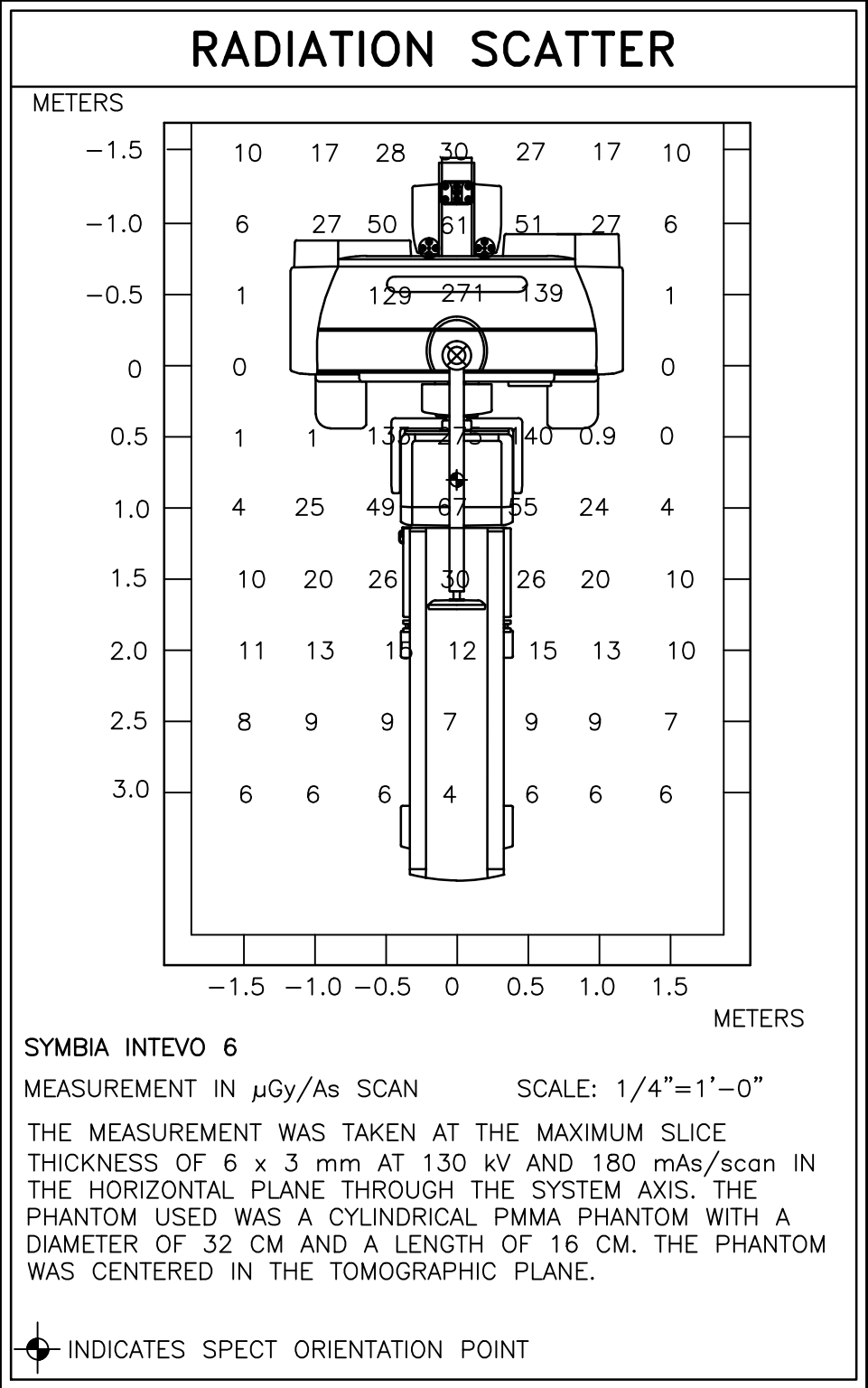
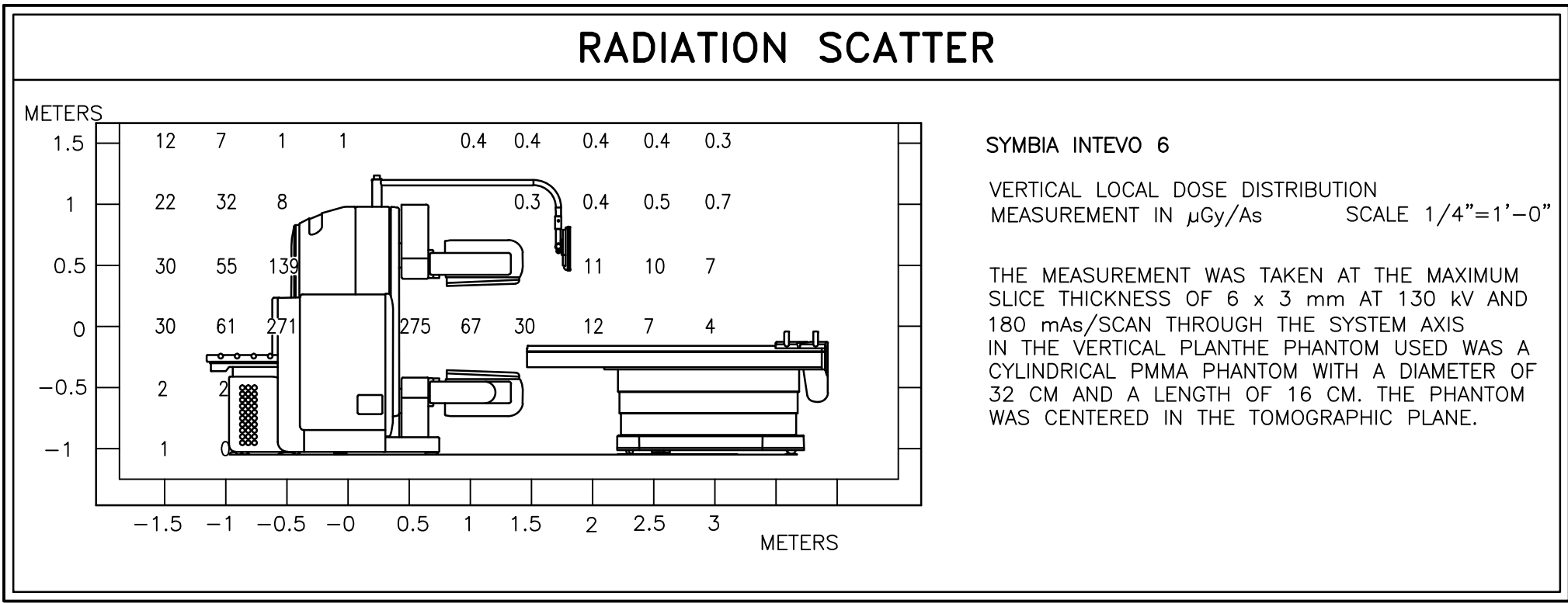


SAFETY/SERVICE CLEARANCE PLAN

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



SIEMENS REMOTE SERVICES (SRS)

TO ENSURE THE UPTIME OF YOUR SYSTEM DURING THE WARRANTY PERIOD (AND BEYOND WITH A SERVICE AGREEMENT), SIEMENS REMOTE SERVICES (SRS) REQUIRES REMOTE LOCAL AREA NETWORK ACCESS TO SIEMENS SYSTEMS.

SRS REQUIRES ONE OF THE FOLLOWING CONNECTION METHODS:

(PREFERRED) VPN CONNECTION

THE PREFERRED CONNECTION METHOD IS (VPN) VIRTUAL PRIVATE NETWORK (WHERE THE CUSTOMER HAS AVAILABLE A VPN CAPABLE FIREWALL OR OTHER VPN APPLIANCE). THIS METHOD PROVIDES THE POSSIBILITY FOR REMOTE SYSTEM DIAGNOSTICS WITHOUT ADDITIONAL HARDWARE. PLEASE CONTACT SIEMENS REMOTE SERVICES (800-888-SIEM) TO DETERMINE IF THIS METHOD IS SUITABLE FOR YOUR SITE.

(OPTIONAL) SRS ROUTER CONNECTION

- THE SRS ROUTER IS SUPPLIED BY SIEMENS AND INSTALLED AT THE CUSTOMER'S SITE, WHILE STILL REMAINING THE PROPERTY OF SIEMENS. THE CUSTOMER'S NETWORK ADMINISTRATOR AND SIEMENS REMOTE SERVICES SHALL DETERMINE THE TYPE AND LOCATION OF THE SRS ROUTER REQUIRED.
- THE SRS ROUTER IS CONNECTED TO AN ANALOG MODEM THAT IS SUPPLIED BY SIEMENS, WHICH THEN IN TURN IS CONNECTED TO AN ANALOG PHONE LINE THAT IS SUPPLIED BY THE CUSTOMER. ONE SRS ROUTER ALLOWS REMOTE DIAGNOSTICS TO MULTIPLE MEDICAL SYSTEMS.
- THE SRS ROUTER SHOULD BE INSTALLED IN A SECURE LOCATION (CUSTOMER'S NETWORK COMPUTER ROOM) THAT HAS LIMITED ACCESS. IT CAN BE LOCATED ON A SHELF, TABLE, OR IN A CABINET. THE CONNECTION CABLES (WITH INDICATED LENGTHS BELOW) ARE INCLUDED WITH DELIVERY.

SRS ROUTER CONNECTION DIAGRAM

NOTE: ALL POWER OUTLETS ARE SUPPLIED/INSTALLED BY CUSTOMER.

- 1) ETHERNET SWITCH OR HUB, SUPPLIED BY CUSTOMER
- 2) SRS ROUTER, SUPPLIED BY SIEMENS (SIZE: 11.2"W X 8.7"D X 5.5"H, WEIGHT: 2 LBS.)
- 3) ANALOG MODEM, SUPPLIED BY SIEMENS
- 4) ANALOG PHONE LINE, SUPPLIED BY CUSTOMER

* OPTIONAL SWITCH AND CABLES ARE NOT INCLUDED, BUT CAN BE ORDERED FROM SIEMENS.

- SIEMENS REMOTE SERVICE SCALE: NONE

SAFETY CLEARANCE NOTE

IF THE SAFETY DISTANCES ARE NOT OBSERVED, SAFETY MEASURES IN ACCORDANCE WITH LOCAL CODES SHOULD BE UTILIZED (FOR EXAMPLE BARRIERS, WARNING SIGNS, AND SAFETY MATS).

RADIATION SAFETY

LEAD OR EQUIVALENT SHIELDING MAY BE REQUIRED IN THE WALLS OF THE SCANNER ROOM, HOTLAB AND/OR PATIENT PREPARATION AREAS. IT IS THE RESPONSIBILITY OF THE CUSTOMER TO VERIFY WITH THE SITE'S RADIATION SAFETY OFFICER THAT RADIATION DOSE RATES FROM THE SPECT PATIENT AND/OR ISOTOPE WILL NOT EXCEED LOCAL RADIATION SAFETY GUIDELINES IN THE ROOM ADJACENT TO SCANNER, HOTLAB, AND/OR PATIENT PREPARATION AREAS.

IMPROPER SHIELDING MAY AFFECT CAMERA'S PERFORMANCE.

RADIOACTIVE SOURCES

THE FOLLOWING RADIOACTIVE SOURCES ARE REQUIRED FOR ALL SYMBIA INTEVO SYSTEMS AT THE TIME OF INSTALLATION FOR CALIBRATION:

- 1) 10-20 mCi Co57 (COBALT 57) OR LIQUID FILLED Tc99 (TECHNETIUM 99) SHEET SOURCE (FOR EXTRINSIC FLOOD).
- 2) POINT SOURCE 30-35 uCi Tc99 (FOR INTRINSIC FLOODS, TUNING AND PEAKING).
- 3) QUANTITY OF 5 - 1 mCi Tc99 POINT SOURCES (FOR MHR CALIBRATION).
- 4) QUANTITY OF 10 Tc99 POINT SOURCES WITH COMBINED ACTIVITY OF ALL SOURCES 5 mCi TO 20 mCi (FOR NM/CT FOV).

IT IS CUSTOMER'S RESPONSIBILITY TO OBTAIN THESE SOURCES PRIOR TO INSTALLATION. CO-57 RECTANGULAR FLOOD SHEET SOURCE MAY BE ORDERED FROM SIEMENS (ASK SIEMENS SALES ASSOCIATE). Tc99 MUST OBTAINED THROUGH CUSTOMER'S LOCAL RADIOACTIVE SOURCE PROVIDER.

THESE RADIOACTIVE SOURCES AREA NEEDED TO COMPLETE CALIBRATION OF EQUIPMENT. PLEASE NOTE SOURCE PROVIDERS WILL NOT SHIP SOURCES TO SITE WITHOUT A VALID RAM LICENSE.

RAM LICENSE

RAM LICENSE NEEDS TO BE APPLIED FOR THROUGH GOVERNMENT AGENCY AS EARLY AS POSSIBLE. PLEASE ADDRESS WITH YOUR RSO (RADIATION SAFETY OFFICER).

RAM LICENSE MUST BE OBTAINED NO LATER THAN 4 WEEKS AHEAD OF SCHEDULED DELIVERY. DELAY OF INSTALLATION MAY OCCUR IF SITE HAS NOT OBTAINED RAM LICENSE AT THIS TIME. RADIOACTIVE SOURCES NEEDED TO COMPLETE CALIBRATION OF EQUIPMENT WILL NOT BE SHIPPED TO SITE WITHOUT VALID RAM LICENSE.

LIGHTING GUIDELINES

ROOM LIGHTING IS THE RESPONSIBILITY OF THE CUSTOMER. HOWEVER, SIEMENS OFFERS THE FOLLOWING RECOMMENDATIONS, AS A GENERAL GUIDE ONLY, WHEN PLANNING FOR LIGHTING.

- 1) OVERALL GENERAL ILLUMINATION IS NECESSARY FOR CLEAN UP AND MAINTENANCE OF EQUIPMENT.
- 2) THE LIGHTING IN ROOMS IN WHICH DIAGNOSES ARE MADE ON VIDEO DISPLAY UNITS (MONITORS) MUST MEET THE FOLLOWING REQUIREMENTS:
 - ADJUSTABLE, GLARE-FREE AND REPRODUCIBLE SETTING OF LIGHTING (I.E. DIMMER WITH SCALE)
 - NO REFLECTIONS FROM WINDOWS, LAMPS AND VIEWING BOXES WHEN THE MONITORS ARE IN THEIR STANDARD OPERATING POSITION.

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.	

		PROJECT MANAGER: DAVID LYMAN TEL: (801) 602-8711 EXT: FAX: EMAIL: david.lyman@siemens.com	
		SIEMENS	
		VA SALT LAKE CITY	
		500 FOOTHILL DRIVE, SALT LAKE CITY, UT 84148 ROOM 1E09 - SYMBIA INTEVO INTEVO 6	
		PROJECT #: 1403947	
		SHEET: A-102	
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		ALL RIGHTS ARE RESERVED.	
		SCALE: AS NOTED REF: 660-B20048	
		DATE: 06/27/15	

ATTENTION:

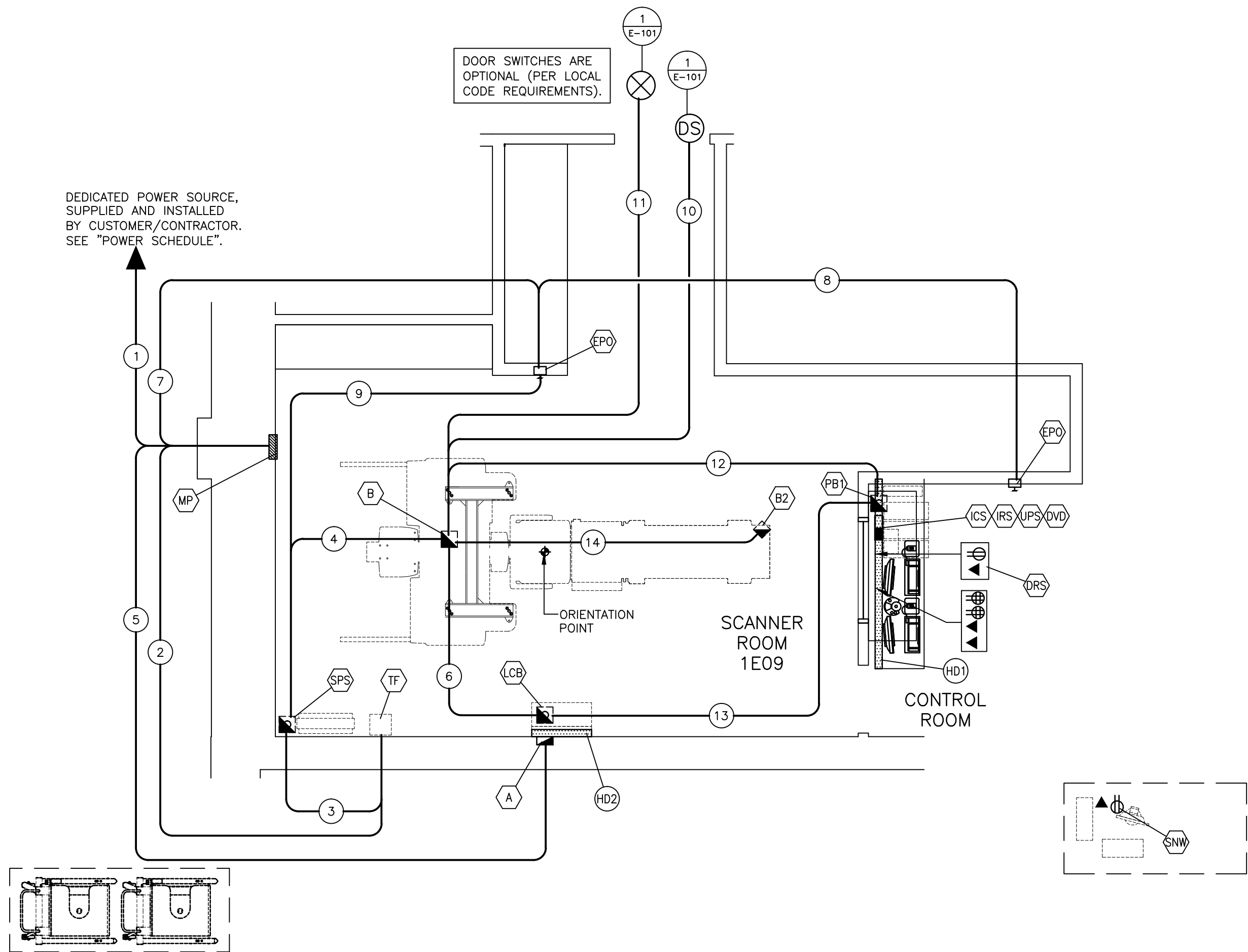
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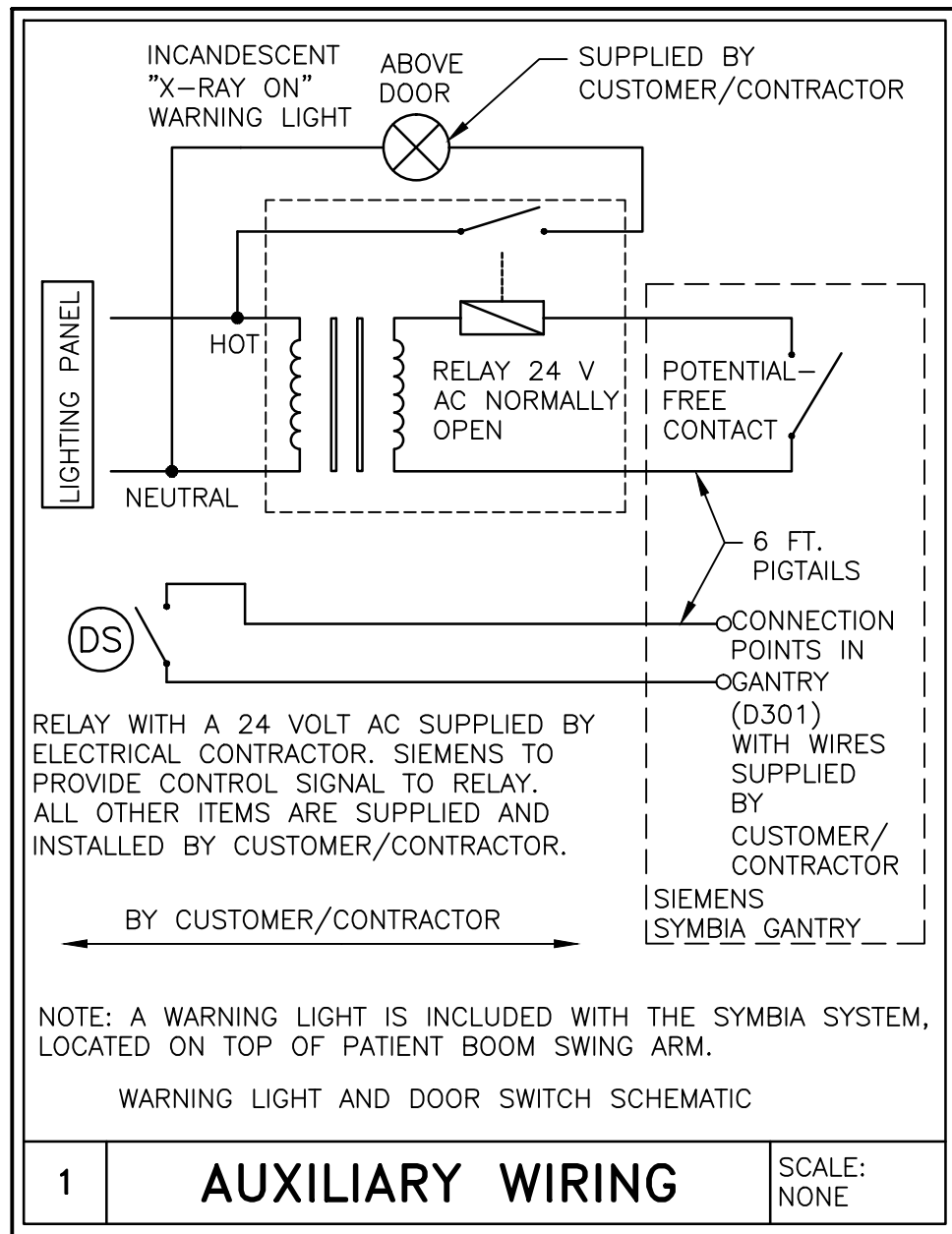
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ELECTRICAL RACEWAY PLAN

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



SIEMENS SUPPLIED CABLES				
FROM	VIA	TO	DESCRIPTION	REMARKS
ICS/IRS	12,PB1,HD1	B	POWER CABLE: 300V.	MAXIMUM LENGTH 82'-0"
ICS/IRS	12,PB1,HD1	B	CAT 5 CROSS OVER CABLE; 150V.	MAXIMUM LENGTH 82'-0"
ICS/IRS	12,PB1,HD1	B	UNMARKED CABLE.	MAXIMUM LENGTH 82'-0"
CS/IRS/DVD	12,PB1,HD1	B	DVD CABLE, DATA CABLE, FIBER CABLE: 30V.	MAXIMUM LENGTH 82'-0"
LCB	13,PB1,HD1	UPS	POWER CABLE: 300V.	MAXIMUM LENGTH 82'-0"
B	14	B2	PHS CABLE, POWER CABLE: 300V.	MAXIMUM LENGTH 20'-0"

ELECTRICAL LEGEND			
SYM	SIZE	DESCRIPTION	REMARKS
A	AS REQUIRED	PULL BOX MOUNTED FLUSH WITH FINISHED WALL AT FLOOR LINE IN SHOWN LOCATION.	ANCILLARY WIRING
B	8" x 8"	PULL BOX MOUNTED BELOW FLOOR SLAB WITH 5" SLEEVE RUNNING THROUGH FLOOR SLAB ENDING FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION.	GANTRY CABLE ACCESS
B2	6" x 6"	PULL BOX MOUNTED BELOW FLOOR SLAB WITH 3" SLEEVE RUNNING THROUGH FLOOR SLAB ENDING FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION. SIEMENS SUPPLIED COVER.	PHS CABLE ACCESS UNDER THE PHS
CS	----	ETHERNET CONNECTION TO HOSPITAL NETWORK, EXACT LOCATION TO BE COORDINATED WITH SIEMENS PROJECT MANAGER.	DEDICATED RECONSTRUCTION SYSTEM WORKPLACE
CS	----	FIXED POINT DESIGNATION, SAME/OPENING AS ICS.	
CS	----	EMERGENCY POWER OFF BUTTON WITH PROTECTIVE COVER, MOUNTED ON WALL AT 5'-0" ABOVE FINISH FLOOR THAT PREVENTS RESETTING OF CIRCUIT BREAKER WHEN IN THE OFF POSITION. THERE SHALL BE AN EPO IN EACH ROOM OF THE SUITE WHERE SIEMENS EQUIPMENT IS LOCATED, EXACT LOCATIONS TO BE DETERMINED BY CUSTOMER/CONTRACTOR. SUPPLIED BY CUSTOMER/CONTRACTOR.	SEE POWER SCHEDULE
CS	12" x 4"	OPENING IN RACEWAY IN SHOWN LOCATION.	IMAGE CONSTRUCTION SYS
CS	----	FIXED POINT DESIGNATION OPENING AS ICS.	IMAGE RECONSTRUCTION SYS
CS	AS REQUIRED	PULL BOX MOUNTED BELOW FLOOR SLAB WITH 6" SLEEVE RUNNING THROUGH FLOOR SLAB ENDING FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION.	LINE CONNECTION BOX
MP	----	MAIN PANEL WITH MAIN BREAKER FLUSH OR SURFACE MOUNTED. REFER TO POWER SCHEDULE.	SEE POWER SCHEDULE
MP	AS REQUIRED	PULL BOX MOUNTED BELOW FINISHED FLOOR WITH REMOVABLE BOTTOM COVER. FOR EACH CONDUIT CONNECTION, PROVIDE A FLOOR SLEEVE OF THE SAME SIZE CONNECTING BOX TO RACEWAY "HD1".	
CS	----	ETHERNET CONNECTION TO HOSPITAL NETWORK, EXACT LOCATION TO BE COORDINATED WITH SIEMENS PROJECT MANAGER.	SYMBIA.NET WORKPLACE
CS	AS REQUIRED	PULL BOX MOUNTED BELOW FLOOR SLAB WITH 3" SLEEVE RUNNING THROUGH FLOOR SLAB ENDING FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION.	UPS FOR SPECT
TF	AS REQUIRED	TRANSFORMER PROVIDING STEP DOWN POWER FOR THE SPECT UPS (SPS). EXACT LOCATION DETERMINED BY CUSTOMER/CONTRACTOR BASED ON LOCATION OF MP AND SPS. SUPPLIED BY CUSTOMER/CONTRACTOR.	SEE POWER SCHEDULE
CS	----	FIXED POINT DESIGNATION OPENING AS ICS.	
CS	6" x 3 1/2"	ELECTRICAL DUCT THAT RUNS HORIZONTALLY ON THE WALL AT THE FLOOR LINE AND SURFACE MOUNTED ON FINISHED WALL AS SHOWN FOR EXCESS CABLE STORAGE.	RACEWAY
CS	6" x 3 1/2"	ELECTRICAL DUCT THAT RUNS HORIZONTALLY ON THE WALL AT THE FLOOR LINE AND SURFACE MOUNTED ON FINISHED WALL AS SHOWN FOR EXCESS CABLE STORAGE.	RACEWAY
1	AS REQUIRED	CONDUIT FROM POWER SOURCE TO "MP" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
2	AS REQUIRED	CONDUIT FROM "MP" TO "TF" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
3	AS REQUIRED	CONDUIT FROM "TF" TO "SPS" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
4	1/2"	CONDUIT FROM "SPS" TO "B" SIZED BY ELECTRICAL ENGINEER OF RECORD.	MAXIMUM CONDUIT LENGTH 82'-0"
5	1 1/4"	CONDUIT FROM "MP" TO "A" (LCB) SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
6	1 1/4"	CONDUIT FROM "LCB" TO "B" SIZED BY ELECTRICAL ENGINEER OF RECORD.	MAXIMUM CONDUIT LENGTH 74'-0"
7	AS REQUIRED	CONDUIT FROM "MP" TO "EPO" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
8	AS REQUIRED	CONDUIT FROM "EPO" TO "EPO" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
9	AS REQUIRED	CONDUIT FROM "EPO" TO "SPS" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
10	1/2"	CONDUIT FROM "B" TO "DOOR SAFETY SWITCH" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
11	1/2"	CONDUIT FROM "B" TO "WARNING LIGHT" (X-RAY ON) SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
12	(2) 3"	CONDUIT "B" TO "PB1" (ICS).	MAXIMUM CONDUIT LENGTH 68'-0"
13	1 1/2"	CONDUIT FROM "LCB" TO "PB1" (UPS).	MAXIMUM CONDUIT LENGTH 68'-0"
14	3"	CONDUIT FROM "B" TO "B2".	MAXIMUM CONDUIT LENGTH 14'-0"

CONTRACTOR SUPPLIED CABLES

FROM	VIA	TO	DESCRIPTION	REMARKS
POWER SOURCE	1	MP	3-PHASE CONDUCTORS, 1 NEUTRAL AND GROUND ALL TO BE THE SAME SIZE. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	2	TF	POWER CABLE FOR SPECT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
TF	3	SPS	POWER CABLE FOR SPECT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
SPS	4	B	POWER CABLE FOR SPECT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	5,A	LCB	POWER CABLE FOR CT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
LCB	6	B	POWER CABLE FOR CT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	7	EPO	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
EPO	8	EPO	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
EPO	9	SPS	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
B	10	DOOR SAFETY SWITCH	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
B	11	WARNING LIGHT	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101

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.	

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ELECTRICAL NOTES

- 1) COMPLIANCE: ELECTRICAL WORK SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA-70), O.S.H.A. REGULATIONS, AS WELL AS APPLICABLE REGULATIONS OF CITY, COUNTY, STATE AND FEDERAL AGENCIES. PROVIDE MATERIALS AND EQUIPMENT THAT COMPLY TO ANSI, IEEE AND NEMA STANDARDS. WHERE APPLICABLE, PROVIDE ONLY MATERIALS AND PRODUCTS THAT ARE U.L. LISTED AND LABELED. CUSTOMER'S/CONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF NECA STANDARD OF INSTALLATION.
- 2) QUALITY ASSURANCE: THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD TO INSURE THAT THE NEW WORK WILL FIT TO THE EXISTING STRUCTURE AS SHOWN ON THE DRAWINGS. SHOULD ANY CONDITIONS EXIST OR BE DISCOVERED THAT PREVENT THE INSTALLATION OF WORK AS SHOWN, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO FABRICATION OF EQUIPMENT, OR THE PERFORMANCE OF ANY WORK THAT MAY BE AFFECTED. DO NOT ALTER DRAWINGS, DIMENSIONS, OR SPECIFICATIONS IN ANY WAY WITHOUT CONTACTING AND RECEIVING WRITTEN CONFIRMATION FROM SMS PROGRAM MANAGER. ALL DIMENSIONS ARE FROM FINISHED SURFACES. CONDUIT AND PULL BOXES TO BE INSTALLED BY THE CUSTOMER/CONTRACTOR WITH LOCATIONS BEING FIELD VERIFIED BY SMS PROJECT MANAGER.
- 3) POWER SUPPLY SOURCE: POWER SUPPLIES FOR SIEMENS MEDICAL SOLUTIONS EQUIPMENT SHALL BE DEDICATED SERVICES KEPT ENTIRELY FREE AND INDEPENDENT OF ALL OTHER BUILDING WIRING AND EQUIPMENT, SUCH AS: ELEVATORS, GENERATORS, PUMPS, HVAC SYSTEMS, ETC. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE CUSTOMER/UTILITY COMPANY FIELD REPRESENTATIVE.
- 4) WORK FURNISHED BY CUSTOMER/CONTRACTOR: WORK NOT PROVIDED BY SIEMENS MEDICAL SOLUTIONS BUT SHOWN ON DRAWINGS TO BE FURNISHED AND INSTALLED BY CUSTOMER/CONTRACTOR INCLUDES THE FOLLOWING BUT IS NOT LIMITED TO UNLESS NOTED OTHERWISE: ELECTRICAL RACEWAYS AND DUCTS, WIRING TROUGHS, PULL BOXES, CONDUITS, CIRCUIT BREAKERS, EMERGENCY OFF BUTTONS, DOOR SWITCHES, WARNING LIGHTS, WIRING, WIRING DEVICES, CONNECTORS, LIGHTING EQUIPMENT AND GROUNDING.
- 5) RACEWAY AND CONDUIT NOTES: RACEWAY SHALL BE ELECTRIC METAL TUBING (EMT) FOR RIGID CONDUIT WORK, OR WHERE SHORT OFF-SET CONNECTIONS ARE REQUIRED LIQUIDTIGHT FLEXIBLE METAL CONDUIT SHALL BE USED. FIELD BENDS SHALL NOT BE LESS THAN AS SHOWN IN TABLE 346-10 OF THE NATIONAL ELECTRICAL CODE. PROVIDE A JETLINE "SUPER TRUE TAPE" OR EQUIVALENT CONDUIT MEASURING TAPE FISH LINE IN ALL RACEWAYS AND CONDUITS. CONDUIT BODIES SHALL NOT BE USED. WHERE A CONDUIT ENTERS A BOX, FITTING, OR OTHER ENCLOSURE, AN INSULATED THROUGH CONNECTOR SHALL BE PROVIDED TO PROTECT THE WIRE FROM ABRASION. CONNECTORS SHALL BE DOUBLE SET SCREW TYPE, STEEL CONCRETE TIGHT. KEEP RACEWAYS AT LEAST 6 INCHES AWAY FROM PARALLEL RUNS OF FLUES OR STEAM AND HOT WATER PIPES. INSTALL RACEWAYS RUNS ABOVE WATER AND STEAM PIPES PROVIDED THAT CABLE RUN DISTANCES ARE MAINTAINED. USE TEMPORARY CLOSURES TO PREVENT FOREIGN MATTER FROM ENTERING RACEWAY. CONDUIT RUNS ARE SHOWN SCHEMATICALLY. INSTALL CONDUIT WITH A MINIMUM OF BENDS IN THE SHORTEST PRACTICAL DISTANCE CONSIDERING THE BUILDING CONSTRUCTION AND OBSTRUCTIONS, EXCEPT AS OTHERWISE INDICATED. THE CONTRACTOR SHALL MAKE CERTAIN THAT ANY CONDUIT/RACEWAY RUNS CONTAINING SIEMENS MEDICAL SYSTEMS CABLES DO NOT EXCEED THE SPECIFIED MAXIMUM DISTANCES AS SHOWN ON THE ELECTRICAL DETAILS. PROVIDE ENCLOSED METAL RACEWAY SYSTEM (WIRE DUCT) WHERE SHOWN ON DRAWINGS WITH DIVIDERS TO SEPARATE THE DUCT (FOR POWER AND SIEMENS MEDICAL SOLUTIONS CABLEING). DIVIDERS AND CROSSOVER PIECES TO BE PROVIDED AS NECESSARY. FOR UL CERTIFIED SYSTEMS, THE CABLE TO CABLE AS WELL AS THE CIRCUIT TO CIRCUIT SEPARATION REQUIREMENT WAS EVALUATED DURING THE UL SYSTEM INVESTIGATION OF THIS EQUIPMENT. ADDITIONAL SEPARATION OF THE SYSTEM CABLE ASSEMBLIES INTO SEPARATE OR PARTITIONED RACEWAYS, UNLESS OTHERWISE NOTED, IS NOT NECESSARY TO INSURE SEPARATION OF CIRCUITS, AS THEY CAN BE IN THE SAME RACEWAY. PROVIDE WIRE DUCT/RACEWAY WITH ACCESSIBLE REMOVABLE COVERS. LOCATIONS OF OPENINGS TO BE CUT IN FIELD ARE TO BE COORDINATED WITH SIEMENS PROJECT MANAGER. ELECTRICAL PULL BOXES AND RACEWAY COVERS SHALL BE INSTALLED IN A MANNER TO ALLOW ACCESSIBILITY FOR INSTALLATION AND MAINTENANCE. IN- FLOOR TRENCH DUCT AND FLUSH FLOOR BOXES SHALL BE PROVIDED WITH FULLY GASKETED REMOVABLE COVERS.
- 6) WIRING: WIRING SHALL BE INSTALLED IN METAL RACEWAY, 600 VOLT CLASS, STRANDED TYPE THHN-THWN, SINGLE CONDUCTOR ANNEALED COPPER FOR A MAXIMUM OPERATING TEMPERATURE OF 75° C (165° F), SIZED AS INDICATED. THE CUSTOMER/CONTRACTOR SHALL LEAVE MINIMUM 10 FT. WIRE TAILS AT ALL OUTLET POINTS WITH WIRE IDENTIFICATION TAGGED AT BOTH ENDS FOR FINAL CONNECTION BY SIEMENS MEDICAL SOLUTIONS.
- 7) IN ADDITION TO THE CIRCUIT BREAKER LOAD CURRENT RATING, CONSIDERATION MUST ALSO BE GIVEN TO SELECTING CIRCUIT BREAKERS THAT HAVE A HIGH ENOUGH SHORT CIRCUIT CURRENT WITHSTAND RATING TO SAFELY COORDINATE WITH THE POWER SYSTEM AVAILABLE SHORT CIRCUIT CURRENT. GENERALLY, WHEN THE 480 VOLT, 3 PHASE, X-RAY EQUIPMENT IS SERVED FROM A POWER SUPPLY SYSTEM THAT IS PROVIDED WITH A 500 KVA OR SMALLER TRANSFORMER, A STANDARD 14,000 RMS AMPERE WITHSTAND RATED CIRCUIT BREAKER WILL BE ADEQUATE. HOWEVER, IF THE POWER SUPPLY SYSTEM TRANSFORMER IS LARGER THAN 500 KWAT, BREAKERS HAVING A SHORT CIRCUIT WITHSTAND RATING GREATER THAN 14,000 RMS AMPERES MAY BE REQUIRED.

SYMBIA INTEVO
REV. 2

SIEMENS

VA SALT LAKE CITY

500 FOOTHILL DRIVE, SALT LAKE CITY, UT 84148
ROOM 1E09 — SYMBIA INTEVO INTEVO 6

PROJECT #:
1403947

SHEET:

E-101

SHEET 6 OF 7

DRAWN BY:
M. YATZUS

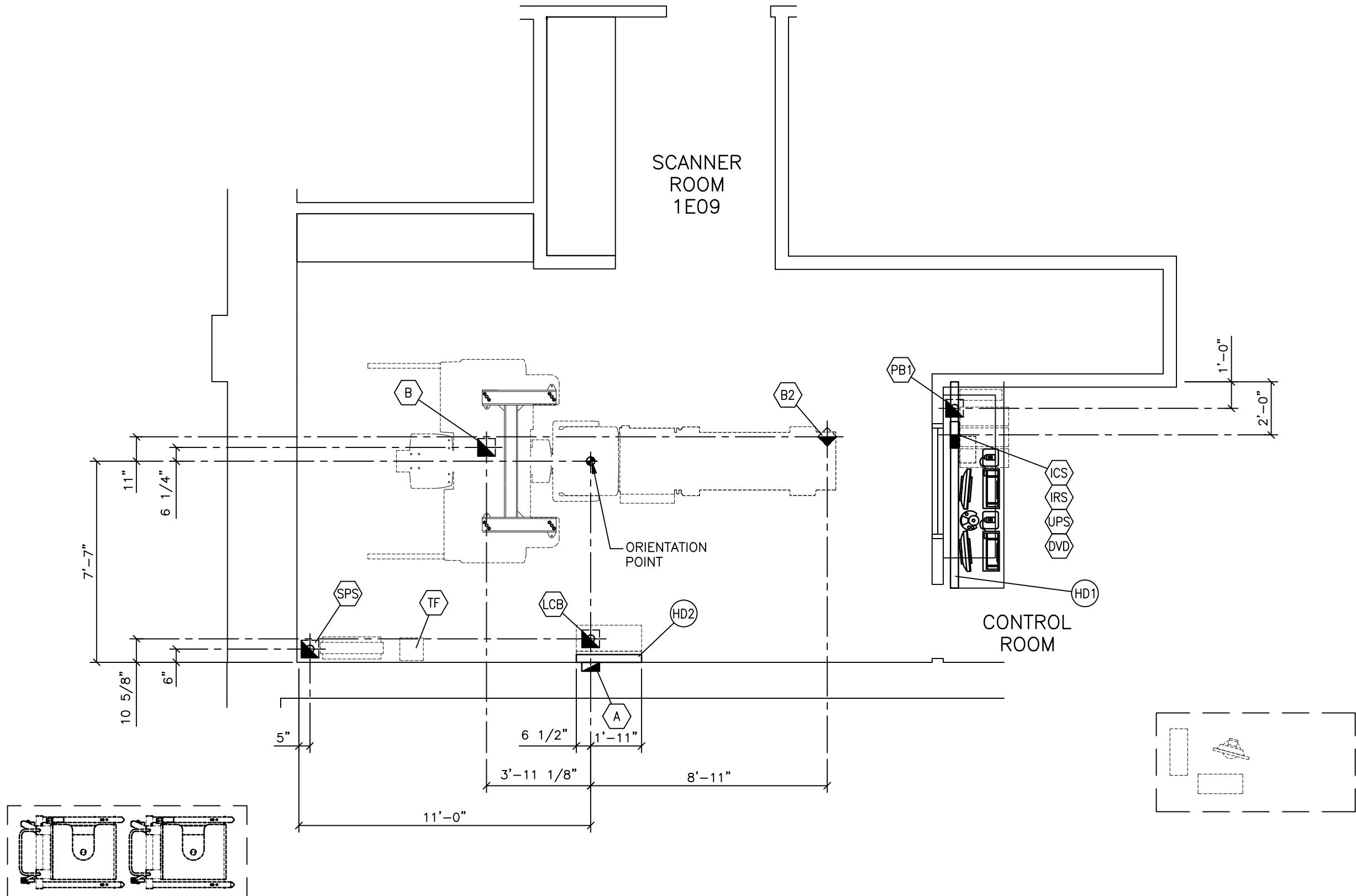
DATE: 06/27/15

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EMAIL: david.lyman@siemens.com

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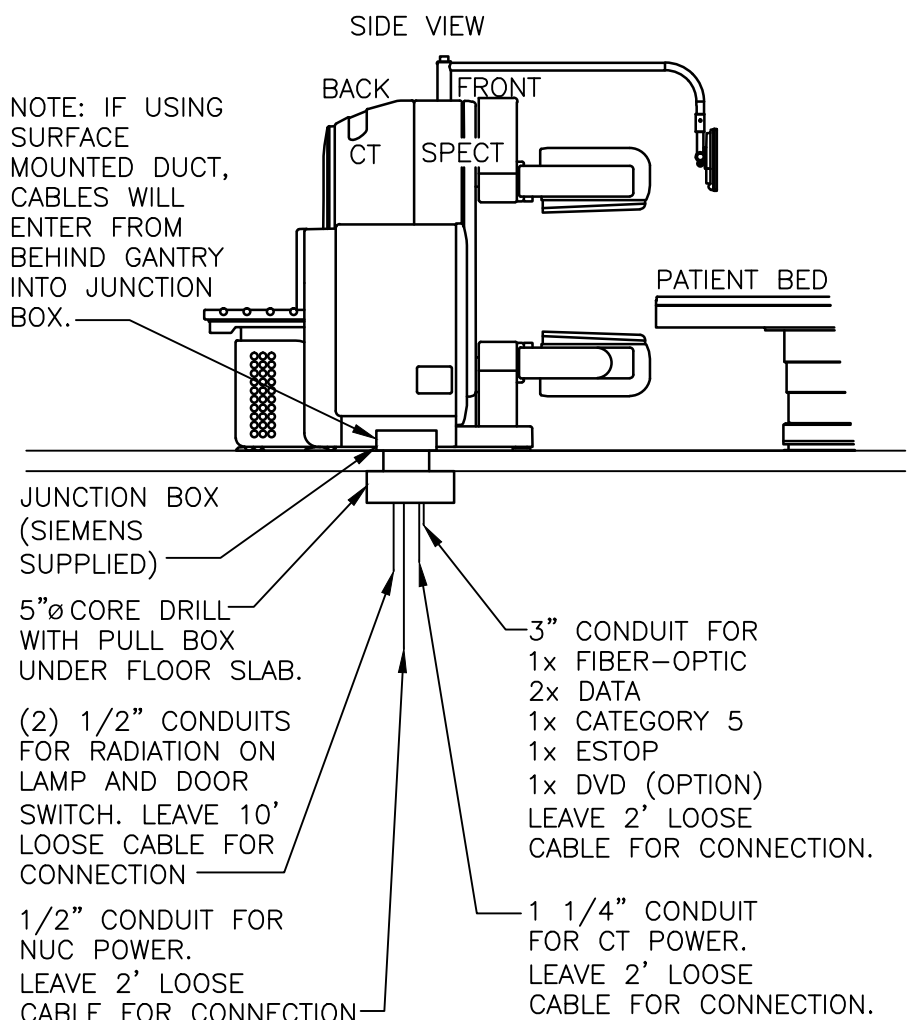
ELECTRICAL DIMENSION PLAN

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

CABLE ENTRANCES

CABLES MAY ENTER FROM CONDUITS BENEATH FLOOR, SURFACE MOUNTED DUCT, OR FLUSH IN FLOOR TRENCH DUCT. PLEASE REFER TO SITE SPECIFIC SHEET E-101 AND E-102 TO SEE HOW CABLES ACCESS GANTRY.

EXAMPLE SHOWN IS CONDUITS BENEATH FLOOR:



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POWER SCHEDULE

		ALL CONDUITS AND WIRE SIZES MUST BE DETERMINED BY THE ELECTRICAL ENGINEER ON RECORD PER N.E.C. AND TO MAINTAIN SIEMENS IMPEDANCE REQUIREMENTS.	
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
		480Y/277Y	3
		NEUTRAL	GROUND
		1	1
		5 (NOTE 1)	
A	1	BREAKER AMPS: 80 FOR LINE CONNECTION BOX (LCB) AND CT GANTRY (B)	
		VOLTS	PHASES
		480Y/277Y	3
		NEUTRAL	GROUND
		1	1
		5 (NOTE 1)	
B	1	BREAKER AMPS: 25 UPS FOR SPECT (SPS) AND SPECT GANTRY (B)	
		VOLTS	PHASES
		277Y	1
		NEUTRAL	GROUND
		1	1
		3 (NOTE 1)	
EPO	VARIES	1) ALL WIRES MUST BE SAME SIZE. 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 EPO'S 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.	

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.	

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
	WARNING LIGHT (X-RAY ON)
	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 6 AND INTEVO 16	3ø 480±10%	74.8 kVA SCAN	100	320	60

SYMBIA INTEVO 6 AND SYMBIA INTEVO 16
POWER CONSUMPTION:
≤70 kVA MAXIMUM POWER CONSUMPTION
≤3 kVA STANDBY

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

TOTAL CONSUMPTION = 74.8 kVA
TOTAL STANDBY = 4.5 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 6 AND SYMBIA INTEVO 16, 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.

SYMBIA INTEVO
REV 2

SIEMENS

VA SALT LAKE CITY

500 FOOTHILL DRIVE, SALT LAKE CITY, UT 84148

ROOM 1E09 — SYMBIA INTEVO INTEVO 6

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DATE: 06/27/15		DATE: 06/27/15		DATE: 06/27/15	
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