



SITE NAME
CITY
COUNTRY

REV	DATE	MODIFICATIONS
01 - Cover Sheet		
02 - Equipment Layout		
03 - Floor - Electrical Layout		
04 - Floor Structural Details		
05 - Power Requirements		
06 - HVAC - Environment - Connectivity		
07 - Equipment Dimensions - Clearance		
08 - Interconnections - Delivery		
09 - Disclaimer - Site Readiness		



GE Healthcare

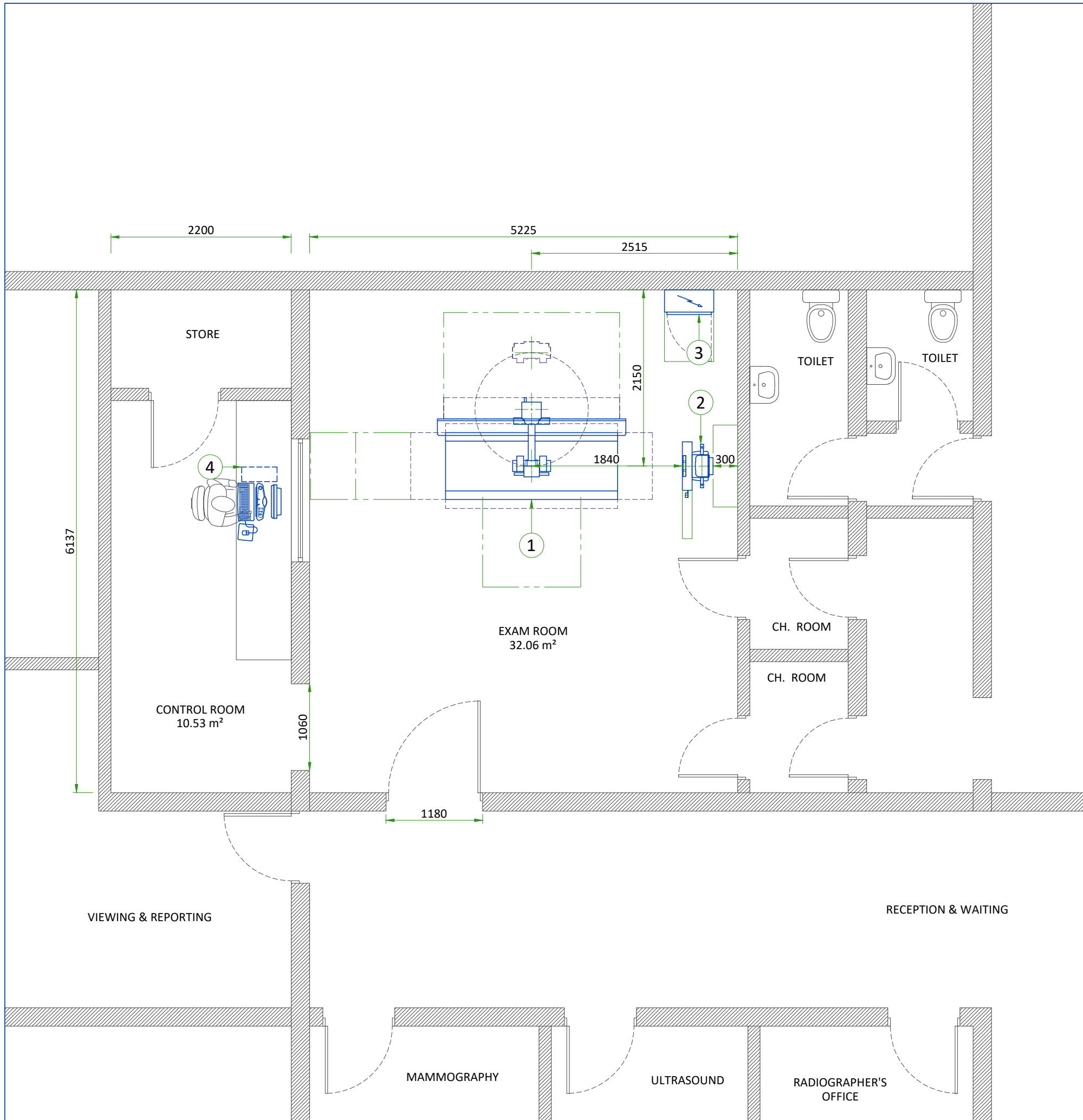
GE CONTACT NAME
PHONE NUMBER
EMAIL ADDRESS

**BRIVO DRF
TYPICAL STUDY**

A mandatory component of this drawing set is the GE Healthcare Pre Installation manual. Failure to reference the Pre Installation manual will result in incomplete documentation required for site design and preparation.
Pre Installation documents for GE Healthcare products can be accessed on the web at: www.gehealthcare.com/siteplanning

GE does not take responsibility for any damages resulting from changes on drawings made by others. Errors may occur by not referring to the complete set of final issue drawing. GE cannot accept responsibility for any damage due to the partial use of GE final issue drawings, however caused. All dimensions are in millimeters unless otherwise specified. Do not scale from printed pdf files. GE accepts no responsibility or liability for defective work due to scaling from these drawings.

Drawn by	Verified by	Concession	S.O. (GON)	PIM Manual	Rev
-	-	-	-	5265603-1EN	11
Format	Scale	File Name		Date	Sheet
A3	1:50	EN-RAD-TYP-BRIVO_DRF.DWG		07/MAR/2024	01/09



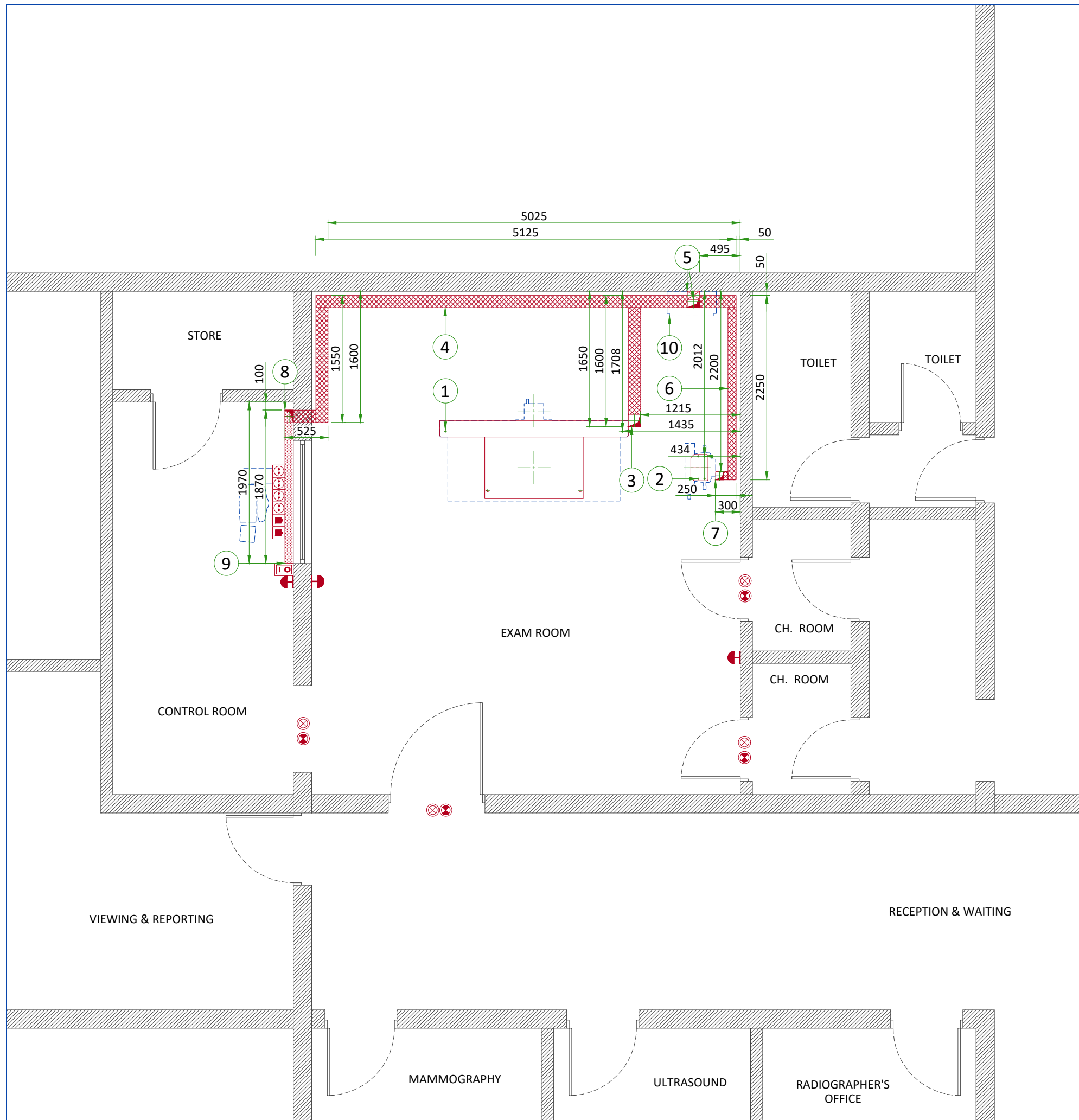
EQUIPMENT LAYOUT

ITEM	DESCRIPTION	DIMENSIONS LxWxH (mm)	WEIGHT (kg)
1	PATIENT TABLE	2300x1335x2240	632
2	WALL STAND	651x285x2060	185
3	POWER DISTRIBUTION BOX (PDB)	800x600x300	42
4	OPERATOR CONSOLE	-	24.2

WALL - ACCORDING TO RECEIVED DRAWING

EXAM ROOM HEIGHT	
FINISHED FLOOR TO SLAB HEIGHT	-
FALSE CEILING HEIGHT	min. 2.40 m

FLOOR - ELECTRICAL LAYOUT



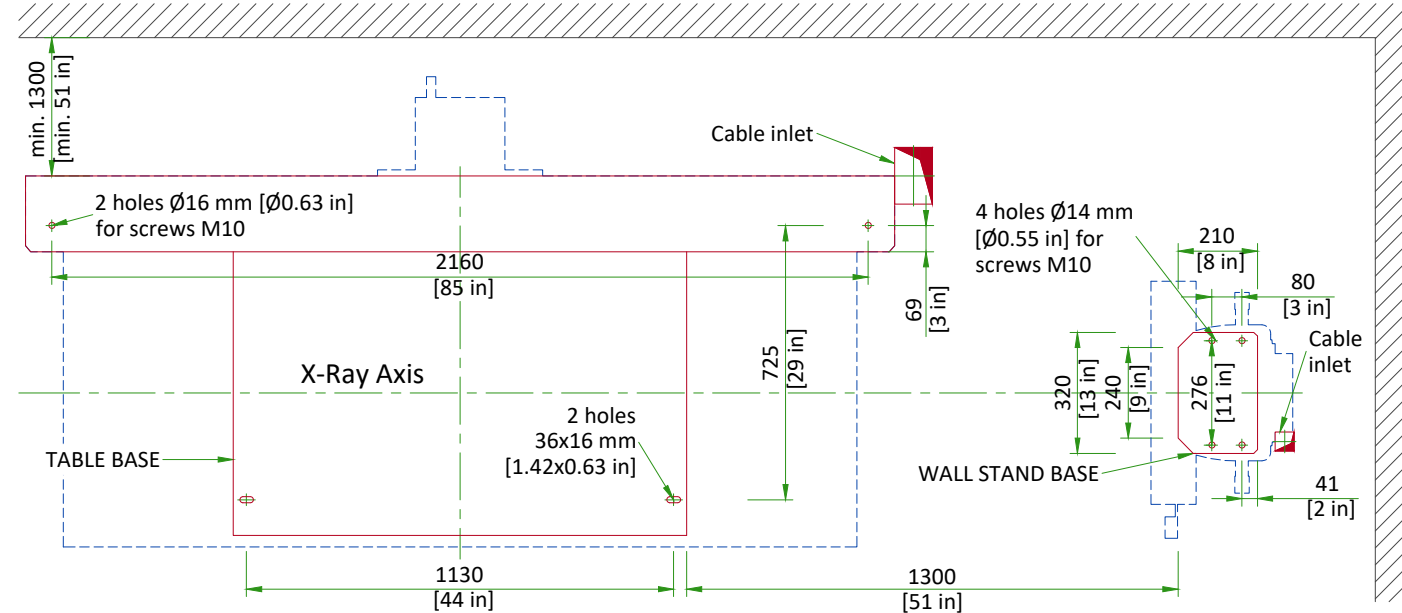
ITEM	QTY	DESCRIPTION
1		Table anchoring (see Floor Structural Details)
2		Wall Stand anchoring (see Floor Structural Details)
3		150x150 opening in the floor
4		150x70 flush floor duct
5		150x150 opening in the floor and 150X100 vertical cable duct for PDB (h= 1.1m)
6		100x70 flush floor duct
7		100x100 opening in the floor
8		150x100 opening in the floor
9		200x100 horizontal wall duct
10		Power distribution box (PDB)

Basic system		
	4	Electrical outlet 10/16A 230V + G
	2	RJ 45 network socket
	1	System remote control (Y), locked when power OFF "ON" and "OFF" impulse buttons with indicator lamps red=ON / green=OFF located at 1.50m above floor
	3	System emergency off (SEO), (recommended height 1.50m-1.85m above floor)
	4	System ON light (L) - 24V
	4	X-Ray ON lamp (L1) - 24V

	Flush floor duct
	Wall duct

FLOOR MOUNTING

WALLSTAND AT FOOT END WITH 180° TUBE ROTATION

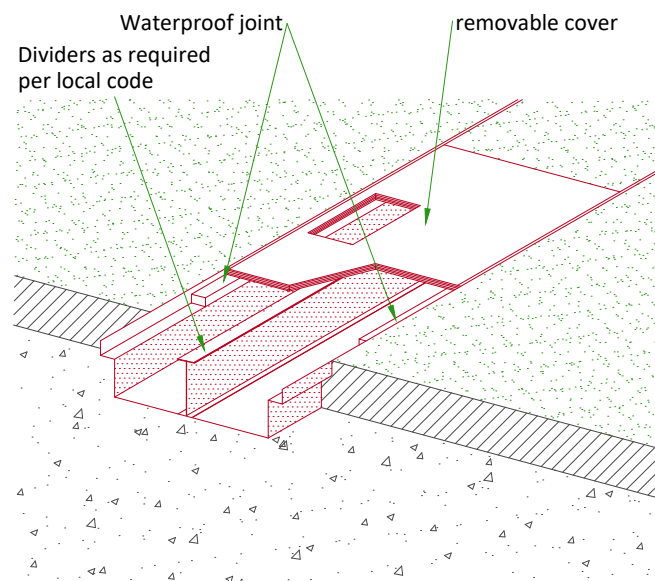


- The supplied anchors require a minimum embedment of 55 mm [2.2 in] into the concrete. If the floor thickness is less than 75 mm [3 in], it is recommended that the unit be secured using a through-bolt method with a reinforcement plate on the back side.
- The ground surface must be flat and leveled.
- Anchors supplied by GE.

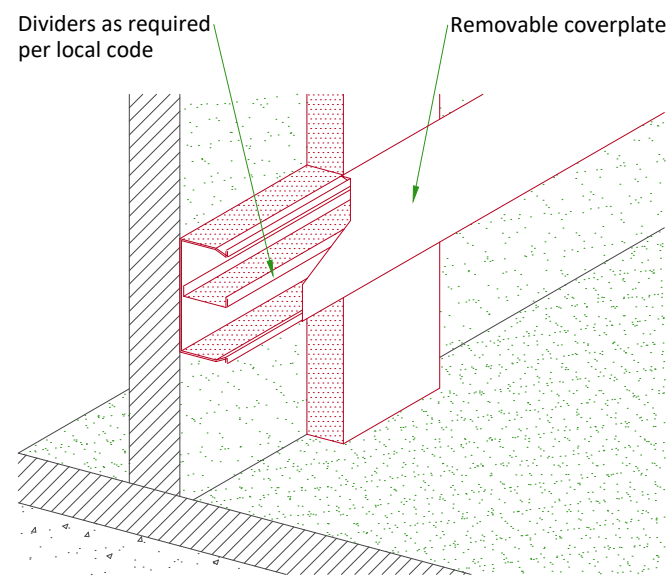
SCALE 1:20

TYPICAL CABLE MANAGEMENT

FLUSH FLOOR DUCT



WALL DUCT



NOT TO SCALE

POWER REQUIREMENTS

POWER SUPPLY	3 PHASES+G 380/400/440/480V ±10%
FREQUENCIES	50/60Hz ± 0.5Hz
MAXIMUM INPUT POWER (0.1 sec max)	70 kVA
MAXIMUM LINE RESISTANCE PER 2 PHASES WIRES (Ohm)	380V : 0.15 Ohm / 400V : 0.16 Ohm 440V : 0.20 Ohm / 480V : 0.24 Ohm

- TNC neutral point connection must not be used.
- Line supply should come into a power distribution box (PDB) containing the protective units and controls.
- The section of the supply cable should be calculated in accordance with its length and the maximum permissible voltage drops.
- There must be discrimination between supply cable protective device at the beginning of the installation (main low-voltage transformer side) and the protective devices in the PDB.

SUPPLY CHARACTERISTICS

- Power input must be separated from any others which may generate transients (elevators, air conditioning, radiology rooms equipped with high speed film changers...)
- All equipment (lighting, power outlets, etc...) installed with GE system components must be powered separately.

GROUND SYSTEM

- Equipotential: the equipotential link will be by means of an equipotential bar. This equipotential bar should be connected to the protective earth conductors in the ducts of the non GE cableways and to additional equipotential connections linking up all the conducting units in the rooms where GE units are located.

CABLES

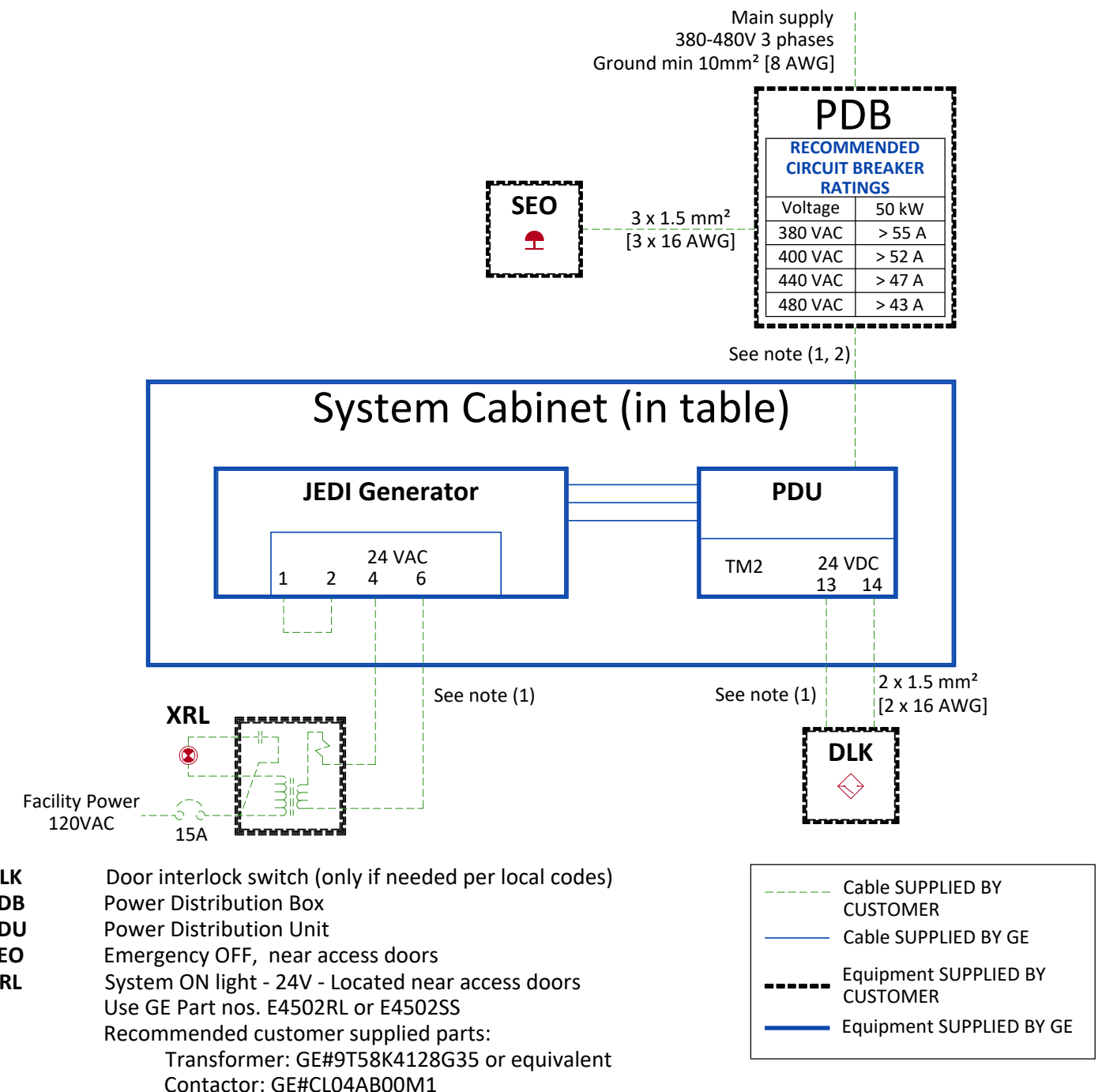
- Power and cable installation must comply with the distribution diagram below.
- All cables must be isolated and flexible, cable color codes must comply with standards for electrical installation.
- Case PDB furnished by GE: The cables for signals and remote control (Y, SEO, L...) will go to PDB with a pigtail length of 1.5 m, and will be connected during installation. Each conductor will be identified and isolated (screw connector).

CABLEWAYS

The general rules for laying cableways should meet the conditions laid down in current standards and regulations, with regard to:

- Protecting cables against water (cableways should be waterproof)
- Protecting cables against abnormal temperatures (proximity to heating pipes or ducts)
- Protecting cables against temperature shocks
- Replacing cables (cableways should be large enough for cables to be replaced)
- Metal cableways should be grounded.

POWER DISTRIBUTION



Notes

- Use only a multi conductor, shielded, PVC/PVC, UL TYPE CM cable. Alpha Wire. CQA10210637. This can be ordered from GE (PN 2319786 (60m [196.9 ft] roll of AWG 16 2 conductor braid-shielded wire). This type of cable must be used to hook up XRL, SEO, and DLK to the system cabinet. Cable shields must be grounded at both ends.
- CHINA ONLY: available via from GE via part number S39222KP.

INCOMING FACILITY POWER FEEDER TABLE

MIN. FEEDER WIRE SIZE, AWG OR MCM (sq. mm)/VAC	MINIMUM FEEDER WIRE LENGTH - ft (m)			
	50 (15)	100 (30)	150 (46)	200 (60)
380-480 VAC	8 (10)	6 (16)	4 (22)	3 (30)

GENERAL NOTES

In all cases qualified personnel must verify that the feeder (at the point of take-off) and the run to the GE system meet all the requirements stated in the PIM. If the wire size does not match the above lists, please select the nearest wire size as per to local standards.
Grounding conductor will be of the same size as the feeder. This ground will run from the equipment back to the power source/main grounding point and always travel in the same conduit with the feeders

TEMPERATURE AND HUMIDITY SPECIFICATIONS

IN-USE CONDITIONS

	EXAM ROOM		CONTROL ROOM	
	Min	Max	Min	Max
Temperature	10 °C [50 °F]	30 °C [86 °F]	10 °C [50 °F]	30 °C [86 °F]
Temperature gradient	< 10°C/h [< 50°F/h]		< 10°C/h [< 50°F/h]	
Relative humidity (1)	30% to 80%		30% to 80%	
Humidity gradient	< 30%/h		< 30%/h	
System heat dissipation	Stand by	Max	Stand by	Max
	1.5 kW 5118 BTU/hr	3.1 kW 10577 BTU/hr	0.125 kW 426 BTU/hr	0.275 kW 939 BTU/hr

STORAGE CONDITIONS

Temperature	0 °C [32 °F] to 50 °C [122 °F]
Relative humidity (1)	10% to 90%
Temperature gradient	< 20°C/h [< 68°F/h]
Humidity gradient	< 30%/h

Material should not be stored for more than 90 days.

(1) non-condensing

AIR RENEWAL

According to local standards.

NOTE

In case of using air conditioning systems that have a risk of water leakage it is recommended not to install it above electric equipment or to take measures to protect the equipment from dropping water.

CONNECTIVITY REQUIREMENTS

Your new GE Healthcare imaging modality will require local and remote connectivity to enable our full range of digital support:

- Local connectivity - This allows your system to connect to local devices such as PACS and modality worklist. We will require network information to configure the system(s), and a live ethernet port(s) prior to the delivery of the system(s).
- Remote connectivity - Your GE Healthcare service warranty includes InSite™ (applicable to InSite capable products), a powerful broadband-based service which enables digital tools that can help guard your hospital against equipment downtime and revenue loss by quickly connecting you to a GE Healthcare expert.

Depending on product family and software version, imaging systems can be connected in one of the following methods:

1. TLS over TCP Port 443 (Preferred method for new products) via:
 - a. DNS resolution
 - b. Customer-provided Proxy or
 - c. GE Proxy (Available in some regions)
2. Site-to-Site IPsec VPN tunnel

Please provide the GE project manager with the contact information for the resource that can provide information required to set up these connections. GEHC will send out communication to these contacts, which will include the project's Connectivity requirements, and a Connectivity form. This form will need to be completed and returned to GEHC prior to delivery of the system to ensure the system is tested and connectivity is enabled prior to the completion of the installation.

ENVIRONMENTAL SPECIFICATIONS

MAGNETIC INTERFERENCE

To guarantee specified imaging performance:

X-ray tubes and control console equipment must be located in ambient static field of less than 10 Gauss.

ACOUSTIC OUTPUT

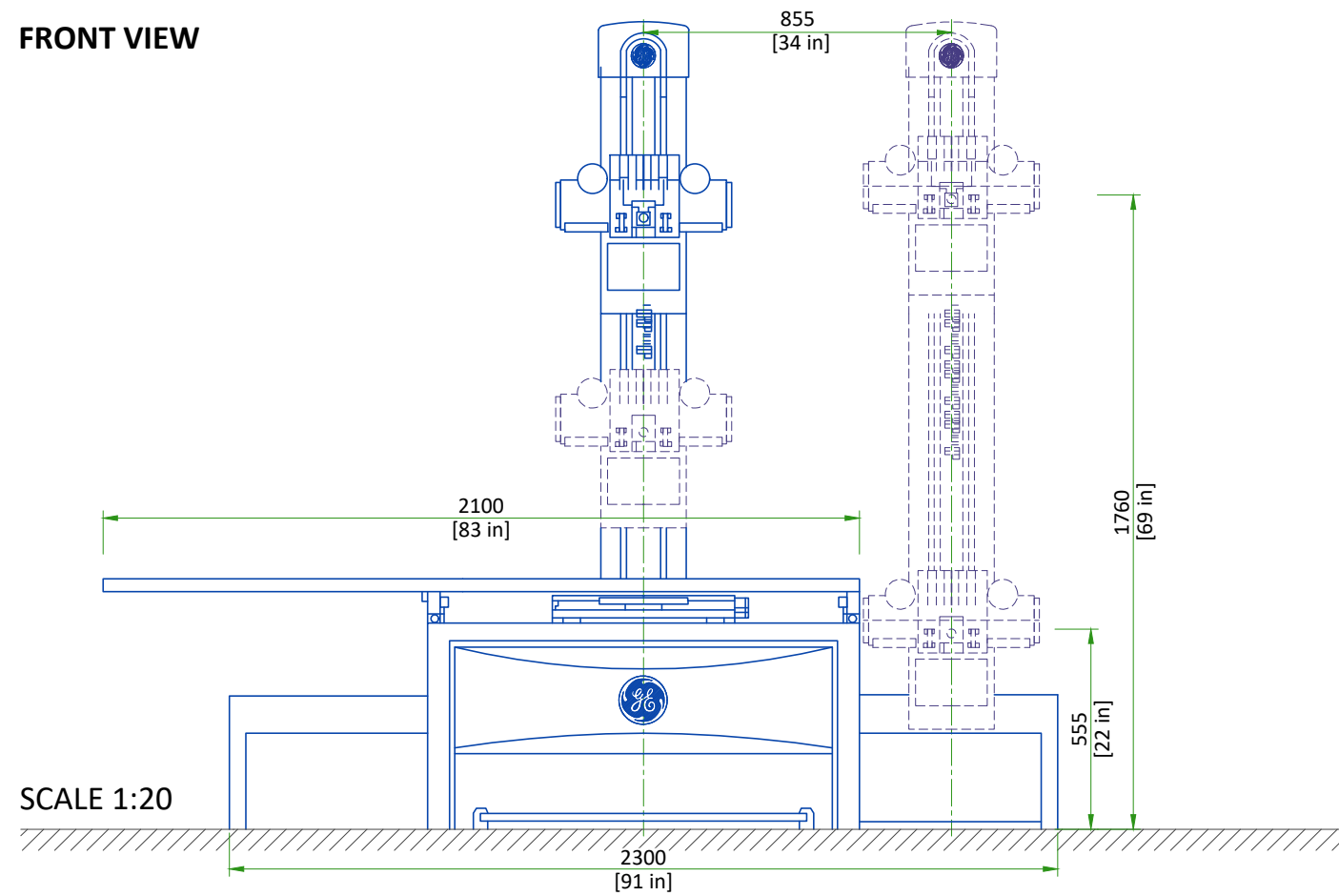
Measured 1 m [3.28 ft] from any point in system.

In-use: less than 60 dBA

Stand-by: less than 55 dBA

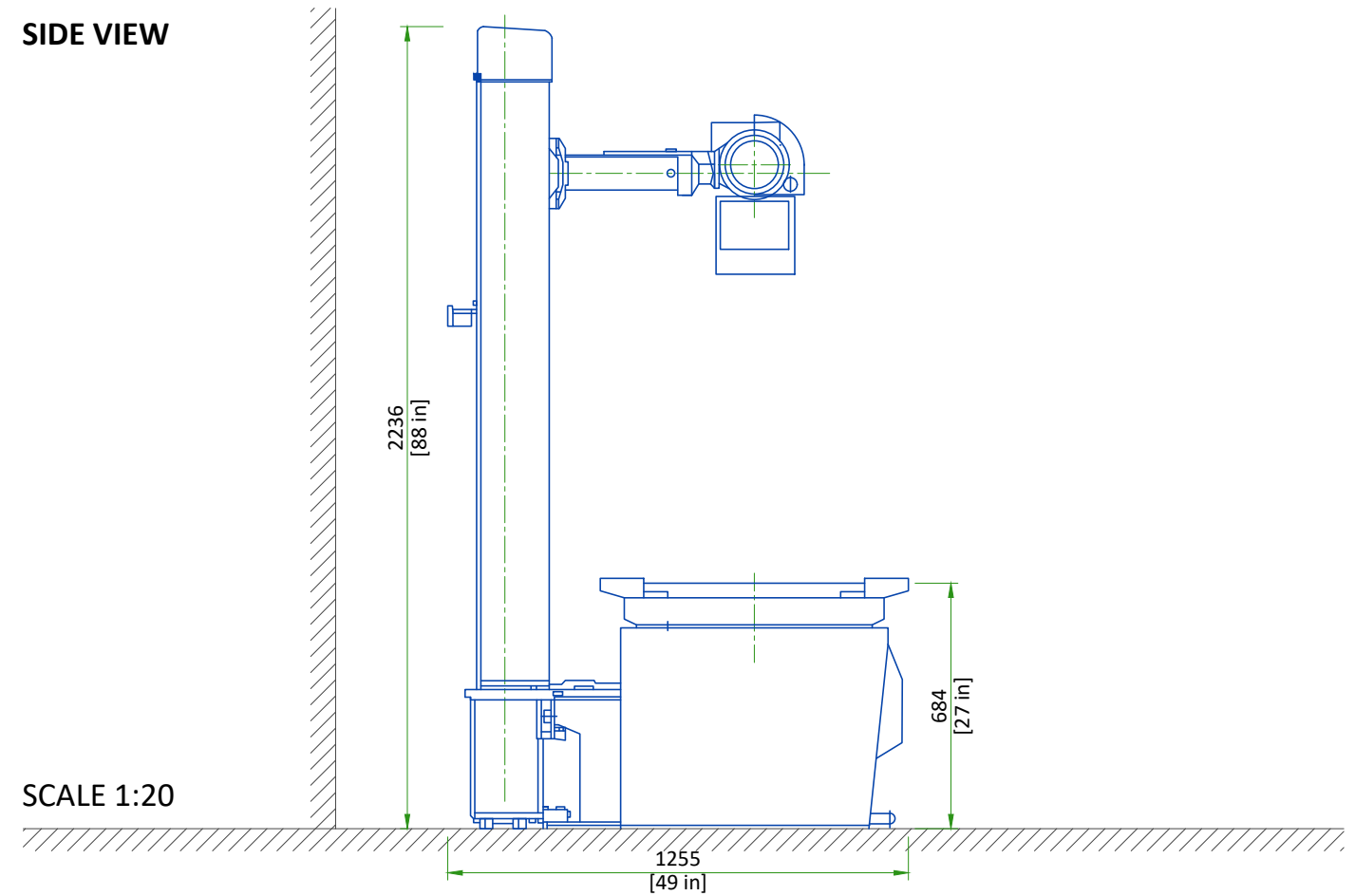
INTEGRATED TABLE

FRONT VIEW



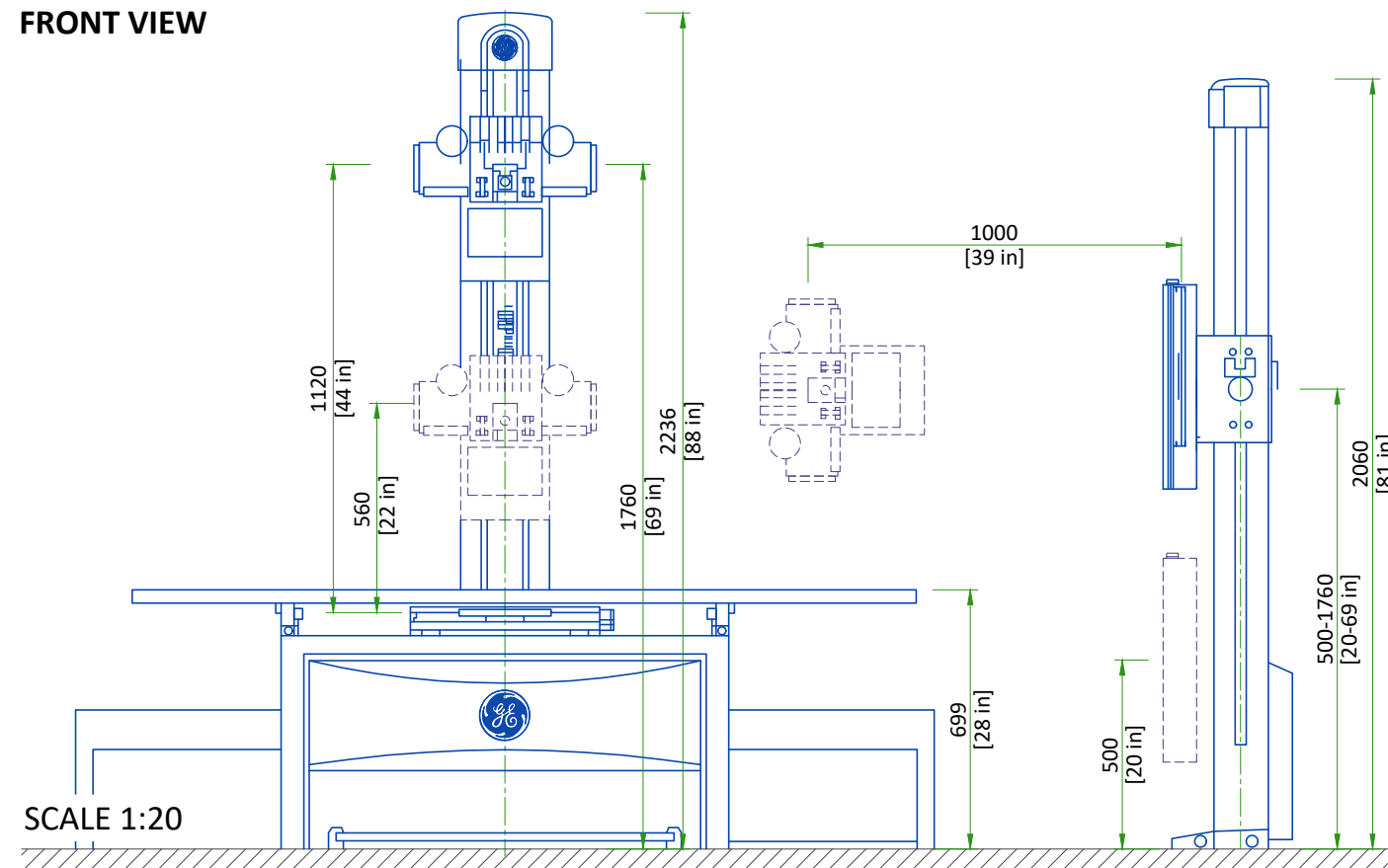
INTEGRATED TABLE

SIDE VIEW

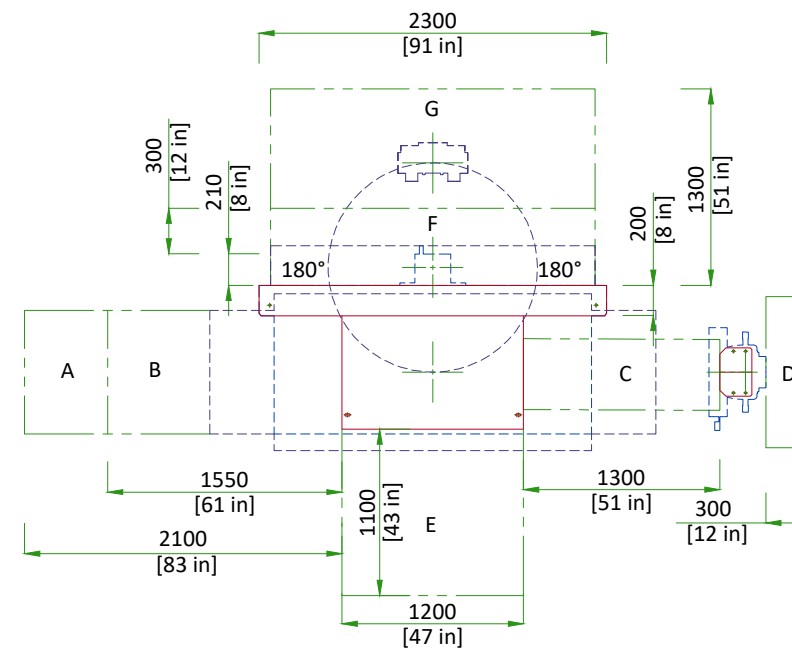


INTEGRATED TABLE WITH WALL STAND

FRONT VIEW



EXAM ROOM CLEARANCE AREAS

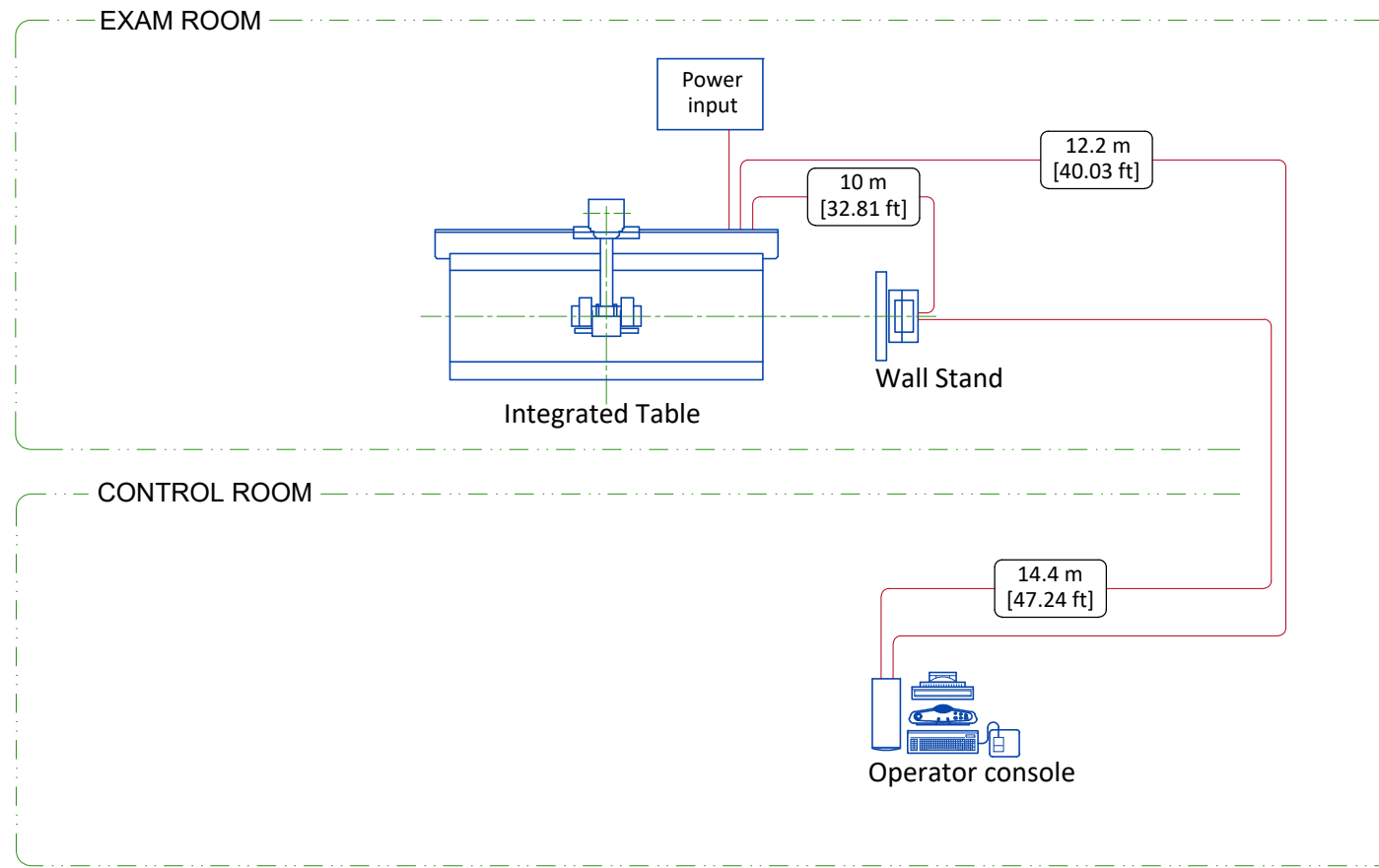


- A: SERVICE AREA:
The least area to allow you to pull the table top out
- B: SERVICE AREA:
The least area to allow you to draw the table top out to open a service area for detector housing
- C: AREA to ensure the SID 1 m [3.28 ft]
- D: SERVICE AREA
- E: SERVICE AREA:
Used to allow the PDU pull out
- F: SERVICE AREA
- G: OPERATION AREA:
Used when tube rotates 180 degree

Note: if the WS is on the left side, areas A and B will be on the right side

SCALE 1:50

INTERCONNECTIONS



DELIVERY

THE CUSTOMER/CONTRACTOR SHOULD:

- Provide an area adjacent to the installation site for delivery and unloading of the GE equipment.
- Ensure that the dimensions of all doors, corridors, ceiling heights are sufficient to accommodate the movement of GE equipment from the delivery area into the definitive installation room.
- Ensure that access routes for equipment will accommodate the weights of the equipment and any transportation, lifting and rigging equipment.
- Ensure that all necessary arrangements for stopping and unloading on public or private property not belonging to the customer have been made.

DIMENSIONS

	TABLE	COLUMN	WALL STAND	CONSOLE	DETECTOR
LENGTH (mm)	2500	2300	2250	750	1020
WIDTH (mm)	1280	200	860	1000	800
HEIGHT (mm)	1200	370	610	1150	440
WEIGHT (kg)	650	215	250	70	40
LENGTH (in)	98.4	90.6	88.6	29.5	40.2
WIDTH (in)	50.4	7.9	33.9	39.4	31.5
HEIGHT (in)	47.2	14.6	24.0	45.3	17.3
WEIGHT (lb)	1433	474	551	154	88

DISCLAIMER

GENERAL SPECIFICATIONS

- GE is not responsible for the installation of developers and associated equipment, lighting, cassette trays and protective screens or derivatives not mentioned in the order.
- The final study contains recommendations for the location of GE equipment and associated devices, electrical wiring and room arrangements. When preparing the study, every effort has been made to consider every aspect of the actual equipment expected to be installed.
- The layout of the equipment offered by GE, the dimensions given for the premises, the details provided for the pre-installation work and electrical power supply are given according to the information noted during on-site study and the wishes expressed by the customer.
- The room dimensions used to create the equipment layout may originate from a previous layout and may not be accurate as they may not have been verified on site. GE cannot take any responsibility for errors due to lack of information.
- Dimensions apply to finished surfaces of the room.
- Actual configuration may differ from options presented in some typical views or tables.
- If this set of final drawings has been approved by the customer, any subsequent modification of the site must be subject to further investigation by GE about the feasibility of installing the equipment. Any reservations must be noted.
- The equipment layout indicates the placement and interconnection of the indicated equipment components. There may be local requirements that could impact the placement of these components. It remains the customer's responsibility to ensure that the site and final equipment placement complies with all applicable local requirements.
- All work required to install GE equipment must be carried out in compliance with the building regulations and the safety standards of legal force in the country concerned.
- These drawings are not to be used for actual construction purposes. The company cannot take responsibility for any damage resulting therefrom.

CUSTOMER RESPONSIBILITIES

- It is the responsibility of the customer to prepare the site in accordance with the specifications stated in the final study. A detailed site readiness checklist is provided by GE. It is the responsibility of the customer to ensure all requirements are fulfilled and that the site conforms to all specifications defined in the checklist and final study. The GE Project Manager of Installation (PMI) will work in cooperation with the customer to follow up and ensure that actions in the checklist are complete, and if necessary, will aid in the rescheduling of the delivery and installation date.
- Prior to installation, a structural engineer of record must ensure that the floor and ceiling is designed in such a way that the loads of the installed system can be securely borne and transferred. The layout of additional structural elements, dimensioning and the selection of appropriate installation methods are the sole responsibility of the structural engineer. Execution of load bearing structures supporting equipment on the ceiling, floor or walls are the customer's responsibility.

RADIO-PROTECTION

- Suitable radiological protection must be determined by a qualified radiological physicist in conformation with local regulations. GE does not take responsibility for the specification or provision of radio-protection.

THE UNDERSIGNED, HEREBY CERTIFIES THAT I HAVE READ AND APPROVED THE PLANS IN THIS DOCUMENT.		
DATE	NAME	SIGNATURE

CUSTOMER SITE READINESS REQUIREMENTS

REQUIRED MANUALS FOR SYSTEM PRE-INSTALLATION

Description	Document Number*
Product specific Pre-installation Manual	Refer to cover page
*documents can be accessed in multiple languages at https://www.gehealthcare.com/support/manuals	

- A mandatory component of this drawing set is the GE HealthCare Pre-installation manual. Failure to reference the Pre-installation manual will result in incomplete documentation required for site design and preparation.
- The items on the GE HealthCare Site Readiness Checklists listed below are REQUIRED to facilitate equipment delivery to the site. Equipment will not be delivered if these requirements are not satisfied.

REQUIRED SITE-READINESS CHECKLISTS FOR SYSTEM PRE-INSTALLATION

Modality	Document Number*
Computerized Tomography	DOC2949059
Radiology, Radiology and Fluoroscopy, Mammography, Bone Mass Densitometry	DOC2949063
All modality Customer/Contractor Worksheet	DOC2949068
*documents can be accessed in multiple languages at https://www.gehealthcare.com/support/manuals	

- Any deviation from these drawings must be communicated in writing to and reviewed by your local GE HealthCare installation project manager prior to making changes.
- Make arrangements for any rigging, special handling, or facility modifications that must be made to deliver the equipment to the installation site. If desired, your local GE HealthCare installation project manager can supply a reference list of rigging contractors.
- New construction requires the following;
 1. Secure area for equipment,
 2. Power for drills and other test equipment,
 3. Restrooms.
- Provide for refuse removal and disposal (e.g. crates, cartons, packing)
- For CT systems it is required to minimize vibrations within the scan room. It is the customer's responsibility to contract a vibration consultant/engineer to implement site design modifications to meet the GE vibration specification. Refer to the system Pre-installation manual for vibration specifications.