GE EQUIPMENT LISTING

EQUIPMENT ON ORDER FROM GE HEALTHCARE, INSTALLED BY GE HEALTHCARE, PER GON 4057873 DATED 16.Jan.13

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

EQUIPMENT CROSS REFERENCE CHART
SEISMIC STATUS: P = PREAPPROVAL; C = CALCULATIONS/PENDING APPROVAL; S = SPECIFICATIONS ONLY

QUANTITY ORDERED — REFER TO SHEET "D"

ITEM NO.	QUANTITY	ITEM DESCRIPTION (* = EXISTING/REINSTALL)	WEIGHT	HEAT OUTPUT (PER HOUR)	DETAIL NO.	STRC PLAN	ELEC PLAN
1	1	SPT PHANTOM CABINET	350 lbs		M6115	.	-
2	1	MAGNET RUNDOWN UNIT	8 lbs		M1715C	-	MRU C
3	1	1.5 TESLA ACTIVE SHIELD MAGNET	11975 lbs	8191 btu	M2315F M2315E M33006 M33007 M33008	-	MAG C
4	1	REAR PEDESTAL	213 lbs			-	C
5	1	PATIENT TRANSPORT TABLE (DOES NOT INCLUDE PATIENT)	462 lbs			O	S
6	1	SHIELD COOLER CABINET	264 lbs	1706 btu	M33004	-	CRY C
7	1	POWER, GRADIENT, RF CABINET	3143 lbs	20945 btu	M3015G	-	PGR S
8	1	BLOWER BOX		1535 btu	M3015J	-	-
9	1	PEN PANEL CABINET (EXAM ROOM SIDE)	639 lbs	10699 btu 1023 btu	M3015F	-	PEN S
10	1	RF PENETRATION PANEL	92 lbs		M3015P	-	SPW S
11	1	HEAT EXCHANGER CABINET	1349 lbs	3412 btu	M3015B M3015D	-	HEC S
12	1	MAGNET MONITOR	11 lbs	819 btu	M1615C	.	MON C
13	1	MR MUSIC SYSTEM INCLUDING SPEAKERS, REMOTE CONTROL AND TRANSDUCER	44 lbs		M6715	.	MU -
14	1	OPERATOR WORKSPACE W/COLOR LCD MONITOR		4948 btu	M3015D	.	OW -
15	1	OPERATOR WORKSPACE CABINET	141 lbs		M0615D	-	C
16	1	PATIENT ALERT CONTROL BOX			M4815	.	PA S
17	1	OPERATOR'S CHAIR				-	-

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

ITEM NO.	QUANTITY	ITEM DESCRIPTION	WEIGHT	HEAT OUTPUT	DETAIL NO.	STRC PLAN	ELEC PLAN
50	1	MANUAL CRYOGEN COMPRESSOR WATER BYPASS PANEL CAT NO. E8911CG			B0571	-	-
51	1	REMOTE GRAPHIC DISPLAY				-	RGD S
52	1	DIMPLEX 5000 CHILLER	4001 lbs	167301 btu	M0300E	-	DMPL S
53	1	MAIN DISCONNECT PANEL	130 lbs	901 btu	M1715E	-	MDP C
54	1	DC LIGHTING CONTROL PANEL CAT. NO. E4502SC/SE	154 lbs	1023 btu	M2015	.	DCL C

EQUIPMENT LAYOUT

SCALE: 1/4" = 1'-0" — RECOMMENDED CEILING HEIGHT = 8'-9"

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.

MRI SITE PLANNING REMINDERS

PLEASE REFER TO PRE-INSTALLATION CHECKLIST IN PRE-INSTALLATION MANUAL LISTED ON SHEET C1 FOR ITEMS CRITICAL TO IMAGE QUALITY.

1. THE LAYOUT SHOULD BE ARRANGED SO THAT THE 5G LINE IS CONTAINED TO THE MAGNET ROOM. IF NOT POSSIBLE, A BARRIER IS RECOMMENDED TO PREVENT ENTRY TO THE 5G FIELD AREA.
2. THE SPACES AROUND, ABOVE, AND BELOW THE MAGNET MUST BE REVIEWED FOR EFFECTS OF THE 5G, 3G, 1G, AND .5G FIELDS. REFER TO THE PROXIMITY LIMIT CHART IN THE MR PRE-INSTALLATION MANUAL REFERENCED ON C1.
3. FOR MOVING METAL, THE RESTRICTION LINES TYPICALLY EXTEND OUTSIDE OF THE MRI SPACE. PLEASE CONFIRM THERE ARE NO MOVING METAL CONCERNS WITHIN THESE AREAS. AN EMI STUDY IS RECOMMENDED IF THE RESTRICTION LINES ARE VIOLATED.
4. FOR VIBRATION ANALYSIS TO BE COMPLETED AS REQUIRED PER PRE-INSTALLATION MANUAL.
5. FOR EMI, REVIEW THE SITE FOR THE LOCATION OF THE MAIN ELECTRICAL FEEDERS, AC DEVICES, OR DISTRIBUTION SYSTEMS. AN EMI STUDY IS RECOMMENDED IF LARGE AC SYSTEMS ARE NEARBY.
6. DETAILS OF THE FLOOR BELOW THE MAGNET MUST BE REVIEWED. THE STRUCTURAL ENGINEER MUST VERIFY THAT THE QUANTITY OF STEEL IN THE VOLUME 10FT [3.1M] X 10FT [3.1M] X 1FT [.3M] DEEP (BELOW THE MAGNET) DOES NOT EXCEED THE ALLOWABLE STEEL CONTENT AS GIVEN IN THE MR PRE-INSTALLATION MANUAL REFERENCED ON SHEET C1.

RESPONSIBILITY FOR THE COORDINATION, DESIGN, ENGINEERING, AND SITE PREPARATION RESIDES WITH THE CUSTOMER AND THEIR PROJECT ARCHITECTS AND CONTRACTORS. GE DOES NOT, BY PROVIDING REVIEWS AND FURNISHING COMMENTS AND ASSISTANCE, ACCEPT ANY RESPONSIBILITY BEYOND ITS OBLIGATIONS AS DEFINED IN THE MR SYSTEM, SALE/PURCHASE AGREEMENT.

IMAGE QUALITY CONSIDERATIONS

BROADBAND RF NOISE IS A SINGLE TRANSIENT OR CONTINUOUS SERIES OF TRANSIENT DISTURBANCES CAUSED BY AN ELECTRICAL DISCHARGE. LOW HUMIDITY ENVIRONMENTAL CONDITIONS WILL HAVE HIGHER PRO- BABILITY OF ELECTRICAL DISCHARGE. THE ELECTRICAL DISCHARGE CAN OCCUR DUE TO ELECTRICAL ARCING (MICRO ARCING) OR MERELY STATIC DISCHARGE. SOME POTENTIAL SOURCES CAPABLE OF PRODUCING ELEC- TRICAL DISCHARGE INCLUDE:

- LOOSE HARDWARE/FASTENERS VIBRATION OR MOVEMENT (ELECTRICAL CONTUNUITY MUST ALWAYS BE MAINTAINED)
- FLOORING MATERIAL INCLUDING RAISED ACCESS FLOORING (PANELS & SUPPORT HARDWARE) AND CARPETING
- ELECTRICAL FIXTURES (i.e. LIGHTING FIXTURES, TRACK LIGHTING, EMERGENCY LIGHTING, BATTERY CHARGERS, OUTLETS)
- DUCTING FOR HVAC AND CABLE ROUTING
- RF SHIELD SEALS (WALLS, DOORS, WINDOWS ETC.)

FOR ADDITIONAL INFORMATION REGARDING IMAGE QUALITY, REFER TO THE PRE-INSTALLATION MANUAL LISTED ON SHEET C1.

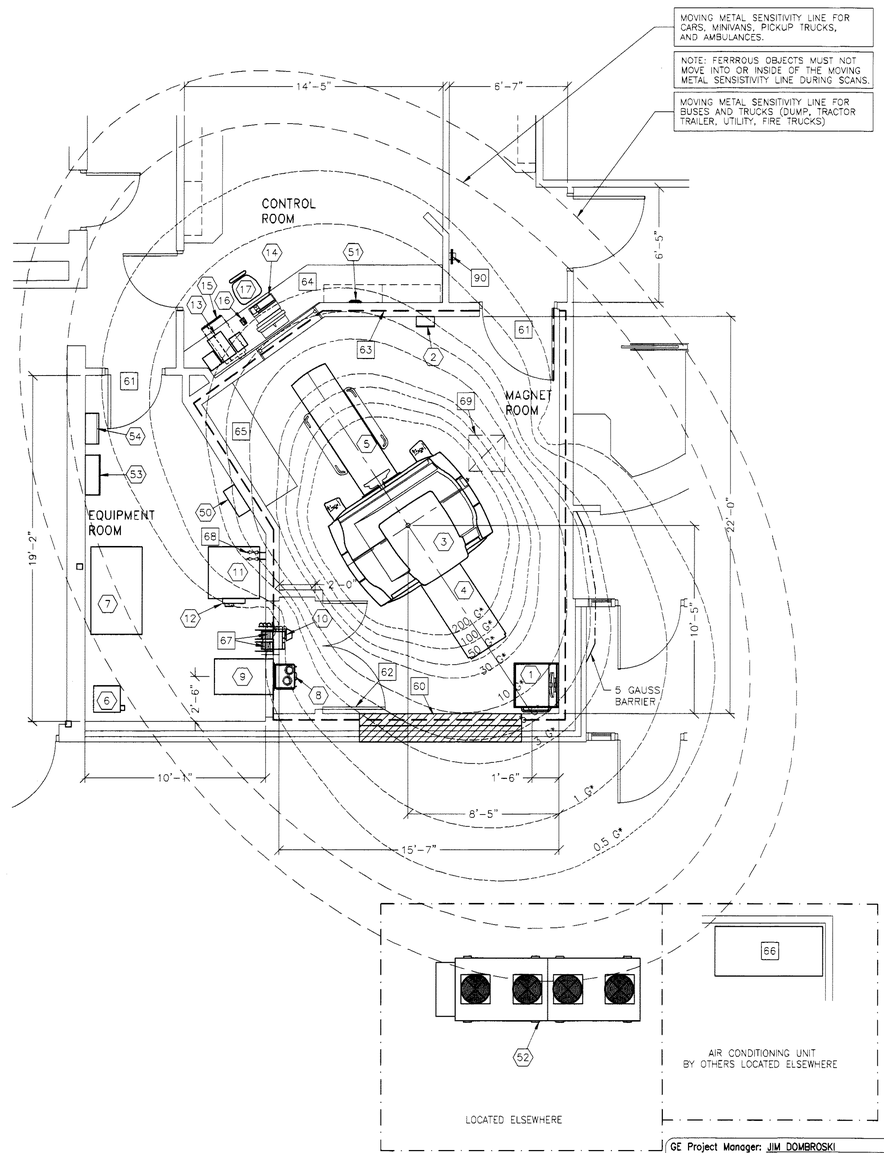
NOTE: VERIFY DELIVERY ROUTE FOR MAGNET, EQUIPMENT, AND SERVICE EQUIPMENT PRIOR TO DELIVERY.

CRITICAL ITEMS FOR MAGNET DELIVERY

- ☐ 24/7 CHILLED WATER AND 480V POWER FOR SHIELD/CRYO COOLER
- ☐ 24/7 120V POWER FOR THE MAGNET MONITOR
- ☐ PHONE LINES FOR MAGNET MONITORING AND EMERGENCY USE
- ☐ MAGNET ROOM EXHAUST FAN
- ☐ CRYOGEN VENTING (IF ROOF HATCH, COMPLETED WITHIN 24 HRS)
- ☐ MAGNET ANCHORS INSTALLED AND TESTED

THIS IS ONLY A PARTIAL LIST OF ITEMS REQUIRED FOR DELIVERY OF THE MAGNET. FOR A COMPLETE CHECKLIST REFER TO THE PRE-INSTALLATION MANUAL REFERENCED ON SHEET C1.

* THE ISOGAUSS CONTOUR PLOTS DEPICTED ON THIS DRAWING REPRESENT MAGNETIC FRINGE FIELDS RESULTING FROM THE NORMAL OPERATION OF THE MAGNET PROVIDED WITH THE MR SYSTEM. THE ACTUAL MAGNETIC FIELD INTENSITY AT ANY POINT IN THE VICINITY OF THE MAGNET WHEN INSTALLED MAY VARY FROM THE CONTOUR PLOTS DUE TO FACTORS SUCH AS THE CONCENTRATING EFFECTS OF NEARBY FERROUS OBJECTS AMBIENT MAGNETIC FIELDS, INCLUDING THE EARTH'S MAGNETIC FIELD. THEREFORE, THE CONTOURS SHOWN ARE ONLY APPROXIMATIONS OF ACTUAL FIELD INTENSITIES FOUND AT A CORRESPONDING DISTANCE FROM THE MAGNET'S ISOCENTER.



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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)-305-9677

ANCILLARY ITEMS

CUSTOMER/CONTRACTOR SUPPLIED AND INSTALLED ITEMS

ITEM NO.	ITEM DESCRIPTION (* INDICATES EXISTING)
60	MINIMUM 9 FT. -0 IN. [2743 mm] X 9 FT. -0 IN. [2743 mm] REMOVABLE WALL SECTION FOR MAGNET DELIVERY/REMOVAL.
61	MINIMUM DOOR OPENING FOR EQUIPMENT DELIVERY IS 43 IN. W X 82 IN. H [1092mm X 2083mm], CONTINGENT ON A 96 IN. [2438mm] CORRIDOR WIDTH
62	LOUVERED DOORS - OPENING WILL NEED TO BE 6 FT. TOTAL
63	RF SCREEN, INCLUSIVE OF WALLS, FLOOR, DOOR, ETC. GROUND IMPEDANCE GREATER THAN 1000 OHMS. ATTENUATION 100dB AT 100MHz +/-10MHz PLANEWAVE (RECOMMENDED 100dB AT 150MHz +/-10MHz PLANEWAVE)
64	COUNTERTOP WITH DRAWERS FOR MISCELLANEOUS ITEMS.
65	BASE CABINET FOR STORAGE OF: SURFACE COILS, PATIENT POSITIONING PADS, PHANTOMS, ETC.
66	AIR CONDITIONING (VIBRATION ISOLATION IS RECOMMENDED AT SUPPORTS OF EACH UNIT TO BE INSTALLED)
67	RF FILTERS - LOCATE WITHIN 40 IN. [1016 mm] OF THE RF COMMON GROUND STUD
68	VALVES AND HOSE BARBS FOR COOLING SYSTEM
69	MAGNET ROOM EXHAUST FAN

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

90	METAL DETECTOR (HAND HELD)

GENERAL SPECIFICATIONS

- THE REQUIRED CEILING HEIGHT INDICATED ON THESE PLANS IS TO ENSURE EQUIPMENT FUNCTION IS NOT INHIBITED. CONSULT WITH YOUR LOCAL GEHC IS 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 ACCOMODATE 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: CONTROL AND EQUIPMENT ROOMS ARE 59-89.6 DEG (F) [15-32 (C)], MAGNET ROOM IS 59-69.8 DEG (F) [15-21 (C)]. MAXIMUM ALLOWABLE TEMPERATURE CHANGE OF 5 DEG (F)/HR [3 (C)/HR]. MAXIMUM ROOM TEMPERATURE GRADIENT 5 DEG (F) [3 (C)].
- HUMIDITY: CONTROL AND EQUIPMENT ROOMS ARE 30 TO 70 PERCENT NON-CONDENSING. MAGNET ROOM IS 30 TO 60 PERCENT NON-CONDENSING, MAXIMUM ALLOWABLE CHANGE OF 5 PERCENT/HOUR.
- ENVIRONMENTAL RESTRICTIONS ABOVE MUST NOT BE EXCEEDED FOR THE ELECTRONICS.
- DO NOT RESTRICT THE AIR INTAKE OR AIR EXHAUST OF THE SYSTEM COMPONENTS.
- ENVIRONMENTAL CONDITIONS LISTED ABOVE MUST BE MAINTAINED AT ALL TIMES INCLUDING FOR EXAMPLE OVERNIGHT, WEEKENDS, AND HOLIDAYS.
- 24 HOUR POWER AND HVAC MUST BE AVAILABLE UPON MAGNET DELIVERY. [THIS WILL INCLUDE CHILLED WATER SUPPLY]
- CRYOGEN VENTING AND EMERGENCY EXHAUST SYSTEMS MUST BE COMPLETED IN THE MAGNET ROOM PRIOR TO DELIVERY.
- FLUORESCENT LIGHTING, SCR DIMMERS OR RHEOSTATS ARE NOT ALLOWED IN THE MAGNET ROOM.

MAGNETIC INTERFERENCE SPECIFICATIONS

- THE CUSTOMER MUST ESTABLISH PROTOCOLS TO PREVENT PERSONS WITH CARDIAC PACEMAKERS, NEUROSTIMULATORS, AND BIOSTIMULATION DEVICES FROM ENTERING MAGNETIC FIELDS OF GREATER THAN 5 GAUSS (EXCLUSTION ZONE).
- MAIN POWER TRANSFORMERS MUST REMAIN OUTSIDE THE 3 GAUSS FIELD. EMI < 20mG RMS AC. EMI < 5.87mG DC.
- POTENTIAL EXISTS UNDER FAULT CONDITIONS THAT THE 5 GAUSS LINE MAY EXPAND RADIALLY TO 9.35 FT. [2.85 m] AND AXIALLY TO 14.27 FT. [4.35 m] FOR 1 SECONDS OR LESS. IT SHOULD BE NOTED THAT NORMAL RAMPDOWNS OR MRU (MAGNET RUNDOWN UNIT) INITIATED QUENCHES WILL NOT CAUSE THE MAGNETIC FIELD TO EXPAND.
- IT IS RECOMMENDED EVERY SITE CONSIDER THE EVENT OF A QUENCH AND PLAN ACCORDINGLY (SUCH AS PLACING 5 GAUSS WARNING SIGNS AT EXPANDED LOCATIONS).
- THE FERROUS METAL OBJECTS LISTED BELOW MUST NOT MOVE INTO OR INSIDE OF THE MOVING METAL SENSITIVITY LINE DURING SCANS.

TYPCIAL MOVING MAGNETIC MASS	DISTANCE RADIALLY	DISTANCE AXIALLY
CARTS, GURNEYS 100-400 lbs [45-182 kg]	3 GAUSS LINE	3 GAUSS LINE
FORKLIFTS, SMALL ELEVATOR, CARS, MINIVANS VANS, PICKUP TRUCKS, AMBULANCES (OBJECTS GREATER THAN 400 lbs [182 kg])	15.5 ft. [4.72 m]	24.6 ft. [7.5 m]
BUSES AND TRUCKS (DUMP, TRACTOR TRAILER, UTILITY, FIRE TRUCKS)	18.1 ft. [5.52 m]	28.75 ft. [8.76 m]

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED

This drawing is based on Sketch No.: 13nef006

PIM R6

RQ - 132725

BOARD RESURGAM PORTLAND MAINE
Reviewed for Code Compliance Inspections Division Approved with Conditions
Date: 05/16/13
Planner: Benjamin Wallace

GE Healthcare
Healthcare Project Implementation - Design
Milwaukee, Wisconsin

SHEET TITLE: EQUIPMENT LAYOUT
MODALITY TYPE: OPTIMA MR450w

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPARATUS, ELECTRICAL WIRING AND PLUMBING REQUIREMENTS. 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 PURPOSES UNLESS APPROVED BY THE COMPANY. THE COMPANY CANNOT ACCEPT RESPONSIBILITY FOR ANY DAMAGES RESULTING THEREFROM.

PROJECT TITLE: ORTHOPAEDIC ASSOCIATES OF PORTLAND
PORTLAND, MAINE

PROJECT	REVISION
130261	00

DATE: 22.Jan.13
DRAWN BY: TMS
CHECKED BY: PMM
GON NO: 4057873
GON DT: 16.Jan.13

REVISION HISTORY:

SHEET A1