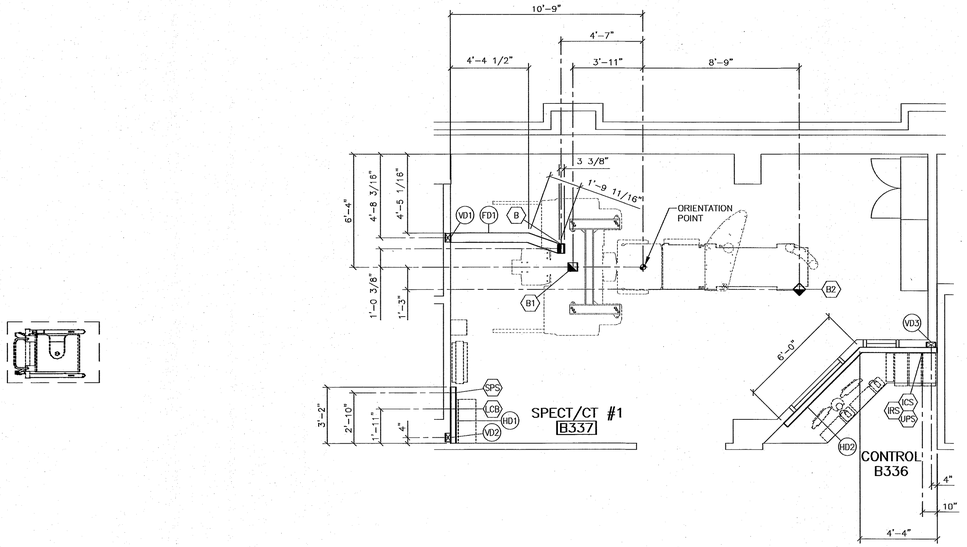
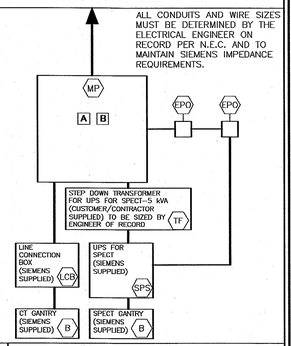


ELECTRICAL DIMENSION PLAN

SCALE: 1/4" = 1'-0"

POWER SCHEDULE



ITEM	QTY	DESCRIPTION
MP	1	MAIN PANEL WITH MAIN BREAKER FLUSH OR SURFACE MOUNTED. MAIN BREAKER MUST HAVE A TRIPPING DEVICE SO WHEN ANY EPO IS PRESSED THE MAIN BREAKER TRIPS. THIS TRIPPING DEVICE CONTROL CIRCUIT MUST BE OF FAIL–SAFE DESIGN. THE CONTROL CIRCUIT FOR THE EPO'S MUST HAVE AN ENERGY STORAGE SOURCE SO THAT THE CONTROL CIRCUIT NEVER LOSES POWER.
		MAIN BREAKER AMPS: SEE POWER REQUIREMENTS
		VOLTS / PHASES / NEUTRAL / GROUND / TOTAL WIRES
		480Y/277Y / 3 / 1 / 1 / 5 (NOTE 1)
A	1	BREAKER AMPS: 80 FOR LINE CONNECTION BOX (LCB) AND CT GANTRY (B)
		VOLTS / PHASES / NEUTRAL / GROUND / TOTAL WIRES
		480Y/277Y / 3 / 1 / 1 / 5 (NOTE 1)
B	1	BREAKER AMPS: 25 UPS FOR SPECT (SPS) AND SPECT GANTRY (B)
		VOLTS / PHASES / NEUTRAL / GROUND / TOTAL WIRES
		277Y / 1 / 1 / 1 / 3 (NOTE 1)
		1) ALL WIRES MUST BE SAME SIZE.
EPO	VARIES	EMERGENCY POWER OFF BUTTON WITH PROTECTIVE COVER THAT PREVENTS ACCIDENTAL ACTIVATION OF THE EPO BUTTON. THE EPO MUST BE OF FAIL–SAFE DESIGN. THE CONTROL CIRCUIT FOR THE EPO'S MUST HAVE AN ENERGY STORAGE SOURCE SO THAT THE CONTROL CIRCUIT NEVER LOSES POWER. ALL EPO'S ARE TO BE LATCHING TYPE AND MUST BE RESET BEFORE MAIN BREAKER CAN BE RESET. IF ANY OPTIONAL UPS EQUIPMENT IS PROVIDED BY SIEMENS, THE CUSTOMER/CONTRACTOR SHALL PROVIDE AN ADDITIONAL CONTACT IN EACH EPO AND PROVIDE SEPARATE WIRING FOR AN ADDITIONAL EPO CIRCUIT AS REQUIRED. PLEASE COORDINATE THE TYPE OF CONTACT REQUIRED FOR THE UPS CIRCUIT WITH SIEMENS PROJECT MANAGER. THE EPO'S MUST BE INSTALLED BY A QUALIFIED ELECTRICAL CONTRACTOR ACCORDING TO NATIONAL ELECTRICAL CODE, STATE AND LOCAL REGULATIONS. MEASURES SHOULD BE TAKEN TO DESIGN THE CIRCUIT IN SUCH A WAY THAT IT WILL ALWAYS WORK WHEN THE MEDICAL EQUIPMENT IS POWERED. THE CUSTOMER IS SOLELY RESPONSIBLE FOR THE IMPLEMENTATION OF THE EPOs AND THEIR ASSOCIATED CIRCUITS AND MUST MAKE THE FINAL DETERMINATION CONSIDERING ALL SITE CONDITIONS AND REGULATORY FACTORS. THE EPO SHALL BE MAINTAINED TYPE, PROVIDED WITH (1) SET(S) OF CONTACTS FOR TRIPPING OF THE MAIN IN THE MP. A SECOND SET OF NORMALLY OPEN CONTACTS IS REQUIRED FOR EACH EPO FOR THE SIEMENS SUPPLIED UPS FOR SPECT. THE EPO SHALL BE CONNECTED IN PARALLEL WITH THE (2) SETS OF CONTACTS, THEREBY WHEN ANY EPO IS ACTIVATED, THE NORMALLY OPEN CONTACT WILL CLOSE SHUTTING DOWN THE UPS FOR SPECT. THE OTHER CONTACT (NORMALLY OPEN/NORMALLY CLOSED) WILL TRIP THE MAIN BREAKER.

REV 0

ALL ITEMS LISTED IN THIS SCHEDULE SHALL BE SUPPLIED AND INSTALLED BY CUSTOMER/CONTRACTOR.

CONDUIT LENGTH CALCULATIONS

IF SITE SPECIFIC CONDITIONS EXCEED THE FOLLOWING ASSUMED VALUES THEN ADDITIONAL LENGTH MUST BE SUBTRACTED BY THE ELECTRICAL CONTRACTOR FROM THE MAXIMUM CONDUIT LENGTHS LISTED.

IF DUCT LOCATIONS ARE ALTERED FROM THE SHOWN LAYOUT IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO RECALCULATE THE MAXIMUM CONDUIT LENGTHS.

ASSUMED VALUES USED IN CALCULATING STATED MAXIMUM CONDUIT LENGTHS:
VERTICAL DUCTS – 10'–0"
FLOOR PENETRATIONS – 3'–0"

GROUNDING NOTES

EQUIPMENT GROUND CONDUCTOR TO COMPLY WITH THE FOLLOWING:

1) SIZED EQUIVALENT TO THE PHASE CONDUCTORS (FULL SIZED GROUND).
2) DERIVED FROM THE ELECTRICAL SERVICE, TRANSFORMER OR MAIN DISTRIBUTION PANEL FEEDING THE SIEMENS EQUIPMENT.
3) RUN IN THE SAME CONDUIT, TROUGH OR RACEWAY AS THE PHASE CONDUCTORS.
4) CONTINUOUS, WITH NO BREAKS OR USE OF CONDUIT, CHASSIS OR EARTH AS THE SOLE GROUNDING PATH.
5) BONDED TO CHASSIS AND/OR CONDUIT IN ACCORDANCE WITH THE NEC REQUIREMENTS.
6) MINIMIZE CONNECTIONS OR TERMINALS TO ENSURE CONTINUITY OVER THE LIFE OF THE INSTALLATION.
7) AS A NORM, THERE SHOULD NOT BE ANY CURRENT PRESENCE ON THE GROUND CONDUCTOR, BUT IT IS ACCEPTABLE TO HAVE <500mA DURING OPERATION OF THE IMAGING EQUIPMENT.

SYMBOLS

ALL MAY NOT APPLY

	MAIN PANEL OR ENCLOSURE BY CUSTOMER/CONTRACTOR
	OPENING IN RACEWAY OR TRENCHDUCT
	PULLBOX IN (FLOOR/WALL/CEILING)
	OPENING IN ACCESS FLOORING
X	WARNING LIGHT (X–RAY ON)
DS	DOOR SAFETY SWITCH
	(EPO) EMERGENCY POWER OFF BUTTON
	TRENCHDUCT
	CEILING DUCT
	UNDER FLOOR DUCT
	SURFACE DUCT
	VERTICAL DUCT
▶	ETHERNET CONNECTION TO CUSTOMER'S INFORMATION SYSTEMS NETWORK (VERIFY WITH SMS PROJECT MANAGER).
	110 VOLT, 20 AMP, HOSPITAL GRADE DUPLEX OUTLET UNLESS OTHERWISE STATED.

POWER REQUIREMENTS

SYSTEM	LINE VOLTAGE (VOLTS)	POWER CONSUMPTION (kVA) SEE NOTE BELOW	AUTOMATIC CIRCUIT BREAKER (AMPS)	INCOMING LINE IMPEDANCE (mΩ)	HZ
SYMBIA INTEVO EXCEL AND INTEVO 2	3Ø 480±10%	44.8 kVA SCAN	100	400	60

SYMBIA INTEVO EXCEL AND SYMBIA INTEVO 2 POWER CONSUMPTION:
≤40 kVA MAXIMUM POWER CONSUMPTION
≤1 kVA STANDBY

SPECT GANTRY, PHS, UPS, AND SNAC:
4.8 kVA MAXIMUM POWER CONSUMPTION
≤1.5 kVA STANDBY

TOTAL CONSUMPTION = 44.8 kVA
TOTAL STANDBY = 2.5 kVA

NOTE: THE SPECT UNITS NEED TO BE WIRED SINGLE PHASE TO NEUTRAL WITH APPROPRIATE BREAKER AND WIRE SIZE.

DO NOT CONNECT ANY EXTERNAL USERS TO THE SPECT/CT POWER LINE. FOR SYMBIA INTEVO EXCEL AND SYMBIA INTEVO 2, THE IMAGING SYSTEM IMS (ICS, IRS, AND MONITOR) MUST BE CONNECTED VIA THE UPS TO THE LCB. THE FUSE IS ALREADY INTEGRATED IN THE LCB.

AN ON/OFF SWITCH INDICATOR IS INTEGRATED IN THE LCB, A SEPARATE ON/OFF SWITCH MAY BE REQUIRED PER LOCAL CODE.

THE SCANNER AND CONTROL ROOM SHOULD BE EQUIPPED WITH AT LEAST ONE EACH EMERGENCY POWER OFF BUTTON.

UPS FOR SPECT PREINSTALL REQUIREMENTS

THE CUSTOMER HAS PURCHASED THE UPS FOR SPECT OPTION FOR THE SPECT PORTION OF THE SYMBIA INTEVO. THE UPS FOR SPECT REQUIRES 208/220/240 VAC AND NEEDS A CUSTOMER/CONTRACTOR SUPPLIED STEP DOWN TRANSFORMER (277 VOLTS PRIMARY 5 kVA STEP DOWN TRANSFORMER TO 208/220/240 VAC). IT IS THE CUSTOMER/CONTRACTOR RESPONSIBILITY TO PROVIDE POWER TO AND CONNECT THE STEP DOWN TRANSFORMER PRIOR TO EQUIPMENT DELIVERY AND INSTALLATION.

CUSTOMER SUPPLIED

DOOR (SAFETY) SWITCH REQUIRED ON ALL DOORS ACCESSING THE EXAMINATION ROOM IN ACCORDANCE WITH LOCAL CODES.

RADIATION WARNING LIGHTS REQUIRED ON ALL DOORS ACCESSING THE EXAMINATION ROOM IN ACCORDANCE WITH FDA CODES.

EMERGENCY POWER OFF BUTTON SHOULD BE INSTALLED IN BOTH THE SCANNER AND CONTROL ROOM.

POWER DISTRIBUTION

TO ENSURE TROUBLE–FREE OPERATION, WE RECOMMEND THAT THE MAIN POWER LINE RUN DIRECTLY FROM THE HOUSE TRANSFORMER TO THE ON–SITE POWER DISTRIBUTOR.

THE MAIN POWER LINE SHOULD BE ROUTED DIRECTLY FROM THE ON–SITE POWER DISTRIBUTOR TO THE SYMBIA SYSTEM MAIN POWER PANEL.

POWER QUALITY

POOR POWER WILL ALTER EQUIPMENT PERFORMANCE

IT IS IN THE CUSTOMER'S INTEREST THAT THE ELECTRICAL CONTRACTOR BE RESPONSIBLE FOR TESTING AND VERIFYING THAT THE EQUIPMENT POWER SUPPLY COMPLIES WITH THE SIEMENS SPECIFICATIONS.

FINISHED ROOM HEIGHT

SYMBIA INTEVO EXCEL, INTEVO 2, INTEVO 6, INTEVO 16	MINIMUM 8'–0"
SYMBIA INTEVO EXCEL, INTEVO 2, INTEVO 6, INTEVO 16 WITH CEILING MOUNTED COMPONENT OTHER THAN RADIATION ON LAMP	MINIMUM 8'–2" MAXIMUM 12'–0"

CONSIDER THE WARNING LIGHT WILL BE PLACED ON TOP OF THE PATIENT BOOM. ANY OTHER CEILING MOUNTED COMPONENT MUST BE PLACED AS TO NOT COLLIDE WITH WARNING LIGHT.

SYM	DATE	DESCRIPTION
0	09/12/14	R–101RA VERSION DATED 08/27/14 APPROVED BY THE CUSTOMER FOR FINALS.

–ISSUE BLOCK–

SYMBIA INTEVO REV 1

PROJECT MANAGER: RICH DEISTER
TEL: (207) 712–3205
VMAIL: EXT:
FAX: (207) 929–3776
EMAIL: RICH.DEISTER@SIEMENS.COM

SIEMENS

MAINE MEDICAL CENTER
22 BRAMHALL STREET, PORTLAND, ME 04102
SPECT/CT #1 B337 – SYMBIA INTEVO 2

THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.
ALL RIGHTS ARE RESERVED.

PROJECT #: 1402948
SHEET 6 OF 6
DRAWN BY: R. HILL
SCALE: AS NOTED
REF. #: 1–291XKI
DATE: 09/12/14
SHEET: E-102

ATTENTION:

– THIS DRAWING IS DESIGNED TO CONFORM TO FEATURES AND EQUIPMENT REQUIREMENTS PRESENTED AT THE TIME OF THEIR PREPARATION. SINCE BOTH THESE FACTORS ARE SUBJECT TO DESIGN MODIFICATION, THEY ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES.
– THIS SET OF PLANS REPRESENTS A COMPLETE SET OF DETAILS AND SHOULD NOT BE SEPARATED.
– IT IS RECOMMENDED THAT THE SIEMENS DRAWINGS BE INCORPORATED WITH THE CONSTRUCTION DOCUMENTS FOR REFERENCE.
– ALL DIMENSIONS SHOWN ON THIS DRAWING ARE FROM FINISHED SURFACES.
– THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X–RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST TO SPECIFY RADIATION PROTECTION.

REFERENCE DOCUMENT – NOT FOR CONSTRUCTION