INTERCONNECT DIAGRAM

NOTE: CABLE LENGTH DATA

PLEASE REFER TO THE PRE-INSTALLATION MANUAL LISTED ON SHEET C1 FOR THE LENGTHS OF CABLES AVAILABLE FOR THIS SYSTEM

MINIMUM BENDING RADIUS EXISTS FOR CERTAIN CABLE GROUPS. PLEASE REFER TO THE PREINSTALLATION MANUAL FOR SPECIFICATIONS FOR ALL CABLES.

POWER SPECIFICATIONS

DISCOVERY/OPTIMA MR

(REV. DATE 06.SEP.12)

VOLTAGE

PRIMARY SOURCE IS REQUIRED FOR ALL INSTALLATIONS. RANGE OF LINE VOLTAGES: NOMINAL LINE VOLTAGE OF 380 TO 480, 3 PHASE, 50 OR 60 Hz.

RECOMMENDED POWER SUPPLY: WYE-CONNECTED OR DELTA-CONNECTED (GROUNDED DELTA).

MAXIMUM DAILY VOLTAGE VARIATION MUST FALL WITHIN ONE OF THE RANGES IN TABLE A.

TABLE A ALLOWABLE INPUT VOLTAGES/ CURRENT DEMAND

NOMINAL VOLTAGE	ABSOLUTE RANGE	CURRENT (AMPS)		
		MAX MOMENTARY	CONTINUOUS	
380	335-418	187	151	
400	352-440	178	143	
415	366-456	171	138	
480	**423-528**	**148**	**119**	

** OVERCURRENT PROTECTION SIZED FOR 125% CONTINUOUS CURRENT. (CALCULATIONS BASED UPON NOMINAL VOLTAGE).

PHASE-BALANCE.

PHASE-TO-PHASE VOLTAGES MUST BE WITHIN 2 PERCENT OF THE LOWEST PHASE-TO-PHASE VOLTAGE. MAXIMUM ALLOWABLE TRANSIENT VOLTAGE EXCURSIONS ABOVE OR BELOW NOMINAL WAVESHAPE FORM NOT TO EXCEED 200V AT A MAXIMUM DURATION OF 1 CYCLE AND FREQUENCY OF 10 TIMES PER HOUR.

VOLTAGE TRANSIENT OR IMPULSE ON THE INCOMING POWER MUST BE HELD TO A MINIMUM. TRANSIENTS CAUSED BY LIGHTNING, SURGES, LOAD SWITCHING, STATIC ELECTRICITY ETC. CAN CAUSE SCAN ABORTS OR, IN EXTREME INSTANCES, COMPONENT FAILURE IN THE COMPUTER SUBSYSTEM.

POWER DEMAND

MAXIMUM POWER DEMAND AVERAGED OVER 5 SECONDS = 123 KVA. 123 KVA CONSISTING OF 103 KVA FOR PDU + 20 KVA FOR HEC.

TABLE B MAXIMUM POWER DEMAND.

DEMAND	DISCOVERY/ OPTIMA
kVa *	123
POWER FACTOR AT	0.9

* DEMAND INCLUDES POWER FOR ENTIRE MR SYSTEM. LINE VOLTAGE REGULATION AT MAXIMUM POWER DEMAND MUST BE LESS THAN OR EQUAL TO 2 PERCENT OR 4 PERCENT FROM POWER SOURCE.

DISTRIBUTION TRANSFORMER

FOR A SINGLE UNIT INSTALLATION, THE MINIMUM TRANSFORMER SIZE IS 225 KVA. REGULATED TRANSFORMER IS NOT REQUIRED UNLESS VOLTAGE CHANGES EXCEED ±10% OVER A PERIOD OF 1 HOUR OR LONGER.

REFER TO DIRECTION LISTED ON C1 FOR ADDITIONAL INFORMATION.

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 DISTRITBUTION 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]

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

RQ - 132725 PIM R6 This drawing is based on Sketch No.: 13nef006

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

GE Healthcare

Healthcare Project Implementation – Design
Milwaukee,

SHEET TITLE: ELECTRICAL SPECIFICATIONS

MODALITY TYPE: OPTIMA MR450w

THIS PLAN IS SUBMITTED TO SUGGEST LOCATION OF GE HEALTHCARE EQUIPMENT AND ASSOCIATED APPURTENANCES IN ACCORDANCE WITH GE HEALTHCARE 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 ACTUAL CONSTRUCTION PURPOSES. HOWEVER, 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
E2