



1 ENLARGED POWER PLAN
1/2" = 1'-0"

NOTES:

- SEE SHEET E-001 FOR LEGEND AND GENERAL NOTES.
- REFER TO NUCLETRON DRAWINGS FOR ADDITIONAL NOTES. WIRING DETAILS AND REQUIREMENTS FOR EQUIPMENT INSTALLATION ALL WORK TO BE COORDINATED WITH NUCLETRON EQUIPMENT INSTALLER.
- ALL WIRING FOR NUCLETRON EQUIPMENT TO BE STRANDED.
- LABEL ALL WIRING AT BOTH ENDS TO BE LABELED INDICATING WHAT WIRING IS FEEDING. WIRING TERMINATIONS AT SIMULATOR ELECTRONICS CABINET TO HAVE 6" PIGTAILS AND AT X-RAY GENERATOR TERMINATIONS TO HAVE 8" PIGTAILS.
- ALL ELECTRICAL WALL, FLOOR AND ABOVE CEILING DUCTS TO BE PROVIDED WITH REMOVABLE COVERS AND TWO DIVIDERS INSIDE DUCT. COORDINATE LOCATIONS FOR ALL REQUIRED OPENINGS IN COVERS WITH NUCLETRON EQUIPMENT INSTALLER. ALL OPENINGS SHALL BE GROMMETED.

KEYED NOTES:

- FURNISH AND INSTALL A 15A, 3 POLE SHUNT TRIP CIRCUIT BREAKER TO FEED 10 KVA TRANSFORMER SUPPLIED BY NUCLETRON.
- INSTALL 10 KVA TRANSFORMER SUPPLIED BY NUCLETRON MOUNTED ABOVE CEILING. FIELD COORDINATE EXACT MOUNTING LOCATION OF TRANSFORMER AND EXACT LOCATION OF ELECTRICAL CONNECTIONS.
- FURNISH AND INSTALL A 20A, SINGLE POLE SHUNT TRIP CIRCUIT BREAKER TO FEED SIMULATOR ELECTRONICS CABINET.
- FURNISH AND INSTALL A 90A, THREE POLE SHUNT TRIP CIRCUIT BREAKER TO FEED EPSILON X-RAY GENERATOR. FIELD COORDINATE EXACT LOCATION OF ELECTRICAL CONNECTION WITH EQUIPMENT SUPPLIER. UTILIZE EXISTING FEEDER FOR VARIAN DISTRIBUTION PANEL, SHOWN TO BE REMOVED ON CD-11. FIELD COORDINATE LOCATION TO THE EXISTING FEEDER. EXISTING PANELBOARD HD IS IN ROOM B462 LOCATED BEHIND STAIR ST-B16. EXISTING 100A, 3P BREAKER THAT FEEDS CURRENT VARIAN EQUIPMENT TO BE REUSED TO FEED NEW X-RAY GENERATOR.
- MOUNT RECEPTACLE 60" AFF TO BOTTOM OF DEVICE. COORDINATE MOUNTING LOCATION WITH OPEN SHELF.
- FURNISH AND INSTALL LIGHTED, MOMENTARY CONTACT TYPE EMERGENCY OFF BUTTONS TO ENERGIZER SHUNT TRIP COIL FOR THE FOUR SHUNT TRIP CIRCUIT BREAKERS IN THE CT SIMULATOR ROOM. WIRING TO BE 2#12 AWG & #12 GND, 3/4". MOUNT EMERGENCY STOP BUTTONS AT 60" AFF TO BOTTOM OF DEVICE. COORDINATE WITH EQUIPMENT SUPPLIER FOR ACCEPTABLE MANUFACTURERS.
- FURNISH AND INSTALL A WALKER OR EQUAL 3 1/2"x12" WIDE RECESSED FLOOR DUCT FROM GANTRY BASE TO WALL AS SHOWN. AT WALL TRANSITION TO A RECESSED 3 1/2"x12" VERTICAL WALL DUCT AND RUN UP TO JUST ABOVE CEILING. AT CEILING TRANSITION TO DUCT DESCRIBED IN KEY NOTE 9.
- FURNISH AND INSTALL A WALKER OR EQUAL 3 1/2"x12" WIDE HORIZONTAL RECESSED WALL DUCT FROM VERTICAL DUCT DESCRIBED IN KEY NOTE SEVEN TO BEHIND SIMULATOR ELECTRONICS CABINET AND X-RAY GENERATOR. MOUNT 18" AFF TO BOTTOM OF DUCT AND PROVIDE BUSHED OPENINGS IN COVER AT SIMULATOR ELECTRONICS CABINET.
- FURNISH AND INSTALL A WALKER OR EQUAL 3 1/2"x12" ELECTRICAL DUCT MOUNTED ABOVE CEILING. DUCT TO BE CONNECTED TO VERTICAL WALL DUCTS DESCRIBED IN KEY NOTES SEVEN AND TEN. COORDINATE EXACT ROUTING IN THE FIELD. ROUTING OF ELECTRICAL DUCT OVER CT SIMULATOR ISOCENTER SHALL BE PROHIBITED.
- FROM ELECTRICAL DUCT DESCRIBED IN KEY NOTE NINE PROVIDE A WALKER OR EQUAL 3 1/2"x12" RECESSED VERTICAL WALL DUCT DOWN TO 18" AFF IN CONTROL ROOM. PROVIDE A HORIZONTAL RECESSED 3 1/2"x12" WALL DUCT FROM VERTICAL DUCT TO CONTROL CONSOLE AS INDICATED. PROVIDE BUSHED OPENINGS IN DUCT COVER AS DIRECTED BY NUCLETRON EQUIPMENT INSTALLER.
- FURNISH AND INSTALL AN IN USE LIGHT FOR CT SIMULATOR EQUIPMENT. SEE LIGHT FIXTURE SCHEDULE FOR LIGHT SPECIFICATIONS.
- FURNISH & INSTALL A 24V DOOR SWITCH. COORDINATE WITH NUCLETRON FOR ACCEPTABLE MANUFACTURERS AND COORDINATE WITH DOOR INSTALLER FOR MOUNTING.
- PROVIDE CEILING MOUNTED RECEPTACLE FOR LASER. COORDINATE EXACT PLACEMENT OF RECEPTACLE WITH EQUIPMENT INSTALLER. 120V POWER FOR LASER RECEPTACLE TO BE FROM SIMULATOR ELECTRONICS CABINET.
- PROVIDE POWER FROM SIMULATOR ELECTRONICS CABINET TO EXISTING RECEPTACLES MOUNTED INSIDE RECESSED POCKET FOR LASERS. FIELD COORDINATE EXACT LOCATION OF EXISTING RECEPTACLES.
- MOUNT RECEPTACLES 72" AFF FOR FLOOR AND SIMULATOR ROOM MONITORS. RECEPTACLES TO BE FEED FROM SIMULATOR ELECTRONICS CABINET. COORDINATE EXACT PLACEMENT OF RECEPTACLES WITH MONITOR LOCATIONS.
- FURNISH AND INSTALL A 4" SQUARE JUNCTION BOX ADJACENT TO MONITOR RECEPTACLE. FROM EACH JUNCTION BOX RUN A 3/4" EMPTY CONDUIT WITH PULL STRING BACK TO WALL DUCT AT SIMULATOR ELECTRONICS CABINET. MONITOR CABLES TO BE SUPPLIED AND INSTALLED BY NUCLETRON.
- IN EXISTING PANELBOARD LB REMOVE TWO 20A, TWO POLE CIRCUIT BREAKERS (CIRCUITS 6,8,10,12) AND REPLACE WITH A 15A, THREE POLE CIRCUIT BREAKER TO FEED 10 KVA TRANSFORMER SUPPLIED BY NUCLETRON. PROVIDE BLANK COVER FOR REMAINING SINGLE POLE SPACE.
- NEW PANELBOARD SP1. SEE SHEET ED 101 FOR CURRENT LOCATION OF PANELBOARD TO BE REMOVED. EXTEND EXISTING WIRING FOR FEEDER AND ANY REMAINING BRANCH CIRCUITS TO NEW PANELBOARD LOCATIONS.
- MOUNT RECEPTACLE 42" AFF TO BOTTOM OF DEVICE.

DIRECTORY	KVA LOAD			CIR. NO.	BRO. AMPS	A B C			BRO. AMPS	CIR. NO.	KVA LOAD			DIRECTORY	
	A	B	C			A	B	C			A	B	C		
LTC CT SIM CONTROL ROOM	1.1			1	20				20	2	0.9			RECEPTS CT SIM CONTROL RM	
SIMULATOR ELECTRONICS CABINET		1.0		3	20				20	4	0.8			RECEPTS CT SIM CONTROL RM	
SPARE				5	20				20	6		0.8		RECEPTS CT SIM CONTROL RM	
RECEPTS CT SIMULATOR RM			1.1	9	20				20	10		1.0		RECEPTS CT SIM CONTROL RM	
RECEPTS CT SIMULATOR RM			1.1	11	20				20	12		0.4		IN USE LIGHTS/RADIATION DETECTOR	
HDR CONTROL RECEPT	0.4			13	20				20	14				SPARE	
SPARE				15	20				20	16				SPARE	
SPARE				17	20				20	18				SPARE	
SUB-TOTAL	1.0	2.1	1.1						NEUTRAL BUS		1.7	1.8	1.2	SUB-TOTAL	
VOLTAGE: 208Y/120V 3 PHASE 4 WIRE 100 AMP BUS												TOTAL KVA A	3.2	PANEL NO.	SP1
MAIN LUGS ONLY												TOTAL KVA B	3.9		
MOUNTING: SURFACE												TOTAL KVA C	2.3	LOCATION	ELECTRICAL B599
SC RATING: 10,000 AC												TOTAL KVA	9.4		
NOTES:															

144 Form Sheet (P.O. Box 618 Portland, Maine 04104 Tel: (207) 772-3866 Fax: (207) 772-1070 www.enrinc.com

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SMART

STATE OF MAINE
DANIEL J. SMITH
LICENSED PROFESSIONAL ENGINEER
NO. 9883

PROJECT NORTH

CT SIMULATOR REPLACEMENT
RE-ISSUED FOR CONSTRUCTION
02.09.10

REV	DATE	DESCRIPTION
1	01.24.10	RE-ISSUED FOR CONSTRUCTION
0		ISSUED FOR CONSTRUCTION

GRAPHIC SCALE: 1" = 1'-0"

SCALE: As Indicated

PROJECT MANAGER: DIV
DRAWN BY: CDS
AVE OF RECORD: DIT
PROJECT NO.: 09122
DATE: 1-20-10
SHEET TITLE: CT SIMULATOR EQUIPMENT PLAN
SHEET No. EP101