



# Site Planning Guide

Canon Aquilion Prime SP  
CT18

# Table of Contents

1. Introduction
2. System Specifications
3. Environmental Requirements
4. Unit connections
5. Hydraulic System
6. Positioning using a crane
7. Positioning of ramp
8. Layout of equipment
9. Radiation
10. Telephone & Computer
11. Water System

# 1. Introduction

This Site Planning Guide describes the preparations needed to be made by Compleo Health's customers to ensure that the relocatable CT unit can be successfully delivered, deployed and put into clinical operation.

The guide describes the unit in details, and the environmental and electrical requirements to receive and connect the unit.

Please contact Compleo Health for any questions regarding deployment of the relocatable MRI unit at your location.

## 2. Unit Specifications

### 2.1 Dimensions and weight

<b>Length</b>	<b>14,01 m (18,8 m incl. long ramp) 14,01 m (15,62 m incl. short ramp)</b>
<b>Width</b>	<b>3,24 m</b>
<b>Height</b>	<b>3,12 m</b>
<b>Weight of Unit</b>	<b>31,300 kg</b>
<b>Min. area for placement</b>	<b>19,5 m x 6 m subject to site survey 16,5 m x 6 m subject to site survey</b>

# 3. Environmental Requirements

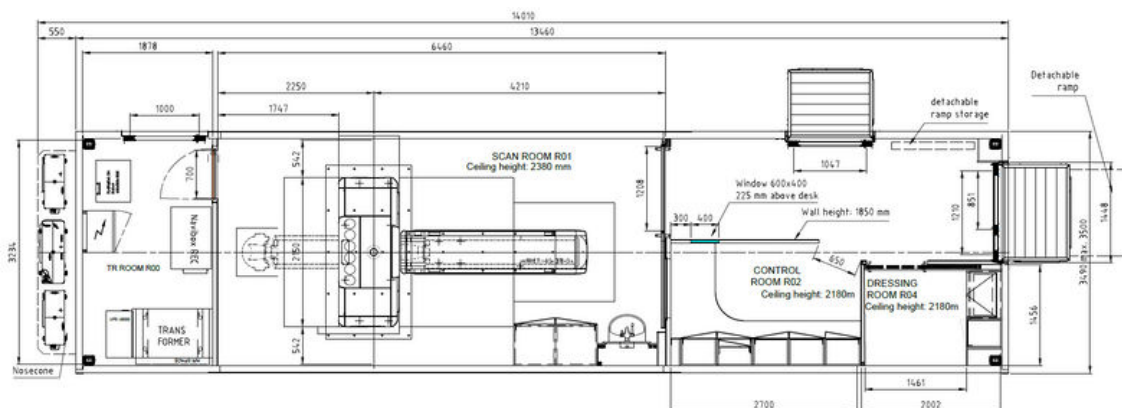
## 3.1 Local Requirements

The ground and the access way must be clearly paved.

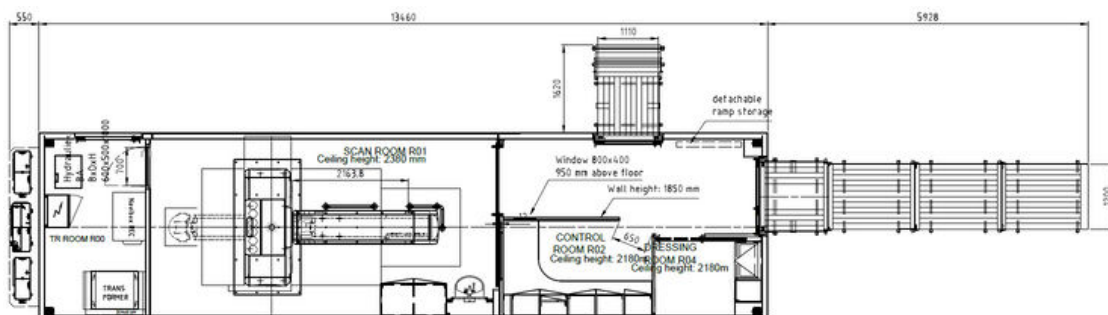
In order to ensure proper operation of the stabilizing system the ground must be level and the deviation must not exceed 1% (which is 0,6 degree).

Please make sure that that the entrance and service doors are easily accessible for patient entry and services.

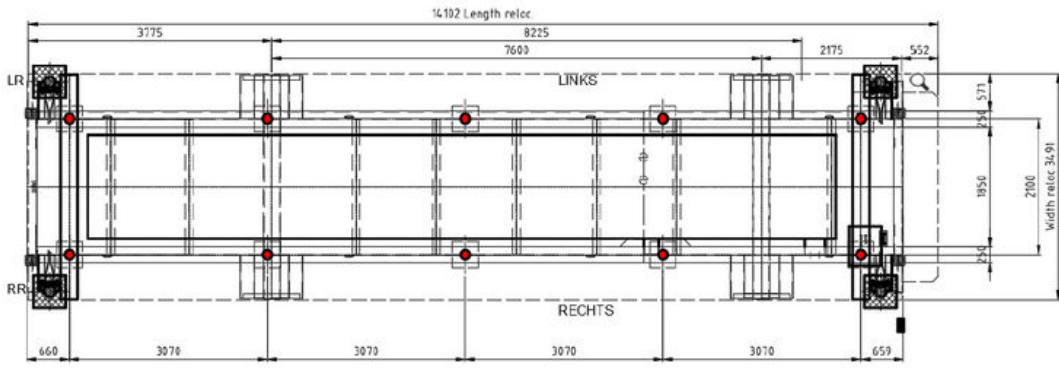
In order to ensure proper operation of the unit the support points must be as level to the zero as possible. This can be done by using shim plates of aluminum or nylon.



*With stairs attached*



*With ramp attached*



# 4. Unit connections

## 4.1 Electrical requirements

The customer must provide the following electrical connections:

The trailer is equipped with a 400V 3 phases, 50Hz electric system according to the TN-S system.

The customer must provide a 400V, 50Hz, service fused at a minimum of 200A. The electrical phase rotation should be L1, L2, L3.

The unit must be connected to main power by a qualified professional. The qualified professional must carry out protective measurements after connecting the power supply to main power.

The main power plug is a marechal 250A plug on a 15 m cable.

Unit with MRI system: 160A

Main supply: 400V

Frequency: 50Hz

Internal line impedance: <120 mOhm

The main cable consists of 5 x 70mm<sup>2</sup> cables and the color scheme is:

L1= brown

L2= black

L3= grey

N= blue

PE= green/yellow



# 5. Hydraulic System

## 5.1 Using the hydraulic lifting & levelling system

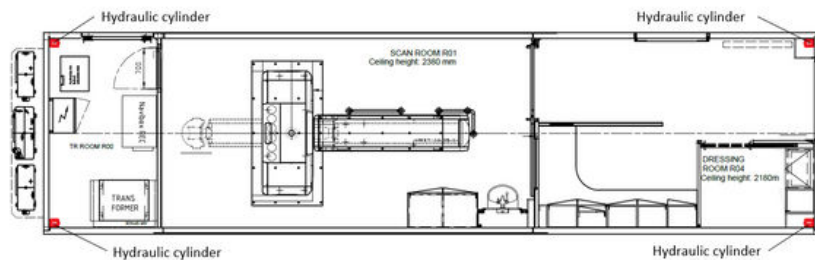
The levelling system includes the following components:

- 2 hydraulic support legs at the front.
- 2 hydraulic support legs at the rear
- Hydraulic unit with hydraulic pump and control box
- Digital level indicator
- Remote control

The hydraulic unit is located in the technical room.



- The hydraulic system works on 400V.
- Connect the power supply.
- Switch ON the hydraulic system
- Unlock the twist locks of the chassis.
- Place the nylon blocks underneath the hydraulic cylinders.
- Lower the support cylinders until the unit is lifted from the low loader.
- Remove the low loader.
- Use the hydraulic cylinders to level the unit.



The hybrid unit can be levelled using the remote control (located on the left side of the box) or the panel in the technical room, to operate the hydraulic cylinders to the correct level. The levelling monitor shows the current status of the levelling.



Hydraulics  
remote control

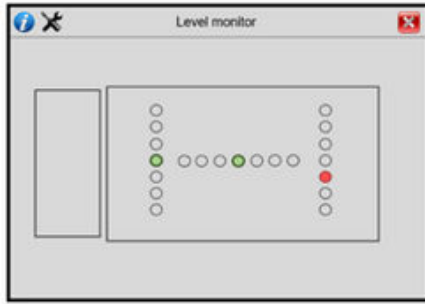


Hydraulics control panel

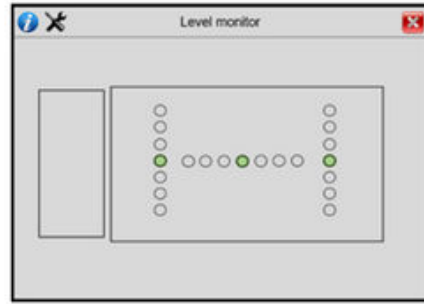
The unit has a digital level indication system showing the position of the unit. The screen will turn on automatically or when touched in standby mode. The screen will go on standby after 5 minutes of no interaction.

The display shows an indication of the unit.





Incorrect levelling



Correct levelling

A green light on the remote control indicates that the hybrid unit is levelled on the following measurement points:

Back axis (left)

Length axis (middle)

Front axis (right)



How to turn the remote on:

Twist and pull the red button on the bottom and then press "RESET" and "OUT" and hold it until you hear a peep.

## 5.2 Levelling of the unit

- Lower the unit just below ground level.
- Use shim plates under the support points of the longitudinal beams of the unit.
- Lower the unit until it is supported by the shim plates.
- Check the level on the digital level display. If the unit is not levelled, re-shim the unit. Repeat procedure until the unit is levelled.
- Retract the support cylinders.
- Please put the remote control back in the charger.



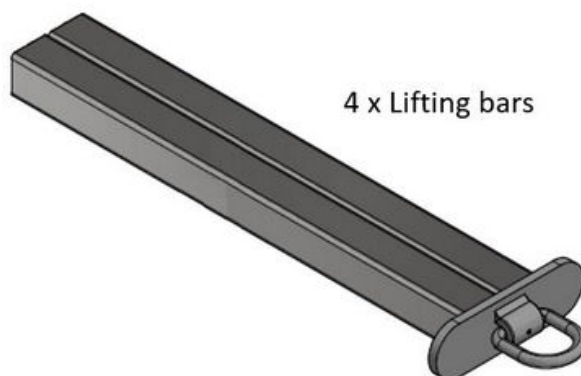
## 5.3 Preparing the unit for transport

To prepare the unit for transport, reverse the steps of the deployment.

# 6. Positioning using a crane



Contact Compleo Health Limited to order special certified lifting bars.



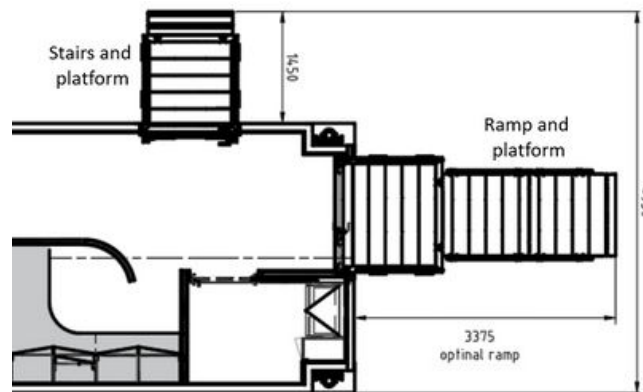
- Ensure interior and exterior doors are closed during lifting.
- Adjust sling length to location of the center of gravity (see drawing)

# 7. Positioning of ramp

The platform for the stairs and the canopy is located in front of the entrance door.

To install the platform, railing and stairs:

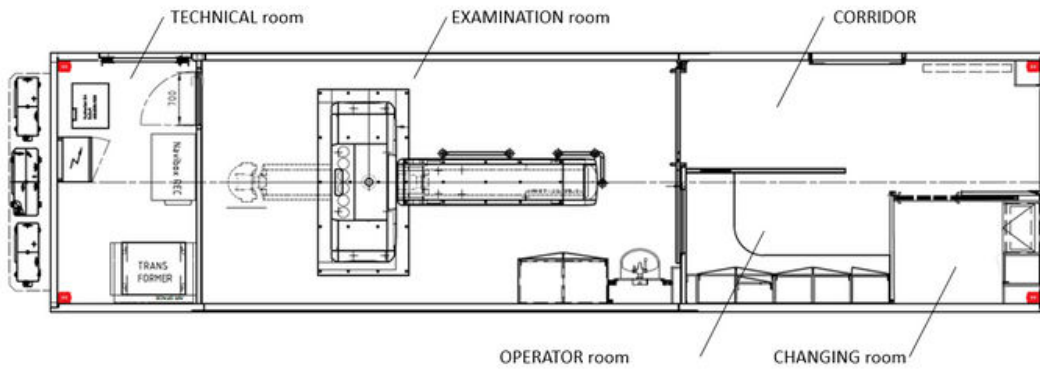
- Lay out the foldable ramp located underneath the door.
- Unlock the platform supports and rotate them 90 degrees
- Connect the stairs and level the stairs with the adjustable feet.
- Connect the railing to the stairs and platform.
- Expand the canopy..



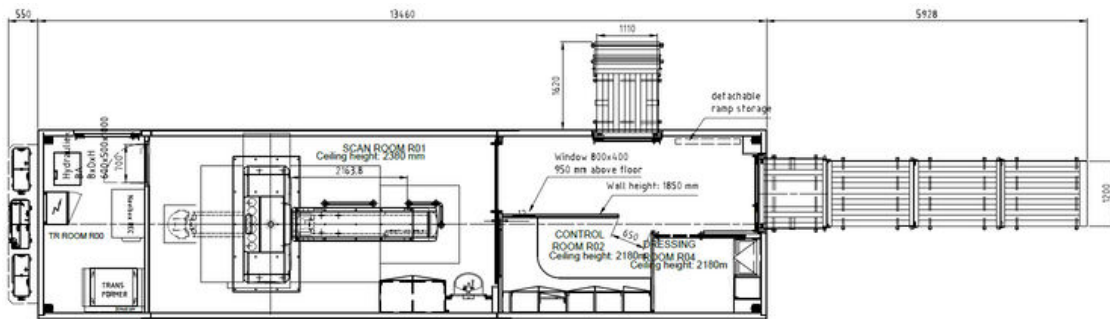
Rear entrance with ramp and platform

Side entrance with stairs and platform

# 8. Layout and equipment



Dimensions with slopes and platforms attached

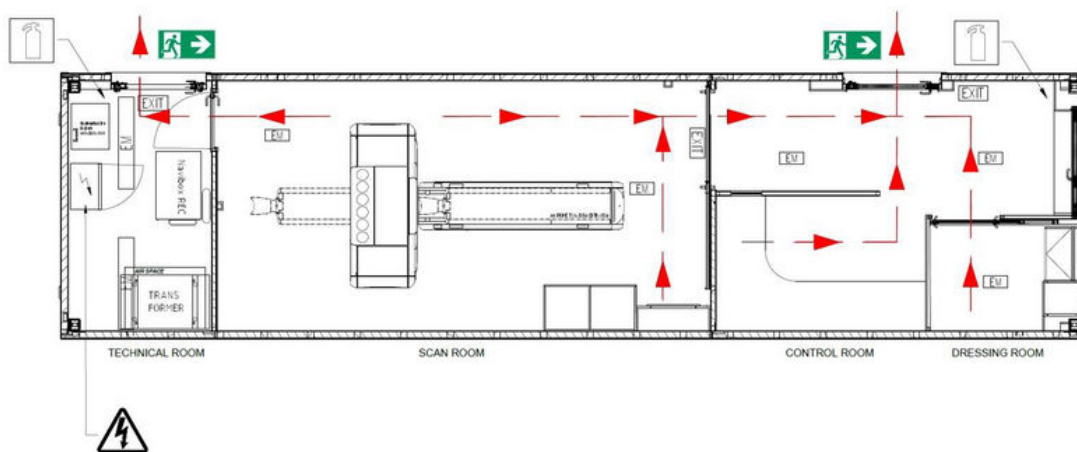


*Clear illuminated stairs and ramp.*

All manuals of the electronic devices mentioned in this chapter, can be found in the manual delivered with the Hybrid Unit.

## 8.1 Emergency Exit Route

Below image shows the emergency exits.



## 8.2 Fire alarm

The unit contains four smoke detectors. They are located in the control room, the scan room and in the technical room.



Optical smoke detector



Fire alarm system



Manual fire alarm switch

## 8.3 Oil spill kit

- An Oil Spill Kit is available in case one of the containers' hydraulic legs has a malfunction and starts leaking. The yellow bag in the technical room contains 20 absorption towels, 3 absorption hoses, sealing paste, 3 plastic bags and 1 pair of gloves.



Hydraulic emergency kit



Content hydraulic kit

# 9. Radiation

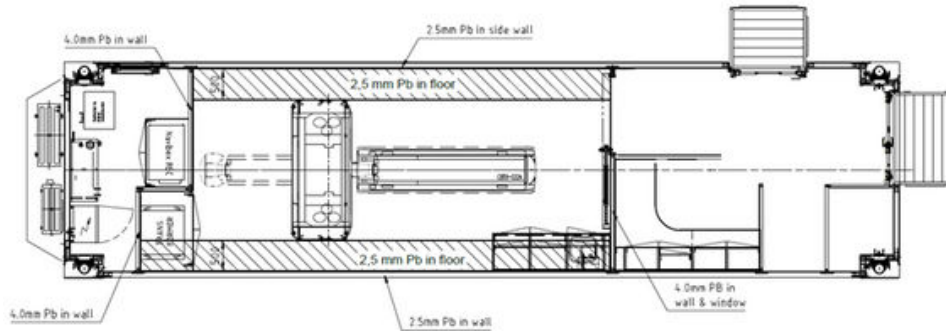
## 9.1 Lead shielding

Lead shielding of the scan-room is as follows:

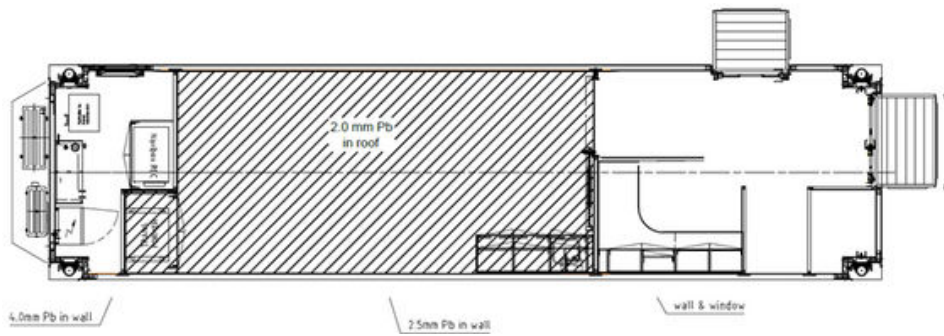
Examination room exterior walls:	2.65 mm
Separation wall control room:	4.0mm
Windows separation wall control room:	4.0mm
Sliding door control room:	2.65mm
Floor examination room sections 900mm from side walls:	2.65mm
Separation wall equipment room rear:	2.65mm
Roof examination room incl. slide outs:	2.24mm

Lead shielding locations:

- CT Walls, screens, glass and doors
- CT Floor



- CT Roof





# 10. Telephone & computer

The customer must provide the following network connection:

- The system is equipped with two RJ45 sockets. One that can be used for the customer's RIS and PACS systems and one for the general network.
  - The system is equipped with two RJ11 sockets for landline phone connection.
  - Above connections can be found near the power cable connection on the right side underbelly compartment.
  - Please note that minimum cable quality is CAT6.
- 
- The firewall in the CT system is set to DHCP.
  - The CT system can use the Hospital Work List Server (DICOM MWM)



# 11. Water system

The customer must provide the following water connection:

The unit is equipped with a line connection for the supply of fresh water and drainage.

The connector for shore water line is GK for hose size 19 x 3 mm. A hose pipe with coupling is supplied with the unit.

