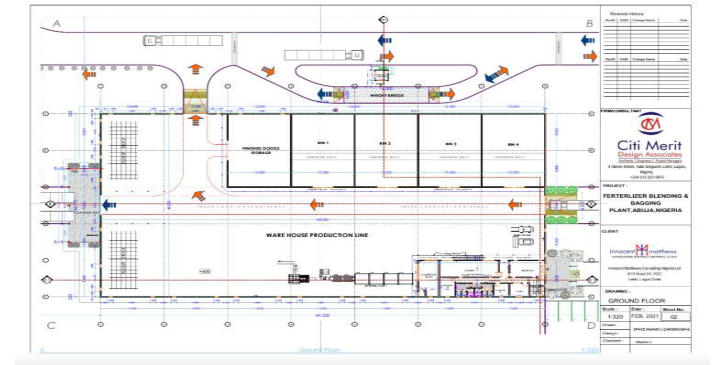


AMG, Ghana



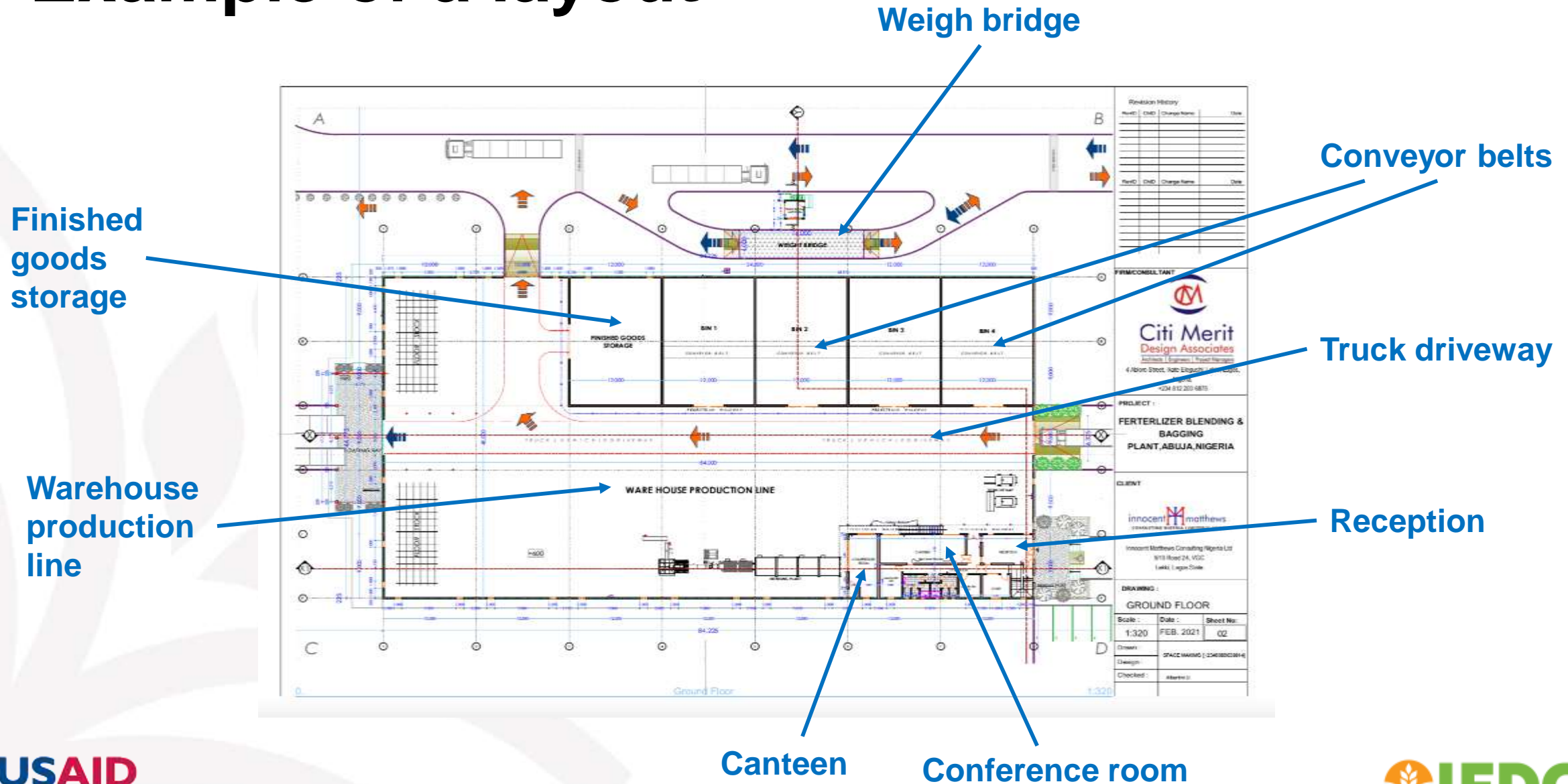
Yara, Ghana

Possible spaces needed



- Production space where the blending takes place
- Storage of raw materials
- Storage of blended products (ready for sale)
- Office space
- Parking bays for customers, large enough for trucks to be parked
- Warehouse loading bays
- Services buildings for equipment
- Well equipped laboratory to do internal testing of raw materials

Example of a layout



Additional requirements



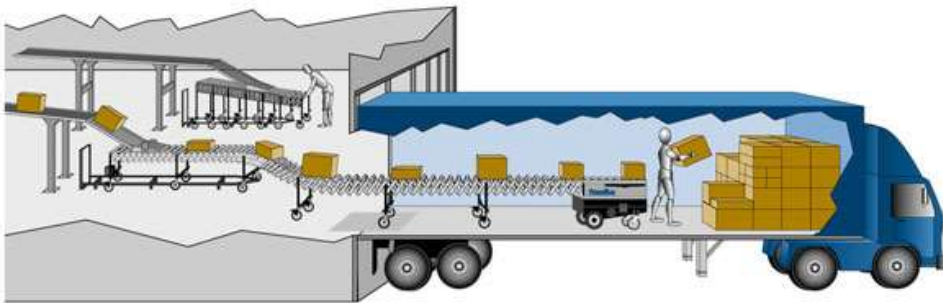
Front end loader



Forklift



Loading bay



Receiving conveyors



Weigh bridge

Additional requirements

Facility requirement	Output 1-70 mtph	71 mtph and above
Front end loader	Maybe	Yes
Modified front end loader	Yes	No
Forklift	Yes	Yes
Loading bays	Yes	Yes
Receiving conveyors	Maybe	Yes
Weigh bridge	Yes	Yes

mtph = metric tonnes per hour

Additional smaller equipment

- **Dust expellers** in the facility and on the plant.
- **A temperature and humidity reader** within the facility.
- **Equipment to check the air quality** in the facility to prevent certain reactions with the raw materials.
- **Lump and fines screeners** in the blending and bagging lines.



Selecting an engineering firm

Contract an engineering design and construction team that has:

- Local knowledge of the environment
- Previous experience in developing similar projects from scratch
- Experience in reinforced concrete elements



Specifications in an offer



- Proven conformity with **environmental regulations** applicable where the facility is constructed.
- **Reinforced** concrete elements of high-grade quality and **coated or painted** steel rods with anti-corrosion agents.
- **Concrete mix and water ratio**. The mixture should have minimum water content to reduce issues of pore formation within the concrete element.
- A **minimum spacing** of 50mm between steel rods and concrete surface.
- **Cross ventilated** space.

Specifications in an offer

- Structural **steel elements** of high-grade quality and coated or painted with anti-corrosion agents.
- **Roof coverings** to prevent water leakage.
- **Mechanical and electrical installations** e.g., plumbing and wiring, to prevent pipe leakage and fire outbreak.
- **Lighting** within and outside the facility.



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