

REV	DATE		MODIFICATIONS			Typic 	al		
02 - 03 - 04 - 05 -	A1 - General No A2 - Equipment A3 - Radiation P	- Site Readiness Checklist Ites Layout Protection Protection Details	10 - S1 - Structural Notes 11 - S2 - Structural Layout 12 - S3 - Structural Details 13 - M1 - HVAC 14 - E1 - Electrical Notes 15 - E2 - Electrical Layout	GE GE	HealthCa				
08 - /	AG - Equipment AG - Equipment A7 - Delivery		<ul> <li>16 - E3 - Electrical Elevations</li> <li>17 - E4 - Power Requirements</li> <li>18 - E5 - Electrical Details - Interconnect</li> </ul>		F	FINAL S			
A man	idatory component of tl		stallation manual. Failure to reference the Pre Installation manual will result in	- Drawn by	Verified by	Concession	GON/Quote	PIM Manual	Rev
	Pre Installation docume		uired for site design and preparation. cessed on the web at: https://www.gehealthcare.com/support/manuals	RET	RET	-	-	5866663-1EN	13
the com	plete set of final issue	drawings. GE HealthCare cannot accept r	om changes on drawings made by others. Errors may occur by not referring to esponsibility for any damage due to the partial use of GE HealthCare final issue	Format Scale		File Name		Date	Sheet
drawing	s, however caused. All	dimensions are in millimeters unless othe responsibility or liability for defective	erwise specified. Do not scale from printed pdf files. GE HealthCare accepts no e work due to scaling from these drawings.	A3 1/4"=1'-0"	EN-CT-TYP-RE	/OLUTION-EVO-G	T1700-NF.DWG	09/Jan/2025	01/16

## DISCLAIMER

# **CUSTOMER SITE READINESS REQUIREMENTS**

### **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 structrual 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 C	CERTIFIES THAT I HAVE READ AND APPROVED TI	HE PLANS IN THIS DOCUMENT.
DATE	NAME	SIGNATURE

### **REQUIRED MANUALS FOR SYSTEM PRE-INSTALLATION**

### Description

Product specific Pre-installation Manual
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\*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 CHECKLIS	STS FOR SYSTEM PRE-INSTALLATION
Modality	Document Number*
Computerized Tomography	DOC2949059
Radiology, Radiology and Fluouroscopy, Mammography, Bone Mass Densitometry	DOC2949063
All modality Customer/Contractor Worksheet	DOC2949068
*documents can be accessed in multiple languages a	t 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;
  - Secure area for equipment, 1.
  - 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.

**Document Number\*** 

Refer to cover page

# **ENVIRONMENT**

## ALTITUDE

• The system shall meet all functional and performance specifications when placed in a room that is at an elevation of -150 m to 3000 m [-492 ft to 9842.5 ft] above sea level.

### MAGNETIC FIELD SPECIFICATIONS

• Limit the magnetic interference to guarantee specified imaging performance.

### GANTRY:

- Ambient static magnetic fields less than 1 Gauss.
- Ambient AC magnetic fields less than 0.01 Gauss peak.

### **OPERATOR CONSOLE:**

- Ambient static magnetic fields less than 10 Gauss.
- Use static dissipative vinyl.

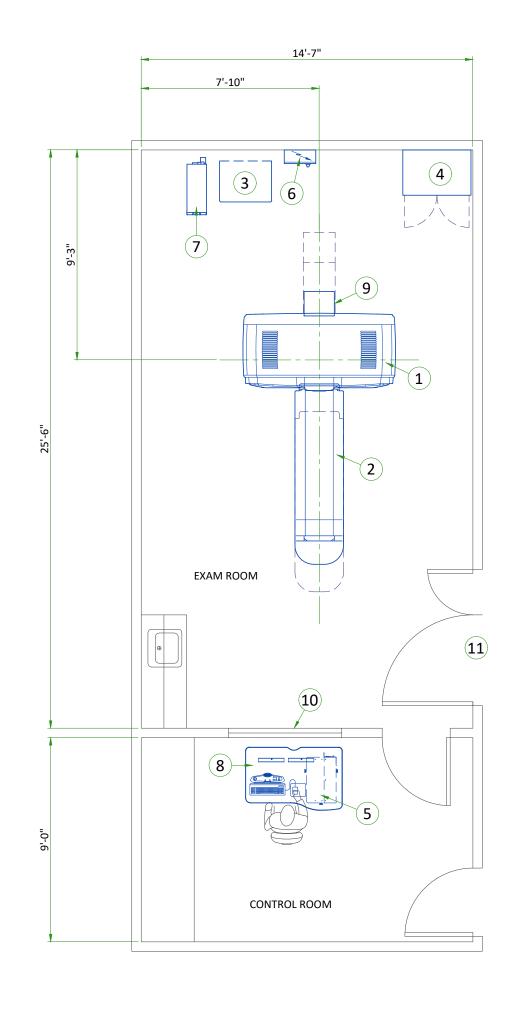
### MAXIMUM GANTRY AUDIBLE NOISE LEVEL

- The maximum ambient noise level is produced by the gantry during a CT scan acquisition.
- It is less than 70 dBA when measured at a distance of one meter from the nearest gantry surface, in any direction.

### MAXIMUM CONSOLE AUDIBLE NOISE LEVEL

• The maximum ambient noise level is less than or equal to 56 dBA when measured 1m [3.3 ft] up and 1m [3.3 ft] away from the console at an ambient temperature of 26 °C [47 °F].

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		LEGENI	C				
Α	GE SU	JPPLIED	D	AVA	ILABLE FROM	/I GE	
В	GE SU	JPPLIED/CONTRACTOR INSTALLED	E	EQU	IPMENT EXIS	TING IN RO	OM
с	CUST INSTA	OMER/CONTRACTOR SUPPLIED AND	*		1 TO BE REIN OTHER SITE	STALLED FR	OM
BY	ITEM	DESCRIPTION	M/ HE OUT (BTL	AT PUT	WEIGHT (lbs)	MAX HEAT OUTPUT (W)	WEIGHT (kg)
Α	1	GANTRY	186	598	4013	5480	1820
Α	2	GT1700V TABLE	10	24	981	300	445
Α	3	POWER DISTRIBUTION UNIT (PDU)	34	12	816	1000	370
Α	4	STORAGE CABINET	-		90	-	41
Α	5	OPEN CONSOLE	32	07	142	940	64.2
В	6	MAIN DISCONNECT PANEL (MDP)	-		46	-	21
Α	7	PARTIAL UPS	28	32	265	830	120
Α	8	AURORA SWS TABLE	-		88	-	40
Α	9	REAR CABLE COVER	-		-	-	-
С	10	LEAD GLASS WINDOW					
с	11	MINIMUM OPENING FOR EQUIPMENT D CONTINGENT ON A 2438 mm [96 in] COF				83 mm [42 i	in x 82 in],
	_	EXAM ROOM H	EIGHT				

FINISHED FLOOR TO SLAB HEIGH FALSE CEILING HEIGHT

EXAM ROOM HEIGHT	
HT	TBD
	min. 7'-6"

# **RADIATION PROTECTION LAYOUT**

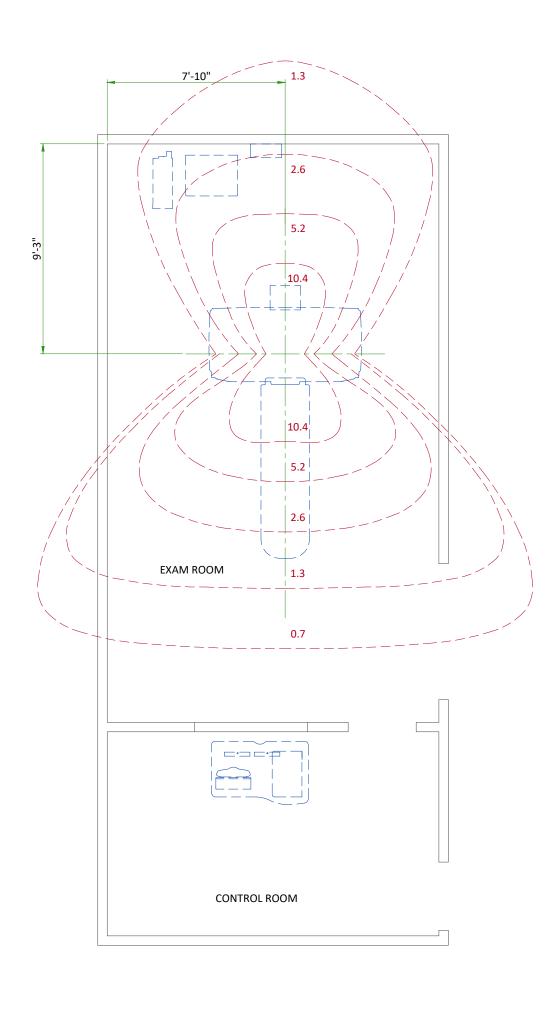
SHIELDING REQ	UIREMENTS SCALING
CHANGED PARAMETER (mAs)	MULTIPLICATION FACTOR (new mAs/100)
80 kV	0.24
100 kV	0.45
120 kV	0.71
140 kV	1.00
1 mm aperture	0.20
3 mm aperture	0.22
5 mm aperture	0.27
10 mm aperture	0.38
15 mm aperture	0.48
20 mm aperture	0.59
30 mm aperture	0.79
40 mm aperture	1.00

## SHIELDING REQUIREMENTS:

- Equipment placement. • •
- ٠
- Activities in surrounding scan room areas. •
- •
- •

technique used at the site.

equals ±40%.



**REVOLUTION EVO** 

Engage a qualified radiological health physicist to review your scan room shielding requirements, taking into consideration:

Scatter radiation levels within the scanning room

Weekly projected work-loads (number of patients/day technique (kvp\*ma))

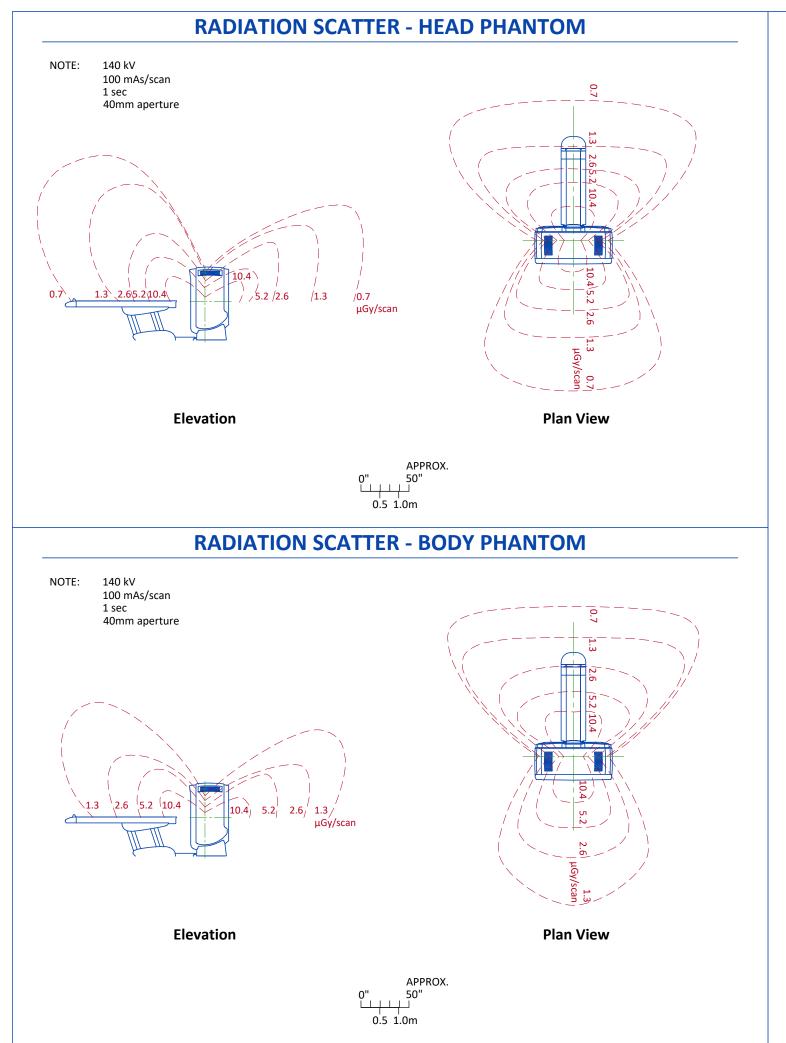
Materials used for construction of walls, floors, ceiling, doors, and windows.

Equipment in surrounding scan room areas (e.g., film developer, film storage)

Room size and equipment placement within the room relative to room size.

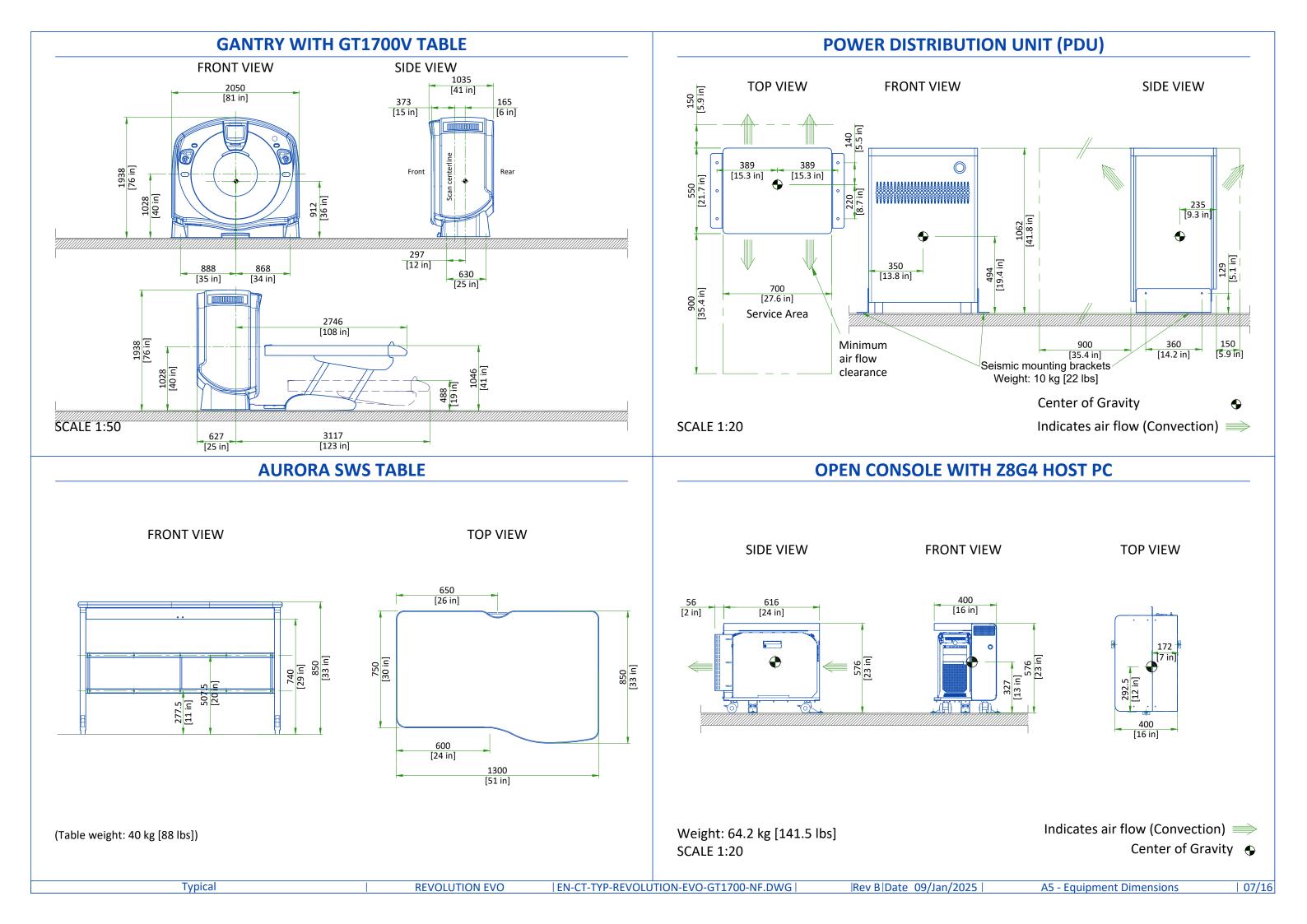
The Illustrations on this page depict measured radiation levels within the scanning room, while scanning a 32 cm or 16 cm CTDI phantom with the technique shown. Use the mAs, kV and aperture scaling factors in the table shown here to adjust exposure levels to the scan

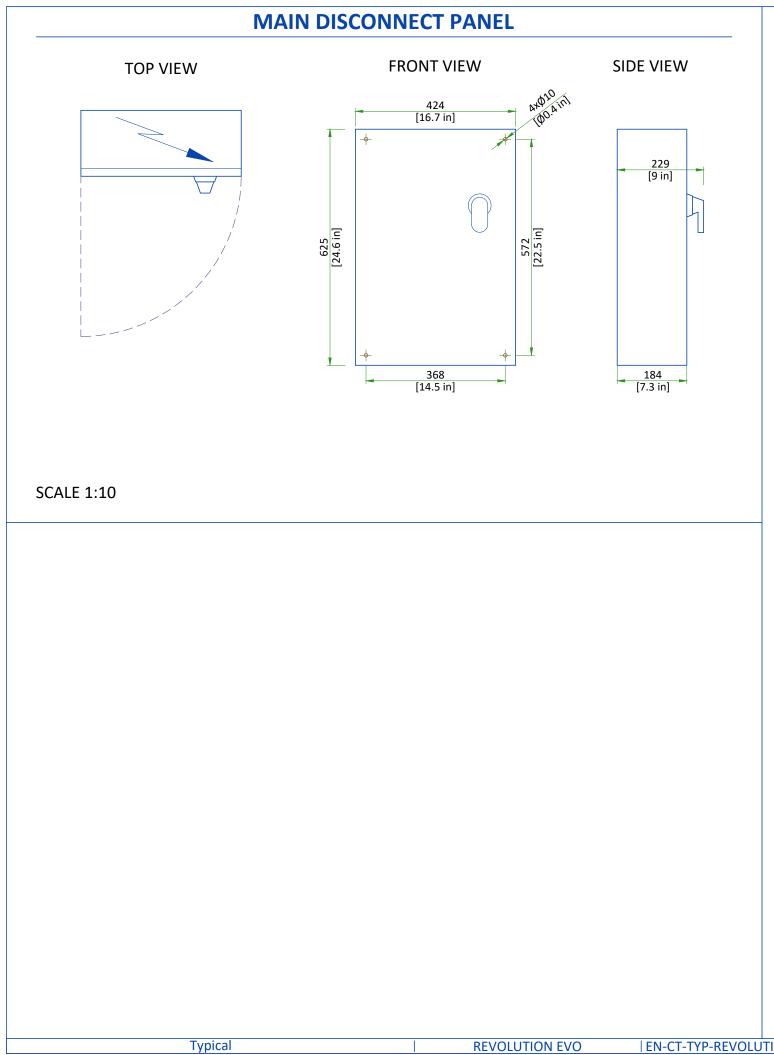
**NOTE:** Actual measurements can vary. Expected deviations equals ±15%, expect for the 5 mA and 1mm techniques, where variations may be greater (up to a factor of 2), due to the inherent deviation in small values. The maximum deviation anticipated for tube output



A4 - Radiation Protection Details

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# DELIVERY

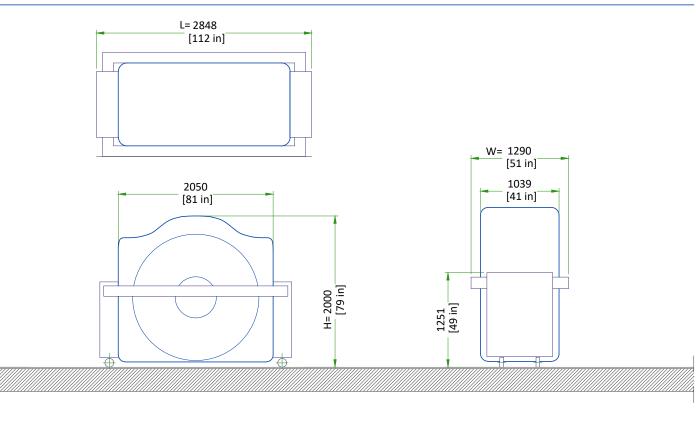
## THE CUSTOMER/CONTRACTOR SHOULD:

- 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 OF DELIVERY WITH DOLLY TRANSPORT EQUIPMENT

	LENGTH	2848 mm [112 in]		
GANTRY	WIDTH	1290 mm [51 in]	2050 kg	4520 lbs
	HEIGHT	2000 mm [79 in]		
	LENGTH	2489 mm [98 in]		
GT1700V TABLE	WIDTH	762 mm [30 in]	576 kg	1270 lbs
	HEIGHT	1143 mm [45 in]		





• The gantry is shipped on a dolly equipped with elevating casters (normal shipping configuration). NOT TO SCALE

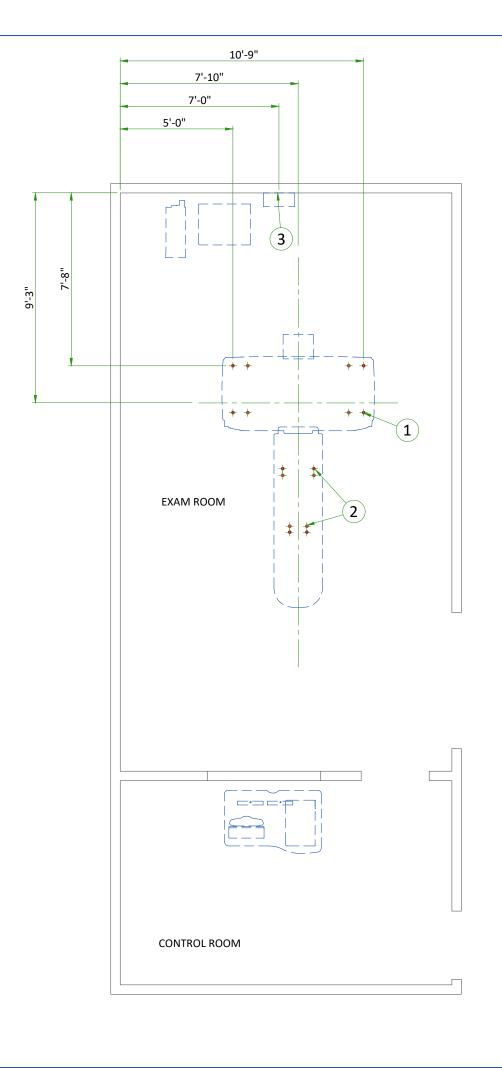
A7 - Delivery



# **STRUCTURAL NOTES**

- all steel work and parts necessary to support ceiling mounted equipment is to be supplied by the customer or his contractors.
- methods of support for the steelwork that will permit attachment to structural steel or through bolts in concrete construction should be favored. Do not use concrete or masonry anchors in direct tension.
- all units that are wall mounted or wall supported are to be provided with supports where necessary. Wall supports are to be supplied and installed by the customer or his contractors. See plan and detail sheets for suggested locations and mounting hole locations.
- all ceiling mounted fixtures, air vents, sprinklers, etc. To be flush mounted, or shall not extend more than 1/4" below the finished ceiling.
- floor slabs on which equipment is to be installed must be level to 1/4" in 10'-0"
- dimensions are to finished surfaces of room.
- customers contractor must provide all penetrations in post tension floors.
- customers contractor must provide and install any non-standard anchoring. Documents for standard anchoring methods are included with GE equipment drawings for geographic areas that require such documentation.
- customers contractor must provide and install hardware for "through the floor" anchoring and/or any bracing under access floors. This contractor must also provide floor drilling that cannot be completed because of an obstruction encountered while drilling by the GE installer such as rebar etc.
- it is the customer's responsibility to perform any floor or wall penetrations that may be required. The customer is also responsible for ensuring that no subsurface utilities (e.g., electrical or any other form of wiring, conduits, piping, duct work or structural supports (i.e. post tension cables or rebar)) will interfere or come in contact with subsurface penetration operations (e.g. drilling and installation of anchors/screws) performed during the installation process. To ensure worker safety, GE installers will perform surface penetration operations only after the customer's validation and completion of the "GE surface penetration permit"

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### DESCRIPTION

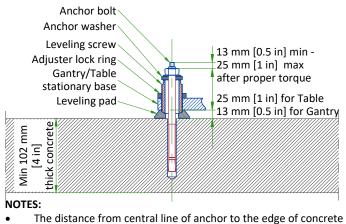
## (CONTRACTOR SUPPLIED & INSTALLED)

# **ANCHORING/LOADING DISTRIBUTION TO THE FLOOR**

# 1756 [69.1 in] 878 [34.6 in] 878 [34.6 in] 678 678 [26.7 in] [26.7 in] 305 [12 in] 177 [7 in] (3) 889 [35 in] 640 [25 in] 498 [19.6 in] Gantry 630 [24.8 in] 1820 kg [4012 lbs] (3B) 10 97.2 1.7 in] [0.4 in] (1) 132 [5.2 in] 885 [34.8 in] 4 GT1700V Table 445 kg [981 lbs] with 227 kg [500 lbs] patient 378 [14.9 in] 5 ו 90 [3.5 in] 420 [16.5 in] 854 [33.6 in] 232 [9.1 in] -0 80 [3.1 in] (2)

# **FLOOR REQUIREMENTS**





- basement of Gantry/Table should not be less than 178 mm [7 in].
  - Torque anchor to 54 Nm (40 ft-lb)

### **FINISHED FLOOR REQUIREMENTS**

Installation requires a finish floor in the scan and control rooms

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- The floor surface in the scan room directly under the gantry and table must be level.
- The floor levelness tolerance of the floor surface that the gantry and table will rest on is 6 mm [1/4 in] over a 3048 mm [10 ft] distance. .
- Shims should not be used to compensate for a floor that does not meet this requirement.
- Eight or more floor covering openings that are 102 mm [4 in] in diameter are made to ensure the table and gantry rest on a solid surface. ٠ These floor penetrations can be sealed if required.
- Concrete floors must have a minimum strength of f'c = 1.7 X10<sup>7</sup> Pa [2500 PSI] at 28 days for (curing time) mounting floor anchors. It is the responsibility of each customer to have appropriate tests performed to determine and measure concrete strength.
- These requirements apply to all installation types.

## NOT TO SCALE

- Tilting axis (1)
- (2) Longitudinal axis
- Cable inlet area (3)
- (with rear cable cover in option)
- (3B) Alternative cable inlet area
- (4) 8 Gantry anchoring points
- 8 Table anchoring points (5)
- Center of gravity
- Main anchoring points 0
- Backup anchoring points -\_

### **SCALE 1:20**

# **TEMPERATURE AND HUMIDITY SPECIFICATIONS**

## **IN-USE CONDITIONS**

		EXAM ROOM		(	CONTROL ROOM	1		
	Min	Recommended	Max	Min	Recommended	Max		
Temperature	18°C	22°C	26°C	18°C	22°C	26°C		
	64°F	72°F	79°F	64°F	72°F	79°F		
Temperature gradient	≤ 3°C/h			≤ 3°C/h				
		≤ 5°F/h			≤ 5°F/h			
Relative humidity (1)	30% to 60%			30% to 60%				
Humidity gradient	≤ 5%/h			≤ 5%/h				

## **STORAGE CONDITIONS**

Temperature	0°C to +30°C		
	32°F to +86°F		
Temperature gradient	≤ 3°C/h		
	≤ 5°F/h		
Relative humidity (1)	up to 70%		
Humidity gradient	≤ 5%/h		

Storage longer than 6 months is not recommended. (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.

# **HEAT DISSIPATION DETAILS**

ROOM	DESCRIPTION	Max (kW)	Max (BTU)
	Gantry	5.48	18700
Exam Room	Patient Table (Without patient)	0.3	1030
	TOTAL	5.78	19730
	Power Distribution Unit	1.0	3400
Exam Room or Technical Room*	Partial UPS - Liebert GXT4	0.83	2828
Technical Room	TOTAL	1.83	6228
	Operator Console	0.84	2860
Control Room	LCD Monitor (Total amount of 2 monitors)	0.1	340
	TOTAL	0.94	3200
*Technical Room is no	t mandatory, the placements of these elements are recommended in the Exa	am Room.	

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# **ELECTRICAL NOTES**

# **CONNECTIVITY REQUIREMENTS**

- Aluminum or solid wires are not allowed. 1.
- Wire sizes given are for use of equipment. Larger sizes may be required by local codes. 2.
- It is recommended that all wires be color coded, as required in accordance with national and local electrical codes. 3.
- Conduit sizes shall be verified by the architect, electrical engineer or contractor, in accordance with local or national 4. codes.
- 5. Convenience outlets are not illustrated. Their number and location are to be specified by others. Locate at least one convenience outlet close to the system control, the power distribution unit and one on each wall of the procedure room. Use hospital approved outlet or equivalent.
- General room illumination is not illustrated. Caution should be taken to avoid excessive heat from overhead spotlights. 6. Damage can occur to ceiling mounting components and wiring if high wattage bulbs are used. Recommend low wattage bulbs no higher than 75 watts and use dimmer controls (except MR). Do not mount lights directly above areas where ceiling mounted accessories will be parked.
- 7. Routing of cable ductwork, conduits, etc., must run direct as possible otherwise may result in the need for greater than standard cable lengths (refer to the interconnection diagram for maximum usable lengths point to point).
- 8 Conduit turns to have large, sweeping bends with minimum radius in accordance with national and local electrical codes.
- 9. In some cases GEHC will specify ground wires to be sized larger than code. In these situations, the GEHC specification must be followed.
- 10. A special grounding system is required in all procedure rooms by some national and local codes. It is recommended in areas where patients might be examined or treated under present, future, or emergency conditions. Consult the governing electrical code and confer with appropriate customer administrative personnel to determine the areas requiring this type of grounding system.
- 11. The maximum point to point distances illustrated on this drawing must not be exceeded.
- 12. Physical connection of primary power to GEHC equipment is to be made by customers electrical contractor with the supervision of a GEHC representative. The GEHC representative would be required to identify the physical connection location, and insure proper handling of GEHC equipment.
- 13. GEHC conducts power audits to verify quality of power being delivered to the system. The customer's electrical contractor is required to be available to support this activity.
- 14. Every installation is unique. The electrical contractor will be required to support the installation of the GEHC equipment by providing knockouts, grommeted openings, bushings, etc. as required. All power connections to be performed by the electrician.

- All junction boxes, conduit, duct, duct dividers, switches, circuit breakers, cable tray, etc., are to be supplied and installed by customers electrical contractor. All junction boxes shall be provided with covers.
- Conduit and duct runs shall have gradual sweep radius bends.
- Conduits and duct above ceiling or below finished floor must be installed as near to ceiling or floor as possible to reduce run length.
- Ceiling mounted junction boxes illustrated on this plan must be installed flush with finished ceiling.
- All ductwork must meet the following requirements:
- 1.Ductwork shall be metal with dividers and have removable, accessible covers.
- 2. Ductwork shall be certified/rated for electrical power purposes.
- 3. Ductwork shall be electrically and mechanically bonded together in an approved manner.
- 4. PVC as a substitute must be used in accordance with all local and national codes.
- All openings in raceway and access flooring are to be cut out and finished off with grommet material by the customers contractor.
- Electrical contractor to provide measured pull strings in all conduit and raceway runs.
- Provide 10 foot pigtails at all junction points.
- Grounding is critical to equipment function and patient safety. Site must conform to wiring specifications shown on this plan.

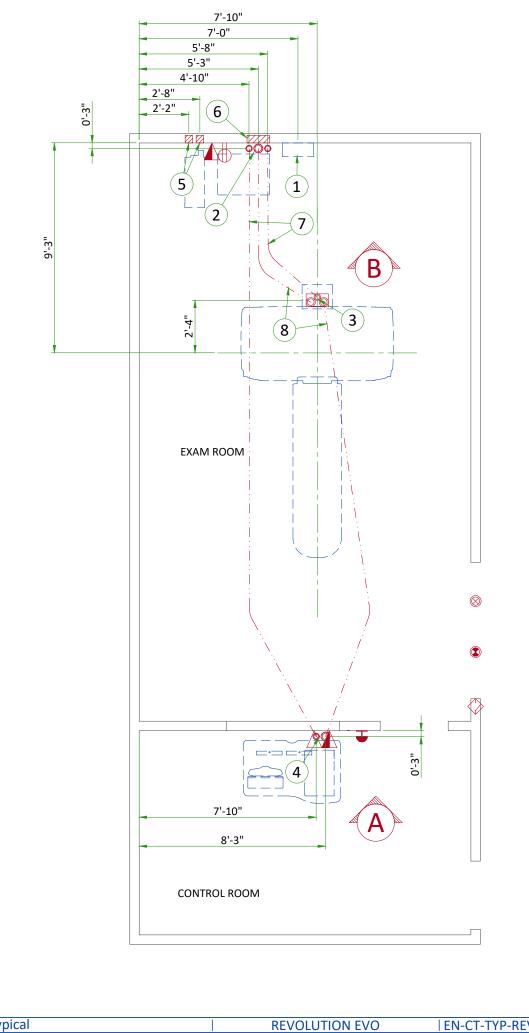
Your new GE Healthcare imaging modality will require local and remote connectivity to enable our full range of digital support:

- 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<sup>™</sup> (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:

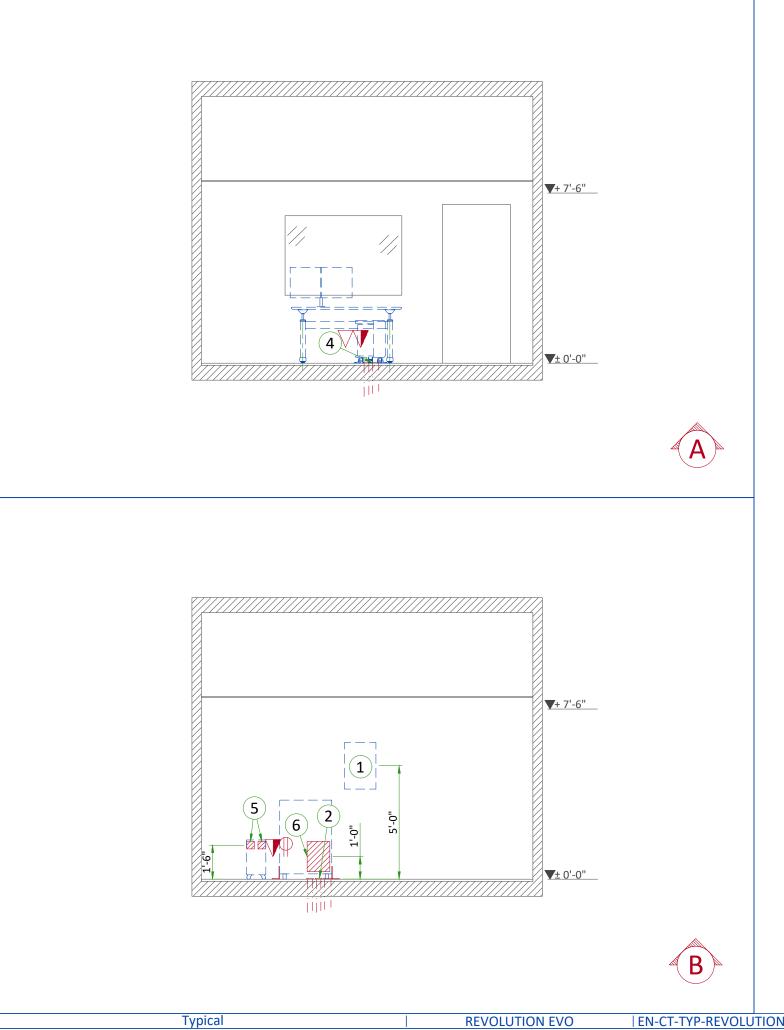
- 1. TLS over TCP Port 443 (Preferred method for new products) via:
  - a. DNS resolution
  - b. Customer-provided Proxy or c. GE Proxy (Available in some regions)
- 2. Site-to-Site IPsec VPN tunnel

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.



ITEM	1			DESCRIPTION			
1	Main	disconnect panel					
2	Suita	ble bushings & lock nut	s (Pow	ver Distribution Unit)			
3	Suita	ble bushings & lock nut	s (Gan	try)			
4	Suita	ble bushings & lock nut	s (Ope	rator's Console)			
5	4" x 4	4" x 4" [100 x 100 x 100]	] box (	Partial UPS)			
6	12" x	16" x 4" [150 x 150 x 1	00] bo	x (Power Distribution Unit)			
7		[63] conduit below flo		<u> </u>			
8	3 1/2	" [90] conduit below flo	oor				
	L						
ITEM	QTY			Electrical Outlet Legend ctor supplied and installed items unless oor determined by local codes unless o			
Φ		· · · · · · · · · · · · · · · · · · ·		ated wall outlet 120-v, single			
		Dedicated telephone I	-	, <b>C</b>			
		Network outlet	. ,				
1			f (SEO)	, (recommended height 1.2m	[48"] ab	ove floor)	
$\otimes$		X-Ray room warning li				,	
		X-Ray ON lamp (L1) - 2	-	·			
$\widehat{\diamondsuit}$				ed only if required by state/lo	cal codes	;)	
				ditional Conduit Runs tor Supplied and Installed)		6	70
	(Bub	(Co From oble # / Item)			Qty	Si In.	ze
		From		tor Supplied and Installed) To	Qty	In.	mm
		From bble # / Item)	ontrac	To (Bubble # / Item) Main Disconnect Panel			
	3 Phas	From bble # / Item)	ntrac	tor Supplied and Installed) To (Bubble # / Item) Main Disconnect Panel Emergency Off	1	In. As req'd 1/2	mm As req 13
	3 Phas	From oble # / Item) e Power	ontrac	tor Supplied and Installed) To (Bubble # / Item) Main Disconnect Panel Emergency Off Power Distribution Unit	1 1 1	In. As req'd 1/2 As req'd	mm As req 13 As req
1	3 Phase Main D	From oble # / Item) e Power	ntrac	tor Supplied and Installed) To (Bubble # / Item) Main Disconnect Panel Emergency Off	1 1 1 1 1	In. As req'd 1/2 As req'd 1/2	mm As req 13 As req 13
1	3 Phas Main D Power	From oble # / Item) e Power Disconnect Panel Distribution Unit	ntrac	tor Supplied and Installed) To (Bubble # / Item) Main Disconnect Panel Emergency Off Power Distribution Unit Door Switch	1 1 1 1 1 1	In. As req'd 1/2 As req'd 1/2 1/2	mm As req 13 As req 13 13
1   6	3 Phas Main D Power Warnir	From oble # / Item) e Power Disconnect Panel Distribution Unit	ntrac	tor Supplied and Installed) To (Bubble # / Item) Main Disconnect Panel Emergency Off Power Distribution Unit	1 1 1 1 1 1 1 1	In. As req'd 1/2 As req'd 1/2 1/2 1/2	mm As req 13 As req 13 13 13
6	3 Phas Main D Power Warnir 1 Phase	From oble # / Item) e Power Disconnect Panel Distribution Unit ng Light e Power	ntrac	tor Supplied and Installed) To (Bubble # / Item) Main Disconnect Panel Emergency Off Power Distribution Unit Door Switch	1 1 1 1 1 1 1 1 1 1	In. As req'd 1/2 As req'd 1/2 1/2 1/2 1/2	mm As req 13 As req 13 13 13 13
1	3 Phas Main D Power Warnir 1 Phase Main D	From oble # / Item) e Power Disconnect Panel Distribution Unit	ntrac	tor Supplied and Installed) To (Bubble # / Item) Main Disconnect Panel Emergency Off Power Distribution Unit Door Switch	1 1 1 1 1 1 1 1	In. As req'd 1/2 As req'd 1/2 1/2 1/2	mm As req 13 As req 13 13 13

DESCRIPTION
k nuts (Power Distribution Unit)
k nuts (Gantry)
k nuts (Operator's Console)
< 100] box (Partial UPS)
0 x 100] box (Power Distribution Unit)
ow floor
ow floor
Electrical Outlet Legend
ustomer/contractor supplied and installed items unless otherwise specified. Height above floor determined by local codes unless otherwise specified.
rade, dedicated wall outlet 120-v, single phase power
one line(s)
cy off (SEO), (recommended height 1.2m [48"] above floor)
ter a Balak a sector da second



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# **POWER REQUIREMENTS**

POWER SUPPLY	3 PHASES+G 200/220/240/380/400/420/440/460/480 V ± 10%
FREQUENCIES	50/60 Hz ± 3 Hz
MAXIMUM POWER DEMAND	100 kVA
AVERAGE (CONTINUOUS) POWER DEMAND	20 kVA
POWER FACTOR	0.85

- Power supply should come into a main disconnect panel (MDP) 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 MDP.

## SUPPLY CHARACTERISTICS

- Power input must be separate 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.
- Phase imbalance 2% maximum.
- Transients must be less than 1500V peak. (on a 400V line)

### **GROUND SYSTEM**

- System of equipotential grounding.
- 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 system units are located.

### CABLES

- Power and cable installation must comply with the distribution diagram.
- All cables must be isolated and flexible, cable color codes must comply with standards for electrical installation.
- The cables from signaling and remote control (Y, SEO, L...) will go to MDP with a pigtail length of 1.5m, 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.

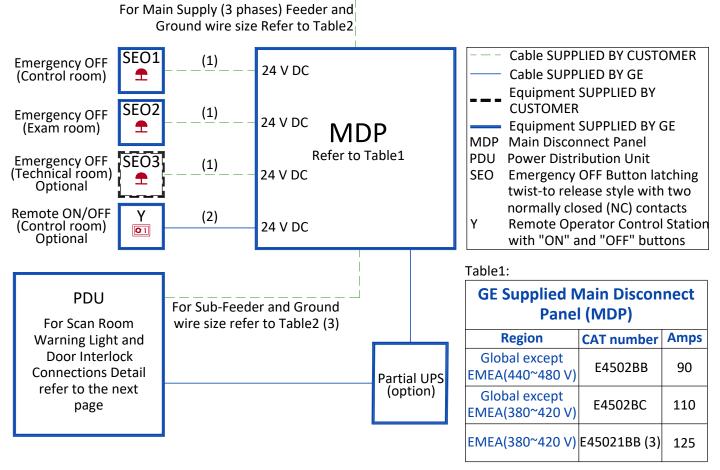


Table2:

### **Feeder Table**

The information below assumes the use of copper wire, rated 75 C and run in steel conduit. All ampacity is determined in accordance with the National Electrical Code (NFPA 70), Table 310-16 (2002). The ampacity of the circuit protection device listed above determines the minimum feeder size, except where total source regulation limits require a larger size. If the wire size does not match the lists below, please select the nearest wire size as per to local standards.

Feeder length from Power Substation to MDP	Minimum Wire Size, AWG or MCM (mm <sup>2</sup> )/VAC							
- ft (m)	380 VAC	400 VAC	420 VAC	440 VAC	460 VAC	480 VAC		
50 (15)	2 (35)	2 (35)	3 (30)	3 (30)	3 (30)	3 (30)		
100 (30)	2 (35)	2 (35)	3 (30)	3 (30)	3 (30)	3 (30)		
150 (46)	2 (35)	2 (35)	3 (30)	3 (30)	3 (30)	3 (30)		
200 (61)	2 (35)	2 (35)	3 (30)	3 (30)	3 (30)	3 (30)		
250 (76)	1 (45)	1 (45)	2 (35)	2 (35)	2 (35)	3 (30)		
300 (91)	1/0 (50)	1/0 (50)	1 (45)	1 (45)	2 (35)	2 (35)		
350 (107)	2/0 (70)	1/0 (50)	1/0 (50)	1 (45)	1 (45)	1 (45)		
400 (122)	2/0 (70)	2/0 (70)	1/0 (50)	1/0 (50)	1/0 (50)	1 (45)		
Sub-Feeder length from MDP to PDU - ft (m)								
32 (9.7536)	2 (35)	2 (35)	3 (30)	3 (30)	3 (30)	3 (30)		
Grounding								

Run a dedicated 1/0 [50 mm<sup>2</sup>] or larger insulated copper ground wire from the power source to the MDP and from MDP to the PDU. Run the ground wire in the same raceway with the three-phase wires.

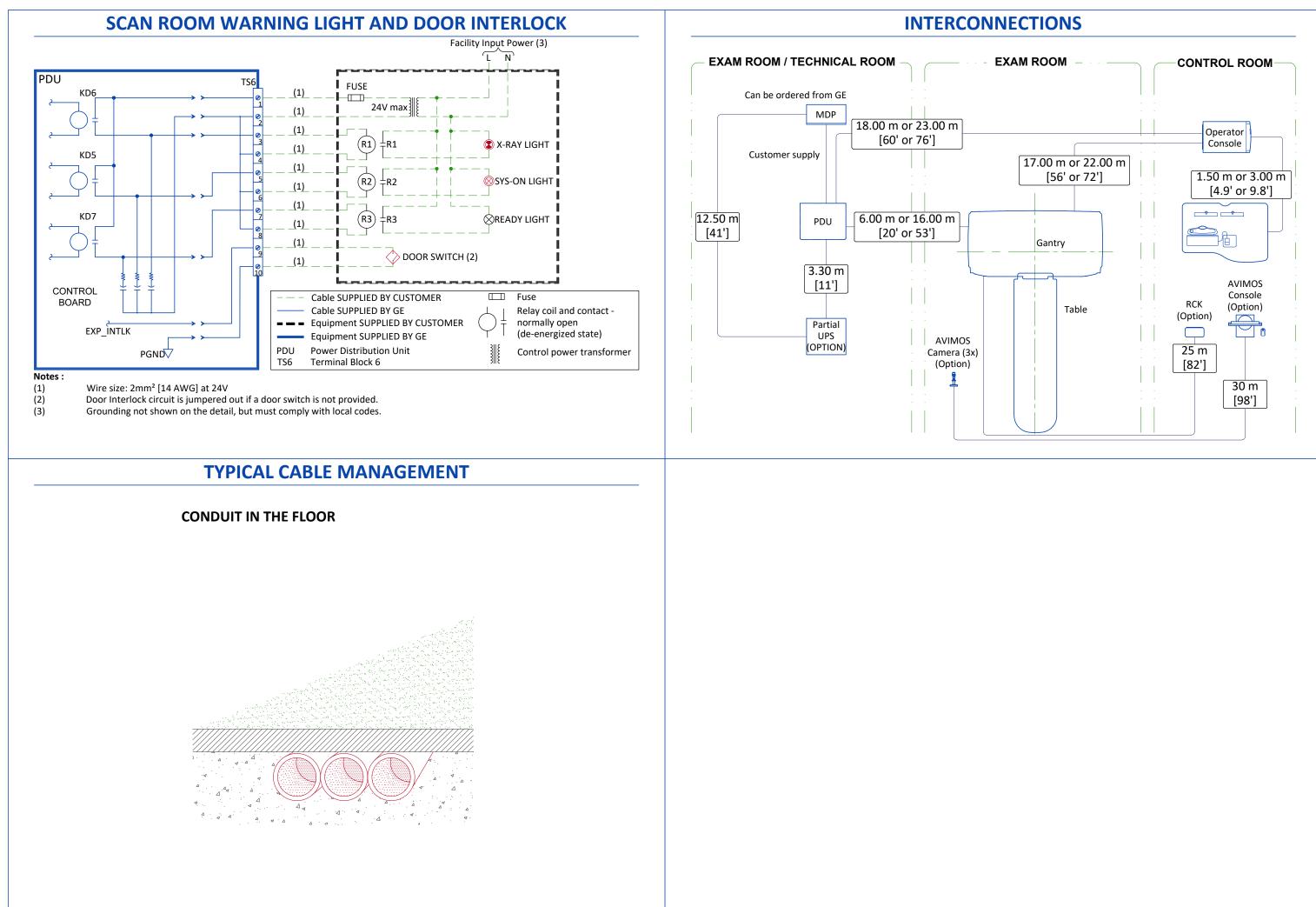
### Notes :

(1)(2) Wire size: 4x2mm<sup>2</sup> [14AWG] and 1x2mm<sup>2</sup> [14AWG] GND

- Power control cable: 3 m [10 ft], multi-conductor, 24V DC
- (3) For PDU Power Cable – 10 meters (E45021BA/4G35) (E45021BB & E45021BC/4G50)
  - (E45021BG/4G95) are shipped with MDP

# **POWER DISTRIBUTION**

| 17/16



| 18/16