

Drawing Index

These sheets are a document set and should not be separated. Electrical information and references are contained on all sheets.

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These drawings indicate the placement and interconnection of the listed equipment components. These drawings are not construction or site preparation drawings. Customer remains ultimately responsible for preparing the site to accommodate the operation of such equipment in compliance with GE Healthcare's written specifications and all applicable federal, state, and/or local requirements.

* REQUIRED REFERENCE *

Senographe Crystal
Pre Installation Manual

1478113

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 Healthcare



Women's Health Site Planning



imagination at work

Customer Site Readiness Requirements

- 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. Capability for image analysis, 4. Restrooms.
- Provide for refuse removal and disposal (e.g. crates, cartons, packing)
- Contact a radiation physicist or consultant to specify radiation containment requirements.

GE Equipment Delivery Requirements

The items on the GE Healthcare Site Readiness Checklist are REQUIRED to facilitate equipment delivery to the IS site. Equipment will not be delivered if these requirements are not satisfied.

GE Healthcare Site Readiness Checklist Rev 19				
<p>Before using this document ensure you have the latest Rev from MyWorkshop on DOC0422752</p> <p>GEHC Global Order # _____ Customer: _____ GEHC PMI: _____ FE / Installer: _____</p> <p>The customer is responsible for proper site preparation regardless of any GEHC measurements/inspections/assessments.</p>				
Inspection Date:	Storage ready?	PHI is ready?	FE is ready?	Comments If "N", enter comments or action plan
1				MR Magnet Delivery Requirements: Ensure cryogen venting system is available for magnet connection as defined by GEHC Pre-Installation Manual (PHI) requirements, exhaust fan system is installed and operational, 480V power, and chilled water supply is available 24x7 that meets system cooling requirements. External connectivity is available for magnet monitoring and phone service is available during delivery. Surface mount vibromat installed where required. Magnet room final flooring is in place.
2				MR RF Screen Room Requirements: RF Screen Room is tested with copy of Test Report, emailed to SalesMRC@ge.com , that it is compliant with GEHC specifications. Deck Bolt magnet anchors (if applicable) installed using 2 part anchor. For HDx systems, blower box mount bolts installed by RF vendor using 2 part anchors.
3				State Regulatory Requirements: Facility registration number provided for states of IL, KY, HI, RI, SC, TX, WA Key shielding plan and state acknowledgment letter provided to installer for AR, DC, NC, SC, CO, & VA Site Drawing Requirements: Final version of equipment network and antenna, installation drawings (including red lined versions) verified to match actual room and has been provided to installer.
4				Surface Penetration Requirements: Customer/Contractor scheduled to provide required drilling for cutting into floors, ceilings, and walls, OR surface penetration permit available and posted in the room when GEHC will perform the work.
5				Pre-Delivery Route Requirements: The equipment delivery route from the truck to the final destination within the facility has been reviewed with all key stakeholders to safely meet the minimum requirements for equipment access, and all communications/notifications have occurred. Arrangements have been made for special handling (elevator, rigging, floor protection, fork lift, rollback truck, etc).
6				Finished Room Requirements: Rooms that will contain equipment, including storage areas not in scan suite, are dust free. Provisions taken to maintain a dust free room. Precautions must be taken to prevent dust from entering rooms containing equipment when construction is incomplete in adjacent areas. All walls primed (final coat not needed on Day 1). Shielding doors, and windows are to be installed. No contractor work being done during or after the installation that will cause dust in the installation areas or potential equipment damage. Room security to prevent unauthorized access and theft has been discussed with customer. The customer is aware of these security issues, implications and responsibility. For Storage: Room must meet PHI requirements for storage.
7				Electrical Requirements: Lockable (LOTO) Main Disconnect Panel (MDP) is installed per GE guidelines and system power is available. Conduits, electrical cable ducting/dividers/cable trays, and access flooring is installed in proper location and height. Surface floor duct and load-side wires can be installed at time of system installation. Validate outlet location and requirements meet specifications for device/equipment.
8				HVAC Requirements: The HVAC/Chilled Water systems designed to maintain the environment per spec/PHI is at running state and appears to provide the desired environmental conditions including location of vents, temperature and humidity for system operation.
9				Flooring Requirements: Floor is clean and prepared for final floor covering. Floor levelness/flatness is measured and within tolerance, and there are no visible defects per GEHC specifications. Confirm customer anchoring plan aligns with designed floor thickness. Final flooring installed where required for network racks.
10				Ceiling Requirements: Unistrut (or equivalent) location, levelness and spacing is measured (or vendor confirmed) and consistent with the requirement of the installation drawings. Ensure unistrut and rails are not used as mounting surfaces. Ceiling grid is installed. Permanent lighting is installed and operational. HVAC diffusers are installed and connected to ductwork. Ceiling tiles installed per PHI discretion.
11				Staging Requirements: Space has been identified to support the active installation process only. This area meets PIM/project book requirements. Storage: Storage space has been identified, if needed. This secured space would be used to store equipment indefinitely. If offsite, transportation plan has been developed at customer expense. This space must meet PIM requirements.
12				Network Connectivity: Hardwire for network connectivity (network drop) is in place prior to delivery with specified network firewall configuration where required. Site Surveys for wireless mobile XR units have been completed.
13				Medical Gases Requirements: Systems (hard piped or portable) in place to allow testing and calibration of equipment (anesthesia), including ventilation.

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Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin
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SHEET TITLE: SITE READINESS
MODALITY TYPE: SENOGRAPHE CRYSTAL
THIS PLAN IS SUBMITTED TO SUPPORT LOCATION OF THE HEALTH CARE EQUIPMENT AND ASSOCIATED ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
DESIGN CENTER
MILWAUKEE, WI

PROJECT	REVISION
9-36f	01
DATE:	04.Nov.15
DRAWN BY:	DMH
CHECKED BY:	KMR
GON NO:	
GON DT:	

REVISION HISTORY:

SHEET
C1

GE EQUIPMENT LISTING

EQUIPMENT ON ORDER FROM GE HEALTHCARE, INSTALLED BY GE HEALTHCARE, PER GON 1234567 DATED 08.Oct.15

NOTE: LOCAL CONDITIONS MAY DICTATE THAT ITEMS IDENTIFIED IN THIS CATEGORY BE INSTALLED BY OTHERS.

EQUIPMENT CROSS REFERENCE CHART

P = PREAPPROVAL
C = CALCULATIONS/
S = SPECIFICATIONS
SEISMIC STATUS
PENDING APPROVAL ONLY

ITEM NO.	QUANTITY ORDERED	REFER TO SHEET "D"	ITEM DESCRIPTION (* = EXISTING/REINSTALL)	WEIGHT	HEAT OUTPUT (PER HOUR)	DETAIL NO.	STRC PLAN	ELEC PLAN	
①	1		GENERATOR	81 kg		B7125	-	XG	C
②	1		GANTRY	250 kg		B7127	-	GT	S
③	1		CONTROL STATION	120 kg		B7128	-	OC	S

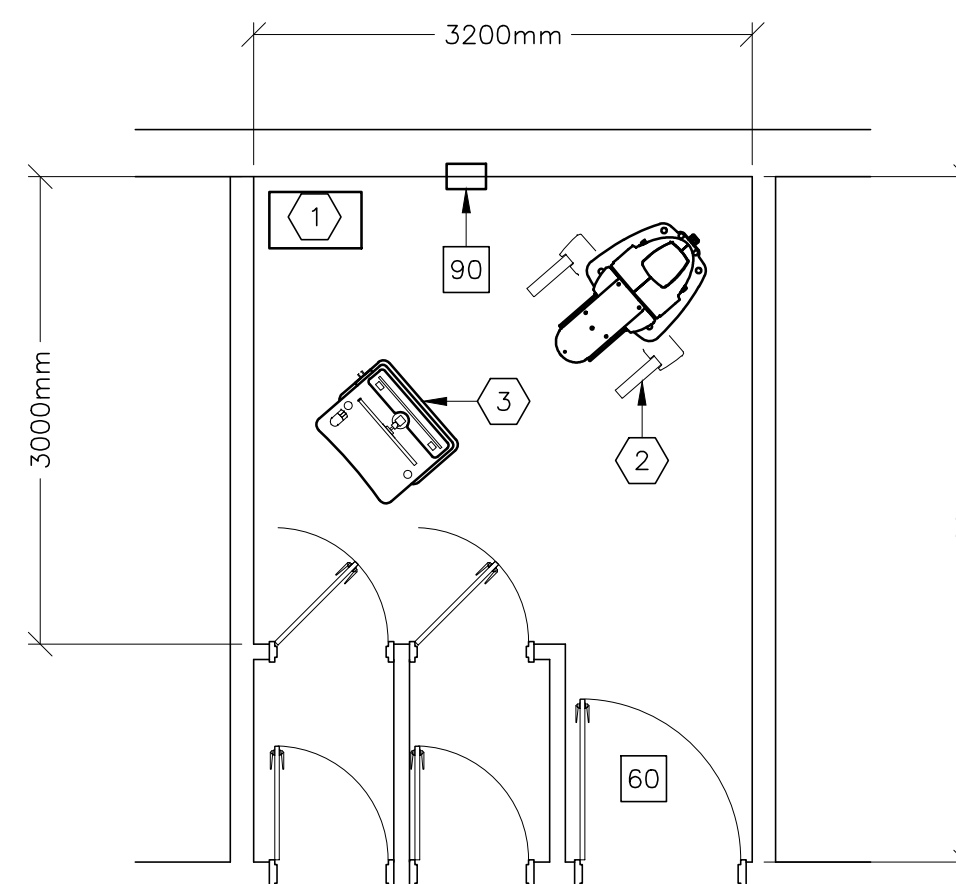
THE FOLLOWING ITEMS, WHICH HAVE BEEN ORDERED FROM GE HEALTHCARE, ARE TO BE INSTALLED BY THE CUSTOMER OR HIS CONTRACTOR.

SCALE: 1:50

EQUIPMENT LAYOUT

RECOMMENDED CEILING HEIGHT = 2438MM

This equipment layout indicates the placement and interconnection of the indicated equipment components. There may be federal, state, and/or local requirements that could impact the placement of these components. It remains the Customer's responsibility for ensuring the site and final equipment placement complies with all applicable federal, state, and/or local requirements.



ANCILLARY ITEMS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
60	MINIMUM DOOR OPENING FOR EQUIPMENT DELIVERY IS 28 IN. W x 79 IN. H (711mm x 2006mm). CONTINGENT ON A 60 IN. (1524mm) CORRIDOR WIDTH
90	MAIN DISCONNECT CONTROL, WALL MOUNTED GEMS CAT. NO. E4502B, 65 lbs. SEE DETAIL R4502B

THE FOLLOWING ITEMS ARE AVAILABLE FROM GE HEALTHCARE TECHNOLOGIES. CONTACT YOUR LOCAL GE HEALTHCARE SERVICE REPRESENTATIVE FOR PRICING AND AVAILABILITY.

GENERAL SPECIFICATIONS

- THE REQUIRED CEILING HEIGHT INDICATED ON THESE PLANS IS TO ENSURE EQUIPMENT FUNCTION IS NOT INHIBITED. CONSULT WITH YOUR LOCAL GEHC SPECIALIST REGARDING ACCEPTABILITY OF OTHER CEILING HEIGHTS.
- CHECK ALL DOOR OPENINGS AND HALLWAYS FROM DELIVERY LOCATION TO WHERE EQUIPMENT IS TO BE INSTALLED TO ENSURE THE ROUTE PHYSICALLY AND STRUCTURALLY WILL ACCOMMODATE THE EQUIPMENT AS SHIPPED.
- RADIATION PROTECTION REQUIREMENTS ARE NOT INDICATED ON THIS PLAN. WHERE NEEDED PER NATIONAL OR LOCAL CODE THEY SHALL BE SPECIFIED BY A QUALIFIED RADIOLOGICAL PHYSICIST.
- THE DEVELOPMENT OF THE EQUIPMENT LAYOUT, ROOM DIMENSIONS, MECHANICAL AND ELECTRICAL SUGGESTIONS IS PREDICATED UPON THE BEST INFORMATION OBTAINABLE FROM THE SITE, COUPLED WITH THE CUSTOMER'S KNOWN DESIRES. ARCHITECTURAL OR ELECTRICAL CHANGES INCLUDING RELOCATION OF EQUIPMENT ILLUSTRATED ON THIS DRAWING IS ALLOWED ONLY WITH NOTIFICATION, IN WRITING, AND REVIEW BY GEHC SERVICE DEPARTMENT. EQUIPMENT OPERATION, SERVICEABILITY, AND RESTRICTING CABLE LENGTHS, ETC., MAKE THIS ESSENTIAL FOR A PROPER IS. GEHC RESERVES THE RIGHT TO MAKE ON THE JOB CHANGES BECAUSE OF CUSTOMER REQUIREMENTS AND/OR OBSTACLES IN CONSTRUCTION, ETC..
- ALL WORK TO BE IN COMPLIANCE WITH NATIONAL AND LOCAL BUILDING SAFETY CODES.
- DIMENSIONS ARE TO FINISHED SURFACES OF ROOM

SITE ENVIRONMENT SPECIFICATIONS

- AMBIENT OPERATING TEMPERATURE: 68°F (20°C) TO 86°F (30°C), MAXIMUM ALLOWABLE TEMPERATURE CHANGE OF XX°F (XX°C)/HOUR.
- HUMIDITY: 30 TO 75 PERCENT NON-CONDENSING, MAXIMUM ALLOWABLE CHANGE OF XX PERCENT/HOUR.
- ALTITUDE: NOT TO EXCEED XXXX FT. ABOVE SEA LEVEL.
- THE ENVIRONMENT FOR THE SENOGRAPHE MUST BE CONTROLLED SO THE ABOVE RESTRICTIONS ARE NOT EXCEEDED.

MAGNETIC INTERFERENCE SPECIFICATIONS

- IN ORDER TO AVOID INTERFERENCE ON THE SENOGRAPHE SYSTEM, STATIC FIELD LIMITS FROM THE SURROUNDING ENVIRONMENT ARE SPECIFIED.
- STATIC FIELD IS SPECIFIED AS LESS THAN 1 GAUSS IN THE EXAMINATION ROOM (GANTRY ROOM).
- STATIC FIELD IS SPECIFIED AS LESS THAN 3 GAUSS IN THE TECHNICAL ROOM.

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Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin

SHEET TITLE: EQUIPMENT LAYOUT
MODALITY TYPE: SENOGRAPHE CRYSTAL
THIS PLAN IS SUBJECT TO SURVEY LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
DESIGN CENTER
MILWAUKEE, WI

PROJECT	REVISION
9-36f	01

DATE: 04.Nov.15
DRAWN BY: DMH
CHECKED BY: KMR
GON NO:
GON DT:

REVISION HISTORY:

SHEET
A1

GE Project Manager: ANNETTE RALLO-KOHLHAGEN
Telephone: 262-957-7236

THE GE HPI TECHNICAL SUPPORT GROUP IS AN ADDITIONAL RESOURCE THAT CAN PROVIDE ANSWERS FOR GENERAL GE PRODUCT SITING QUESTIONS AND CAN BE REACHED AT (877)-355-8677 OR MILWAUKEE@GE.COM

TYPICAL WALL SUPPORT ELEVATIONS

SCALE: 1:50

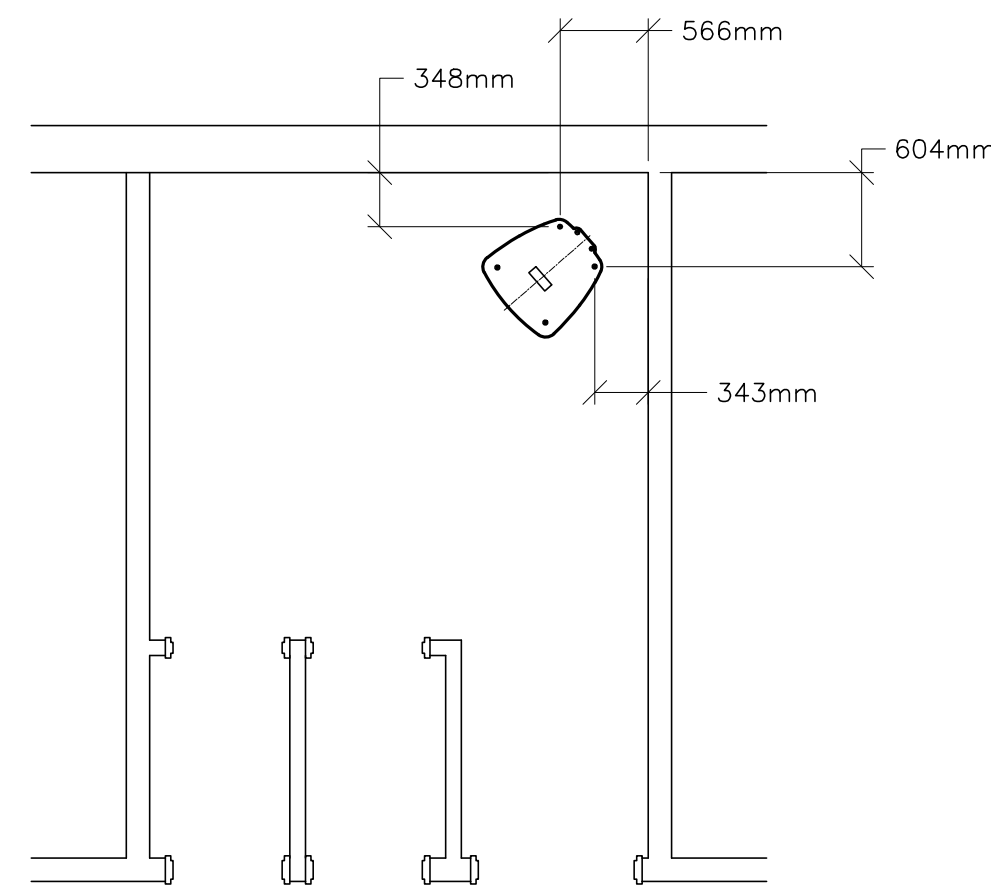
STRUCTURAL LAYOUT

RECOMMENDED CEILING HEIGHT = 2438MM

STRUCTURAL SUPPORT METHODS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)



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 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 6,35mm (1/4") BELOW THE FINISHED CEILING.
- FLOOR SLABS ON WHICH EQUIPMENT IS TO BE INSTALLED MUST BE LEVEL TO 3,17mm (1/8") IN 3050mm (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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Milwaukee, Wisconsin

SHEET TITLE: STRUCTURAL LAYOUT
MODALITY TYPE: SENOGAPHE CRYSTAL

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PROJECT TITLE:
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MILWAUKEE, WI

PROJECT	REVISION
9-36f	01

DATE: 04.Nov.15
DRAWN BY: DMH
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CON NO:
CON DT:

REVISION HISTORY:

SHEET
S1

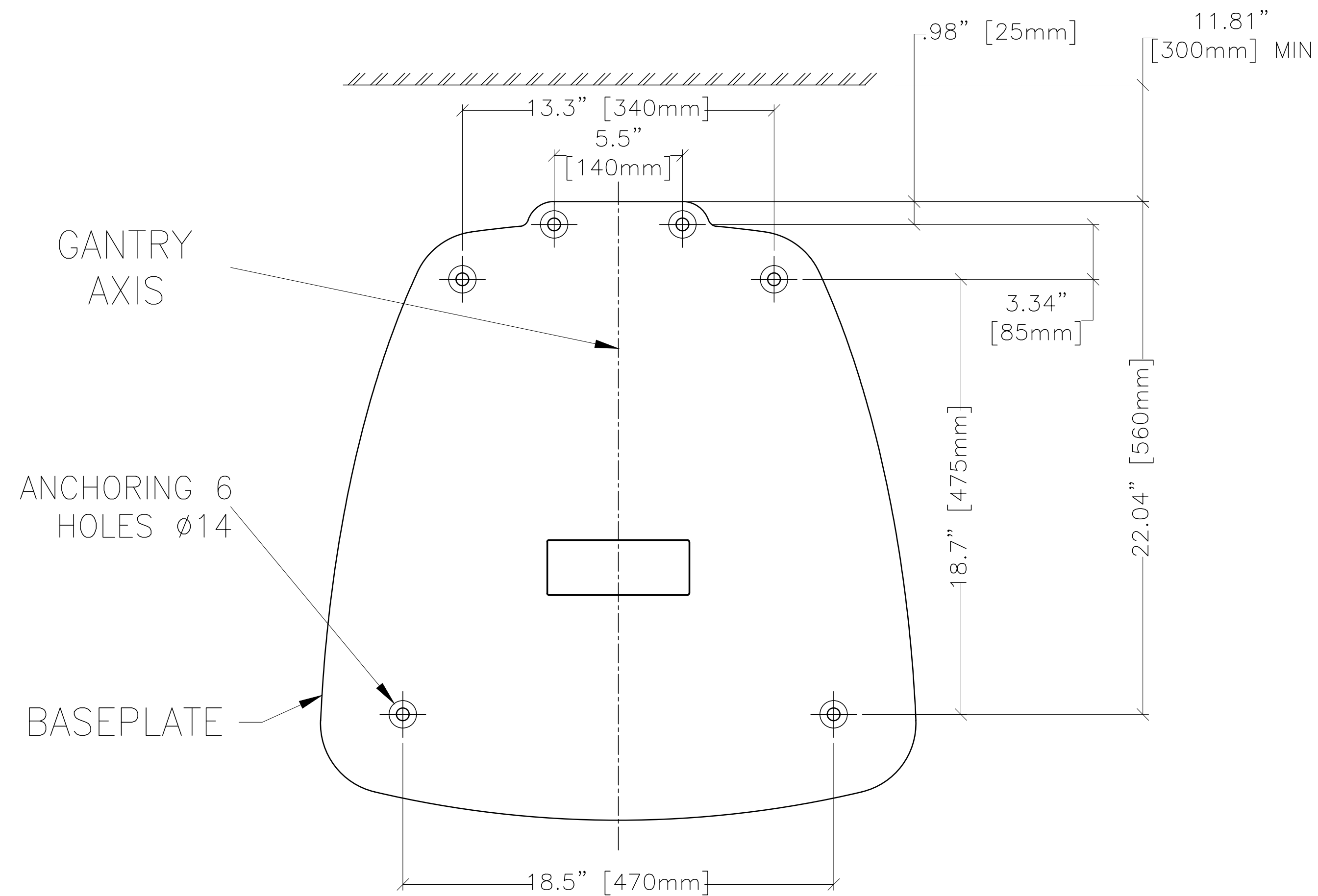
GE Project Manager: ANNETTE RALLO-KOHLHAGEN
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FLOOR MOUNTING DETAIL: SENOGRAPHE CRYSTAL

B7124C

REV. DATE: 04.NOV.15



NOTE:

- Anchors supplied by GE (For non-seismic areas only)
- Hole diameter in the floor : .47" [12mm]
- Inserts to be used (quantity) : Hilti HSL-3 M8/20 (6 items)
- Minimum floor thickness 4.72" [120mm]
- Tightening torque : 25 N.m
- The floor surface must remain horizontal and flat within $\pm 0.9"$ [$\pm 2.5\text{mm}$] per meter after installation of the Gantry.

DETAIL NOT TO SCALE

SHEET TITLE: STRUCTURAL DETAILS
MODALITY TYPE: SENOGRAPHE CRYSTAL

THIS PLAN IS SUBMITTED TO SUPPORT LOCATION OF THE MAIN FRAME EQUIPMENT AND ASSOCIATED APPARATUS ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT. EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR CONSTRUCTION OF THE MAIN FRAME EQUIPMENT. GE SHALL NOT BE HELD RESPONSIBLE FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:
DESIGN CENTER
MILWAUKEE, WI

PROJECT	REVISION
9-36f	01
DATE:	04.Nov.15
DRAWN BY:	DMH
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GON NO:	
GON DT:	

REVISION HISTORY:

SHEET
S2

GE Healthcare
Healthcare Project Implementation - Design Center
Milwaukee, Wisconsin

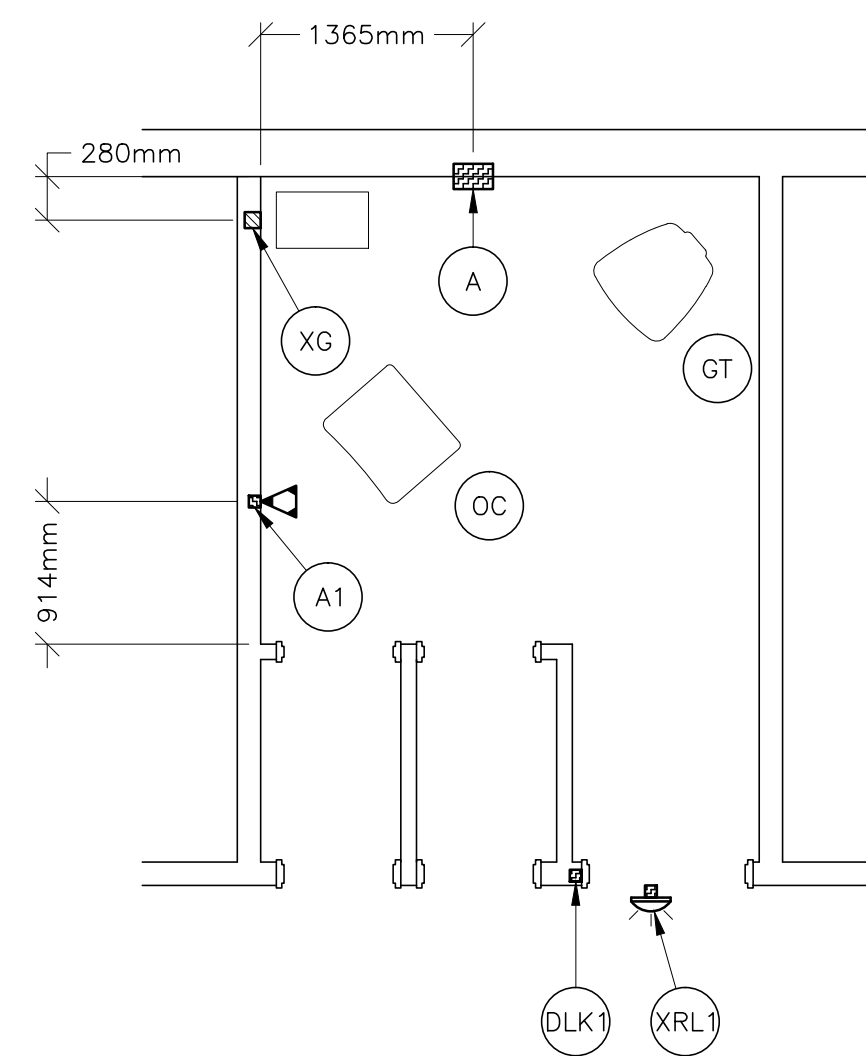
ELECTRICAL OUTLET LEGEND
 CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS.
 HEIGHT ABOVE FLOOR DETERMINED BY LOCAL CODES UNLESS OTHERWISE SPECIFIED.

BROADBAND CONNECTION (SEE ELECTRICAL DETAIL ELEG-133)

JUNCTION POINT NOTES

- ALL JUNCTION BOXES, CONDUIT, DUCT, DUCT DIVIDERS, SWITCHES, CIRCUIT BREAKERS, CABLE TRAY, ETC., ARE TO BE SUPPLIED AND INSTALLED BY CUSTOMERS ELECTRICAL CONTRACTOR.
- CONDUIT AND DUCT RUNS SHALL HAVE 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:
 - DUCTWORK SHALL BE METAL WITH DIVIDERS AND HAVE REMOVABLE, ACCESSIBLE COVERS.
 - DUCTWORK SHALL BE CERTIFIED/RATED FOR ELECTRICAL POWER PURPOSES.
 - DUCTWORK SHALL BE ELECTRICALLY AND MECHANICALLY BONDED TOGETHER IN AN APPROVED MANNER.
 - PVC AS A SUBSTITUTE MUST BE USED IN ACCORDANCE WITH ALL LOCAL AND NATIONAL CODES.
- ALL OPENINGS IN ACCESS FLOORING ARE TO BE CUT OUT AND FINISHED OFF WITH GROMMET MATERIAL BY THE CUSTOMERS CONTRACTOR.
- GENERAL CONTRACTOR TO INSERT PULL CORDS FOR ALL CABLE RUN CONDUITS BETWEEN THE EQUIPMENT ROOM AND THE OPERATORS CONTROL ROOM.
- 10 FOOT PIGTAILS AT ALL JUNCTION POINTS.
- ALL WIRING MUST BE THHN OR TFFN STRANDED COPPER THERMOPLASTIC 600 VOLT OR EQUIVALENT INSULATION. **ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.**
- GROUNDING IS CRITICAL TO EQUIPMENT FUNCTION AND PATIENT SAFETY. SITE MUST CONFORM TO WIRING SPECIFICATIONS SHOWN ON THIS PLAN.

PLEASE SEE BELOW FOR ADDITIONAL REQUIRED CONDUIT RUNS AND SIZES.



NO INFORMATION

FEEDER TABLE REV. DATE: 08.OCT.15

- CALCULATIONS BASED UPON NOMINAL VOLTAGE, WIRE SIZE IN AWG.
- RECOMMENDED FEEDER SIZES FROM DISTRIBUTION TRANSFORMER TO THE POWER CABINET
- NEUTRAL MUST BE TERMINATED INSIDE THE MAIN DISCONNECT PANEL AND NOT AT ANY GE CABINET.
- THE GROUNDING CONDUCTOR WILL BE OF SAME SIZE AS THE FEEDER WIRES. THIS GROUND WILL RUN FROM THE EQUIPMENT BACK TO THE FACILITY POWER SOURCE/MAIN GROUNDING POINT AND ALWAYS TRAVEL IN THE SAME CONDUIT WITH THE FEEDERS AND NEUTRAL.
- IF THE GENERAL ELECTRIC EQUIPMENT IS BEING FED BY A DELTA SECONDARY, IT IS RECOMMENDED THAT THE B PHASE ON THE SECONDARY BE CONNECTED TO GROUND TO PREVENT DAMAGE TO THE SYSTEM.
- FOR A FULL SYSTEM UPS, REFER TO ELECTRICAL DETAILS FOR UPS FEEDER WIRES.
- MINIMUM WIRE SIZE FOR CIRCUIT BREAKER, BASED ON RECOMMENDED OVERCURRENT PROTECTION.

NOTE: ALL WIRE IMPEDANCES MUST BE 0.2 OHMS OR LESS

RUN LENGTH IN FEET	POWER SUPPLY VOLTAGE			
	180-220 200	187-229 209	198-242 220	216-264 240
	SIZE OF FEEDERS AND GROUND WIRES (AWG)			
50	10	10	10	*10
100	6	8	8	8
150	4	6	6	6
200	4	4	4	6
250	3	3	4	4
300	2	2	3	4
350	1	2	2	3
400	1	1	2	2
450	1/0	1/0	1	2

CONDUIT RUNS FOR MAMMOGRAPHY SYSTEM (BY CONTRACTOR)

REV DATE: 18.AUG.14

A	TO	A1	ONE 1/2" CND.
A	TO	XG	ONE 1" CND.
A	TO	POWER	ONE CONDUIT AS REQ'D
XRL	TO	A	ONE 1/2" CND.
DLK	TO	XG	ONE 1/2" CND.

NOTE: SEE E2 PAGE FOR MAXIMUM RUN LENGTHS

GE Project Manager: ANNETTE RALLO-KOHLHAGEN
 Telephone: 262-957-7236

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POINT	DESCRIPTION	THE FOLLOWING MATERIALS ARE TO BE SUPPLIED AND INSTALLED BY THE CUSTOMER'S ELECTRICAL CONTRACTOR		
		QTY.	HARDWARE	DETAIL NO., SHT. E3
A	MAIN DISCONNECT * AVAILABLE FROM GEHC, CALL: 800-279-7925 OR LOCAL GE INSTALLATION PROJECT MGR.	1	30 AMP, 25,000 AIC RATED CIRCUIT BREAKER AND PANEL WITH MAGNETIC CONTACTOR AND REMOTE ON/OFF ILLUMINATED LED PUSHBUTTONS. GE CAT. NO. E4502B COVER INCLUDED.	
A1	EMERGENCY OFF	1	PROVIDE A DOUBLE GANG, 2 1/8 IN. DEEP, FLUSH MTD. WALL BOX.	
DLK1	DOOR SWITCH (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES)	1	ROOM DOOR INTERLOCK LIMIT SWITCH IN FRAME - NORMALLY OPEN (24V)	
GT	GANTRY	1	EXTERNALLY CONNECTED	
OC	CONTROL STATION	1	EXTERNALLY CONNECTED	
XG	GENERATOR	1	COVERPLATE 4 X 4 X 4 IN. BOX 1 IN. DIA. CHASE NIPPLE CONNECT EXTERNALLY TO SENOGRAPHE GANTRY GENERATOR HARDWIRED TO DISCONNECT	
XRL1	'X-RAY' ON LIGHT (NEEDED ONLY IF REQUIRED BY STATE/LOCAL CODES) AVAILABLE FROM GEHC, CALL: 800-279-7925 OR LOCAL GE PROJECT MGR	1	SINGLE GANG BOX SENDOGAPHE DLY WARNING LIGHT. GEHC CAT. NO. XMTA1BW-XIU-S0-24V(LED)	

CONTRACTOR SUPPLIED AND INSTALLED WIRING
 ELECTRICAL CONTRACTOR SHALL RING OUT, TAG AND TERMINATE ALL WIRES AT BOTH ENDS.

WIRE RUN, FROM - TO	QUANTITY, WIRE SIZE/COLOR
A > XRL1	1-BLACK, 1-WHITE, 1-GREEN - (SIZE AS REQUIRED)
A1 > A	1-BLACK, 1-WHITE, 1-GREEN - (SIZE AS REQUIRED) <WITHOUT 'POWER ON' LIGHT, 'SEND ON' LIGHT, 'X-RAY IN USE' LIGHT, DOOR SWITCH>
A1 > A	6-BLACK, 2-WHITE, 1-GREEN - (SIZE AS REQUIRED) <WITH 'POWER ON' LIGHT, 'SEND ON' LIGHT, 'X-RAY IN USE' LIGHT, DOOR SWITCH>
208-V > A	2-BLACK, 1-GREEN (REFER TO FEEDER TABLE FOR SIZE)
XG > DLK1	1-BLACK, 1-WHITE, 1-GREEN - (SIZE AS REQUIRED)

GE Healthcare

Healthcare Project Implementation - Design Center
 Milwaukee, Wisconsin

SHEET TITLE: ELECTRICAL LAYOUT
 MODALITY TYPE: SENOGAPHE CRYSTAL

THIS PLAN IS SUBJECT TO SURVEY LOCATION OF THE HEADBASE EQUIPMENT AND ASSOCIATED ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

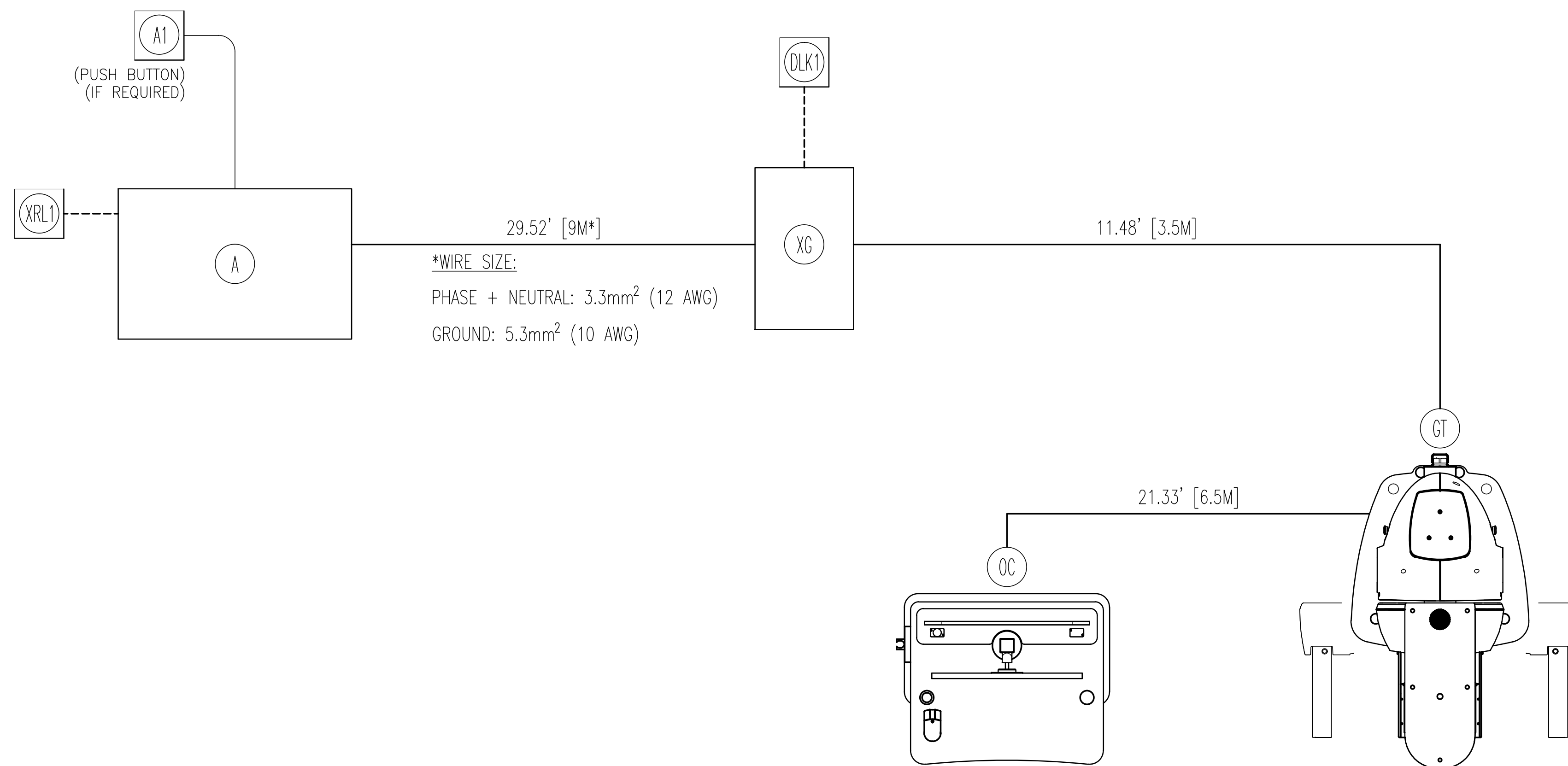
PROJECT TITLE: DESIGN CENTER
 MILWAUKEE, WI

PROJECT	REVISION
9-36f	01
DATE:	04.Nov.15
DRAWN BY:	DMH
CHECKED BY:	KMR
CON NO.:	
CON DT.:	

REVISION HISTORY:

SHEET
E1

INTERCONNECT DIAGRAM



POWER SPECIFICATIONS

SENOGRAPHE CRYSTAL REV. DATE: 08.OCT.15

POWER INPUT		SINGLE PHASE + GROUND	
VOLTAGES	220V ± 10%		
MAXIMUM POWER	MOMENTARY	6.8 kVA	STANDBY 0.5 kVA
FREQUENCIES	50/60Hz ± 0.5Hz		
LINE RESISTANCE PER WIRE		0.19 Ohm/220V	

- TNS NEUTRAL POINT CONNECTION RECOMMENDED (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 MATERIAL 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.
 - THE IMPEDANCE OF THE EARTH BAR SHOULD BE LESS THAN OR EQUAL TO 2 OHMS

- 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 DIGITAL LENGTH
 - OF 1.5M, AND WILL BE CONNECTED DURING INSTALLATION. EACH CONDUCTOR WILL BE IDENTIFIED AND ISOLATED (SCREW CONNECTOR)
 - THE LINE SUPPLY CABLE FROM THE GENERATOR MUST BE INTERNALLY AND PERMANENTLY CONNECTED TO THE HOSPITAL POWER DISTRIBUTION BOX
 - AND CANNOT BE EXTERNALLY CONNECTED TO THE POWER DISTRIBUTION BOX VIA A PLUG. THE INTERNAL AND PERMANENT CONNECTION MUST BE
 - MADE IN A WAY SUCH THE LINE SUPPLY CABLE CAN ONLY BE DISCONNECTED BY USE OF A TOOL.

- 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.

ELECTRICAL NOTES

- NOTE 1: ALL WIRES SPECIFIED SHALL BE COPPER STRANDED, FLEXIBLE, THERMO-PLASTIC, COLOR CODED, CUT 10 FOOT LONG AT OUTLET BOXES, DUCT TERMINATION POINTS OR STUBBED CONDUIT ENDS. ALL CONDUCTORS, POWER, SIGNAL AND GROUND, MUST BE RUN IN A CONDUIT OR DUCT SYSTEM. ELECTRICAL CONTRACTOR SHALL RING OUT AND TAG ALL WIRES AT BOTH ENDS. WIRE RUNS MUST BE CONTINUOUS COPPER STRANDED AND FREE FROM SPLICES. **ALUMINUM OR SOLID WIRES ARE NOT ALLOWED.**
- NOTE 2: WIRE SIZES GIVEN ARE FOR USE OF EQUIPMENT. LARGER SIZES MAY BE REQUIRED BY LOCAL CODES.
- NOTE 3: IT IS RECOMMENDED THAT ALL WIRES BE COLOR CODED, AS REQUIRED IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 4: CONDUIT SIZES SHALL BE VERIFIED BY THE ARCHITECT, ELECTRICAL ENGINEER OR CONTRACTOR, IN ACCORDANCE WITH LOCAL OR NATIONAL CODES.
- NOTE 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.
- NOTE 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.
- NOTE 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).
- NOTE 8: CONDUIT TURNS TO HAVE LARGE, SWEEPING BENDS WITH MINIMUM RADIUS IN ACCORDANCE WITH NATIONAL AND LOCAL ELECTRICAL CODES.
- NOTE 9: 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.
- NOTE 10: THE MAXIMUM POINT TO POINT DISTANCES ILLUSTRATED ON THIS DRAWING MUST NOT BE EXCEEDED.
- NOTE 11: PHYSICAL CONNECTION OF PRIMARY POWER TO GE EQUIPMENT IS TO BE MADE BY CUSTOMERS ELECTRICAL CONTRACTOR WITH THE SUPERVISION OF A GE REPRESENTATIVE. THE GE REPRESENTATIVE WOULD BE REQUIRED TO IDENTIFY THE PHYSICAL CONNECTION LOCATION, AND INSURE PROPER HANDLING OF GE EQUIPMENT.
- NOTE 12: 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.

DIAGRAM KEY

- CUSTOMER/CONTRACTOR SUPPLIED WIRING. ROUTE IN ADEQUATE CONDUIT OR RACEWAY.
- GE FURNISHED CABLE RUNS. ROUTE IN EMPTY CONDUIT OR RACEWAY.
- 59' [18M] MAXIMUM RUN LENGTH BETWEEN JUNCTION POINTS. Feet [Meters]

SHEET TITLE: ELECTRICAL SPECIFICATIONS

MODALITY TYPE: SENOGRAPHE CRYSTAL

THIS PLAN IS SUBMITTED TO SUPPORT LOCATION OF GE HEALTH CARE EQUIPMENT AND ASSOCIATED ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

DESIGN CENTER MILWAUKEE, WI

PROJECT TITLE:

PROJECT	REVISION
9-36f	01

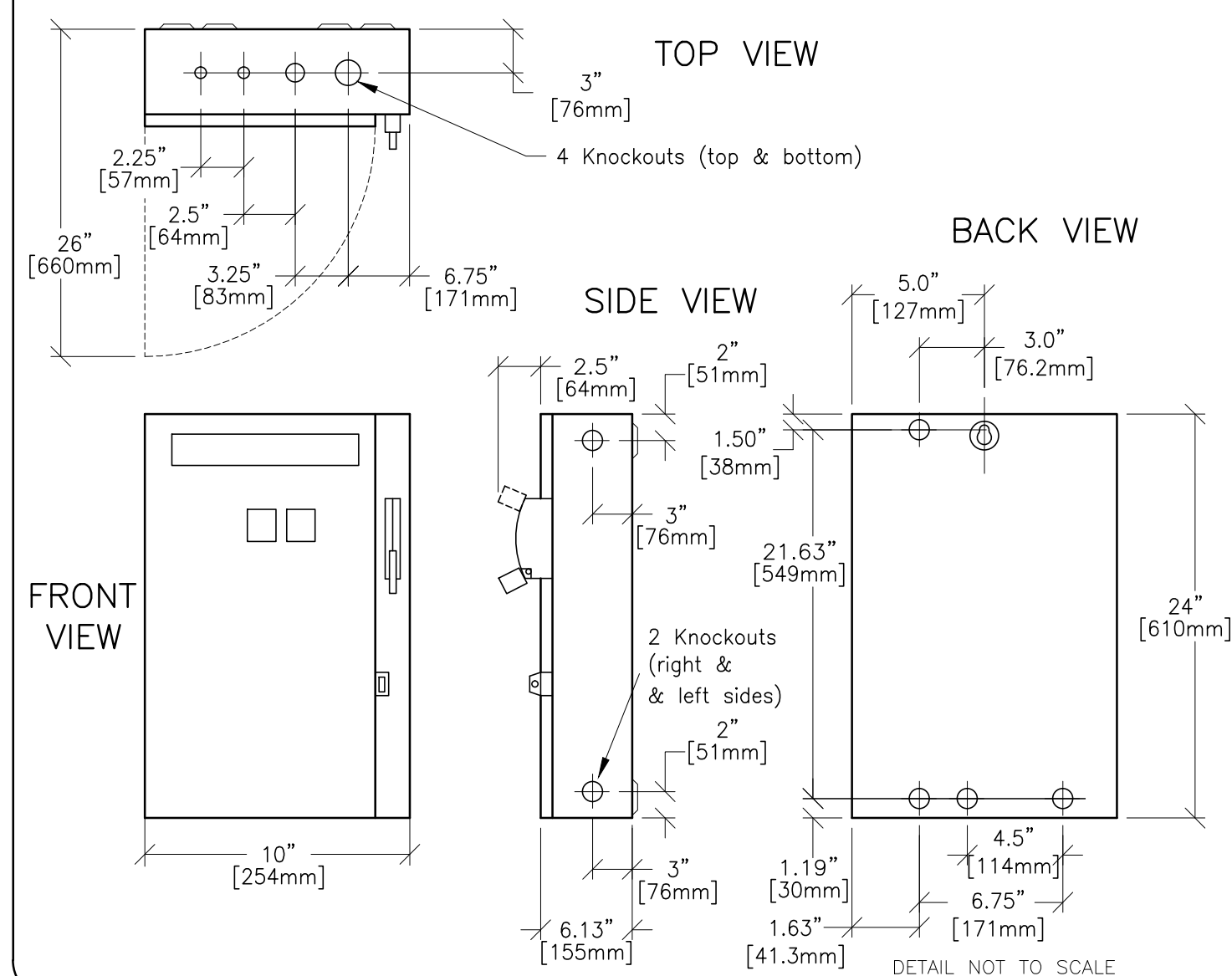
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CHECKED BY: KMR
CON NO:
CON DT:

REVISION HISTORY:

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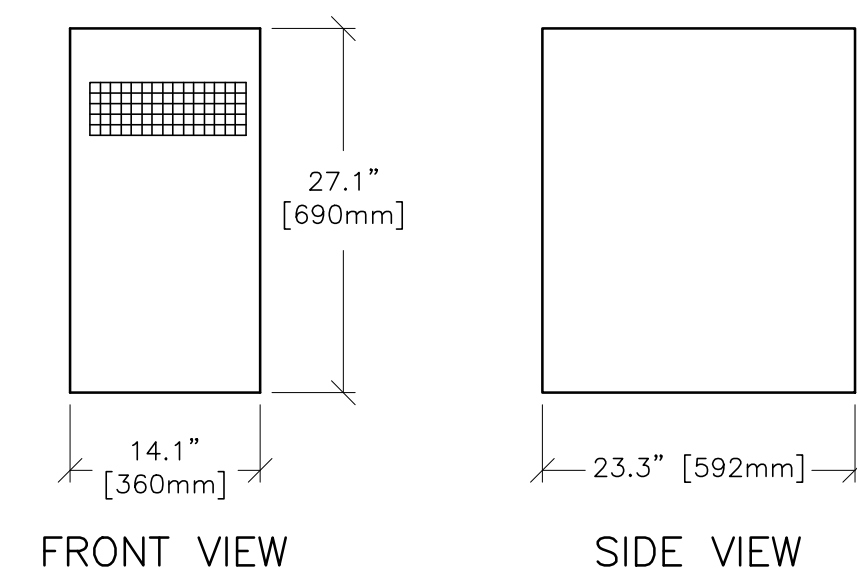
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REV. DATE: 07/24/07



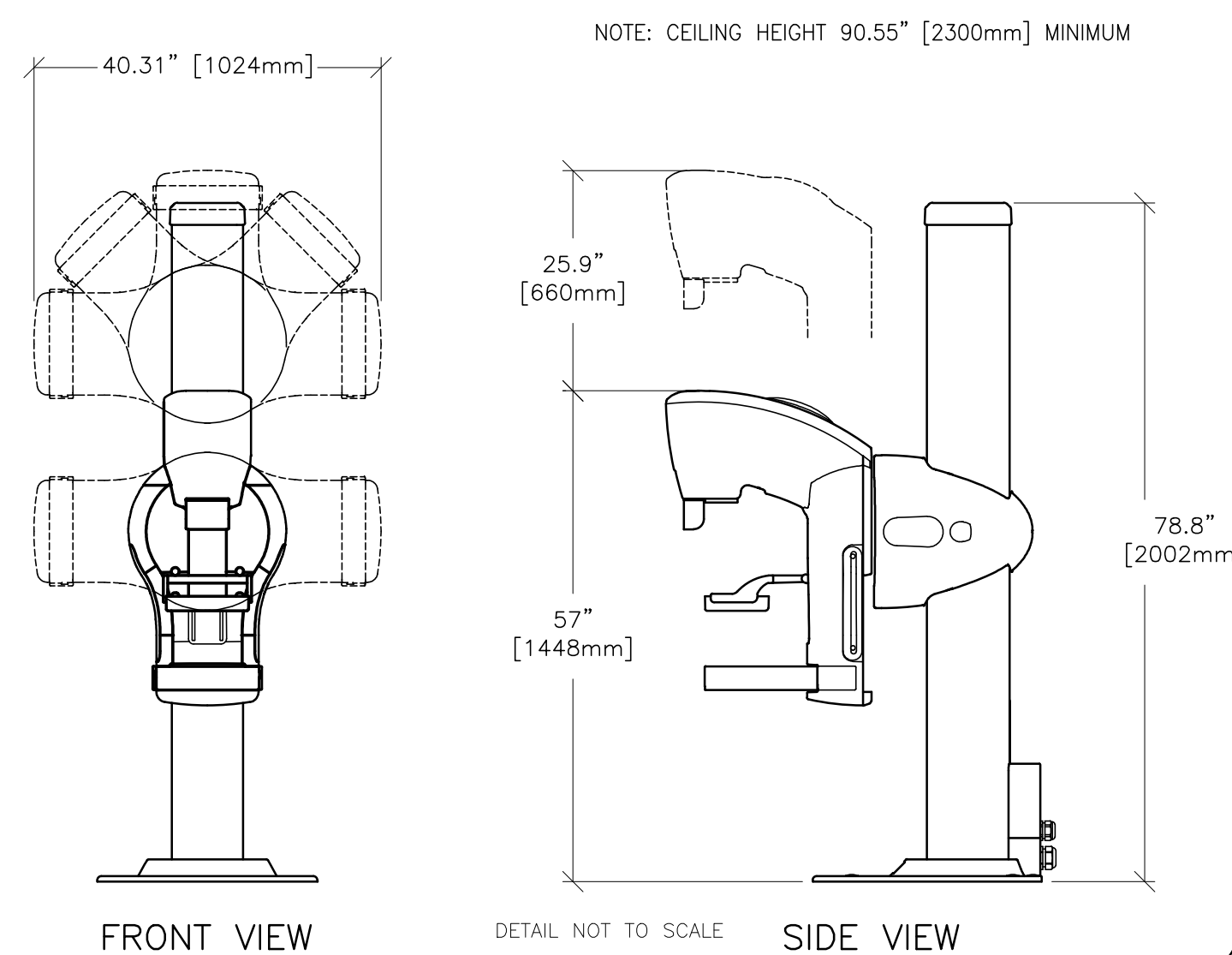
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B7125
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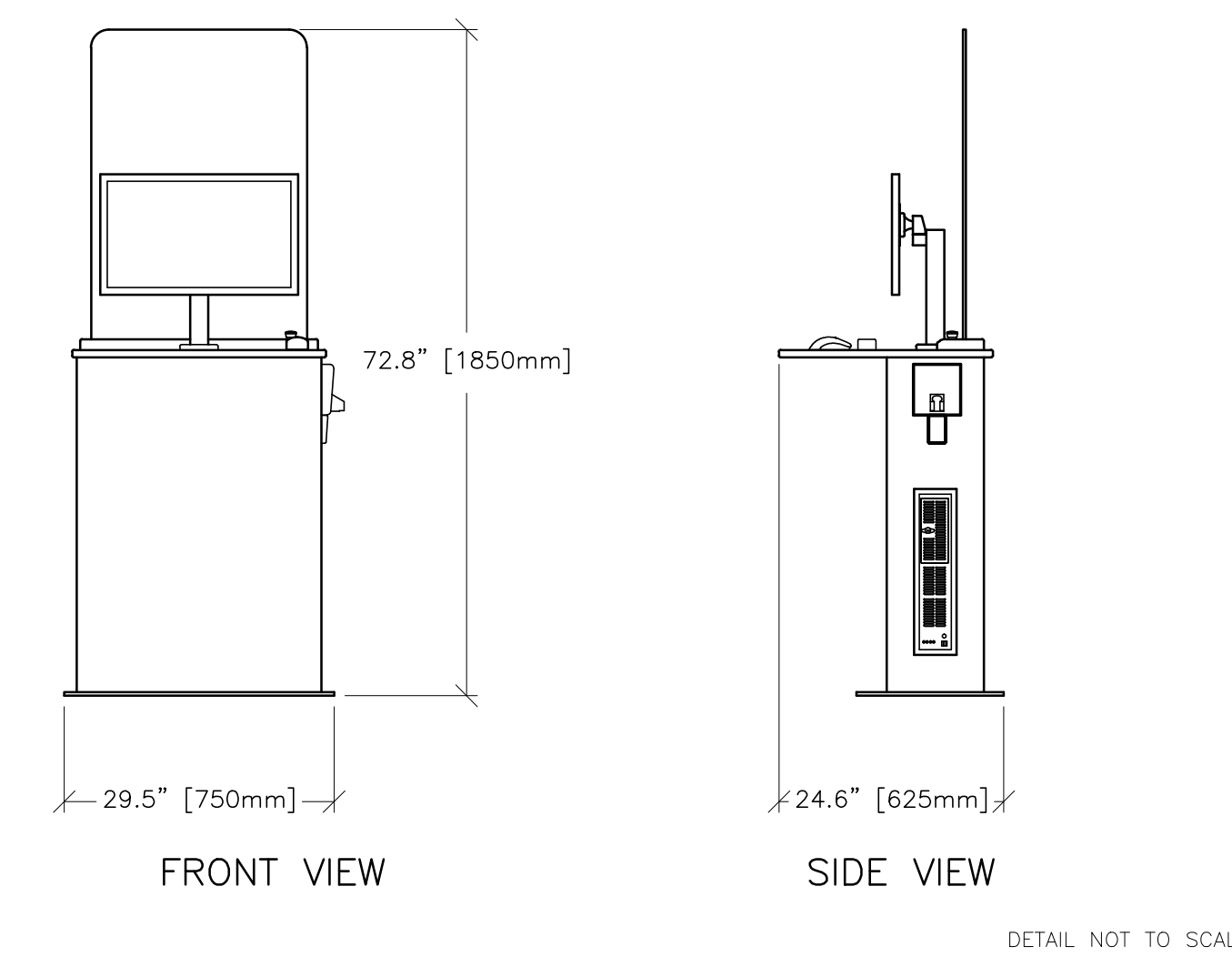
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GANTRY

B7127
REV. DATE: 04.NOV.15



EQUIPMENT DETAIL
CONTROL CONSOLE

B7128
REV. DATE: 04.NOV.15



SHEET TITLE: EQUIPMENT DETAILS
MODALITY TYPE: SENOGAPHE CRYSTAL

THIS PLAN IS SUBJECT TO SURVEY LOCATION OF THE HEAD HOUSE EQUIPMENT AND ASSOCIATED ELECTRICAL WIRING DETAILS AND ROOM ARRANGEMENTS. IN PREPARING THIS PLAN, EVERY EFFORT HAS BEEN MADE TO CONFORM DETAILS TO ACTUAL EQUIPMENT. EXPECTED TO BE INSTALLED. IT IS NOT TO BE USED FOR RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE:

DESIGN
CENTER
MILWAUKEE, WI

PROJECT	REVISION
9-36f	01
DATE:	04.Nov.15
DRAWN BY:	DMH
CHECKED BY:	KMR
GON NO:	
GON DT:	

REVISION HISTORY:

SHEET
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