REV	DATE	MODIFICATIONS

Typical

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01 - C1 - Cover Sheet
02 - C2 - Disclaimer - Site Readiness
03 - A1 - General Notes
04 - A2 - Equipment Layout
05 - A3 - Section Views
06 - A4 - Equipment Details
07 - A5 - Equipment Details & Delivery (2)
08 - S1 - Structural Notes
09 - S2 - Structural Layout
10 - S3 - Structural Details (1)
11 - S4 - Structural Details (2)
12 - M1 - HVAC
13 - E1 - Electrical Notes
14 - E2 - Electrical Layout
15 - E3 - Electrical Elevations
16 - E4 - Electrical Details
17 - E5 - Interconnections
18 - E6 - Power Requirements

GE HealthCare

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: *https://www.gehealthcare.com/support/manuals*

PRECISION CRF
FINAL STUDY

Drawn by	Verified by	Concession	GON/Quote	PIM Manual	Rev
RET	REK	-	-	5884474-1EN	2

Format	Scale	File Name	Date	Sheet
A3	1/4"=1'-0"	EN-RF-TYP-PRECISION_CRF-NF.DWG	31/Jan/2025	01/18

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 Fluouroscopy, 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.

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 from any point in system.
In-use: 55 dBA
Stand-by: 55 dBA

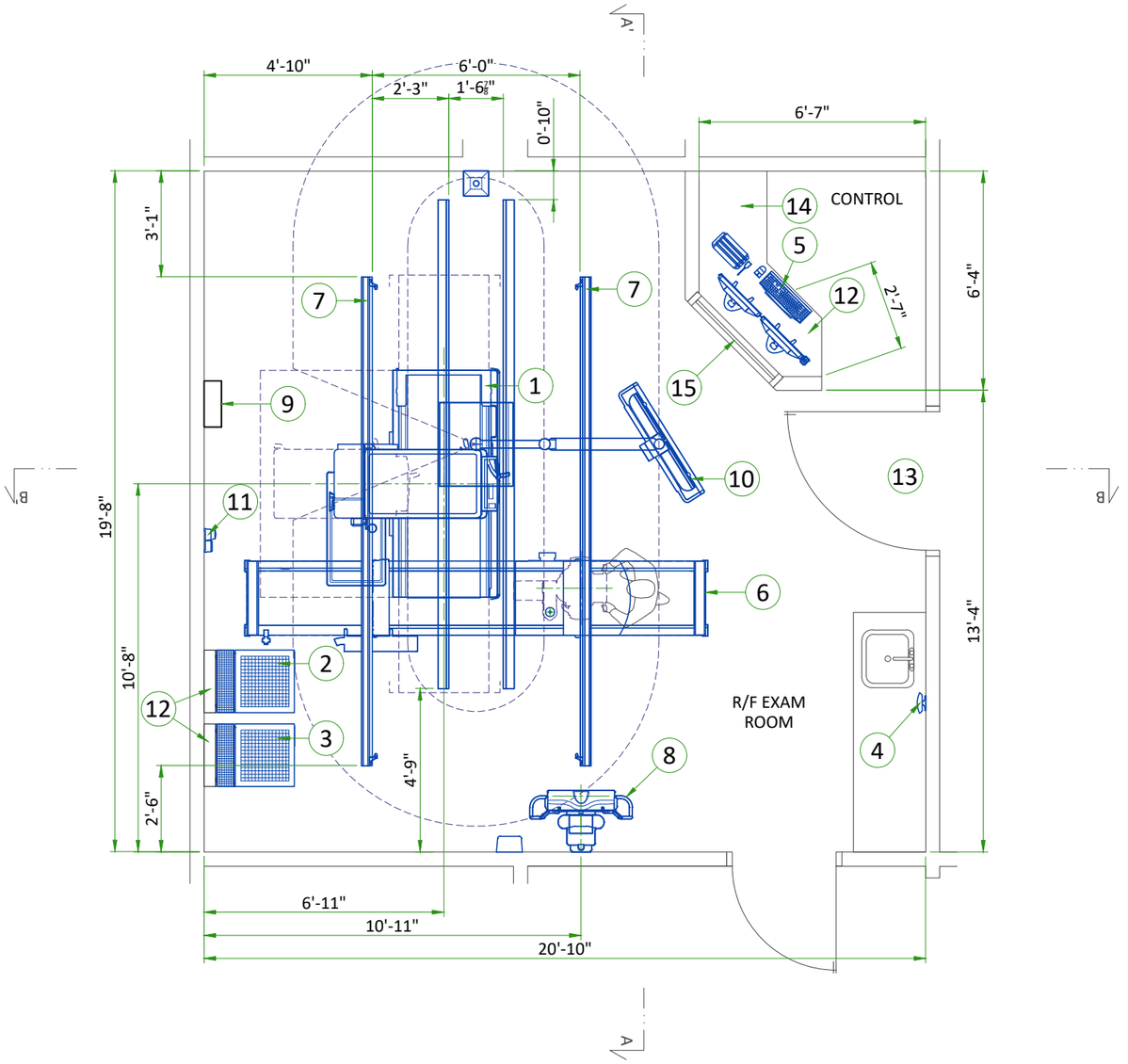
ATMOSPHERIC PRESSURE

Operating atmospheric pressure: 700-1060 hPa
Storage atmospheric pressure: 700-1060 hPa

ALTITUDE AND ATMOSPHERIC PRESSURE

Maximum height above sea level: 3000m [9843 ft]
Minimum depth below sea level: -760m [-2493 ft]

Refer to the Pre-installation Manual for detailed information about individual components.



LEGEND

A	GE SUPPLIED	D	AVAILABLE FROM GE
B	GE SUPPLIED/CONTRACTOR INSTALLED	E	EQUIPMENT EXISTING IN ROOM
C	CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED	*	ITEM TO BE REINSTALLED FROM ANOTHER SITE

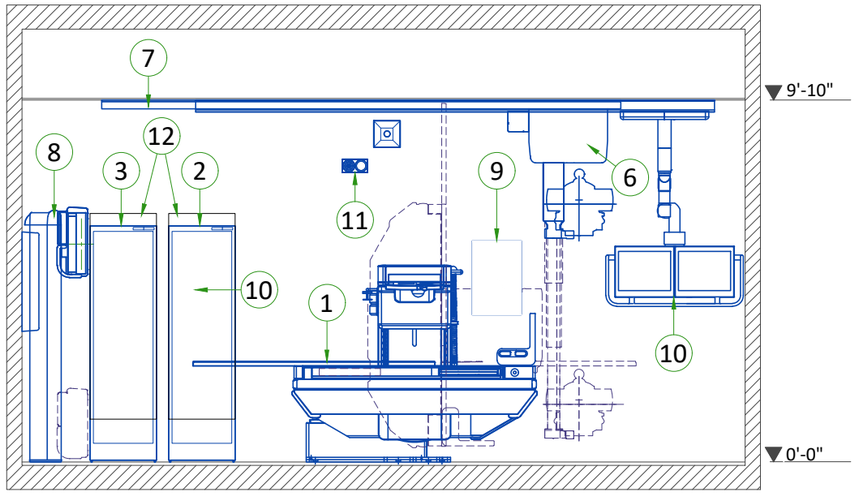
BY	ITEM	DESCRIPTION	MAX HEAT OUTPUT (BTU/h)	WEIGHT (lbs)	MAX HEAT OUTPUT (W)	WEIGHT (kg)
A	1	TABLE	1877	2977	550	1350
A	2	VELARA CABINET	-	512	-	232
A	3	M-CABINET	1024	209	300	95
A	4	ACCESS POINT	58	1	17	0.6
A	5	OPERATORS CONSOLE	512	31	150	14
A	6	LONG CEILING SUSPENSION (CSM3)	1365	692	400	314
A	7	CEILING RAILS	-	170	-	77
A	8	VERTICAL STAND	444	430	130	195
D	9	MAIN DISCONNECT PANEL (MDP)	-	-	-	-
A	10	2 MONITOR CEILING SUSPENSION	409	390	120	177
A	11	INDICATOR BOX	-	2	-	0.75
C	12	CABINET ELECTRICAL BOX (x2)	-	-	-	-
C	13	MINIMUM OPENING FOR EQUIPMENT DELIVERY IS 1120 mm x 1920 mm [45 in x 76 in], CONTINGENT ON A 1720 mm [68 in] CORRIDOR WIDTH				
C	14	COUNTER TOP FOR EQUIPMENT- PROVIDE GROMMETED OPENINGS AS REQUIRED TO ROUTE CABLES				
C	15	CONTROL WALL, 2.1 m [7 ft] HIGH WITH LEAD GLASS VIEWING WINDOW				

EXAM ROOM HEIGHT

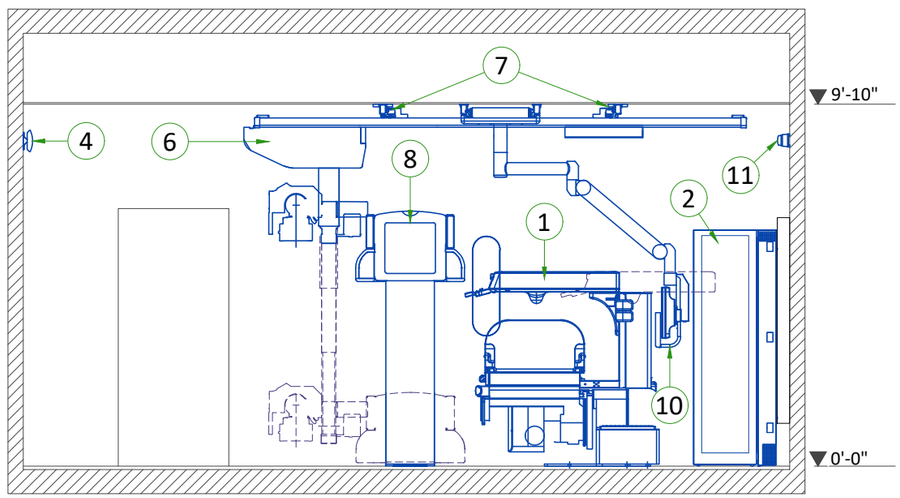
FINISHED FLOOR TO SLAB HEIGHT	TBD
FALSE CEILING HEIGHT	9'-10"

For Accessory Sales: (866) 281-7545 Options 1, 2, 1, 2 or mail to: gehcaccessorysales@ge.com

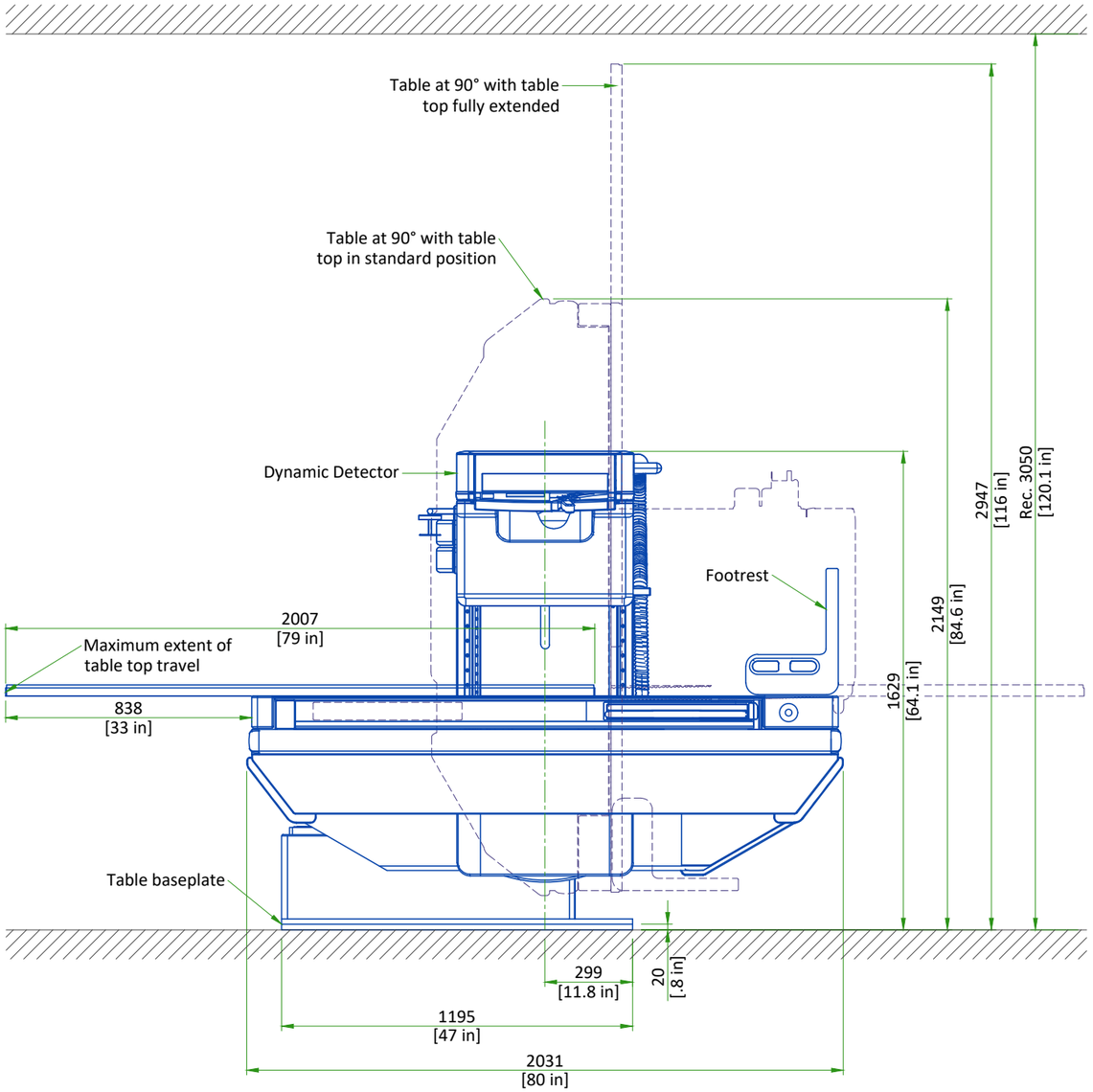
FRONT VIEW A-A'



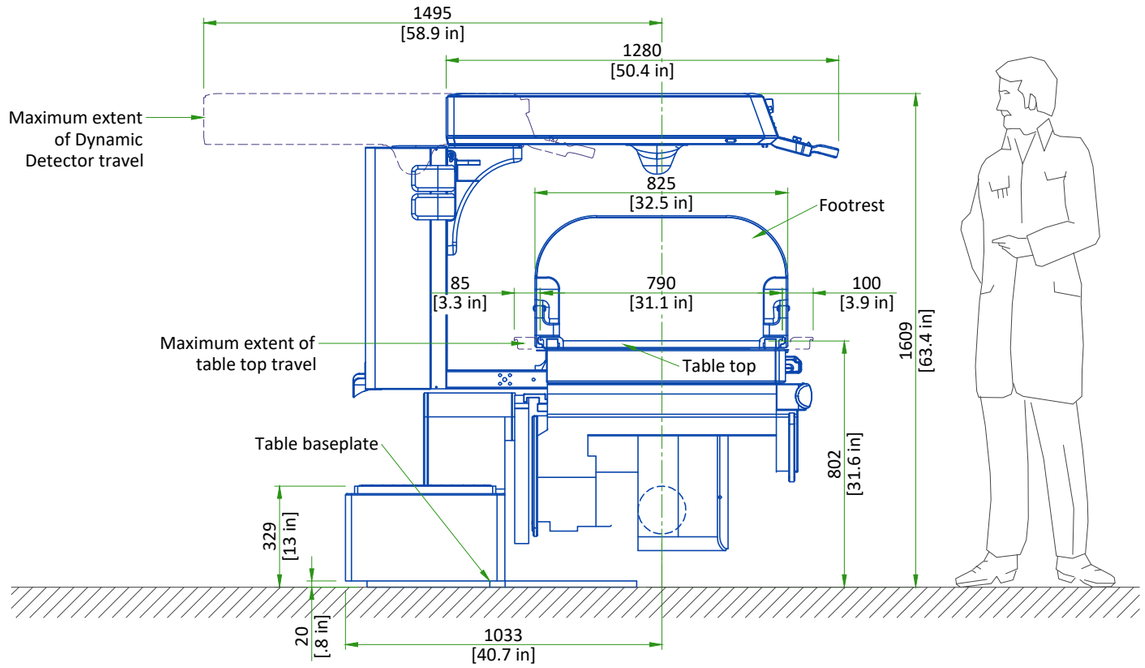
SIDE VIEW B-B'



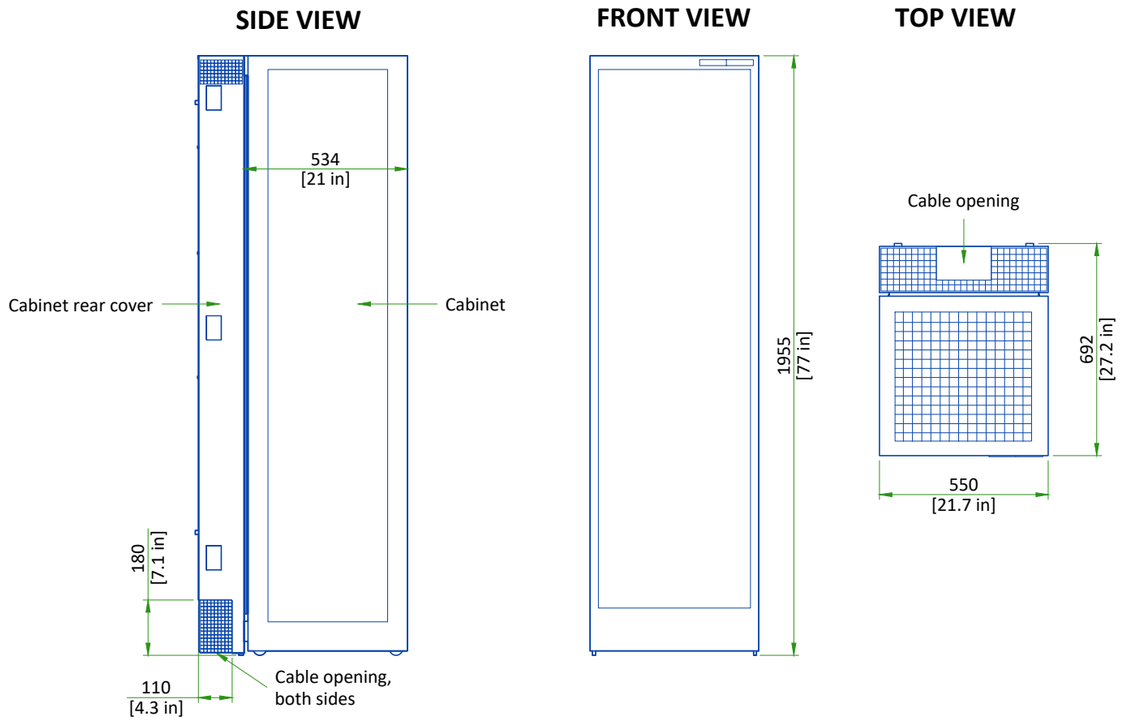
TYPICAL FRONT VIEW AND TABLE MOVEMENT



TYPICAL SIDE VIEW AND DETECTOR MOVEMENT



GENERATOR AND MAIN CABINET



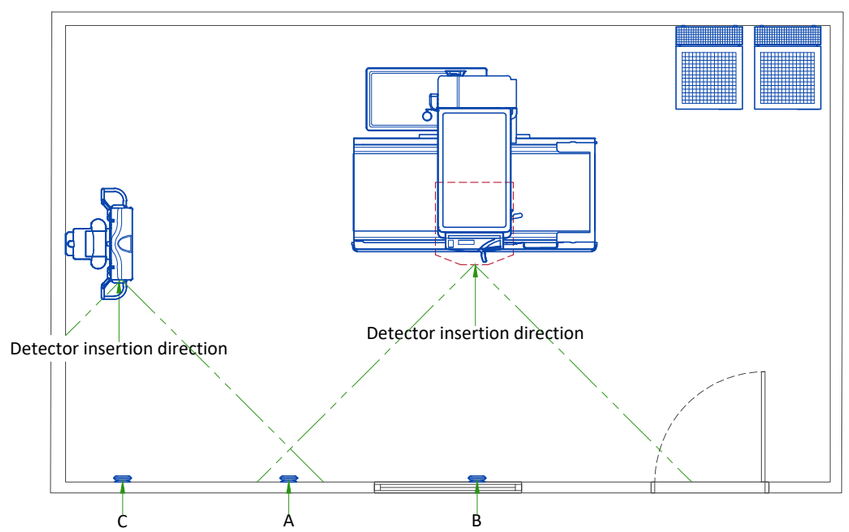
SCALE 1:20

ACCESS POINT POSITION

Access Point (AP) Wall-mounting position:

- Install at more than 2.5 m [8.2 ft] height from floor level to avoid potential blocking from human or other obstacles.
- There are 3 preferred positions available for AP wall-mounting:

A) Location for table and wallstand
B) Location for table only
C) Location for wall stand only



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 PACKED EQUIPMENT FOR DELIVERY

BOX	CONTENTS	DIMENSIONS LxWxH mm (in)	WEIGHT kg (lb)
	Vertical unit column	2220x760x550 (87.4x29.9x21.7)	170 kg (375 lbs)
	Vertical unit with bucky unit	1030x970x600 (40.6x38.2x23.6)	90 kg (198 lbs)
A	Foot of table, table control unit	1490x960x1060 (58.7x37.8x41.7)	342 kg (754 lbs)
B	Table Base	2170x750x1120 (85.4x29.5x44.1)*	289 kg (637 lbs)
C	Main counterweight	1160x88x340 (45.7x3.5x13.4)	270 kg (595 lbs)
D	X-ray module	1830x850x1720 (72x33.5x67.7)**	456 kg (1005 lbs)
E	Table top, bucky, covers, accessories	2150x1000x550 (84.6x39.4x21.7)	420 kg (926 lbs)
1	Generator cabinet with mains transformer for control	820x880x2200 (32.3x34.6x86.6)	207 kg (456 lbs)
2	H.V. Generator	770x670x800 (30.3x26.4x31.5)	107 kg (235.9 lbs)
A	M-Cabinet	770x650x2100 (30.3x25.6x82.7)	132 kg (291 lbs)
	CS Base rails (4.3 m) (set of two)	4780x200x140 (188.2x7.9x5.5)	85 kg (187 lbs)
	Telescopic carriage (with tube)	1200x780x1400 (47.2x30.7x55.1)	300 kg (661 lbs)
	Long Longitudinal carriage	4180x770x410 (164.6x30.3x16.1)	180 kg (397 lbs)
	Short Longitudinal carriage	2420x940x140 (95.3x37x5.5)	94 kg (207 lbs)
	MSC rails (4.3 m) (set of two)	4800x200x140 (189x7.9x5.5)	88 kg (194 lbs)
	1-3 Monitor suspension	1840x860x1350 (72.4x33.9x53.1)	Max 160 kg (353 lbs)

Refer to Equipment Layout for site-specific equipment configuration.
* without outer covering, tilted 90°
**without outer covering

STRUCTURAL NOTES

- 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 for suggested locations.
- Control walls shall be constructed to minimum 2130mm (7'-0") high.
- 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 GEHC 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 GEHC 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, GEHC installers will perform surface penetration operations only after the customer's validation and completion of the "GE surface penetration permit".
- Different anchor types are used to install the components of the system. Refer to Structural Requirements Section(s) of manual 5884474-1EN for each anchor requirement and required minimum embedment.
- The floor should consist of concrete of at least B 25 (in accordance with DIN 1045), capable for fastening M12 or M16 safety bolts.
- The horizontal alignment of the Table Base has to be 0° +/- 0,05° (≈ 1.5mm/m).
- Limited deviations has to be corrected with shims.

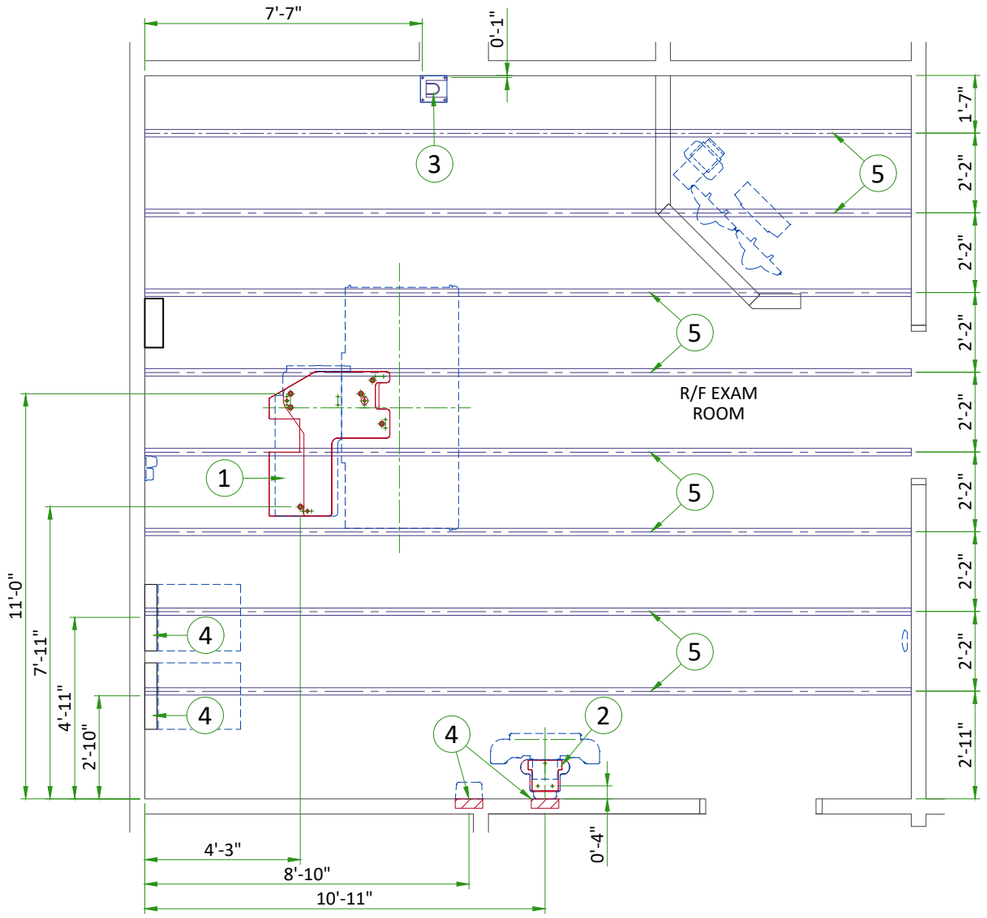
CEILING REQUIREMENTS

Ceiling surface which is made out of plates that can be removed during installation. Closed ceilings (plates cannot be removed during installation) will increase the installation time significantly.

The room width, length and shape to ensure the ceilings rails can be positioned so the CSM3 installation will be possible.

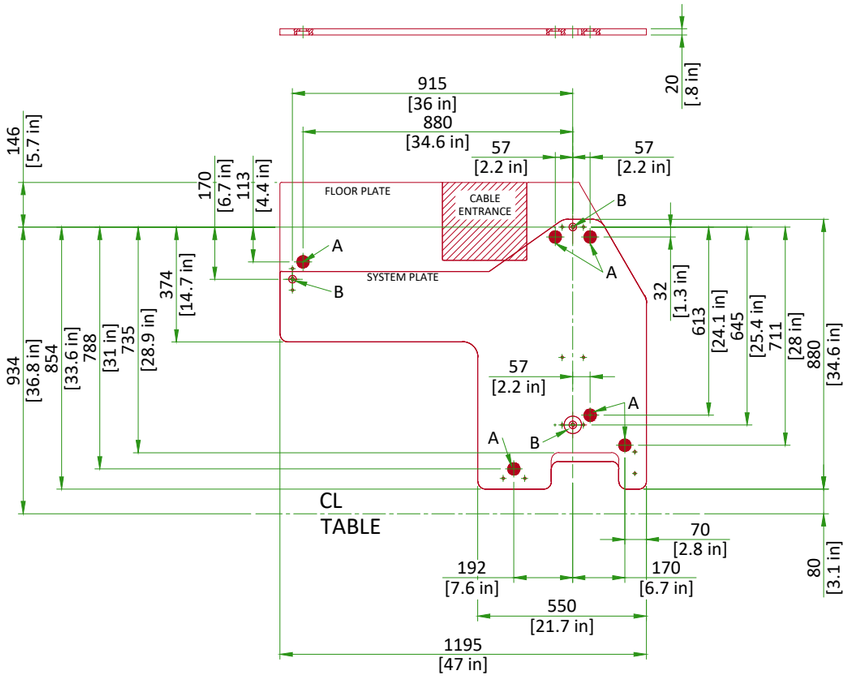
The ceiling anchor rails shall match the requirements for type, location, length, load bearing capacity and leveling quality.
For all positions, the distance has to be the same with a maximum deviation of 1 mm (0.04 in). Shims are available in 0.5 mm or 1.0 mm (0.02 in or 0.04 in) thickness.

It is recommended that sprinkler heads not be placed between the stationary rails. All sprinkler heads should be mounted so they do not extend downward more than 6.35 mm from the ceiling while in the 'resting' position.



ITEM	DESCRIPTION
	(GE SUPPLIED / CONTRACTOR INSTALLED)
1	Area occupied by GE supplied table baseplate
2	Area occupied by GE supplied wall stand baseplate
3	Area occupied by GE supplied cable outlet
	(CONTRACTOR SUPPLIED & INSTALLED)
4	Support backing, locate as shown.
5	Structural support in ceiling for fastening ceiling supported equipment. Supports to run continuous with no fittings extending below face of channel, run wall to wall, be parallel, square, and in the same horizontal plane, flush with the finished ceiling. Methods of support that permit attachment to structural steel or through bolts in concrete should be favored. Do not use screw anchors in direct tension.

TABLE ANCHORING

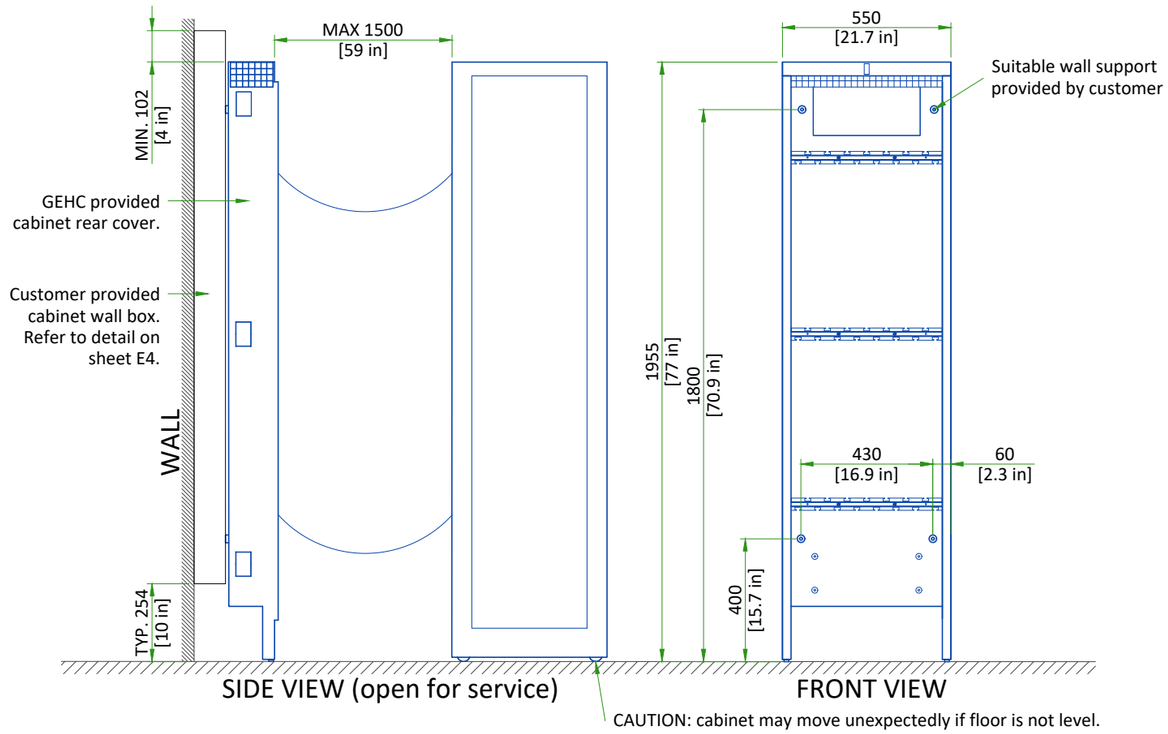


LEGEND

A - anchor to floor
B - System plate anchor to floor plate

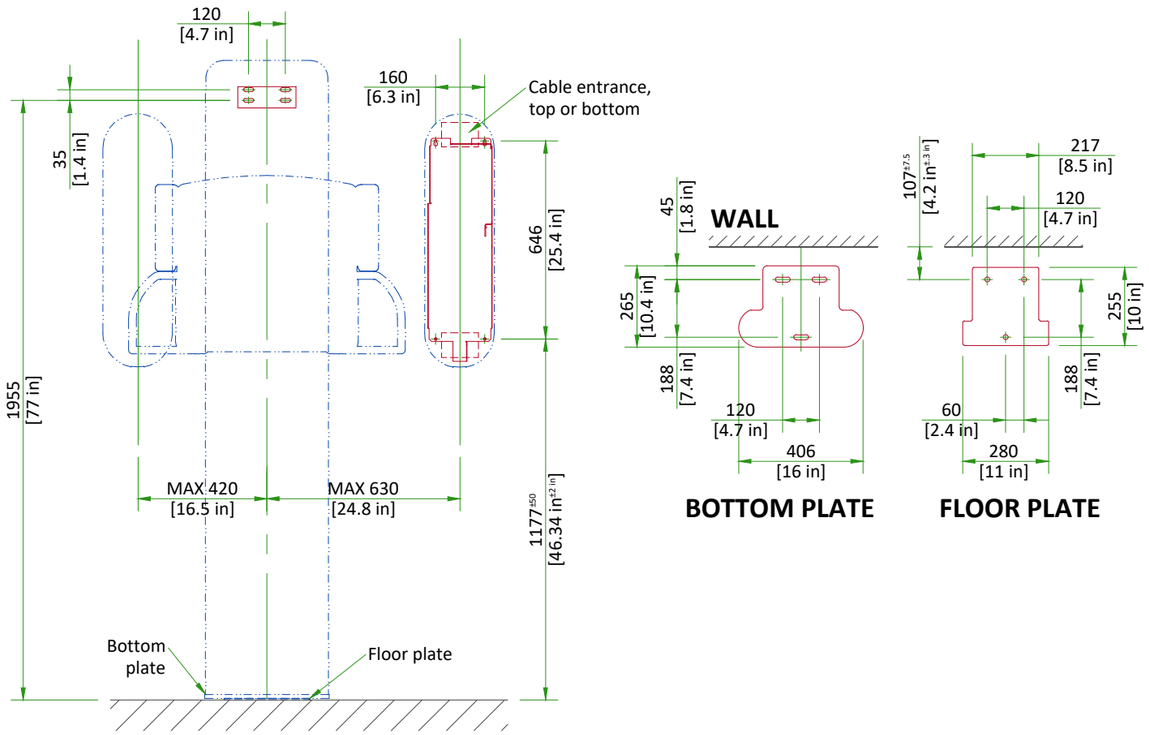
SCALE 1:20

CABINET WALL MOUNTING



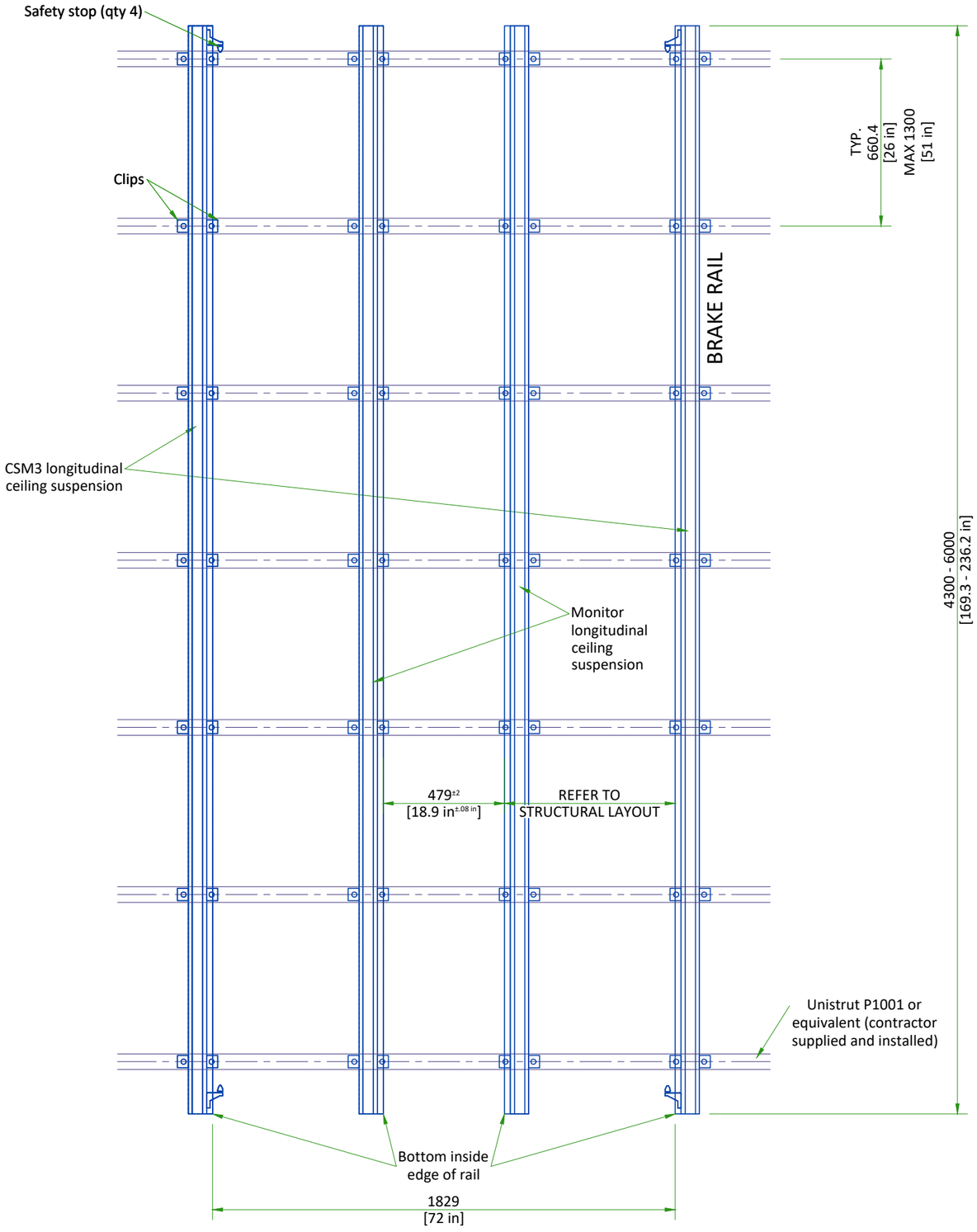
SCALE 1:20

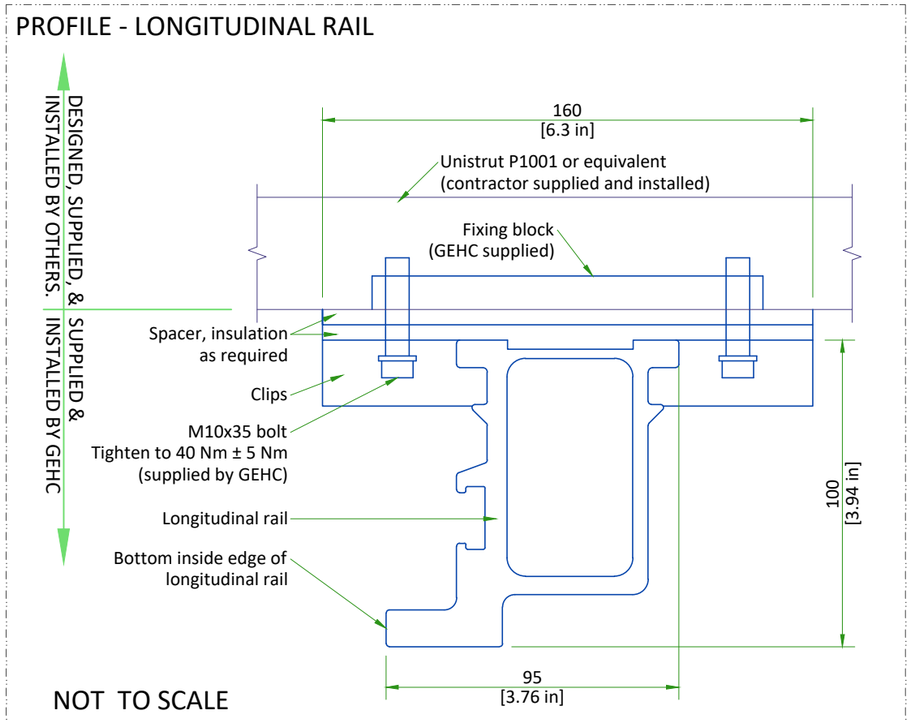
VERTICAL STAND AND WALL BOX ANCHORING



SCALE 1:20

SUSPENSION RAIL MOUNTING SPECIFICATIONS





LOADING

The fixing system for the ceilings (anchor rails) must withstand static and dynamic forces on usual. For seismic loads the standard values for the forces have to be adapted by customer's structural engineers according local requirements e.g. OSHPD. Required safety factors must be defined by customer's structural engineers.

STATIC FORCES Maximal load of each mounting point	
Tension force*	**Compressive force***
4250 N	850 N
*Force is uniformly distributed to two metric M8 screws	

DYNAMIC FORCES

The fixing system for the ceiling rails must withstand the forces of retardation acting in longitudinal and transversal direction. In normal operation these forces come up to approximately 0.45 kN each Under extreme not allowed conditions (if the ceiling suspension hits an end stop in the ceiling rails with 0.6 m/s) the forces come up to max 2.6 kN in the direction of the ceiling rails.

TEMPERATURE AND HUMIDITY SPECIFICATIONS

IN-USE CONDITIONS

	EXAM ROOM	CONTROL ROOM
Temperature	10 to 35°C	0 to 40°C
	50 to 95°F	32 to 104°F
Relative humidity (1)	20% to 60%	20% to 80%

STORAGE CONDITIONS

Temperature	-10 to 55°C
	14 to 131°F
Relative humidity (1)	5% to 95%

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.

HEAT DISSIPATION DETAILS

ROOM	DESCRIPTION	IN-USE (W)	IN-USE (BTU/hr)
Exam Room	Table	550	1900
	Velara Cabinet (Generator)	-	-
	M-Cabinet	300	1024
	Operators Console	150	512
	Monitor (trolley/suspension)	60	204
	Vertical Stand	130	444
	Ceiling Suspension (CSM3)	400	1365

CONNECTIVITY REQUIREMENTS

Connector Type	UTP (RJ-45)	One port
Network layers	Standard Ethernet (10 Mb)	**No**
	Fast Ethernet (100 Mb)	Yes
	Gigabit Ethernet (1000 Mb)	Yes

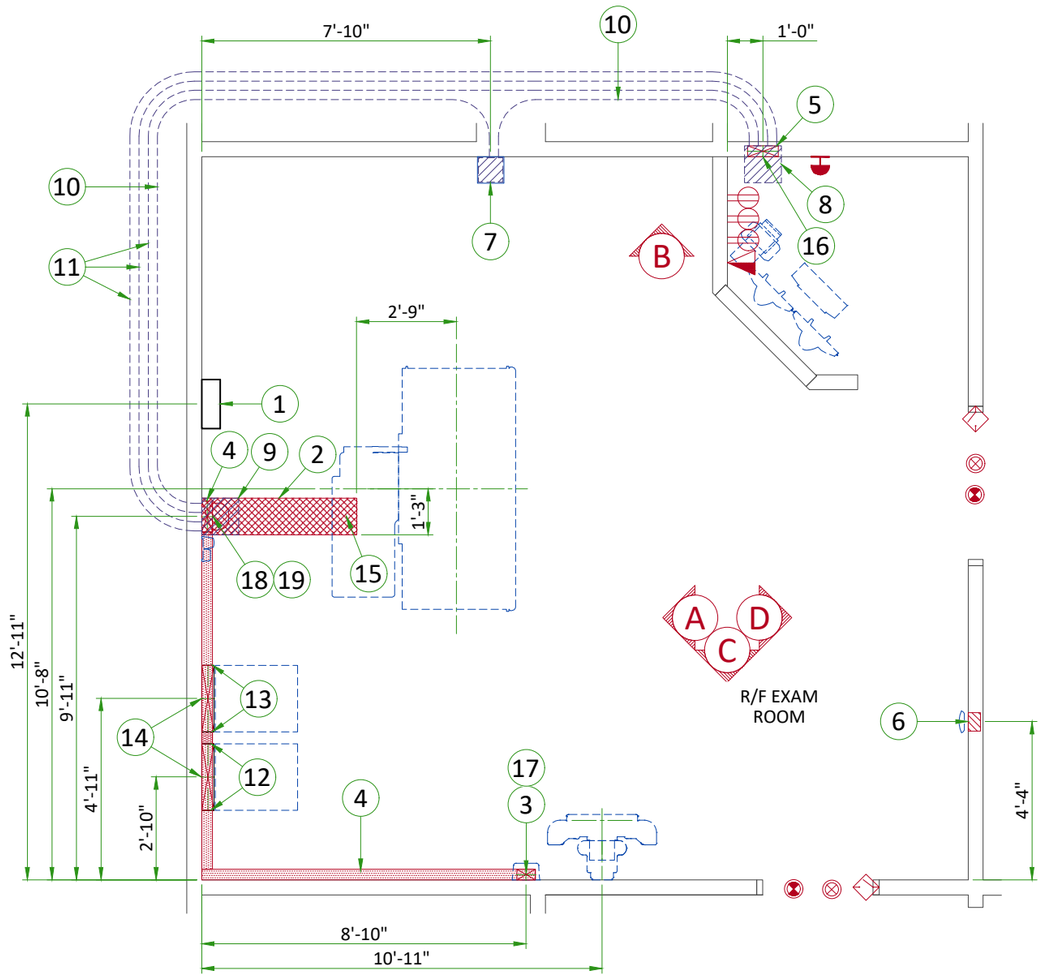
Notes:

- A connection over the hospital network via a 10Mb standard ethernet LAN is not permitted.
- A connection over the hospital network via a 100Mb fast ethernet LAN can decrease the hospital network performance if image transfer is active.

ELECTRICAL NOTES

1. Aluminum or solid wires are not allowed.
2. Wire sizes given are for use of equipment. Larger sizes may be required by local codes.
3. It is recommended that all wires be color coded, as required in accordance with national and local electrical codes.
4. Conduit sizes shall be verified by the architect, electrical engineer or contractor, in accordance with local or national 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.
6. General room illumination is not illustrated. Caution should be taken to avoid excessive heat from overhead spotlights. 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.

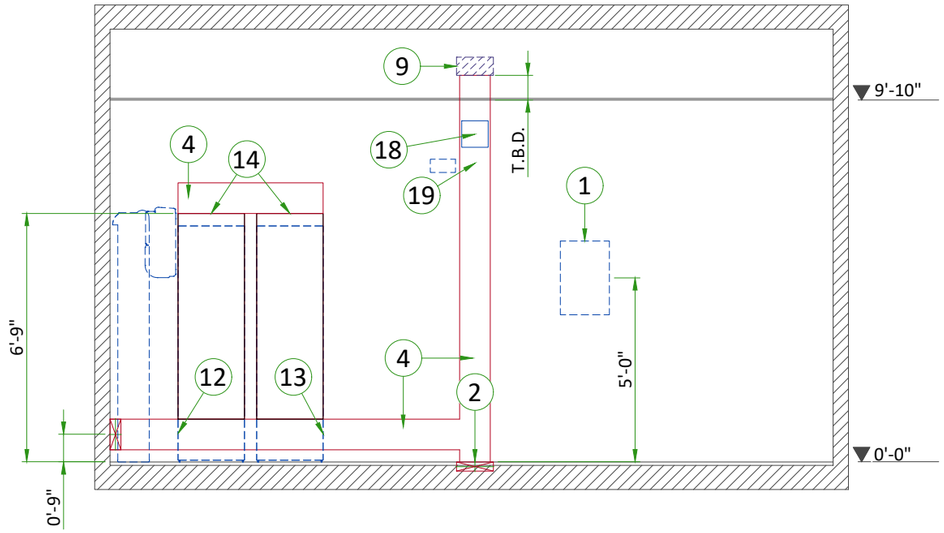


Item	Electrical Layout Item List
1	Main Disconnect Panel (MDP)
2	12" x 3" [300 x 100] Trench duct with minimum 2 dividers
3	6" x 3 1/2" [150 x 100] Surface wall duct with minimum 2 dividers
4	10" x 3 1/2" [250 x 100] Surface wall duct with minimum 2 dividers
5	10" x 3 1/2" [250 x 100] Flush wall duct with minimum 2 dividers
6	Flush box - size per local code (Access Point)
7	Box flush in ceiling - size per local code (Monitors)
8	Box above ceiling, size per local code (Control room)
9	Box above ceiling, size per local code (Exam room)
10	1 1/2" [38] Conduit above ceiling
11	2 1/2" [64] Conduit above ceiling
12	Grommeted opening (M-Cabinet)
13	Grommeted opening (Velara Cabinet)
14	Wall boxes, behind the M-Cabinet and Velara Cabinet
15	Grommeted opening (Table)
16	Grommeted opening (Operator's Console)
17	Grommeted opening (Wall Stand)
18	Grommeted opening (CSM3)
19	Grommeted opening (Indicator box)

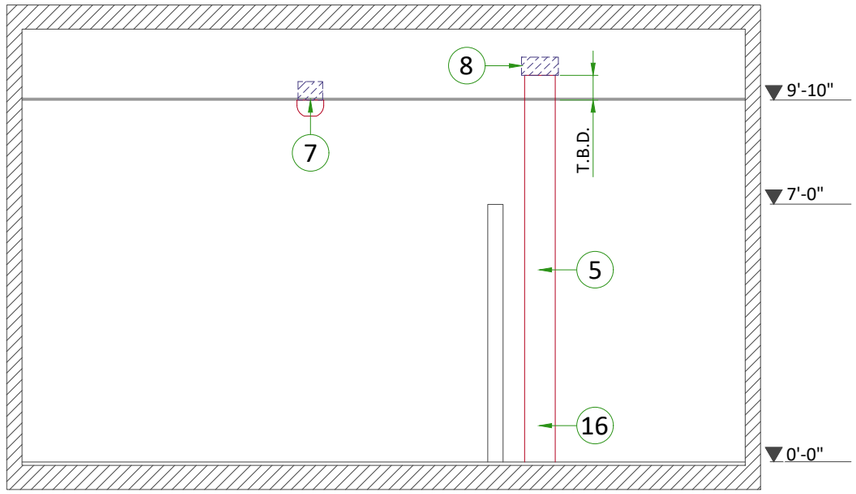
ITEM	QTY	Electrical Outlet Legend Customer/contractor supplied and installed items unless otherwise specified. Height above floor determined by local codes unless otherwise specified.
		System emergency off (SEO), (recommended height 1.2m [48"] above floor)
		X-Ray room warning light control panel
		X-Ray ON lamp (L1) - 24V
		Door interlock switch (needed only if required by state/local codes)
		Duplex hospital grade, dedicated wall outlet 120-v, single phase power
		Network outlet

Additional Conduit Runs
(Contractor Supplied and Installed)

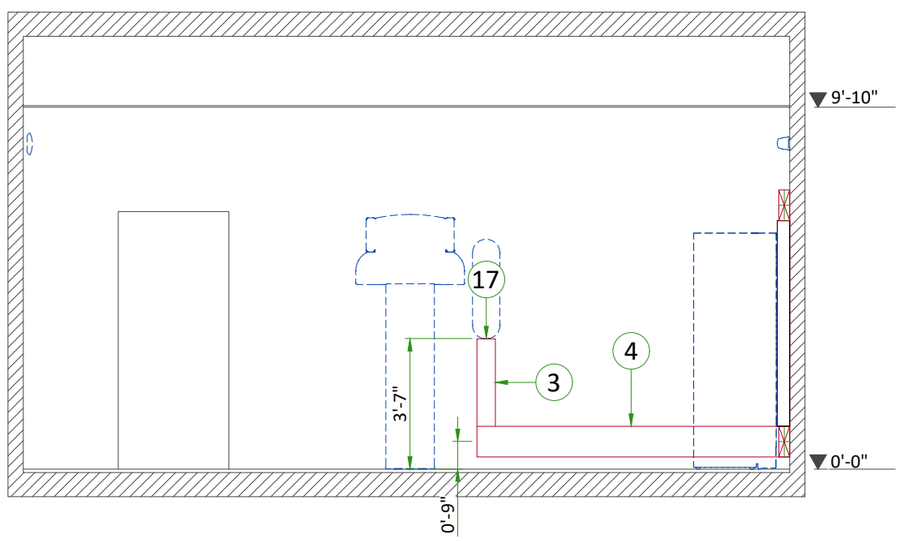
From (Bubble # / Item)		To (Bubble # / Item)		Qty	Size	
					In.	mm
	3 phase power	1	Main Disconnect Panel	1	As req'd	As req'd
1	Main Disconnect Panel		Emergency off	1	3/4	20
		9	M-Cabinet	1	2	50
	Warning light		Warning light control	1	1/2	16
	1 phase power			1	As req'd	As req'd
9	M-Cabinet			1	2	50
			Door Switch	1	1/2	16
			Room lights	1	1/2	16
8	Operators console	6	Access Point	1	1	25


9
18
19
4
14
1
T.B.D.
9'-10"
6'-9"
12
13
4
2
5'-0"
0'-9"
0'-0"

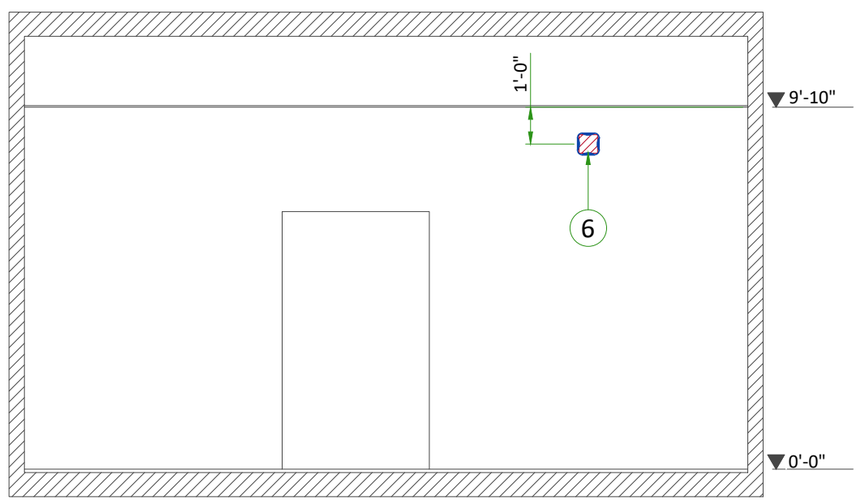
A


8
7
T.B.D.
9'-10"
7'-0"
5
16
0'-0"

B


9'-10"
17
4
3
3'-7"
0'-9"
0'-0"

C


1'-0"
9'-10"
6
0'-0"

D

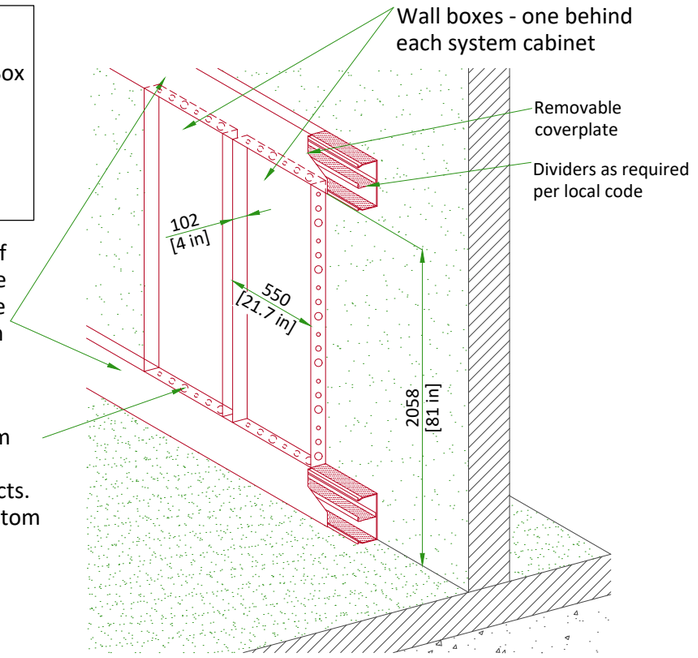
CABINET WALL BOX

ORDERING INFORMATION:
DMG Davenport Manufacturing Group
Part Number 989801220367 Xray Wall Box

Contact:
backbox@thedmgusa.com
Tel: (260) 495-1818 ext. 243
Fax: (260) 495-1822

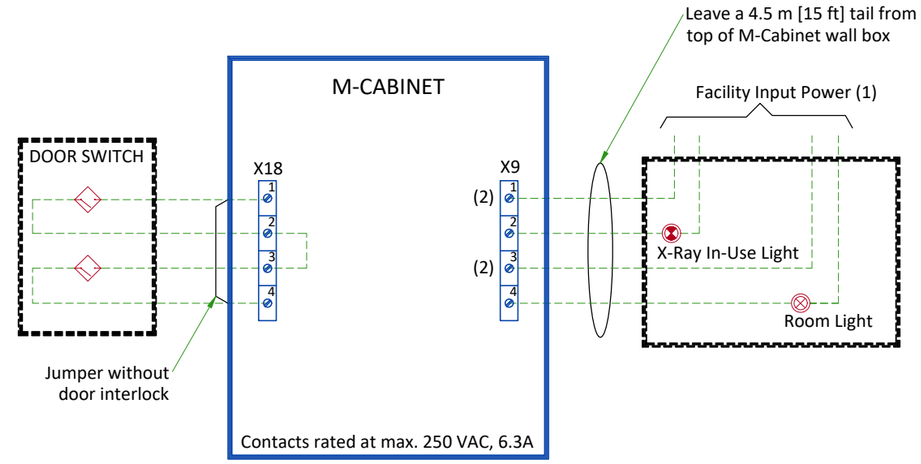
Wall ducts are only needed if conduit knockouts within the terminal wall box are not the sufficient size, quantity, or in the proper location to meet the siting requirements

Pop-rivets on top and bottom can be removed for direct integration with raceway ducts. DO NOT remove top and bottom if conduit hubs are used.
Pop rivet sizes:
64 mm [2.5 in]
51 mm [2 in]
36 mm [1.38 in]



NOT TO SCALE

EXAM ROOM WARNING LIGHT AND DOOR INTERLOCK

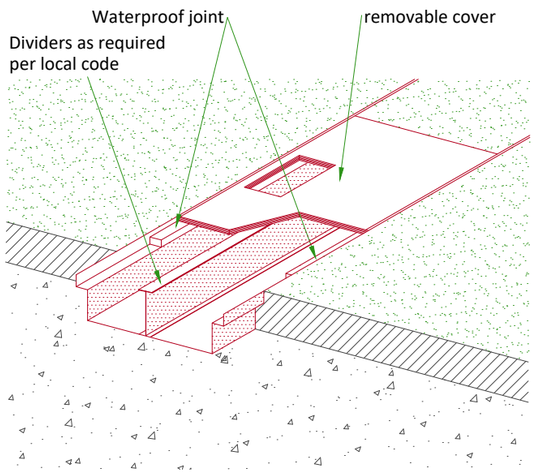


Notes :
(1) Grounding not shown on the detail, but must comply with local codes.
(2) Normally open relay contact in cabinet

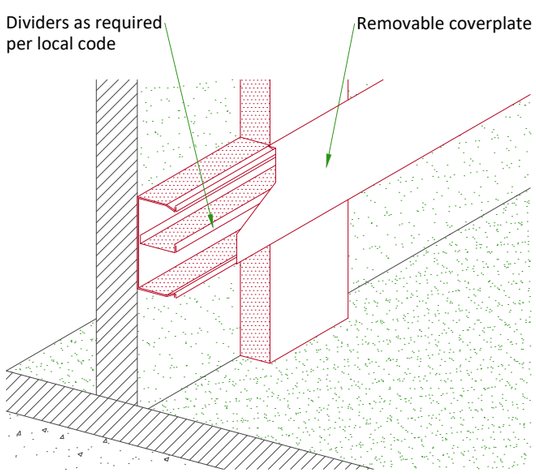
Cable SUPPLIED BY CUSTOMER
Cable SUPPLIED BY GEHC
Equipment SUPPLIED BY CUSTOMER
Equipment SUPPLIED BY GEHC

TYPICAL CABLE MANAGEMENT

FLUSH FLOOR DUCT

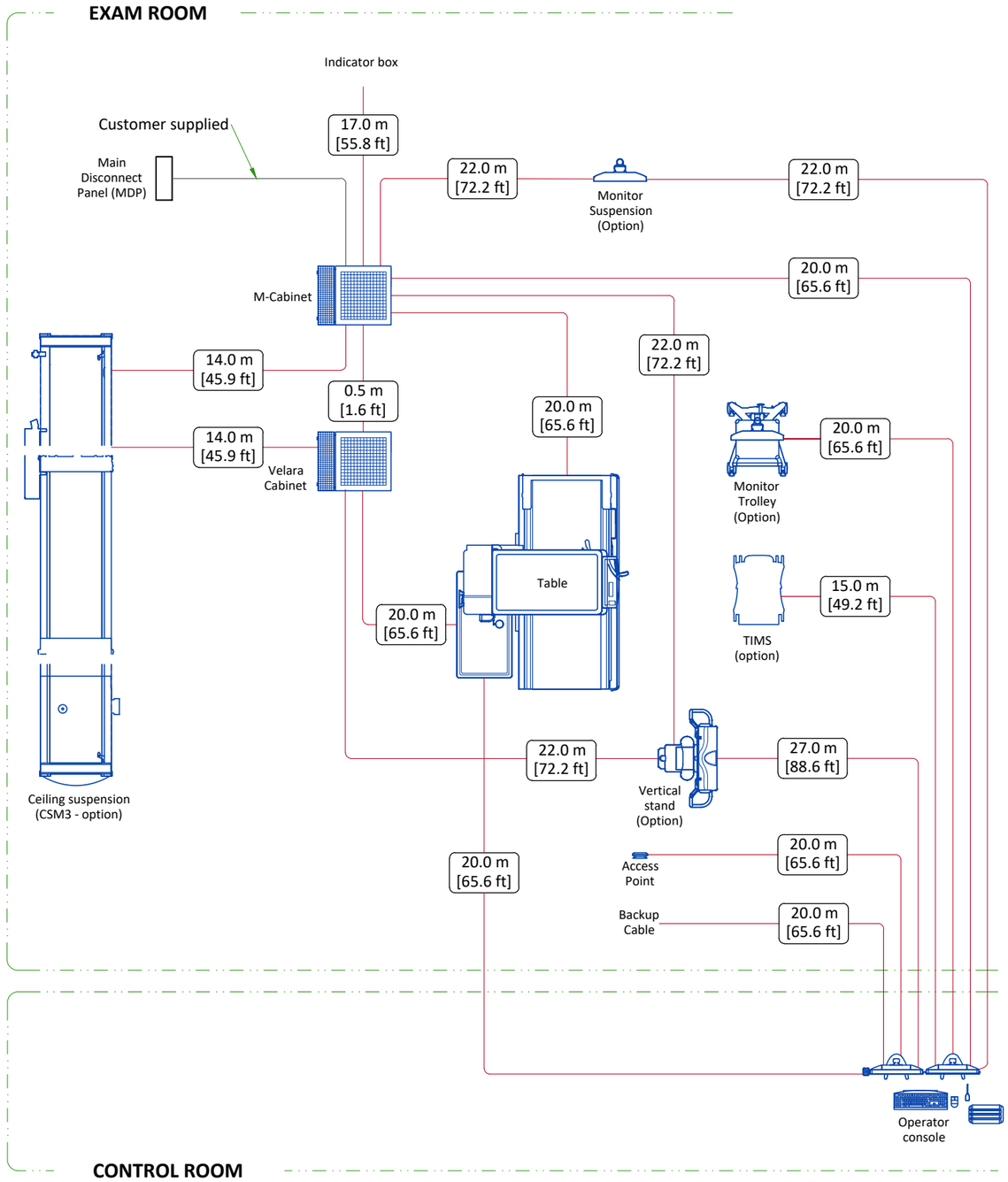


WALL DUCT



NOT TO SCALE

INTERCONNECTIONS



NOTE: All cable lengths are given from outlet to outlet.

POWER REQUIREMENTS

POWER SUPPLY	**380/400/440/460/480V ±10%, THREE-PHASE + G**
FREQUENCIES	**49-61 Hz with minimum 0.5 Hz variation**
SHORT-TIME RATED LOAD AT 0.1s	**80 kW**
MAXIMUM MAIN RESISTANCE (RXG)(mOhm)	**380V : ≤ 150 / 400V : ≤ 200 / 440-460V: ≤250 / 480V : ≤300**
CURRENT PER PHASE DURING STANDBY	**< 2 A**
CURRENT PER PHASE DURING CONTINUOUS X-RAY AT 3mA/110kV	**< 8 A**

- 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 material at the beginning of the installation (main low-voltage transformer side) and the protective devices in the MDP.

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 GEHC 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 GEHC cableways and to additional equipotential connections linking up all the conducting units in the rooms where GEHC 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.

CABLE DUCT

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

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

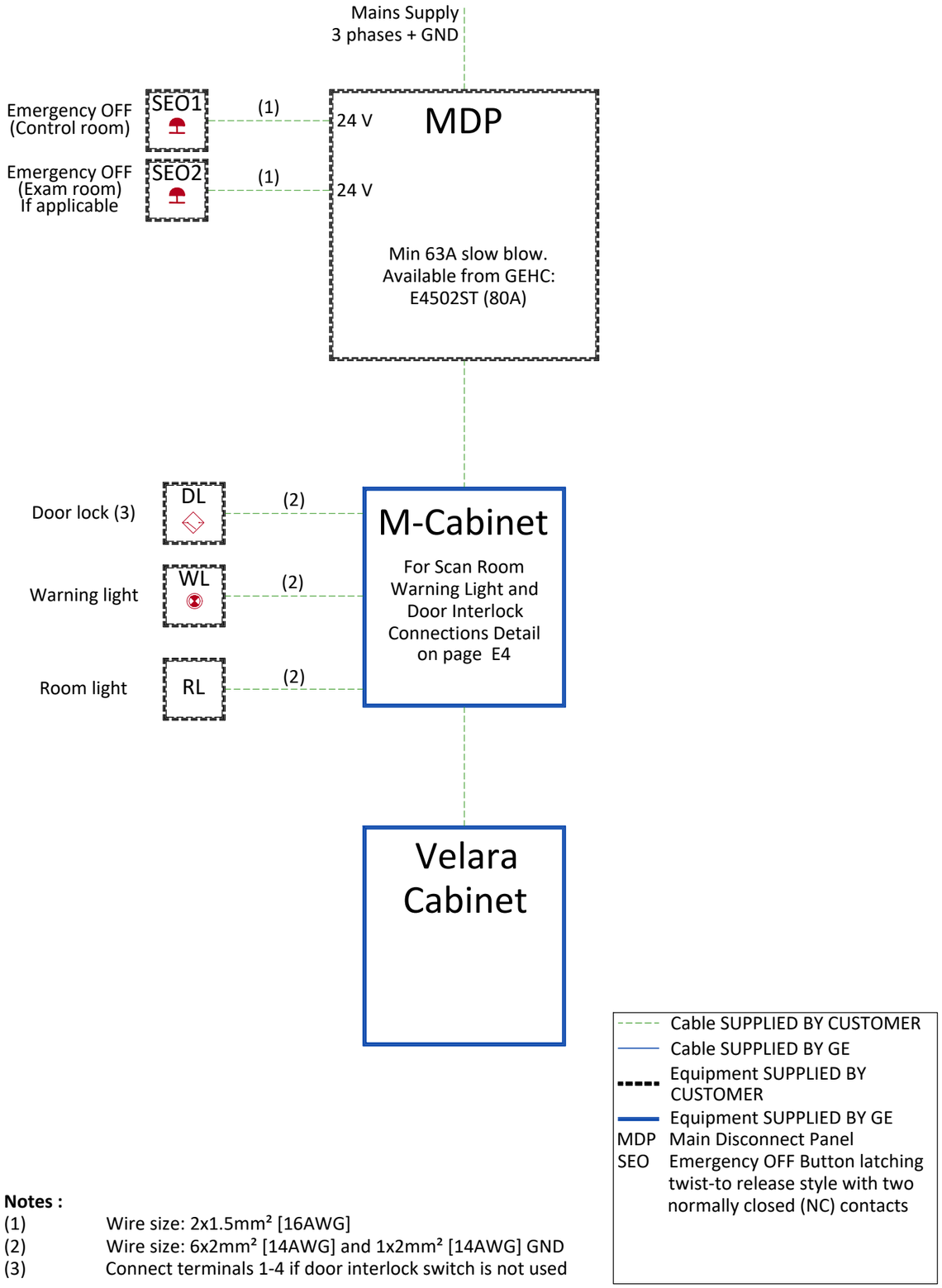
CONDUCTOR SIZING

Recommended conductor sizes for 1% impedance of branch conductors to MDP.
Based on 20°C copper conductors:

480 VAC - distance to cabinet	Conductor size (AWG)
95'	#1
119'	1/0
150'	2/0
190'	3/0
242'	4/0
283'	5/0

Instantaneous Current: 230A
Minimum copper wire size, MDP to equipment: #2 AWG, maximum 50' in length. The ground conductor for the power feeder shall be the same size as the phase conductor wires.

POWER DISTRIBUTION



Notes :

(1) Wire size: 2x1.5mm² [16AWG]
(2) Wire size: 6x2mm² [14AWG] and 1x2mm² [14AWG] GND
(3) Connect terminals 1-4 if door interlock switch is not used