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# Healthcare www.healthcare.philips.com

<b>Final Site</b>	Preparation	Support I
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	Revision History Note for Architects and/or Contractors: If revisions are listed, these drawings must be thoroughly reviewed so that all changes can be incorporated into your project				
Rev.	Rev. Date Revision Descriptions				
A	10/24/2013	A3: Added option 3 and relocated electrical cabinets per PM request.	СР		
В	11/15/2013	Completed final site preparation support documents per option 3 from preliminary drawings per PM request.	СР		
С	2/26/2014	A1/S2/E1: Removed walls/doors per PM's request and showed ceiling soffit.	JSC		
D	9/17/2014	Changed project to a preliminary drawing. Added room move equipment for FD10 Ceiling and revised room layout per updated CAD background.	СР		
E	1/26/2015	Room revised per updated CAD background and completed preliminary site preparation support documents.	СР		
F	2/16/2015	A1/S1/S2/E1: Room revised and relocated system isocenter 1'-5" plan south per updated CAD background.	СР		
G	5/4/2015	A1/S1/S2/E1: Added Soffit. Moved isocenter south to 8'-6". Added reverse hose for SP outlet. Resized and moved TV box.	SC		

# Table of Contents

# Section A - Equipment Plan

General Notes -Equipment Lege Equipment Plan Transport Detail Equipment Deta

# Section S - Support Plan

Support Notes -Support Legend Support Plan - F Support Plan - C Support Details

# Section E - Electrical Plan

Electrical Notes Electrical Leger Electrical Plan -Raceway & Cor Electrical Detai

Remote Service Check List -----

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ails	AD2 - AD6

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d	SL
Floor & Wall	
Ceiling	S2
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s	EN
nd	EL
	E1
nduit Information	E2 - E3
ils	ED1 - ED3

e Network	N1 - N2
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		Project Details	Philips Contacts	Project	
		Drawing Number	Project Manager: Frank Donald	Allura FD10 Ceiling	
	C	N-EAS131654 G	Contact Number: (414) 788-3702	)	
	;1	Date Drawn: 5/4/2015	Email: frank.donal@philips.com	WM S. Middleton Memorial VA Hospital	
1.16		Quote: Room Move		Madison, WI	
5.14		Order: Room Move	Drawn By: Sam Chong	Room: New Cath Lab 1	
I ∓ S	HE DRAWINGS	HE DRAWINGS AND RELATED INSTRUCTIONS PROVIDED BY F CONSTRUCTION DOCUMENTS.	HILIPS ARE ACCEPTABLE FOR USE BY THE HOSPITAL	HE DRAWINGS AND RELATED INSTRUCTIONS PROVIDED BY PHILIPS ARE ACCEPTABLE FOR USE BY THE HOSPITAL'S ARCHITECT OR ENGINEER TO USE FOR THE DEVELOPMENT OF CONSTRUCTION DOCUMENTS.	

# **General Specifications**

# 1. Responsibility

The customer shall be solely responsible, at its expense for preparation of site, including any required structural alterations. The site preparation shall be in accordance with plans and specifications provided by Philips. Compliance with all safety electrical and building codes relevant to the equipment and its installation is the sole responsibility of customer. The customer shall advise Philips of conditions at or near the site which could adversely affect the carrying out of the installation work and shall ensure that such conditions are corrected and that the site is fully prepared and available to Philips before the installation work is due to begin. The customer shall provide all necessary plumbing, carpentry work, or conduit wiring required to attach and install products ready for use.

# 2. Permits

Customer shall obtain all permits and licenses required by federal, state/provincial or local authorities in connection with the construction, installation and operation of the products and related rules, regulations, shall bear any expense in obtaining same or in complying with any ordinances and statutes.

# 3. Radiation Protection

The customer or his contractor, at his own expense, shall obtain the service of a licensed radiation physicist to specify radiation protection. (X-Ray Tube output 150 KVp max.)

# 4. Asbestos and Other Toxic Substances

Philips assumes no hazardous waste (i.e., PCB's in existing transformers) exists at the site. If any hazardous material is found, it shall be the sole responsibility of the customer to properly remove and dispose of this material at its expense. Any delays caused in the project for this special handling shall result in Philips time period for completion being extended by like period of time. Philips assumes that no asbestos material is involved in this project in any ceilings, walls or floors. If any asbestos material is found anywhere on the site, it shall be the customer's sole responsibility to properly remove and/or make safe this condition, at the customer's sole expense.

# 5. Labor

In the event local labor conditions make it impossible or undesirable to use Philips' regular employees for such installation and connection, such work shall be performed by laborers supplied by the customer, or by an independent contractor chosen by the customer at the customer's expense, and in such case, Philips agrees to furnish adequate engineering supervision for proper completion of the installation.

# 6. Schedule

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The general contractor should provide Philips with a schedule of work to assist in the coordination of delivery of Philips supplied products which are to be installed by the contractor and delivery of the primary equipment.

# 7. Extended Installation or Turnkey Work by Philips

Any room preparation requirements for Philips equipment indicated on these drawings is the responsibility of the customer. If an extended installation or turnkey contract exists between Philips and the customer for room preparation work required by the equipment represented on these drawings, some of the responsibilities of the customer as depicted in these drawings may be assumed by Philips. In the event of a conflict between the work described in the turnkey contract workscope and these drawings, the turnkey contract workscope shall govern.

# 8. Infection Control and Interim Life Safety Measures

Compliance with all Infection Control and Interim Life Safety Measures shall be the sole responsibility of the customer. The customer shall provide all means and methods necessary for compliance with Infection Control (IC) and Interim Life Safety Measures (ILSM) in connection with the construction and installation/operation of the products shown herein and shall bear any expenses related to same.

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# **Minimum Site Preparation Requirements**

A smooth efficient installation is vital to Philips and their customers. Understanding what the minimum site preparation requirements are will help achieve this goal. The following list clearly defines the requirements which must be fulfilled before the installation can begin.

1. Walls to be painted or covered, baseboards installed, floors to be tiled and/or covered, ceiling shall have grid tiles and lighting fixtures installed and operational.

2. Doors and windows, especially radiation protection barriers, installed and finished with locksets operational.

3. All electrical convenience, conduit, raceway, knockouts, cable openings, chase nipples, and junction boxes installed and operational.

- 4. Incoming mains power operational and connected to room x-ray breaker.
- 5. 115v convenience outlets operational.

6. All support structure correctly installed. All channels, pipes, beams and/or other supporting devices should be level, parallel, and free of lateral or longitudinal movements.

- 7. All contractor supplied cables pulled and terminated.
- 8. A dust-free environment in and around the procedure room.
- 9. All HVAC (heating, ventilating and air conditioning) installed and operational as per specifications.

10. Architectural features such as computer floor, wood floor, casework, bulkheads, installed and finished. When technical cabinets are installed in a closet with doors, it is suggested that the customer install a temperature alarm in the event of an air conditional failure.

11. All plumbing installed and finished.

12. Philips does not install or connect developing tanks, automatic processors or associated equipment, built in illuminators, cassette pass boxes, loading benches and cabinets, lead protective screens, panels or lead glass window and frame. This is to be done by the customer/contractor.

13. Clear door openings for moving equipment into the building must be 42" (1067mm) W x 82" (2083mm) H min. 48" (1219mm) W x 82" (2083mm) H rec., Or larger contingent on an 8'-0" (2438mm) corridor width.

14. Countertop is 30" (765mm) for seated height and 36" (915mm) for standing height.

# Note

Once Philips has moved equipment into the suite and started the installation, the contractor shall schedule his work around the Philips installation team on site. It is suggested that a telephone be provided in the room to receive telephone calls. This would alleviate facility staff from answering calls for Philips personnel.

# Remote Service Diagnostics

Medical imaging equipment to be installed by Philips Medical is equipped with a service diagnostic feature which allows for remote and on site service diagnostics. To establish this feature, a RJ45 type ethernet 10/100/1000 Mbit network connector must be installed as shown on plan. Access to customer's network via their remote access server is needed for Remote Service Network (RSN) connectivity. All cost with this feature are the responsibility of the customer.

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Equipment's designed airflow is fron handling in the rack cabinet equipme

# Ele V

Power Output:	100KW
Supply Configuration:	3 phase, id 3 phase, id (without PD
Nominal Line Voltage:	480 VAC, 6
Branch Powe Requireme	ent: 225
Circuit Breaker:	3 pole, 125

# Remote

The control of customer lighting mus demonstrated on Sheet ED2. Lighti

e at 72° ± 5°	conditioning requirement for general equipment locations must $m$ Fahrenheit (22° ± 3° Celsius) and non-condensing relative humidax. variation.				
-	irflow is from bottom to top and front to back. Please design the inet equipment area accordingly.	air			
		(12.0)			
	Electrical Requirements Velara with PDU 4000				
ut:	100KW				
figuration:	3 phase, identical 3 wire power and ground, delta or wye 3 phase, identical 3 wire power and ground, with neutral, wye (without PDU 4000)				
e Voltage:	480 VAC, 60 Hz				
e Requirem	ent: 225 KVA			oital	
ker:	3 pole, 125 Amps			Hosp	
		(14.0)		<b>A</b>	
	Remote Control of Room Lighting		ם	WM S. Middleton Memorial VA Hospital Madison, WI	Lab 1
	lighting must incorporate an electrical isolation system such as ED2. Lighting scheme is the responsibility of the customer.		Project Allura FD10 Ceiling	on M	Cath L
		(12.0)	10 0	<b>idlet</b> WI	S N
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			Project Allura	/M S ladis	noo
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			Philips Contacts Project Manager: Frank Donald Contact Number: (414) 788-3702	Email: frank.donal@philips.com	
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			Philips Contacts Project Manager: Contact Number:	ank.do	/: Sar
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	-	A Fi	urnished and installed by Philips urnished by customer/contracto
		C In:	stalled by customer/contractor stalled by customer/contractor urnished by Philips and installed
		E E>	kisting equipment to be relocate
	[	G Or	ptional item furnished by Philips
			Equipm
	$  \downarrow  $	$\vee$	C
	E	SP	Poly G Stand (Ceiling
	E	MSA	Angio Diagnost 7 with
	E	MG	Velara Generator 40E
	E	MP	Peripheral 40E Cabin
	E	MA	Mains 40E Cabinet
	E	PBK	PDU 4000/UPS
	1 1		Viewing/Control
	E	DB	Documentation Box -
			(Final location to be c and/or local Philips Se
	E	ATY	Exam Room Auxiliary
	1 1		Six LCD Monitor Susp
	E	MAV	Mavig Ceiling Track w
	E	TR	3 Surgical Light Mach 3 Transformer
	E	(IH)	Interventional Hardwa
			Video Connection Bo
		~	
	E	(VB4	Video Connection Bo
	E		Injector Room Consol
	E	RIC	Injector Remote Pane
	E	INJ	Medrad Universal T-F (Not shown on plan)
"ACCOMPANYING AMENDMENT VA69D-15-B-0931 - A00002 6-5-2015"			

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# Equipment Legend

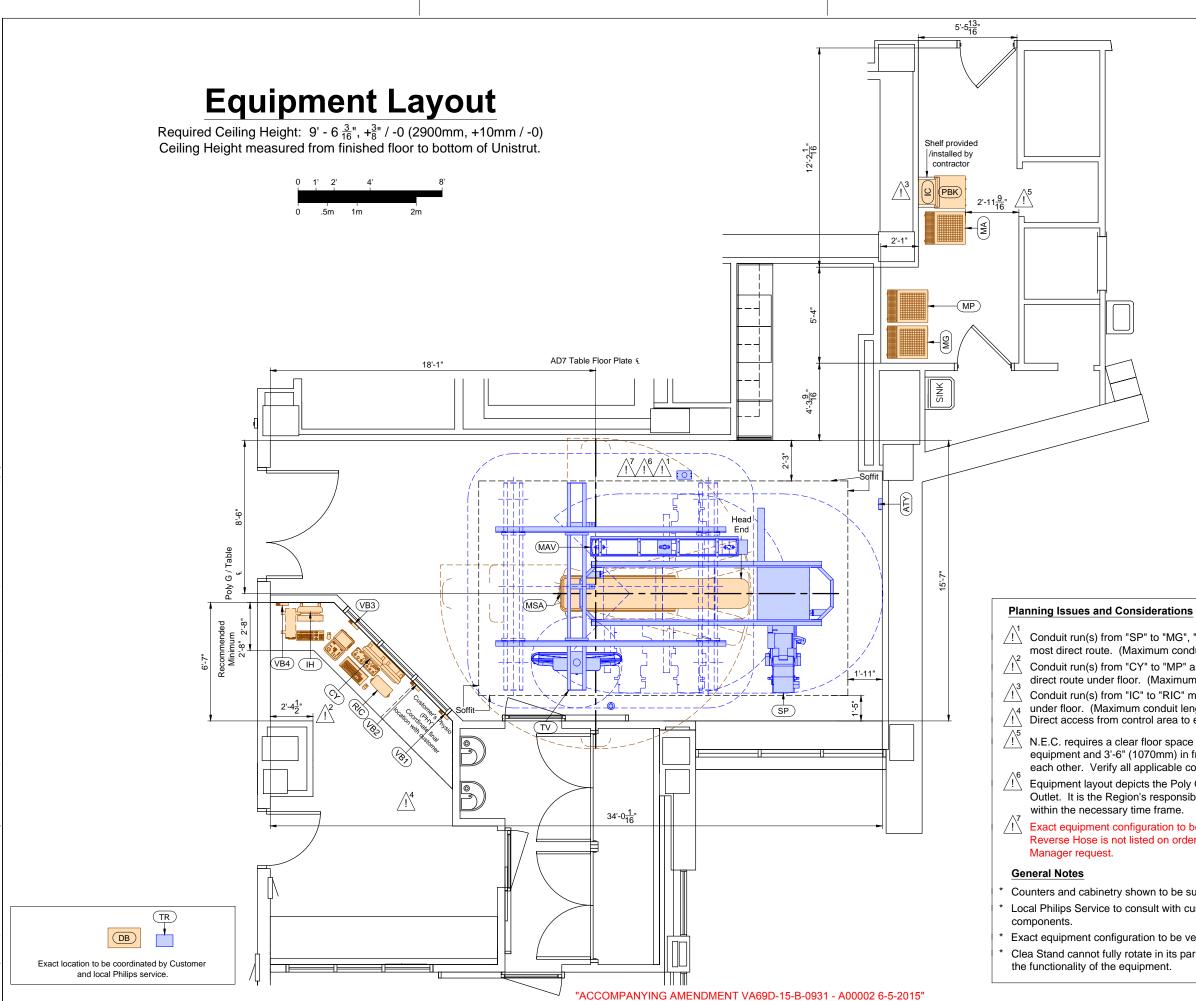
ilips actor and installed by customer/contractor lled by contractor cated

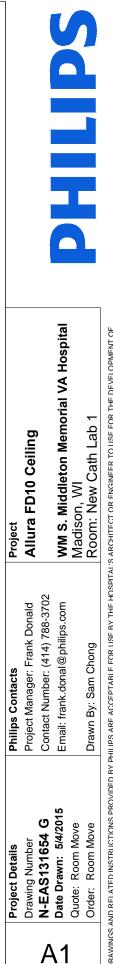
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ips					
ment Designation	Detai	I Sheet –			
Description	Weight (lbs)	Heat Load (btu/hr)			
ng Version)	2387	1195	AD2		
th Pivot and Tilt	1693	205	AD2		
DE Cabinet	510	2971	AD3		
inet	510	2049	AD3		
	710	4439	AD3		
	860	2450	AD3		
	126	567	AD3		
- Mounted on Wheels coordinated with customer Service)	176	0	AD4		
ry Box	7	1.7	AD4		
spension	665	1020	AD4		D
w/ Radiation Shield and Mach	167	350	AD5		ilin
r	17	-	AD5		Se
vare	73	2424	AD5		D10
ox	2	-	AD4	ect	Allura FD10 Ceiling
ox	2	-	AD4	Project	Alli
ole	43	160	AD6		
nel	5	160	AD6		1d 702
Rail Bracket for Injector Head	-	-	-	ts	Manager: Frank Donald Number: (414) 788-3703
				<b>Philips Contacts</b>	Project Manager: Frank Donald
				Project Details	Drawing Number
					F



WM S. Middleton Memorial VA Hospital Madison, WI Room: New Cath Lab 1 SPITALS ARCHITECT OR ENGINEER TO USE FOR THE DEVELOPMENT OF Project Manager: Frank Donald Contact Number: (414) 788-3702 Email: frank.donal@philips.com ВҮ ТНЕ DED BY PHILIPS ARE ACCEPTABLE FOR USE Drawn By: Sam Chong Drawing Number N-EAS131654 G Date Drawn: 5/4/2015 Quote: Room Move Order: Room Move THE DRAWINGS AND RELATED INSTRUCTION CONSTRUCTION DOCUMENTS. AL





# <sup>n</sup>OR THE DRAWINGS AND RELATED INS CONSTRUCTION DOCUMENTS.

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Conduit run(s) from "SP" to "MG", "MP" and "MA" must be able to take the most direct route. (Maximum conduit length = 29', 31' and 36' respectively) Conduit run(s) from "CY" to "MP" and "MA" must be able to take the most direct route under floor. (Maximum conduit length = 50' and 55' respectively) Conduit run(s) from "IC" to "RIC" must be able to take the most direct route under floor. (Maximum conduit length =  $50^{\circ}$ ) Direct access from control area to exam room will not be available.

N.E.C. requires a clear floor space of 3'-0" (915mm) in front of electrical equipment and 3'-6" (1070mm) in front electrical equipment when facing each other. Verify all applicable code(s) with the architect of record.

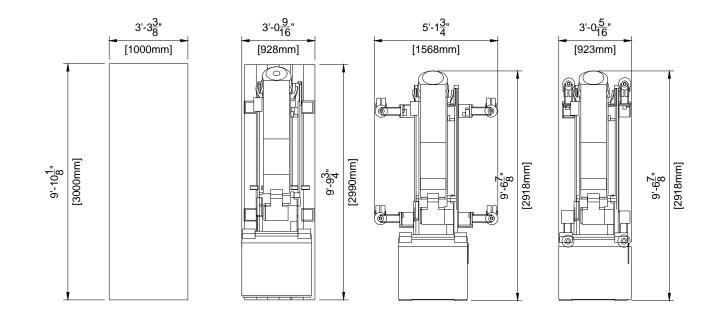
Equipment layout depicts the Poly G Stand with the Reverse Hose Cable Outlet. It is the Region's responsibility to ensure that the order is place

Exact equipment configuration to be verified with local Philips Sales. Reverse Hose is not listed on order but is shown due to Philips Project

Counters and cabinetry shown to be supplied and installed by contractor. Local Philips Service to consult with customer for final placement of control desk

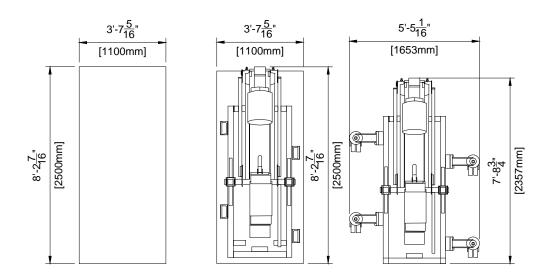
Exact equipment configuration to be verified with local Philips Service. Clea Stand cannot fully rotate in its parked position. However, this will not affect

# Detail - Poly Diagnost G Ceiling (L-ARM) Transport Details



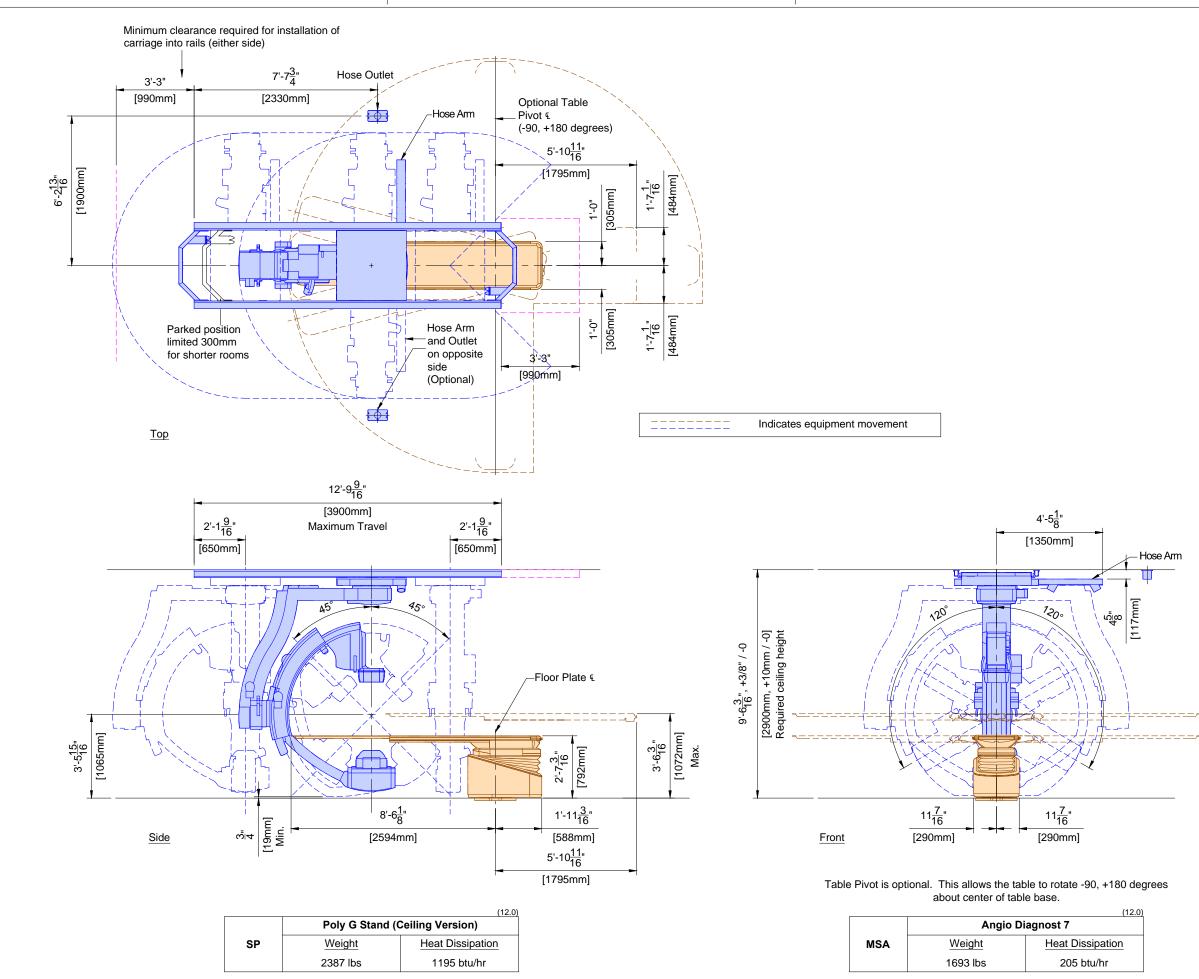
	Transport Possibilities						
	Crate	Pallet	Kick Wheels Wide	Kick Wheels Small			
Height	57.09" (1450mm)	54.80" (1392mm)	49.25" (1251mm)	49.25" (1251mm)			
Weight	2033 lbs (922 kg)	1911 lbs (867 kg)	1764 lbs (800 kg)	1764 lbs (800 kg)			

# Detail - Poly Diagnost G (C-ARM) Transport Details



Transport Possibilities			
	Crate	Pallet	Klick Wheels
Height	77.95" (1980mm)	75.59" (1920mm)	70.08" (1780mm)
Weight	2028 lbs (920 kg)	1907 lbs (865 kg)	1764 lbs (800 kg)

	Project Allura FD10 Ceiling	WM S. Middleton Memorial VA Hospital Madison, WI	Order: Room Move Drawn By: Sam Chong Room: New Cath Lab 1 The drawings and related instructions provided by Philips are acceptable for use by the hospitals architect or engineer to use for the development of construction documents.
	Philips Contacts Project Manager: Frank Donald Contact Number: (414) 788-3702	Email: frank.donal@philips.com	Drawn By: Sam Chong PHILIPS ARE ACCEPTABLE FOR USE BY THE HOSPITAL
	Project Details Drawing Number N-EAS131654 G	Date Drawn: 5/4/2015 Quote: Room Move	Order: Koom Move 5 AND RELATED INSTRUCTIONS PROVIDED BY N DOCUMENTS.
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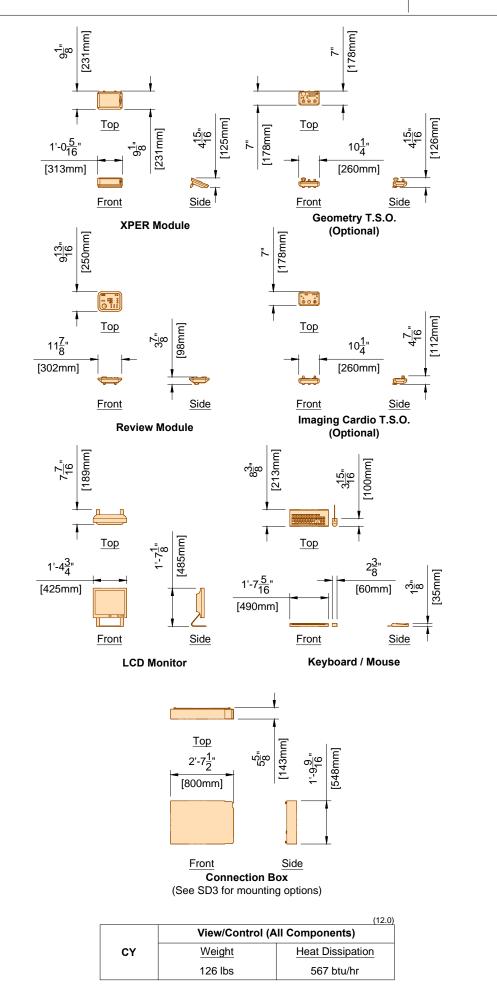
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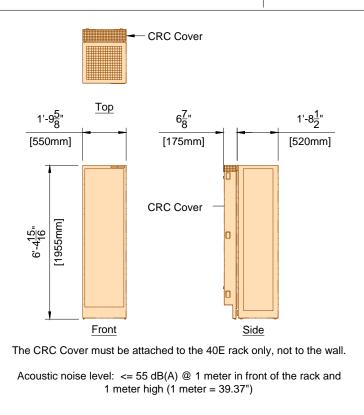
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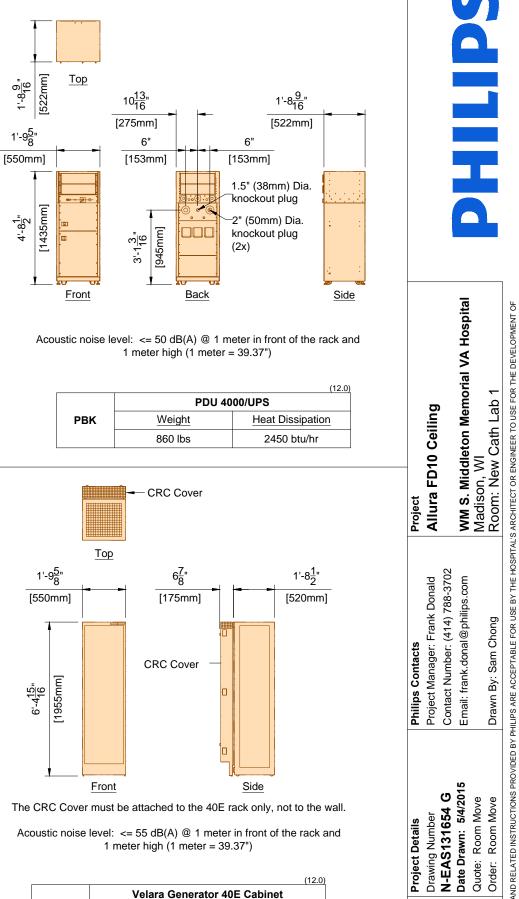
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"ACCOMPANYING AMENDMENT VA69D-15-B-0931 - A00002 6-5-2015"

	<b>Project Details</b>	Philips Contacts	Project
Λ Γ	Drawing Number N-EAS131654 G	Project Manager: Frank Donald Contact Number: (414) 788-3702	Allura FD10 Ceiling
<b>م</b> ر	Date Drawn: 5/4/2015	Email: frank.donal@philips.com	WM S. Middleton Memorial VA Hospital
2	Quote: Room Move		Madison, WI
	Order: Room Move	Drawn By: Sam Chong	Room: New Cath Lab 1







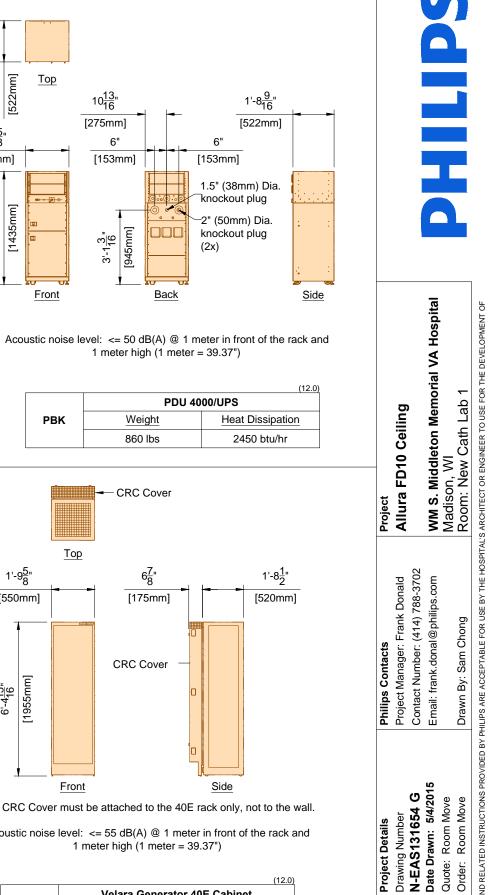
Heat Dissipation

2971 btu/hr

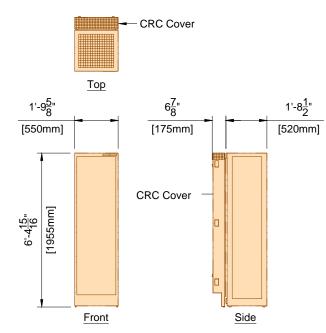
MG

Weight

510 lbs



		(12.0)
	Mains 40	E Cabinet
MA	Weight	Heat Dissipation
	826 lbs	5464 btu/hr



The CRC Cover must be attached to the 40E rack only, not to the wall.

Acoustic noise level: <= 65 dB(A) @ 1 meter in front of the rack and 1 meter high (1 meter = 39.37")

	Peripheral 4	(12.0)
MP	Weight	Heat Dissipation
	510 lbs	2049 btu/hr

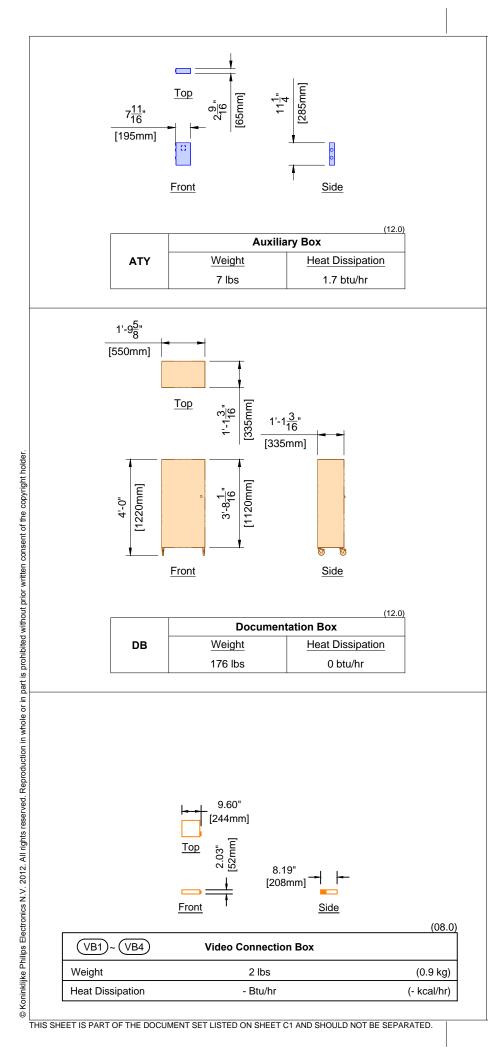


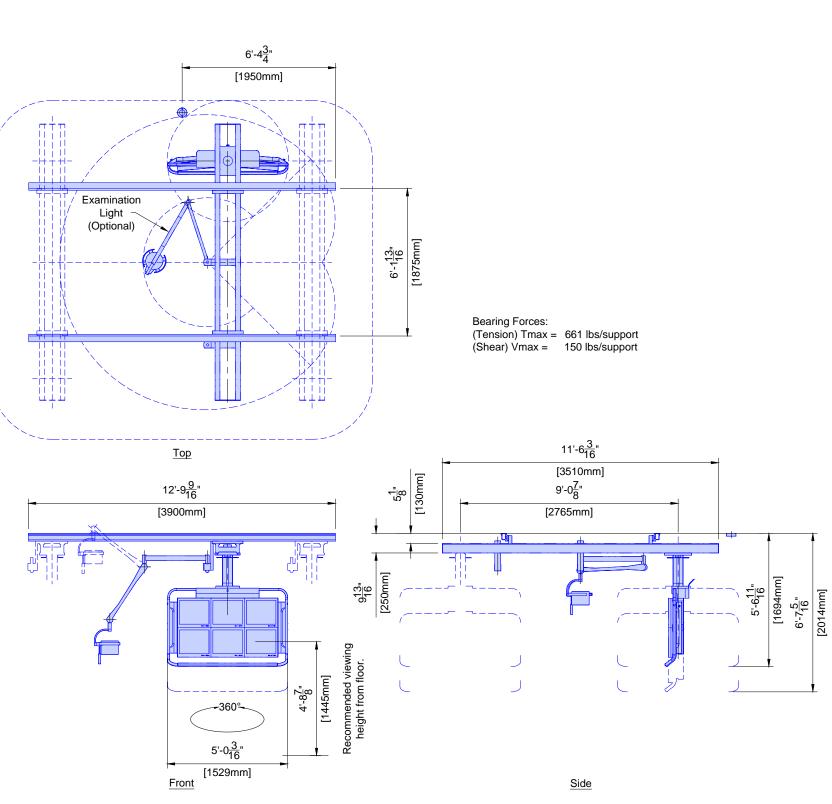
THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED.

AD3	3
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THE DRAWINGS AND RELATED INST CONSTRUCTION DOCUMENTS.

1.16.14



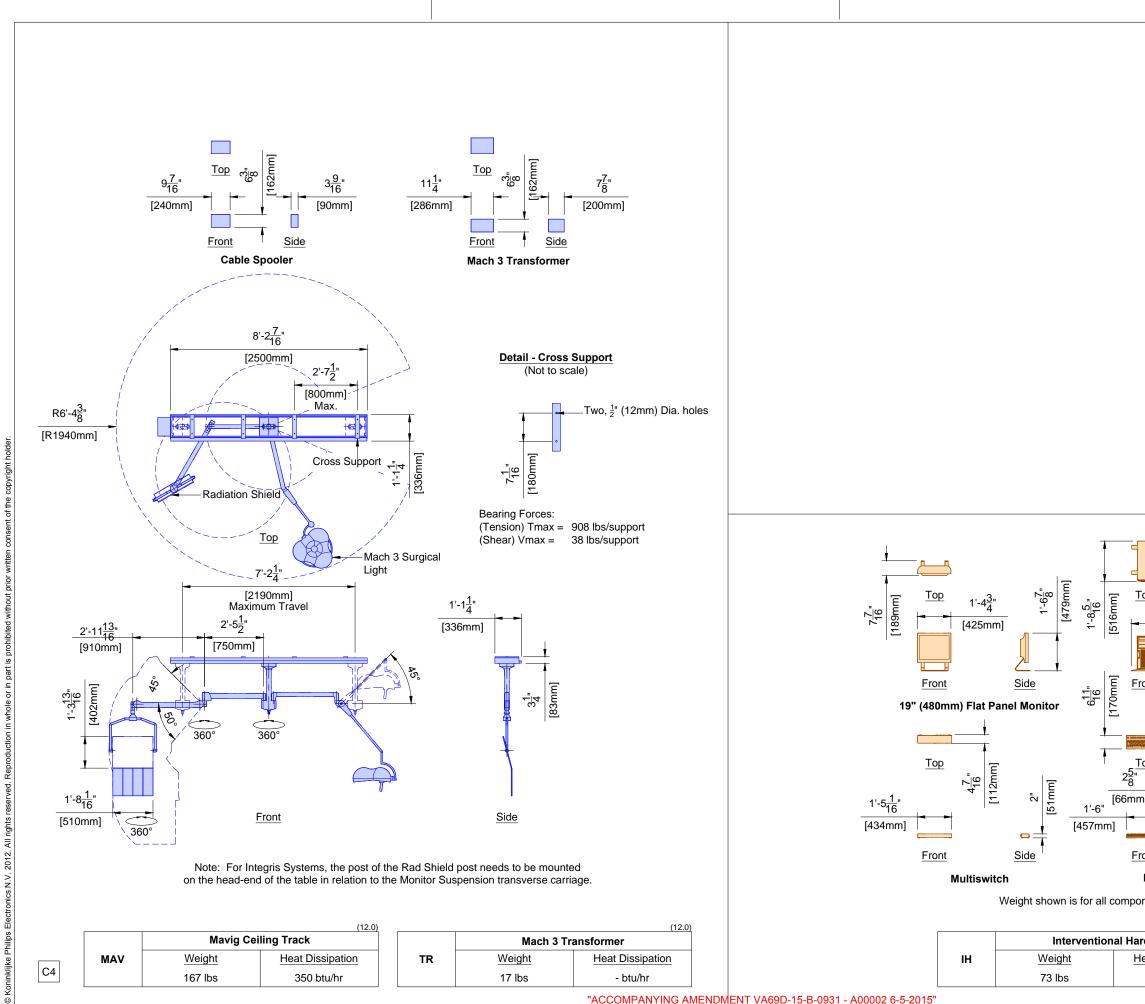


For swing labs, 2700mm long ceiling rails are delivered. Maximum longitudinal column travel = 2100mm. Weight shown is total weight including monitors, suspension, cabling, and options.

	Six LCD Monit	or Suspension
ти	Weight	Heat Dissipation
	665 lbs	1020 btu/hr

"ACCOMPANYING AMENDMENT VA69D-15-B-0931 - A00002 6-5-2015"

Project Details	Philips Contacts	Project
Drawing Number	Project Manager: Frank Donald	Allura FD10 Ceiling
Date Drawn: 5/4/2015	Contact Number: (414) 788-3702 Email: frank.donal@philips.com	WM S. Middleton Memorial VA Hospital
Quote: Room Move		Madison, WI
Order: Room Move	Drawn By: Sam Chong	Room: New Cath Lab 1

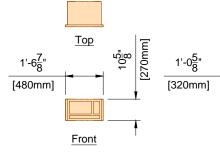


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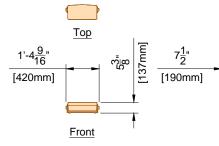
	<b>DHLPS</b>
	Project Allura FD10 Ceiling WM S. Middleton Memorial VA Hospital Madison, WI Room: New Cath Lab 1
$\frac{Top}{1'-1\frac{1}{4}}$ $(336mm)$ $\overline{CPU}$	Philips Contacts Project Manager: Frank Donald Contact Number: (414) 788-3702 Email: frank.donal@philips.com Drawn By: Sam Chong
Front Side Keyboard / Mouse	Project Details Drawing Number N-EAS131654 G Date Drawn: 5/4/2015 Quote: Room Move Order: Room Move
Heat Dissipation 2424 btu/hr	AD5

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THE DRAWINGS AND RELATED CONSTRUCTION DOCUMENTS.



	Injector Roo	om Cor
IC	Weight	He
	43 lbs	



	Injector Re	mote F
RIC	Weight	He
	5 lbs	



Project Allura FD10 Ceiling	WM S. Middleton Memorial VA Hospital	Room: New Cath Lab 1	THE DRAWINGS AND RELATED INSTRUCTIONS PROVIDED BY PHILIPS ARE ACCEPTABLE FOR USE BY THE HOSPITAL'S ARCHITECT OR ENGINEER TO USE FOR THE DEVELOPMENT OF CONSTRUCTION DOCUMENTS.
Philips Contacts Project Manager: Frank Donald Contact Number: (414) 788-3702	Email: frank.donal@philips.com	Drawn By: Sam Chong	PHILIPS ARE ACCEPTABLE FOR USE BY THE HOSPITAL'S
Project Details Drawing Number N-EAS131654 G	Date Drawn: 5/4/2015 Quote: Room Move	Order: Room Move	AND RELATED INSTRUCTIONS PROVIDED BY DOCUMENTS.
A	D6	6.14	THE DRAWINGS AND RELATED CONSTRUCTION DOCUMENTS.



Side







(12.0) Panel leat Dissipation

160 btu/hr

# **Equipment Support Information**

# 1. General

The customer shall be solely responsible, at its expense, for preparation of the site, including any required structural alterations. The site preparation shall be in accordance with this plan and specifications, the architectural/construction drawings and in compliance with all safety and building codes. The customer shall be solely responsible for obtaining all construction permits from jurisdictional authority.

# 2. Equipment Anchorage

Philips provides, with this plan and specifications, information relative to equipment size, weight, shape, anchoring hole locations and forces which may be exerted on anchoring fasteners. The customer shall be solely responsible, through the engineer of record for the building, to provide on the architectural/construction drawings, information regarding the approved method of equipment anchoring to floors, wall and/or ceiling of the building. Any anchorage test required by local authority shall be the customer's responsibility. Stud type anchor bolts should not be specified as they hinder equipment removal for service. Consult with Philips service prior to specifying anchor methods.

# 3. Floor Loading and Surface

Philips provides, with this plan and specifications, information relative to size, weight and shape of floor mounted equipment. The customer shall be solely responsible, through the engineer of record for the building, to provide on the architectural/construction drawings confirmation of the structural adequacy of the floor upon which the equipment will be placed. Any load test required by local authority, shall be the customer's responsibility.

The floor surface upon which Philips equipment is to be placed/anchored shall be flat and level to within plus or minus  $\frac{1}{16}$ " (2mm) over a length of 39" (1m).

# 4. Ceiling Support Apparatus

a. Philips provides, with this plan and specifications, information relative to size, weight and shape of ceiling supported equipment. The customer shall be solely responsible, through the engineer of record for the building, to provide on the architectural/construction drawings, information regarding the approved method of structural support apparatus, fasteners and anchorage to which Philips will attach equipment. Any anchorage and/or load test required by local authority shall be the customer's responsibility.

b. Contractor to clearly mark Philips equipment longitudinal centerline on bottom of each structural support.

c. The structural support apparatus surface to which Philips equipment is to be attached, shall have horizontal equipment attachment surfaces parallel, square and level to within plus or minus  $\frac{1}{16}$ " (2mm) per entire span.

d. Any drilling and/or tapping of holes required to attach Philips equipment to the structural support apparatus shall be the responsibility of the customer

e. Fasteners/anchors (i.e., bolts, spring nuts, lock and flat washers) and strip closures shall be provided by the customer.

# 5. Lighting

Lighting fixtures shall be placed in such a position that they are not obscured by equipment or its movement, nor shall they interfere with Philips ceiling rails and equipment movement or otherwise adversely affect the equipment. Such lighting fixture locations shall be the sole responsibility of the customer.

# 6. Ceiling Obstructions

There shall be no obstructions that project below the finished ceiling in the area covered by ceiling suspended equipment travel.

# 7. Seismic Anchorage (For Seismic Zones Only)

All seismic anchorage hardware, including brackets, backing plates, bolts, etc., shall be supplied and installed by the customer/contractor unless otherwise specified within the support legend on this sheet. Installation of electronic cabinets to meet seismic anchorage requirements must be accomplished using flush mounted expansion type anchor/bolt systems to facilitate the removal of a cabinet for maintenance. Do not use threaded rod/adhesive anchor systems. Consult with Philips regarding any anchor system issues.

# 8. Floor Obstructions/ Floor Coverings

There shall be no obstructions on the floor (sliding door tracks, etc.) in front of the Philips technical cabinets. Floor must be clear to allow cabinets to be pulled away from the wall for service. Contractor to verify with Philips the preferred floor covering installation method.

# 9. Safety Factors

In a worst case situation the dynamic bolt force of a floor or ceiling must be multiplied by factor 4. (static bolt force of the ceiling must be multiplied by factor 8). All safety factors are included in the bearing force values in sheet SD1.

# 10. Stiffness Requirements of Ceiling

Stiffness: 10,000,000 Newton/meter - 57.1 klb/in Stiffness: 20,000,000 Newtonmeter/Rad - 177,014 (klb in)/Rad The maximum deflection on the Philips rails must not exceed 0.04" (1mm) caused by the static load (weight) of the ceiling stand

# 11. Vibration

The maximal allowed external frequency that will not destroy the image quality of our equipment is:

- a. 0 Hz till 20 Hz (frequency area of our equipment) Displacement amplitude is smaller than 0.005mm
- b. Greater than 20 Hz Displacement amplitude is smaller than 0.01mm

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roject

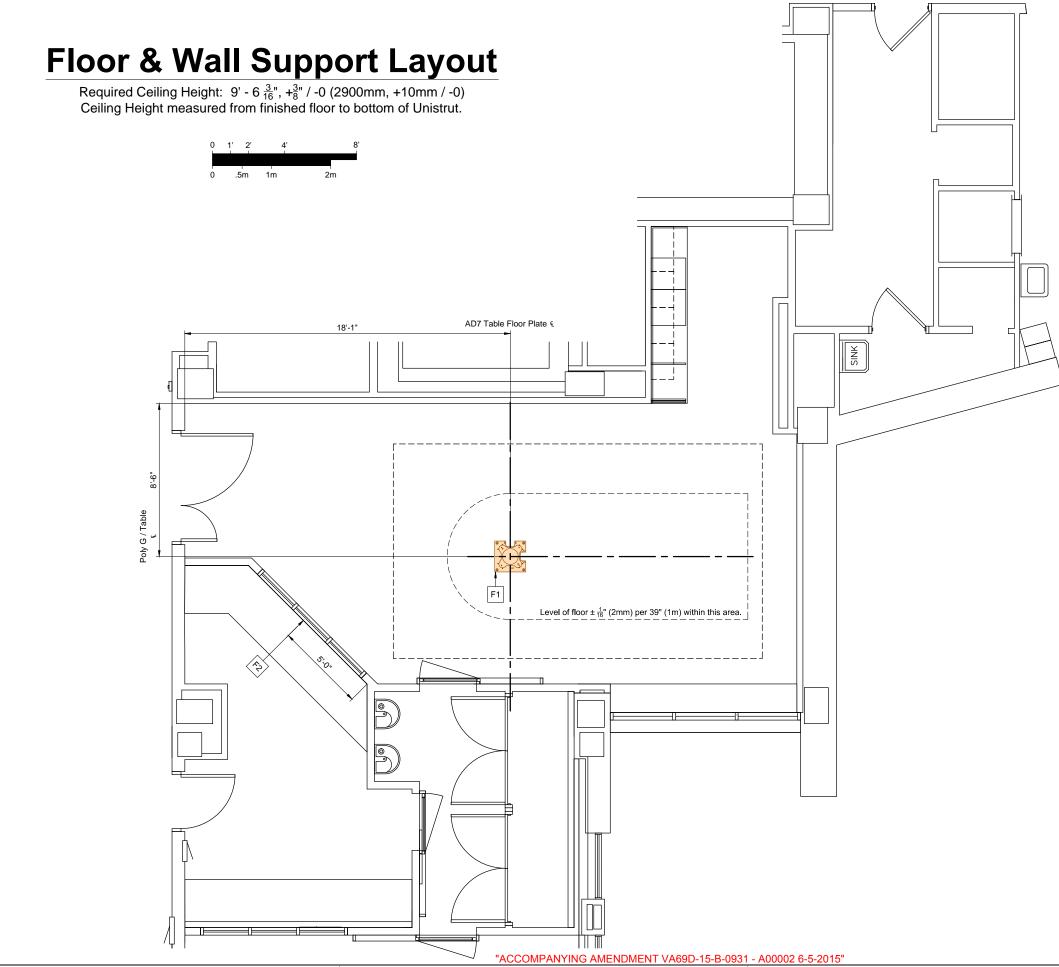
Philips Contacts	Project	
Project Manager: Frank Donald	Allura FD10 Ceiling	
Contact Number: (414) 788-3702	,	
Email: frank.donal@philips.com	WM S. Middleton Memorial VA Hospital	
	Madison, WI	
Drawn By: Sam Chong	Room: New Cath Lab 1	
HILIPS ARE ACCEPTABLE FOR USE BY THE HOSPITA	AL'S ARCHITECT OR ENGINEER TO USE FOR THE DEVELOPMENT OF	

Drawing Number N-EAS131654 G Date Drawn: 5/4/2015 Quote: Room Move Order: Room Move

SN

See S1 for Elear & Wall Support Lavout		Floor & Wall Su
See S1 for Floor & Wall Support Layout	BF	urnished and installed/anchored by Philips (exceptions m urnished and installed by customer/contractor and installe stalled/anchored by customer/contractor
Notes:		urnished by Philips and installed/anchored by contractor xisting equipment to be relocated
1. Anchors for items that are installed/anchored by customer/contractor shall be provided by customer/contractor.		uture Iptional
2. Anchors for items that are installed/anchored by Philips shall be provided by Philips. If customer's engineering documents specify anchors other than those		Item Number
listed in this document, the anchors shall be provided by customer/contractor and installed by Philips.	$ \downarrow  \downarrow$	Des
3. In all instances, the wall and/or floor support are the sole responsibility of the customer/contractor. The customer's architect/engineer of record shall specify	E F1	AD7 Universal Floor Plate
wall and/or floor support sufficient for the bolt forces shown on the details.	B F2	Support in wall for Control Room Conn
	E F2	Anchors in wall for Control Room Conr
See S2 for Colling Support Lought		Ceiling Supp
See S2 for Ceiling Support Layout		urnished and installed by Philips urnished by customer/contractor and installed by custome
	C Ir	nstalled by customer/contractor urnished by Philips and installed by contractor
	FF	xisting equipment to be relocated uture optional
		Item Number
		Des
		1
	E C1	2 - Philips Poly G Rails
	E C2	2 - Philips Monitor Equipment Rails
	B C3	Unistrut (P1001 or equal) - Bottom of L
	E C4	Mavig Ceiling Track
"ACCOMPANYING AMENDMENT VA69D-15-B-0931 - A00002 6-5-201	5"	
	-	

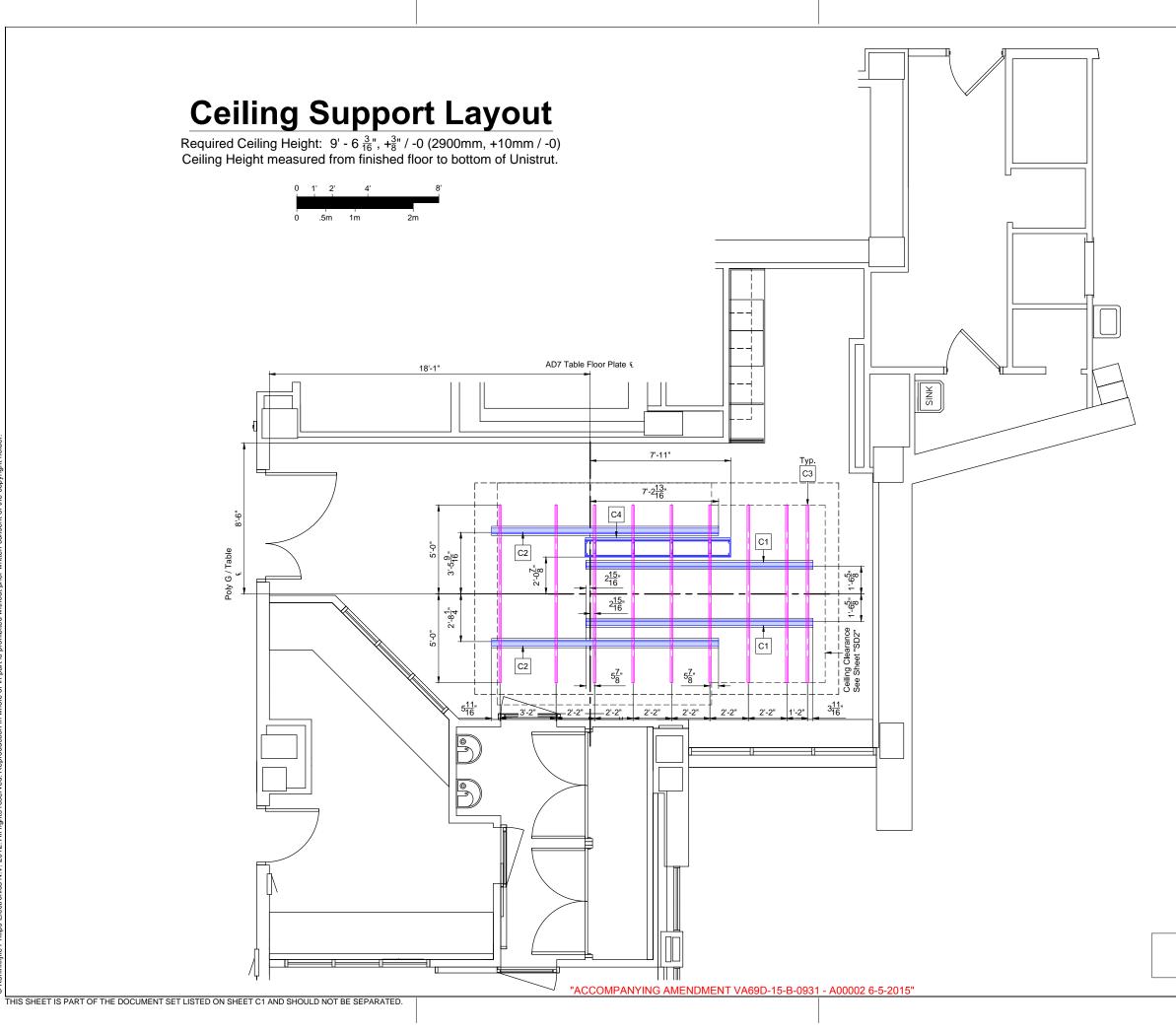
Vall Support Legend	]	
eptions may exist, see Note 2)		S S
nd installed/anchored by customer/contractor		
Detail Sheet		
Description	$\neg \downarrow  $	
	SD1	
n Connection Box (CY)	SD3	
n Connection Box (CY)	SD3	Id
		spital
		A Hos
		al V/
		b 1
		iling n Mem h Lab
		0 Ce letor
Support Legend		FD10 Midd New
customer/contractor		Project Allura FD10 Ceiling WM S. Middleton Memorial VA Hospital Madison, WI Room: New Cath Lab 1
Detail Sheet		Philips Contacts Project Manager: Frank Donald Contact Number: (414) 788-3702 Email: frank.donal@philips.com Drawn By: Sam Chong
Description	$\downarrow$	Philips Contacts Project Manager: Frank Donald Contact Number: (414) 788-370 Email: frank.donal@philips.com Drawn By: Sam Chong
	SD1	Philips Contacts Project Manager: Frank Contact Number: (414) Email: frank.donal@phi Drawn By: Sam Chong
ils	SD1 SD2 SD2	ntact nager mber k.don. Sam
m of Unistrut $\frac{1}{4}$ (6mm) Below Finished Ceiling	SD2	Philips Contacts Project Manager: Contact Number: Email: frank.donal Drawn By: Sam C
	AD5	Philip Projec Conta Email
		د <b>G</b> ه ق آه
		iils nber <b>654</b> n Mov n Mov
		Deta Deta Num 3131 S131 Pum S131 S00r Roor
		Project Details Drawing Number N-EAS131654 G Date Drawn: 5/4/2015 Quote: Room Move Order: Room Move
		SL
		1.16.14



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

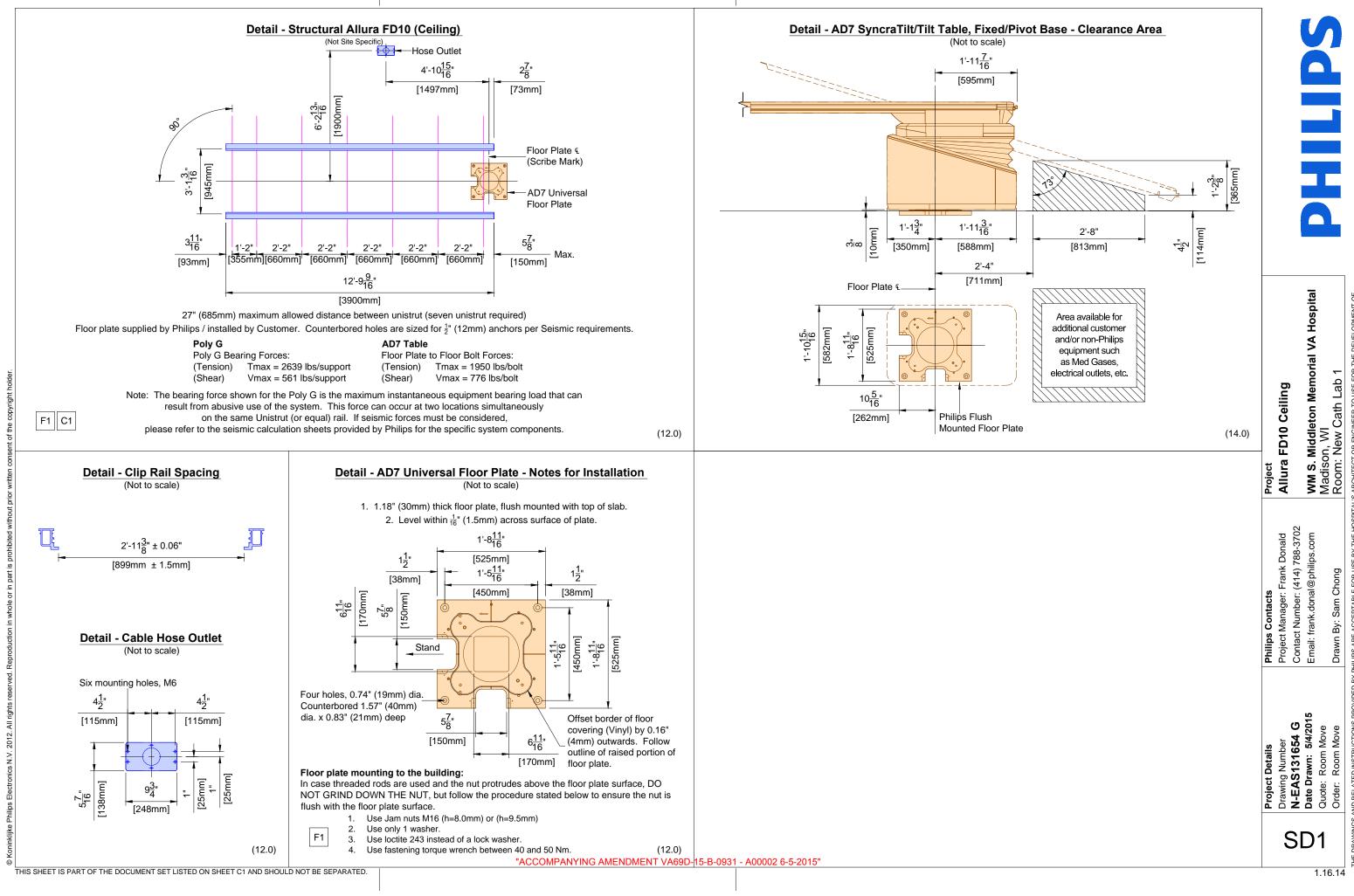
Project Details	Philips Contacts	Project
Drawing Number	Project Manager: Frank Donald	Allura FD10 Ceiling
N-EAS131654 G	Contact Number: (414) 788-3702	•
Date Drawn: 5/4/2015	Email: frank.donal@philips.com	WM S. Middleton Memorial VA Hospital
Quote: Room Move		Madison, WI
Order: Room Move	Drawn By: Sam Chong	Room: New Cath Lab 1

Refer to	Floor/Wall Support Legend	-
	Sheet SL	

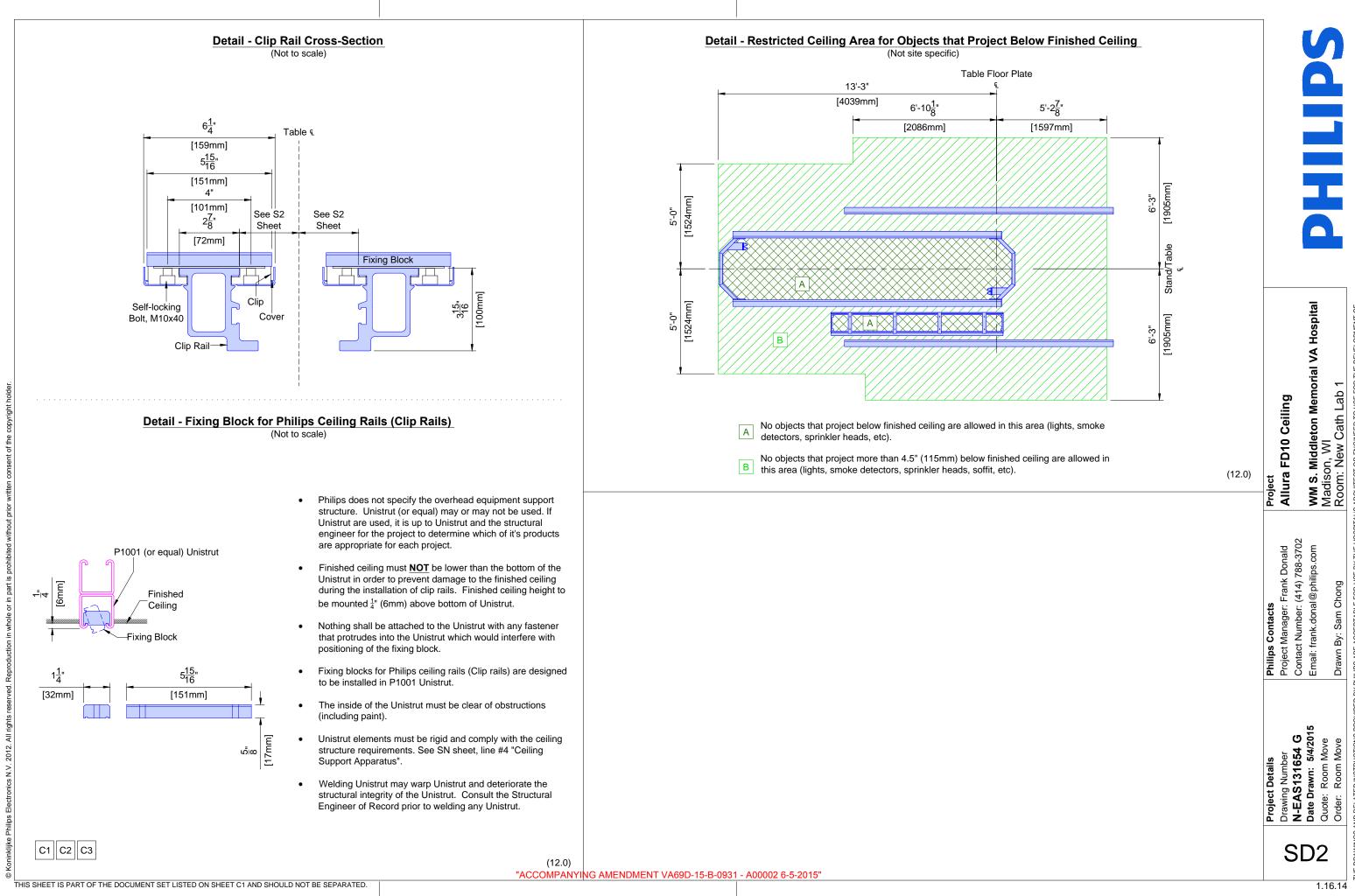


Project Details	Philips Contacts	Project
Drawing Number N-EAS131654 G	Project Manager: Frank Donald Contact Number: (414) 788-3702	Allura FD10 Ceiling
Date Drawn: 5/4/2015	Email: frank.donal@philips.com	WM S. Middleton Memorial VA Hospital
Quote: Room Move		Madison, WI
Order: Room Move	Drawn By: Sam Chong	Room: New Cath Lab 1

Refer to Ceiling Support Legend -Sheet SL

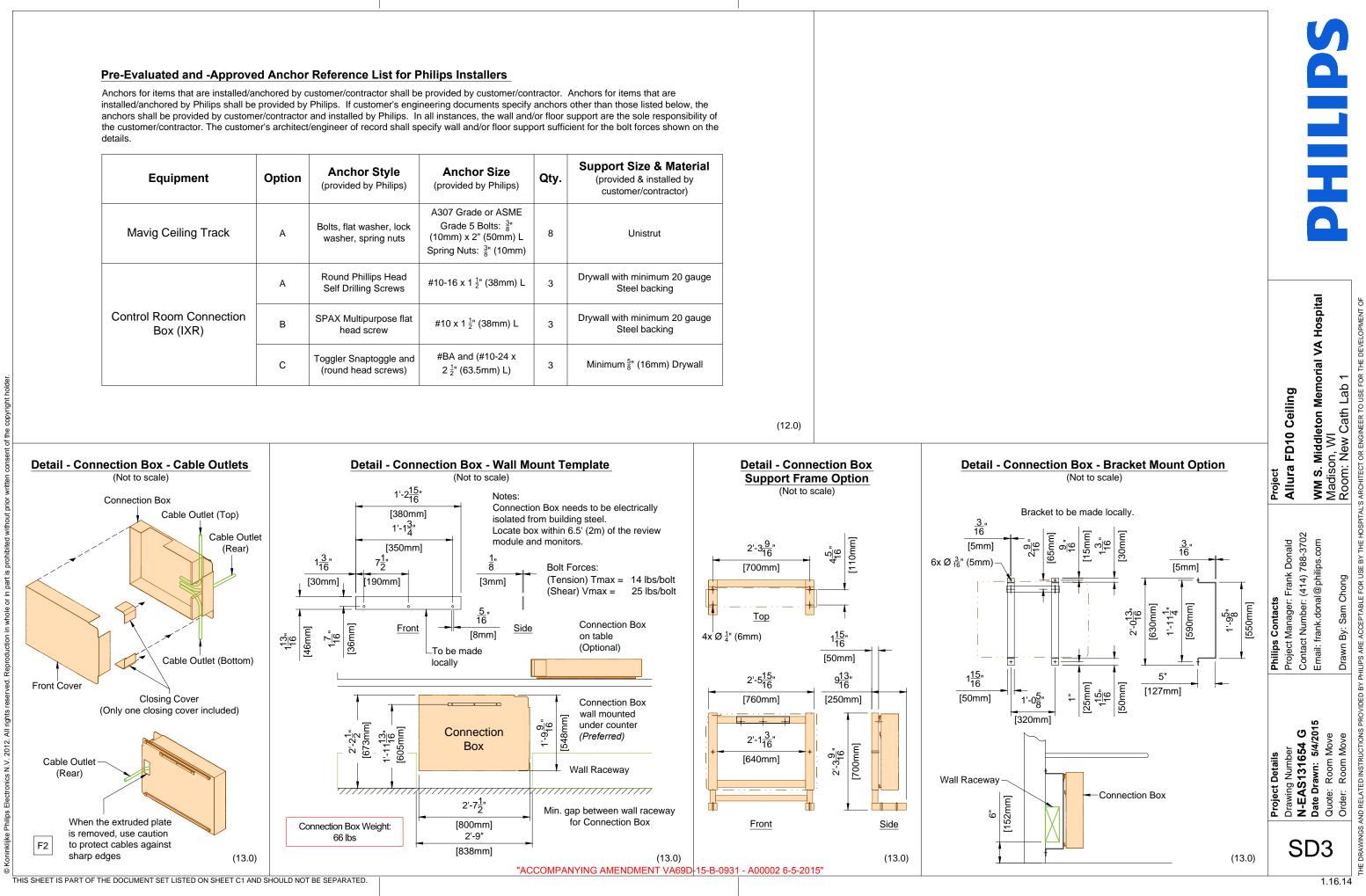


OR ENGINEER TO USE β ABLE FOR THE DRAWINGS AND RELATED INS CONSTRUCTION DOCUMENTS.



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Equipment	Option	Anchor Style (provided by Philips)	Anchor Size (provided by Philips)	Qty.	Support Size & Material (provided & installed by customer/contractor)
Mavig Ceiling Track	A	Bolts, flat washer, lock washer, spring nuts	A307 Grade or ASME Grade 5 Bolts: $\frac{3}{8}$ " (10mm) x 2" (50mm) L Spring Nuts: $\frac{3}{8}$ " (10mm)	8	Unistrut
	A	Round Phillips Head Self Drilling Screws	#10-16 x 1 ½" (38mm) L	3	Drywall with minimum 20 gauge Steel backing
Control Room Connection Box (IXR)	В	SPAX Multipurpose flat head screw	#10 x 1 ½" (38mm) L	3	Drywall with minimum 20 gauge Steel backing
	С	Toggler Snaptoggle and (round head screws)	#BA and (#10-24 x 2 <sup>1</sup> / <sub>2</sub> " (63.5mm) L)	3	Minimum <sup>5</sup> " (16mm) Drywall



THE DRAWINGS AND RELATED INS CONSTRUCTION DOCUMENTS.

# **Emergency Power**

Philips does not require equipment to be on emergency power. If the customer deems it necessary for the equipment to be supplied with emergency power, the following specifications must be applied:

The circuit protection for emergency power should be capable of handling a high initial surge of approximately 40 amps.

The transfer switch must be double actuator type with a minimum time delay of 400 milliseconds in both directions (utility to emergency - emergency to utility). This time is required to allow filters to dissipate their stored energy before a different mains voltage is applied. Russelectric type RMTD, Asco Series 7000 delayed transition transfer switch or equivalent is recommended.

To reduce the emergency power generator load demand, Philips equipment can be put into a lower power mode (5.5kVA fluoroscopy + 4kVA geometry) of operation by the connection of a potential free closure from the transfer switch. This potential free, normally open contact, has to be rated for 24VDC/100mA. For Philips cardio/vascular Integris equipment, the two wires from this contact have to be routed to the equipment area and connected to the System Coordinator cabinet (MA).

(12.0)

# **Electrical Requirement Notes for Systems with PDU**

Electrical power distribution at the facility shall comply with:

Utilization voltages per ANSI C84.1 - 1982 range A.

Voltage to be supplied is 3 phase, delta or wye.

Phase conductors to be size for instantaneous voltage drop per NEC 517 - 73 and Philips recommendations.

Metal conduit shall not be used as the equipment ground conductor.

ANSI / NFPA 70 - National Electrical Code

Article 250 - Grounding Article 517 - Healthcare Facilities

ANSI / NFPA 99 - Healthcare Facilities

NEMA standard XR9 - Power Supply Guideline for X-ray Machines

# **Power Quality Guidelines**

1. Power supplied to medical imaging equipment must be separate from power feeds to air conditioning, elevators, outdoor lighting, and other frequently switched or motorized loads. Such loads can cause waveform distortion and voltage fluctuations that can hinder high quality imaging.

2. Equipment that utilizes the facility power system to transmit control signals (especially clock systems) may interfere with medical imaging equipment, thus requiring special filtering.

3. The following devices provide a high impedance, nonlinear voltage source, which may affect image quality:

4. Static UPS systems, Series filters, Power conditioners, and Voltage regulators.

5. Do not install such devices at the mains supply to medical imaging equipment without consulting Philips installation or service personnel.

6. Line impedance is the combined resistance and inductance of the electrical system and includes the impedance of the power source, the facility distribution system, and all phase conductors between the source and the imaging equipment. Philips publishes recommended conductor sizes based on equipment power requirements, acceptable voltage drops, and assumptions about the facility source impedance. The minimum conductor size is based on the total line impedance and NEC requirements. Unless impedance calculations are performed by an electrical engineer, the recommended values must be used.

(12.0)

# 1. General

The customer shall be solely responsible, at its expense, for preparation of the site, including any required electrica with this plan and specifications, the architectural/construction drawings and in compliance with all safety and electr obtaining all electrical permits from jurisdictional authority.

# 2. Materials and Labor

The customer shall be solely responsible, at its expense, to provide and install all electrical ducts, boxes, conduit, c herein.

# 3. Electrical Ducts and Boxes

Electrical ducts and boxes shall be accessible and have removable covers. Floor ducts and boxes shall have wate separate channels by metal dividers, separately specified herein, to separate wiring and/or cables into groups as fol signal and/or data and protective ground wiring and/or cables. Group C: x-ray high voltage cables, the use of 90 de 45 deg. bends at all corners. All intersecting points in duct to have cross over tunnels supplied and installed by cor

# 4. Conduit

Conduit point - to - point runs shall be as direct as possible. Empty conduit runs used for cables may require pull bo or cord shall be installed in each conduit run. All conduits which enter duct prior to their termination point must main over tunnels, or conduit supplied and installed by contractor from entrance into duct to exit from duct. Do not use

# 5. Conductors

All conductors, separately specified, shall be 75°C stranded copper, rung out and marked.

# 6. Disconnecting Means

A disconnecting means shall be provided as separately specified.

# 7. Warning Lights and Door Switches

"X-ray on" warning lights and x-ray termination door switches should be provided at all entrances to x-ray rooms as

# 8. Dimmer Switches

X-ray room lights should be provided with dimmer switches.

# **Electrical Notes**

1. The contractor will supply & install all breakers, shunt trip and incoming power to the breakers. The exact loca the architect or contractor.

2. The contractor shall supply & install all pull boxes, raceways, conduit runs, stainless steel covers, etc. Conduit entire length. A Greenlee pull string/measuring tape (part no. 435, or equivalent) shall be provided with conduit run

3. All pre - terminated, cut to length cables, will be supplied and installed by Philips. All cables to the breakers, w local arrangements.

4. Provide and install 50mm diameter. Chase nipples between adjacent wall boxes.

5. Electrical raceway shall be installed with removable covers. The raceway should be accessible for the entire le an adequate number of access hatches should be supplied to enable installation of cabling. Approved conduits ma manner that will not allow cables to fall out of the raceway when the covers are removed. In most cases, this will reremovable from the top. Raceway system as illustrated on this drawing are based upon length of furnished cables. maximum allowable length of furnished cables. Conduit or raceway above - ceiling must be kept as near to finished

6. Conduit sizes shall be verified by the architect, electrical engineer or contractor, in accordance with local or Na

7. Convenience outlets are not illustrated. Their number and location are to be specified by the customer/archite

8. Electrical contractor shall install ground bond wires at conduit openings within wall boxes as required by nation shall be installed in such a way to prevent the inadvertent contact with the installed Philips equipment to maintain the maintain patient safety. Install a #6 AWG stranded ground wire for bonding in the conduits from the Main Disconne

9. If the Philips system includes a PDU, the PDU is a "Separately Derived Source" by NEC standards, and must

10. Philips equipment must be electrically isolated from conduits, raceways, ducts, etc.

11. Acceptable cross-overs: Walker DuctCat. #RPD10-TUN-3C /, Square D Cat. #RSV122ST.

# **General Electrical Information**

al alterations. The site preparation shall be in accordance rical codes, the customer shall be solely responsible for	
ables, wires, fittings, bushing, etc., As separately specified	
ertight covers. Ducts shall be divided into as many as three blows: Group A: power wiring and/or cables. Group B: leg. ells is not acceptable. On ceiling duct and wall duct use htractor to maintain separation of cables.	I
oxes located along the run. Consult with Philips. A pull wire ntain separation from other cables via use of dividers, cross flex conduit unless approved by Philips Service.	
required by code. (12.0)	Project Allura FD10 Ceiling 702 WM S. Middleton Memorial VA Hospital Madison, WI Room: New Cath Lab 1
ation of the breakers and shunt trips will be determined by	Project Allura FD10 WM S. Middl Room: New
t/raceways must be free from burrs and sharp edges over its ns.	3702 Som
vill be supplied and installed by the contractor, subject to	s : Frank Don : (414) 788- al@philips.0 Chong
ength. In case of non - accessible floors, walls and ceilings, ay be substituted. All raceways will be designed in a equire above - ceiling raceway to be installed with the covers Any changes in routing of raceway system could exceed d ceiling as possible.	Philips Contacts Project Manager: Frank Donald Contact Number: (414) 788-370 Email: frank.donal@philips.com Drawn By: Sam Chong
ational Electrical Codes, whichever govern.	
ct.	15
nal and local electrical codes. Ground bond wires and lugs the Philips Equipotential Grounding Configuration and ect (CB) to the PDU and from the PDU to the MG wall box. be ground according to NEC article 250-30.	Project Details     Philips Contacts       Drawing Number     Project Manager: Frank Dor       N-EAS131654 G     Contact Number: (414) 788.       Date Drawn: 5/4/2015     Email: frank.donal@philips.       Quote: Room Move     Drawn By: Sam Chong
(14.0)	EN

		Electrical Legend				Electrical Legend		
	B Furnis C Install D Furnis E Existin F Future	e			B Fu C In D Fu E Ex F Fu			
	G Option	nal Detail Sheet —		[	IG O	prional Detail Sheet —		
	↓ [	Description	↓ [			Description	$\downarrow$	
з (с	ъ⊳	480V, 3 phase 125 AMP circuit breaker with shunt trip. Run power from breaker to "PBK", leaving an 8' (2440mm) tail at "PBK", and from "PBK" to "MG", leaving an 8' (2440mm) tail at each end. See Sheet "ED1" for power quality requirements. Location per local code or owner requirements. (Not shown on plan)	ED1	в	(WL)	Warning Light - Provide a surface or flush mounted light fixture above door to indicate when X-ray is on, if required by local code or physicist of record. See Sheet "ED2" diagram for connection details. (Not shown on plan)	ED2	
з (s	т⟩	Shunt Trip (emergency off) - Large mushroom-head button on remote control station with contacts to operate feature of "CB" (if required by local code or owner, and mandatory for VA and D.O.D installations). (Not shown on plan)		в		diagram for connection details. (Not shown on plan) RJ45 type Ethernet 10/100/1000 Mbit network connector with access to customer's network. Locate within 10'	ED2	
3 (G	€)	Ground electrode per N.E.C. 250-26, building steel preferred. (Not shown on plan)		В		(3050mm) of network card. Network fiber optic and Ethernet cabling, connectors, wall boxes, patch panels, etc. are the responsibility of the purchaser. Philips assumes no responsibility for procurement, installation, or maintenance of these components.		-
3		Central ground busbar mounted in a 12" (305mm) W x 12" (305mm) H x 4" (105mm) D pull box with hinged cover, surface mounted to the bottom of "WR2" when possible.	ED2	B		server is needed for Kernole Service Network (KSN) connectivity.	N1	
3	вку	18" (460mm) W x 18" (460mm) H x 8" (205mm) D flanged-edge terminal wall box with removable screw-type cover plate, surface mounted 22" (560mm) A.F.F. to bottom of box, provide (1) $1\frac{1}{2}$ " (40mm) and (2) 2" (55mm)	ED1	В		120V/20A dedicated duplex outlet IH (Interventional Hardware).		
	MG	conduits through "PBK" cover plate to PDU cabinet. 19 $\frac{1}{4}$ " (490mm) W x 67" (1705mm) H x 4" (105mm) D flanged-edge terminal wall box, surface mounted 75" (1905mm) A.F.F. to top of box. General contractor to cut top and/or bottom of box as required.	ED2	D		location with local Philips Service. Hardwire 115V/20A hospital power to "TR". 4" (105 mm)W x 4" (105 mm)L x 2 1/2" (65 mm)D ceiling box, flush mounted with removable screw-type cover	AD5	
	VB2 VB2	Grommet opening on "WR3". Approximate location shown is recommended and may be changed - verify relocation with local Philips Service.		В		<ul><li>plate. Recommended location is near or above the cable spooler.</li><li>Grommet opening on "WR2". Exact size and location to be determined by local Philips Service.</li></ul>		
	SA	<ul> <li>10" (255mm) W x 10" (255mm) L x 6" (155mm) D floor box, flush mounted with underside of AD7 Universal Floor Plate.</li> <li>18" (460mm) W x 18" (460mm) L x 6" (155mm) D ceiling box, flush mounted with removable screw-type cover plate. Provide one 3" (80mm) diameter knockout.</li> </ul>						
в		12" (305mm) W x 12" (305mm) L x 6" (155mm) D ceiling box, flush mounted with removable screw-type cover plate. Provide a $2\frac{1}{2}$ " (65mm) round cutout (Two $2\frac{1}{2}$ " (65mm) round cutouts are required for systems with two monitor carriages - verify with local Philips Service).						
	1 WR2	10" (255mm) W x 4" (105mm) D wall raceway, surface mounted with removable screw-type cover plate. "WR1" is at finished floor. "WR2" is at 75" (1905mm) A.F.F. to bottom of raceway.	ED3					
3		10" (255mm) W x 4" (105mm) D wall raceway, surface mounted with removable screw-type cover plate. "WR3" is at finished floor. "WR3" may need to be cut at the location of the "CY" connection box.	ED3					
3 (R		10" (255mm) W x 4" (105mm) D riser duct with removable screw-type cover plate, surface mounted from wall raceway to wall box.	ED3					
3 (PI	<u>нү</u>	Stub up point for physiological monitoring cables. Run conduit to customer's physiological console location. Contact manufacturer for power requirements, etc.						olioto Poticio
3 (A <sup>-</sup>	TY	Auxiliary Box - 6" (155mm) W x 6" (155mm) H x 4" (105mm) D wall box, flush mounted 70" (1780mm) A.F.F. to the bottom of the box with removable screw-type cover plate. Height and location shown are recommended and may be changed - verify height and relocation with local Philips Service.						

<u>د</u> THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED.

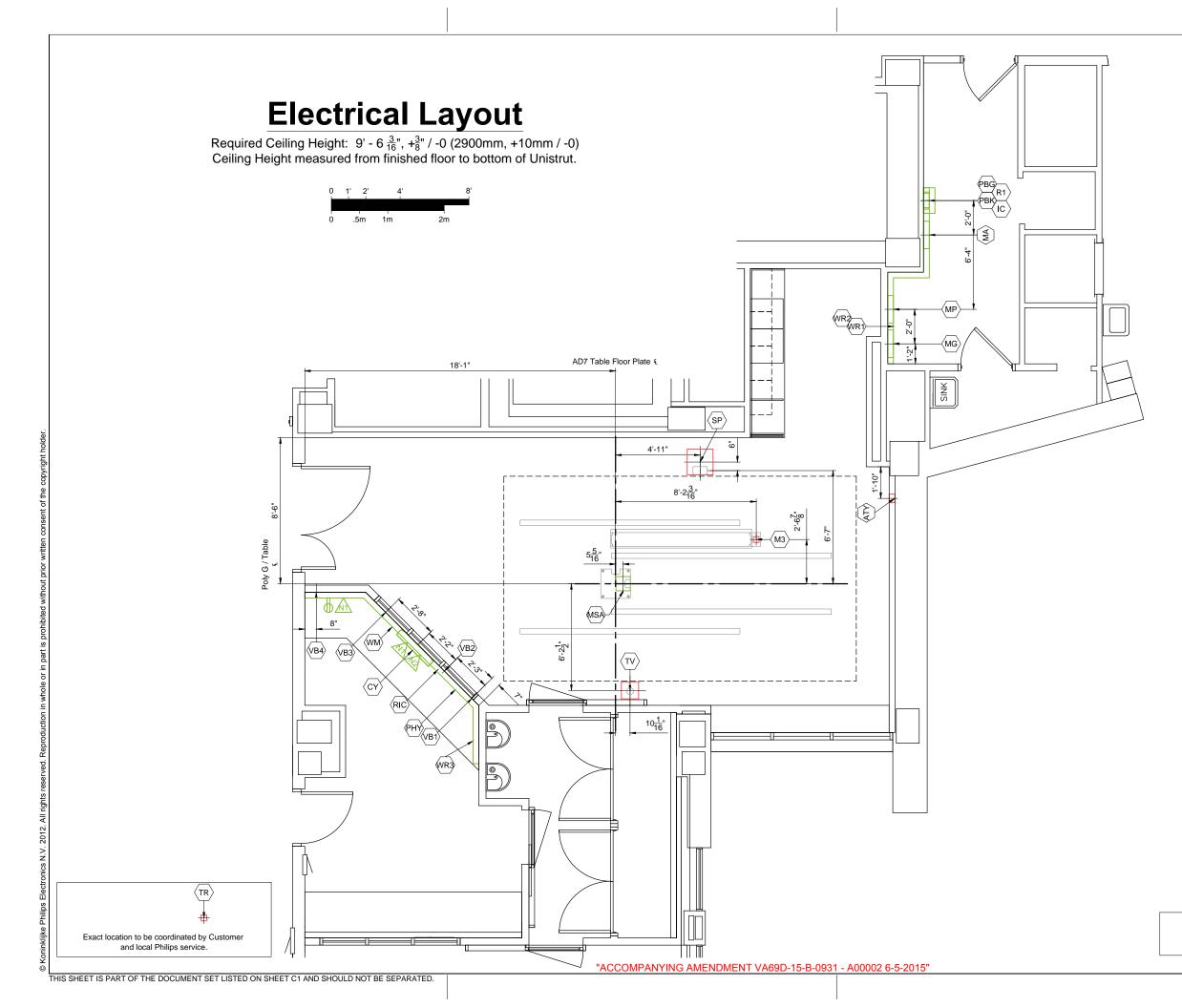
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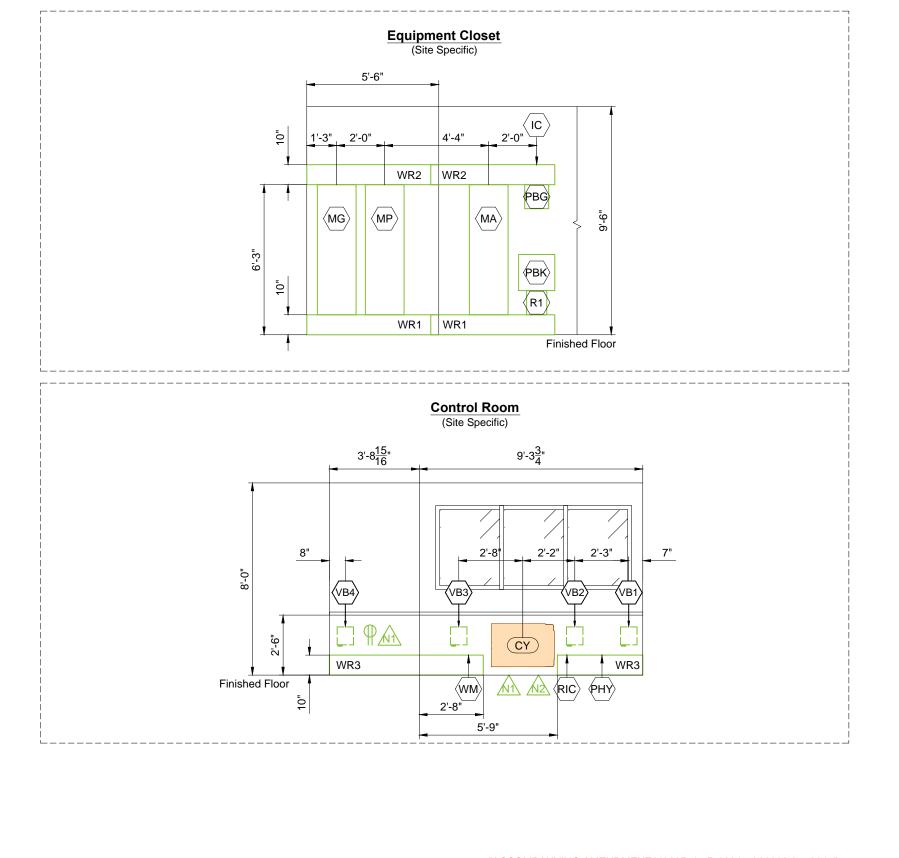
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WM S. Middleton Memorial VA Hospital Madison, WI Room: New Cath Lab 1 HOSPITAL'S ARCHITECT OR ENGINEER TO USE FOR THE DEVELOPMENT OF ВҮ ТНЕ IDED BY PHILIPS ARE ACCEPTABLE FOR USE Drawn By: Sam Chong Drawing Number N-EAS131654 G Date Drawn: 5/4/2015 Quote: Room Move Order: Room Move THE DRAWINGS AND RELATED INSTRUCTIONS CONSTRUCTION DOCUMENTS. EL



Refer to Electrical Legend - Sheet EL and Raceway/Conduit - Sheet E2-E3



floor.

control desk components.

		Philips Contacts	Project	
	Drawing Number N-EAS131654 G	Project Manager: Frank Donald Contact Niumber: (414) 788-3702	Allura FD10 Ceiling	
Ξ2	Date Drawn: 5/4/2015	Email: frank.donal@philips.com	WM S. Middleton Memorial VA Hospital	
	Order: Room Move	Drawn By: Sam Chong	Madison, wi Room: New Cath Lab 1	

Note: The use of 90 degree ells is not acceptable. Use 45 degree bends at all raceway corners. For conduit runs, use the minimum bending radius specific to the conduit diameter. The use of crossover tunnels at all applicable locations is required. The above mentioned recommendations will help to ensure the integrity of the cables and fiber optic runs.

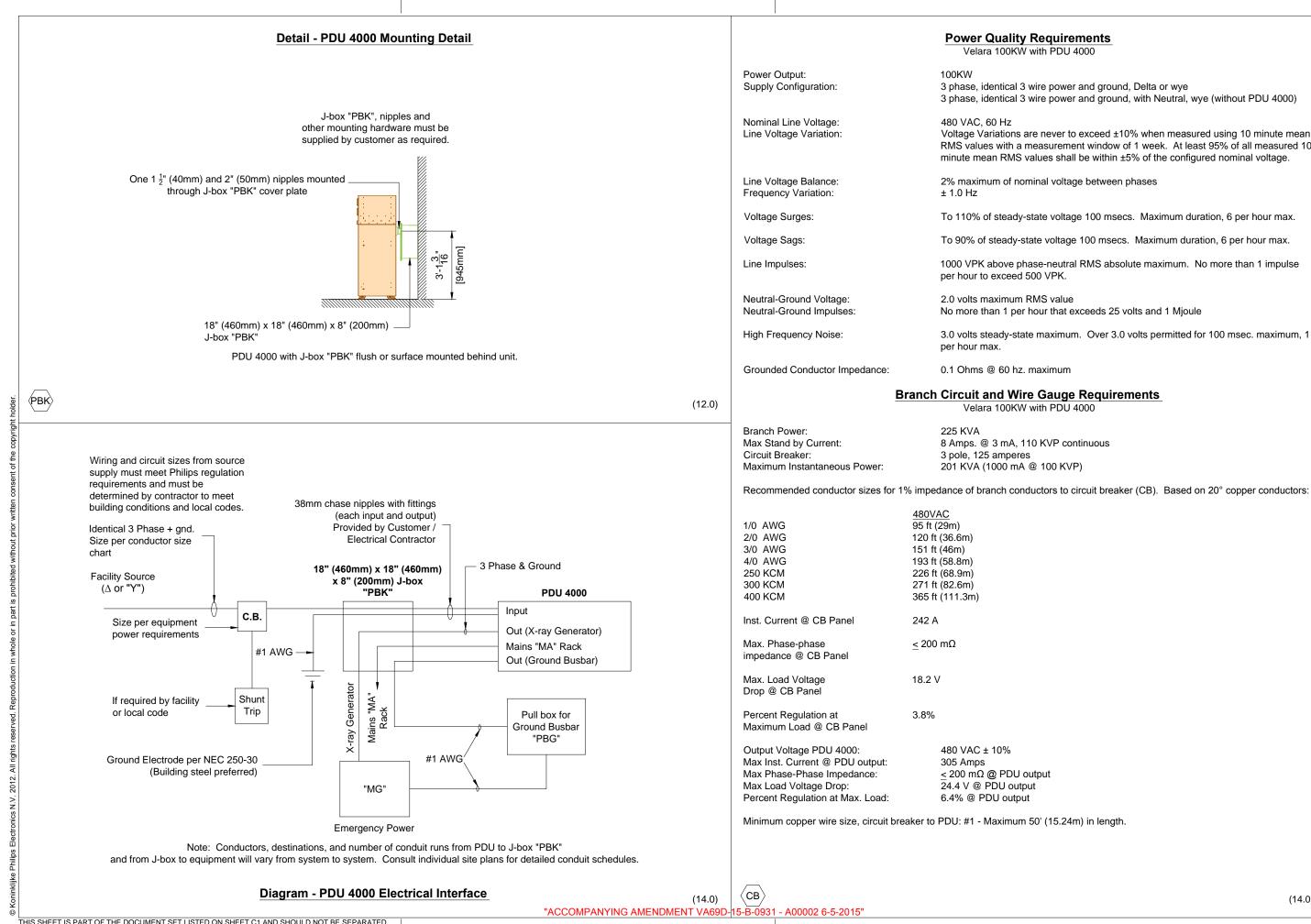
\* Countertop Height Guide:

30" (765mm) for standard seated height. 36" (915mm) for standard standing height. \* Ensure that the wall junction boxes are mounted perpendicular to the

\* Verify exact ceiling height of Equipment and Control Room Area. \* Local Philips Service to consult with customer for final placement of

								duit Requ									iduit Requi		
		All cond	luit runs	must take must have	most di	rect ro		eneral Note	es		1.	All con	duit runs	must take m must have a	nost direct		eneral Note to point.	98	
?				must have		-			P. Dawer (AQ)		1. 2. A C			must have a					
	Ca Ca Ca	onduits and onduit exist onduit exist onduit exist	ting - cables su ting - cable ting - cable ting - cable	ed by contrac pplied and ins s supplied an s supplied by s supplied an rify with local	stalled by co d installed I Philips and d installed I	ontractor by Philips I installed by contra	or os ed by contrac		* Power (AC) D Power (DC) G Ground * Signal H High Tension C Cooling Hose A Air Supply Hose		C C D C E C F C	Conduits an Conduit exis Conduit exis Conduit exis	d cables sup sting - cables sting - cables sting - cables	d by contractor oplied and instal s supplied and in s supplied by Pr s supplied and in ify with local Ph	lled by contra nstalled by Ph nilips and inst nstalled by co	ctor nilips alled by contrac		* P Power (AC) D Power (DC) G Ground * Signal H High Tension C Cooling Hose A Air Supply Hose	
	un lo.	Condui From	t To	Conduit Quantity		e   C	/inimum Conduit Size	Maximum Conduit Length	Special Requirements		Run No.	Condu From		Conduit Quantity	Cable Type (*)	Minimum Conduit Size	Maximum Conduit Length	Special Requirements	
	1	Power Panel	СВ	1	Р	Pe	er N.E.C.	Per N.E.C.		A	31			1	S	2 <sup>1</sup> / <sub>2</sub> "	55'		
2	2	РВК	PDU Cabinet	1	Р		1 <sup>1</sup> / <sub>2</sub> "	-		A	32		WM	1	S	1"	82'		
3	3	РВК	PDU Cabinet	2	Р		2"	-		С	33		WR3	2	S	1 <u>1</u> "		For optional equipment (IE. Physio Monitor/ Slave Monitor).	
2	4	СВ	РВК	1	P		2"	50'		с	34	MSA	WR3	2	S	1 <u>1</u> "	-	For future options (Patient Monitoring). Verify with local Philips Service if med gas pedestal should be used. For future options (Patient Monitoring). Verify with local	
Ę	5	СВ		1	P		<u>3</u> " 4	50'		С	35	MSA		1	S	2 <sup>1</sup> / <sub>2</sub> "	-	Philips Service if med gas pedestal should be used.	
6	6	РВК		1	Р		<u>3</u> " 4	25'		G	36	РНУ	Physio Monitor	1	S	2"	33'	Optional for remote location.	
7	7	РВС	Room Outlets	1	P		<u>3</u> " 4	-	See Sheet "ED2" for details.	G	37	Third Party	Third Party	-	-	-	-	For Injector, Medical Gas Pedestal, Patient Monitoring, Video Networking, etc.	FD10 Ceiling
8	8	РВС	РВК	1	G		1 <sup>1</sup> / <sub>2</sub> "	-		G	38	Third Party	РВG		G		-	For Injector, Medical Gas Pedestal, Patient Monitoring, Video Networking, etc.	_
ę	9		WL	1	Р		<u>3</u> " 4	55'		С	39		МЗ	1	Р	<u>3</u> " 4	-	For Mach 3 Surgical Light.	Ceiling
1	10	ATY		1	S		<u>3</u> " 4	55'		G	40	МЗ	PBG	1	G	<u>3</u> " 4	-	For Mach 3 Surgical Light. Per local code.	Cei
1	11	ATY		1	S		2 <sup>1</sup> / <sub>2</sub> "	41'		A	41	VB1		1	(P)	1 1/2"	68'	Multivision.	FD10
1	12	ATY	$\langle TV \rangle$	1	s		<u>3</u> "	75'		A	42	(VB1)		1	(S)	1 1/2"	68'	Multivision.	a Fi
	13	SP	MG	1	. —		2 <sup>1</sup> / <sub>2</sub> "	29'	H.T. Cables.	A	43	VB2	MA	1	(P)	1 1/2"	68'	Multivision.	Project Allura FD10
1	14		MG	1	P		1"	29'		A	44	VB2	MP	1	(S)	1 1/2"	68'	Multivision.	Ϋ́Α
1	15		MG	1	s		1 <sup>1</sup> / <sub>2</sub> "	29'		A	45	(VB3)	MA	1	(P)	1 1/2"	68'	Multivision.	
1	16	SP		1	s		2 <sup>1</sup> / <sub>2</sub> "	31'		A	46	VB3		1	(S)	1 1/2"	68'	Multivision.	ald 3702
1	17	SP		1	Р		- 1"	31'		A	47	VB4		1	(P)	1 1/2"	68'	Multivision.	: Donald 788-370
	18	SP		2	с		2"	31'	Cooling fluid hoses for tube.		48	VB4		1	(S)	1 1/2"	68'	Multivision.	-rank 414) -
	19	SP		2	c		- 2 <sup>1</sup> / <sub>2</sub> "	31'	Cooling fluid hoses for detector.		49		(MSA)	<u></u>   1		2 <u>1</u> "	52'	For Table Mounted Injector.	acts ger: F oer: (
	20	SP		1	s		2 2 2 <u>1</u> "	36'			50			1	s	2 2 1 <u>1</u> "	50'		<b>Contacts</b> Manager: Frank Do Number: (414) 788
• •	  21	MSA		+ · · - · 1	S	—  · ·	$\frac{2}{2}^{2}$	42'	+ · · — · · · — · · · — · · · = · · · — · · · — · · · — · · · = · · · = · · · — · · · = · · · = · · · = · · · = · · · = · · · = · · · = · · · = · · · = · · · = · · · = · · · = · · · = · · · = · · · = · · · = · · · = · · · =							'2	00		Philips Contacts Project Manager: F Contact Number: (
		MSA		1	P		∠ 2 1"	42'											<b>Phi</b> l Proj Con
	22	$\rightarrow$	$\mid \succ$				•												
	23	MSA			S		2 ½" 3"	42'											
• •	24			$+ \cdot \cdot \cdot \frac{1}{\cdot} \cdot$	. – P		· · ·	42'	+ · · – · · – · · – · · – · · – · · – · – · –										U
	25			1	P		2"	52'											ls ber <b>554 G</b>
	26			1	S		2 <sup>1</sup> / <sub>2</sub> "	52'											Project Details Drawing Numbe N-EAS1316
	27			1	S		2"	54'											ect D ing ∧ <b>AS1</b>
• •	28			1	S		<u>3</u> " 	65' 	For Intercom.										Project Details Drawing Number N-EAS131654
	29 30	CY CY	MP MA	1	S P		2" 2"	50' 55'											E
_		1	1	1		I			ACCOMPANYING AMENDMENT VA69D				0 5 0045						

THE DRAWINGS AND RELATED CONSTRUCTION DOCUMENTS.



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

3 phase, identical 3 wire power and ground, with Neutral, wye (without PDU 4000)

Voltage Variations are never to exceed ±10% when measured using 10 minute mean RMS values with a measurement window of 1 week. At least 95% of all measured 10 minute mean RMS values shall be within ±5% of the configured nominal voltage.

To 110% of steady-state voltage 100 msecs. Maximum duration, 6 per hour max.

To 90% of steady-state voltage 100 msecs. Maximum duration, 6 per hour max.

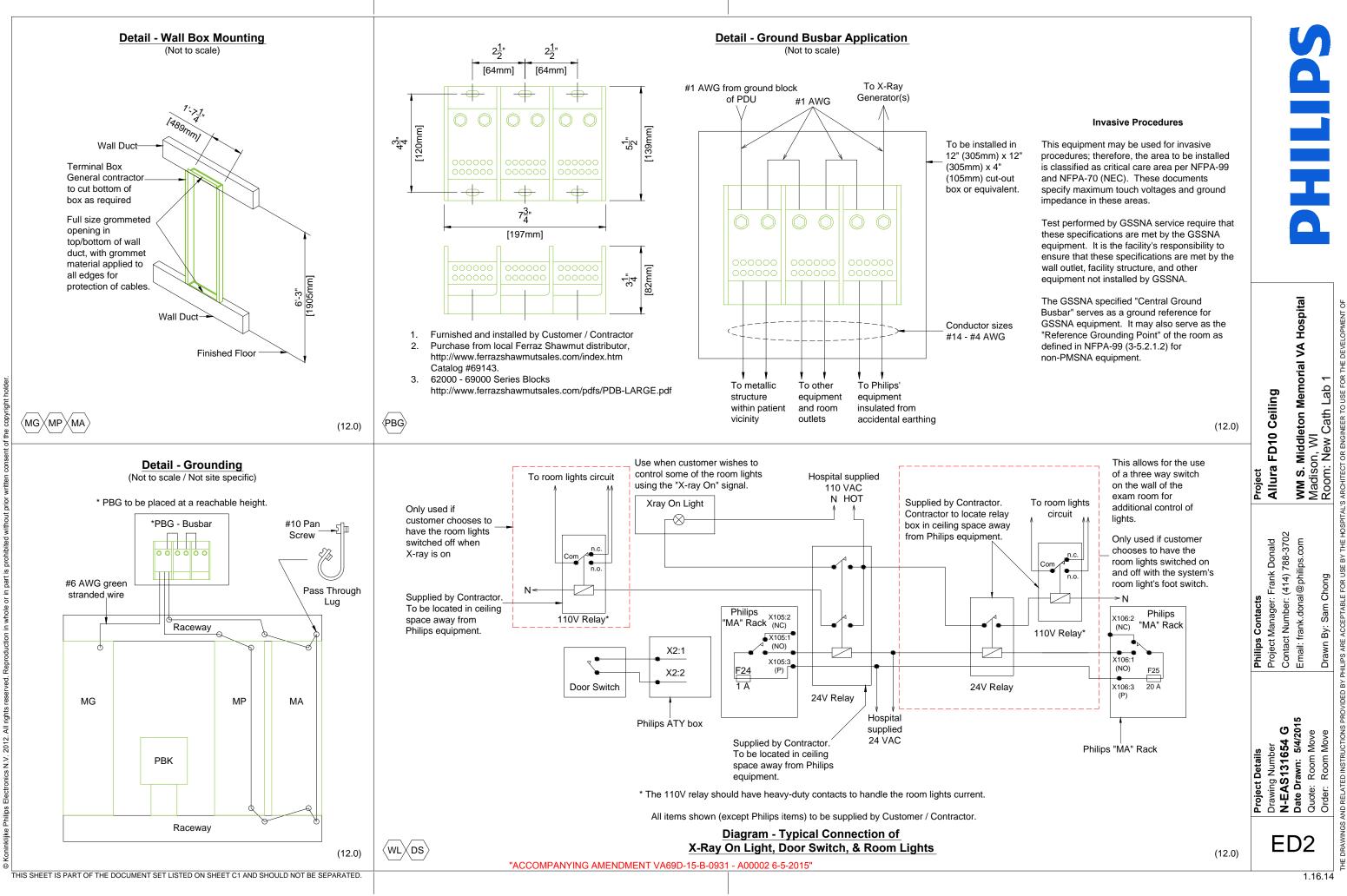
1000 VPK above phase-neutral RMS absolute maximum. No more than 1 impulse

No more than 1 per hour that exceeds 25 volts and 1 Mjoule

3.0 volts steady-state maximum. Over 3.0 volts permitted for 100 msec. maximum, 1

		Project Details	Philips Contacts	Project
	E	Drawing Number	Project Manager: Frank Donald	Allura FD10 Ceiling
	ΞI	N-EAS131654 G	Contact Number: (414) 788-3702	)
	D	Date Drawn: 5/4/2015	Email: frank.donal@philips.com	WM S. Middleton Memorial VA Hospital
1 16	1	Quote: Room Move		Madison, WI
5.14		Order: Room Move	Drawn By: Sam Chong	Room: New Cath Lab 1
ļ <u></u> ₽́S	THE DRAWINGS AND RELATED CONSTRUCTION DOCUMENTS.	AND RELATED INSTRUCTIONS PROVIDED BY P DOCUMENTS.	HILIPS ARE ACCEPTABLE FOR USE BY THE HOSPITAL	THE DRAWINGS AND RELATED INSTRUCTIONS PROVIDED BY PHILIPS ARE ACCEPTABLE FOR USE BY THE HOSPITAL'S ARCHITECT OR ENGINEER TO USE FOR THE DEVELOPMENT OF CONSTRUCTION DOCUMENTS.

(14.0)

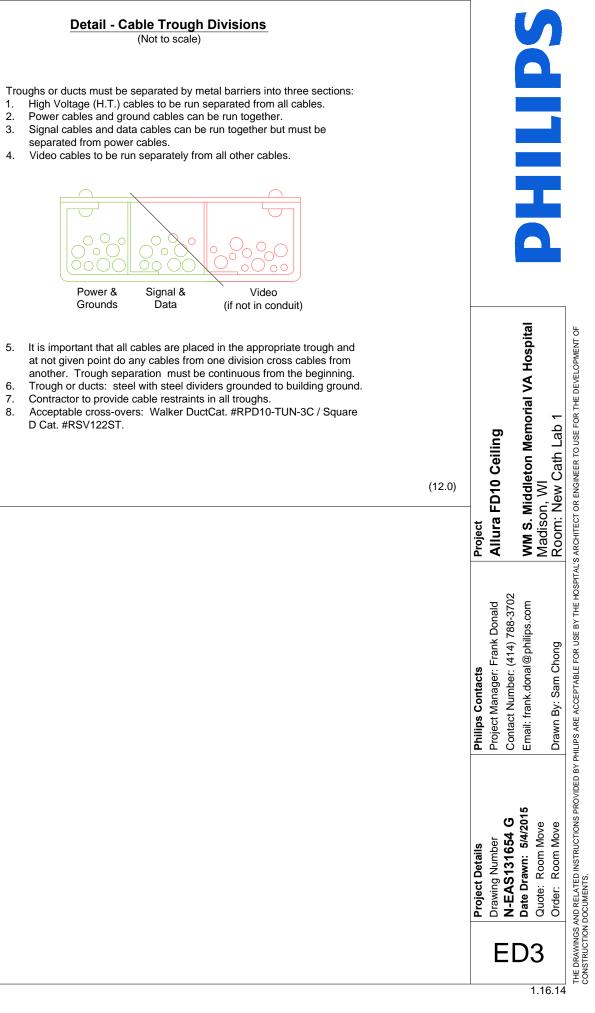


NEER TO USE **PTABLE FOR** THE DRAWINGS AND RELATED INS CONSTRUCTION DOCUMENTS.

etail	-	Cable	Tro

Troughs or	ducts	must	be	separa
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- 1.
- 2.
- 3.



- 6.
- 7.
- 8. D Cat. #RSV122ST.

WR1WR2WR3 R1

0

# Philips Healthcare Remote Services Network (RSN)

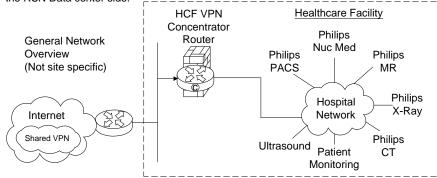
Secure broadband connection required for Philips remote technical support, diagnostics, and applications assistance

# Broadband Site-to-Site Connectivity (Preferred)

This connectivity method is designed for customers who prefer a connection from the RSN Data Center to the Health Care Facility (HCF) utilizing their existing VPN equipment.

# **Connectivity Details:**

- A Site-to-Site connection from the RSN data center's Cisco router will be established to the HCF's VPN concentrator.
- The VPN Tunnel will be an IPSEC, 3DES encrypted Tunnel using IKE as standard, but alternative standards are also available, such as AES, MD5, SHA, Security Association lifetime and Encryption Mode.
- Every system that we will be servicing remotely will have a static NAT IP that we configure on the RSN Data center side.



# Action Required by Hospital

- Review and approve connection details.
- Complete appropriate Site Checklist.

- Configure and allow Site-to-Site access prior to setting up connectivity depending on the access criteria that the HCF decides to implement (ex: Source IP filtering, destination IP

filtering, NAT assignment, etc.).

- Route traffic from within the hospital network with destination addresses 192.68.48.0/22 to the designed IP provided by Philips.

# Broadband Router Installed at Health Care Facility

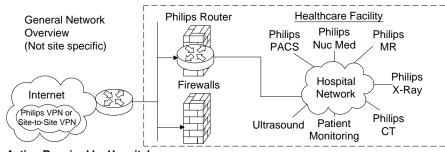
This connectivity method is designed for customers who have a dedicated high speed connection for Philips equipment.

# **Connectivity Details:**

- An RSN Cisco 1711 or 1712 router will be preconfigured and installed at the HCF by Philips in conjunction with the HCF IT representative.
- The VPN Tunnel will be an IPSEC, 3DES encrypted Tunnel using IKE and will be established from the RSN-DC and terminated at the RSN Router on-site.
- One to One NAT is used to limit access to Philips equipment only.
- Router Config and IP auditing is enabled for Customer IT to view via website 24/7. - Dedicated DSL connections are also supported.

# **Option 1: Parallel to HCF Firewall Connectivity Method**

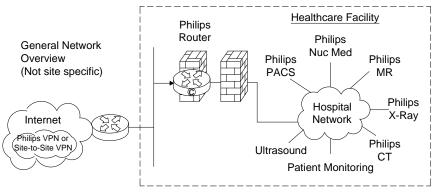
This connectivity method is designed for customers who prefer a Philips RSN Router installed on site utilizing all the security features provided and managed by Philips.



# Action Required by Hospital:

- Assign a fixed public IP Address from the ISP to be configured on the Philips router. This is the DOTTED link on the picture connected to the firewall.
- Assign a Back end IP for the Philips router on the Hospital Network.
- Complete appropriate Site Checklist.
- Route traffic from within the hospital network with destination addresses 192.68.48.0/22 to internal Philips router Ethernet interface. This is the DASHED line connected to the firewall. "ACCOMPANYING AMENDMENT VA69D-15-B-0931 - A00002 6-5-2015"

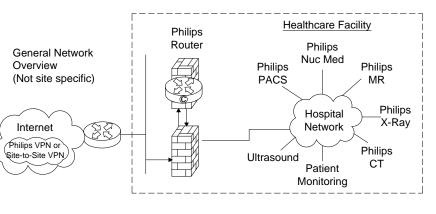
This connectivity method is designed for customers who prefer a Philips RSN Router installed equipment.



# Action Required by Hospital:

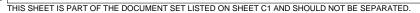
- Assign a fixed public IP Address from the ISP to be configured on the Philips router. This is the DOTTED link on the picture connected to the firewall. - Assign a Back end IP for the Philips router on the Hospital Network. - Complete appropriate Site Checklist. - Route traffic from within the hospital network with destination addresses 192.68.48.0/22 to internal Philips router Ethernet interface. This is the DASHED line connected to the firewall. - Configure and allow on the firewall on the DASHED line interface access between the IP address allocated by the hospital to the Philips internal Ethernet router interface and the target modality IP address.

Option 3: Router Installed Inside the HCF's DZM and existing, or new DMZ, allowing access to Philips equipment.



# Action Required by Hospital:

- Assign a fixed public IP Address from the ISP to be configured on the Philips router. This is the DOTTED link on the picture connected to the firewall. - Assign a Back end IP for the Philips router on the Hospital Network. - Complete appropriate Site Checklist. - Route traffic from within the hospital network with destination addresses 192.68.48.0/22 to internal Philips router Ethernet interface. This is the DASHED line connected to the firewall. - Configure and allow on the firewall on the DASHED line interface IPSec protocol communication by opening protocol 500, 50, 51, 47 and port 23 + TACACS. Traffic should be between external IP Address located on the Philips router and the RSN Data center IP address 192.68.48/24 and IP address AOSN TACAS. - Configure and allow on the firewall on the DASHED line interface access between the IP address allocated by the hospital to the Philips internal Ethernet router interface and the target modality IP address.



# **Option 2: Back End Connected to the HCF Firewall Connectivity Method**

on site by setting up an IP-Based policy allowing access thru existing HCF Firewall to Philips

This connectivity method is designed for customers who prefer the RSN Router installed inside



(12.0)

# System Network Information MPORTANT NOTE: It is the customer's responsibility to coordinate with the local Philips Engineer to provide ALL required network information and install ALL required network cabling & drops according to Philips specifications PRIOR to the scheduled installation start date. Failure to do so may delay system installation and jeopardize the customer hand over date.

Allura	IP Sec [ ]yes [ ]no	XperIM	IP Sec [	]yes [	]no			Time Synchronizatio	on
Physical Location:			Location	1	Location 2	2 L	ocation3	Physical Location:	
lostname:		Physical Location:		I		1		Server Name:	
MAC Address:		Hostname:						RIS	Physical Locatio
P Address		MAC Address:							Basic Local RIS
letmask:		IP Address						Hostname:	
Gateway:		Netmask:						IP Address:	
AE Title:		Gateway:						AE Title:	
Port Number (5101):		AE Title:						Max PDU Size:	16384 or
XtraVision	IP Sec [ ]yes [ ]no	Port Number (3010):						Port Number:	
Physical Location:		Remote Software In	stallation (R	PS)				Secure Node:	
Hostname:		Enable Distribution:		[	]yes [	] no		Encryption:	
MAC Address:		Enable Installation:		[	]yes [	] no		Certificate Name:	
IP Address		Dicom Printer	1					PPSM IHE	
Netmask:			Location 1	Locat	tion 2 Lo	ocation3	Location 4	Compatible:	
Gateway:		Physical Location:						Time Synchronizatio	on
AE Title XtraVision:								Allura Xper:	20/21(ftp), 80(http
Port Number (3110):		Hostname:							9903(fsf.net)
E Title for X-Ray Mod:		IP Address						Allura CV20:	20/21(ftp), 80(http
ofor X-Ray Modality:		AE Title:						XtraVision:	20/21(ftp), 80(http 5900(vnc), 9905(l
P Navigator	IP Sec [ ]yes [ ]no	Port Number :						EP Navigator (R3):	20/21(ftp), 443(ht
Physical Location:		PACS	Physical Log	cation: Store/	Store/	Query/	Storage/		20/21(ftp), 80(http
lostname:			1	Import 2		Retrieve		EP Cockpit (R1.2):	9903(fsf.net)
MAC Address:		Hostname:						CX50:	
P Address		IP Address							
letmask:		AE Title:						Xper IM:	
Gateway:		Port Number :						View Forum	
AE Title:		PACS	Physical Lo	cation:					
ort Number:			Store/ Import 1	Store/ Import 2	Store/ Export	Query/ Retrieve		Hospital Network	M2M Server
/iew Forum	IP Sec [ ]yes [ ]no	Hostname:							(PRS)
Physical Location:		IP Address						Scheme (https):	
lostname:		AE Title:						IP Address (192.68.49.50):	
IAC Address:		Port Number :						Portnumber (443):	
P Address		Audit Trail						Use Proxy Server:	[]yes []no
Netmask:		Physical Location:						IP Address	
Sateway:		Hostname:							
AE Title:		IP Address						Port Number:	
		AE Title:						User Name:	
Port Number:		Port Number :						Password:	

Locatio	n:	
cal RIS	WLM	MPPS
	[ ]yes [ ]no	[]yes []no
	[]yes []no	[]yes []no
		[ ]yes [ ]no

, 80(http), 443(https), 5900(vnc),

, 80(http), 4440(fsf)

, 80(http), 443(https), 5660(ist/ice), ), 9905(lots)

, 443(https), 5660(ist/ice), 9055(lots)

ttp), 443(https),	, 5900(vnc),
-------------------	--------------

rver )	Proxy	ePO Server (PRS)
] no		

		Philips Contacts	Project	
Ν	N-EAS131654 G	Project Manager: Frank Donald Contact Number: (414) 788-3702	Allura FD10 Ceiling	
2	<b>Date Drawn:</b> 5/4/2015	Email: frank.donal@philips.com	WM S. Middleton Memorial VA Hospital	
	Quote: Room Move		Madison, WI	
	Order: Room Move	Drawn By: Sam Chong	Room: New Cath Lab 1	

(13.0)

# Instructions

This form is to be used by Project Manager, Contractor and Service Engineer.

Information is used to develop and determine site ready date.

Items listed are go/no go items for delivery unless noted as delay only items.

Items identified with \*\*\* as delayed items must be completed after hours or on weekend. These items cannot be accomplished while installation is in progress. Also, these items must be completed within two days of installation start or they may stop installation.

	Site Readiness Checklist	
	Modality:	
	Order:	
	Site Name:	
	Location:	
	Contact Name:	
	Contact Phone Number	
	Customer site preparation verified in general against the Philips final planning drawings.	
	Walls finished including painting.	
lder.	Doors installed.	
ight ho	Floor leveled according to Philips drawings and specifications.	
copyr	Floors are tiled/covered finished. Flooring is covered with protective covering (scratch protection).	
t of the	Ceiling lights installed.	
Reproduction in whole or in part is prohibited without prior written consent of the copyright holder.	Cable conduit and ductwork installed and clean. Position checked. Duct covers in place but not finally closed. Cable opening are clear, without sharp edges. Pull strings in conduit. Installation per Philips specifications.	
vritten	HVAC environmental equipment installed and working according to Philips specifications.	
t prior v	Ceiling installation completed.	
without	Electrical preparation according to Philips specifications.	
ibited ,	All network cabling, drops installed according to Philips specifications (including hardcopy cameras).	
is proh	All pre-cabling identified on Philips drawings has been installed.	
in part	Pre-move survey completed - Delivery route identified.	
hole or	Lead glass installed ***.	
n in w	X-Ray warning lights installed ***.	
oductio	Dedicated phone line for modem use***.	
	Room has been cleaned ***.	
eserve	Cabinets and casework installed***.	
ights r	RSN survey completed and submitted	
12. All 1	Philips RSN Champion contacted.	
.V. 20	Approved for Delivery	
onics N		
© Koninklijke Philips Electronics N.V. 2012. All rights reserved.	Project Manager	Date
ke Philip		Date
oninklij	Service Engineer	Date
ŏ  ŏ		

# Items Specific for the Cardio/Vascular Modality

Unistrut installed and level	according to Philips specifications.

Floor plates installed and level according to Philips specifications.

All cover plates have holes punched and nipples required and bushings installed.

Emergency power requirements installed according to Philips specifications.

Building steel ground installed to PDU.

Room electrical grounds installed to PPC middle section.

Conduit lengths measured according to Philips specifications.

Note: Specifications is from source box to destination box (not just conduit run length).

Routing of ductwork and conduits must be installed according to Philips specifications.

IS SHEET IS PART OF	THE DOCUMENT SET LIS	TED ON SHEET C1 AND SH	HOULD NOT BE SEPARATED.

"ACCOMPANYING AMENDMENT VA69D-15-B-0931 - A00002 6-5-2015"

Project Details	Philips Contacts	Project
Drawing Number N-EAS131654 G	Project Manager: Frank Donald Contact Number: (414) 788-3702	Allura FD10 Ceiling
Date Drawn: 5/4/2015 Quote: Room Move	Email: frank.donal@philips.com	WM S. Middleton Memorial VA Hospital
Order: Room Move	Drawn By: Sam Chong	Room: New Cath Lab 1