

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

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.

(00.0)

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.

(03.0)

HVAC Requirement for General Equipment Locations

Heating, ventilation, air conditioning requirement for general equipment locations must maintain temperature at 72° +/- 5° Fahrenheit (22° +/- 3° Celsius) and non-condensing relative humidity at 20% - 80% with 10% max. variation.

Equipment's designed airflow is from bottom to top and front to back. Please design the air handling in the rack cabinet equipment area accordingly.

(10.0)

**Electrical Requirements
Velara with PDU 4000**

Power Output: 100KW

Supply Configuration: 3 phase, 3 wire power and ground, delta or wye
3 phase, 4 wire power with neutral + ground, wye

Nominal Line Voltage: 480 VAC, 60 Hz

Branch Power Requirement: 225 KVA

Circuit Breaker: 3 pole, 125 Amps

(10.0)

Remote Control of Room Lighting

The control of customer lighting must incorporate an electrical isolation system such as demonstrated on Sheet ED2. Lighting scheme is the responsibility of the customer.

(08.1)

Project	D.S. Allura FD20 Ceiling St. Mary Corwin Pueblo, CO - Room 1383
Philips Contacts	Project Manager: Michael Freund Contact Number: (303) 589-5113 Email: michael.freund@philips.com Drawn By: Florido, Ryan
Project Details	Drawing Number N-WEST110653 D Date Drawn: 12/7/2011 Quote: 1-TP9FK0 Rev 8 Order: 6600144945.010000

AN



Equipment Legend				
A	Furnished and installed by Philips			
B	Furnished by customer/contractor and installed by customer/contractor			
C	Installed by customer/contractor			
D	Furnished by Philips and installed by contractor			
E	Existing			
F	Future			
G	Optional item furnished by Philips			
	Equipment Designation		Detail Sheet	
	Description	Weight (lbs)	Heat Load (btu/hr)	
A	(SP) Clea Stand	2557	1706	AD1
A	(MSA) Angio Diagnost 7 with Pivot	1693	205	AD1
A	(MG) Velara Generator 40E Cabinet	510	2971	AD2
A	(MP) Peripheral 40E Cabinet	510	2049	AD2
D	(PBK) PDU 4000/UPS	860	2450	AD2
A	(MA) Mains 40E Cabinet	826	5464	AD2
A	(CY) Viewing/Control	126	567	AD2
A	(DB) Documentation Box - Mounted on Wheels (Final location to be coordinated with customer and/or local Philips Service.)	176	-	AD3
A	(ATY) Exam Room Auxiliary Box	7	1.7	AD3
A	(MAV) Mavig Ceiling Track w/ Radiation Shield	167	350	AD4
A	(IH) Interventional Hardware	73	2424	AD4
A	(XIM) Xper Information Management	170	495	AD5
A	(FE) Front End / Patient Care Monitor	25	70	AD5
A	(IUPS) Interventional UPS	45.2	68	AD5
A	(TV) 56" + Two 21" LCD Monitor Suspension w/ Exam Lamp	636	1020	AD5
A	(MB) Image 40E Cabinet	826	5464	AD4
A	(VB1) Video Connection Box	11	-	AD3
	~			
A	(VB8) Video Connection Box	11	-	AD3
A	(INJ) ACIST Injector on Pedestal	-	5118	AD3
A	(IVUS) s5i Imaging System (Volcano IVUS)	82	-	AD3
A	(SV) s5i Imaging System (Junction Box)	-	-	AD3

Project Details Drawing Number N-WES110653 D Date Drawn: 12/7/2011 Quote: 1-TP9FK0 Rev 8 Order: 6600144945.010000	Philips Contacts Project Manager: Michael Freund Contact Number: (303) 589-5113 Email: michael.freund@philips.com Drawn By: Florido, Ryan	Project D.S. Allura FD20 Ceiling St. Mary Corwin Pueblo, CO - Room 1383



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Equipment Layout

Required Ceiling Height : 9' - 6 3/16" , +3/8 / -0 (2900mm, +10mm / -0)
 Ceiling Height Measured from finished floor to bottom of Unistrut.



Planning Issues and Considerations

⚠ A.D.A. requires a clear width of 1'-6" (460 mm) on the strike side of the door and 5'-0" (1525 mm) clear space. Verify all other applicable code(s) with the architect of record.

General Notes

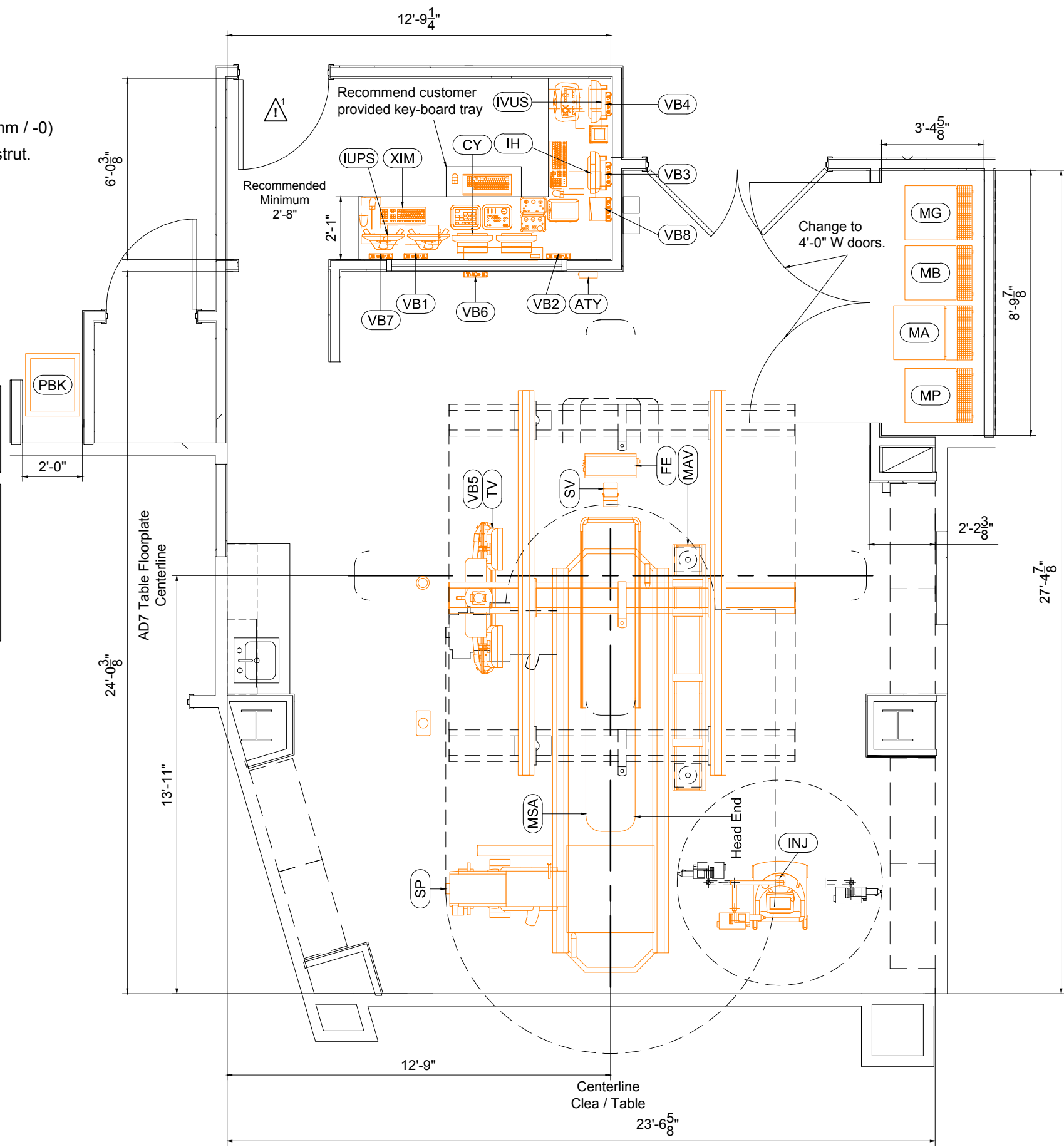
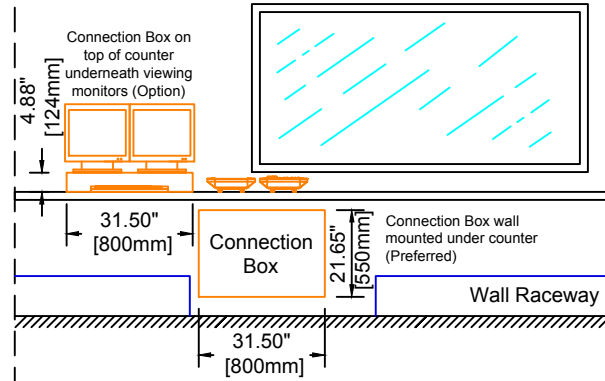
- * Counters and cabinetry shown to be supplied and installed by customer.
- * Field to verify all room dimensions.
- * The equipment components shown in this drawing package are subject to availability. Final configuration to be verified by the factory.
- * Clea Stand cannot fully rotate in its parked position. However, this will not affect the functionality of the equipment.

DB

Exact location to be coordinated by Customer and local Philips service.

Connection Box (CY) Mounting Options

Not Site Specific
See SD3 Sheet for details



Project
D.S. Allura FD20 Ceiling

St. Mary Corwin
Pueblo, CO

- Room 1383

Philips Contacts

Project Manager: Michael Freund
 Contact Number: (303) 589-5113
 Email: michael.freund@philips.com

Drawn By: Florido, Ryan

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A1

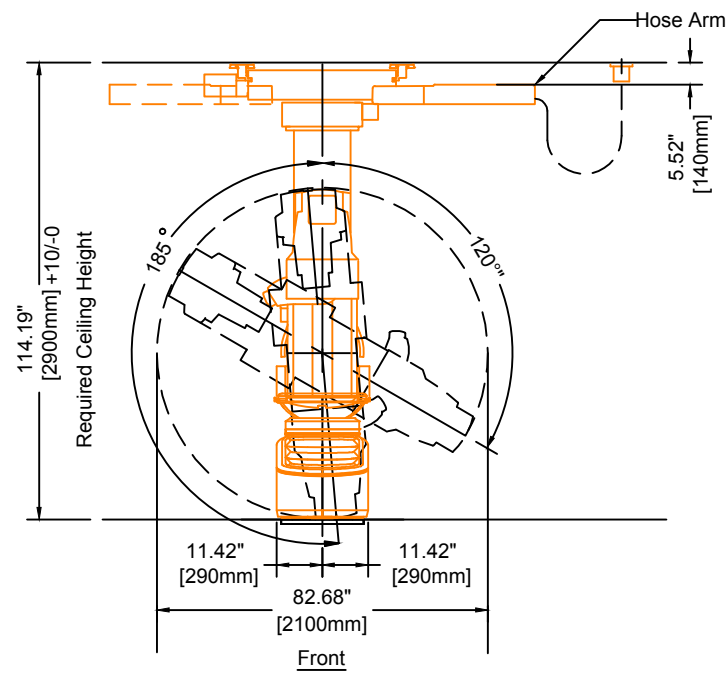
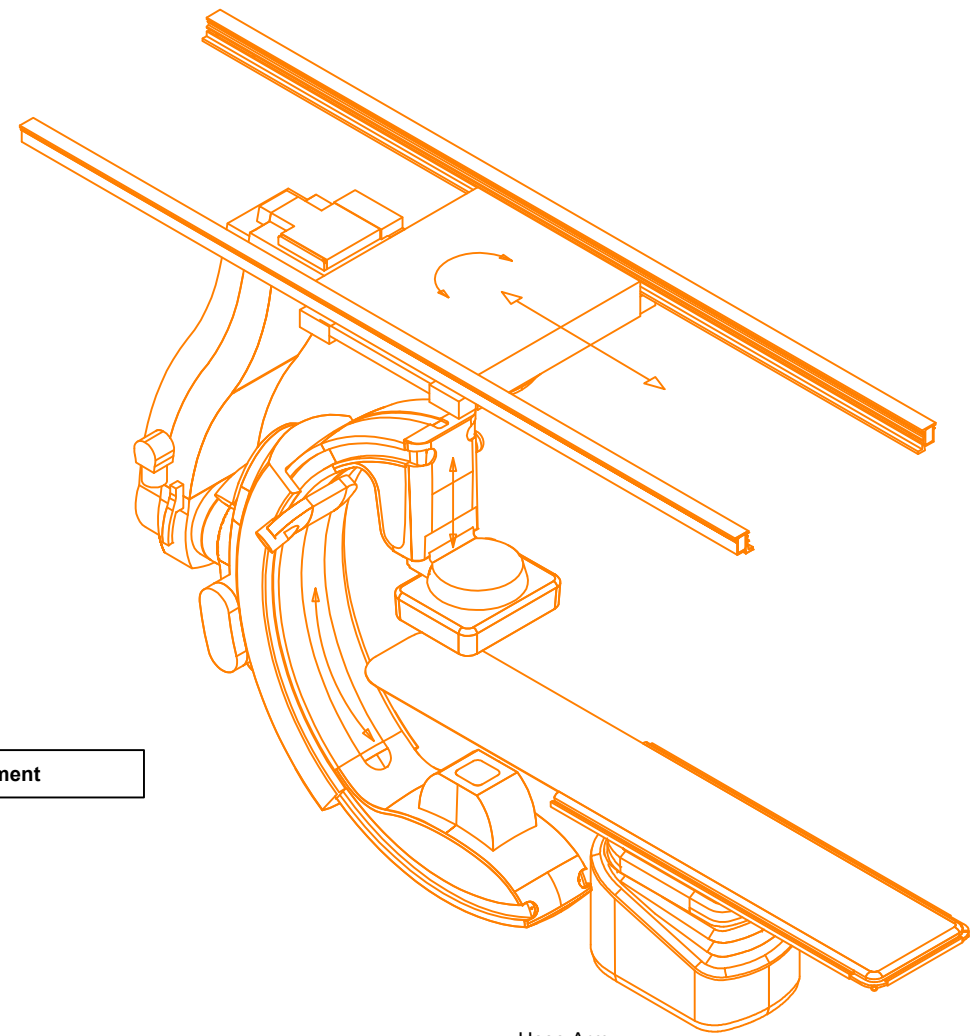
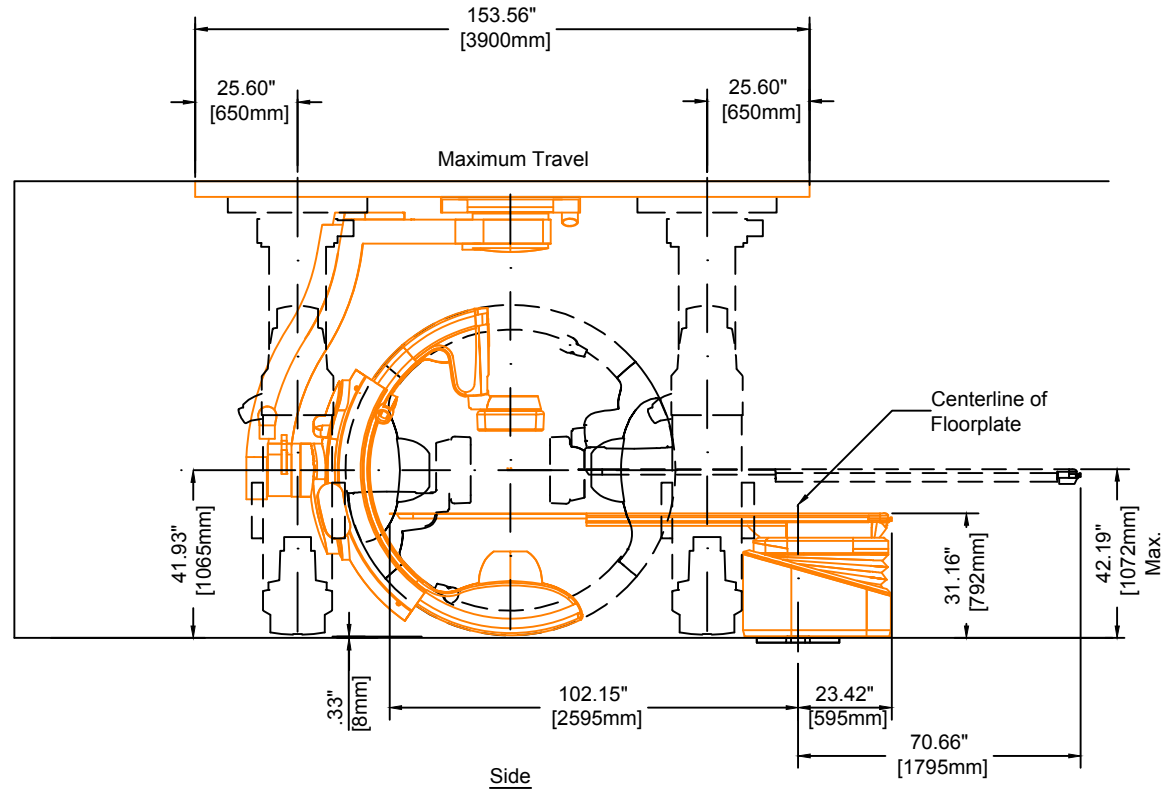
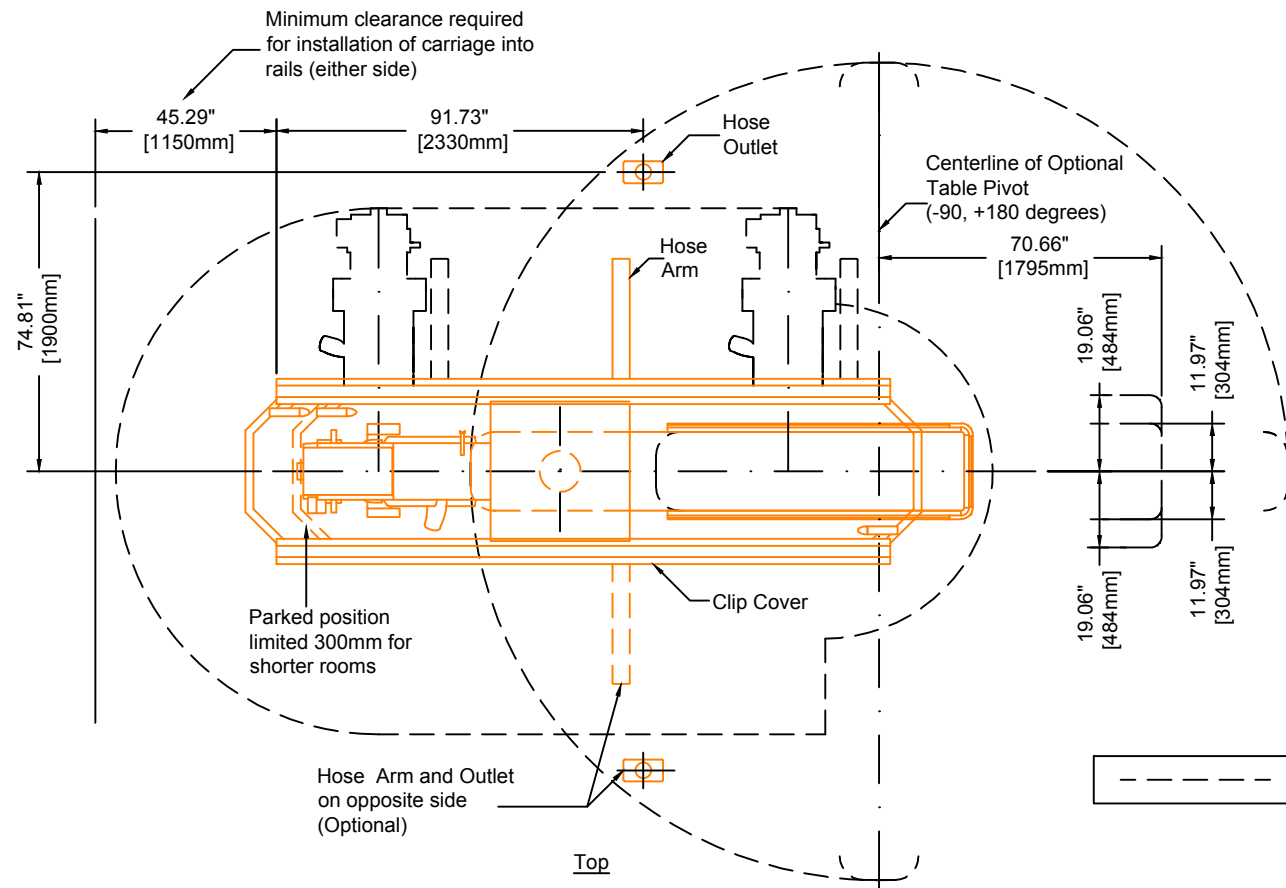


Table pivot is optional. This allows table to rotate -90, +180 degrees about center of table base.

(07.0)		
SP	Clea Stand	
Weight	2557 lbs	(1160 kg)
Heat Dissipation	1706 Btu/hr	(430 kcal/hr)

(07.0)		
MSA	Angio Diagnost 7	
Weight	1693 lbs	(768 kg)
Heat Dissipation	205 Btu/hr	(52 kcal/hr)

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Contact Number: (303) 589-5113

Email: michael.freund@philips.com

Drawn By: Florido, Ryan

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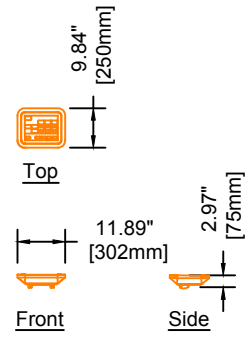
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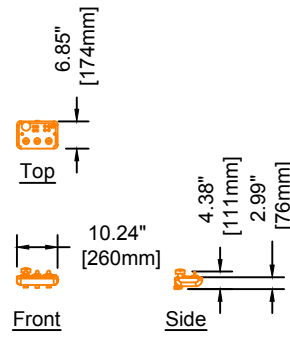
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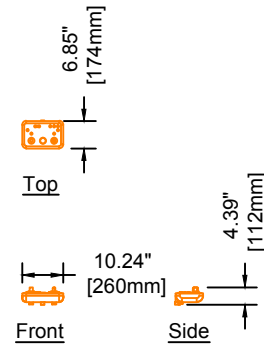
AD1



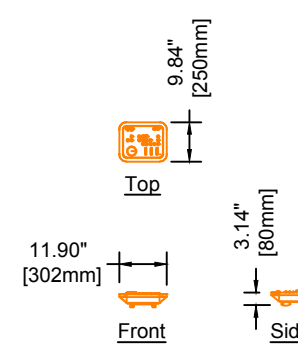
XPER Module



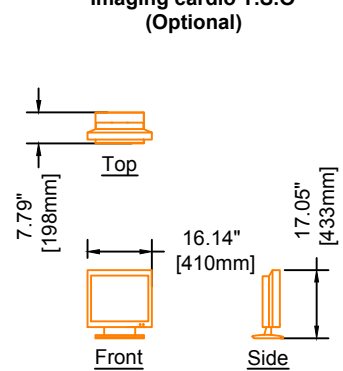
Geometry T.S.O. (Optional)



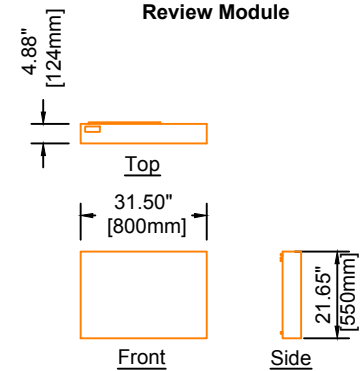
Imaging cardio T.S.O. (Optional)



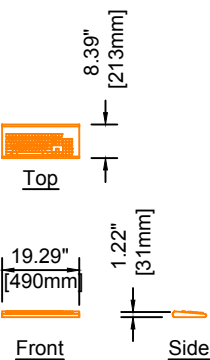
Review Module



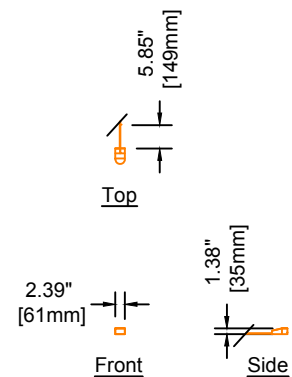
LCD Monitor



Connection Box
(See SD3 for mounting options)



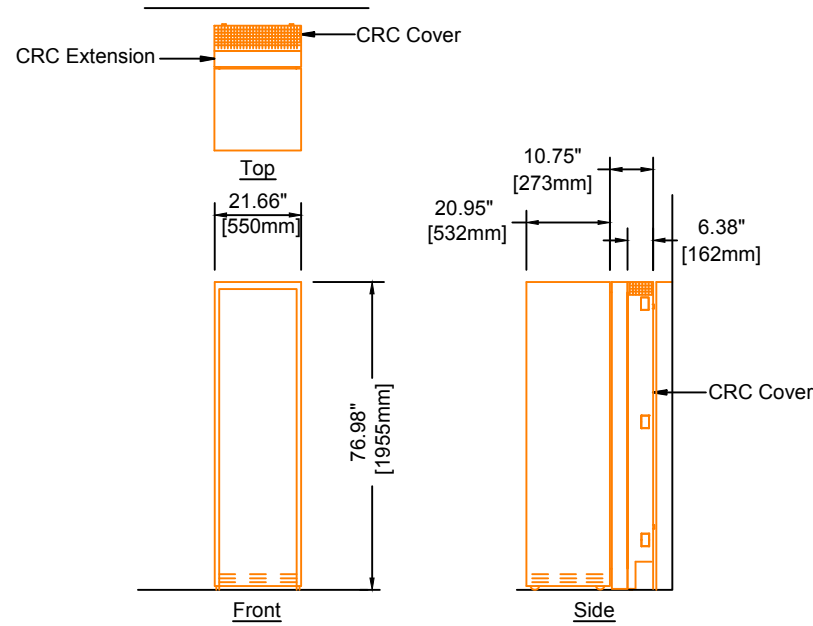
Keyboard



Mouse

CY	Viewing/Control (All Components)	
Weight	126 lbs	(57 kg)
Heat Dissipation	567 Btu/hr	(143 kcal/hr)

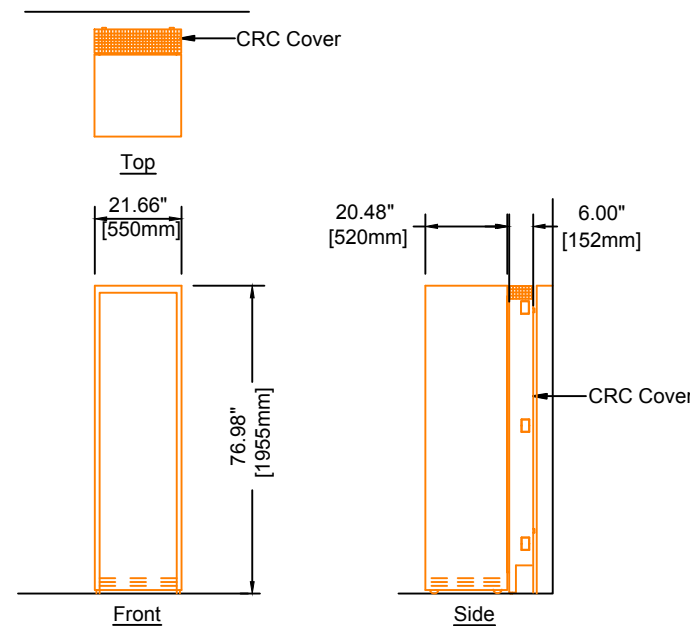
(08.0)



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

Acoustic noise level: <= 48 dB(A) @ 1 meter in front of the rack and 1 meter high. (1 meter = 3.28')

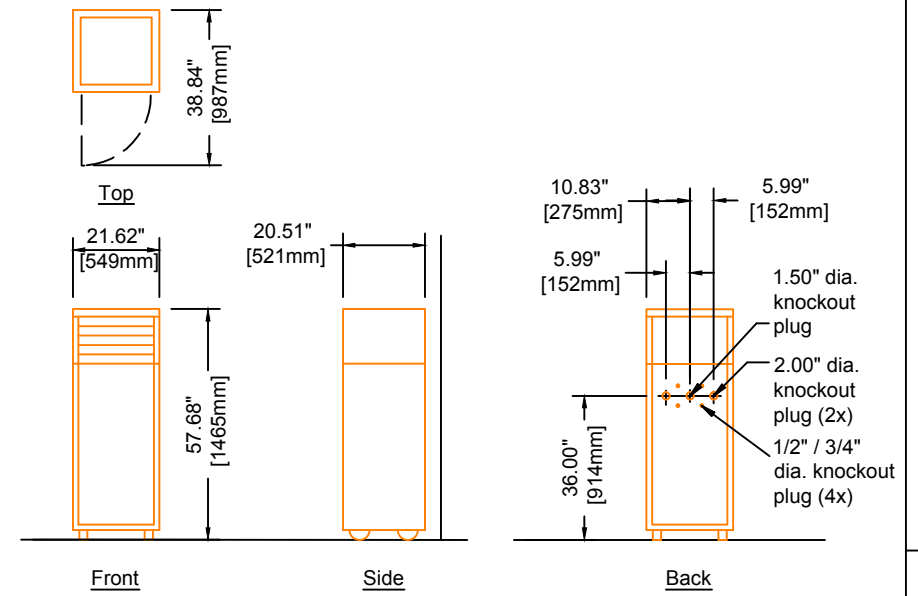
MA	Mains 40E Cabinet	(10.0)
Weight	826 lbs	(375 kg)
Heat Dissipation	5464 Btu/hr	(1377 kcal/hr)



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

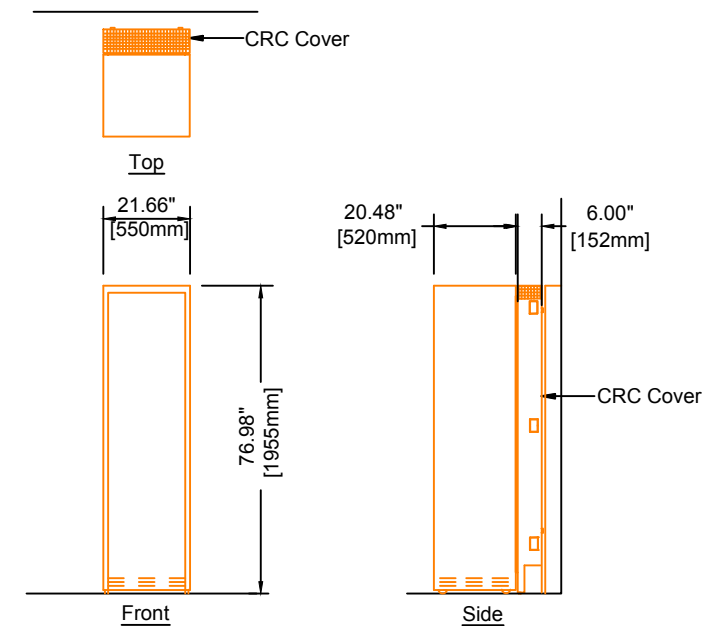
Acoustic noise level: <= 65 dB(A) @ 1 meter in front of the rack and 1 meter high. (1 meter = 3.28')

MP	Peripheral 40E Cabinet	(08.0)
Weight	510 lbs	(232 kg)
Heat Dissipation	2049 Btu/hr	(516 kcal/hr)



Acoustic noise level: <= 50 dB(A) @ 1 meter in front of the rack and 1 meter high. (1 meter = 3.28')

PBK	PDU 4000/UPS	(08.0)
Weight	860 lbs	(391 kg)
Heat Dissipation	2450 Btu/hr	(617 kcal/hr)



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

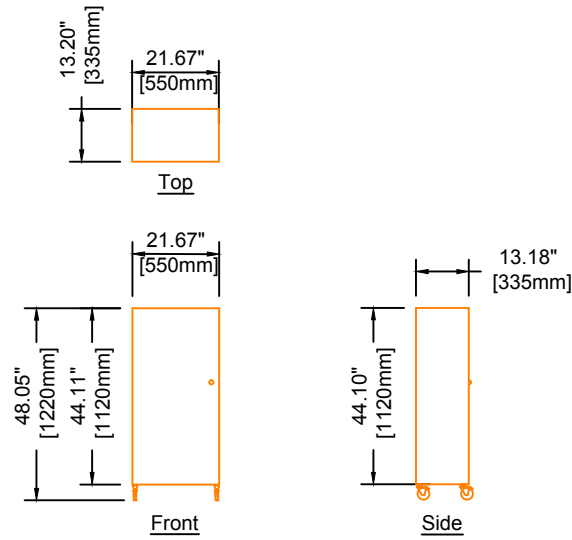
Acoustic noise level: <= 55 dB(A) @ 1 meter in front of the rack and 1 meter high. (1 meter = 3.28')

MG	Velara Generator 40E Cabinet	(08.0)
Weight	510 lbs	(232 kg)
Heat Dissipation	2971 Btu/hr	(749 kcal/hr)

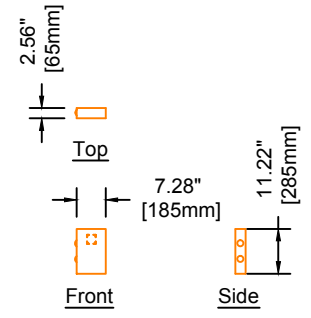
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Contact Number: (303) 589-5113
Email: michael.freund@philips.com
Drawn By: Florido, Ryan

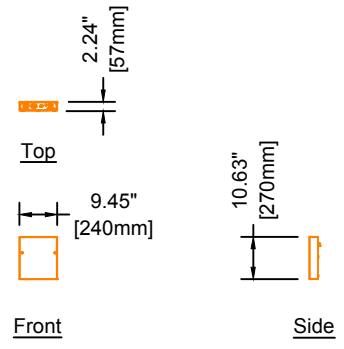
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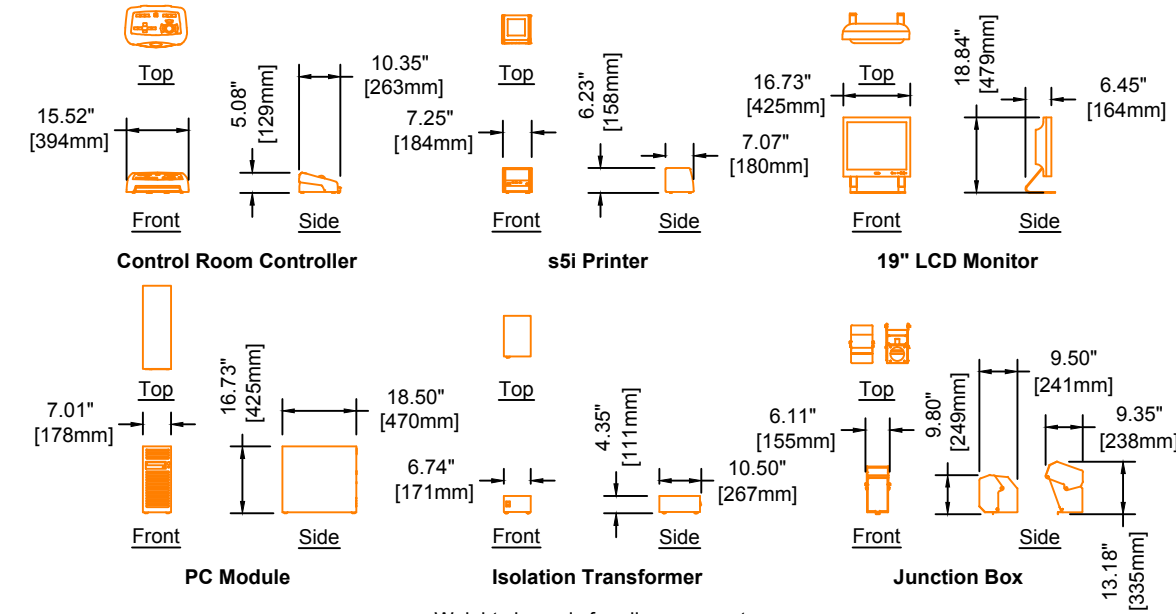
(DB)	Documentation Box	(08.0)
Weight	176 lbs	(80 kg)
Heat Dissipation	0 Btu/hr	(0 kcal/hr)



(ATY)	Auxiliary Box	(08.0)
Weight	7 lbs	(3 kg)
Heat Dissipation	1.7 Btu/hr	(0.47 kcal/hr)

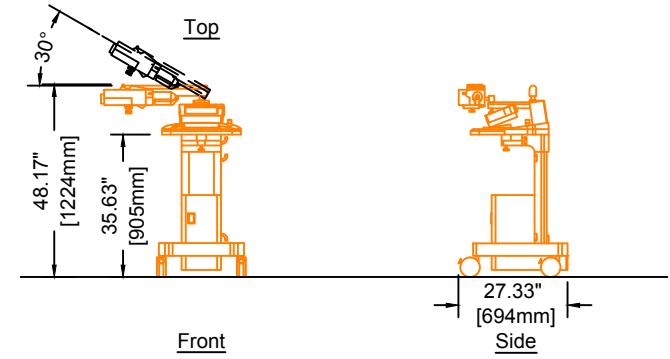
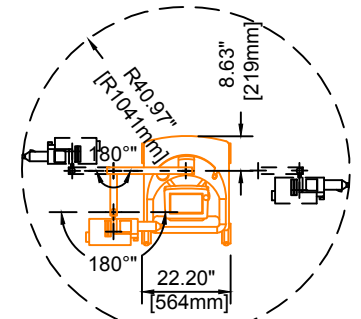


(VB1) ~ (VB8)	Video Connection Box	(11.0)
Weight	11 lbs	(5 kg)
Heat Dissipation	- Btu/hr	(- kcal/hr)



Weight shown is for all components.

(IVUS)	s5i Imaging System (Volcano IVUS Workstation)	(08.0)
Weight	82 lbs	(38 kg)
Heat Dissipation	- Btu/hr	(- kcal/hr)
(SV)	s5i Imaging System (Junction Box)	
Weight	- lbs	(- kg)
Heat Dissipation	- Btu/hr	(- kcal/hr)



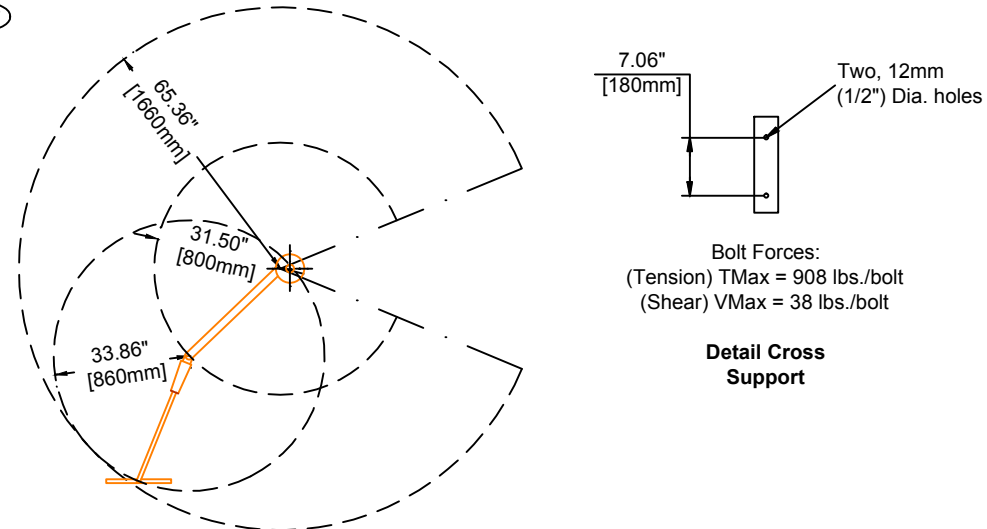
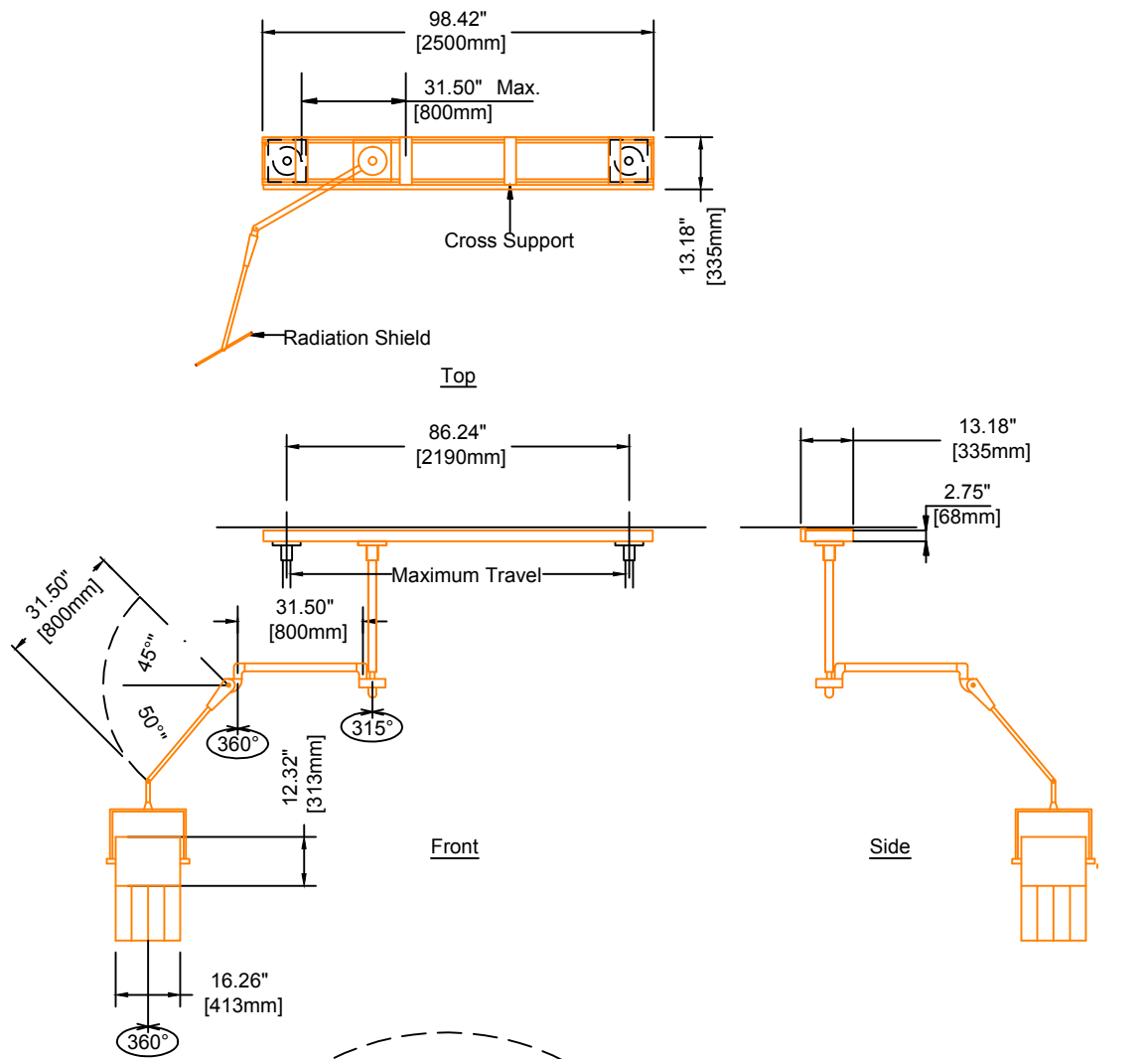
(INJ)	ACIST Injector on Pedestal	(01.0)
Weight	- lbs	(- kg)
Heat Dissipation	5118 Btu/hr	(1290 kcal/hr)

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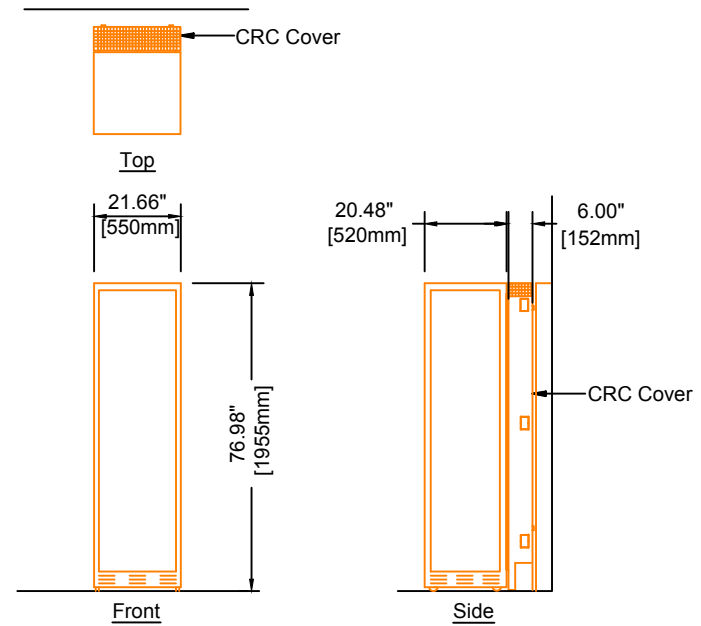
AD3



Note: For Integris Systems, the post of the Rad Shield post needs to be mounted on the head end of the table in relation to the Monitor Suspension transverse carriage.

C4	MAV	Mavig Ceiling Track	
	Weight	167 lbs	(76 kg)
	Heat Dissipation	350 Btu/hr	(88 kcal/hr)

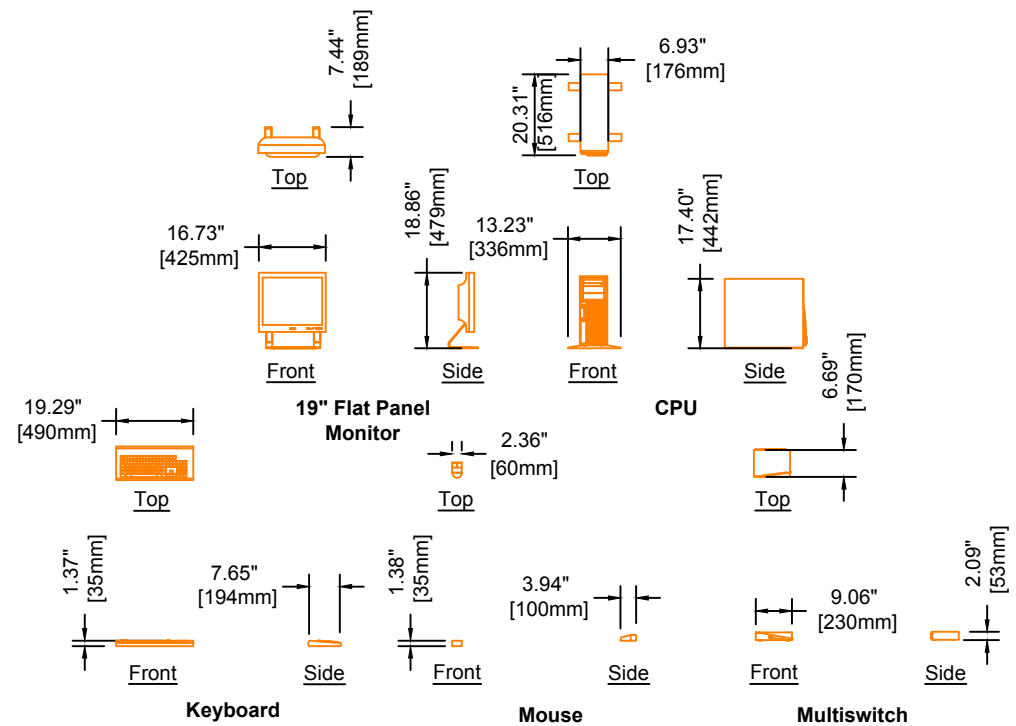
(05.0)



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

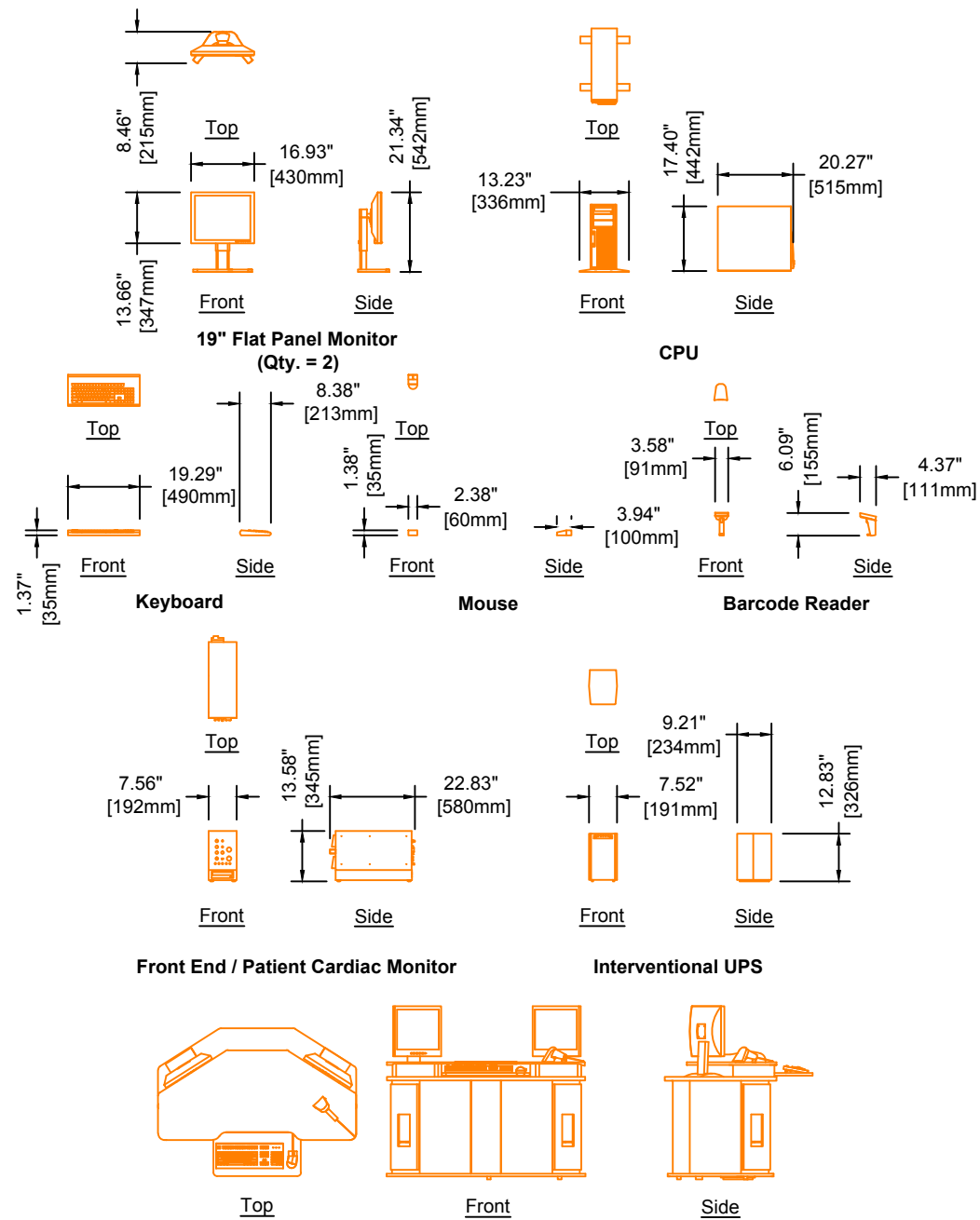
Acoustic noise level: <= 48 dB(A) @ 1 meter in front of the rack and 1 meter high. (1 meter = 3.28')

MB	Image 40E Cabinet		(10.0)
	Weight	826 lbs	(375 kg)
	Heat Dissipation	5464 Btu/hr	(1378 kcal/hr)



Weight shown is for all components.

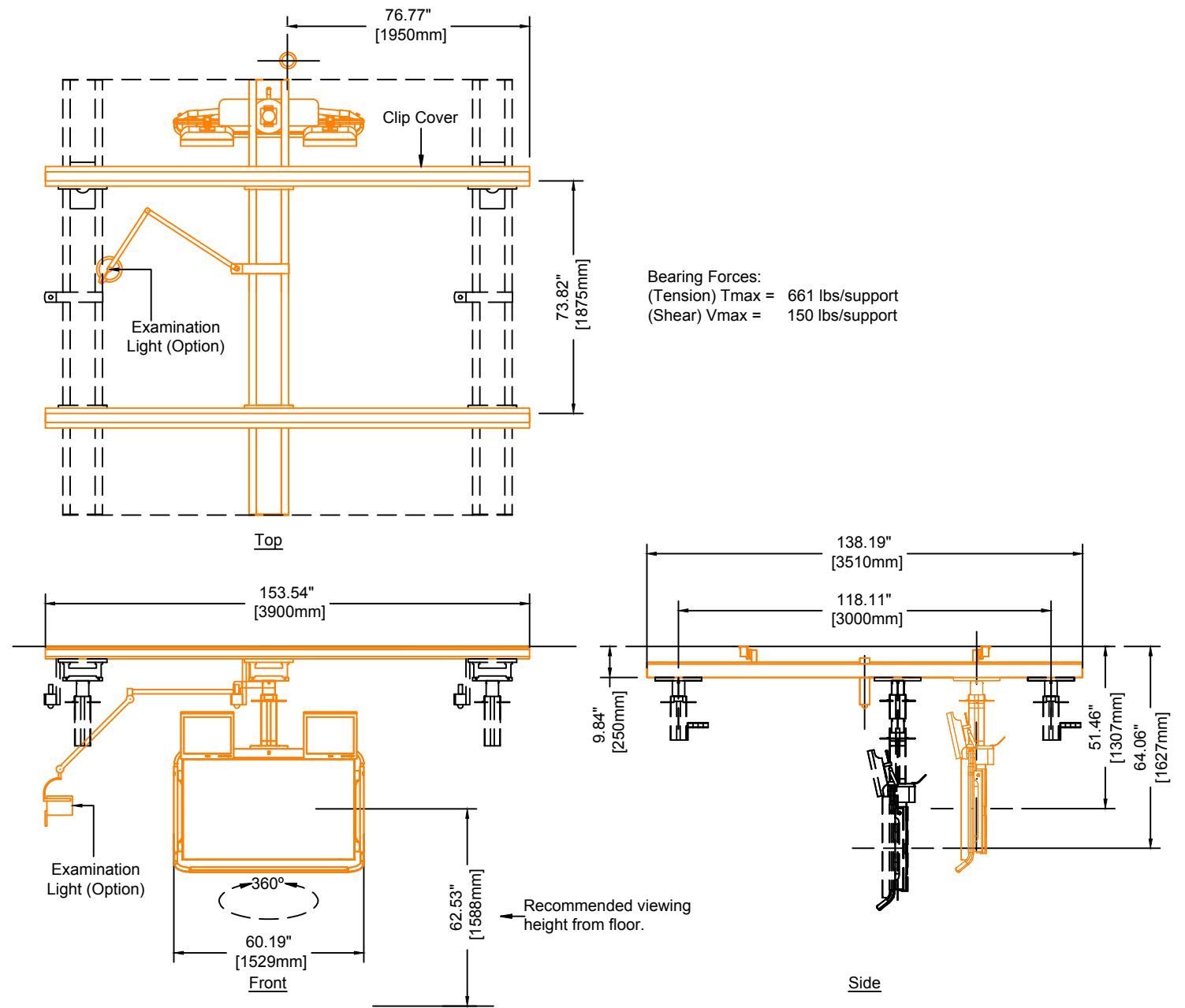
IH	Interventional Hardware (Flat Monitor)		(08.0)
	Weight	73 lbs	(33 kg)
	Heat Dissipation	2,424 Btu/hr	(611 kcal/hr)



Weight shown is for all components.

XIM FE IUPS Xper Information Management		
Weight	70 lbs	(32 kg)
Weight (with Table)	170 lbs	(78 kg)
Heat Dissipation	495 Btu/hr	(125 kcal/hr)

(08.0)

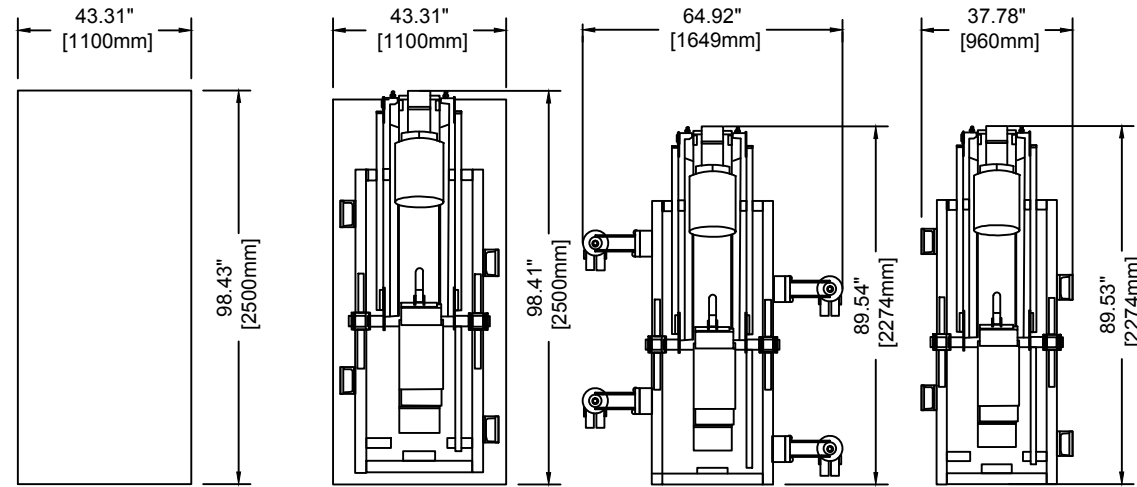


For swing labs, 2700mm long ceiling rails are delivered. Maximum longitudinal column travel = 2100mm. Weight shown is total weight including monitors, suspension, cabling and options.

TV 56" + Two 21" LCD Monitor Suspension		
Weight	636 lbs	(288.5 kg)
Heat Dissipation	1020 Btu/hr	(258 kcal/hr)

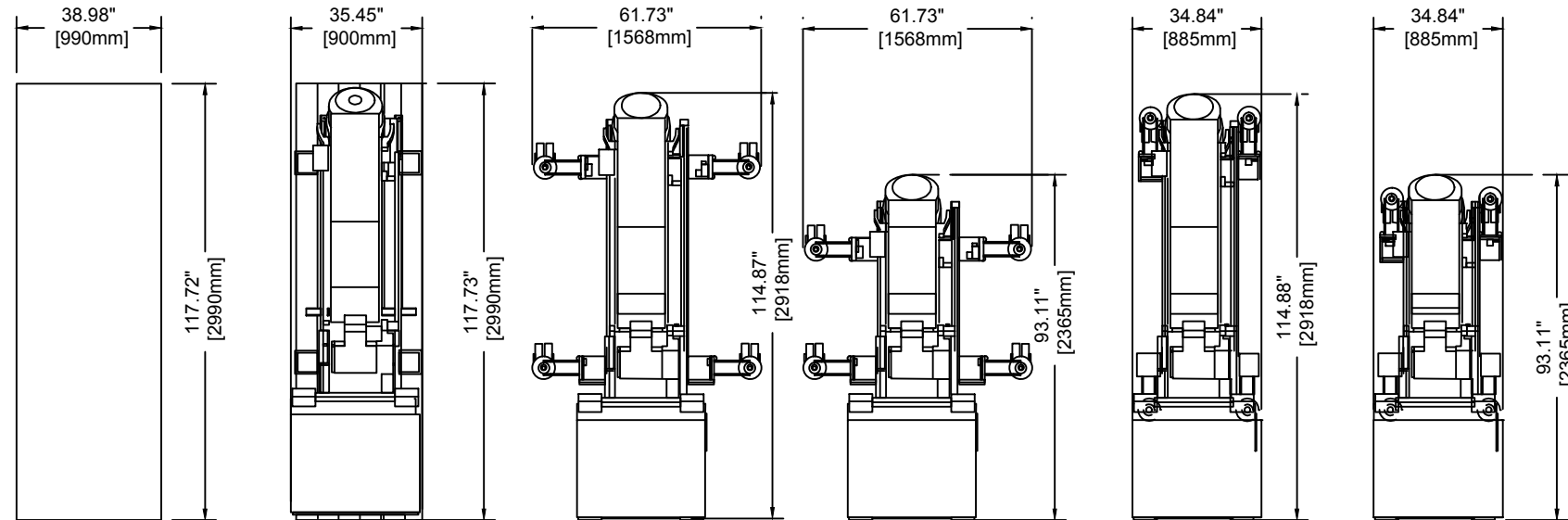
(09.0)

Detail - Poly Clea Ceiling (C-ARM) Transport Details



Transport Possibilities				
	Crate	Pallet	Klick Wheels Wide	Skateboards
Height	77.95" (1980mm)	76.22" (1936mm)	69.02" (1753mm)	77.76" (1975mm)
Weight	2050 lb (930 kg)	1940 lb (880 kg)	2061 lb (935 kg)	1764 lb (800 kg)

Detail - Poly Clea Ceiling (L-ARM) Transport Details



Transport Possibilities						
	Crate	Pallet	Klick Wheels Wide	Klick Wheels Wide Elevator	Klick Wheels Small	Klick Wheels Small Elevator
Height	57.09" (1450mm)	54.80" (1392mm)	49.25" (1251mm)	79.53" (2020mm)	49.25" (1251mm)	79.53" (2020mm)
Weight	2094 lb (950 kg)	1973 lb (895 kg)	1896 lb (860 kg)	1896 lb (860 kg)	1896 lb (860 kg)	1896 lb (860 kg)

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PHILIPS

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AD6

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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 1/16 inch (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 1/16" per 39" (2mm per meter).
- 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 - 177615 klbin/Rad
 The maximum deflection on the Philips rails must not exceed 1mm (0.04") caused by the static load (weight) of the ceiling stand.



Project D.S. Allura FD20 Ceiling St. Mary Corwin Pueblo, CO - Room 1383	Philips Contacts Project Manager: Michael Freund Contact Number: (303) 589-5113 Email: michael.freund@philips.com Drawn By: Florido, Ryan	Project Details Drawing Number N-WES110653 D Date Drawn: 12/7/2011 Quote: 1-TP9FK0 Rev 8 Order: 6600144945.010000
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SN

See S1 for Floor & Wall Support Layout.

Notes:

1. Anchors for items that are installed/anchored by customer/contractor shall be provided by customer/contractor.
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 listed in this document, the anchors shall be provided by customer/contractor and installed by Philips.
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 wall and/or floor support sufficient for the bolt forces shown on the details.

Floor & Wall Support Legend

		Item Number	Description	Detail Sheet
A	Furnished and installed/anchored by Philips (exceptions may exist, see Note 2)			
B	Furnished by customer/contractor and installed/anchored by customer/contractor			
C	Installed/anchored by customer/contractor			
D	Furnished by Philips and installed/anchored by contractor			
E	Existing			
F	Future			
G	Optional			
D	F1	AD7 Universal Floorplate	SD1	
B	F2	Support in wall for Control Room Connection Box (CY)	SD3	
A	F2	Anchors in wall for Control Room Connection Box (CY)	SD3	

See S2 for Ceiling Support Layout.

Ceiling Support Legend

		Item Number	Description	Detail Sheet
A	Furnished and installed by Philips			
B	Furnished by customer/contractor and installed by customer/contractor			
C	Installed by customer/contractor			
D	Furnished by Philips and installed by contractor			
E	Existing			
F	Future			
G	Optional			
A	C1	2 - Philips Clea Rails	SD1 SD2	
A	C2	2 - Philips Monitor Equipment Rails	SD2	
B	C3	Unistrut (P1001 or equal) - Mounted Below Finished Ceiling	SD2	
A	C4	Mavig Ceiling Track	AD4	

SL

Project Details

Drawing Number
N-WES110653 D
Date Drawn: 12/7/2011
Quote: 1-TP9FK0 Rev 8
Order: 6600144945.010000

Philips Contacts

Project Manager: Michael Freund
Contact Number: (303) 589-5113
Email: michael.freund@philips.com
Drawn By: Florido, Ryan

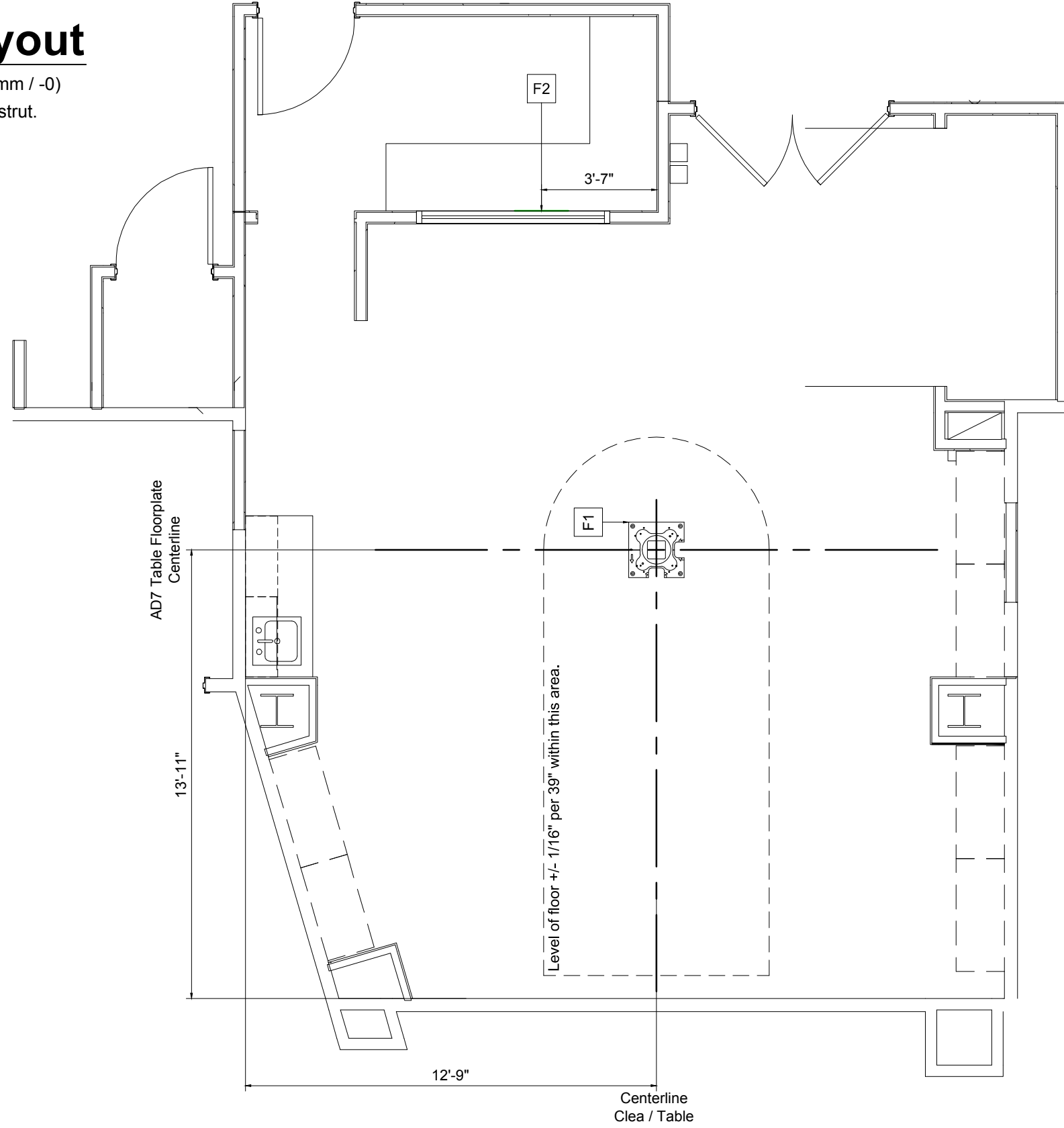
Project

D.S. Allura FD20 Ceiling
St. Mary Corwin
Pueblo, CO
- Room 1383



Floor & Wall Support Layout

Required Ceiling Height : 9' - 6 3/16 " , +3/8 / -0 (2900mm, +10mm / -0)
 Ceiling Height Measured from finished floor to bottom of Unistrut.

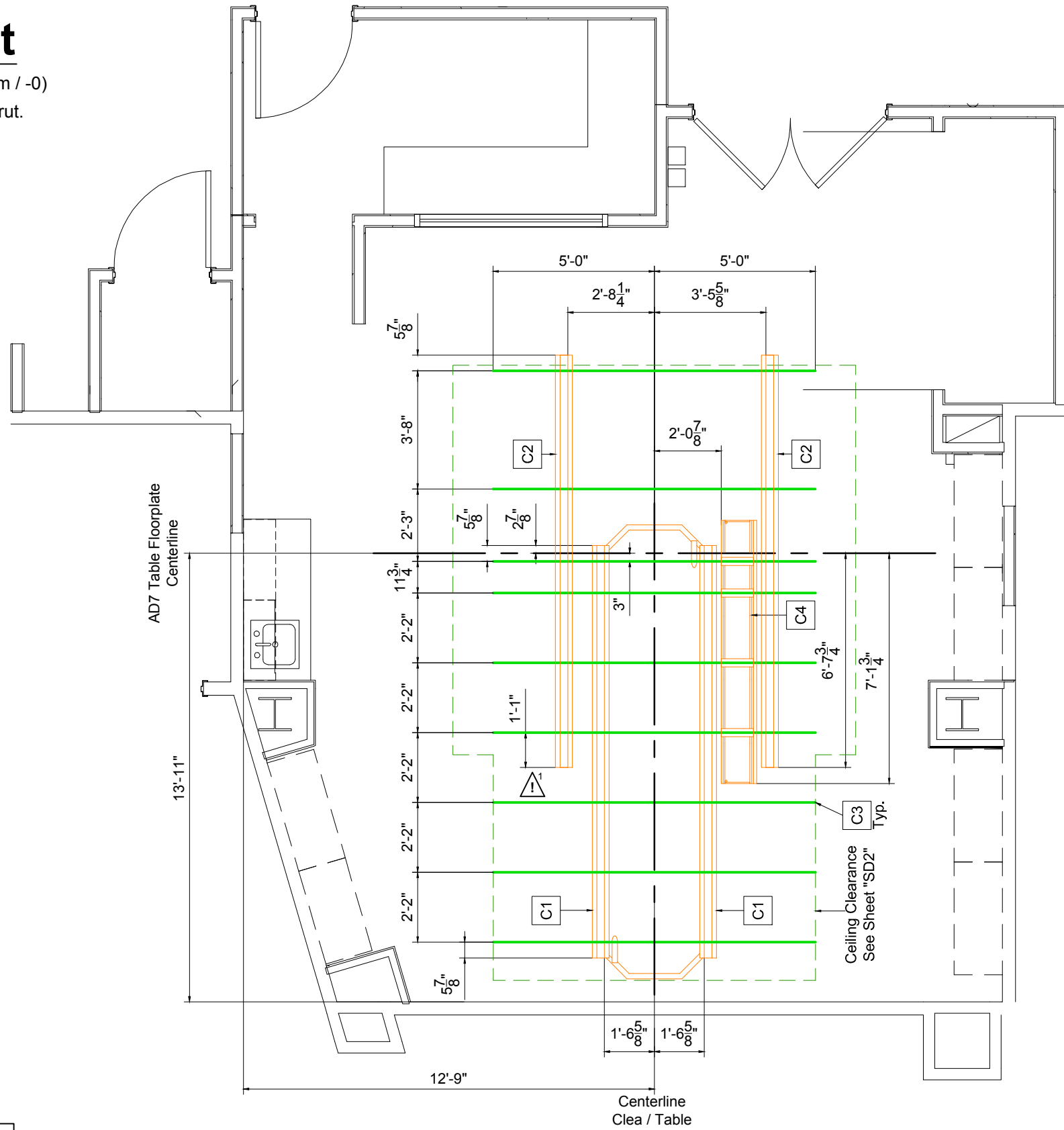


Refer to Floor/Wall Support Legend - Sheet SL

<p>S1</p>	<p>Project Details Drawing Number N-WES110653 D Date Drawn: 12/7/2011 Quote: 1-TP9FK0 Rev 8 Order: 6600144945.010000</p>	<p>Philips Contacts Project Manager: Michael Freund Contact Number: (303) 589-5113 Email: michael.freund@philips.com Drawn By: Florido, Ryan</p>	<p>Project D.S. Allura FD20 Ceiling St. Mary Corwin Pueblo, CO - Room 1383</p>
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Ceiling Support Layout

Required Ceiling Height : 9' - 6 3/16" , +3/8 / -0 (2900mm, +10mm / -0)
 Ceiling Height Measured from finished floor to bottom of Unistrut.



Planning Issues and Considerations

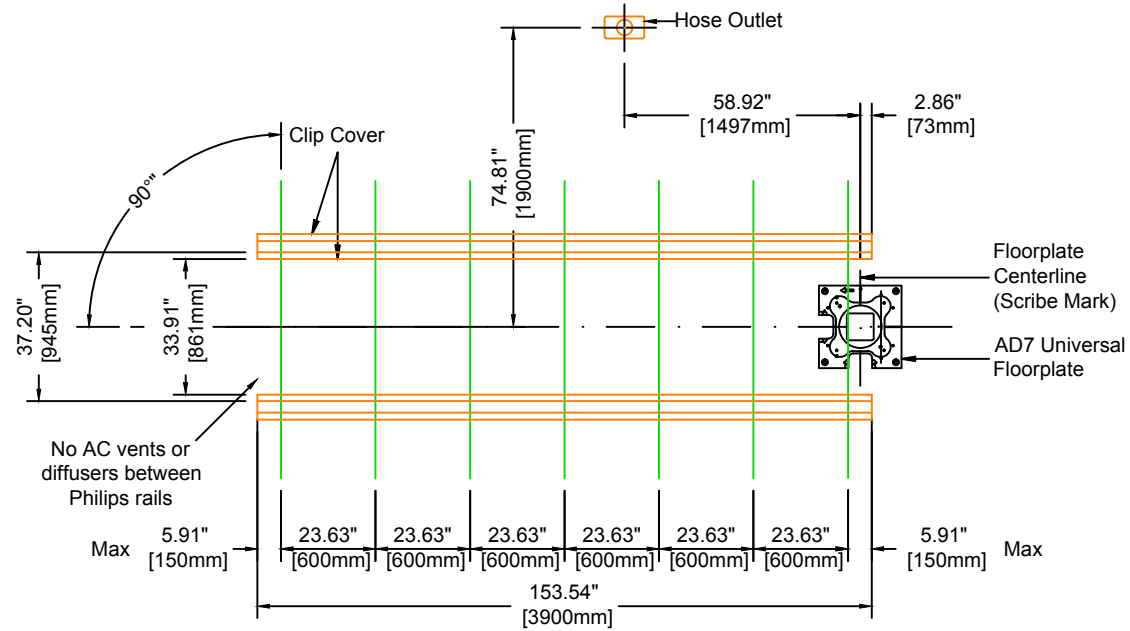
⚠ Relocate endstops of the Monitor rails to maintain proper weight distribution.
 (Maximum overhang = 5 7/8" (150 mm))

Refer to Ceiling Support Legend - Sheet SL

Project Details Drawing Number N-WES110653 D Date Drawn: 12/7/2011 Quote: 1-TP9FK0 Rev 8 Order: 6600144945.010000	Philips Contacts Project Manager: Michael Freund Contact Number: (303) 589-5113 Email: michael.freund@philips.com Drawn By: Florido, Ryan	Project D.S. Allura FD20 Ceiling St. Mary Corwin Pueblo, CO - Room 1383
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Detail - Structural Allura FD20 (Ceiling)



685mm (27") maximum allowed distance between unistrut (seven unistrut required)
 Floorplate supplied by Philips / installed by Customer.
 Counterbored holes are sized for 1/2" anchors per Seismic requirements.

Clea

Clea Forces:
 (Tension) Tmax = 2931 lbs/support
 (Shear) Vmax = 1227 lbs/support

AD7 Table

Floorplate to Floor Bolt Forces:
 (Tension) Tmax = 1950 lbs/bolt
 (Shear) Vmax = 776 lbs/bolt

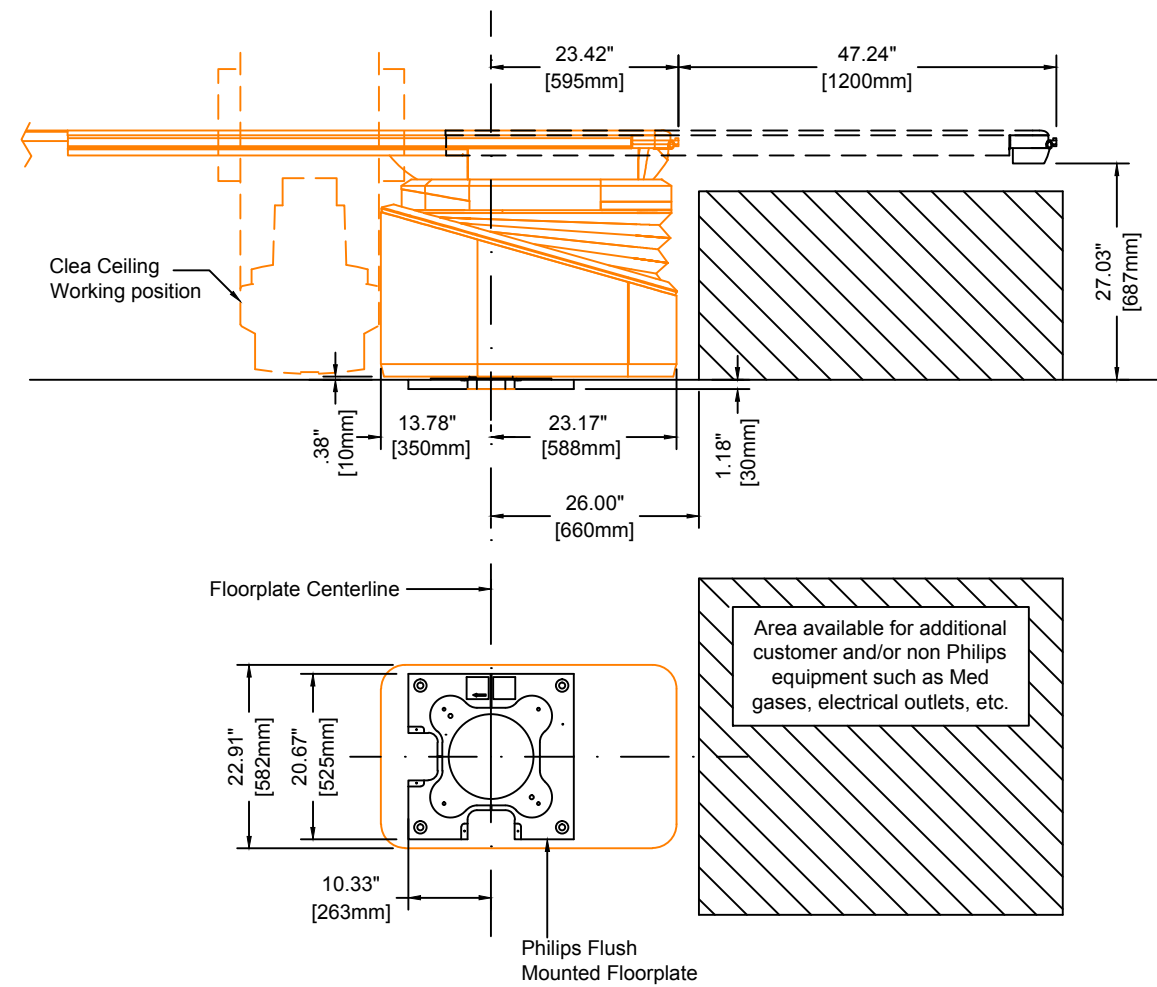
C1 F1

Note: The bearing force shown for the Clea is the maximum instantaneous equipment bearing load that can result from abusive use of the system. This force can occur at two locations simultaneously on the same Unistrut (or equal) rail. If seismic forces must be considered, please refer to the seismic calculation sheets provided by Philips for the specific system components.

(08.0)

Detail - Clea Ceiling / AD7 Table, Fixed/Pivot Base - Clearance Area

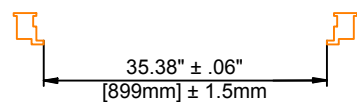
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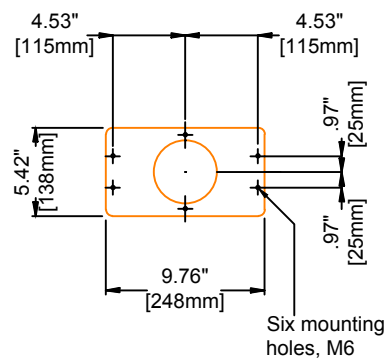
Detail - Clip Rail Spacing

(Not to scale)



Detail - Cable Hose Outlet

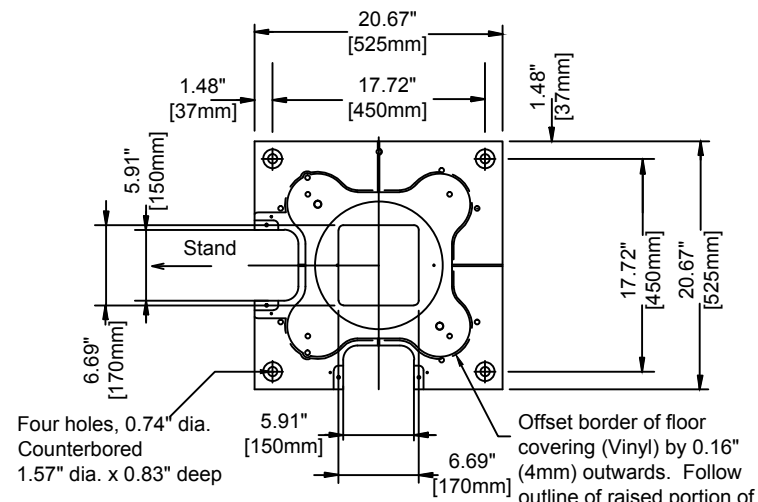
(Not to scale)



Detail - AD7 Universal Floorplate - Notes for Installation

(Not to scale)

1. 1.18" thick floorplate, flush mounted with top of slab.
2. Level within 1.5mm (1/16") across surface of plate.



Floorplate mounting to the building:

In case threaded rods are used and the nut protrudes above the floorplate surface, DO NOT GRIND DOWN THE NUT, but follow the procedure stated below to ensure the nut is flush with the floorplate surface.

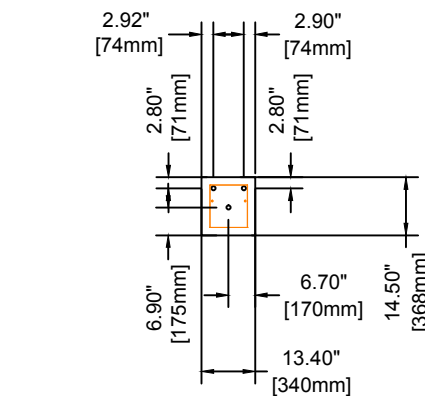
1. Use Jam nuts M16 (h=8.0 mm) or 5/8" (h=9.5 mm)
2. Use only 1 washer.
3. Use loctite 243 instead of a lock washer.
4. Use fastening torque wrench between 40 and 50 Nm.

F1

(08.0)

Detail - Wall Connection Box Plate Template

(Not to scale)



0.1" (3mm) thick template
 to be made locally and used for drilling holes (11.0)

Project
 D.S. Allura FD20 Ceiling
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 Pueblo, CO
 - Room 1383

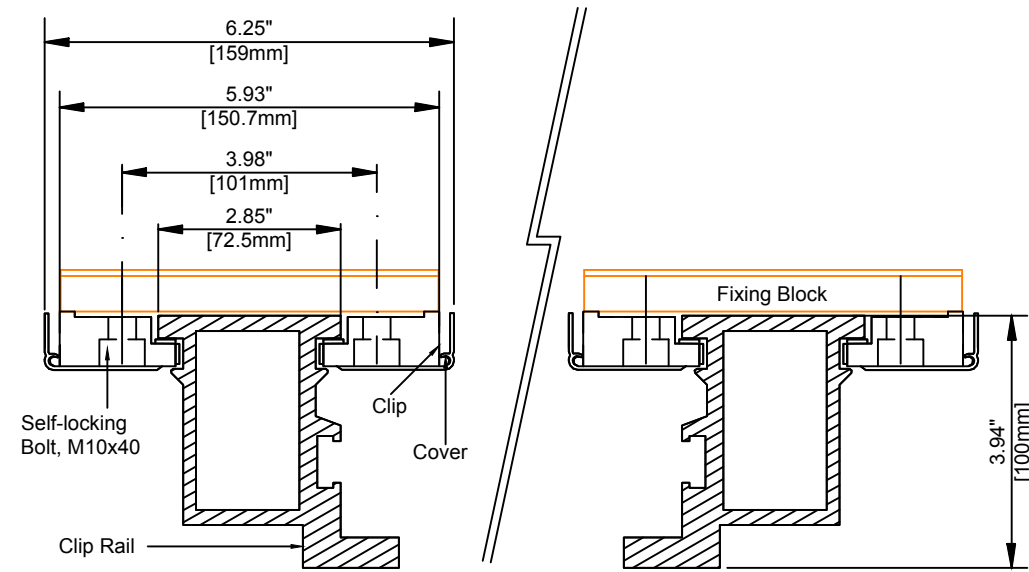
Philips Contacts
 Project Manager: Michael Freund
 Contact Number: (303) 589-5113
 Email: michael.freund@philips.com

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SD1

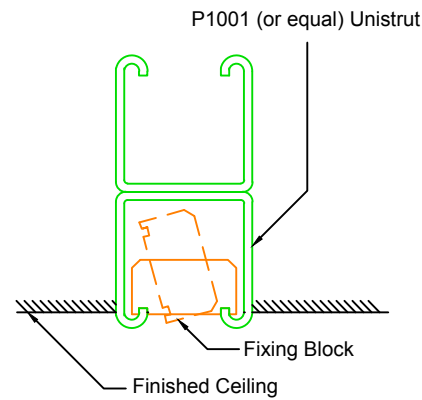
Detail - Clip Rail Cross-Section

(Not to scale)



Detail - Fixing Block for Philips Ceiling Rails (Clip Rails)

(Not to scale)



- * Philips does not specify the overhead equipment support structure. Unistrut (or equal) may or may not be used. If Unistrut are used, it is up to Unistrut and the structural engineer for the project to determine which of it's products are appropriate for each project.
- * Finished ceiling must **NOT** be lower than the bottom of the Unistrut in order to prevent damage to the finished ceiling during the installation of clip rails.
- * Nothing shall be attached to the Unistrut with any fastener that protrudes into the unistrut which would interfere with positioning of the fixing block.
- * Fixing blocks for Philips ceiling rails (Clip rails) are designed to be installed in P1001 Unistrut.
- * The inside of the Unistrut must be clear of obstructions (including paint).
- * Unistrut elements must be rigid and comply with the ceiling structure requirements. See SN sheet, line #4 "Ceiling Support Apparatus".
- * Finished ceiling height to be mounted 1/4" above bottom of Unistrut.

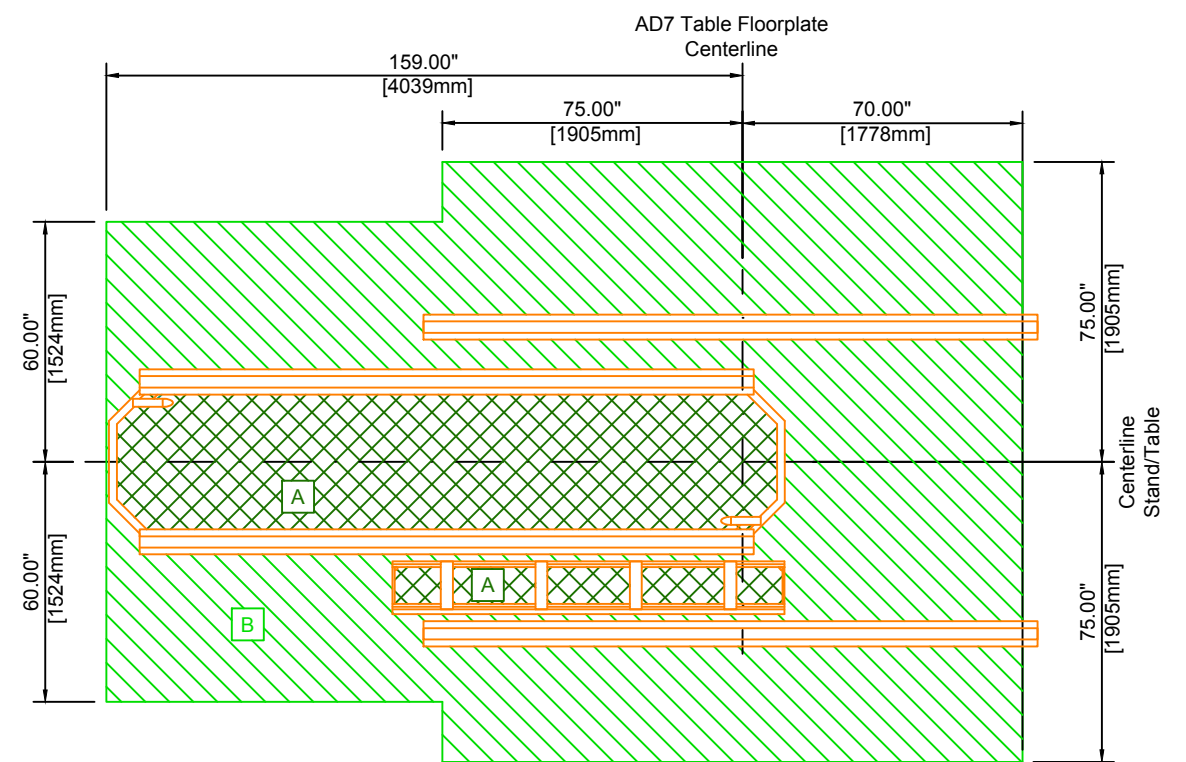


C1 C2 C3

(08.1)

Detail - Restricted Ceiling Area for Objects that Project Below Finished Ceiling

(Not site specific)



- A** No objects that project below finished ceiling are allowed in this area (lights, smoke detectors, sprinkler heads, etc).
- B** No objects that project more than 4.5" below finished ceiling are allowed in this area (lights, smoke detectors, sprinkler heads, soffit, etc).

(08.0)

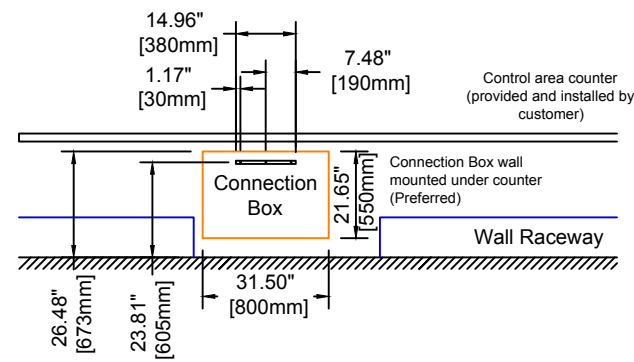
Project	D.S. Allura FD20 Ceiling
Project Manager:	Michael Freund
Contact Number:	(303) 589-5113
Email:	michael.freund@philips.com
Drawn By:	Florida, Ryan
Project Details	Drawing Number
	N-WES110653 D
	Date Drawn: 12/7/2011
	Quote: 1-TP9FK0 Rev 8
	Order: 6600144945.010000

Pre-Evaluated and -Approved Anchor Reference List for Philips Installers

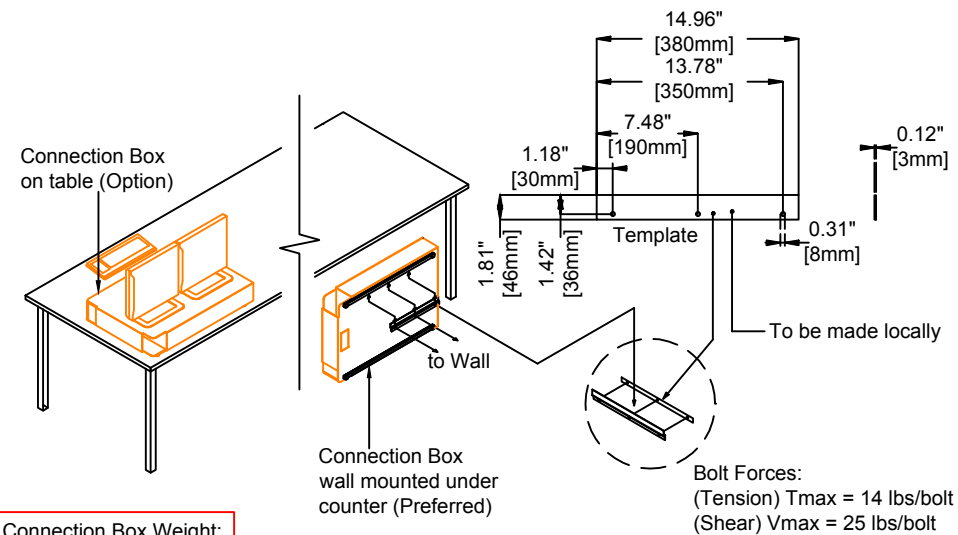
Anchors for items that are installed/anchored by customer/contractor shall be provided by customer/contractor. Anchors for items that are installed/anchored by Philips shall be provided by Philips. If customer's engineering documents specify anchors other than those listed below, the anchors shall be provided by customer/contractor and installed by Philips. 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 wall and/or floor support sufficient for the bolt forces shown on the details.

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: 3/8" x 2"L Spring Nuts: 3/8"	8	Unistrut
Control Room Connection Box (IXR)	A	Round Phillips Head Self Drilling Screws	#10-16 x 1 1/2"L	3	Drywall with minimum 20 gauge Steel backing
	B	SPAX Multipurpose flat head screw	#10 x 1 1/2"L	3	Drywall with minimum 20 gauge Steel backing
	C	Toggler Snaptoggle and (round head screws)	#BA and (#10-24 x 2 1/2"L)	3	Minimum 5/8" Drywall

Detail - Elevation View of Bolt Locations (11.0)



Detail - Connection Box Mounting Options (Not to scale)



Connection Box Weight:
66 lbs (30kg)

Notes:
Connection box needs to be electrically isolated from building steel.
Locate box within 6.5' (2 M) of the review module and monitors.

(08.0)

F2

Project
D.S. Allura FD20 Ceiling

St. Mary Corwin
Pueblo, CO

- Room 1383

Philips Contacts
Project Manager: Michael Freund
Contact Number: (303) 589-5113
Email: michael.freund@philips.com

Drawn By: Florido, Ryan

Project Details
Drawing Number
N-WES110653 D
Date Drawn: 12/7/2011
Quote: 1-TP9FK0 Rev 8
Order: 6600144945.010000

SD3

PHILIPS

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).

(03.1)

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.

On systems with a PDU, the ground conductor for the power feeder shall never be less than 1/2 the cross-sectional area of the phase conductors and never smaller than #5 AWG.

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:

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

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

4. 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.

(08.0)

General Electrical Information

1. General

The customer shall be solely responsible, at its expense, for preparation of the site, including any required electrical alterations. The site preparation shall be in accordance with this plan and specifications, the architectural/construction drawings and in compliance with all safety and electrical codes, the customer shall be solely responsible for 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, cables, wires, fittings, bushing, etc., As separately specified herein.

3. Electrical Ducts and Boxes

Electrical ducts and boxes shall be accessible and have removable covers. Floor ducts and boxes shall have watertight covers. Ducts shall be divided into as many as three separate channels by metal dividers, separately specified herein, to separate wiring and/or cables into groups as follows: Group A: power wiring and/or cables. Group B: signal and/or data and protective ground wiring and/or cables. Group C: x-ray high voltage cables, the use of 90 deg. ells is not acceptable. On ceiling duct and wall duct use 45 deg. bends at all corners. All intersecting points in duct to have cross over tunnels supplied and installed by contractor to maintain separation of cables.

4. Conduit

Conduit point - to - point runs shall be as direct as possible. Empty conduit runs used for cables may require pull boxes located along the run. Consult with Philips. A pull wire or cord shall be installed in each conduit run. All conduits which enter duct prior to their termination point must maintain separation from other cables via use of dividers, cross over tunnels, or conduit supplied and installed by contractor from entrance into duct to exit from duct. Do not use flex conduit unless approved by Philips Service.

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 required by code.

8. Dimmer Switches

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

(03.0)

Electrical Notes

1. The contractor will supply & install all breakers, shunt trip and incoming power to the breakers. The exact location of the breakers and shunt trips will be determined by the architect or contractor.

2. The contractor shall supply & install all pull boxes, raceways, conduit runs, stainless steel covers, etc. Conduit/raceways must be free from burrs and sharp edges over its entire length. A Greenlee pull string/measuring tape (part no. 435, or equivalent) shall be provided with conduit runs.

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

4. Provide and install 4 - 2" (50 mm) diameter. Chase nipples between adjacent wall boxes.

5. Electrical raceway shall be installed with removable covers. The raceway should be accessible for the entire length. In case of non - accessible floors, walls and ceilings, an adequate number of access hatches should be supplied to enable installation of cabling. Approved conduits may be substituted. All raceways will be designed in a manner that will not allow cables to fall out of the raceway when the covers are removed. In most cases, this will require above - ceiling raceway to be installed with the covers removable from the top. Raceway system as illustrated on this drawing are based upon length of furnished cables. Any changes in routing of raceway system could exceed maximum allowable length of furnished cables. Conduit or raceway above - ceiling must be kept as near to finished ceiling as possible.

6. Conduit sizes shall be verified by the architect, electrical engineer or contractor, in accordance with local or National Electrical Codes, whichever govern.

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

8. Electrical contractor shall install ground bond wires at conduit openings within wall boxes as required by national and local electrical codes. Ground bond wires and lugs shall be installed in such a way to prevent the inadvertent contact with the installed Philips equipment to maintain the Philips Equipotential Grounding Configuration and maintain patient safety. Install a #6 AWG stranded ground wire in the conduits from the Main Disconnect (CB) to the PDU and from the PDU to the MG wall box.

9. If the Philips system includes a PDU, the PDU is a "Separately Derived Source" by NEC standards, and must be ground according to NEC article 250-30.

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 .

(10.0)

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

PHILIPS

Project
D.S. Allura FD20 Ceiling

St. Mary Corwin
Pueblo, CO

- Room 1383

Philips Contacts

Project Manager: Michael Freund

Contact Number: (303) 589-5113

Email: michael.freund@philips.com

Drawn By: Florido, Ryan

Project Details

Drawing Number

N-WEST10653 D

Date Drawn: 12/7/2011

Quote: 1-TP9FK0 Rev 8

Order: 6600144945.010000

EN

THE INFORMATION IN THIS PACKAGE IS PROVIDED AS A CUSTOMER CONVENIENCE, AND IS NOT TO BE CONSTRUED AS ARCHITECTURAL DRAWINGS OR CONSTRUCTION DOCUMENTS. Philips assumes no liability nor offers any warranty for the fitness or adequacy of the premises or the utilities available at the premises in which the equipment is to be installed, used, or stored.

Electrical Legend		
A	Furnished and installed by Philips	
B	Furnished by customer/contractor and installed by customer/contractor	
C	Installed by customer/contractor	
D	Furnished by Philips and installed by contractor	
E	Existing	
F	Future	
G	Optional	
Item Number	Description	Detail Sheet
B CB	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
B ST	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)	
B GE	Ground electrode per N.E.C. 250-26, building steel preferred. (Not shown on plan)	
B PBG	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 PBK	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 1/2" (40mm) and (2) 2" (55mm) conduits through "PBK" cover plate to PDU cabinet.	ED1
D MG MP MA MB	19 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
B CY WM XIM UPS VB1 VB2 VB3 VB4 VB7 VB8 VUS	Grommet opening on "WR3". Approximate location shown is recommended and may be changed - verify relocation with local Philips Service.	
B MSA	10" (255mm) W x 10" (255mm) L x 6" (155mm) D floor box, under the floor with a 5" (130mm) core drill up to the underside of AD7 universal floorplate.	
B SP	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.	
B TV VB5	18" (460mm) W x 18" (460mm) L x 6" (155mm) D ceiling box, flush mounted with removable screw-type cover plate. Provide a 2 1/2" (65mm) round cutout (Two 2 1/2" (65mm) round cutouts are required for systems with two monitor carriages - verify with local Philips Service). VB5 mounted on monitor suspension.	
B WR1 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
B WR3	10" (255mm) W x 4" (105mm) D wall raceway, flush mounted with removable screw-type cover plate. "WR3" is at finished floor.	ED3
B ATY	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.	

Electrical Legend		
A	Furnished and installed by Philips	
B	Furnished by customer/contractor and installed by customer/contractor	
C	Installed by customer/contractor	
D	Furnished by Philips and installed by contractor	
E	Existing	
F	Future	
G	Optional	
Item Number	Description	Detail Sheet
B 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
B DS	Door Switch - 120V/5A switch limited to open when door is open. Mount in upper corner on strike side of main entry door(s) (Cooper no. 1665 or equivalent), if required by local code or physicist of record. See Sheet "ED2" diagram for connection details. (Not shown on plan)	ED2
B T	Analog phone line for service (convenience). (Not shown on plan)	
B N1	RJ45 type Ethernet 10/100/1000 Mbit network connector with access to customer's network. Locate within 10' (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.	N1
B N2	RJ45 type Ethernet 10/100/1000 Mbit network connector. Access to customer's network via their remote access server is needed for Remote Service Network (RSN) connectivity.	N1
B S	120V/20A dedicated duplex outlet for service in the equipment room. (Not shown on plan)	
B I	120V/20A dedicated duplex outlet for IH (Interventional Hardware), XIM (Xper Information Management) and IUPS (Interventional UPS).	
B V	120V/20A duplex outlet for each of the wall video boxes (VB1~VB8). Verify electrical requirements for customer provided equipment.	
B VB6	6" (155 mm)W x 6" (155 mm)H x 4" (105 mm)D pull box with removable screw-type cover plate, flush mounted. Exact height to be determined. Location shown is recommended and may be changed - verify relocation with local Philips Service.	
B F	120V/20A dedicated duplex outlet for Pedestal Injector.	
B V	120V/20A dedicated duplex outlet for IVUS (Volcano Intravascular Ultrasound).	
B SV	3" (80mm) flush conduit opening for IVUS system cables. Opening must be covered if the IVUS system is planned for future installation. See Sheet "E1" for exact location.	ED3

See E1 - E4 sheets for conduit and raceway requirements.

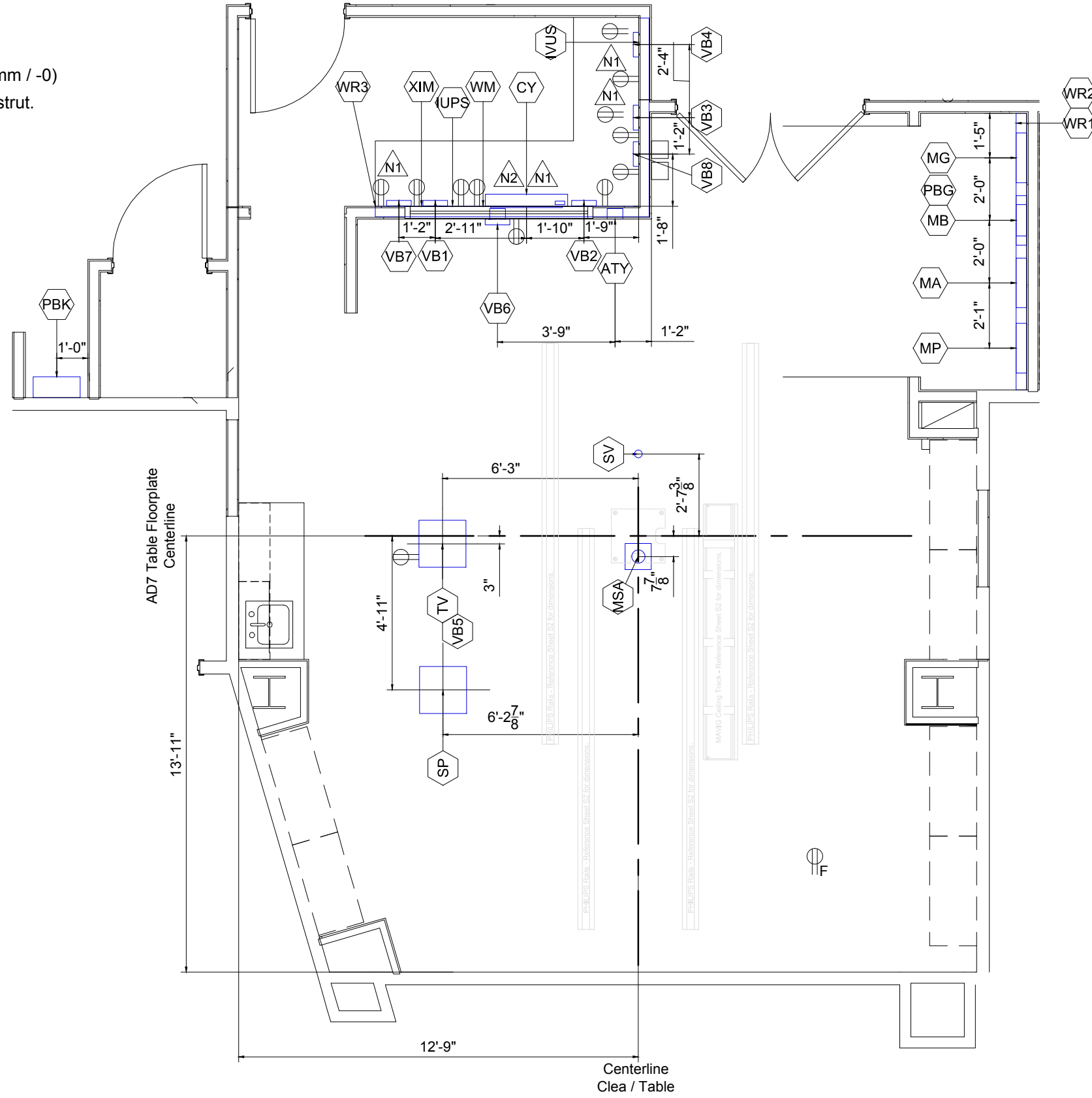
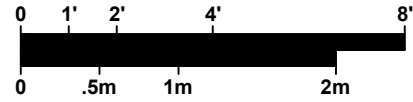
Project Details Drawing Number N-WES110653 D Date Drawn: 12/7/2011 Quote: 1-TP9FK0 Rev 8 Order: 6600144945.010000	Philips Contacts Project Manager: Michael Freund Contact Number: (303) 589-5113 Email: michael.freund@philips.com Drawn By: Florido, Ryan	Project D.S. Allura FD20 Ceiling St. Mary Corwin Pueblo, CO - Room 1383
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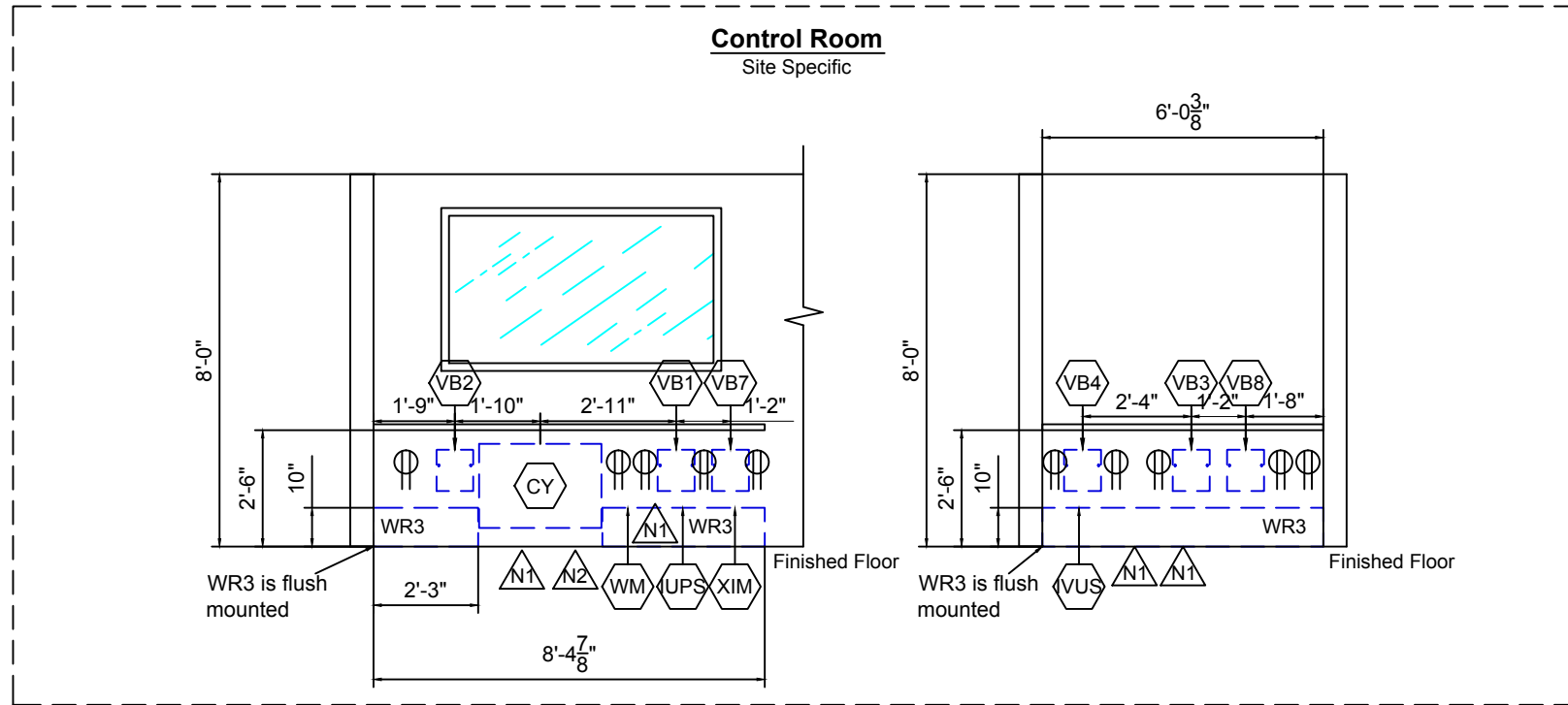
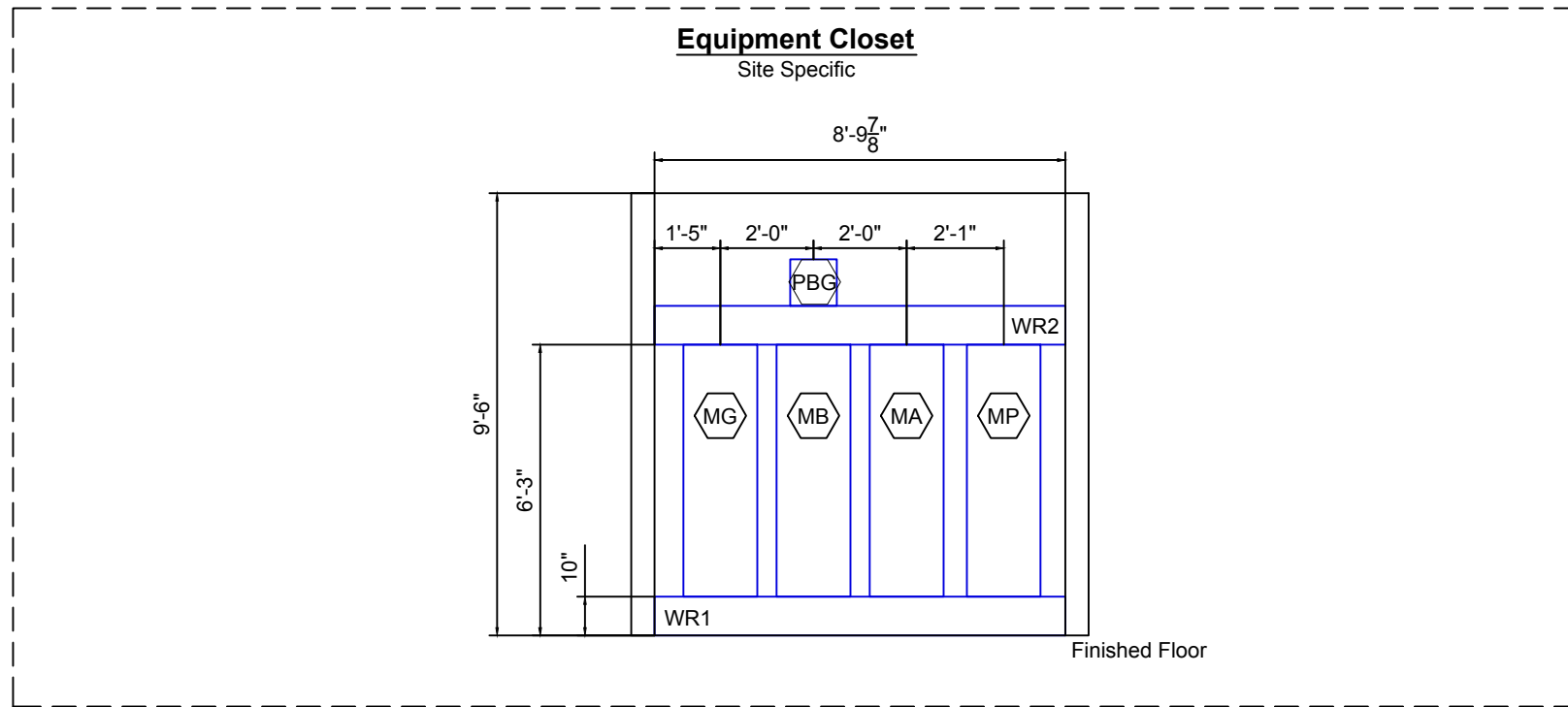
Electrical Layout

Required Ceiling Height : 9' - 6 3/16" , +3/8 / -0 (2900mm, +10mm / -0)
 Ceiling Height Measured from finished floor to bottom of Unistrut.



Refer to Electrical Legend - Sheet EL
 and Raceway/Conduit - Sheet E2-E4

Project Details Drawing Number N-WES110653 D Date Drawn: 12/7/2011 Quote: 1-TP9FK0 Rev 8 Order: 6600144945.010000	Philips Contacts Project Manager: Michael Freund Contact Number: (303) 589-5113 Email: michael.freund@philips.com Drawn By: Florido, Ryan	Project D.S. Allura FD20 Ceiling St. Mary Corwin Pueblo, CO - Room 1383
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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 floor.**
- * **Verify exact ceiling height of Equipment and Control Room Area.**
- * **Coordinate with facility to determine exact location of computers.**

Project	D.S. Allura FD20 Ceiling St. Mary Corwin Pueblo, CO - Room 1383
Philips Contacts	Project Manager: Michael Freund Contact Number: (303) 589-5113 Email: michael.freund@philips.com Drawn By: Florido, Ryan
Project Details	Drawing Number N-WES110653 D Date Drawn: 12/7/2011 Quote: 1-TP9FK0 Rev 8 Order: 6600144945.010000

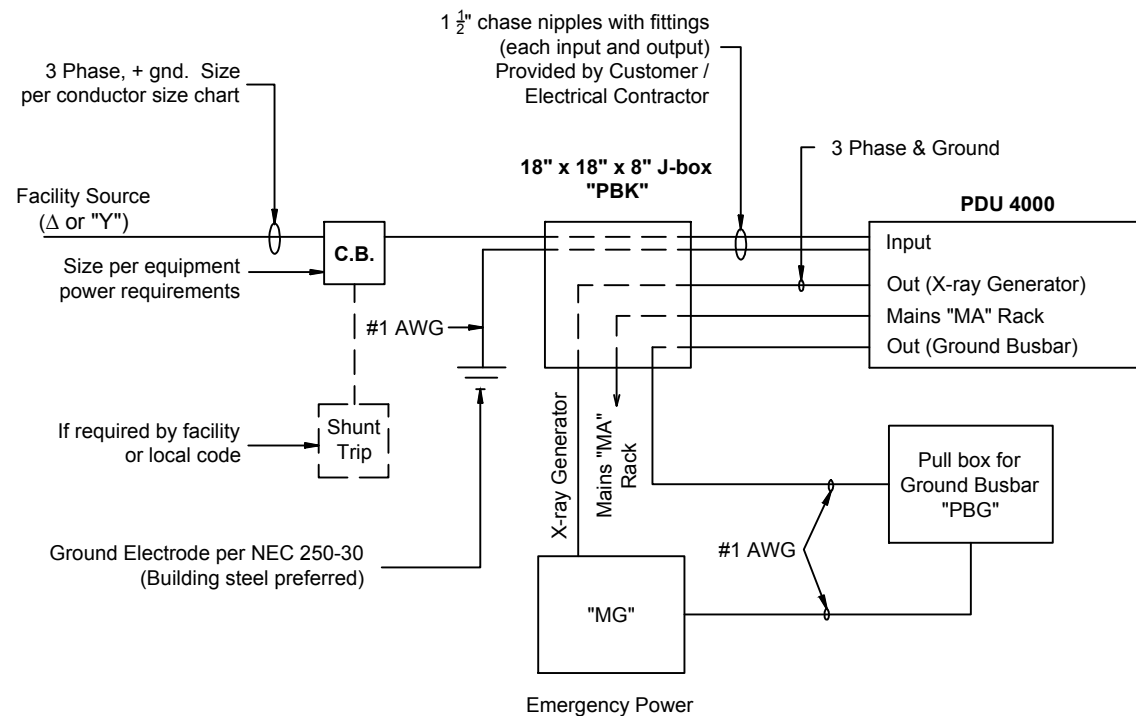
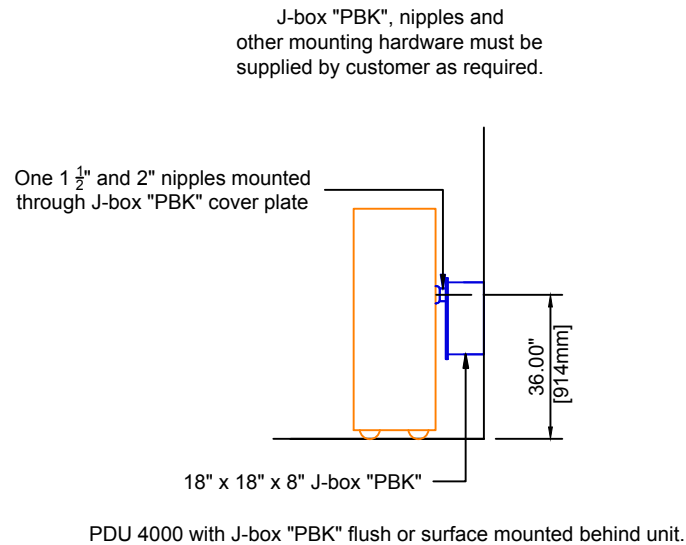
Conduit Required										
General Notes										
1. All conduit runs must take most direct route point to point. 2. All conduit runs must have a pull string.										
<table border="0"> <tr> <td style="vertical-align: top;"> A Conduit supplied/installed by contractor - Philips cables installed by Philips B Conduit supplied/installed by contractor - Philips cables installed by contractor C Conduits and cables supplied and installed by contractor D Conduit existing - cables supplied and installed by Philips E Conduit existing - cables supplied by Philips, installed by contractor F Conduit existing - cables supplied and installed by contractor G Optional equipment, verify with local Philips Service </td> <td style="vertical-align: top; text-align: center;"> * </td> <td style="vertical-align: top;"> P Power (AC) D Power (DC) G Ground S Signal H High Tension C Cooling Hose A Air Supply Hose </td> </tr> </table>								A Conduit supplied/installed by contractor - Philips cables installed by Philips B Conduit supplied/installed by contractor - Philips cables installed by contractor C Conduits and cables supplied and installed by contractor D Conduit existing - cables supplied and installed by Philips E Conduit existing - cables supplied by Philips, installed by contractor F Conduit existing - cables supplied and installed by contractor G Optional equipment, verify with local Philips Service	*	P Power (AC) D Power (DC) G Ground S Signal H High Tension C Cooling Hose A Air Supply Hose
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Run No.	From	To	Conduit Quantity	Cable Type (*)	Minimum Conduit Size	Maximum Conduit Length	Special Requirements			
C	1	Power Panel (CB)	1	(P)	Per N.E.C.	Per N.E.C.				
B	2	PDU Cabinet (PBK)	1	(P)	1 1/2"	-				
B	3	PDU Cabinet (PBK)	2	(P)	2"	-				
B	4	(CB) (PBK)	1	(P)	2"	50'				
C	5	(CB) (ST)	1	(P)	3/4"	50'				
C	6	(PBK) (GE)	1	(P)	3/4"	25'				
C	7	(PBG) Room Outlets	1	(P)	3/4"	-	See Sheet "ED2" for details.			
C	8	(MA) (WL)	1	(P)	3/4"	55'				
C	9	(ATY) (DS)	1	(S)	3/4"	55'				
A	10	(ATY) (MA)	1	(S)	2 1/2"	41'				
A	11	(ATY) (TV)	1	(S)	3/4"	75'				
A	12	(SP) (MG)	1	(H)	2 1/2"	28.5'	H.T. Cables. Extension Cables 13' (3962mm) = 41.5' (12649mm) Max			
A	13	(SP) (MG)	1	(P)	1"	28.5'	Extension Cables 13' (3962mm) = 41.5' (12649mm) Max			
A	14	(SP) (MG)	1	(S)	1 1/2"	28.5'	Extension Cables 13' (3962mm) = 41.5' (12649mm) Max			
A	15	(SP) (MP)	1	(S)	2 1/2"	33'				
A	16	(SP) (MP)	1	(P)	1"	33'				
A	17	(SP) (MP)	2	(C)	2"	33'	Cooling fluid hoses for tube.			
A	18	(SP) (MP)	2	(C)	2 1/2"	33'	Cooling fluid hoses for detector.			
A	19	(SP) (MA)	1	(S)	2 1/2"	36'				
A	20	(MSA) (MP)	1	(S)	2 1/2"	42'				
A	21	(MSA) (MP)	1	(P)	1"	42'				
A	22	(MSA) (MA)	1	(S)	2 1/2"	42'				
A	23	(MSA) (MA)	1	(P)	3/4"	42'				
A	24	(TV) (MB)	1	(P)	2"	52'				
A	25	(TV) (MB)	1	(S)	2 1/2"	52'				
A	26	(TV) (MP)	1	(S)	2"	52'				
A	27	(CY) (MP)	1	(S)	2"	50'				
A	28	(CY) (MA)	1	(P)	2"	55'				
A	29	(CY) (MA)	1	(S)	2 1/2"	55'				
A	30	(MA) (WM)	1	(S)	1"	82'				

Conduit Required										
General Notes										
1. All conduit runs must take most direct route point to point. 2. All conduit runs must have a pull string.										
<table border="0"> <tr> <td style="vertical-align: top;"> A Conduit supplied/installed by contractor - Philips cables installed by Philips B Conduit supplied/installed by contractor - Philips cables installed by contractor C Conduits and cables supplied and installed by contractor D Conduit existing - cables supplied and installed by Philips E Conduit existing - cables supplied by Philips, installed by contractor F Conduit existing - cables supplied and installed by contractor G Optional equipment, verify with local Philips Service </td> <td style="vertical-align: top; text-align: center;"> * </td> <td style="vertical-align: top;"> P Power (AC) D Power (DC) G Ground S Signal H High Tension C Cooling Hose A Air Supply Hose </td> </tr> </table>								A Conduit supplied/installed by contractor - Philips cables installed by Philips B Conduit supplied/installed by contractor - Philips cables installed by contractor C Conduits and cables supplied and installed by contractor D Conduit existing - cables supplied and installed by Philips E Conduit existing - cables supplied by Philips, installed by contractor F Conduit existing - cables supplied and installed by contractor G Optional equipment, verify with local Philips Service	*	P Power (AC) D Power (DC) G Ground S Signal H High Tension C Cooling Hose A Air Supply Hose
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Run No.	From	To	Conduit Quantity	Cable Type (*)	Minimum Conduit Size	Maximum Conduit Length	Special Requirements			
G	31	(TV) Control Room	2	(S)	1 1/2"	-	For optional equipment (Interventional Hardware, ViewForum, Xcelera, etc).			
G	32	(MSA) Control Room	2	(S)	1 1/2"	-	For future options (Bolus Chase, 3D-RA and Tableside Analysis Module).			
A	33	(MSA) (UPS)	1	(P)	1 1/2"	91'				
A	34	(MSA) (XIM)	1	(P)	3/4"	91'	Ground.			
A	35	(MSA) (XIM)	1	(S)	1 1/2"	91'				
A	36	(TV) (UPS)	1	(P)	1 1/2"	91'				
A	37	(TV) (XIM)	1	(S)	1 1/2"	62'				
A	38	(XIM) (PBG)	1	(P)	3/4"	-	Ground.			
A	39	(VB1) (MB)	1	(S)	1 1/2"	68'				
A	40	(VB2) (MB)	1	(S)	1 1/2"	68'				
A	41	(VB3) (MB)	1	(S)	1 1/2"	68'				
A	42	(VB4) (MB)	1	(S)	1 1/2"	68'				
A	43	(VB5) (MB)	1	(S)	1 1/2"	68'				
A	44	(VB6) (MB)	1	(S)	1 1/2"	68'				
A	45	(VB7) (MB)	1	(S)	1 1/2"	68'				
A	46	(VB8) (MB)	1	(S)	1 1/2"	68'				
A	47	(VB6) (CY)	1	(S)	1/2"	68'				
A	48	(PBK) (MG)	1	(P)	2"	50'				
A	49	(PBK) (MA)	1	(P)	2"	50'				
C	50	(PBK) (PBG)	1	(G)	3/4"	50'				
A	51	(VUS) (SV)	1	(S)	3"	75'	Conduit opening must be covered if the IVUS system is planned for future installation.			
A	52	(VB5) (CY)	1	(S)	1/2"	68'				

Project Details Drawing Number N-WEST110653 D Date Drawn: 12/7/2011 Quote: 1-TP9FK0 Rev 8 Order: 6600144945.010000	Philips Contacts Project Manager: Michael Freund Contact Number: (303) 589-5113 Email: michael.freund@philips.com Drawn By: Florido, Ryan	Project D.S. Allura FD20 Ceiling St. Mary Corwin Pueblo, CO - Room 1383
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Detail - PDU 4000 Mounting Detail



Note: Conductors, destinations, and number of conduit runs from PDU to J-box "PBK" and from J-box to equipment will vary from system to system. Consult individual site plans for detailed conduit schedules.

Diagram - PDU 4000 Electrical Interface (00.0)



Power Quality Requirements

Velara 100KW with PDU 4000

Power Output:	100KW
Supply Configuration:	3 phase, 3 wire power and ground, Delta or wye 3 phase, 4 wire power w/ Neutral + ground, wye
Nominal Line Voltage:	480 VAC, 60 Hz
Line Voltage Variation:	\pm 10% steady-state
Line Voltage Balance:	2% maximum of nominal voltage between phases
Frequency Variation:	\pm 1.0 Hz
Voltage Surges:	To 110% of steady-state voltage 100 msecs. Maximum duration, 6 per hour maximum
Voltage Sags:	To 90% of steady-state voltage 100 msecs. Maximum duration, 6 per hour maximum
Line Impulses:	1000 VPK above phase-neutral RMS absolute maximum. No more than 1 impulse per hour to exceed 500 VPK.
Neutral-Ground Voltage:	2.0 volts maximum RMS value
Neutral-Ground Impulses:	No more than 1 per hour that exceeds 25 volts and 1 Mjoule
High Frequency Noise:	3.0 volts steady-state maximum. Over 3.0 volts permitted for 100 msec. maximum, 1 per hour max.
Grounded Conductor Impedance:	0.1 Ohms @ 60 hz. maximum

Branch Circuit and Wire Gauge Requirements

Velara 100KW with PDU 4000

Branch Power:	225 KVA
Max Stand by Current:	8 Amps. @ 3 mA, 110 KVP continuous
Circuit Breaker:	3 pole, 125 amperes
Maximum Instantaneous Power:	201 KVA (1000 mA @ 100 KVP)

Recommended conductor sizes for 1% impedance of branch conductors to circuit breaker (CB). Based on 20° copper conductors:

1/0 AWG	480VAC	95ft
2/0 AWG	120ft	
3/0 AWG	151ft	
4/0 AWG	193ft	
250 KCM	226ft	
300 KCM	271ft	
400 KCM	365ft	

Inst. Current @ CB Panel 242 A

Max. Phase-phase impedance @ CB Panel \leq 200 m Ω

Max. Load Voltage Drop @ CB Panel 18.2 V

Percent Regulation at Maximum Load @ CB Panel 3.8%

Output Voltage PDU 4000:	480 VAC \pm 10%
Max Inst. Current @ PDU output:	305 Amps
Max Phase-Phase Impedance:	\leq 200 m Ω @ PDU output
Max Load Voltage Drop:	24.4 V @ PDU output
Percent Regulation at Max. Load:	6.4% @ PDU output

Minimum copper wire size, circuit breaker to PDU: #1 - Maximum 50' in length.



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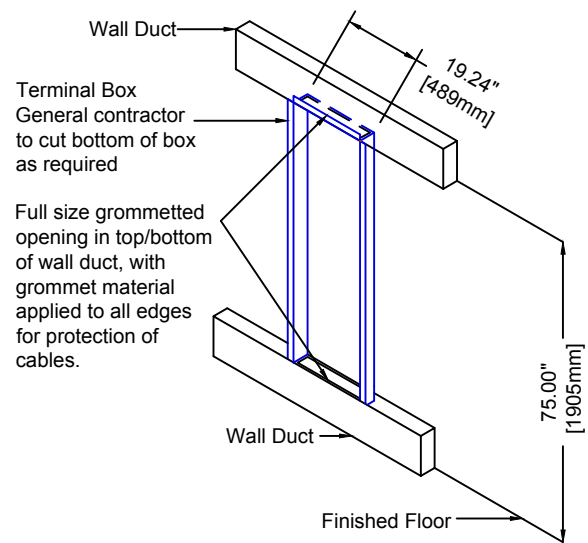
Project
D.S. Allura FD20 Ceiling
St. Mary Corwin
Pueblo, CO
- Room 1383

Philips Contacts
Project Manager: Michael Freund
Contact Number: (303) 589-5113
Email: michael.freund@philips.com
Drawn By: Florido, Ryan

Project Details
Drawing Number
N-WEST110653 D
Date Drawn: 12/7/2011
Quote: 1-TP9FK0 Rev 8
Order: 6600144945.010000

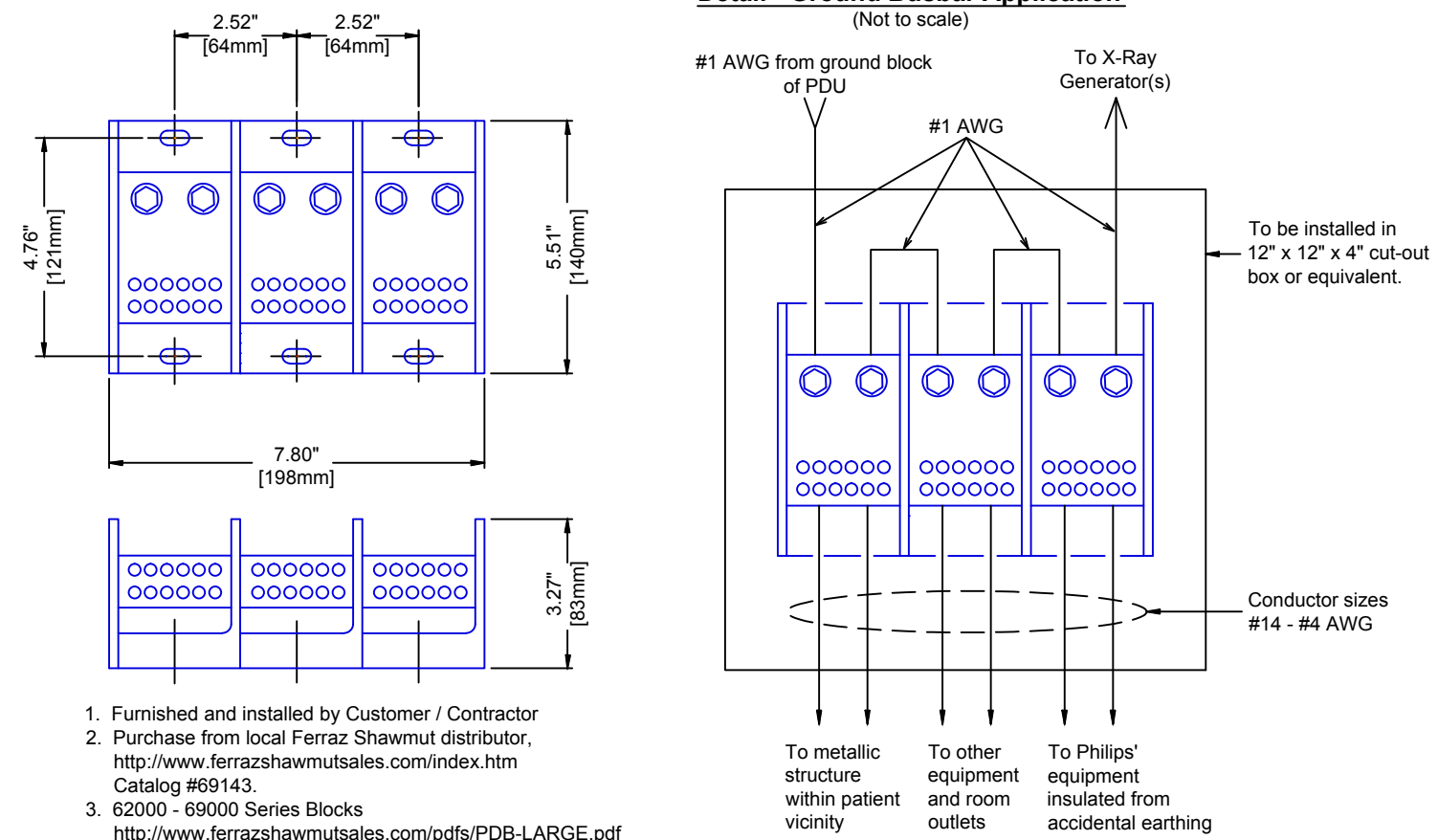
ED1

Detail - Wall Box Mounting
(Not to scale)



(08.0)

Detail - Ground Busbar Application
(Not to scale)



1. Furnished and installed by Customer / Contractor
2. Purchase from local Ferraz Shawmut distributor, <http://www.ferrazshawmut.com/index.htm> Catalog #69143.
3. 62000 - 69000 Series Blocks <http://www.ferrazshawmut.com/pdfs/PDB-LARGE.pdf>

Invasive Procedures

This equipment may be used for invasive procedures; therefore, the area to be installed is classified as critical care area per NFPA-99 and NFPA-70 (NEC). These documents specify maximum touch voltages and ground impedance in these areas.

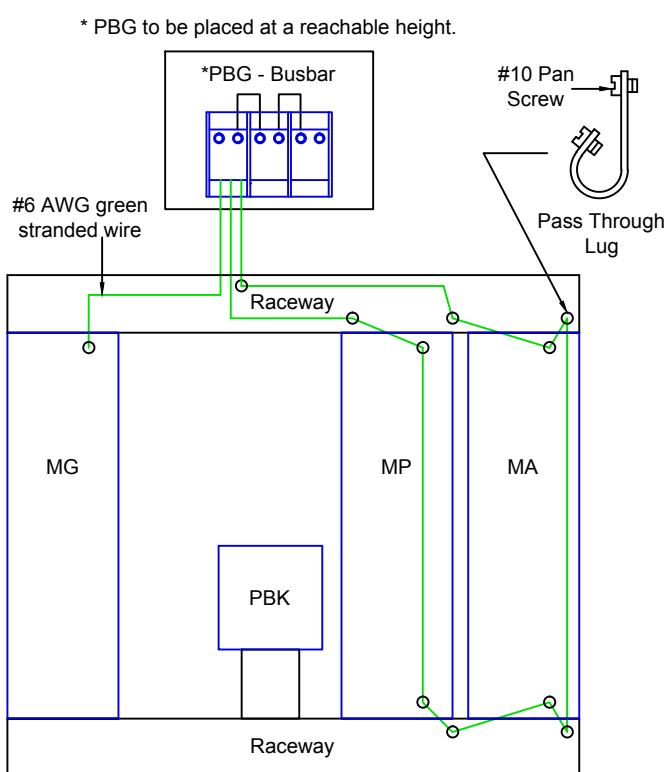
Test performed by GSSNA service ensure that these specifications are met by the GSSNA equipment. It is the facility's responsibility to ensure that these specifications are met by the wall outlet, facility structure, and other equipment not installed by GSSNA.

The GSSNA specified "Central Ground Busbar" serves as a ground reference for GSSNA equipment. It may also serve as the "Reference Grounding Point" of the room as defined in NFPA-99 (3-5.2.1.2) for non-PMSNA equipment.



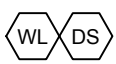
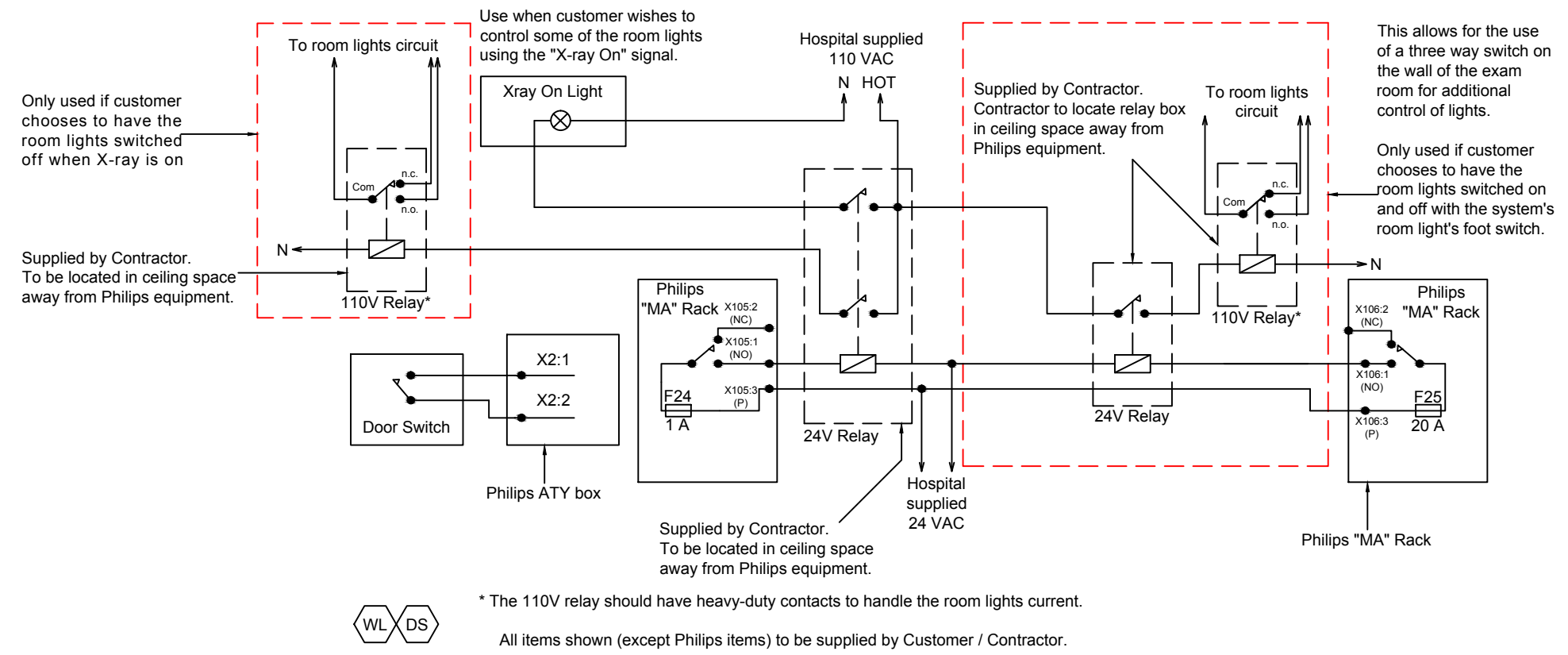
(08.0)

Detail - Grounding
(Not to scale)
(Not site specific)



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(08.0)



* The 110V relay should have heavy-duty contacts to handle the room lights current.

All items shown (except Philips items) to be supplied by Customer / Contractor.

Diagram - Typical Connection of X-Ray On Light, Door Switch, & Room Lights

(08.0)

Project
D.S. Allura FD20 Ceiling
St. Mary Corwin
Pueblo, CO
- Room 1383

Philips Contacts
Project Manager: Michael Freund
Contact Number: (303) 589-5113
Email: michael.freund@philips.com

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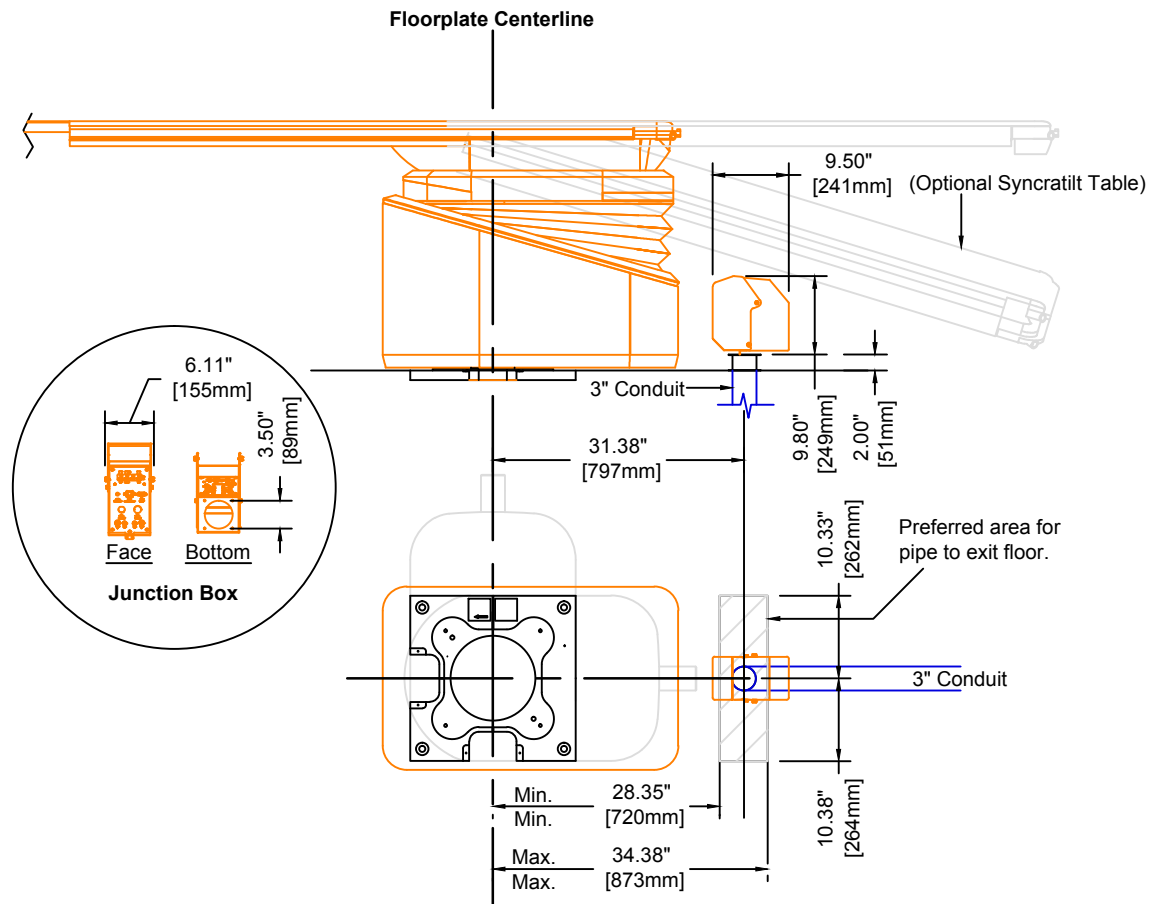
ED2

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Detail - Volcano IVUS: Pre-Installation Data Area for Pipe to Exit Floor

(Not to scale)

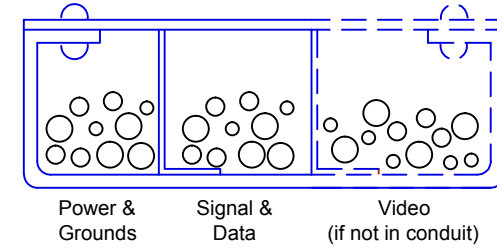


Note: 3" (80mm) conduit opening must be covered if the IVUS system is planned for future installation

(08.0)

Detail - Cable Trough Divisions

- Troughs or ducts must be separated by metal barriers into three sections:
1. High voltage (H.T.) cables to be run separately from all cables.
 2. Power cables and ground cables can be run together.
 3. Signal cables and data cables can be run together but must be separated from power cables.
 4. Video cables to be run separately from all other cables.



5. It is important that all cables are placed in the appropriate trough and at no given point do any cables from one division cross cables from another. Trough separation must be continuous from the beginning to the end of the run. Utilize crossover tunnels as appropriate.
6. Trough or ducts: steel with steel dividers grounded to building ground.
7. Contractor to provide cable restraints in all troughs.
8. Acceptable cross-overs: Walker DuctCat. #RPD10-TUN-3C / Square D Cat. #RSV122ST



(10.0)

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	ED3	

Philips Healthcare Remote Services Network (RSN)

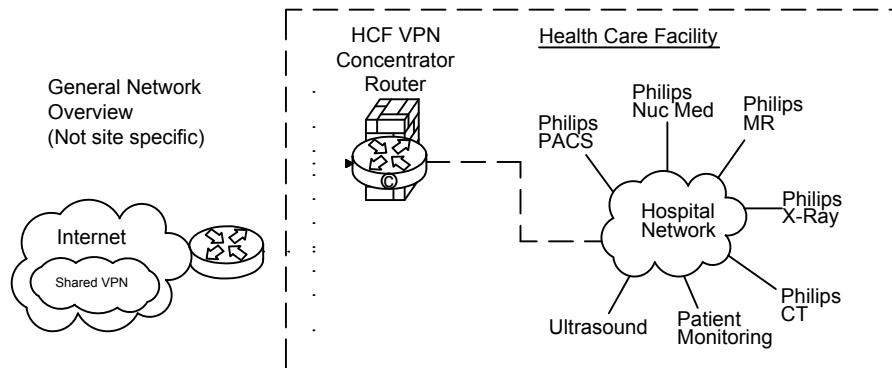
Secure broadband connection required for Philips remote technical support, diagnostics, and applications assistance

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

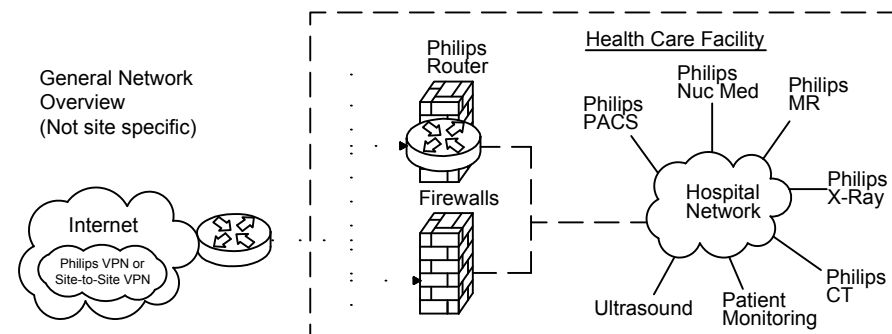
This connectivity method is designed for customers who have a dedicated high speed connection for Philips equipment.

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.

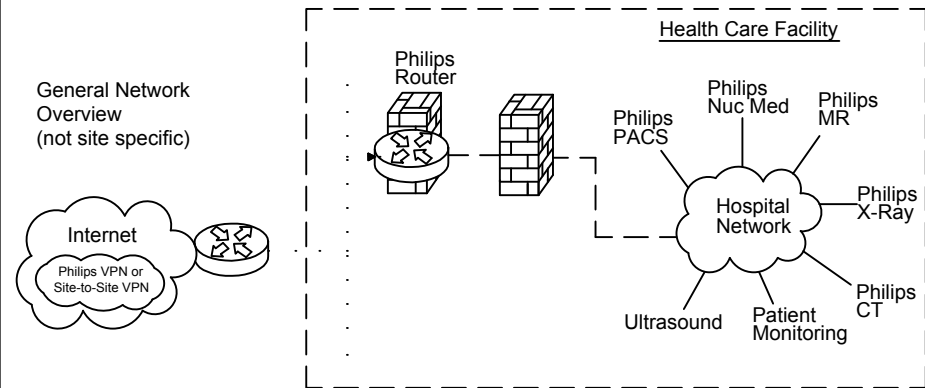


Action Required by Hospital:

- 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.

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

This connectivity method is designed for customers who prefer a Philips RSN Router installed on site by setting up an IP-Based policy allowing access thru existing HCF Firewall to Philips equipment.

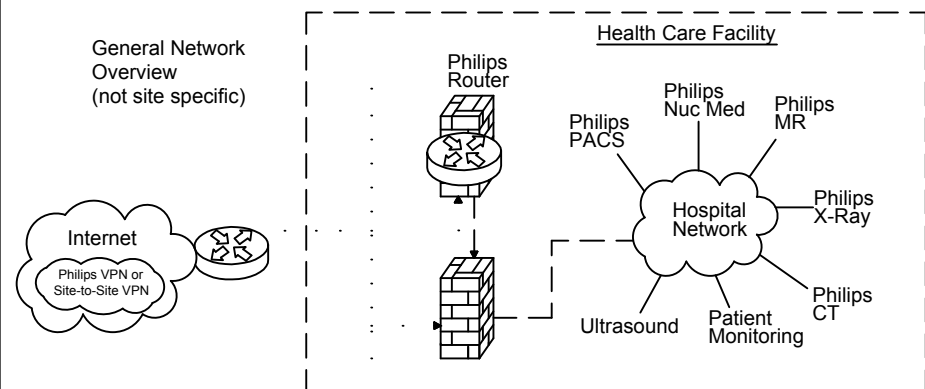


Action Required by Hospital:

- 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 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

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

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.
- Doors installed.
- Floor leveled according to Philips drawings and specifications.
- Floors are tiled/covered finished. Flooring is covered with protective covering (scratch protection).
- Ceiling lights installed.
- 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.
- HVAC environmental equipment installed and working according to Philips specifications.
- Ceiling installation completed.
- Electrical preparation according to Philips specifications.
- All network cabling, drops installed according to Philips specifications (including hardcopy cameras).
- All pre-cabling identified on Philips drawings has been installed.
- Pre-move survey completed - Delivery route identified.
- Lead glass installed ***.
- X-ray warning lights installed ***.
- Dedicated phone line for modem use***.
- Room has been cleaned ***.
- Cabinets and casework installed***.
- RSN survey completed and submitted
- Philips RSN Champion contacted.

Approved for Delivery

Project Manager Date

Service Engineer Date

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

Project Details	Philips Contacts	Project	
Drawing Number N-WEST110653 D Date Drawn: 12/7/2011 Quote: 1-TP9FK0 Rev 8 Order: 6600144945.010000	Project Manager: Michael Freund Contact Number: (303) 589-5113 Email: michael.freund@philips.com Drawn By: Florido, Ryan	D.S. Allura FD20 Ceiling St. Mary Corwin Pueblo, CO - Room 1383	CHK

