



Typical configuration shown (not site specific)

Site preparation package
PL-25-00043 _Rev A
consists of the following document(s):

- | | | |
|----|--------------------------------|-------------------------|
| 1. | Site preparation specification | PL-25-00043 _Rev A _SPS |
| 2. | Site preparation drawings | PL-25-00043 _Rev A _SPD |

2. Site preparation drawings

PL-25-00043 _RevA _SPD

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3	ED-1	Conceptual diagram of MDU
4	A-1	Site layout
5	A-2	Site layout (technical area on floor below)
6	A-3	Building modifications
7	AD-1	Schematic cross section(s)
Building works		
8	X-1	Floor provisions (all disciplines)
9	X-2	Ceiling provisions (all disciplines)
10	X-3	Wall provisions (all disciplines)
Technical details		
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Revision history

H					
G					
F					
E					
D					
C					
B					
A	30-04-2025	MAM	RCG	Site preparation	
0	23-04-2025	ANP	TAH	Proposal	

Rev	Date	Drw	Chk	Proj. phase	Description
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The document is based on the template: S782110 MR5300,Rev.3.0

Important notes

The information in this package is provided as a customer convenience, and is not to be construed as architectural drawings or construction documents.

Philips assumes no liability nor offers any warranty for the fitness or adequacy of the premises or the utilities available at the premises in which the equipment is to be installed, used or stored.

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Customer ID

Technical ID

Philips Healthcare
A business of Royal Philips N.V.
Philips Polska Sp. z o.o.
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Project
MR5300 (GAC781, ACCC)
Polkowickie Centrum Usług Zdrowotnych
Polkowice, Poland
001

Sheet Subject
Cover sheet
Table of contents

Drawing
PL-25-00043
Quote No
Order No

A3 mm
C-1
Sheet 1 / 15

Drawing alerts:

- 1

Dimensions for building works in the examination room (like RF-cage construction and wall openings) are for indication and bidding only! Refer to the drawing of the RF cage vendor for actual construction dimensions. For ranges refer to AD-1 sheet.
- 2

Passive shielding or fencing may be required to contain the 0.5mT field line within the floor and ceiling of the examination room.
- 3

Passive shielding or fencing may be required to contain the 0.5mT field line within the back and side wall of the examination room.
- 4

It is recommended to install a small RF feedthrough to avoid air handling issues like under or overpressure due to air flow unbalance. If not place it could be difficult to open or close the RF-door. Furthermore the RF-walls could be damaged.
Typical dimensions 300mm x 150mm (LxH).
To avoid unwanted acoustic noise issues we suggest locating the balance grid in the RF-ceiling and no acoustic path towards the Operators room.
- 5

Ferromagnetic beams perpendicular to the Z-axis of the magnet must be located at least 250mm below the finished floor. All other ferromagnetic beams must be located at least 600mm below the finished floor.
- 6

For the square area of 3000mm x 3000mm symmetrically around magnet isocentre, ferro-magnetic reinforcement must be:
- NO less than 50mm below finished floor.
- NO greater than 25kg/m² average concentration between 50mm and 250mm below the finished floor. Reinforcements below 250mm can be ignored.
- Evenly distributed.

Maximum Cable lengths:

Maximum Cable lengths between the Cable in- and Outlets of the Cabinets

From:	To:	Meter:
LCC (**)	Air cooled Cryo-Cooler	0
System Filter Box	DACC	7
System Filter Box	LCC (**)	7
System Filter Box	Gradient Amplifier (**)(***)	7
LCC (**)	SACU (*)	14
DACC	Gradient Amplifier (**)	7
DACC	LCC (**)	7
Gradient Amplifier (**)	LCC (**)	7
MDU(**)	DACC	10
MDU(**)	Gradient Amplifier (**)	8
MDU(**)	LCC (**)	13
MDU(**) 50Hz Countries	Air cooled Cryo-Cooler	10
MDU(**) 60Hz Countries	Transformer	7
Transformer	Air cooled Cryo-Cooler	7
MDU(**)	All other units	10

- (*) Location of the SACU in the technical room is not required; Interface with examination room return air duct outside the RF-enclosure is leading. Keep the acoustic noise in mind!
- (**) Cable and hose connections on top of the cabinet only.
- (***) Gradient cables are supplied in one set with a length of 15m. Cable length can be divided/ cut between length needed inside technical room and length needed inside the examination room.
Default length is reduced to reduce costs because in many cases shorter gradient cables are sufficient. 18m length is possible with an extra cable set. Please contact SPS to order a duplicate extra set of cables to be able to extend the length to maximum 18m.

Site requirements

- Mains power**
- Supply configuration:
Star, 3 phase+neutral+protective earth (PE).
Delta is allowed for the 480V version.
MDU version to be ordered via order questionnaire,
 - Nominal Line Voltage:
220/380V +/-10% 50/60Hz +/-1Hz
230/400V +/-10% 50/60Hz +/-1Hz
480V +/-10% 60Hz +/-1Hz
 - Mains impedance (at nominal voltage):
< 200mOhm

- Electrical power rating (230/400 voltage input)**
- Apparent Power: 60kVA
Rated current: 90A/phase
Peak current: 400A/phase <5ms (*)
Peak current: 500A/phase <1ms (*)
Nominal fuse rating (**): 100A rms
- (*)
If an UPS for the complete MR system is required, please provide the UPS supplier not only the required kVA but also the required above-mentioned peak current. This can result in a higher (kVA) specification of the UPS needed.

- (**)
- For 230V Y-configuration (= fase to neutral), type AM or GL according DIN 43620, VDE 0636 part 1 and 2a

- Remote service diagnostics**
- To establish this feature, a RJ45 type Ethernet connector must be installed with access to the customer's network (10/100/1000Mbps)

- Environmental requirements***
- Examination room:
Temperature 18°C-22°C
Maximum temperature change 5°C per 10min
Relative humidity 40% - 70%, no condensation
Required Air Conditioning Capacity: 2kW
Note:
Energy dissipated in the examination room must be cooled by hospital air handling system.
Gradient coil heat dissipation will be removed through liquid cooling of the gradient coil.

- Technical room:
Temperature 15°C-24°C
Maximum temperature change 5°C per 10min
Relative humidity 30% - 70%, no condensation
Required Air Conditioning Capacity (standby (24/7 / peak): 2 kW*, however the hospital supplied air cooling must be able to deliver 8 kW if the dual cooling circuit including the Air Cooled Cryo Cooler is activated.
Heat dissipation to Water: 5 - 40kW

- Control room:
Temperature for human comfort 18°C-24°C
Temperature required for X-ray films 15°C-30°C
Temperature MR equipment 10°C-35°C
Maximum temperature change 5°C per 10min
Relative humidity 30% - 70%, no condensation
Required Air Conditioning Capacity: 0.3kW

Mass of patient table provided in the legend does not include patient weight.

MR5300

Resp	No	Description	Mass [kg]	Heat [W]	Noise [dB(A)]
Examination Area			2000*		
A	1.1	Scanner gantry 1.5T	3700	-	-
A	1.2	Patient table	260	-	-
A	1.3	System filter box	80	-	-
Control Area (Basic system excluding options)			300	40**	
A	2.1	Operating station	-	-	-
A	2.2	Emergency run down button	-	-	-
A	2.3	Storage Rail	-	-	-
B	2.4	Operator's table	-	-	-
Technical Area (Basic system excluding options)			8000*	75**	
A	3.1	Mains distribution unit 380/400V 50/60Hz	135	-	-
A	3.2	Liquid cooling cabinet	326	-	-
A	3.3	Gradient amplifier cabinet 781	467	-	-
A	3.4	Data Acquisition & Control Cabinet	397	-	-
A	3.5	System Air Cooling Unit (SACU)	25	-	72
B	3.6	Chilled water connection	-	-	-
B	3.7	Mains switch	-	-	-
B	3.8	Earth reference terminal	-	-	-
B	3.9	RF-waveguide System Air Cooling Unit (SACU)	-	-	-
A	3.10	Air cooled Cryo-Cooler	110	-	-
A	3.11	Space claim for future Backup Power Connection Panel (BCP) (WiP)			
General					
B	4.1	RF door	-	-	-
B	4.2	RF window	-	-	-

- Responsibilities:**
- A Delivered and installed by Philips
 - B Delivered and installed by customer
 - C (Pre) Delivered by Philips, installed by customer
 - D (Pre) Delivered by customer and installed by Philips
 - E Existing

* Indicated heat load is peak dissipation / room. Requirements column will be less than the sum of each individual cabinet in a given room due to the fact that not all cabinets will run peak heat loads at the same time. Third party heat dissipation is not included.
** Noise value is measured from 1m of the cabinets and without third party equipment.

Project notes MR

- The feasibility of this project is based on site information (like drawings) provided to Philips. Philips cannot assume any liability for the accuracy of this information and the consequences.
- The equipment proposed in this room layout produces a strong magnetic field. It is the customer's responsibility to comply with the local regulation. Normally this field has to be contained in a controlled area that is only accessible by authorised personnel and screened patients. Consult the Philips contact for details and support.

Project
MR5300 (GAC781, ACCC)
Polkowickie Centrum Usług Zdrowotnych
Polkowice, Poland
001

Sheet Subject
Site requirements
Equipment legend

Drawing
PL-25-00043
30-04-2025
MAM
Quote No
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A3 mm
AL-1
Sheet 2 / 15

PHILIPS

SWU – Equipotential bonding and earthing cabinet

EOB – Connect hospital earthing systems, metallic components, cable pathways and housings

PCB – Connect socket and lighting systems

PCCB – Connect the systems of the supplier of the angiography system

Attention:
Conceptual diagram of MDU only. It cannot be used as execution documentation. It must be verified by a qualified electrician in accordance with local regulations or other electrical requirements.

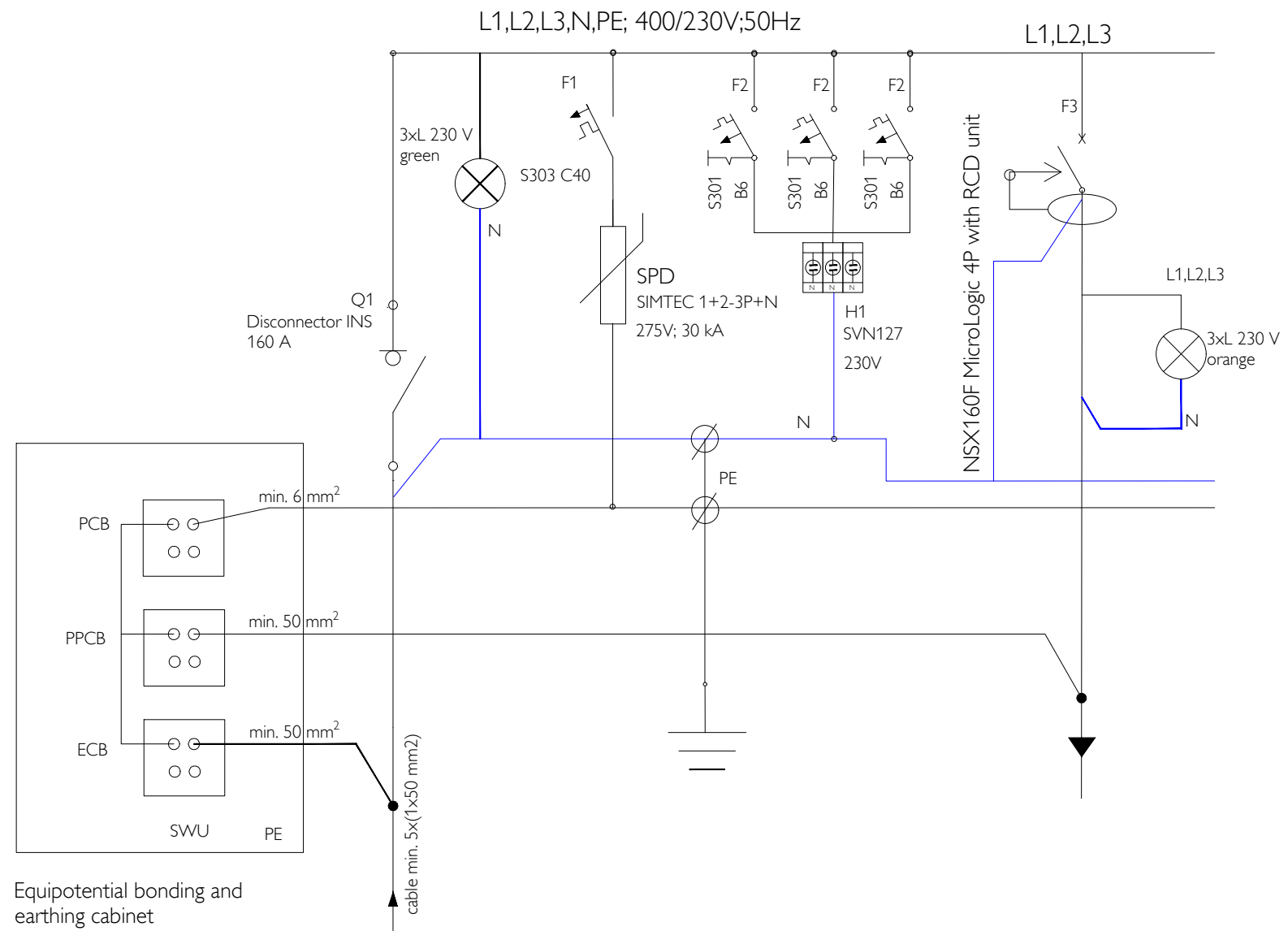
Notes:

The fault loop impedance of the cable supplying the MDU boards cannot exceed: 200 m Ω – 400 V.

Design protected by Copyright Law (Journal of Laws of 1994, No. 24, item 83). All information included in this design is the intellectual property of PHILIPS and cannot be reused and reproduced without the written consent of the above-mentioned company.

Use a disconnecter that enables the use of the LOTO system (device secured with a padlock during maintenance in a manner that prevents it from being switched on).

Indicator lights on the doors indicate power supply from the RG main switchgear unit and energisation of the scanner.



Circuit number	0	-	-	1
Installed capacity Pi [kW]	80			80
Cable type	5 x cable min.1x50 mm²			5 x cable min.1x50 mm²
Circuit	Supplied from the LV switchgear unit	overvoltage protection	voltage presence indication	MRI scanner

Project
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Polkowickie Centrum Usług Zdrowotnych
Polkowice, Poland
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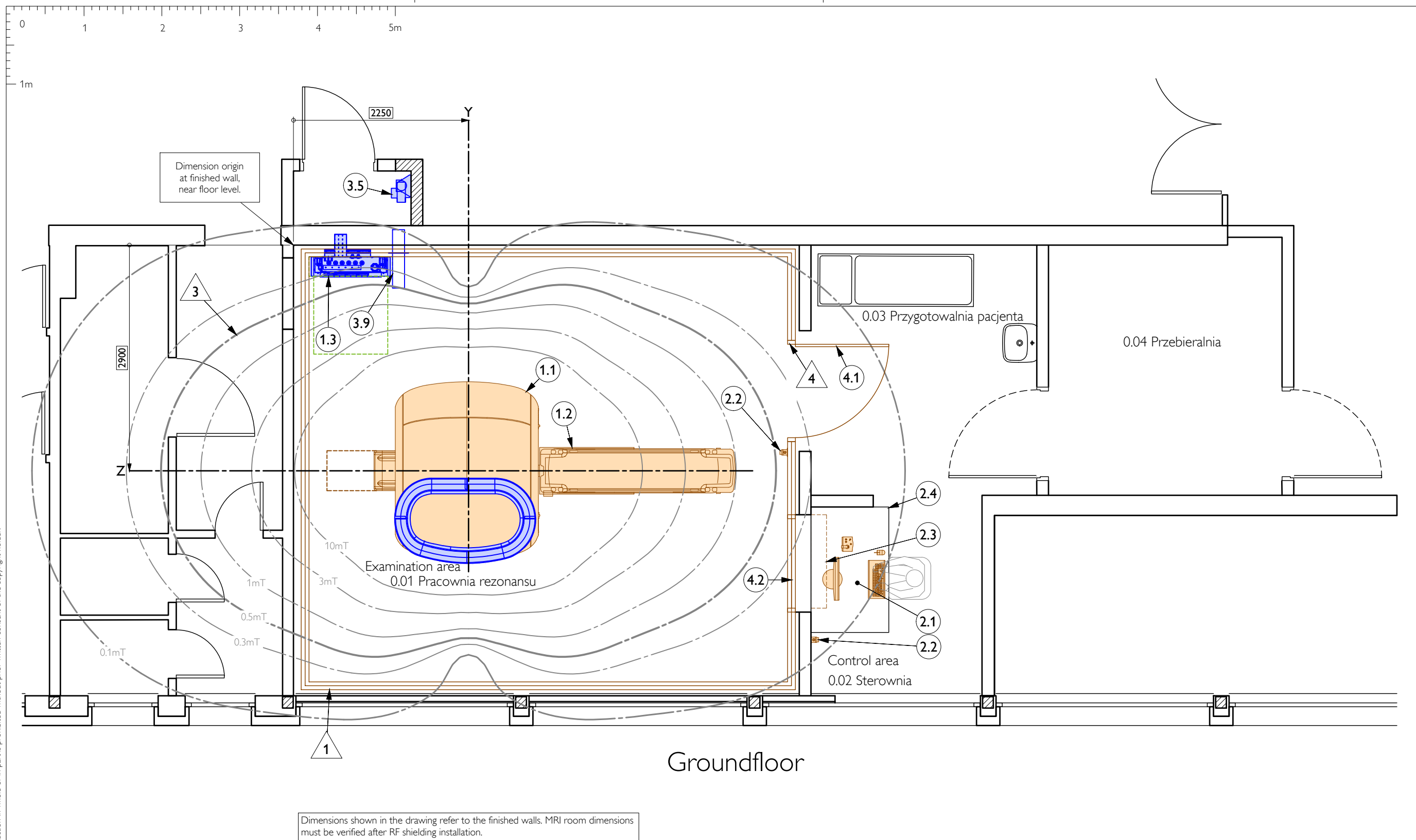
Sheet Subject
Site requirements
Equipment legend

Drawing
PPL-25-00043
30-04-2025
MAM
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A

A3 mm
ED-1
Sheet 3 / 15

Spilth

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Legend

	Walls
	New walls
	Existing doors/walls to be removed
	Beams or other building construction elements
	Columns (materials and strength unknown)
	Preferred service area

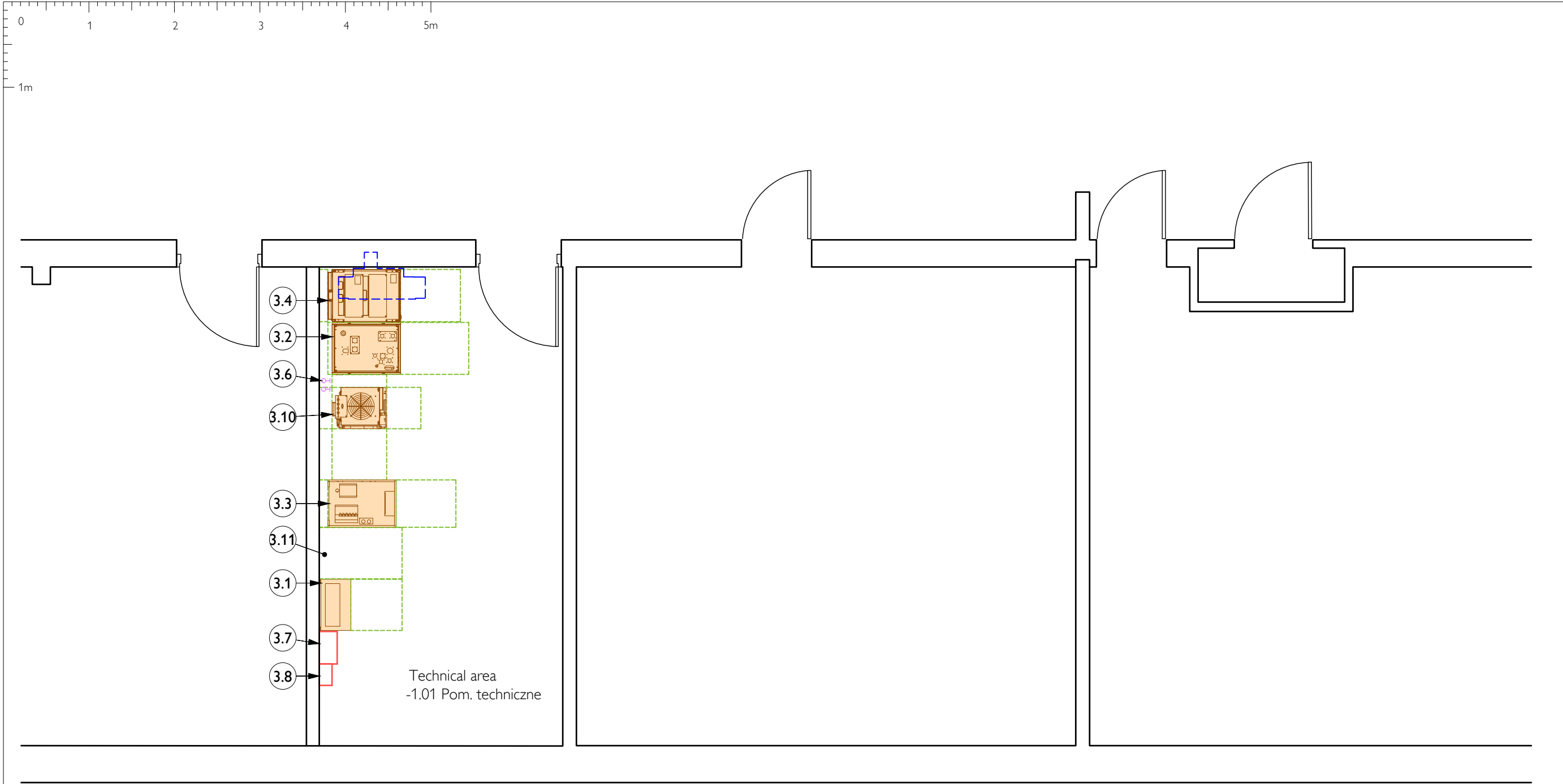
Dimensioning legend

	System position dimension (ISO-centre)
	Architectural dimension to be checked on site
	Dimension from origin

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C-1 AND SHOULD NOT BE SEPARATED

Project	MR5300 (GAC781, ACCC) Polkowickie Centrum Usług Zdrowotnych Polkowice, Poland 001		
Sheet Subject	Site layout		
Drawing	PL-25-00043	A	
	30-04-2025		
	MAM		
Quote No			
Order No			
Technical ID			
A3	1 : 50	mm	
Sheet	A-1 4 / 15		

PHILIPS



Legend

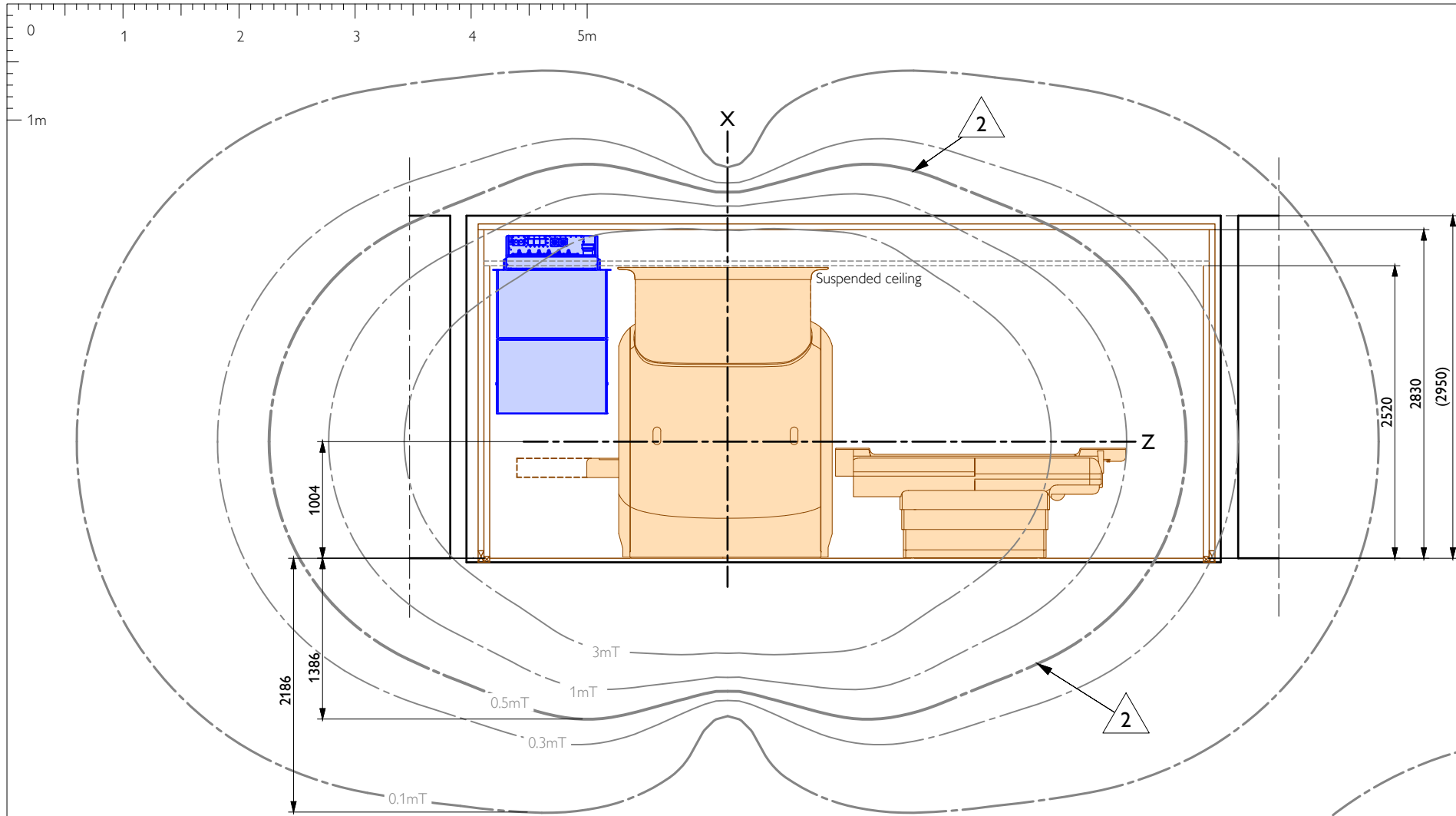
- Walls
- New walls
- Existing doors/walls to be removed
- Beams or other building construction elements
- Columns (materials and strength unknown)
- Preferred service area

Dimensions shown in the drawing refer to the finished walls. MRI room dimensions must be verified after RF shielding installation.

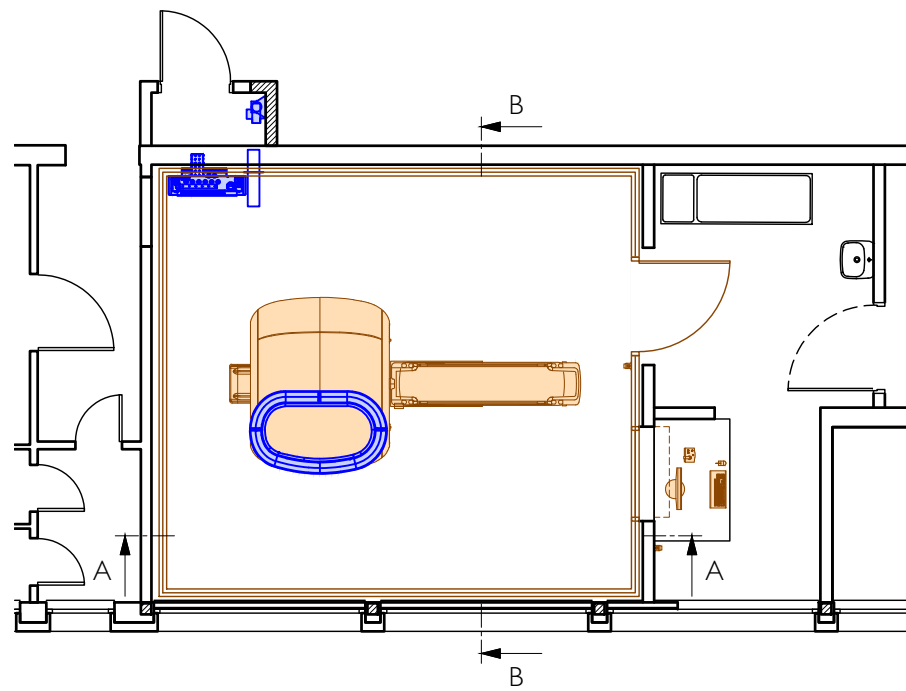
Dimensioning legend

- System position dimension (ISO-centre)
- Architectural dimension to be checked on site
- Dimension from origin

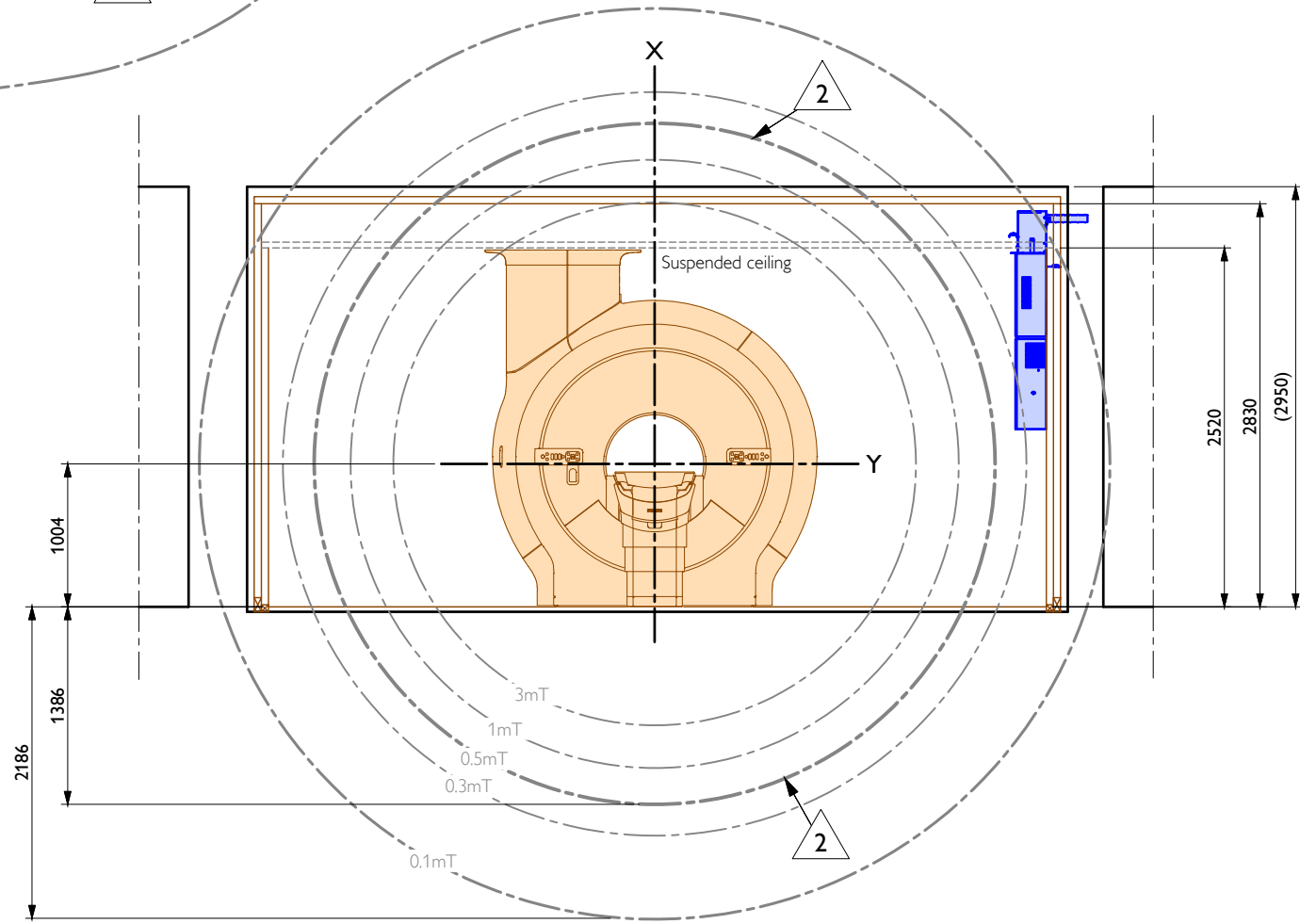
Project		MR5300 (GAC781, ACCC)		Polkowickie Centrum Usług Zdrowotnych		Polkowice, Poland		001	
Sheet Subject		Site layout		(technical area		on floor below)			
Drawing		PL-25-00043		A					
A3		1 : 50		mm					
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Schematic cross section A-A



Situation (scale 1:100)



Schematic cross section B-B

Project
MR5300 (GAC781, ACCC)
Polkownickie Centrum Usług Zdrowotnych
Polkowice, Poland
001

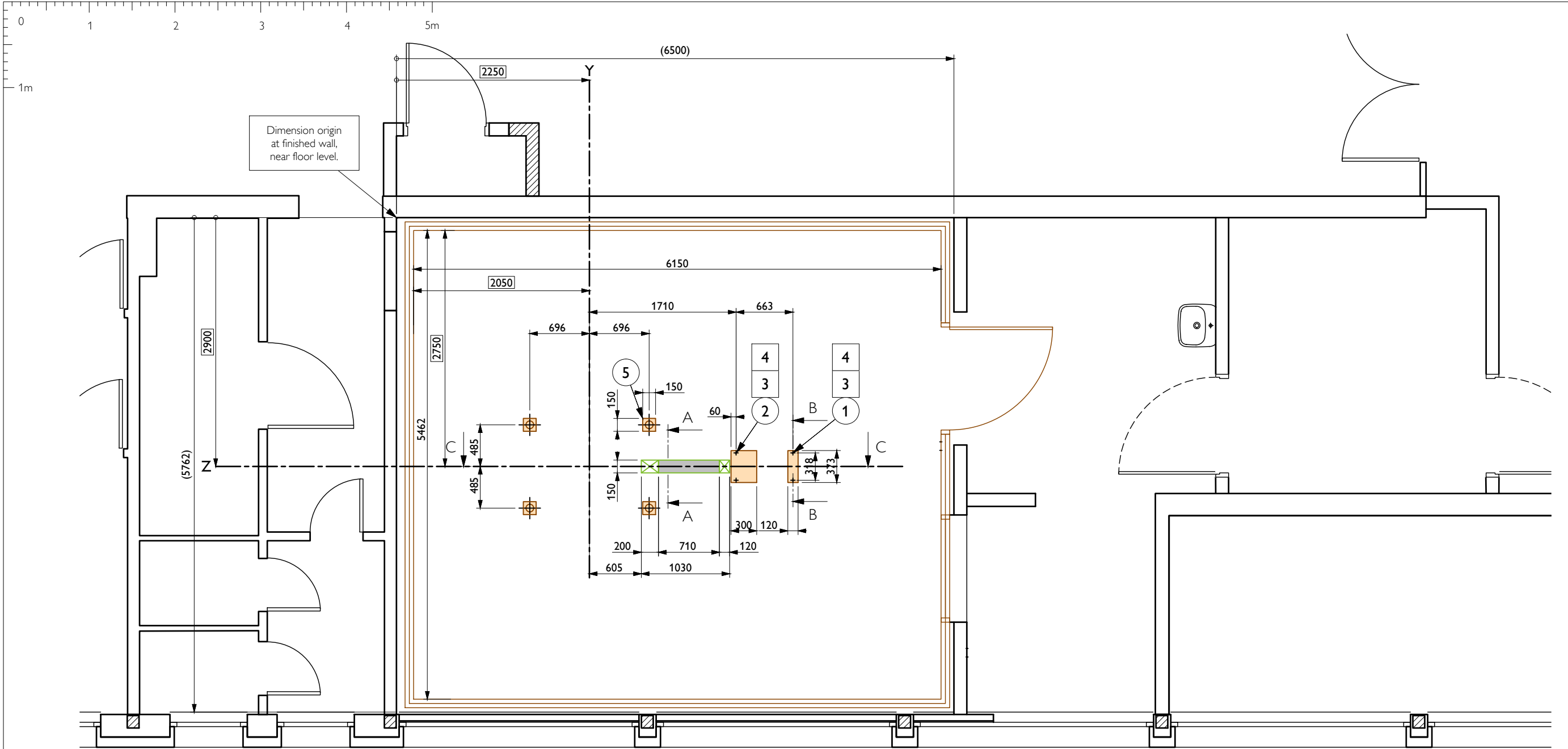
Sheet Subject
Schematic cross sections

Drawing
PL-25-00043
30-04-2025
MAM

Quote No
Order No
Technical ID

A3 1 : 50 mm

AD-1
Sheet 7 / 15



Dimensions shown in the drawing refer to the finished walls. MRI room dimensions must be verified after RF shielding installation.

Legend

- Walls
- New walls
- Existing doors/walls to be removed
- Beams or other building construction elements
- Columns (materials and strength unknown)
- Preferred service area

Dimensioning legend

- System position dimension (ISO-centre)
- Architectural dimension to be checked on site
- Dimension from origin

Item list:

Resp	No	Description	Qty	Detail	Text ref
B	①	Floor pad 1	1	XD-1	§ 2.3
B	②	Floor pad 2	1	XD-1	§ 2.3
B	③	Threaded mounting holes M10	4	XD-1	§ 2.3
B	④	Suitable anchoring system	4	XD-1	§ 2.3
B	⑤	Floor pad 3	4	XD-1	§ 2.3

Responsibilities

- A Delivered and installed by Philips
- B Delivered and installed by customer/contractor
- C (Pre) Delivered by Philips, installed by customer
- D (Pre) Delivered by customer and installed by Philips
- E Existing

Works symbology

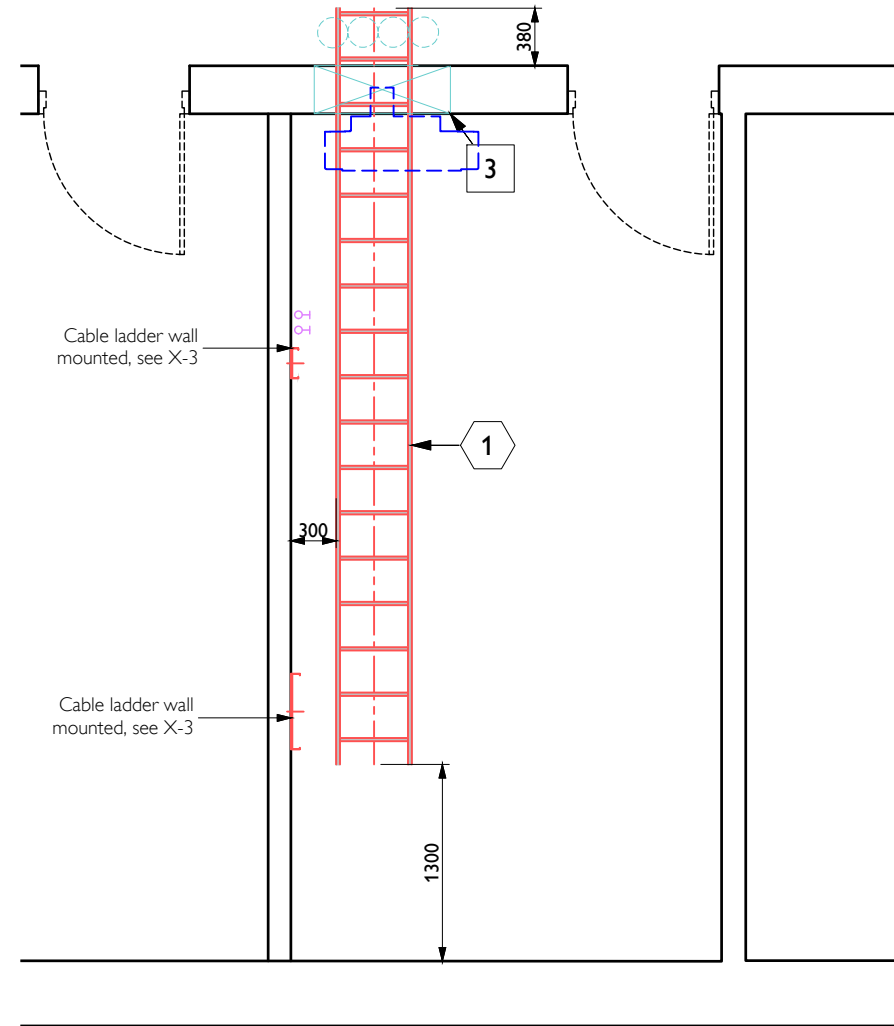
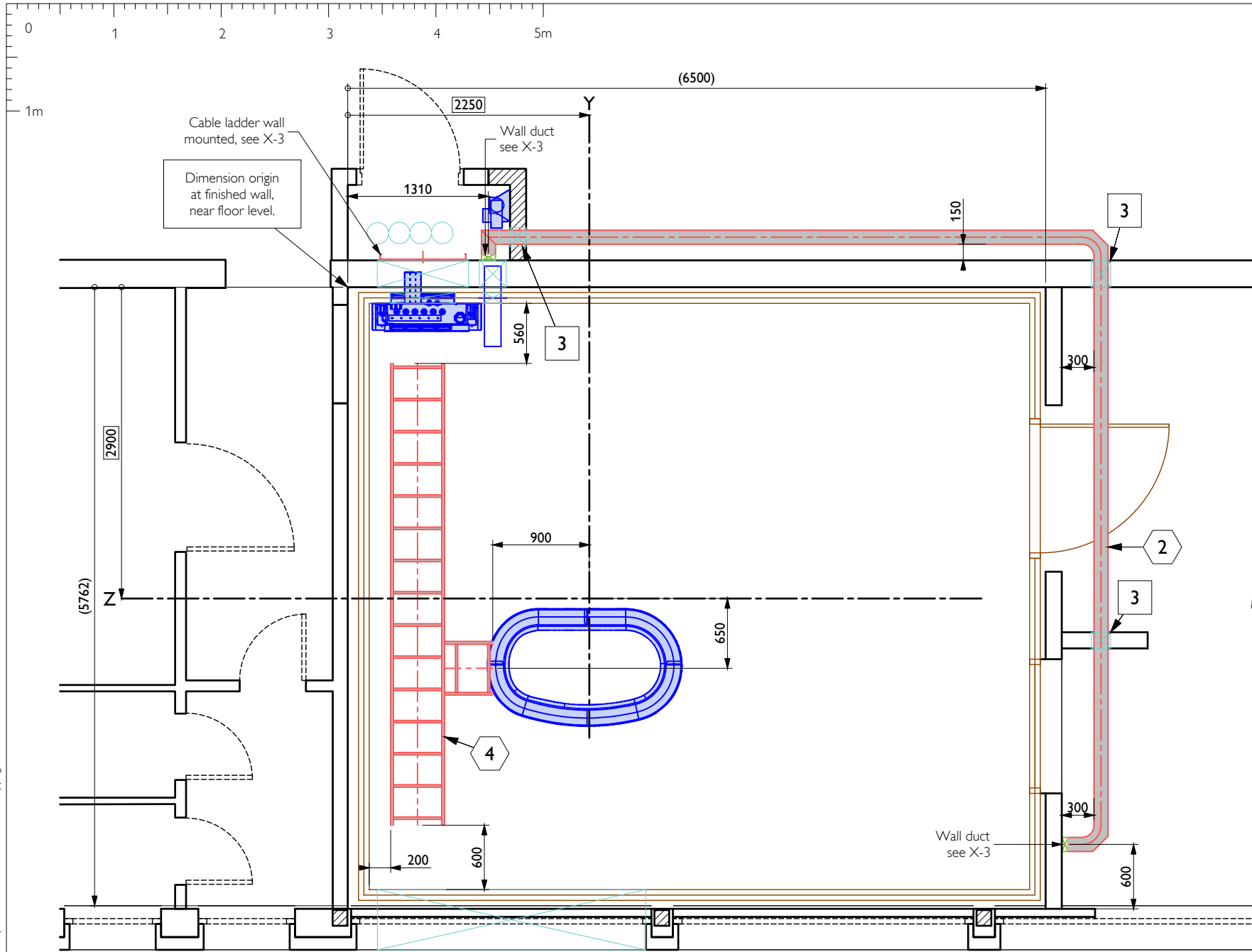
- Construction works
- Electrical works
- Mechanical works
- Equipment works

Project
MR5300 (GAC781, ACCC)
Polkowickie Centrum Usług Zdrowotnych
Polkowice, Poland
001

Sheet Subject
Floor provisions
(all disciplines)

Drawing
PL-25-00043
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MAM
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A3 1:50 mm
X-1
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Legend

	Walls
	New walls
	Existing doors/walls to be removed
	Beams or other building construction elements
	Columns (materials and strength unknown)
	Preferred service area

Dimensioning legend

	System position dimension (ISO-centre)
	Architectural dimension to be checked on site
	Dimension from origin

Dimensions shown in the drawing refer to the finished walls. MRI room dimensions must be verified after RF shielding installation.

Item list:

Resp	No	Description	Qty	Detail	Text ref
B	①	500 x 50 Cable ladder	-	-	§ 3.3
B	②	130 x 60 Cable duct above suspended ceiling	-	-	§ 3.3
B	③	Wall opening	4	-	-
B	④	500 x 100 Cable ladder	-	-	§ 3.3

Responsibilities

A	Delivered and installed by Philips
B	Delivered and installed by customer/contractor
C	(Pre) Delivered by Philips, installed by customer
D	(Pre) Delivered by customer and installed by Philips
E	Existing

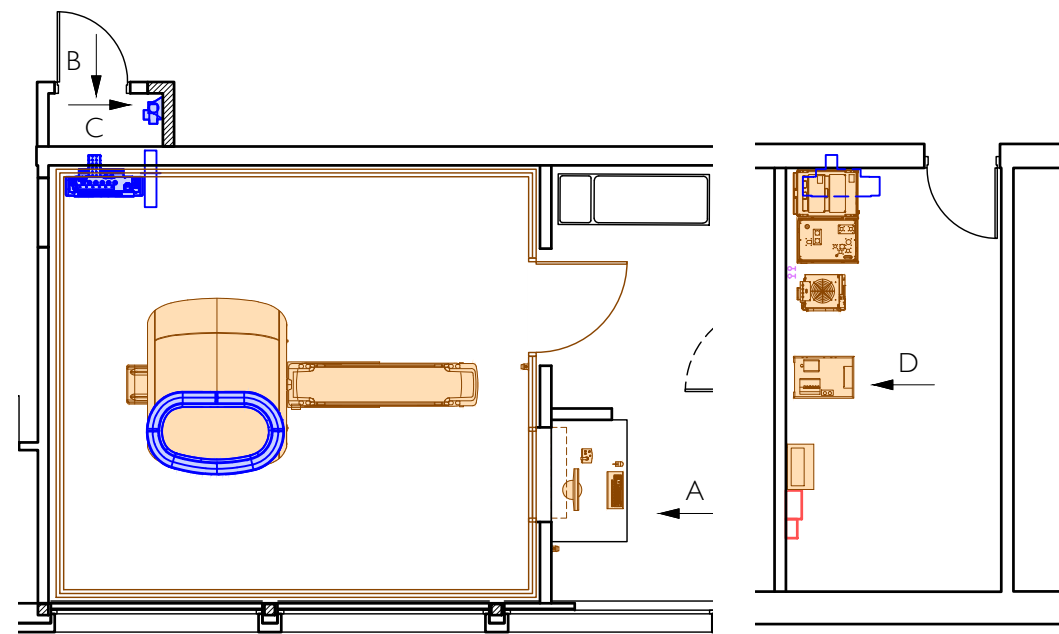
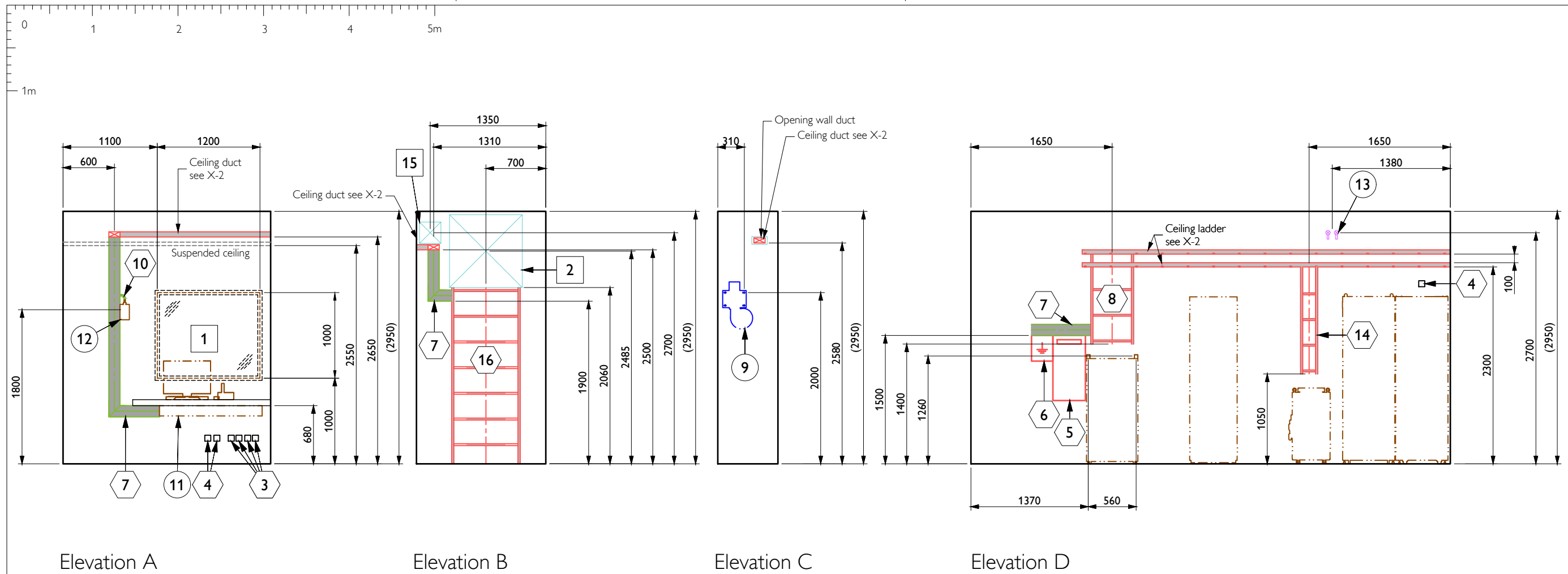
Works symbology

	Construction works
	Electrical works
	Mechanical works
	Equipment works

Project
MR5300 (GAC781, ACCC)
Polkowickie Centrum Usług Zdrowotnych
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Sheet Subject
Ceiling provisions
(all disciplines)

Drawing
PL-25-00043
30-04-2025
MAM
Quote No
Order No
Technical ID
A3
1 : 50 mm
X-2
Sheet
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The number of power and network outlets in control room presented on the elevation is a recommended number. The minimum number of power and network outlets for main workstation are 2PO, 1NO.

Item list:

Resp	No	Description	Qty	Detail	Text ref
B	1	RF window	1	-	§ 2.5
B	2	Opening system filter box (850 x 850)	1	XD-4	-
B	3	Additional power outlet (customer)	4	-	§ 3.2
B	4	Network connection 100Mb, RJ45	3	-	§ 3.4
B	5	Mains switch	1	-	§ 3.2
B	6	Earth reference terminal	1	-	§ 3.2
B	7	130 x 60 Wall duct	-	-	§ 3.3
B	8	500 x 50 Cable ladder	-	-	§ 3.3
A	9	System Air Cooling Unit (SACU)	1	XD-2	-
B	10	Ø 19mm Conduit flush mounted	-	-	§ 3.3
A	11	Cable storage rail	1	XD-5	-
A	12	Emergency run down button	1	-	§ 3.2
B	13	Chilled water connection	1	-	-
B	14	200 x 50 Cable ladder	-	-	§ 3.3
B	15	Opening SACU (250 x 250)	1	-	-
B	16	800 x 50 Cable ladder	-	-	§ 3.3

Responsibilities

- A Delivered and installed by Philips
- B Delivered and installed by customer/contractor
- C (Pre) Delivered by Philips, installed by customer
- D (Pre) Delivered by customer and installed by Philips
- E Existing

Works symbology

- Construction works
- Electrical works
- Mechanical works
- Equipment works

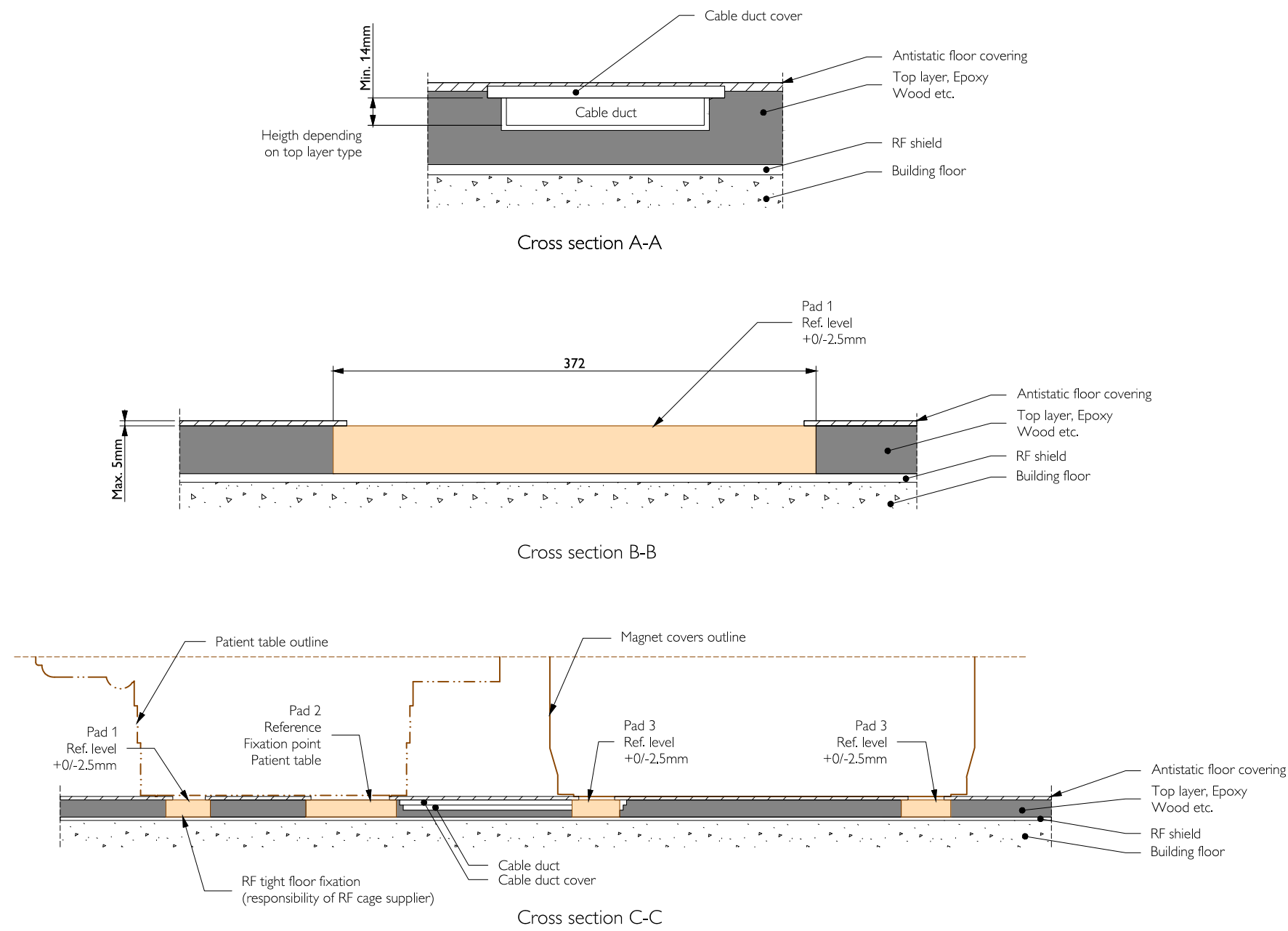
Project
MR5300 (GAC781, ACCC)
Polkowickie Centrum Usług Zdrowotnych
Polkowice, Poland

Sheet Subject
Wall provisions 1
(all disciplines)

Drawing
PL-25-00043
30-04-2025
MAM
Quote No
Order No
Technical ID

A3 1:50 mm

X-3
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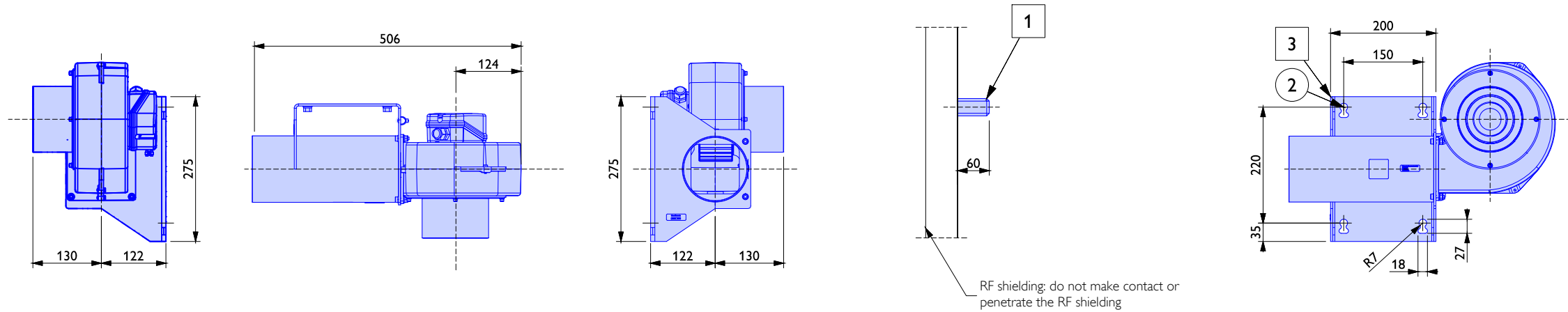
Detail - Scanner gantry/patient table pads (not to scale)

Project
MR5300 (GAC781, ACCC)
Polkowickie Centrum Usług Zdrowotnych
Polkowice, Poland
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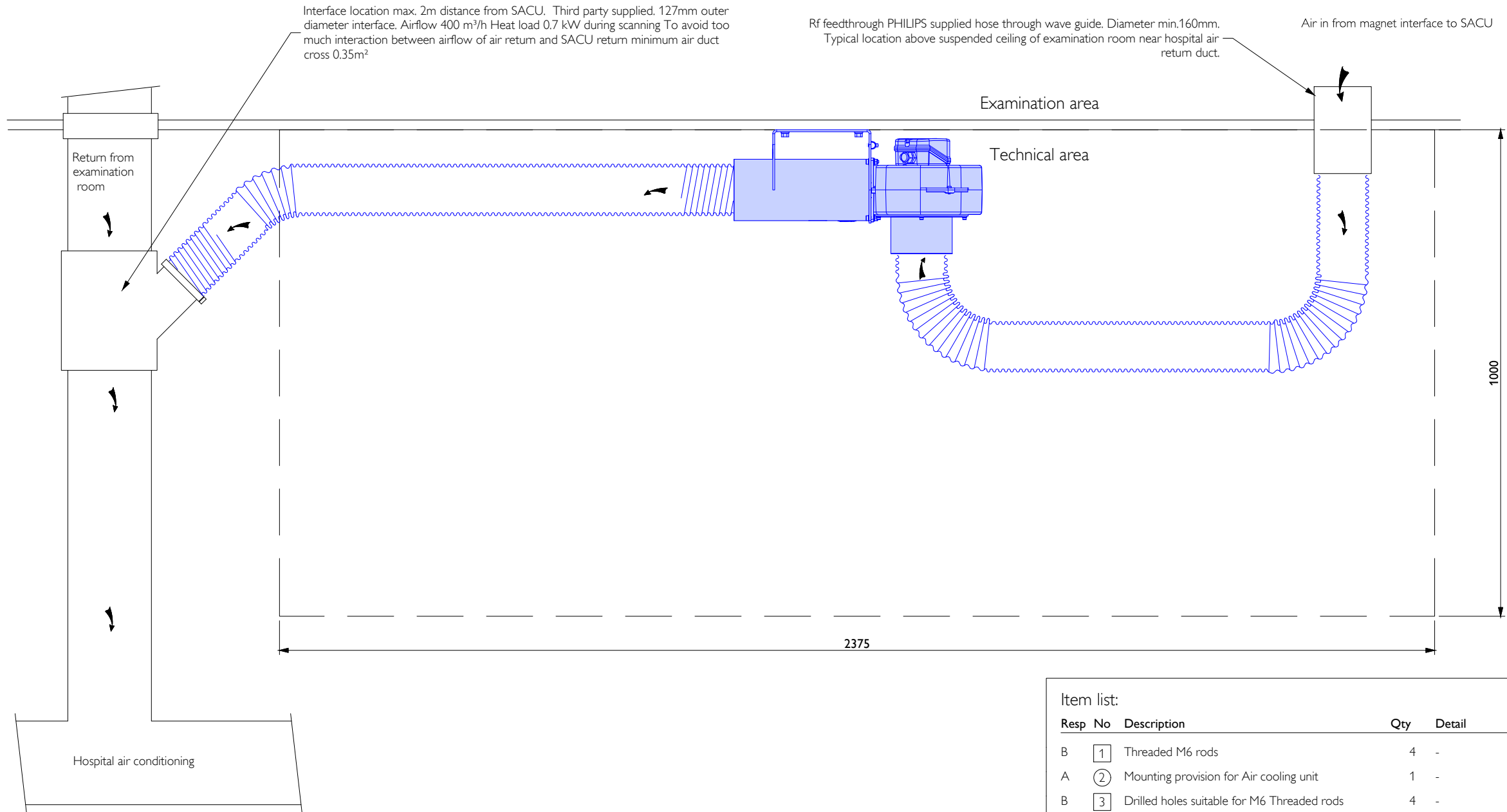
Sheet Subject
Details 1
(all disciplines)

Drawing
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30-04-2025
MAM
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Order No
Technical ID

A3 mm
XD-1
Sheet 11 / 15



Detail - System air cooling unit mounting (scale 1:10)



Detail - connection diagram SACU (scale 1:10)

Item list:

Resp	No	Description	Qty	Detail	Text ref
B	1	Threaded M6 rods	4	-	§ 2.5
A	2	Mounting provision for Air cooling unit	1	-	§ 2.5
B	3	Drilled holes suitable for M6 Threaded rods	4	-	§ 2.5

Responsibilities

- A Delivered and installed by Philips
B Delivered and installed by customer/contractor
C (Pre) Delivered by Philips, installed by customer
D (Pre) Delivered by customer and installed by Philips
E Existing

Works symbology

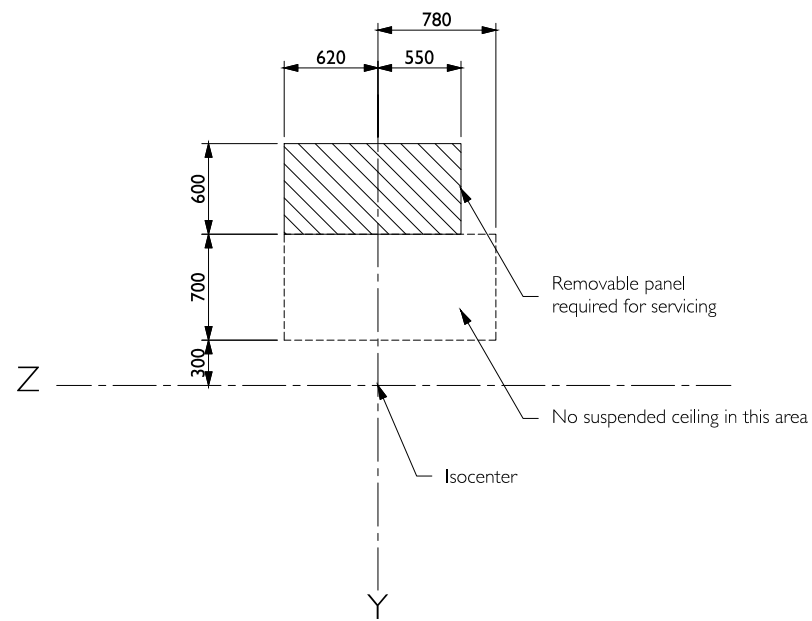
- Construction works
○ Electrical works
◇ Mechanical works
○ Equipment works

Project
MR5300 (GAC781, ACCC)
Polkowickie Centrum Usług Zdrowotnych
Polkowice, Poland
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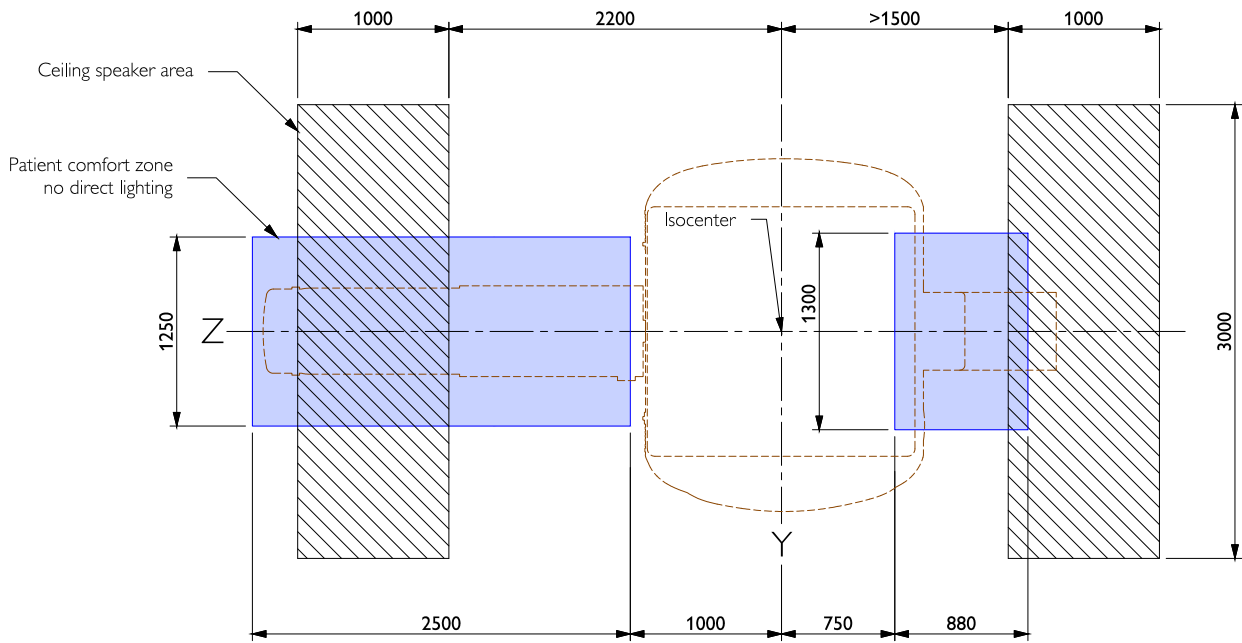
Sheet Subject
Details 2
(all disciplines)

Drawing
PL-25-00043
30-04-2025
MAM
Quote No
Order No
Technical ID

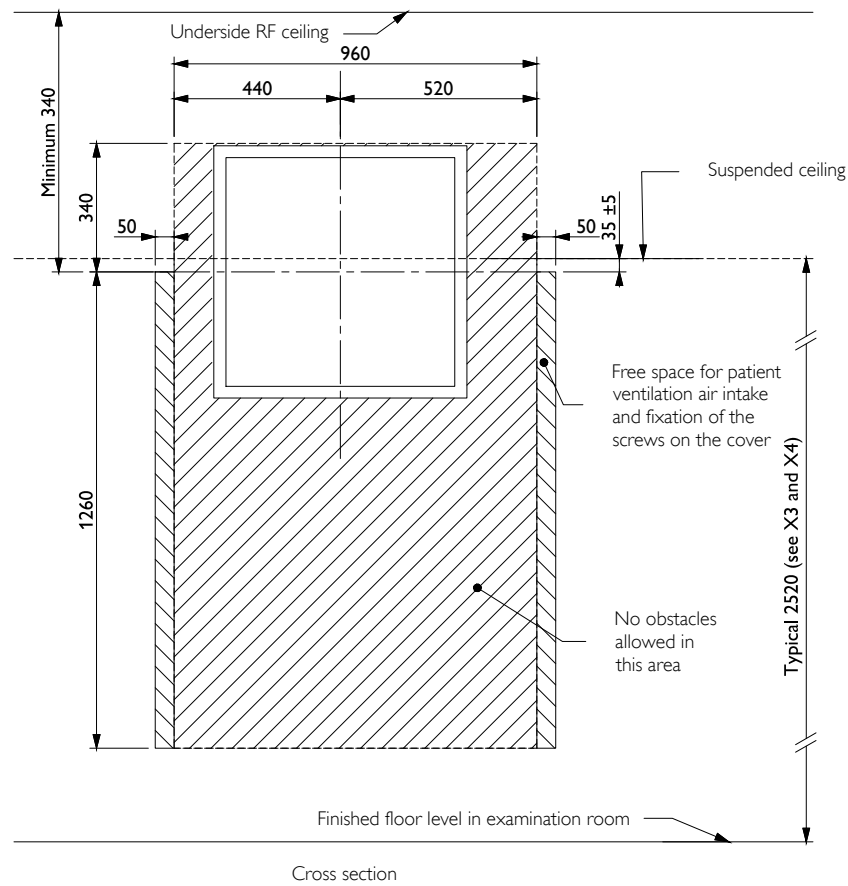
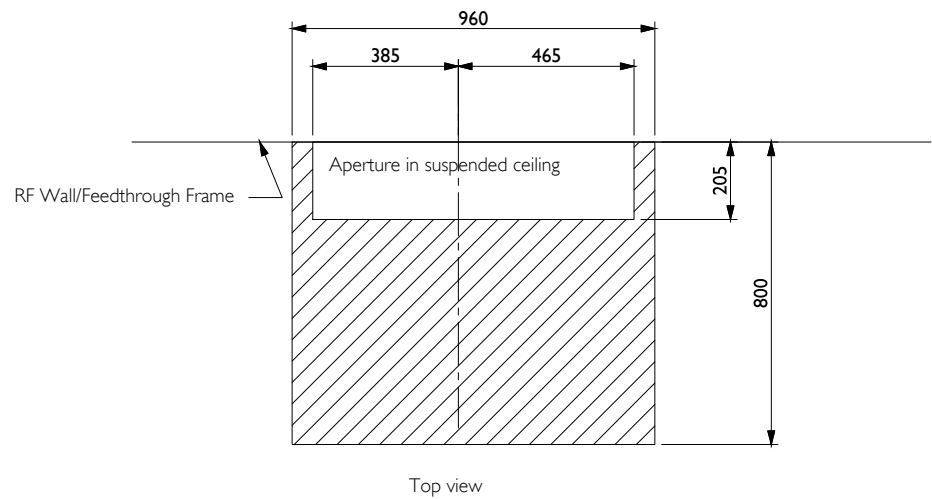
A3 mm
XD-2
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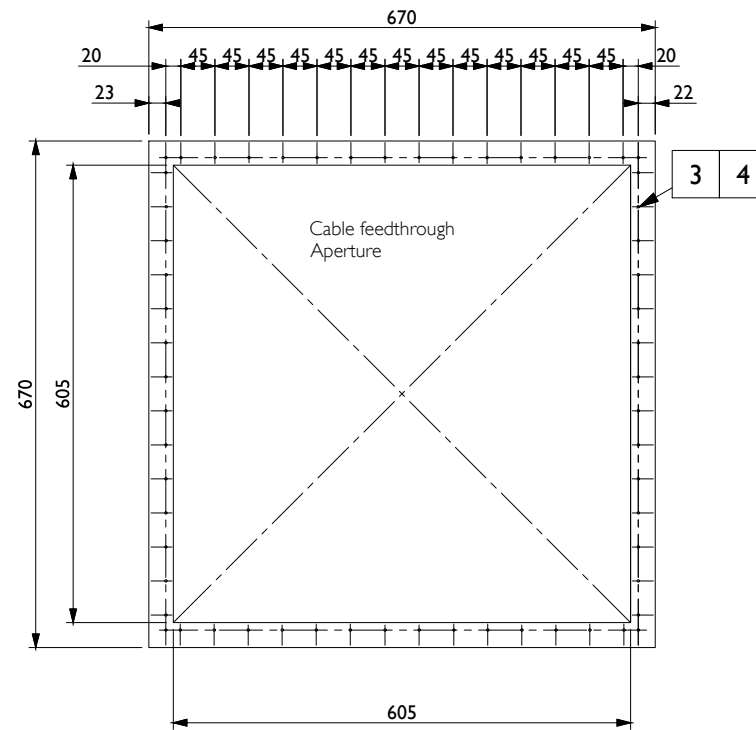
Detail - Suspended ceiling magnet service area
(scale 1:50)



Detail - Ceiling area for lighting and speakers (scale 1:50)



Detail - Service area for System Filter Box (scale 1:20)



Detail - Feedthrough System Filter Box (scale 1:10)

Item list:

Resp	No	Description	Qty	Detail	Text ref
B	1	Threaded holes	60	-	§ 2.5
B	2	Suitable fixing system M5	60	-	§ 2.5

Responsibilities

- A Delivered and installed by Philips
- B Delivered and installed by customer/contractor
- C (Pre) Delivered by Philips, installed by customer
- D (Pre) Delivered by customer and installed by Philips
- E Existing

Works symbology

- Construction works
- Electrical works
- Mechanical works
- Equipment works

Project
MR5300 (GAC781, ACCC)
Polkowickie Centrum Usług Zdrowotnych
Polkowice, Poland
001

Sheet Subject
Details 4
(all disciplines)

A

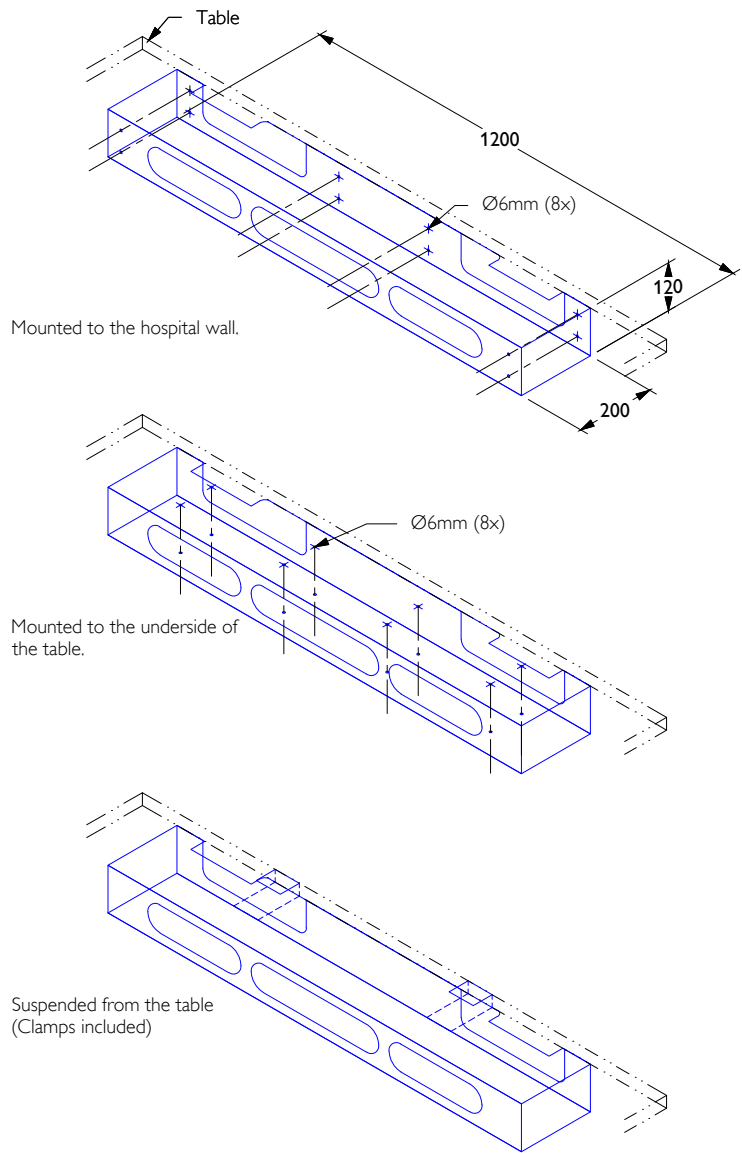
Drawing
PL-25-00043
30-04-2025
MAM

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A3 mm

XD-4

Sheet 14 / 15



Detail - Mounting instruction Storage tray
(Not to Scale)

Project
MR5300 (GAC781, ACCC)
Polkowickie Centrum Usług Zdrowotnych
Polkowice, Poland
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Sheet Subject
Details 5
(all disciplines)

Drawing
PL-25-00043
30-04-2025
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A

A3
Sheet
XD-5
mm
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