

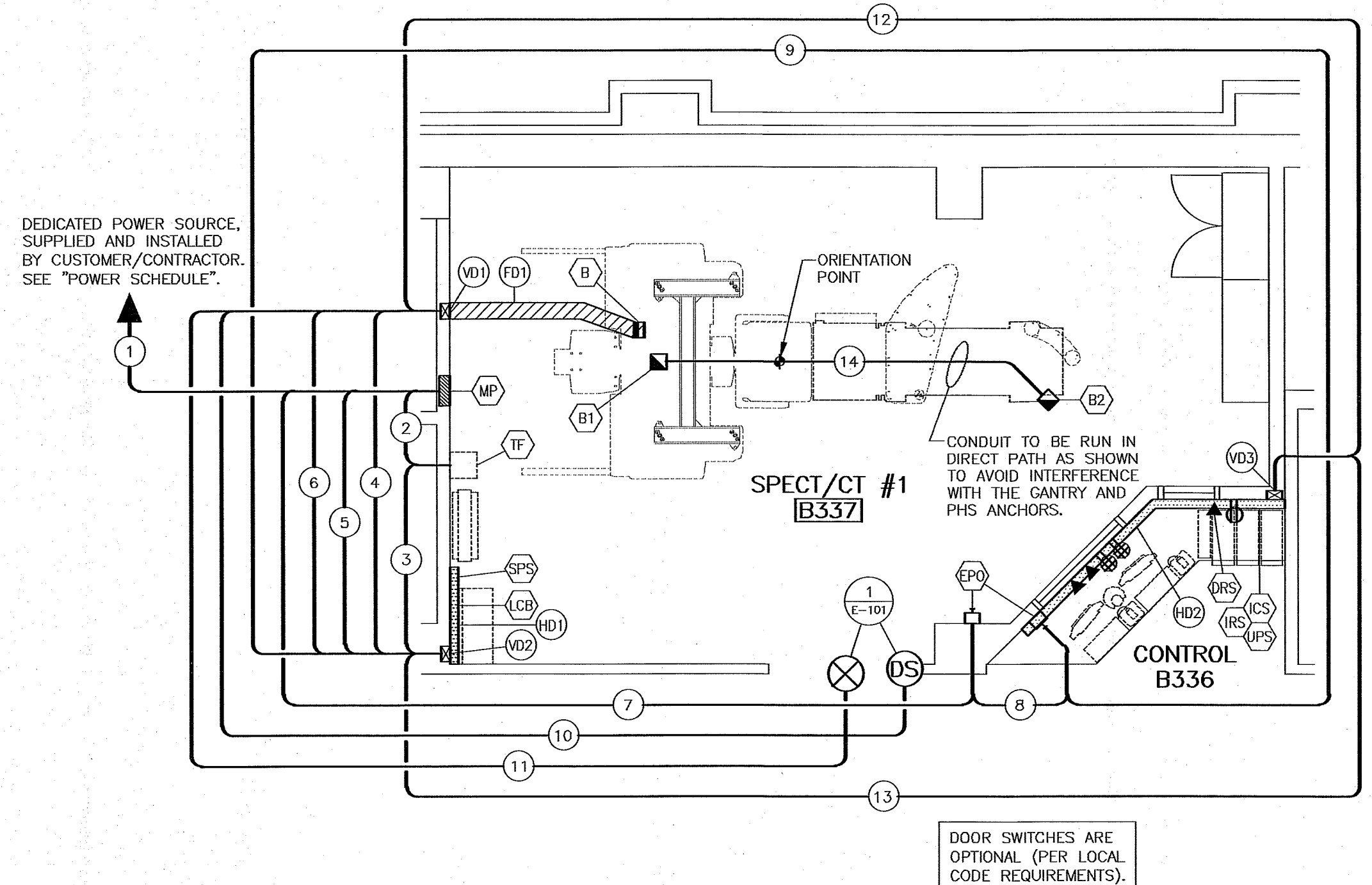
REFERENCE DOCUMENT - NOT FOR CONSTRUCTION

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 PROJECT 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 SHALL BE 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 TROUGHES, PULL BOXES, CONDUITS, CIRCUIT BREAKERS, EMERGENCY OFF BUTTONS, DOOR SWITCHES, WARNING LIGHTS, WIRING DEVICES, CONNECTORS, LIGHTING EQUIPMENT AND GROUNDING.
- 5) RACEWAY AND CONDUIT NOTES: RACEWAY SHALL BE ELECTRIC METALLIC 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 THROAT 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 RACEWAY 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 CABLING), DIVIDERS AND CROSSOVER PIECES TO BE PROVIDED AS NECESSARY. FOR U.L. 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, 800 VOLT CLASS, STRANDED TYPE THIN-TWIST, 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 KVA, THEN THE CIRCUIT BREAKERS HAVING A SHORT CIRCUIT WITHSTAND RATING GREATER THAN 14,000 RMS AMPERES MAY BE REQUIRED.

ELECTRICAL LEGEND

SYM	SIZE	DESCRIPTION	REMARKS
①	6" x 4"	SUPPLIED AND INSTALLED BY CUSTOMER/CONTRACTOR OPENING IN TOP OF FLUSH MOUNTED RACEWAY IN SHOWN LOCATION.	GANTRY CABLE ACCESS
②	6" x 6"	PULL BOX MOUNTED FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION PROVIDED WITH 3"φ OPENING IN FINISHED COVER.	PHS CABLE ACCESS UNDER THE GANTRY
③	6" x 6"	PULL BOX MOUNTED FLUSH WITH FINISHED FLOOR IN SHOWN LOCATION PROVIDED WITH 3"φ OPENING IN FINISHED COVER.	PHS CABLE ACCESS UNDER THE PHS
④	---	ETHERNET CONNECTION TO HOSPITAL NETWORK, EXACT LOCATION TO BE COORDINATED WITH SIEMENS PROJECT MANAGER.	DEDICATED RECONSTRUCTION SYSTEM WORKPLACE
⑤	---	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
⑥	12" x 4"	OPENING IN RACEWAY IN SHOWN LOCATION.	IMAGE CONSTRUCTION SYS
⑦	---	FIXED POINT DESIGNATION, SAME PULL BOX/OPENING AS ICS.	IMAGE RECONSTRUCTION SYS
⑧	6" x 4"	OPENING IN RACEWAY IN SHOWN LOCATION.	LINE CONNECTION BOX
⑨	---	MAIN PANEL WITH MAIN BREAKER FLUSH OR SURFACE MOUNTED. REFER TO POWER SCHEDULE.	SEE POWER SCHEDULE
⑩	AS REQUIRED	OPENING ON SIDE OF SURFACE MOUNTED DUCT IN SHOWN LOCATION.	UPS FOR SPECT
⑪	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
⑫	---	FIXED POINT DESIGNATION, SAME PULL BOX/OPENING AS ICS.	---
⑬	6 1/4" x 2"	ELECTRICAL DUCT THAT IS MOUNTED FLUSH WITH FINISHED FLOOR (TRENCH DUCT) AND PARALLEL WITH THE FLOOR SLAB IN SHOWN LOCATION. PROVIDED WITH WATERPROOF, REMOVABLE COVERS FINISHED TO MATCH FLOORING. DUCT TO BE DIVIDED INTO THREE SECTIONS WITH METAL DIVIDERS.	RACEWAY
⑭	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. DUCT TO BE DIVIDED INTO TWO SECTIONS WITH METAL DIVIDERS.	RACEWAY
⑮	6" x 3 1/2"	ELECTRICAL DUCT THAT IS MOUNTED FLUSH WITH FINISHED WALL IN SHOWN LOCATION PROVIDED WITH FINISHED, REMOVABLE COVERS. TO EXTEND FROM FLOOR LINE TO END ABOVE FINISHED CEILING. DUCT TO BE DIVIDED INTO TWO SECTIONS WITH METAL DIVIDERS.	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 "VD2" (SPS) SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
④	1/2"φ	CONDUIT FROM "VD2" (SPS) TO "VD1" (B) SIZED BY ELECTRICAL ENGINEER OF RECORD.	MAXIMUM CONDUIT LENGTH 50'-0"
⑤	1 1/4"φ	CONDUIT FROM "MP" TO "VD2" (LCB) SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
⑥	1 1/4"φ	CONDUIT FROM "VD2" (LCB) TO "VD1" (B) SIZED BY ELECTRICAL ENGINEER OF RECORD.	MAXIMUM CONDUIT LENGTH 52'-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 "VD2" (SPS) SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
⑩	1/2"φ	CONDUIT FROM "VD1" (B) TO "DOOR SAFETY SWITCH" SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
⑪	1/2"φ	CONDUIT FROM "VD1" (B) TO "WARNING LIGHT" (X-RAY ON) SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
⑫	(2) 3"φ	CONDUIT "VD1" (B) TO "VD3" (ICS).	MAXIMUM CONDUIT LENGTH 52'-0"
⑬	1 1/2"φ	CONDUIT FROM "VD2" (LCB) TO "VD3" (UPS).	MAXIMUM CONDUIT LENGTH 55'-0"
⑭	3"φ	CONDUIT FROM "B1" TO "B2".	MAXIMUM CONDUIT LENGTH 20'-0"

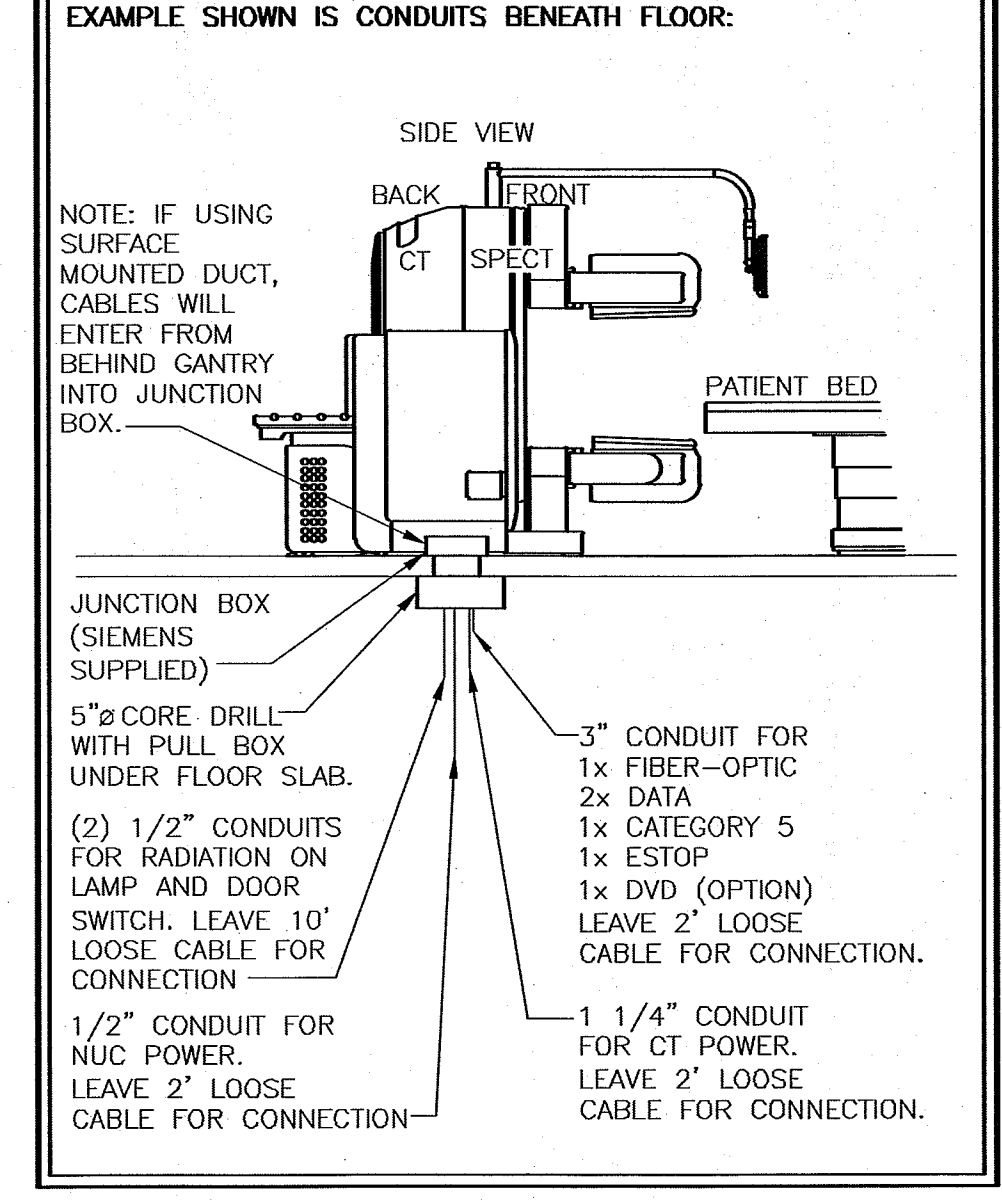


SCALE: 1/4" = 1'-0"

ELECTRICAL RACEWAY PLAN

CABLE ENTRANCES

CABLES MAY ENTER THROUGH 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.



SIEMENS SUPPLIED CABLES

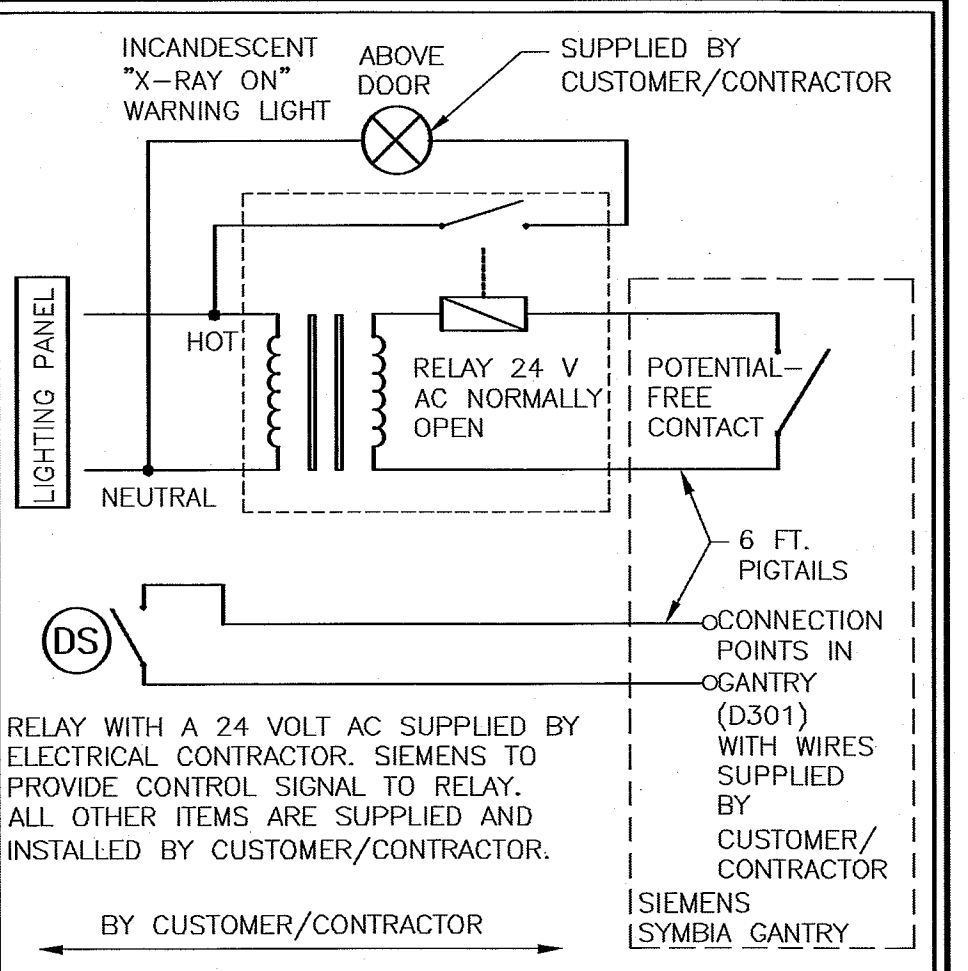
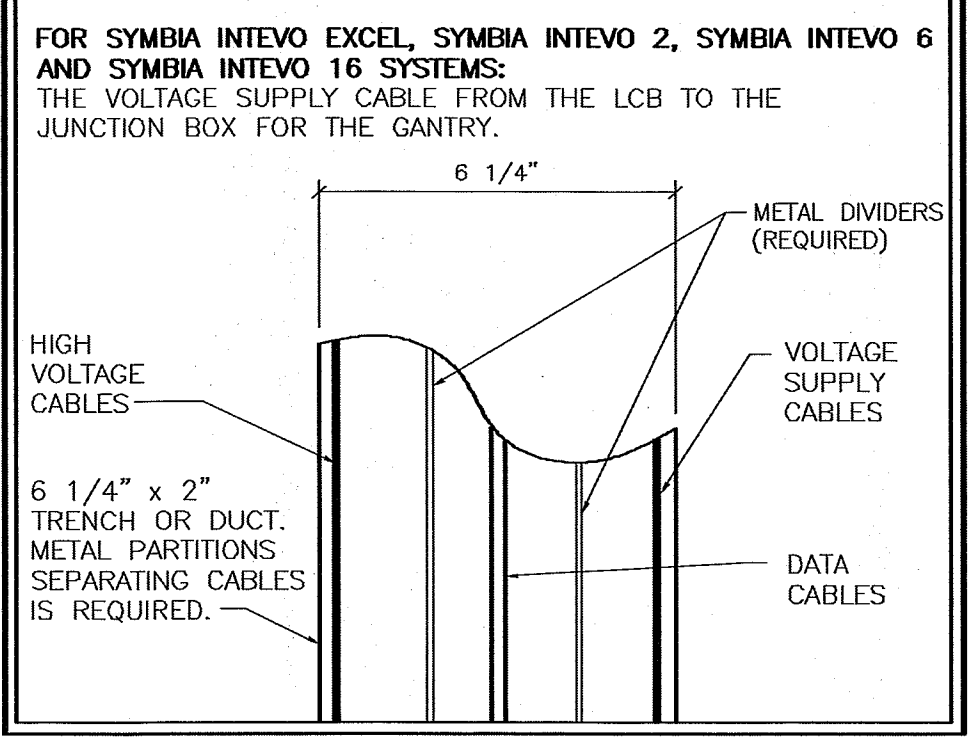
FROM	VIA	TO	DESCRIPTION	REMARKS
ICS/IRS	HD2,VD3,12,VD1,FD1	B	POWER CABLE: 300V.	MAXIMUM LENGTH 82'-0"
ICS/IRS	HD2,VD3,12,VD1,FD1	B	CAT 5 CROSS OVER CABLE: 150V.	MAXIMUM LENGTH 82'-0"
ICS/IRS	HD2,VD3,12,VD1,FD1	B	UNMARKED CABLE.	MAXIMUM LENGTH 82'-0"
LCB	HD1,VD2,13,VD3,HD2	UPS	POWER CABLE: 300V.	MAXIMUM LENGTH 82'-0"
B1	14	B2	PHS CABLE, POWER CABLE: 300V.	MAXIMUM LENGTH 20'-0"

TRENCH/DUCT REQUIREMENTS

IF USING TRENCH OR SURFACE MOUNT DUCT, VOLTAGE SUPPLY CABLES AND/OR HIGH VOLTAGE CABLES MUST BE LAID SEPARATELY FROM THE DATA CABLES. 6 1/4" x 2" TRENCH OR DUCT MUST BE SUPPLIED WITH 2 METAL DIVIDERS TO KEEP CABLES SEPARATED.

HIGH VOLTAGE AND SUPPLY CABLES:
ON SITE POWER LINE CABLE TO THE SYMBIA INTEVO EXCEL, SYMBIA INTEVO 2, SYMBIA INTEVO 6 AND SYMBIA INTEVO 16 SYSTEMS.

FOR SYMBIA INTEVO EXCEL, SYMBIA INTEVO 2, SYMBIA INTEVO 6 AND SYMBIA INTEVO 16 SYSTEMS:
THE VOLTAGE SUPPLY CABLE FROM THE LCB TO THE JUNCTION BOX FOR THE GANTRY.



NOTE: A WARNING LIGHT IS INCLUDED WITH THE SYMBIA SYSTEM, LOCATED ON TOP OF PATIENT BOOM SWING ARM.

WARNING LIGHT AND DOOR SWITCH SCHEMATIC

AUXILIARY WIRING SCALE: NONE

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,VD2,HD1	SPS	POWER CABLE FOR SPECT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
SPS	HD1,VD2,4,VD1,FD1	B	POWER CABLE FOR SPECT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
MP	5,VD2,HD1	LCB	POWER CABLE FOR CT PORTION OF SYMBIA. SIZED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
LCB	HD1,VD2,6,VD1,FD1	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,VD2,HD1	SPS	DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE POWER SCHEDULE
B	FD1,VD1,10	B	DOOR SAFETY SWITCH. DETERMINED BY ELECTRICAL ENGINEER OF RECORD.	SEE SHEET E-101
B	FD1,VD1,11	B	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.

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.

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MAINE MEDICAL CENTER 22 BRANHALL 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.		PROJECT #: 1402948	SHEET: E-101
ALL RIGHTS ARE RESERVED.		SHEET 5 OF 6	DRAWN BY: R. HILL
DATE: 09/12/14	DESCRIPTION: R-101RA VERSION DATED 08/27/14 APPROVED BY THE CUSTOMER FOR FINALS	DATE: 09/12/14	SCALE: AS NOTED REF: #1-291XK1
-ISSUE BLOCK-			