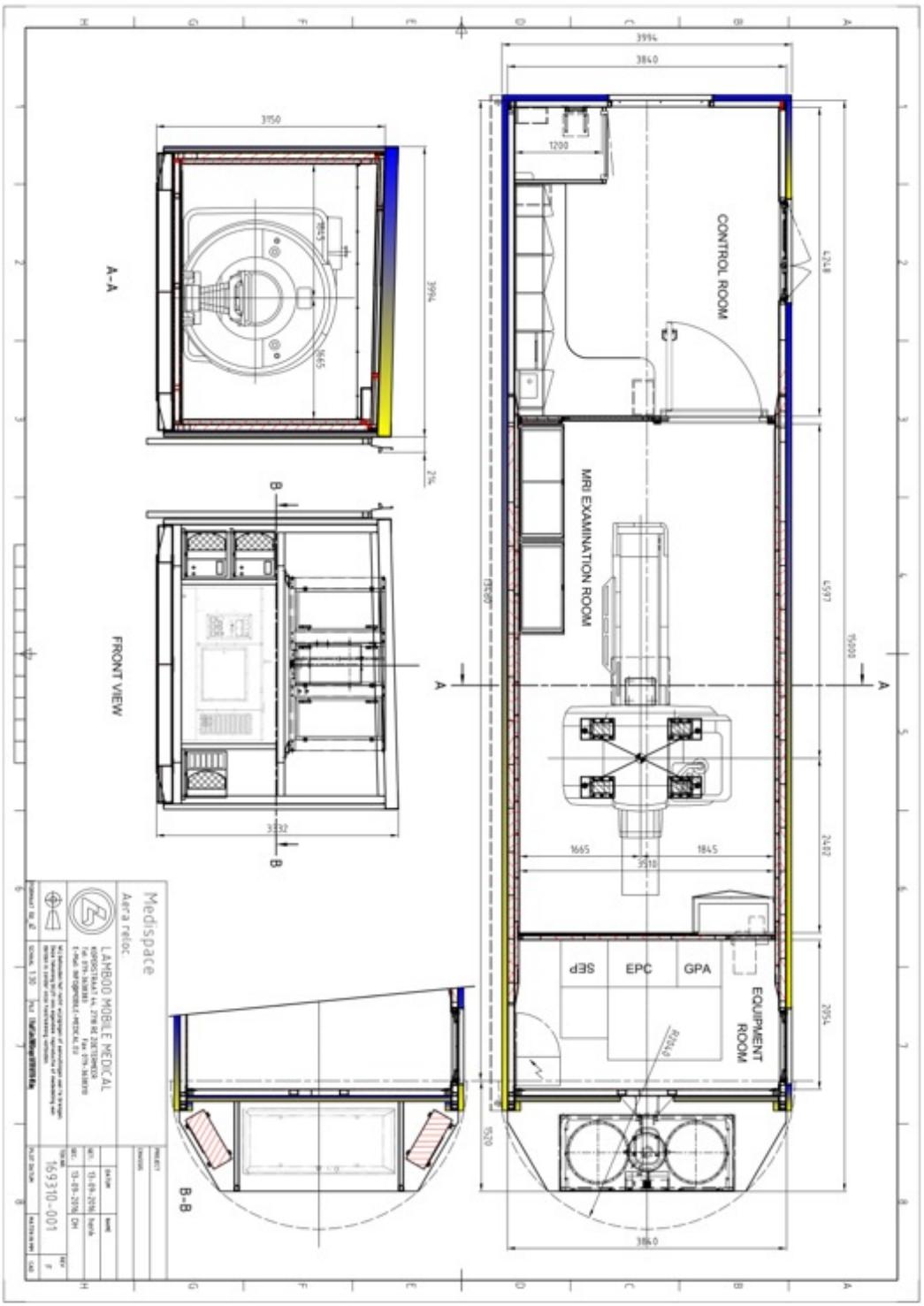
Annex C

MR 470 Specification Modular Building

Manufacture:
Lamboo Mobile Medical

Production year
2017

Lay Out


CONTROL ROOM
MRI EXAMINATION ROOM
EQUIPMENT ROOM
SEP
EPC
GPA
FRONT VIEW
A-A
B-B
Medispace
Aera reloc
LAMBOO MOBILE MEDICAL
16930-001

General

This medical modular building requires specific site preparations by the operator at each desired location. This guide contains information about the necessary preparations of the site, before placement and connections of the building.
The site must meet these requirements before the building can function properly.

Measurement

Length:	15,000 mm
Width:	3,999 mm
Height:	3,350 mm

The access way must have a minimum width of 7,200 mm. The radius of the turning circle should have an outer radius of 15,500 mm and an inner radius of 7,3 m of the turning circles.

Ground Requirements

The minimum area required for placing the building;
Length= 16,500 mm
Width= 5,200 mm
The ground and the access way must be clearly paved.
In order to ensure proper operation of the stabilizing system the ground must be level and the deviation must not exceed 1% (which is 0,6 degree!).
From side walls and back wall is a minimum clearance of 1,5 m required!
Otherwise the imaging can be affected by metal objects.

Weights

Coupling pressure: 25,000 kg
The ground and access way must be able to carry the weight.

Magnetic Shielding

The MRI building is equipped with magnetic shielding. The shielding will keep the magnetic field inside the building walls below 0,5 mT. Only on the roof the field can be stronger.
Inside the building, close to the magnet, the magnetic field is higher then 0,5 mT .
These area's are restricted for people with pacemakers and magnetic items.
These area's are marked with safety signs, provided by the MR manufacturer.

Electrical Requirements

The modular building is equipped with a 400 volt 3 phases 50 Hz electric system according to the TN-S system. The site shall provide a 400 V, 50 Hz, service fused at a minimum of 125A and a 400 volt 3 phases 50 Hz electric system with minimum of 63A
The electrical phase rotation of the supply should be L1 L2 L3.

2x 15 meter shoreline cable, wired directly to the building, is provided for connecting the mobile unit to local power.
The mains leads is not intended to withstand the wear and tear of traffic passing over it. The site shall provide necessary protective ramps, catenary systems or other means to protect the cable where it traverses roads or pathways.

The shoreline cable is provided with a 400 V - 125 A CEE connector and a 400 V – 63 A CEE connector.
The customer facility must have the female connectors to match this connector.
The electric installation must provide a dedicated medical earth terminal for connecting of the earth connection of the trailer.
This earth cable shall be connected to the trailer and the main supply outlet before the mains cable is plugged in!

WARNING:
It's the user's responsibility to verify that the shore power is electrically compatible with the connector of the building. Connecting the power to the wrong type of receptacle could cause serious injury or damage of the medical system.

Power generating set
60 KVA soundproofed, installed in the bottom of the technical area.
The complete power generating set is mounted in an acoustic cabinet to reduce the noise level to a minimum. The diesel tank is mounted under the generator and has a capacity of 250 litres. An indicator lamp which tells whether the power-generating unit is in operation is mounted on the outside of the body on the left-hand side.
The generator is not capable for full MRI scanning bit will only be used during transport.

Control room
Entrance
By means of 2 access doors. These entrance is located on the left-hand side of the building and the backside of the building. The doors of this entrances can be locked at 90 degrees and 180 degrees. There is an outside light over the entrances.
Inside the control room there is a changing room for patients.

Furniture
The right-hand part will be realised as a complete cabinet wall. The cabinets will cover the entire internal height. In this channel will also be mounted the cable duct for the MRI cabling. In the right-hand cabinet a filter will be mounted per specification of the medical supplier.

Scanroom

Entrance

By means of an RF access doors, ETS Lindgren, from the control room.

Furniture

The right-hand part will have a cupboard for the storage of coils.

Technical room

Entrance

By means of 1 entrance doors. The entrance is located on the left-hand side of the building.
The door of this entrance can be locked at 90 degrees and 180 degrees.
There is an outside light over the entrance.
Inside this room there is room for the technical cabinets of the MRI and the building.

Telephone & Computer connection

3 telephone sockets and 2 computer sockets (RJ-45) are provided as standard of the building. If necessary the building can be connected to the hospital IT network. However, the site must supply cables for connecting to the IT network.

Water connection

The building is equipped with an air humidifier.
The humidifier will be connected to the hospital with a hose and connector.

Specification Siemens Equipment

Siemens Avanto Tim [76x18] Q-engine

Software version : VB17A

Tim 76x18, Q engine gradients
PMU wireless Physio Control
iPAT extensions (Integrated Parallel Acquisition Techniques)
MPSS (Modality Performed Procedure Step)
Syngo BLADE
Syngo SPACE
Syngo REVEAL
Syngo TWIST
Syngo Composing
Inline Diffusion
Inline Perfusion

Coils supplied:

Head Coil (12 channels)
Neck Coil (4 channels)
Spine Coil (24 channels)
Flex small+large (4 channels)
Breast matrix coil (4 channels)
Extremity Coil (Knee, 15 channels)
Shoulder Coil (phased array with 2 coil elements)
Body matrix Coil (6 channels)

Contrast media injector

On request
Consumables to be provided by the Customer