SECTION 00 90 02
BIDDING AND CONTRACT REQUIREMENTS
ADDENDUM NUMBER 2

Demonica Kemper Architects
125 N. Halsted Street, Suite 301
Chicago, IL 60661
312.496.0000

To: Prospective Bidders

Issued: March 7, 2025

Re: ADDENDUM NUMBER (2) TO THE BIDDING DOCUMENTS FOR

McHenry County College
2024 Health Science Renovations
Architect's Project Number: 24-032

This addendum forms a part of the bidding and contract documents and modifies the original bidding documents dated February 18, 2025. Acknowledge receipt of this addendum in the space provided on Bid Form. FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.

ADDENDA TO THE PROJECT MANUAL

1. None

ADDENDA TO THE DRAWINGS

ARCHITECTURAL
1. A1.10, A10.00
    - **a.** **REVISE** notes and wall types to clarify extent of lead lined walls required. Refer to RFI responses for additional information.
    - **b.** **ADD** new work note 11 to clarify wall infill requirements in E116A.

ELECTRICAL
1. E1.10 - FLOOR PLANS -LIGHTING
    - a. **REVISE** lighting layout in the X-Ray Room E116C as shown.

2. E1.20 - FLOOR PLANS -POWER
    - a. **REVISE** raceway WD-1 length in the X-Ray Room E116C as shown.
    - b. **REVISE** keynote #9 as shown.

3. E3.00 - ELECTRICAL ONE LINE DIAGRAM
    - a. **REVISE** one line diagram as shown.
    - b. **REVISE** panel schedule X as shown.

CLARIFICATIONS

1. Refer to attached for the site specific x-ray drawings for reference. Contractor is responsible for reviewing all utility and system support requirements and providing and installing the necessary utilities and uni-strut support system for the x-ray system.

2. Pre-Bid RFI #1 - Can you confirm whether or not the curtains will have mesh at the top of them?

A. RESPONSE: There will be mesh provided at the top of the curtains. Refer to the curtain and track specification 10 21 23 for details.

3. Pre-Bid RFI #2 - Can you confirm the deck height for both the floors?
   A. RESPONSE: Per the existing drawings, the 2nd floor deck is +/- 12'-10 ½" above the first finished floor slab and the roof deck is +/- 12'-9 ¼" above the second finished floor slab.

4. Pre-Bid RFI #3 - Is any of the HM door frames to be lead-lined? The only lead-lined HM frames shown are Window frame Elevations BB & CC.
   A. RESPONSE: No hollow metal door frames are required to be lead lined. The only HM frame requiring a lead lining is window elevation BB as indicated in detail 16/A7.51. Refer to Addendum #2 for clarification.

5. Pre-Bid RFI #4 - Please confirm the S3A type C- X-ray wall extent in plans, as there is S3A in wall type A-GYP BD each side and S3A in wall type C- X-RAY wall in partition wall types.
   A. RESPONSE: Refer to addendum #2 for wall type clarification.

6. Pre-Bid RFI #5 - (2/A1.10) Floor Plan – Level-1 Radiology calls for wall type S3F, south wall in sonography lab. S3F is not included in wall partition types.
   A. RESPONSE: Refer to addendum #2 for wall infill clarification.

7. Pre-Bid RFI #6 - Should the ceilings/ floors/glazing at the X-ray rooms be lead-lined?
   A. RESPONSE: There is no lead lining required for ceilings, floors, or glazing.

This addendum consists of 2 pages, excluding attachments.

END 00 90 02.

Attachments:
1. Philips X-Ray Drawings, N-MID250009 A
2. A1.10, A10.00
3. E1.10, E1.20, E3.00

PHILIPS

www.healthcare.philips.com

Final Site Preparation Support Document

The equipment components shown in this drawing package are based on the current proposed purchase and are subject to change if modifications are made to the configuration.

*Photo shown is not site specific.

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.	Date	Revision Descriptions	By
00	1/14/2025	Created preliminary site preparation support document per order: 6600717967.010000.	ML
A	2/25/2025	Created final site preparation support document per order: 6600717967.010000 for Option 1. No equipment changes.	ML

Table of Contents

PHILIPS

Project
Radiography 7300 C
Plus VS
McHenry County College
Crystal Lake, IL
Room: Rad E116C

Philips Contacts
Project Manager: Keith Miller
Contact Number: (630) 461-6567
Email: keith.miller@philips.com
Drawn By: Minsey Lee

Project Details
Drawing Number
N-MID250009 A
Date Drawn: 2/25/2025
Quote: Q-00383092
Order: 6600717967.010000

C1

General Specifications

1. Planning, Design, and Implementation Process
The multidisciplinary project team should be assembled as early as possible in the design process. The multidisciplinary team should include administrators, clinicians, infection preventionists, architects and other design professionals, facility managers, safety officers, security managers, users of equipment, and support staff relevant to the areas affected by the project as well as those with knowledge of the organization's functional goal for the project. Inclusion of patient advocates/consumers, A/E consultants, and construction specialists should be considered. FGI 2018 APPENDIX A1.2-1.2

2. 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.

3. 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, and shall bear any expense in obtaining same or in complying with any ordinances and statutes.

4. 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.)

5. Asbestos and Other Toxic Substances
Philips assumes that there is no hazardous material contained in project site. The customer is responsible for the removal of any materials, including but not limited to asbestos, deemed hazardous by local authorities, the EPA, OSHA, or any other authority having jurisdiction over the work. If such materials are discovered at any time that the work is proceeding, the work will immediately cease, the owner will be notified, and the work will again proceed after the owner has removed all of the hazardous material from the job site.

6. Labor
In the event local labor conditions make it impossible or undersirable 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.

7. Schedule
The general contractor shall 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.

8. 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.

9. Electromagnetic Interference and Image Quality
The Philips digital X-Ray detectors are highly sensitive receivers. Therefore, when determining where in the facility to install the x-ray system, care must be taken to avoid electromagnetic interference (EMI) to ensure optimal image quality. Possible EMI sources can be high power generators, power transformers, high power mains lines or other electromagnetic sources, which are located in the examination room directly or in the environment around the examination room. These EMI sources may emit excessive magnetic noise that could cause artifacts in the digital detector.

10. Avoid Adjacent EMI Sources
Do not locate the digital detector in a room adjacent to such an EMI source (next to, above or below). EMI sources can be located also in the wall, floor or ceiling.

(21.0)

General Conditions (continued)

11. Detector Location and Additional Sheiding
If a location next to an EMI source is unavoidable, ensure the table and/or wallstand and proposed locations for portable detector exposures are away from these sources. The magnetic noise interference is reduced dramatically by locating as far away as possible from the EMI sources. It might be necessary to implement additional means to prevent an interference with the x-ray detector (e.g. additional shielding).

(21.0)

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 shall be painted or covered, baseboards installed, floors shall 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 lock sets 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. BTUs shown on sheet A2 are average heat capacity.
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 conditioner 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. Refer to Transport Information page for clear door openings and corridor widths.

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 Healthcare 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 is the responsibility of the customer.

(24.0)

HVAC Requirement for General Equipment Locations

Heating, ventilation, air conditioning requirement for general equipment locations must maintain temperature at 75° +/- 11°Fahrenheit (24° +/- 6°Celsius) and non-condensing relative humidity at 52.5%, +/- 22.5%.

(13.0)

Electrical Requirements

M-Cabinet CXA 65

Supply Configuration:	3 phase, 3 wire power, neutral and ground. Wye. or 3 phase, 3 wire power, ground. Delta.
Nominal Line Voltage:	400, 440, 460 or 480 VAC, 60 Hz
Branch Power Requirement:	112.5 kVA minimum
Circuit Breaker:	3 pole, 50 Amps (@ 480V) (Slow Blow) Residual Current Device to be installed depending on local regulations.

(19.0)

PHILIPS

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Crystal Lake, IL
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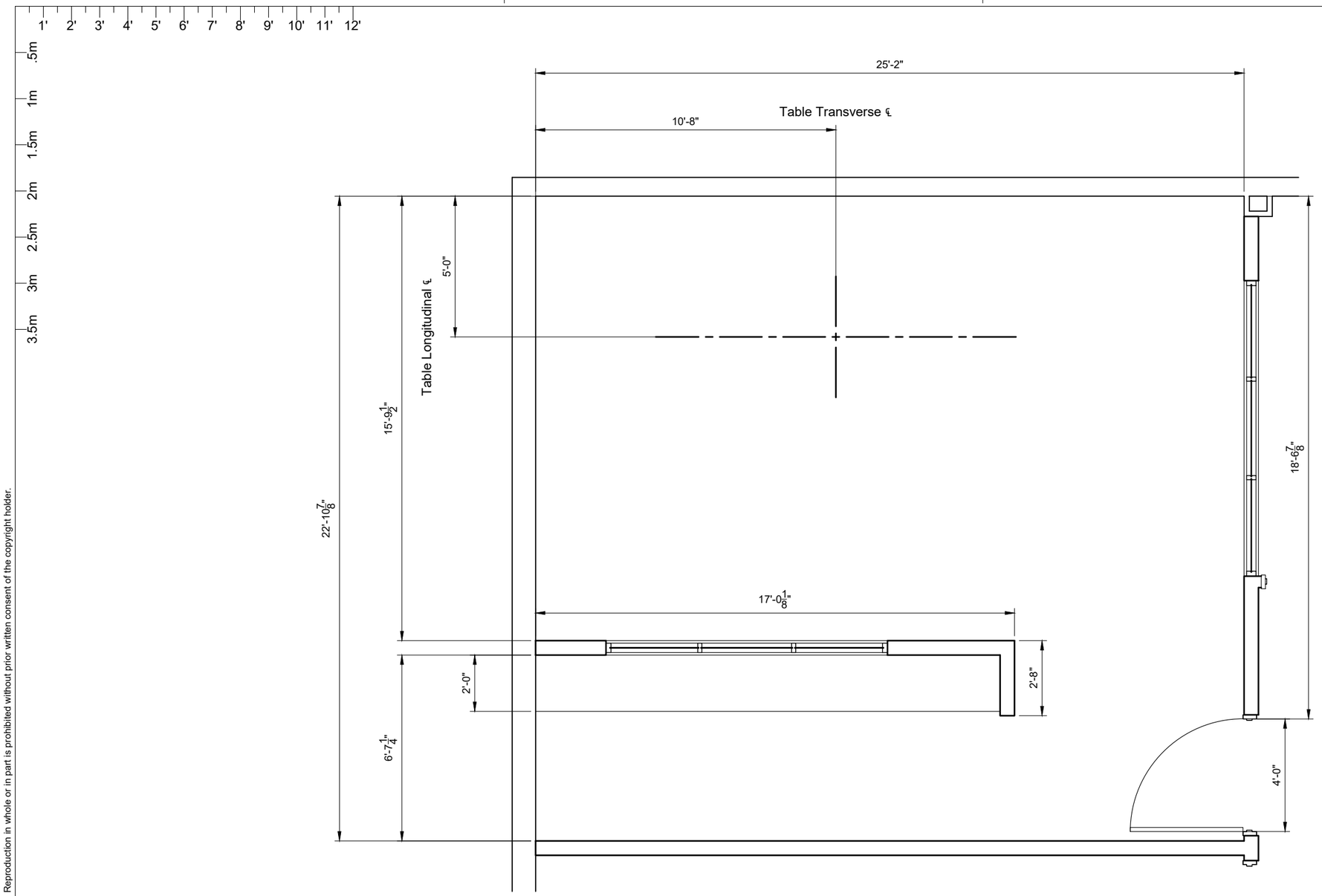
Email: keith.miller@philips.com
Drawn By: Minsey Lee

Project Details
Drawing Number
N-MID250009 A
Date Drawn: 2/25/2025
Quote: Q-00383092
Order: 6600717967.010000

AN



Legend

- Walls
- Soffit
- Existing (to be removed)
- Beams or other building construction elements

Site Layout

1/4" = 1'-0"

Recommended Minimum Ceiling Height: 8'-9" (2667mm)
Recommended Maximum Ceiling Height: 10'-6" (3200mm)
Reported Ceiling Height: 9'-0"

Ceiling Heights other than recommended may impact equipment functionality - see Ceiling Height Guide and consult with Philips.

Ceiling Height measured from finished floor to bottom of Unistrut.

General Notes

* Counters and cabinetry shown to be supplied and installed by contractor.
* Field to verify all room dimensions.
* Refer to A.D.A. Guidelines for doors and clearances. Verify all other applicable code(s) with the architect of record.

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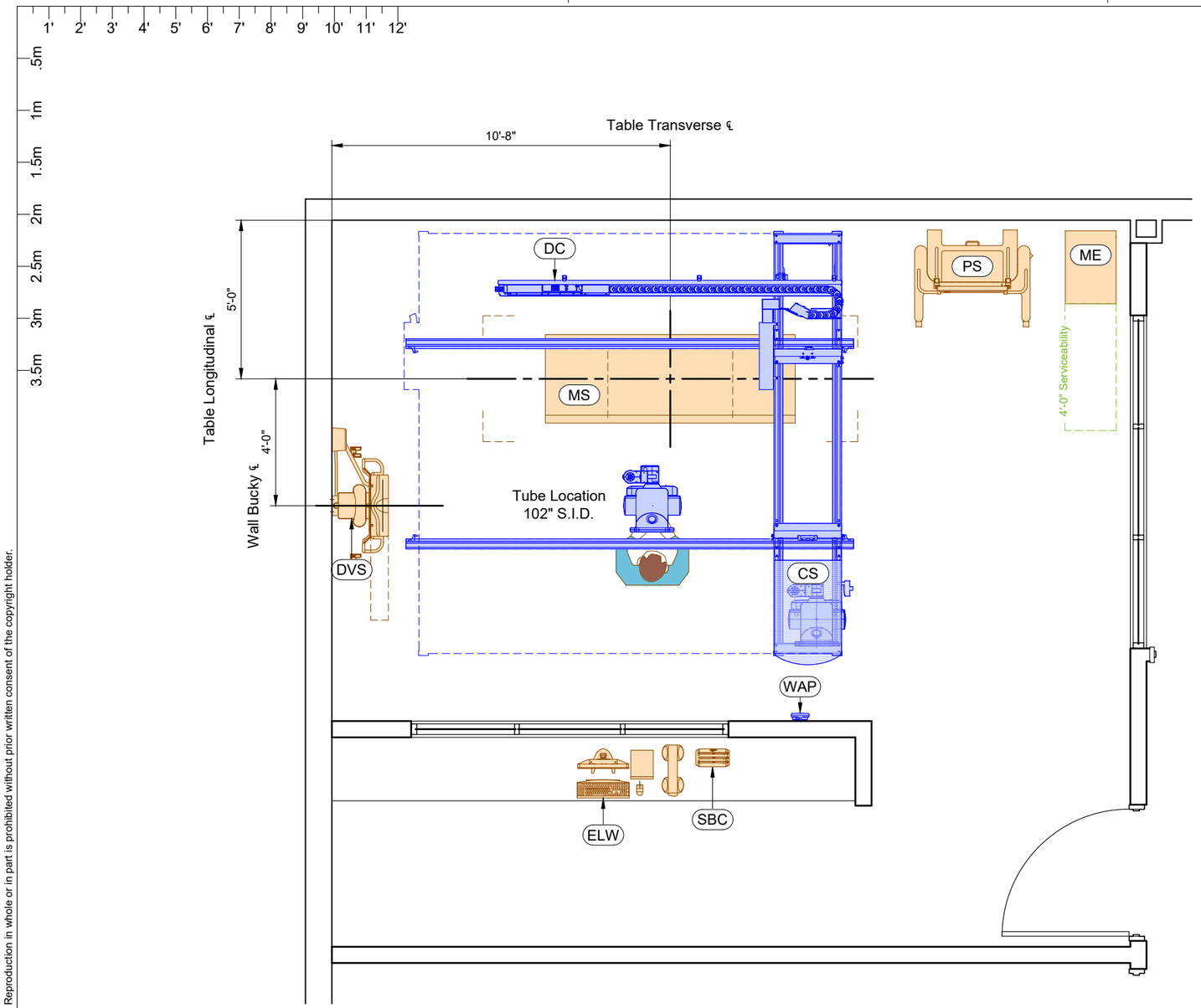
A1



Equipment Layout

1/4" = 1'-0"
Recommended Minimum Ceiling Height: 8'-9" (2667mm)
Recommended Maximum Ceiling Height: 10'-6" (3200mm)
Reported Ceiling Height: 9'-0"

Ceiling Heights other than recommended may impact equipment functionality - see Ceiling Height Guide and consult with Philips.

Ceiling Height measured from finished floor to bottom of Unistrut.

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	Description	Weight (lbs)	Heat Load (btu/hr)	Detail Sheet
A	ME	Generator M-Cabinet CXA	221	342	AD2
A	MS	DigitalDiagnost TH/TH2 (Wide Tabletop)	593	614	AD3
A	CS	Ceiling Suspension CSM3 Comfort Move Long	862	1365	AD2
A	DC	Drag Chain	66	--	AD2
A	DVS	Digital Vertical Stand (VS2) (Left)	485	614	AD3
A	ELW	Eleva Workspot - Eleva Examination Control - Acquisition Workspot (on shelf under counter) - Uninterruptible Power Supply (on shelf under counter) - Keyboard and Mouse - mShield (optional, not shown)	127	536	AD2
A	WAP	Wi-Fi Access Point	2	--	AD2
A	SBC	SkyPlate Battery Charger	2	--	AD2
A	PS	Patient Support	154	--	AD3

General Notes

* Any counters, keyboard trays and cabinetry shown to be supplied and installed by contractor. Shelf under control counter for UPS and CPU is required.
* Field to verify all existing Philps and/or third party equipment will not affect the functionality of the system and its components.

Site Planning Issues and Considerations

* Optional stitching shots at 102" S.I.D. will be available. See layout.

Notes to Philips Field Personnel

* Longer cables will need to be ordered for cable runs from:
  - "ME" to "MS" [55' (17m)]
  - "ME" to "ELW" [88' (27m)]

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A2

7.22.2024

1' 2' 3' 4' 5' 6' 7' 8' 9' 10' 11' 12'

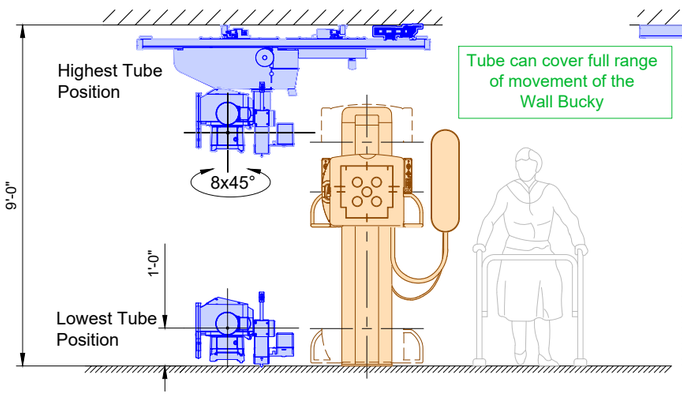
.5m 1m 1.5m 2m 2.5m 3m 3.5m

Ceiling Height Guide for High Performance VS and Value Room

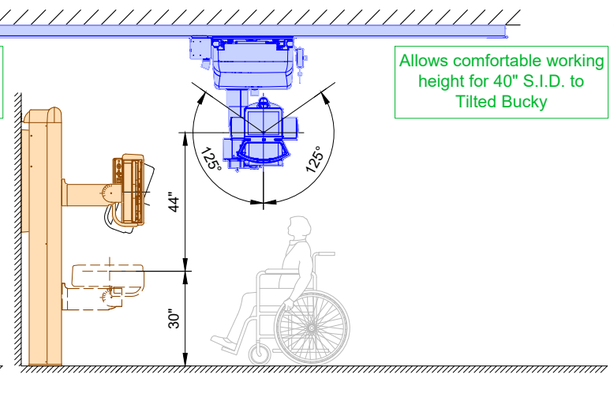
Not Site Specific

8'-9" to 10'-6" *	Full Vertical Tube Movement
	Limitations
8'-8" to 8'-9"	Tube cannot reach Highest Position of Wall Bucky
8'-7" to 8'-8"	Limitation noted above, plus horizontal (tilted) Bucky must be lowered for 40" SID
7'-11" to 8'-7"	Limitations noted above, plus tabletop must be lowered for 40" SID
	Loss of Coverage
7'-10" to 7'-11"	40" SID to horizontal (tilted) Bucky not available
7'-7" to 7'-10"	Limitations noted above, plus 40" SID to tabletop not available
7'-7"	Absolute Minimum Ceiling Height

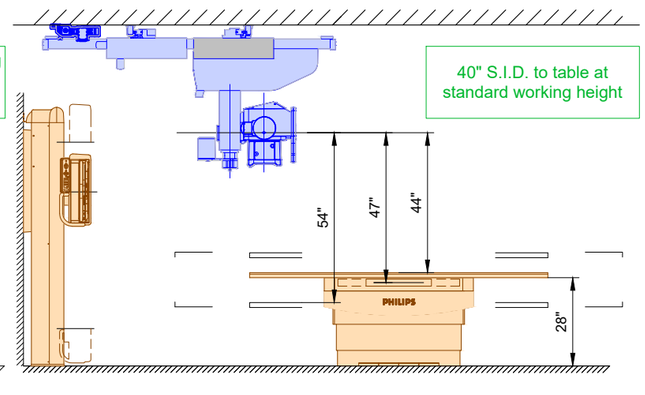
* Ceiling Heights higher than 10'-6" - consult with Site Planning for limitations/loss of coverage



Tube can cover full range of movement of the Wall Bucky



Allows comfortable working height for 40" S.I.D. to Tilted Bucky



40" S.I.D. to table at standard working height

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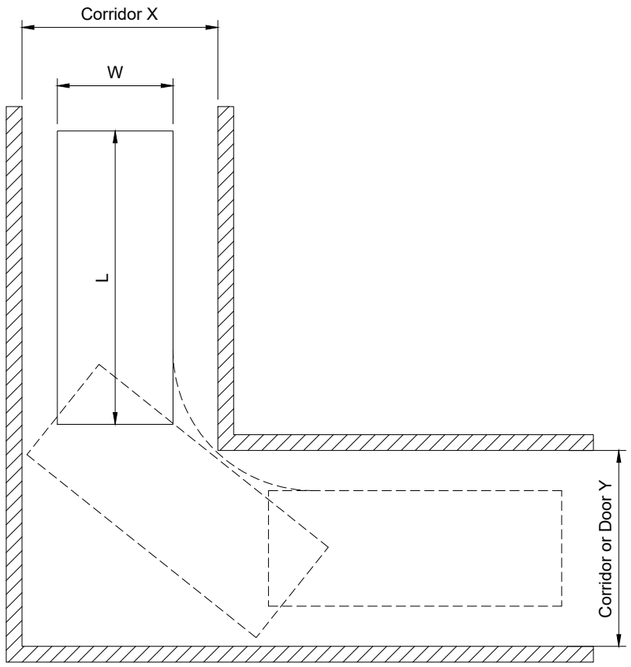
A3

Radiography 7300C (Tube Crane, TH Table, Wall Bucky) Transport Information



	TH Table	Wall Bucky	CSM3		
	Crate Packed	Crate Packed	Telescopic Carriage	Longitudinal Carriage Long	Longitudinal Carriage Short
Weight	684 lbs (310kg)	375 lbs (170kg)	661 lbs (300kg)	397 lbs (180kg)	207 lbs (94kg)
Height	2'-9" (0.83m)	1'-10" (0.55m)	N/A	1'-4" (0.41m)	1'-4" (0.41m)
Length (L)	4'-6" (1.36m)	7'-4" (2.22m)	4'-0" (1.20m)	13'-9" (4.18m)	8'-0" (2.42m)
Width (W)	3'-2" (0.96m)	2'-6" (0.76m)	2'-7" (0.78m)	2'-7" (0.77m)	3'-1" (0.94m)
Width of Corridor "X"	Minimum Width of Corridor/Door "Y"	Minimum Width of Corridor/Door "Y"	Minimum Width of Corridor/Door "Y"	Minimum Width of Corridor/Door "Y"	Minimum Width of Corridor/Door "Y"
3'-4" (1.0m)	5'-1" (1.54m)	6'-1" (1.85m)	3'-7" (1.07m)	12'-3" (3.72m)	7'-11" (2.4m)
3'-8" (1.1m)	4'-6" (1.36m)	5'-8" (1.72m)	3'-3" (.99m)	11'-9" (3.58m)	7'-2" (2.17m)
4'-0" (1.2m)	4'-1" (1.25m)	5'-3" (1.60m)	3'-1" (.93m)	11'-4" (3.45m)	6'-8" (2.02m)
4'-4" (1.3m)	3'-10" (1.17m)	4'-11" (1.50m)	2'-11" (.88m)	10'-11" (3.32m)	6'-3" (1.89m)
4'-8" (1.4m)	3'-9" (1.12m)	4'-7" (1.40m)	2'-11" (.88m)	10'-6" (3.20m)	5'-10" (1.77m)
5'-0" (1.5m)	3'-8" (1.08m)	4'-4" (1.30m)	2'-11" (.88m)	10'-2" (3.10m)	5'-6" (1.66m)
5'-3" (1.6m)	3'-6" (1.06m)	4'-0" (1.20m)	2'-11" (.88m)	9'-10" (2.98m)	5'-2" (1.56m)
5'-7" (1.7m)	3'-6" (1.06m)	3'-9" (1.13m)	2'-11" (.88m)	9'-5" (2.87m)	4'-10" (1.47m)
5'-11" (1.8m)	3'-6" (1.06m)	3'-6" (1.10m)	2'-11" (.88m)	9'-1" (2.76m)	4'-8" (1.40m)
6'-3" (1.9m)	3'-6" (1.06m)	3'-4" (1.00m)	2'-11" (.88m)	8'-9" (2.66m)	4'-4" (1.31m)
6'-7" (2.0m)	3'-6" (1.06m)	3'-2" (0.95m)	2'-11" (.88m)	8'-4" (2.55m)	4'-1" (1.24m)
6'-11" (2.1m)	3'-6" (1.06m)	3'-0" (0.91m)	2'-11" (.88m)	8'-1" (2.45m)	3'-11" (1.18m)

(13.0)

PHILIPS

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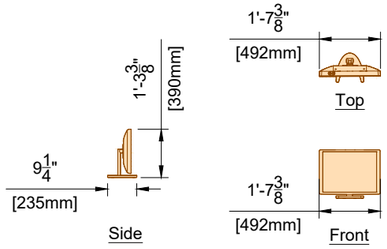
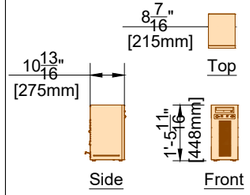
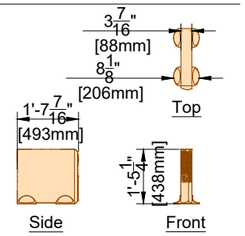
AD1



Eleva Examination Control
Weight: 38 lbs (18 kg)
Heat Dissipation: 342 Btu/hr (100W)



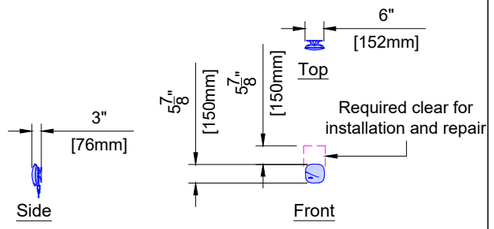
CPU Tower
Weight: 32 lbs (15 kg)
Heat Diss.: 293 Btu/hr (86W)



Uninterruptible Power Supply
Weight: 57 lbs (26 kg)

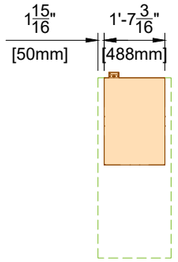
(24.0)

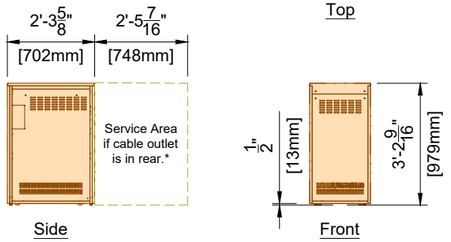
	Eleva Workspot	
ELW	Weight	Heat Dissipation
	127 lbs (58 kg)	536 Btu/hr (157 W)



(24.0)

	Wi-Fi Access Point	
WAP	Weight	Heat Dissipation
	2.5 lbs (1.12 kg)	--



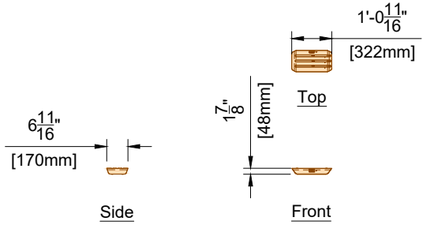


*Cable outlet is not shown. For detailed view, please see ED1 page.

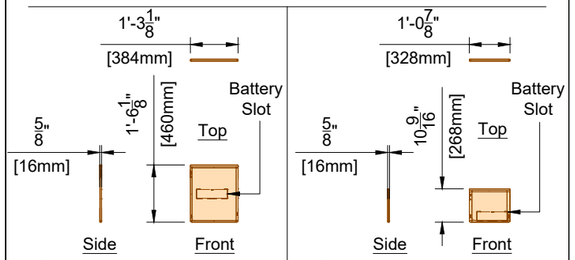
Noise measured at 1 meter distance at 1 meter high over floor < 52 dB(A).

(21.0)

	Generator M-Cabinet CXA	
ME	Weight	Heat Dissipation
	221 lbs (100 kg)	342 Btu/hr (100 W)



Battery Charger
Weight: 2.20 lbs (1 kg)

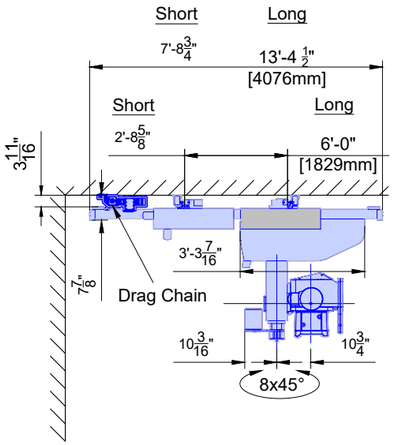


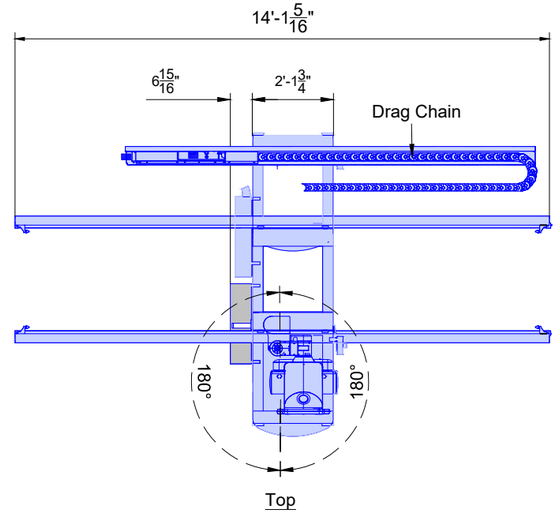
SkyPlate Wireless Detector (Large)
Weight: 5.7 lbs (2.6 kg)

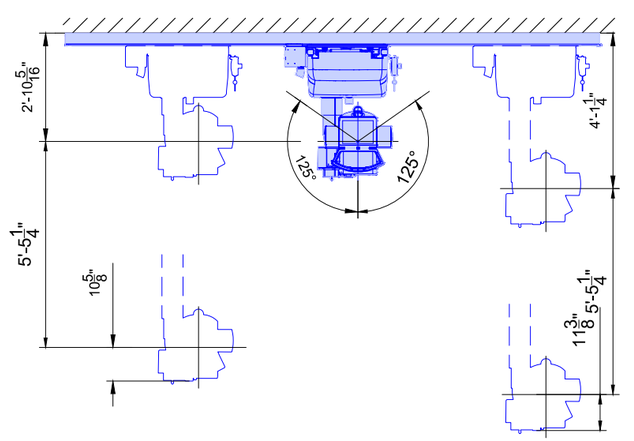
SkyPlate Wireless Detector (Small)
Weight: 3.5 lbs (1.6 kg)

(14.0)

	SkyPlate Detector and Battery Charger	
SBC	Weight	Heat Dissipation
	2.20 lbs (1 kg)	--







Side Front

(24.0)

	Digital Diagnost CSM3 with Drag Chain	
CS/DC	Weight	Heat Dissipation
	Short: 785 lbs (356 kg)*	1365 Btu/hr (444 W)
	Long: 862 lbs (390 kg)*	

* Full length extension rails add 101 lbs (46 kg).
* Drag Chain is 66 lbs(30kg/110lbs (50kg) with extension)

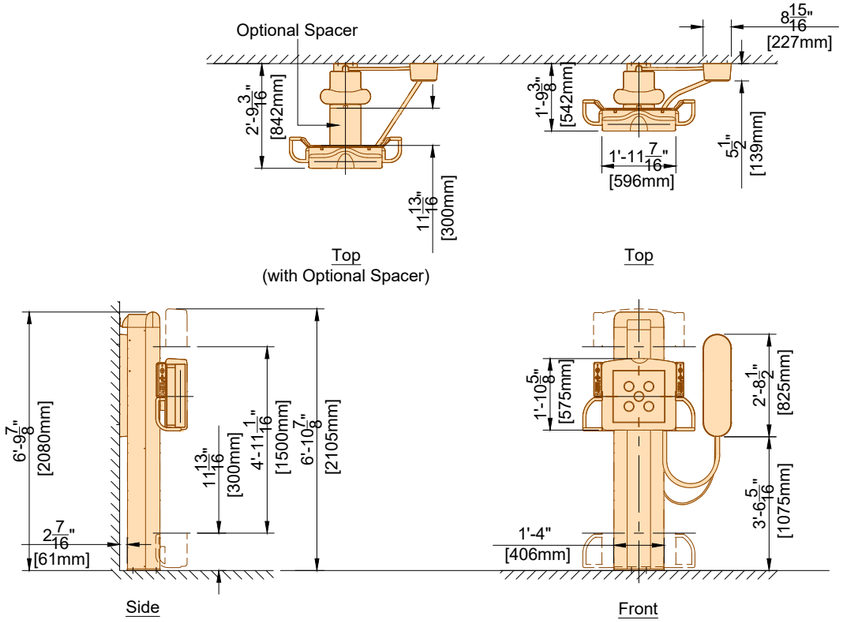
PHILIPS

Project
Radiography 7300 C
Plus VS
McHenry County College
Crystal Lake, IL
Room: Rad E116C

Philips Contacts
Project Manager: Keith Miller
Contact Number: (630) 461-6567
Email: keith.miller@philips.com
Drawn By: Minsey Lee

Project Details
Drawing Number
N-MID250009 A
Date Drawn: 2/25/2025
Quote: Q-00383092
Order: 6600717967.010000

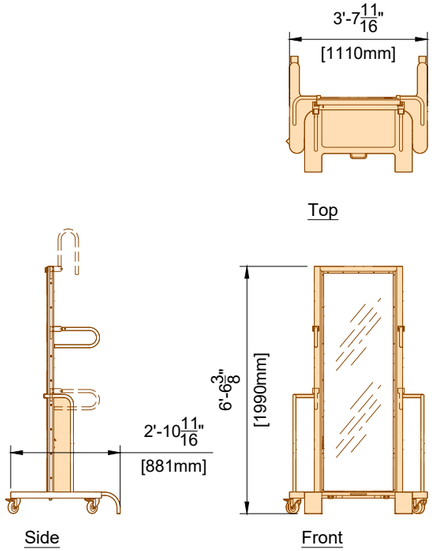
AD2



(24.0)

	Digital Vertical Stand VS2	
DVS	Weight	Heat Dissipation
	485 lbs (220 kg)	614 Btu/hr (180 W)

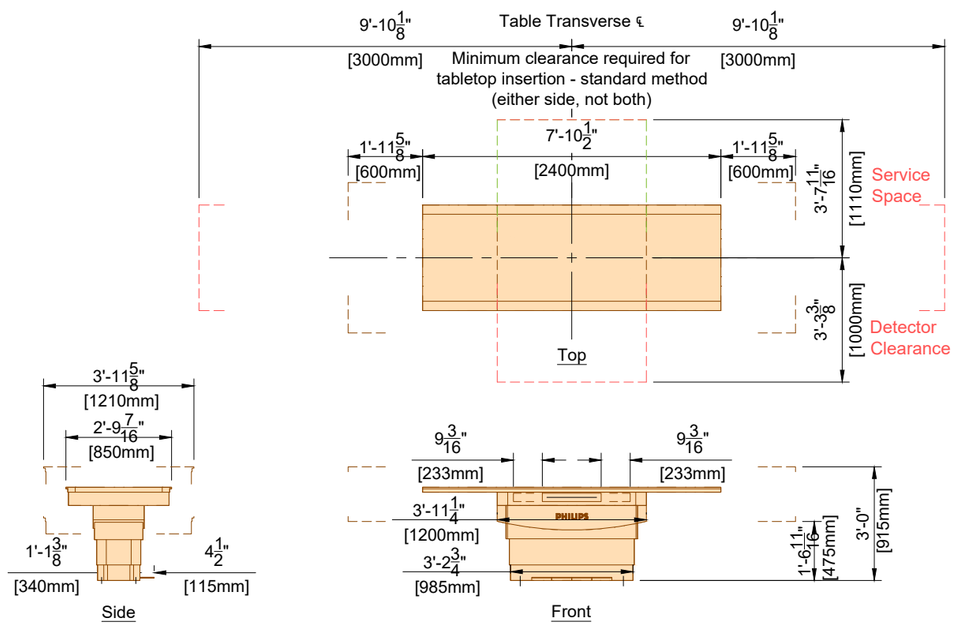
Weight of Wall Connection Box: 36 lbs (16 kg)



Maximum Patient Weight of 496 lbs (225 kg)
X-Ray filtration of < 0.9mm Al equivalent

(13.0)

	Patient Support	
PS	Weight	Heat Dissipation
	154 lbs (70 kg)	0 Btu/hr (0 W)



(24.0)

	DigitalDiagnost TH/TH2 (Wide Tabletop)	
MS	Weight	Heat Dissipation
	593 lbs (269 kg)	614 Btu/hr (180 W)

PHILIPS

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Email: keith.miller@philips.com
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AD3

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.

a. The floor surface upon which Philips equipment (except floor rails) 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).
b. The floor surface upon which Philips floor rails are to be placed/anchored shall be flat and level to within plus or minus 1/4 inch (6mm) over the length of the floor rails.

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 inch (2mm).
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 (e.g. 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 Regions 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 sheet S1. 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 electronic cabinets. Floor must be clear to allow cabinets to be pulled away from the wall for service. Contractor to verify the preferred floor covering installation method with Philips.

(13.0)

PHILIPS

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Philips Contacts
Project Manager: Keith Miller
Contact Number: (630) 461-6567
Email: keith.miller@philips.com
Drawn By: Minsey Lee

Project Details
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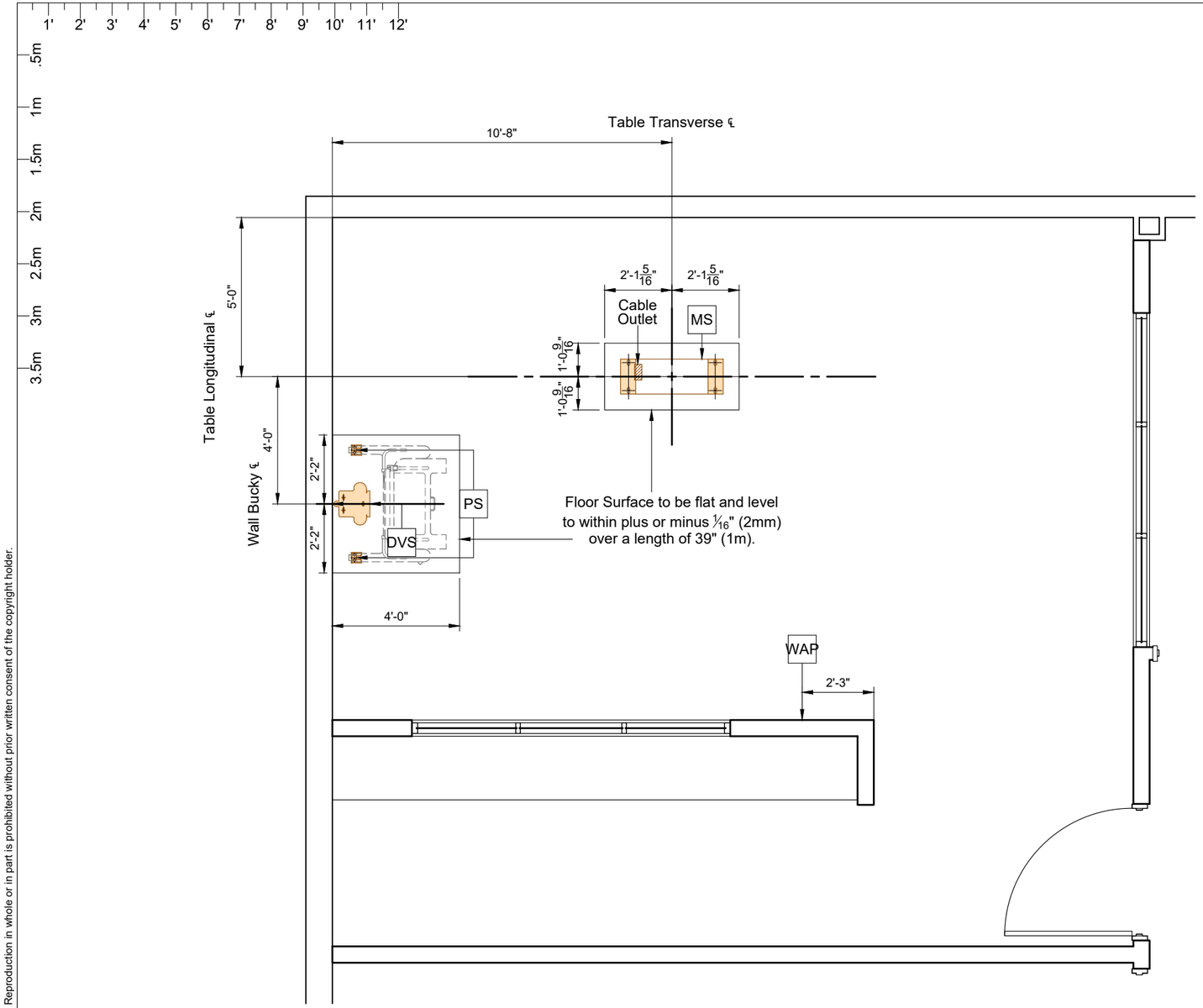
SN



Floor & Wall Support Legend

A Furnished and installed/anchored by Philips (see exceptions - Note 2, below)
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 item furnished by Philips

	Item Number	Description	Detail Sheet
B	MS	Anchors in floor for Diagnost TH	SD5
B	DVS	Support in wall for BuckyDiagnost VS	SD4
B	DVS	Anchors in floor for BuckyDiagnost VS	SD4
A	DVS	Anchors in wall for BuckyDiagnost VS	SD4
A	VSC	Anchors in wall for BuckyDiagnost VS Connection Box (not shown)	SD4
A	WAP	Wi-Fi Access Point - optional wall mounting	SD5
A	PS	Optional Anchors in floor for Patient Support Floor Fixing Plates	SD3

All dimensions must be off of the finished wall.

If a wall is furred out to hide electrical duct or boxes, the dimensions included in this plan must come off of the finished furred wall.

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 & Walls Support Layout

1/4" = 1'-0"

Reported Ceiling Height: 9'-0"

PHILIPS

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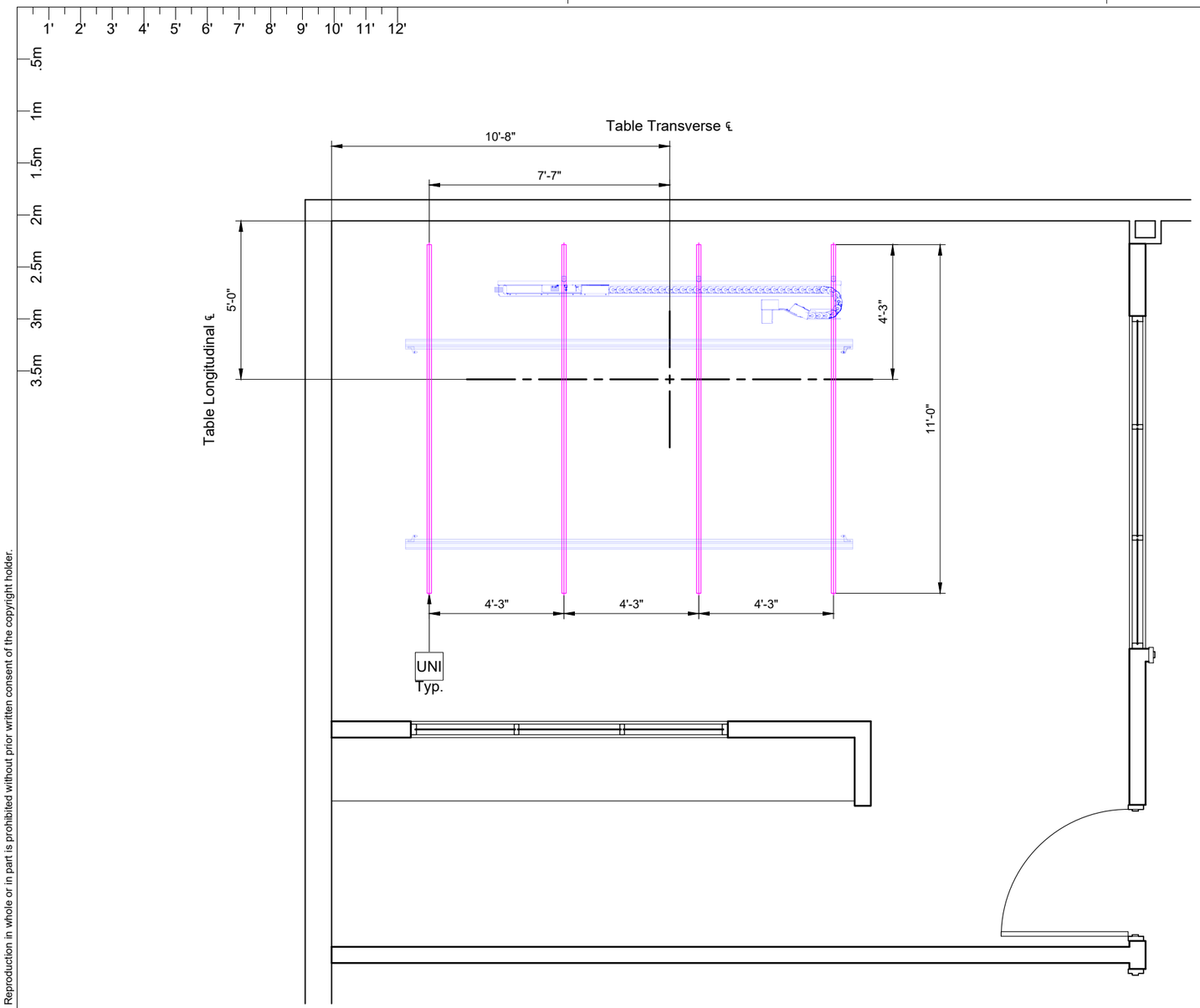
S1

7.22.2024



Ceiling Support 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

	Item Number	Description	Detail Sheet
B	UNI	Unistrut (P1001 or equal)	SD3

All dimensions must be off of the finished wall.

If a wall is furred out to hide electrical duct or boxes, the dimensions included in this plan must come off of the finished furred wall.

See Ceiling Clearance Detail (sheet SD2) for information on restricted areas for objects that project below the finished ceiling.

Ceiling Support Layout - Unistrut

1/4" = 1'-0"
Recommended Minimum Ceiling Height: 8'-9" (2667mm)
Recommended Maximum Ceiling Height: 10'-6" (3200mm)
Reported Ceiling Height: 9'-0"

Ceiling Heights other than recommended may impact equipment functionality - see Ceiling Height Guide and consult with Philips.

Ceiling Height measured from finished floor to bottom of Unistrut.

PHILIPS

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Philips Contacts
Project Manager: Keith Miller
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Email: keith.miller@philips.com
Drawn By: Minsey Lee

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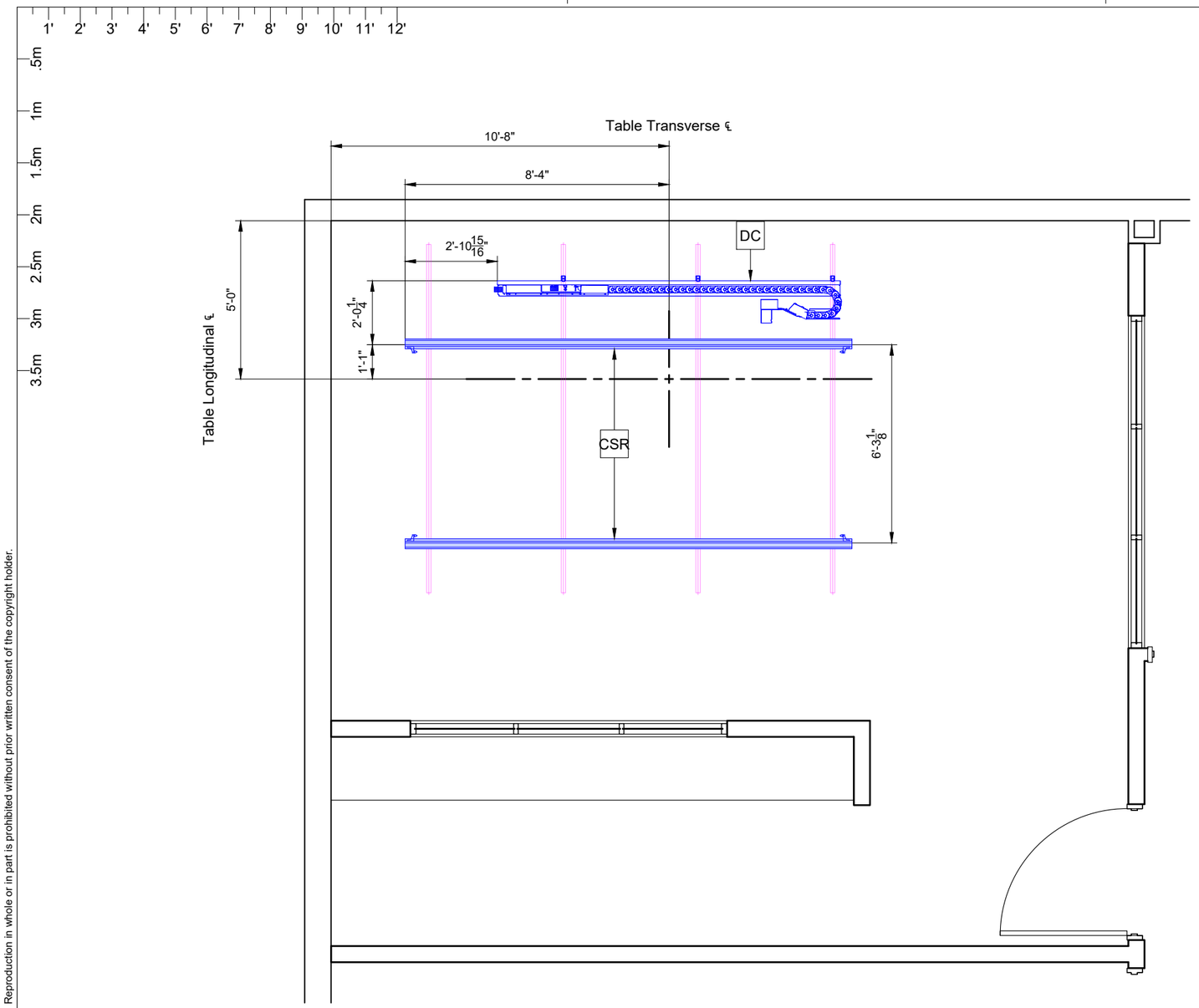
S2

7.22.2024



Ceiling Support 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

	Item Number	Description	Detail Sheet
A	DC	Drag Chain	SD2
A	CSR	Philips Equipment Rails	SD3

All dimensions must be off of the finished wall.

If a wall is furred out to hide electrical duct or boxes, the dimensions included in this plan must come off of the finished furred wall.

See Ceiling Clearance Detail (sheet SD2) for information on restricted areas for objects that project below the finished ceiling.

Ceiling Support Layout - Equipment

1/4" = 1'-0"
Recommended Minimum Ceiling Height: 8'-9" (2667mm)
Recommended Maximum Ceiling Height: 10'-6" (3200mm)
Reported Ceiling Height: 9'-0"

Ceiling Heights other than recommended may impact equipment functionality - see Ceiling Height Guide and consult with Philips.

Ceiling Height measured from finished floor to bottom of Unistrut.

PHILIPS

Project
Radiography 7300 C Plus VS
McHenry County College
Crystal Lake, IL
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Philips Contacts
Project Manager: Keith Miller
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Email: keith.miller@philips.com
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S3

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)
Eleva Examination Control (Wall Mounted)	A	SPAX Multipurpose Flat Head Screw	#10 x 1½"L	4	Drywall with min. ¾" plywood backing
	B	Toggler Snaptoggle with Round Head Screw and flat fender washers and nuts	#BA with #10-24 x 2 ½"L	4	Drywall (⅝"D min)
Digital VM Guide Rail with Wall Holders	A	A307 bolts (min. ASME Grade 5)	3/8", 3"L	6	Drywall with min. 16 Gauge Steel Backing Thru bolted with head of bolt behind backing and threads sticking out of wall for attachment to wall holders
	B	Lag Screw	3/8", 3"L	6	Drywall with min 4"x4" Douglas Fir # 2 Grade backing
	C	Hex Head Tek Screw	#14 x 3"L	6	Drywall with min. 10 Gauge Steel Backing
	D	Hilti KB-TZ	⅜" x 3"L	6	Concrete Wall (min. embedment = 2")
Digital VM Floor Rail	A	Toggler Alligator with SPAX Multipurpose Flat Head Screw	#A6 with SPAX #10 x 1½"L	20	Concrete Floor
	B	SPAX Multipurpose Flat Head Screw	#10 x 1½" L	20	Wood Frame Floor
Patient Support Floorplates	A	Simpson or Hilti Drop-in with Stainless Steel Phillips Oval Head Screw with dress washer	¼" x 1"L	4	Concrete Slab
	B	Hex Head Lag Bolt with flat washer	#14 x 1"L	4	Wood Frame Floor
Wireless Detector Docking Station	A	SPAX Multipurpose Flat Head Screw	#10 x 1½ "L	2	Drywall with minimum ¾" plywood backing
	B	Round Phillips Head Self Drilling Screw	#10-16 x 1½""	2	Drywall with min. 10 Gauge Steel Backing
	C	Toggler SnapToggle with Round Head Screw	#BA with #10-24 x 2½"L	2	Drywall (⅝"D min)
	D	Toggler Alligator with SPAX Multipurpose Flat Head Screw	Toggler Alligator #A6 with SPAX #10 x 1½"L	2	Concrete Wall
BuckyDiagnost VS (Advanced and Digital) Wall Anchorage	A	Through Bolt	⅜" diameter	4	Minimum 10 gauge steel plate[1], or Minimum 4"x 4" Douglas Fir # 2 grade
	B	Self Drilling Tek Screw	# 14	4	Minimum 10 gauge steel plate[1]
	C	Lag Screw	7/16"	4	Minimum 4" x 4" Douglas Fir # 2 Grade
	D	Toggler Snaptoggle Anchor	⅜" diameter expansion screw	4	Minimum 10 Gauge Steel Plate[1]
BuckyDiagnost VS Connection Box	A	SPAX Multipurpose Flat Head Screw	#10 x 1½"L	4	Drywall with Wood Backing
	B	Round Phillips Head Self Drilling Screw	#10-16 x 1½L"	4	Drywall with min. 10 Gauge Steel Backing
	C	Toggler SnapToggle with Round Head Screw	#BA with #10-24 x 2½"L	4	Drywall (⅝"D min)
	D	Round Phillips Head Self Drilling Screw	# 10-16 x 1½"L	4	Metal junction box or raceway
	E	Toggler Alligator with SPAX Multipurpose Flat Head Screws	Toggler Alligator #A6 with SPAX #10 x 1½"L	4	Concrete Wall or Hollow Concrete Block Wall
Parking Frame for Accessories (RAD)	A	SPAX Multipurpose Flat Head Screw	#10 x 1½" L	4	Drywall with min. ¾" plywood backing
	B	Phillips Round Head Self Drilling Screw	#10-16 x 1½"L	4	Minimum 16 Gauge Steel Backing
	C	Toggler SnapToggle with Round Head Screw	#BA with #10-24 x 2½"L	4	Drywall (⅝"D min)
	D	Toggler Alligator with SPAX Multipurpose Flat Head Screw	#A6 with SPAX #10 x 1½"L	4	Concrete Wall
Pediatric Support Parking Stand	A	Hilti KB-TZ with OD flat washer and hex nut	½ x 3¾"L	TBD	Concrete Slab
	B	Long Lag Bolt with ID and OD flat washer	½" x 2½"L	TBD	Wood Frame Floor
Stretch Grip Parking Bracket	A	SPAX Multipurpose Flat Head Screw	#10 x 1½" L	3	Drywall with min. ¾" plywood backing
	B	Toggler SnapToggle with Round Head Screw	#BA with #10-24 x 2½"L	3	Drywall
Tube Crane Box Cover	A	Round Phillips Head Self Drilling Screw	#10-16 x 1½"L	4	Metal junction box or raceway

[1] Unistrut, angle, or c -channel material is preferred.

(15.0)

PHILIPS

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Philips Contacts
Project Manager: Keith Miller
Contact Number: (630) 461-6567
Email: keith.miller@philips.com
Drawn By: Minsey Lee

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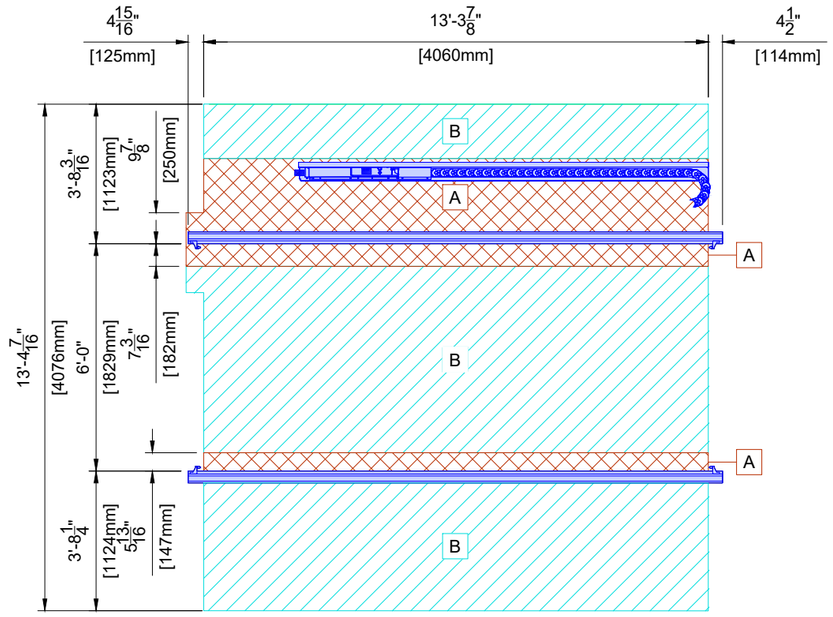
SD1

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

(Not site specific)

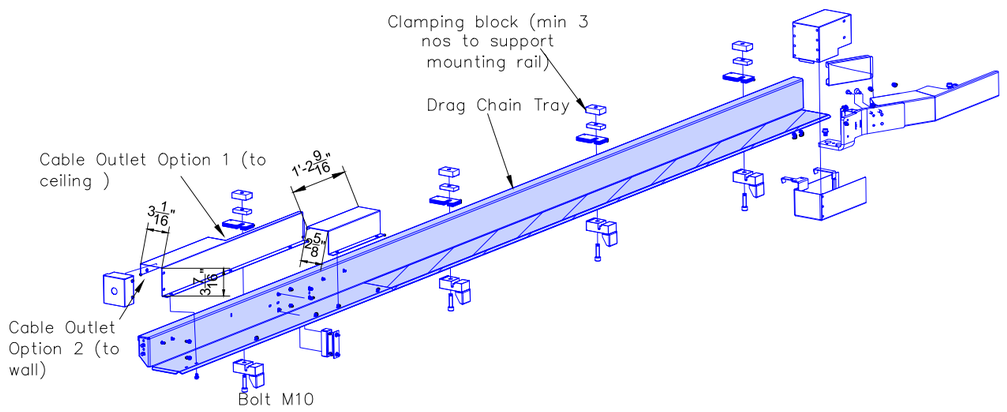
CSM3 Long - Comfort Track/Move



A Objects that project below finished ceiling are NOT allowed in this area (e.g. lights, smoke detectors, sprinkler heads, soffits, ceiling rails, A/C vents, etc).

B Objects that project more than 3.5" below finished ceiling are NOT allowed in this area (e.g. lights, smoke detectors, sprinkler heads, soffits, A/C vents, etc).

Detail - Drag Chain



Note: Additional 1m cable at cable outlet for future service

Drag Chain measurements scale(1:10)

DC

(24.0)

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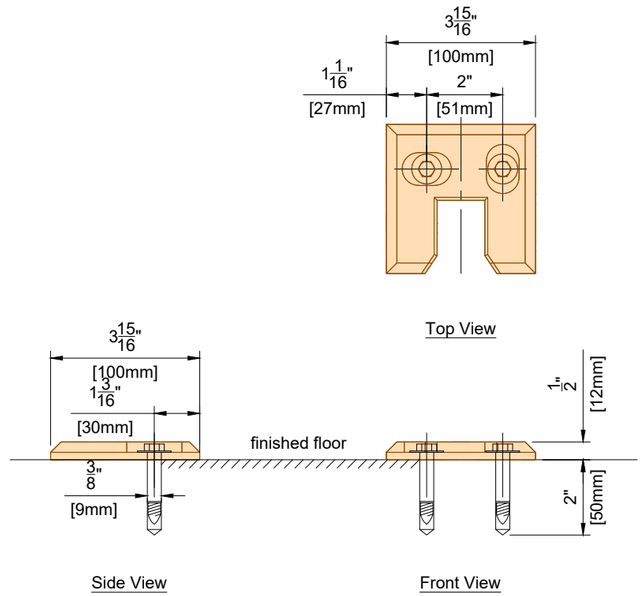
SD2

Detail - Patient Support Floor Fixing Plates (Qty = 2)

(Not to scale)

Details and Bolt Locations



Support Options

The customer's architect/engineer of record shall specify a support sufficient for the bolt forces specified. Anchors will be provided by Philips, and the support is the sole responsibility of the customer/contractor. Below are Philips' pre-evaluated and approved methods of providing support:

Option	Anchor Style (Provided by Philips)	Anchor Size	Anchor Quantity	Support Size & Material (Provided & installed by customer/contractor)
A	Simpson or Hilti drop-in with Stainless Steel Phillips oval-head screw with dress washer	¼" x 1"L	4	Concrete Slab
B	Hex Head Lag Bolt with flat washer	#14 x 1"L	4	Wood Frame Floor

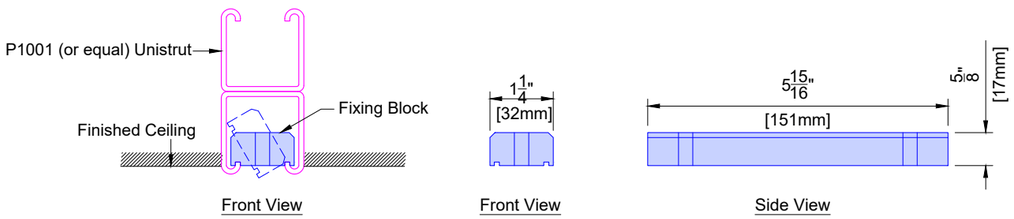
PS

(13.0)

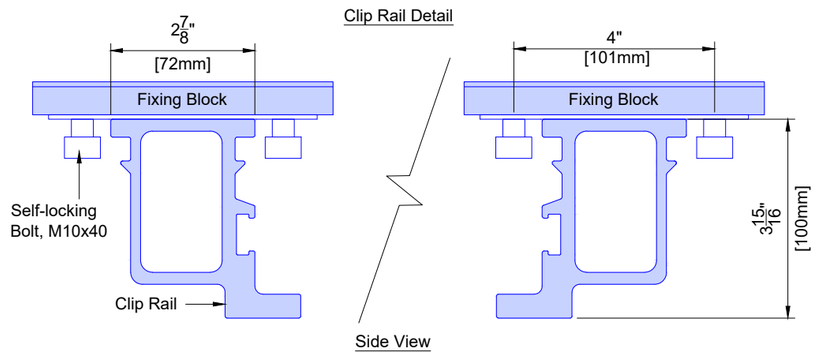
Detail - Ceiling Support

(Not to scale)

Fixing Block for Philips Ceiling Rails (Clip Rails) Detail



Clip Rail Detail



- 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.
- Finished ceiling height to be 1/4" above bottom of Unistrut.
- 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, item #4 "Ceiling Support Apparatus".

Tube Crane Support Forces	Tension Forces	Compressive Forces
CS III	956 lbs/support	192 lbs/support

(Support = 2 screws into each Fixing Block)

(Seismic area forces - consult seismic calculation documents)

CSR UNI

(13.0)

PHILIPS

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McHenry County College
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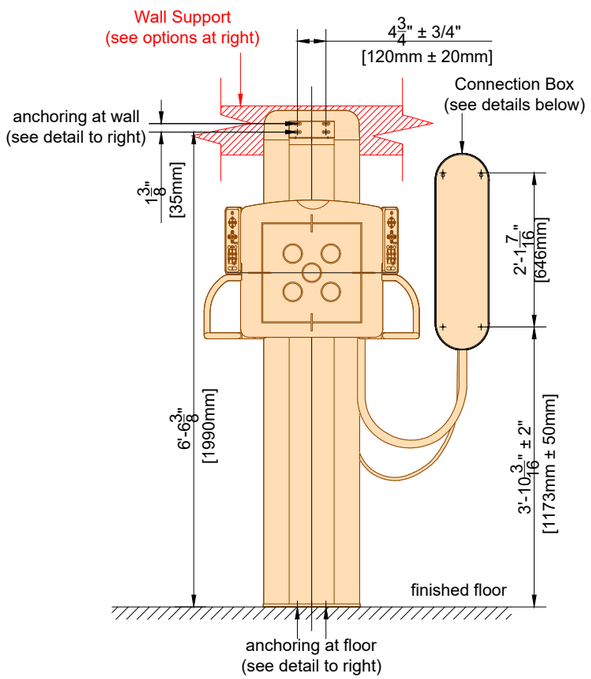
SD3

Detail - BuckyDiagnost VS Digital

(Not to scale)

Elevation View of Bolt Locations



DVS

Wall Support Options

The customer's architect/engineer of record shall specify a wall support sufficient for the bolt forces specified. Anchors will be provided by Philips, and the wall support is the sole responsibility of the customer/contractor. Below are Philips' pre-evaluated and approved methods of providing support:

Option	Anchor Style (Provided by Philips)	Anchor Size	Anchor Quantity	Wall Support Size & Material (Provided & installed by customer/contractor)
A	Through Bolt	3/8" diameter	4	Minimum 10 Gauge Steel Plate[1], or Douglas Fir #2 Grade (minimum 4" x 4")
B	Self Drilling Tek Screw	#14	4	Minimum 10 Gauge Steel Plate[1]
C	Lag Screw	7/16"	4	Douglas Fir #2 Grade (minimum 4" x 4")
D	Toggler Snaptoggle Anchor	3/8" diameter expansion screw	4	Minimum 10 Gauge Steel Plate[1]

[1] Unistrut, angle, or c-chanel material is preferred.

Bolt Forces (Standard DVS)

Tmax (Tension)(Wall) = 303 lbs/bolt (max)
Vmax (Shear)(Wall) = 72 lbs/bolt (max)
Vmax (Shear)(Floor) = 227 lbs/bolt (max)

Bolt Forces (Tilting DVS)

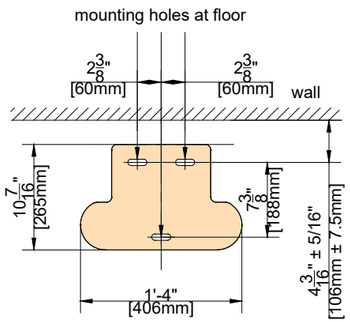
Tmax (Tension)(Wall) = 604 lbs/bolt (max)
Vmax (Shear)(Wall) = 89 lbs/bolt (max)
Vmax (Shear)(Floor) = 283 lbs/bolt (max)

Wall mounting points must be suitable to tensile strength Fs ≥ 1500N (338 lbf) each anchor.

Floor mounting points must be suitable for tensile strength Fs ≥ 500N (113 lbf) for each screw.

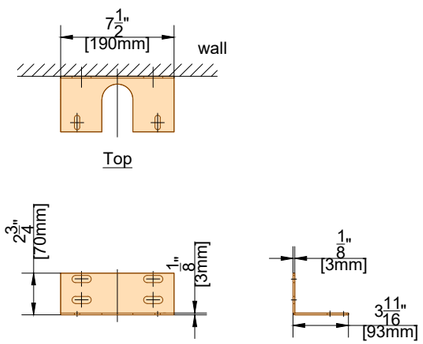
(Seismic area forces - consult seismic calculation documents)

Floor Anchoring Details



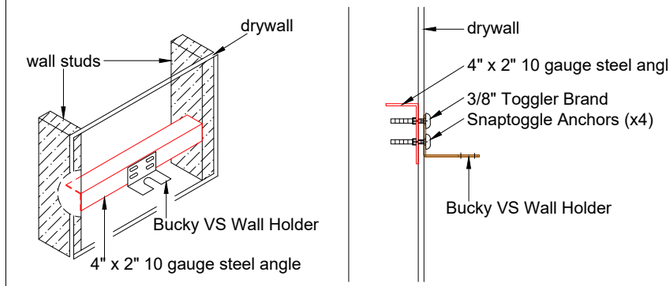
Top

Wall Holder / Bracket Details



Front Side

Wall Anchoring Example
Illustration of Wall Support with Steel Plate and Toggler Anchor



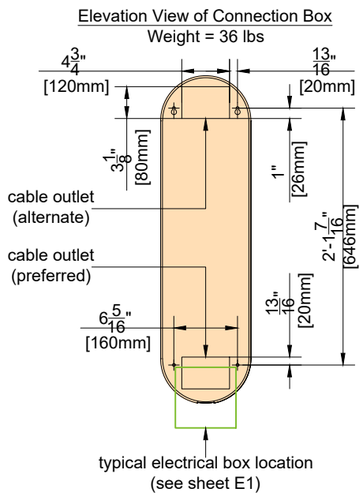
Isometric Side

(24.0)

Detail - BuckyDiagnost VS Advanced Connection Box

(Not to scale)

Elevation View of Connection Box
Weight = 36 lbs



VSC

Wall Support Options

The customer's architect/engineer of record shall specify a wall support sufficient for the bolt forces specified. Anchors will be provided by Philips, and the wall support is the sole responsibility of the customer/contractor. Below are Philips' pre-evaluated and approved methods of providing support:

Option	Anchor Style (Provided by Philips)	Anchor Size	Anchor Quantity	Wall Support Size & Material (Provided & installed by customer/contractor)
A	SPAX Multipurpose Flat Head Screw	#10 x 1½"L	4	Drywall with wood backing
B	Round Phillips Head Self Drilling Screw	#10-16 x 1½"L	4	Drywall with minimum 10 gauge steel backing
C	Toggler SnapToggle with Round Head Screw	#BA with #10-24 x 2½"L	4	Drywall (5/8"D min.)
D	Round Phillips Head Self Drilling Screw	#10-16 x 1½"L	4	Metal junction box or raceway

Bolt Forces

Tmax (Tension) = 39 lbs/bolt
Vmax (Shear) = 36 lbs/bolt
(Seismic area forces - consult seismic calculation documents)

(13.0)

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Project
Radiography 7300 C
Plus VS
McHenry County College
Crystal Lake, IL
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Philips Contacts
Project Manager: Keith Miller
Contact Number: (630) 461-6567
Email: keith.miller@philips.com
Drawn By: Minsey Lee

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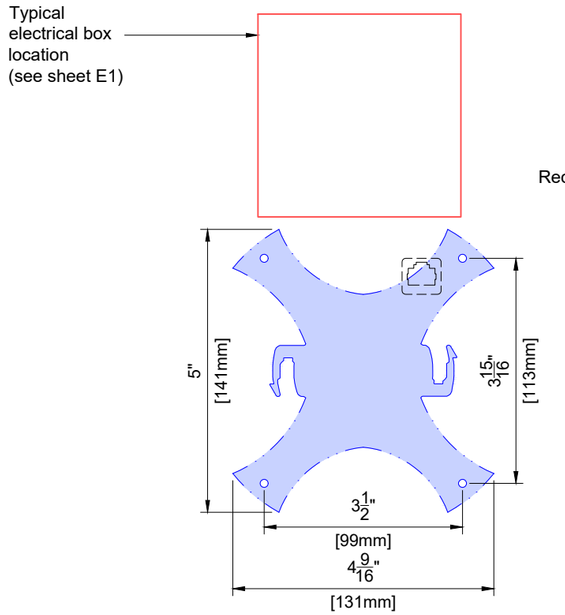
SD4

Detail - Wi-Fi Access Point - Wall Mounted)

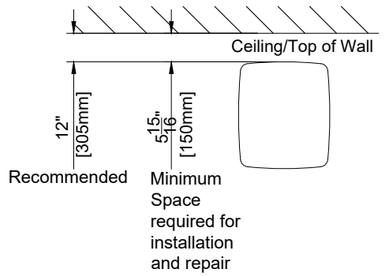
(Not to scale)

Elevation View of Bolt Locations and Cable Outlet



Front View

Mounting Elevation View



WAP

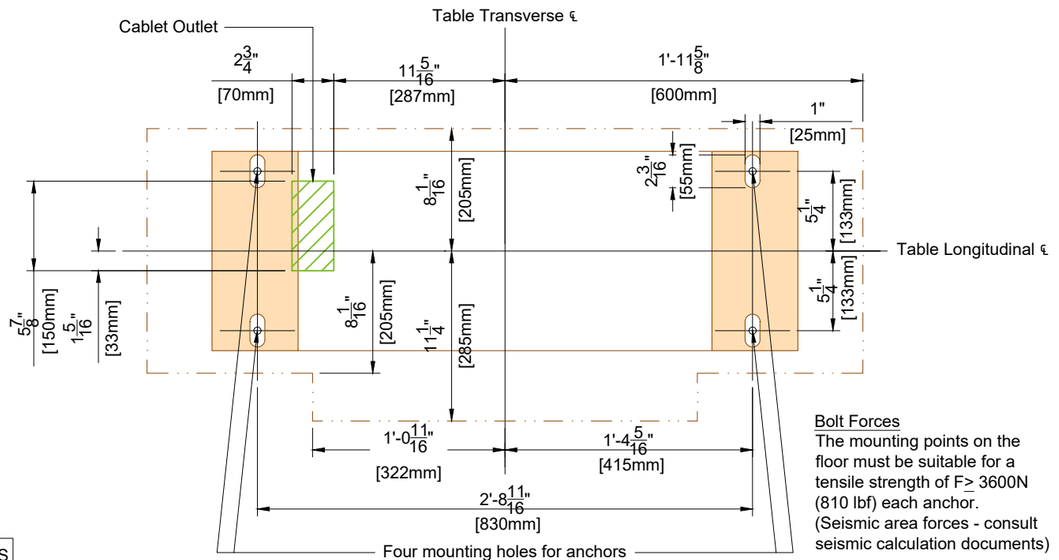
(17.0)

Detail - Diagnost TH/TF Table Base

(Not to scale)

Plan View of Bolt Locations and Cable Outlet

The Diagnost TH/TF base mounted directly to the floor. A floor plate is not used.



Bolt Forces

The mounting points on the floor must be suitable for a tensile strength of F≥ 3600N (810 lbf) each anchor.
(Seismic area forces - consult seismic calculation documents)

MS

(24.0)

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Philips Contacts
Project Manager: Keith Miller
Contact Number: (630) 461-6567
Email: keith.miller@philips.com
Drawn By: Minsey Lee

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SD5

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 degree ells is not acceptable. On ceiling duct and wall duct use 45 degree 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.

(13.0)

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. See Conduit List for information regarding all other cables (e.g. cables to breakers, etc.).
4. Provide and install 4 - 2"(50mm) diameter chase nipples between adjacent wall boxes (not required if raceway installed above and below 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 governs.
7. Convenience outlets are not illustrated. Their number and location are to be specified by the customer/architect.
8. All sections of raceway and conduit shall be grounded with an independent #6AWG green wire that is to be attached using solderless lugs All ceiling mounted structural support members and ceiling plates shall also be grounded. All grounding connections, terminals, etc. shall be installed in a manner to provide accessibility for inspection, maintenance, repair, etc.
9. The contractor is to ensure system cables that run from the system cabinet to the table are not run under the slab in ground floor installations. They need to be run in a trough or a raceway in the floor per NEC section 390 Underfloor Raceway. Conduits may not be allowed in a basement slab. The cables from the cabinets to the table are not certified in a wet environment/area.

(20.0)

Electrical Requirements

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, 3 wire power and ground (delta or wye) unless otherwise noted in equipment specifications.
- Phase conductors to be sized for instantaneous voltage drop per NEC 517-73 and Philips recommendations.
- Neutral and ground conductors to be sized equivalently to phase conductors, unless otherwise noted.
- Metal conduit shall not be used as the equipment ground conductor.
- Clamping type surge suppressors are highly recommended in addition to standing facility lighting arrestors. Equipment to be protected from ANSI/IEEE C62.41-1980 location category B impulses.
- ANSI/NFPA 70 - National Electrical Code (NEC)
  Article 250 - Grounding
  Article 517 - Health Care Facilities
- ANSI/NFPA 99 - Health Care Facilities Code
- NEMA standard XR 9 - Power Supply Guidelines for X-Ray Machines

(13.0)

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, 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.

(13.0)

PHILIPS

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Philips Contacts
Project Manager: Keith Miller
Contact Number: (630) 461-6567
Email: keith.miller@philips.com
Drawn By: Minsey Lee

Project Details
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N-MID250009 A
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EN

Electrical Legend

A Furnished and installed by Philips
B Furnished and installed by customer/contractor
C Installed by customer/contractor
D Furnished by Philips and installed by contractor
E Existing - Field to verify suitability for reuse
F Future
G Optional

	Item Number	Description	Detail Sheet
		Floor	
B	MS	8" (203mm) W x 8" (203mm) L x 4" (102mm) D floor box, mounted below finished floor with a 5" (127mm) diameter core drill to cable inlet of table.	ED1
		Ceiling	
B	CS	8" (203mm) W x 8" (203mm) L x 6" (152mm) D ceiling box, flush mounted with removable screw-type cover plate.	
		Duplexes	
B		120V, 20A dedicated duplex outlet. Coordinate exact location with local Philips Service.	
		Network Connectors	
B	N	RJ45 type Ethernet 10/100/1000 Mbit network connector. Access through customer's network to VPN device capable of connecting to the Philips Remote Service Network (RSN) Datacenter is needed. Refer to page N1 for RSN connectivity options. Locate within 10' (3048mm) 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 the components.	N1

Electrical Legend

A Furnished and installed by Philips
B Furnished and installed by customer/contractor
C Installed by customer/contractor
D Furnished by Philips and installed by contractor
E Existing - Field to verify suitability for reuse
F Future
G Optional

	Item Number	Description	Detail Sheet
		Wall	
B	CB	480V, 3 phase 50 AMP circuit breaker with shunt trip. Run power from breaker to ME, leaving an 8' (2438mm) tail. 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. Location per local code or owner requirements (mandatory for VA and DOD installations). (Not shown on plan)	
B	WL	Warning Light - Provide an surface or flush mounted light fixture above door to indicate when X-Ray is on. (Not shown on plan)	ED1
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. (Not shown on plan)	ED1
B	S1	Single pole general purpose ON/OFF switch with red cover. Safety switch is required between scanner unit and "WL" for Philips Service, if a warning light is used. Locate near system disconnect if possible or near "ME" wall box. (Not shown on plan)	ED1
B	ME	19 1/4" (489mm) W x 67" (1702mm) H x 4" (102mm) D flanged-edge terminal wall box with removable screw-type cover plate, surface mounted 75" (1905mm) A.F.F. to top of box. Conduits to terminate at conduit knock outs provided on top, bottom, or sides of terminal wall box. If raceway is used at top and / or bottom of terminal wall box, remove panel(s) of terminal box by drilling out pop rivets. Top and bottom panels will slide out without the need for cutting. Cutting of the box is prohibited as it will void the UL listing. Weight is approximately 125lbs per box. See ED1 sheet for wall box ordering instructions.	ED1
B	TB	Three Terminal Blocks (one "A" Block, one "E" Block, and one "D" Block) with each Block assembled on a customer/contractor provided DIN rail. All Blocks to be mounted inside "ME" Back Box. Customer/contractor to supply and install cables to and from the Terminal Blocks. (See Sheet ED1 and ED2 for details)	ED1/ ED2
B	DVS	6" (152mm) W x 6" (152mm) L x 4" (102mm) D wall box with removable screw-type cover plate, flush mounted 39" (991mm) A.F.F. to bottom of box.	
B	WAP	4" (102mm) W x 4" (102mm) L x 4" (102mm) D wall box with removable screw-type cover plate, flush mounted 10" (254mm) below ceiling/top of wall to top of box. Location shown is recommended and may be changed - verify relocation with local Philips Service.	
B	WR1	4" (102mm) W x 4" (102mm) D wall raceway, surface mounted with removable screw-type cover plate, at 4" (102mm) A.F.F. to bottom of raceway. *	ED1
B	WR2	10" (254mm) W x 4" (102mm) D wall raceway, surface mounted with removable screw-type cover plate, at 75" (1905mm) A.F.F. to bottom of raceway. *	ED1
B	ELW	Grommet opening on WR3. Exact size to be determined by local Philips Service. Location shown is recommended and may be changed - verify relocation with local Philips Service. For cables to ELW.	
B	WR3	10" (254mm) W x 4" (102mm) D wall raceway, surface mounted 6" (152mm) above finished floor with removable screw-type cover plate.	ED1

*WR1 and / or WR2 are only needed if conduit knock outs within the terminal wall box are not the sufficient size, quantity, or in the proper locations as required. As noted for "ME", the top and bottom panels can be removed by drilling out the pop-rivets and pulling the panel out. Raceway size and length can be changed as needed as long as the raceway is a minimum of 19 ¼" (489mm) in length to cover the entire opening of the removed top or bottom panel(s) and the terminal wall box remains at a mounting height of 75" (1905mm) A.F.F. Raceways cannot be deeper than the terminal wall box, they must fit securely behind the terminal wall box flanged-edge.

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Project Manager: Keith Miller
Contact Number: (630) 461-6567
Email: keith.miller@philips.com
Drawn By: Minsey Lee

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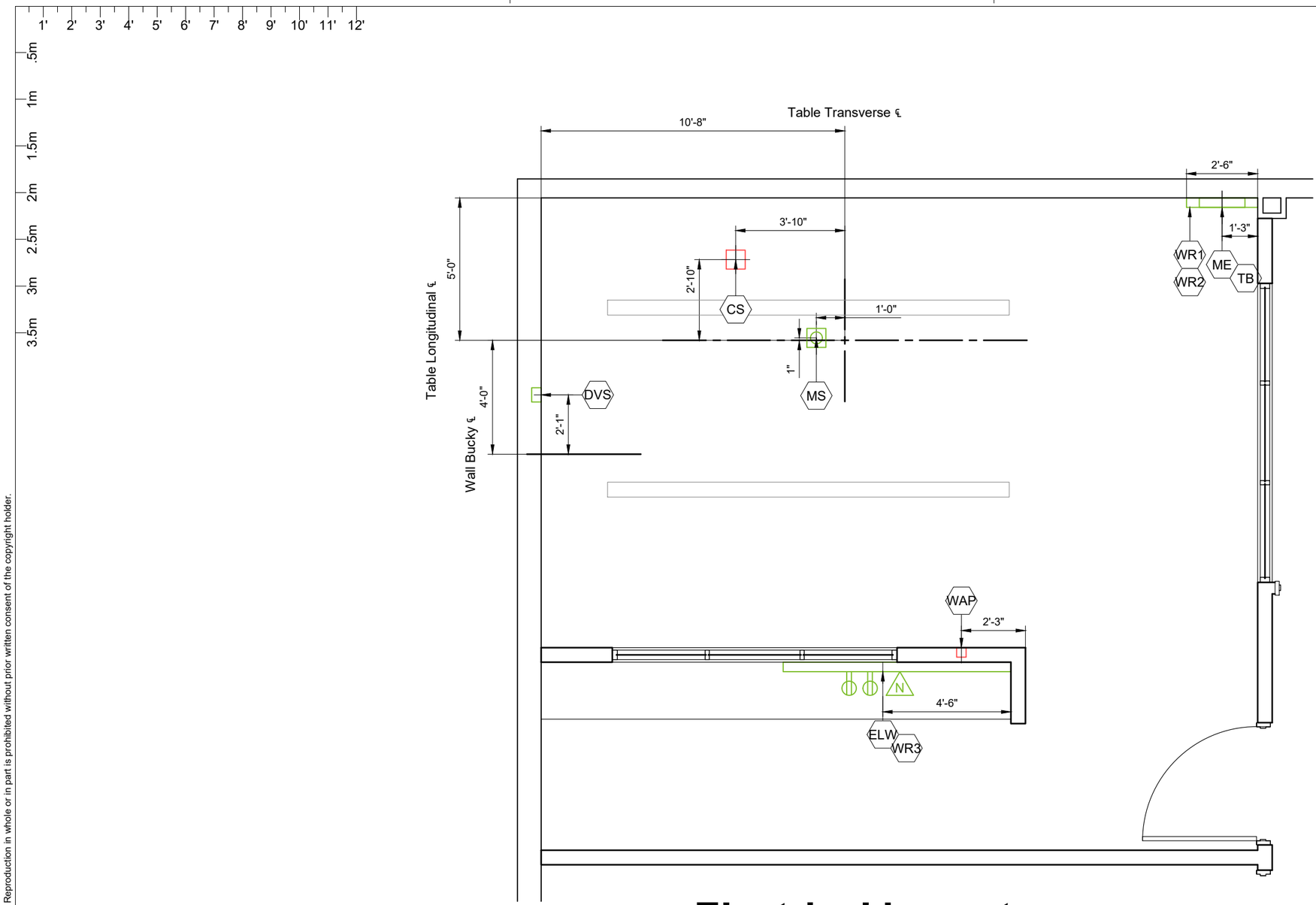
EL



Electrical Layout

1/4" = 1'-0"

Recommended Minimum Ceiling Height: 8'-9" (2667mm)
Recommended Maximum Ceiling Height: 10'-6" (3200mm)
Reported Ceiling Height: 9'-0"

Ceiling Heights other than recommended may impact equipment functionality - see Ceiling Height Guide and consult with Philips.

Ceiling Height measured from finished floor to bottom of Unistrut.

7.22.2024

PHILIPS

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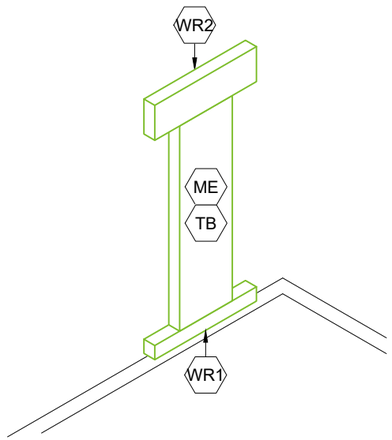
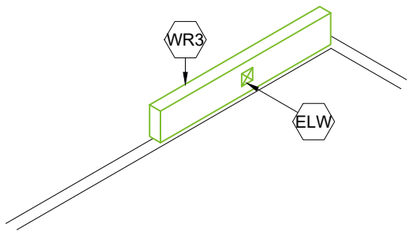
E1

Isometric Layout
(Not to scale)





Raceway Diagram
(Not to scale)

Refer to Electrical Legend and Layout - Sheet E1

The use of 90 degree ells is not acceptable; use 45 degree bends at all raceway corners. The use of crossover tunnels at all applicable locations is required.

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.

A Conduit supplied and installed by contractor - Philips cables installed by Philips.
B Conduit supplied and installed by contractor - Philips cables installed by contractor
C Conduit 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 Conduit optional - for future upgrade. Verify with Philips Sales/Service.

* Cable Type
F Fiber Optic
H High Tension Power Cables
P Power / Ground
S Signal Cables
V Video Cables

	Conduit			Conduit Quantity	Cable Type *	Minimum Conduit Size	Maximum Conduit Length	Special Requirements
	Run No.	From	To					
C	1	Power Panel	CB	1	P	Per N.E.C.	Per N.E.C.	
C	2	CB	ME	1	P	2"	50'	8' of the 50' cable to be left as a tail. Contractor to supply and install cables from "CB" to "TB" inside "ME".
C	3	CB	ST	1	P	3/4"	50'	
C	4	ME	S1	1	P	1/2"	--	Contractor to supply and install cables to and from "TB" inside "ME". Max combined cable length = 50'
C	5	S1	WL	1	P	1/2"	--	
C	6	ME	DS	1	P	1/2"	50'	Contractor to supply and install cables to and from "TB" inside "ME".
A	7	ME	ELW	1	P	2"	88'	
A	8	ME	ELW	1	S	3"	88'	
A	9	ME	MS	1	P	2"	55'	
A	10	ME	MS	1	S	2"	55'	
A	11	ME	DVS	1	P	2"	55'	
A	12	ME	DVS	1	F / S	2"	55'	
A	13	ME	CS	1	H / P	3"	45'	If WR2 is used, conduit must terminate directly above ME wall box for routing
A	14	ME	CS	1	S	3"	45'	
A	15	ELW	MS	1	F / S	2"	98'	
A	16	ELW	DVS	1	S	1"	78'	
A	17	WAP	ELW	1	S	1"	98'	Ethernet cable. Conduit if required by local code.

Note: Optional conduit intended for future upgrade to fixed detector. Conduit is **not** required for Table or Wall Stand with SkyPlate option. Verify with Philips Sales/Service.

Refer to Electrical Layout and Legend - Sheet E1

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Philips Contacts
Project Manager: Keith Miller
Contact Number: (630) 461-6567
Email: keith.miller@philips.com
Drawn By: Minsey Lee

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E2

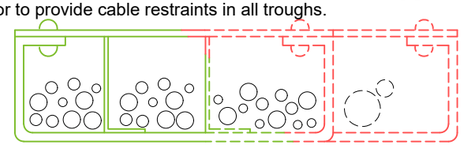
7.22.2024

Detail - Cable Trough Divisions

(Not to scale)

Troughs or ducts must be separated by metal barriers into three sections.

1. High voltage (H.T.) cables to be routed separately from all other cables.
2. Power cables and ground cables can be routed together.
3. Signal cables and data cables can be routed together but must be separated from power cables.
4. Video cables to be routed 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 with 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.



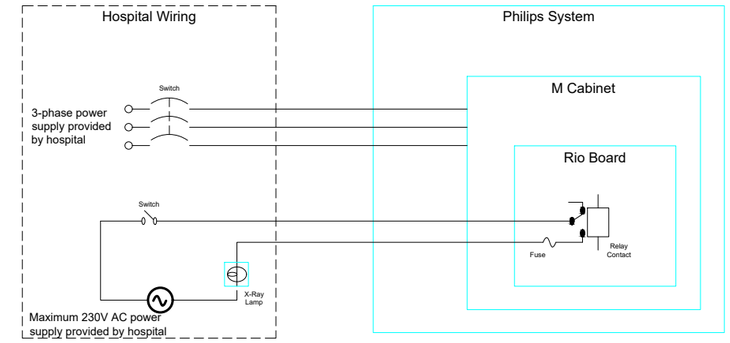
WR1 / WR2 WR3

(21.0)

Detail - X-Ray On Light and Door Switch

(CXA Generator)

Not to Scale



S1 / WL DS

(24.0)

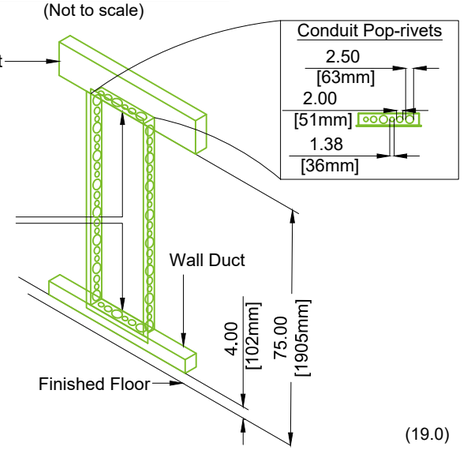
Power Quality Requirements

(M-Cabinet CXA 65)

Power Output:	65 kW
Supply Configuration:	3 phase, 3 wire power, neutral and ground. Wye. or 3 phase, 3 wire power, ground. Delta.
Nominal Line Voltage:	400, 440, 460, or 480 VAC, 60 Hz
Line Voltage Variation:	± 8% steady-state
Line Voltage Balance:	2% maximum of nominal voltage between phases
Frequency Variation:	± 1% (± 0.6 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 maximum
Ground and Neutral Conductor Impedance:	0.1 Ω @ 60Hz maximum

Detail - Wall Box Mounting

(Not to scale)



Pop-rivets on top and bottom can be removed for direct integration with raceway ducts. DO NOT remove top and bottom if conduit hubs are used.

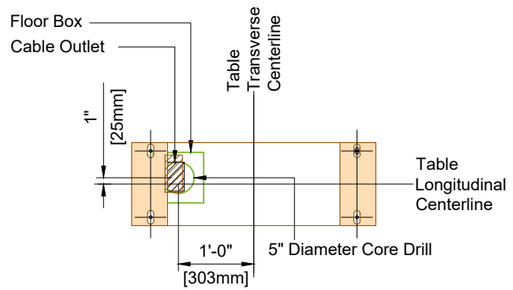
Wall Ducts are only needed if conduit knock outs within the terminal wall box are not the sufficient size, quantity, or in the proper location to meet the siting requirements.

ME / TB

(19.0)

Detail - Diagnost TH Table Base - Core Drill

Not to Scale



Provide a 5" diameter core drill if the floor cannot accommodate a standard 8"W x 8"L x 4"D floor box for "MS".

MS

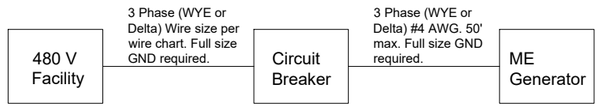
(13.1)

Branch Circuit and Wire Gauge Requirements

Branch Power:	112.5 kVA minimum
Circuit Breaker:	3 pole, 50 amperes (@ 480V) (Slow Blow)
Maximum Instantaneous Power:	88 kVA (630 mA @ 103 kV) (Short-term), < 5 amperes (Long-term)

Recommended conductor sizes for 1% impedence of branch conductors to circuit breaker (CB), based on 20°C copper conductors:

	400 VAC	440 VAC	460 VAC	480 VAC
#2 AWG	97 feet	115 feet	125 feet	137 feet
#1 AWG	123 feet	146 feet	159 feet	174 feet
1/0 AWG	155 feet	183 feet	201 feet	219 feet
2/0 AWG	195 feet	231 feet	252 feet	276 feet
3/0 AWG	245 feet	291 feet	318 feet	348 feet
4/0 AWG	313 feet	371 feet	406 feet	443 feet
250 MCM	366 feet	434 feet	475 feet	519 feet
300 MCM	439 feet	521 feet	569 feet	622 feet
Instantaneous Current	134 A	--	--	115 A
Maximum Phase-Phase Impedance	0.2 Ω	--	--	0.3 Ω
Maximum Load Voltage Drop	45.6 V	42.0 V	40.0 V	38.0 V
Percent Regulation at Maximum Load	11.4%	9.5%	8.7%	7.9%



Minimum copper wire size, circuit breaker (CB) to equipment: #4 AWG, maximum 50' in length, (Customer/contractor provided).

*The ground conductor for the power feeder shall be the same size as the phase conductor wires.

**Residual current device to be installed depending on local regulations.

CB

(20.0)

Wall Box Ordering Details

Distinctive Manufacturing Group Method of Business
Transactions for Philips Customers

Part# 989801220367 Philips Xray Back Box

1) Three ordering methods:
-Email: backbox@thedmgusa.com
-Phone: 260-495-1818
-Fax: 260-495-1822

2) Payment Terms - Credit Card Only
-MasterCard
-Visa
-Discover
-American Express

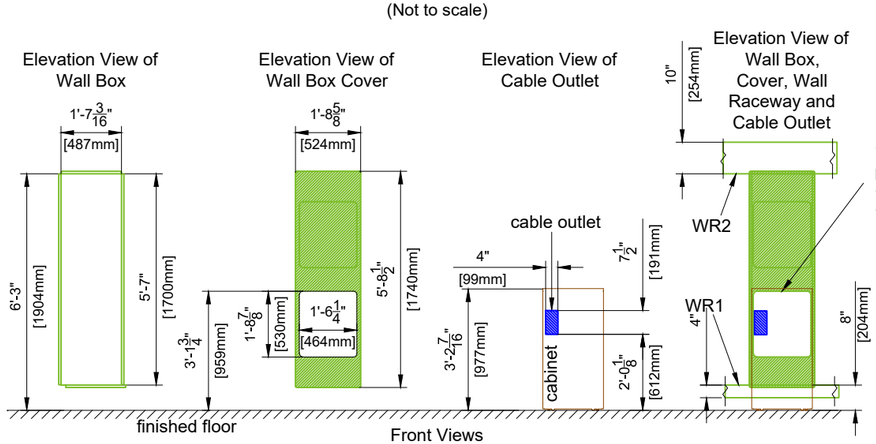
3) Lead Time
-3 Week Lead time

4) Freight
-All shipments will be shipped on skid
-Freight will be Pre-paid and added (PP+) to the invoice at time of shipment

ME

Detail - M-Cabinet CXA Wall Box - Cable Outlet on Rear

(Not to scale)



Front Views

Important Notes:
- New replacement backboxes must be installed at the standard height.
- Existing backboxes cannot be relocated or modified; doing so will void the UL rating.
- Existing backboxes that meet standard height requirements can be re-used.

Wall Box Cover
Bottom cover punch out to be used. Top of the cover punch out should not be higher than height of the cabinet.

Wall Box
General contractor to pop out top/bottom of box as required. Provided by customer/contractor (NA only).

(24.0)

PHILIPS

Project
Radiography 7300 C
Plus VS
McHenry County College
Crystal Lake, IL
Room: Rad E116C

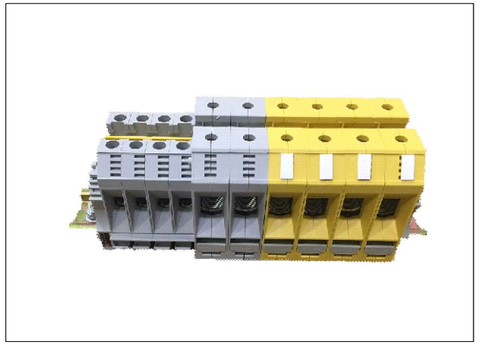
Philips Contacts
Project Manager: Keith Miller
Contact Number: (630) 461-6567
Email: keith.miller@philips.com
Drawn By: Minsey Lee

Project Details
Drawing Number
N-MID250009 A
Date Drawn: 2/25/2025
Quote: Q-00383092
Order: 6600717967.010000

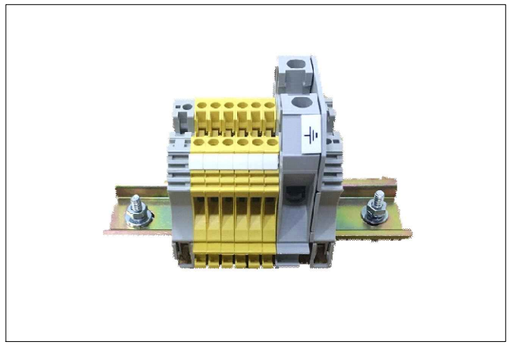
ED1

Detail - Screw Connection Terminal Blocks

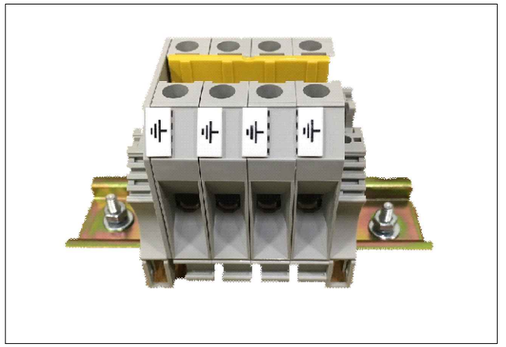
(Not to Scale)



A Block (Quantity = 1)		
Parts	Quantity	Wire Range
1492-J50 Yellow	4	#10 - 1/0 AWG, Yellow
1492-J50 Gray	2	#10 - 1/0 AWG, Gray
1492-J16 Gray	4	#18 - 4 AWG, Gray



D Block (Quantity = 1)		
Parts	Quantity	Wire Range
1492-J3 Yellow	6	#28 - 12 AWG, Yellow
1492-J16 Gray	1	#18 - 4 AWG, Gray



E Block (Quantity = 1)		
Parts	Quantity	Wire Range
1492-J16 Gray	4	#18 - 4 AWG, Gray

TB

(24.0)

Pre-Assembled Blocks are available through Anixter:

Possible Supplier: Anixter, Inc. www.Anixter.com

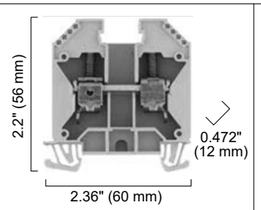
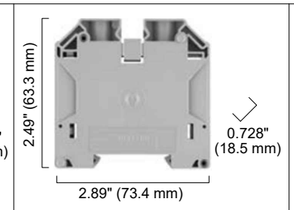
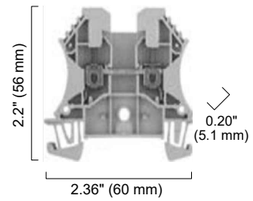
- Anixter Phone Number: 860-282-5300
- Primary Sales Contact: Joe Digiovanni 860-282-5347 joe.digiovanni@anixter.com
- Secondary Sales Contact: Lori Perras 860-205-4095 Lori.perras@anixter.com

- Part# 800170 for “A” Block (Quantity: 1)
- Part# 800173 for “D” Block (Quantity: 1)
- Part# 800174 for “E” Block (Quantity: 1)

* Customer/Contractor to provide the four blocks (one A, two D, and one E). Contractor to show the Philips Service the four blocks are available at least one week prior to system delivery and installed inside the "ME" wall box prior to system delivery date. Each block must have its parts assembled on a customer/contractor supplied DIN rail as shown in pictures above.

Screw Connection Terminal Blocks

Standard Feed-Through Blocks

	1492-J16			1492-J50				1492-J3			
Dimensions are not intended to be used for manufacturing purposes. **Note**: Height dimension is measured from top of rail to top of terminal block.											
Specifications	*Feed-through terminal block*			*Feed-through terminal block*				*Feed-through terminal block*			
Certifications	LR	CSA IEC ATEX		LR	CSA IEC ATEX			LR	CSA IEC ATEX		
Voltage Rating	600V AC/DC	1000V AC/DC	690V AC/DC	1000V AC/DC	600V AC/DC	1000V AC/DC	690V AC/DC	600V AC/DC		800V AC/DC	550V AC/DC
Maximum Current	85 A	76 A	66 A	150 A		150 A	126 A	25 A	20 A	24 A	21 A
Wire Range (Rated Cross Section)	#18…4 AWG	16 mm2	16 mm2 (#16…6 AWG)	#10… 1/0 AWG	#8… 1/0 AWG	50 mm2	#10… 1/0 AWG 50 mm2	#22…12 AWG	#26…12 AWG	2.5 mm2	2.5 mm2 (#20…14 AWG)
Wire Strip Length	0.63 in. (16 mm)			0.94 in. (24 mm)				0.39 in. (10 mm)			
Recommended Tightening Torque	35.0 lb•in (4.0 N•m)			31.5 lb•in (3.6 N•m)				4.5…7.1 lb•in (0.5…0.8 N•m)			
Density	25 pcs/ft (83 pcs/m)			16 pcs/ft (54 pcs/m)				59 pcs/ft (196 pcs/m)			
Housing Temperature Range	-58…+248 °F (-50…+120 °C)			-58…+248 °F (-50…+120 °C)				-58…+248 °F (-50…+120 °C)			

PHILIPS

Project
Radiography 7300 C Plus VS
McHenry County College
Crystal Lake, IL
Room: Rad E116C

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Project Manager: Keith Miller
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Email: keith.miller@philips.com
Drawn By: Minsey Lee

Project Details
Drawing Number
N-MID250009 A
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Order: 6600717967.010000

ED2

Philips Healthcare Remote Services Network (RSN)

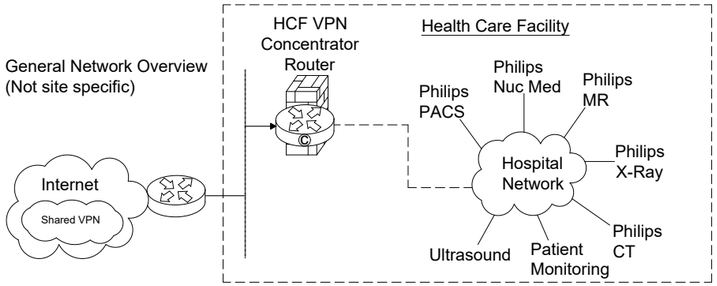
Secure broadband connection required for Philips remote technical support, diagnostics, and applications assistance

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

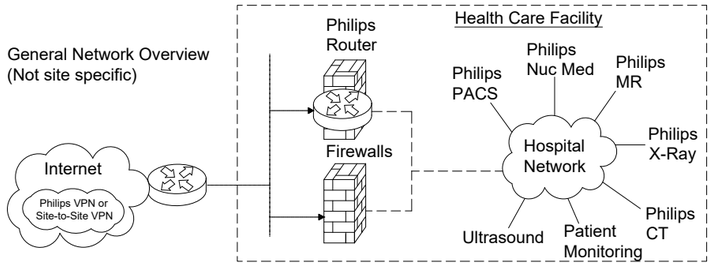
This connectivity method is designed for customers who have a dedicated high speed connection for Philips equipment.

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.

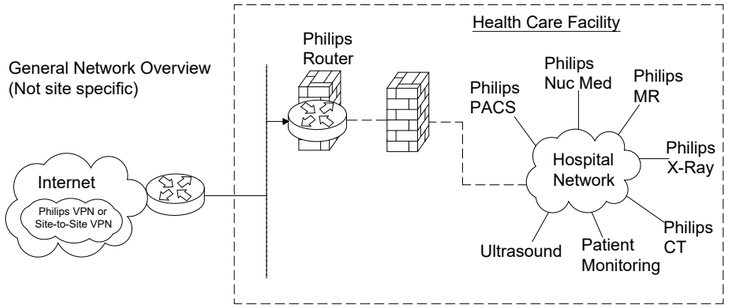


Action Required by Hospital:

- 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.

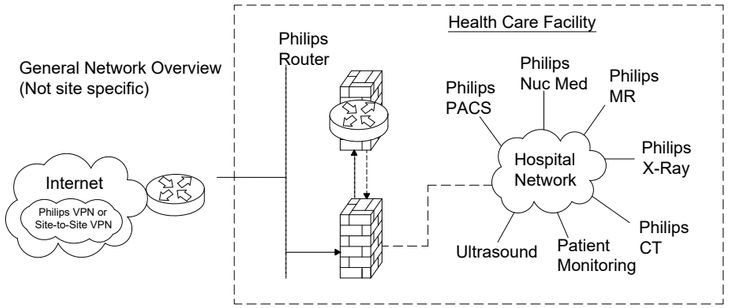


Action Required by Hospital:

- 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 an 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.

Network Questionnaire and Customer Network Information Sheet

This information must be available at the moment of system configuration.
Please fill in the appropriate boxes in advance before the system will be delivered.
If a section has a check in brackets, your facility has this licensed option or hardware option and information will be needed.

Header colors indicate the following:
Blue = must be filled in completely
Yellow = Licensed options
White = redundancy or special DICOM option

Highlighted fields have to be filled in by hospital IT

Customer Information	
Hospital name	
IT contact & phone #	
Email address	
X-Ray manager & phone #	
Email address	
Other contact name & phone #	
Email address	

Philips Information (filled in by FSE)	
Project manager & phone #	
Email address	
Service engineer & phone #	
Email address	

Philips X-ray Equipment (filled in by FSE)	
System type	
Site ID or site number	
Eleva software version	
MAC address	
MAC address (WiFi)*	
System SN	
Generator (X-ray control) SN	
Install date	
Room number	
Wall port number	
Sales order #	
FDA 2579 form # **	

* Only in case of MobileDiagnost wDR
** Only for FDA controlled countries

Wired Network Settings		
TCP/IP settings		
Host name (System)		
Use DHCP*	☐ yes	☐ no
IP address		
Subnet mask (only if not DHCP)		
Default gateway (only if not DHCP)		

Network Settings (Wireless Portable Detector & WiFi Access Point)	
Access point information	
Wireless Standard	☐ IEEE 802.11a (5 Ghz) preferred ☐ IEEE 802.11b/g (2.4 Ghz) ☐ IEEE 802.11n ☐ 2.4 GHz ☐ 5GHz ☐ 2.4 GHz/5GHz
Channel	
Ask the local wireless-network-IT administrator (responsible person) to assign a channel according to local wireless network needs. Each access point needs its own exclusive channel. Make sure that two access points, which operate in the same wireless range, use different channels (for example two systems, which operate in neighboring rooms).	

* If DHCP is used, no IP Address, Subnet mask and default gateway is needed

DICOM Settings (System)		
Name		
AE title		
Port number		
Allow incoming queries	☐ yes	☐ no

PHILIPS

Project
Radiography 7300 C
Plus VS
McHenry County College
Crystal Lake, IL
Room: Rad E116C

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Project Manager: Keith Miller
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Email: keith.miller@philips.com
Drawn By: Minsey Lee

Project Details
Drawing Number
N-MID250009 A
Date Drawn: 2/25/2025
Quote: Q-00383092
Order: 6600717967.010000

N1

Wireless Network Settings (MobileDiagnost wDR Only)	
Access point information	
SSID (access point hospital)	
Security standard	☐ WEP ☐ WPA WPA2
Encryption type	☐ TKIP (RC4) ☐ CCMP (AES) ☐ no encryption
Supported Authentication	☐ PSK ☐ IEEE 802.1x
PSK settings	
Pre Shared Key (WPA/WPA2: min. 8 and max. 63 printable ASCII characters)	(don't type a password here but provide it at the time of installation)
802.1x settings	
Method EAP Protocol	☐ PEAP ☐ EAP-TLS
Client certificate	Provide client certificate (including private key) with entire certificate path at the time of installation. Supported file formats:*.cer *.pfx
Server certificate validation	☐ yes ☐ no
TCP/IP settings	
Use DHCP*	☐ yes ☐ no
IP address	
Subnet mask	
Default gateway	

PACS - DICOM Store (Export)	
Name	
AE title	
Port number	
IP host name	
IP address	
IS archive	☐ yes ☐ no

PACS - DICOM Store (Backup)	
Name	
AE title	
Port number	
IP host name	
IP address	
IS archive	☐ yes ☐ no

PACS - Query Retrieve	
Name	
AE title	
Port number	
IP host name	
IP address	

RIS Node - DICOM (BWLM)	
Name	
AE title	
Port number	
IP host name	
IP address	

MPPS RIS - DICOM ☐	
Name	
AE title	
Port number	
IP host name	
IP address	

DICOM Default (For All DICOM Nodes)	
Default AE title (must be one of the already defined AE titles)	

Audit Trail Server ☐	
UDP/TCP protocol	
IP host name	
IP address	
Port number	
Format of audit trail	☐ ATNA ☐ Basic security

NTP Time Server ☐	
IP host name	
IP address	
Port number	

Printer I - DICOM Print ☐	
Manufacturer name & type	
Used template	
Printer location	
Name	
AE title	
Port number	
IP host name	
IP address	

Printer Medium: Film Type, Size, Bits		

Printer II - DICOM Print (Backup) ☐	
Manufacturer name & type	
Used template	
Printer location	
Name	
AE title	
Port number	
IP host name	
IP address	

Printer Medium: Film Type, Size, Bits		

Printer III - DICOM Print (Backup) ☐	
Manufacturer name & type	
Used template	
Printer location	
Name	
AE title	
Port number	
IP host name	
IP address	

Printer Medium: Film Type, Size, Bits		

Service Tool: FSF.net (Increment 34+36)

Philips Service Agent (PSA)	
Philips environment	☐ iSSL Enabled ☐ iSSL Enabled with Log Upload ☐ VPN Enabled ☐ VPN Enabled with Log Upload (port 443 outbound shall be open)
Proxy server address	**Port:**
Proxy user name	
Proxy password	(don't type a password here but provide it at the time of installation)

Remote Service Gateway	
Network	
Subnet mask	
Gateway	

Service Tool: PSC (Increment 37 and higher)

Remote Connection Tool (RCT)	
Connection type	☐ Internet ☐ VPN (port 443 outbound shall be open)
PRS server	☐ Production
Poll interval	☐ Small – 100 seconds ☐ Medium – 200 seconds ☐ Large – 300 seconds
Configure NAT	
PRS Server NAT Address	
Tunnel Server NAT Address	
PRS Server NAT Port	
Tunnel Server NAT Port	
Remote Service Gateway	
Network	
Subnet mask	
Gateway	

Philips Remote Service Details for M2M Infrastructure: ISSL Connectivity Mode:

Philips Server Name	Address
PRS Server	212.159.204.247 & https://ws-m2m.prs.healthcare.philips.com
Tunnel Server	212.159.204.252 & https://ws-m2m.prs.healthcare.philips.com
Registration Server	212.159.204.254 & https://ws-m2m.prs.healthcare.philips.com

VPN Connectivity Mode:

Philips Server Name	Address
PRS Server	https://192.68.49.50:443
Tunnel Server	https://192.68.49.49:443

Service Tool: PSC (Increment 42)

WAN - Communication from HS EDGE to Health Suite Cloud Outbound Only				
Source	**Destination**	**Port**	**Protocol**	**Direction**
HS Edge	193.25.48.0 /20	4500	UDP	Outbound
HS Edge	193.25.48.0 /20	443	TCP	Outbound
HS Edge	*.hsdp.io *.philips-healthsuite.com	443	TCP	Outbound

LAN - Medical Device communication to HS EDGE				
Source	**Destination**	**Port**	**Protocol**	**Direction**
System	HS Edge	8443	HTTPS	Outbound
System	HS Edge	3922	SSH	Outbound
Note: None of the above should be accessible from the WAN				

Device Registration	
Remote Service Gateway IP/FQDN (IP Addressof LAN Interface of EDGE Device i.e. RSG on Premise)	

Remote Service Gateway (Persistent route to PRS sever - Optional)	
Network	
Subnet mask	
Gateway	

PHILIPS

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Radiography 7300 C
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N2

Instructions

This form is to be used by Project Manager, Contractor, and Service Engineer. Information is used to develop and determine site ready date.

Be sure to contact the Zone Installation Specialist (ZIS), Field Service Engineer (FSE), or National Support Specialist (NSS) if you have questions concerning any of these checklist items.

Site Readiness Checklist

Required Prior to Delivery

- ☐ **Cable Trough/Raceway/Conduit:** Installed, cleaned and locations checked per Philips Final Drawings. Duct covers in place. Cable openings are clear, without sharp edges. ***Greenlee*** pull strings/measuring tape, (Part # 435, or equivalent), are in place.
- ☐ **Ceiling (Hard):** Installed and painted.
- ☐ **Ceiling (Drop-In):** Installed.
- ☐ **Customer Site Preparation:** Verified per Philips Final Drawings.
- ☐ **Delivery Path and Truck Parking:** Has been checked with the customer and lead FSE including verifying floor loading, delivery route, elevator capacity, height, width and depth clearances, and a plan for bad weather.
- ☐ **Doors:** Installed.
- ☐ **Drawings (Final):** Shows all room obstacles to include millwork, lighting overlay, structure overlay, med gases and plumbing.
- ☐ **Flooring:** Installed and covered with protective covering (i.e. scratch protection).
- ☐ **Glass:** Installed.
- ☐ **HVAC (Climate Equipment):** Installed and operational. Humidity and temperature requirements per Philips Final Drawings.
- ☐ **Installation Team:** Has received the room drawings and necessary contact phone numbers.
- ☐ **Millwork:** Completely installed in all rooms.
- ☐ **Parking:** Parking area identified for installers.
- ☐ **Permits and Inspections:** Completed by applicable governing authorities. Method statement available and safety meetings attended (OSHPD, AHCA).
- ☐ **Philips Project Space:** Is clean, free of dust, all construction-related debris and tools have been removed.
- ☐ **Restroom Facilities**: Toilet facilities, including area to wash up, are available.
- ☐ **Room Lighting:** Installed and operational.
- ☐ **Room Security:** Room is secure, with keys and alarm codes provided.
- ☐ **Site Access:** Is available for after hours. Storage for tools, parts, covers and packing material has been arranged.
- ☐ **Site Is Safe To Work:** PPE requirements identified (Construction and Hospital). No open Mains, slippery floors, sharp edges, or hazardous goods on site.
- ☐ **Sprinklers:** Installed.
- ☐ **Transport & Handling Tools:** Crane, forklift, wheels and trolleys have been specified with the LMP/rigging company. NOTE: If rigging provided by Philips, verify the vendor is on the Philips' Approved Suppliers List.
- ☐ **Walls:** Installed and final finished, (i.e. final coat painted and/or tiled).
- ☐ **Existing Equipment:** Is dismantled and removed from the site.
- ☐ **Floor Levelness:** Checked with Laser Level and is level per Philips Final Drawings.
- ☐ **System Orientation:** Verified per Philips Final Drawings.
- ☐ **Table Isocenter:** Verified per Philips Final Drawings.
- ☐ **Mains Power Supply:** Installed per Philips Final Drawings. (Including impedance, isolated grounds, wire size verified, and distribution unit has been installed).
- ☐ **UPS:** Fully installed per Philips Final Drawings, and startup has been scheduled with vendor.
- ☐ **Back Boxes:** Installed with required covers and grommet material per Philips Final Drawings, (i.e. spacing between boxes and height off finished floor).
- ☐ **Ceiling Height:** Verified per Philips Final Drawings
- ☐ **Ceiling Obstructions:** Verify there are no obstructions where Philips rails will be installed
- ☐ **Ceiling Rails:** Pre-delivered and installed (if applicable).
- ☐ **Clearances:** Verified to the closest obstacles, (i.e. walls, cabinets, etc.) in order to lift of the CS, monitor support, etc.
- ☐ **Fixing Blocks:** Provided by Philips, verify the block properly seats in the Unistrut channel with no obstructions, as designed.
- ☐ **Floor Plates (If applicable):** Patient Support and Stand, are installed, isolated, and leveld, at the correct positions per Philips Final Drawings.
- ☐ **Pre-Term Wire Kit:** Philips pre-cabling has been delivered and installed.
- ☐ **Unistrut (P1001 or equal):** Installed and leveled per Philips Final Drawings.
- ☐ **Wall Backing:** Verify it is in place per Philips Final Drawings..

Required Prior to Philips System Power Up

- ☐ **Wall Outlets:** Installed and functional.
- ☐ **Door Interlock Switch:** If required, is installed per Philips Final Drawings.
- ☐ **X-Ray in Use or Warning Light:** If required, is installed per Philips Final Drawings.
- ☐ **Physicist:** If required, verify the Physicist has been scheduled.
- ☐ **Network Connections:** Hardware is installed and active per Philips Final Drawings. All network information provided by facility IT, i.e. IP addresses (static IPs only), AE Titles, SNM, GTWY and DNS server are available.
- ☐ **UPS:** Commissioned and certified by UPS vendor.

Approved for Delivery

Project Manager	Date
Service Engineer	Date

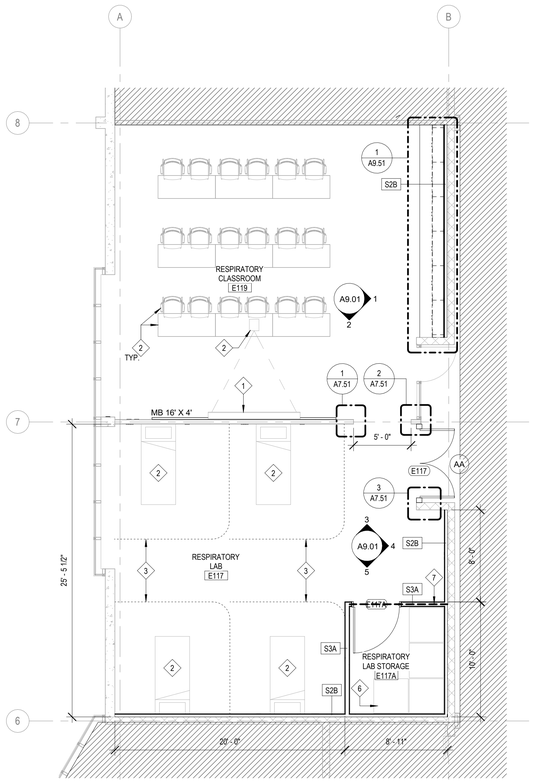
PHILIPS

Project
Radiography 7300 C Plus VS
McHenry County College
Crystal Lake, IL
Room: Rad E116C

Philips Contacts
Project Manager: Keith Miller
Contact Number: (630) 461-6567
Email: keith.miller@philips.com
Drawn By: Minsey Lee

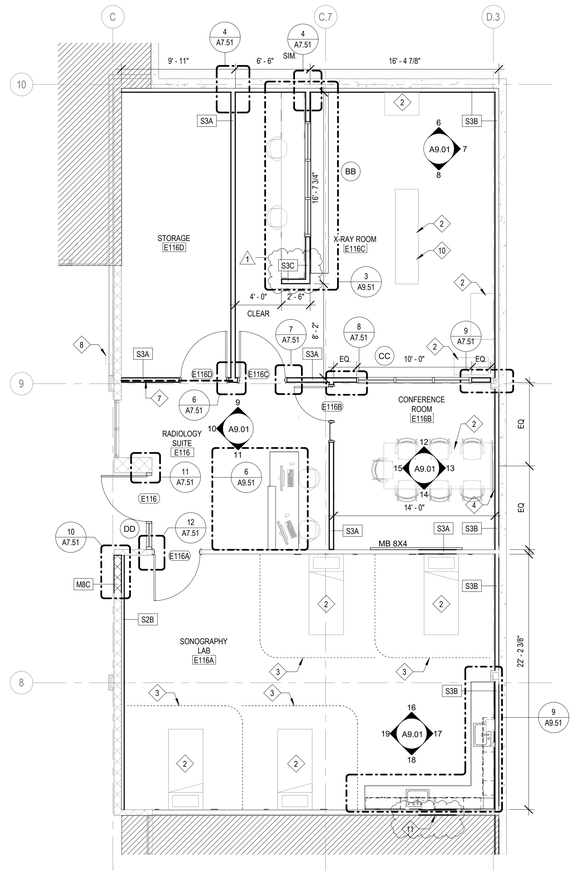
Project Details
Drawing Number
N-MID250009 A
Date Drawn: 2/25/2025
Quote: Q-00383092
Order: 6600717967.010000

CHK



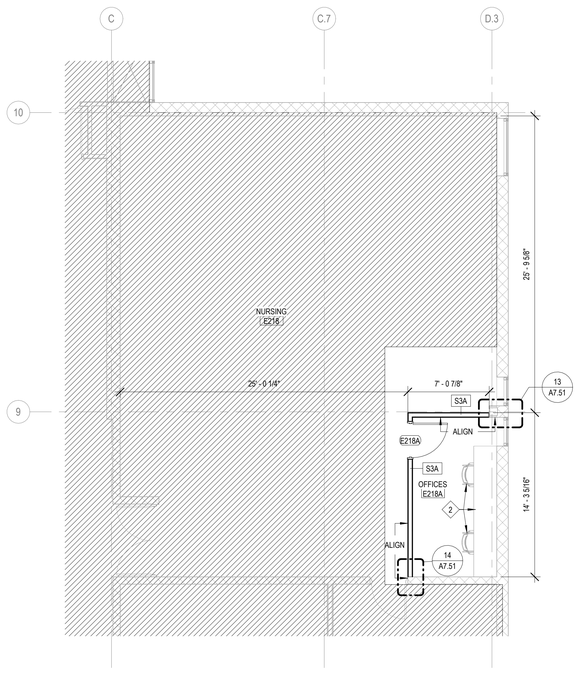
1 FLOOR PLAN - LEVEL 1- RESPIRATORY
3/16" = 1'-0"

TRUE NORTH



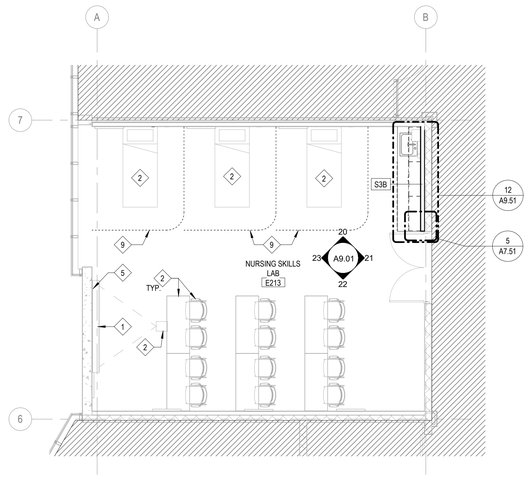
2 FLOOR PLAN - LEVEL 1 - RADIOLOGY
3/16" = 1'-0"

TRUE NORTH



3 FLOOR PLAN - LEVEL 2 - NURSING
3/16" = 1'-0"

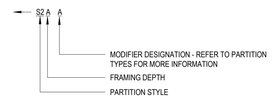
TRUE NORTH



4 FLOOR PLAN - LEVEL 2 - NURSING SKILLS
3/16" = 1'-0"

TRUE NORTH

PARTITION TYPE LEGEND



PARTITION TYPE GENERAL NOTES:

1. ALL INTERIOR PARTITIONS SHALL BE TYPE S1A (U.N.O.)
2. ALL GYP BD ENCLOSURES AROUND COLUMNS SHALL BE TYPE S2D (U.N.O.)
3. PROVIDE SOLID FIRE RETARDANT TREATED WOOD BLOCKING, FLAT METAL STRAPS, OR METAL BACKING PLATES AT ALL WALL MOUNTED FIXTURES AND ACCESSORIES, INCLUDING BUT NOT LIMITED TO, DOOR STOPS, MILLWORK, DIGITAL DISPLAYS, VISUAL DISPLAY BOARDS, TOILET PARTITIONS, AND SIMILAR CONDITIONS.
4. PROVIDE MOISTURE RESISTANT GYP BD AT ALL PLUMBING PARTITIONS NOT SCHEDULED TO RECEIVE TILE.
5. SEE SPECIFICATIONS FOR ORIENTATION OF GYP BD PANELS, SIZING, AND SPACING OF METAL STUD FRAMING.
6. SEE SPECIFICATIONS FOR TYPE AND SPACING OF CMU HORIZONTAL JOINT REINFORCEMENT.
7. SEE INTERIOR ELEVATIONS FOR ANY GYP BD REVEAL PATTERNS.
8. FIRE-RESISTANCE-RATED SEPARATIONS
   A. SEE CODE COMPLIANCE PLANS FOR LOCATIONS AND TYPES OF FIRE RESISTANCE-RATED SEPARATIONS.
   B. AT SMOKE PARTITIONS, FIRE PARTITIONS AND FIRE BARRIERS, WALL ASSEMBLY CONSTRUCTION SHALL EXTEND FROM TOP OF FLOOR TO THE UNDERSIDE OF THE FLOOR, ROOF SLAB, OR DECK ABOVE.
   C. ALL PARTITIONS SHALL HAVE THE FOLLOWING PERMANENTLY AFFIXED MARKINGS AND IDENTIFICATION:
      a. 1/2" HIGH LETTERING, INDICATING RATING AND FIRE RESISTANCE RATED PARTITION TYPE, I.E. "2-HR FIRE WALL" OR "1-HR FIRE BARRIER", AND SHALL ALSO INCLUDE THE FOLLOWING SUFFIX: "PROTECT ALL OPENINGS AND PENETRATIONS"
      b. LOCATE LETTERING ABOVE ACCESSIBLE CEILINGS AT INTERVALS NOT TO EXCEED 30'-0". THERE SHOULD BE A MINIMUM OF ONE MARKING PER WALL, PER ROOM.

FLOOR PLAN & SECTION SYMBOLS LEGEND:

NOTE: REFER TO M.E.P.F.P. DRAWINGS FOR ADDITIONAL INFORMATION ON MECHANICAL, ELECTRICAL, AND FIRE PROTECTION SYSTEMS

- GREYTONE LINES DEPICT EXISTING CONSTRUCTION
- EXISTING DOOR
- NEW WALL CONSTRUCTION
- NEW DOOR
- ROOM NAME / 101 — ROOM TAG
- XXXX — DOOR / FRAME TAG
- XX — WINDOW TAG
- XX / 2HR — PARTITION TYPE / PARTITION MODIFIERS - REFER TO A10.01
- 1 / AXX.XX / SIM — PLAN AND SECTION DETAIL CALLOUT
- 1 / AXX.XX / SIM — SECTION CALLOUT
- 1 / A101 / 1 — ELEVATION CALLOUT
- DATUM ELEVATION — DATUM TAG
- 1 — NEW WORK REFERENCED NOTES
- FD — FLOOR DRAIN - REFER TO PLUMBING
- FEC — SURFACE-MOUNTED EXTINGUISHER CABINET
- SFEC — SEMI-RECESSED EXTINGUISHER CABINET
- RFEC — RECESSED EXTINGUISHER CABINET
- X' MB — LENGTH SPECIFIED MARKERBOARD

FLOOR PLAN GENERAL NOTES:

1. FINISH FLOOR ELEVATION OF 0'-0" = XXX.X' USGS.
2. ELEVATIONS SHOWN ON ARCHITECTURAL DRAWINGS ARE RELATIVE TO FIRST FLOOR FINISH ELEVATION OF 0'-0". REFER TO CIVIL DRAWINGS FOR COORDINATING USGS ELEVATION.
3. REFER TO CODE PLANS ON SHEETS AC1.10 FOR FIRE RATINGS AND AREA SEPARATION LOCATIONS FOR WALLS, ENCLOSURES, OPENINGS, ETC.
4. DO NOT SCALE DRAWINGS.
5. NOTIFY ARCHITECT OF ANY DISCREPANCIES IN THE DOCUMENTS PRIOR TO WORK COMMENCING.
6. NOTES ON DRAWINGS SHALL APPLY TO ALL SIMILAR CONDITIONS WHETHER THEY ARE REPEATED OR NOT.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF EXISTING CONDITIONS AND IN-FIELD DIMENSIONS PRIOR TO COMMENCING WORK.
8. ALL INTERIOR DIMENSIONS ARE TO FACE OF FINISHED WALL UNLESS NOTED OTHERWISE.
9. PROVIDE ACCESS PANELS AT LOCATIONS INDICATED AND AS REQUIRED FOR ACCESS TO EQUIPMENT AND DEVICES INCLUDING, BUT NOT LIMITED TO, MECHANICAL, PLUMBING AND ELECTRICAL WORK. PAINT ACCESS PANELS TO MATCH ADJACENT WALL OR CEILING FINISH.
10. REFER TO A10.01 FOR PARTITION SCHEDULE. ALL INTERIOR PARTITIONS SHALL BE TYPE S1A-A, U.N.O. . ALL GYP BD COLUMN ENCLOSURES SHALL BE TYPE S2D, U.N.O..
11. REFER TO EXTERIOR ELEVATIONS, SECTIONS AND DETAILS FOR CONSTRUCTION OF EXTERIOR WALLS.

FLOOR PLAN REFERENCED NOTES:

1. WALL MOUNTED PULL DOWN PROJECTION SCREEN.
2. FURNITURE OR EQUIPMENT - PROVIDED AND INSTALLED BY OWNER. COORDINATE LOCATIONS OF NEW POWER, DATA, AND BLOCKING WITH FF&E PRIOR TO INSTALLATION.
3. CURTAIN AND TRACK OVERHEAD (REFER TO RCP).
4. WALL MOUNTED MONITOR PROVIDED / INSTALLED BY OWNER (REFER TO ELEC / TECH).
5. EXISTING MARKERBOARD TO REMAIN.
6. EXISTING EQUIPMENT (TYP. FOR 4) - PROVIDED AND INSTALLED BY OWNER. COORDINATE LOCATIONS OF NEW POWER, DATA, AND BLOCKING WITH FF&E PRIOR TO INSTALLATION.
7. WALL TO EXTEND TO 6" ABOVE ADJACENT CEILING TO ALLOW OPEN ACCESS TO EXISTING MECHANICAL UNIT ABOVE TO REMAIN - BRACE WALL AS REQUIRED TO FULL HEIGHT WALLS ADJACENT AND TO STRUCTURE ABOVE.
8. EXISTING SEMI-RECESSED FIRE EXTINGUISHER TO REMAIN.
9. EXISTING CURTAIN AND OVERHEAD TRACK TO REMAIN.
10. (E) SLAB ON GRADE IS 7" CONCRETE WITH (2) LAYERS OF WWR. IF X-RAY VENDOR DOES NOT INDICATE THE ANCHORAGE TO BE USED TO ANCHOR THE EQUIPMENT TO THE SLAB, PROVIDE MINIMUM 3/8"Ø (#3) HILTI KWIK BOLT-TZ2 ANCHORS WITH 2" EMBEDMENT.
11. PROVIDE WALL INFILL TO MATCH EXISTING WALL. PER EXISTING DRAWINGS, EXISTING WALL CONSTRUCTION SHOULD BE 3-5/8" METAL STUD FRAMING WITH (2) LAYERS OF 5/8" GYP BOARD EACH SIDE.

ARCHITECT OF
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

S / MEP / FP / T ENGINEERS:
IMEG CORP.
1100 WARRENVILLE RD., SUITE 400W
NAPERVILLE, IL 60563
P: 630.527.2320

McHenry County College
HEALTH SCIENCE 2024 RENOVATIONS

8600 ROUTE 14, SUITE 205
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24-032

KEY PLAN:

SHEET STATUS: 02/18/2025

ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #2	3/7/25

SHEET TITLE:
FLOOR PLANS

SHEET NUMBER:
A1.10

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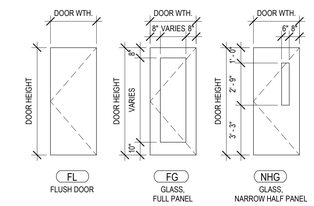
DOOR AND FRAME SCHEDULE

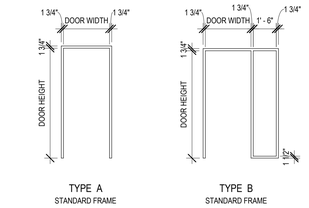
DOOR								FRAME				
NUMBER	ROOM NAME	WIDTH	HEIGHT	FIRE RATING	MATERIAL	ELEV	GLAZING TYPE	MATERIAL	ELEV	GLAZING TYPE	HARDWARE SET	REMARKS
E116	RADIOLOGY SUITE	4' - 0"	7' - 0"	-	WD	NHG	GL-01	HM	-	GL-02		HM STOREFRONT SYSTEM (REFER TO ELEV)
E116A	SONOGRAPHY LAB	4' - 0"	7' - 0"	-	WD	NHG	GL-01	HM	A	-		
E116B	CONFERENCE ROOM	3' - 0"	7' - 0"	-	WD	FG	GL-02	HM	B	GL-02		
E116C	X-RAY ROOM	4' - 0"	7' - 0"	-	WD	NHG	GL-01	HM	A	-		
E116D	STORAGE	4' - 0"	7' - 0"	-	WD	FL	-	HM	A	-		
E117	RESPIRATORY LAB	6' - 0"	7' - 0"	-	WD	NHG	GL-01	HM	-	GL-02		HM STOREFRONT SYSTEM (REFER TO ELEV)
E117A	RESPIRATORY LAB STORAGE	4' - 0"	7' - 0"	-	WD	FL	-	HM	A	-		
E218A	OFFICES	3' - 0"	7' - 0"	-	WD	FG	GL-02	HM	A	-		

GLAZING SCHEDULE

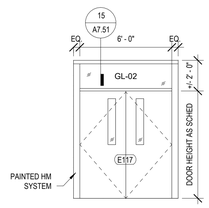
GL-01	1/4" CLEAR TEMPERED GLASS
GL-02	1/2" CLEAR TEMPERED GLASS



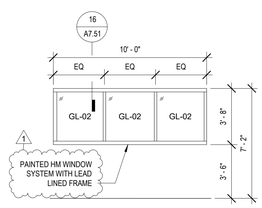
1 DOOR ELEVATIONS
1/4" = 1'-0"



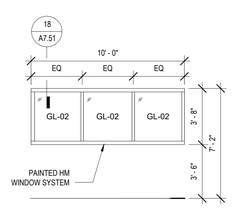
2 FRAME ELEVATIONS
1/4" = 1'-0"



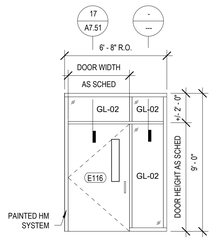
AA WINDOW ELEVATION
1/4" = 1'-0"



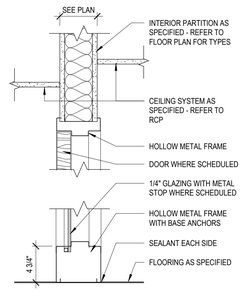
BB WINDOW ELEVATION
1/4" = 1'-0"



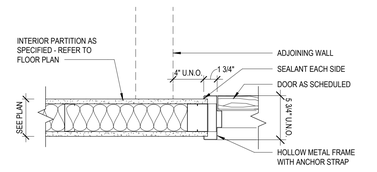
CC WINDOW ELEVATION
1/4" = 1'-0"



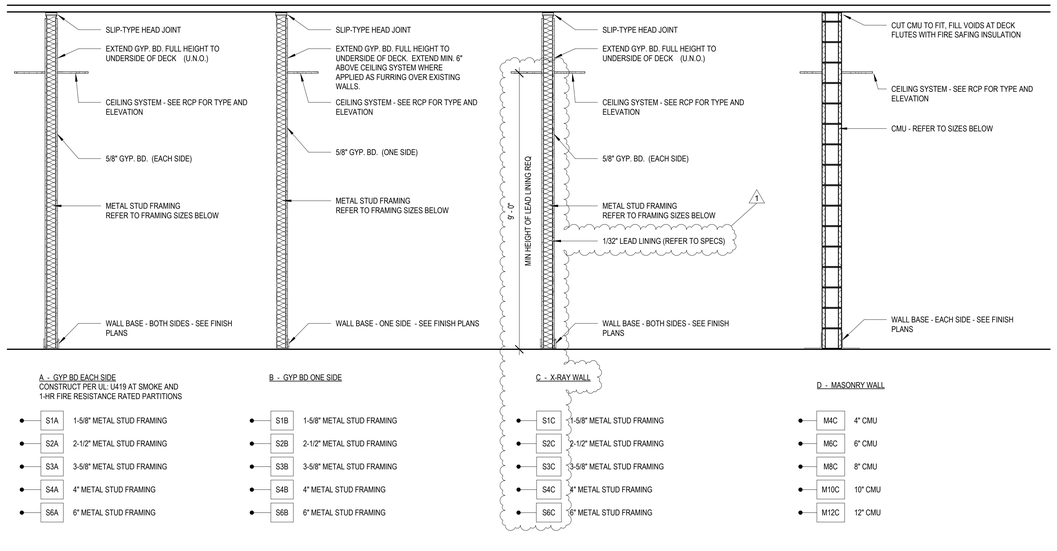
DD WINDOW ELEVATION
1/4" = 1'-0"



3 HOLLOW METAL FRAME - HEAD & SILL
1 1/2" = 1'-0"



4 HOLLOW METAL FRAME - JAMB
1 1/2" = 1'-0"



5 WALL PARTITION TYPES
1/2" = 1'-0"

ARCHITECT OF
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

S / MEP / FP / T ENGINEERS:
IMEG CORP.
1100 WARRENVILLE RD., SUITE 400W NAPERVILLE, IL 60563
P: 630.527.2320

McHenry County College
HEALTH SCIENCE 2024 RENOVATIONS

8600 ROUTE 14, SUITE 205
CRYSTAL LAKE, IL 60012
DKA PROJECT NO:24-032

KEY PLAN:

SHEET STATUS: 02/18/2025

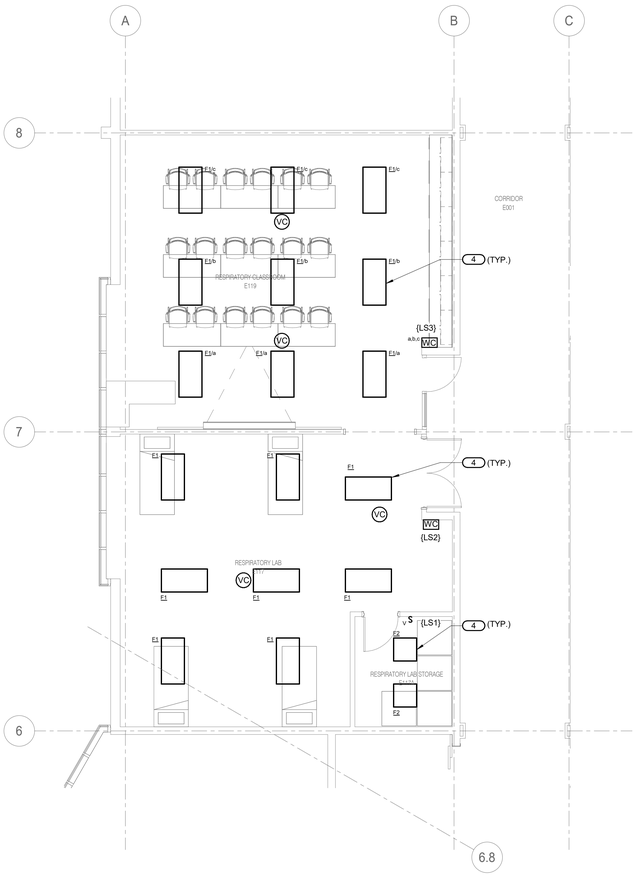
ISSUED FOR BID - NOT FOR CONSTRUCTION

NO:	DESCRIPTION:	DATE:
1	ADDENDUM #2	3/7/25

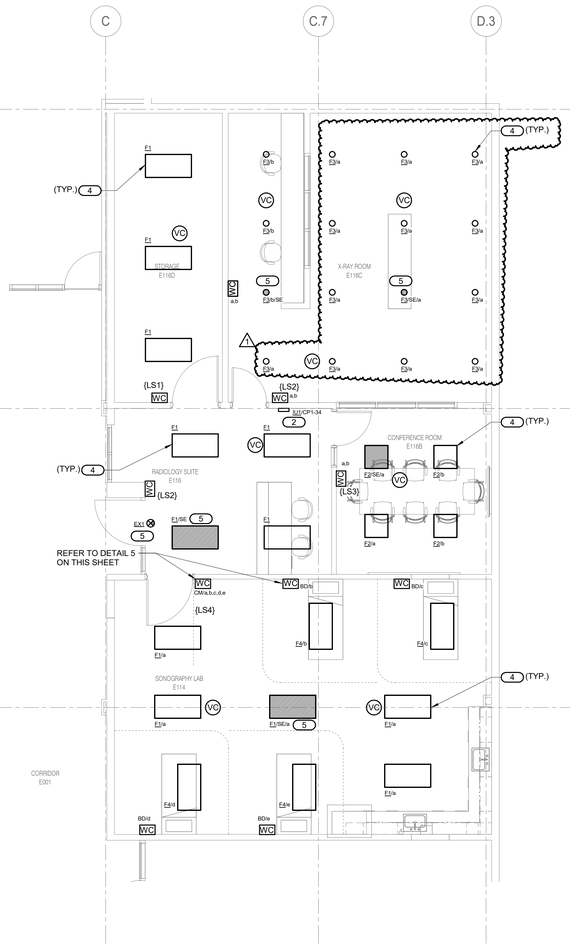
SHEET TITLE:
DOOR SCHEDULE, WINDOW ELEV, & WALL TYPES

SHEET NUMBER:
A10.00

3/8/2025 9:08:31 PM



1 LEVEL 01 - LIGHTING - RESPIRATORY CLASSROOM
3/16" = 1'-0"



2 LEVEL 01 - LIGHTING - RADIOLOGY
3/16" = 1'-0"

GENERAL SHEET NOTES:

1. REFER TO SHEET E0.00 FOR ELECTRICAL GENERAL NOTES, INSTALLATION NOTES, SYMBOL LIST, AND OTHER MISCELLANEOUS INFORMATION.
2. REFER TO SHEET E3.00 FOR PANEL SCHEDULES.
3. REFER TO SHEET E4.00 FOR LUMINAIRE SCHEDULE, LIGHTING SEQUENCE OF OPERATION AND PANEL SCHEDULES.
4. COORDINATE LUMINAIRE LOCATIONS AND MOUNTING WITH ALL EQUIPMENT, DEVICES, CONDUIT AND DUCTS.
5. REFER TO ARCHITECTURAL REFLECT CEILING PLAN, MECHANICAL, FIRE ALARM, AND OTHERELECTRICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES.
6. DEVICES SHOWN ON EXISTING CMU WALLS SHALL BE INSTALLED IN SURFACE RACEWAY (WIREMOLD 700 OR APPROVED EQUAL, COLOR SELECTION BY ARCHITECT) DEVICES SHOWN ON GYP WALL SHALL BE RECESSED MOUNTED. CONTRACTOR TO CHANNEL THE WALL AS REQUIRED TO INSTALL BACK BOX AND CONDUIT. PATCH AND REPAIR TO MATCH EXISTING CONDITIONS.

KEYNOTES:

1. REINSTALL EXISTING LIGHTING WALL CONTROLLER AS SHOWN. INSTALL IN SURFACE RACEWAY (WIREMOLD 700 OR APPROVED EQUAL, COLOR SELECTION BY ARCHITECT). RE-CONNECT TO EXISTING LOW VOLTAGE CONTROL WIRING. MATCH EXISTING CONDUIT AND WIRE.
2. EXAM IN-USE SIGN. CONNECT TO CONTACTS IN THE PHILIPS CABINET USING 2#12 IN 1/2" CONDUIT. E.C. TO FURNISH AND WIRE CONTACTS. REFER TO THE PHILIPS SITE SPECIFIC DRAWINGS FOR ADDITIONAL INFORMATION.
3. REINSTALL EXISTING LUMINAIRE IN NEW LOCATION AS SHOWN. RE-CONNECT TO EXISTING LIGHTING CIRCUIT AND CONTROLS. MATCH AND EXTEND THE EXISTING CONDUIT AND WIRE TO NEW LOCATION. USE MINIMUM 2#12 & 1#12 EGC IN 3/4" C. CLEAN FIXTURE PRIOR TO RELOCATION.
4. CONNECT NEW LUMINAIRE TO EXISTING 277V NORMAL LIGHTING CIRCUIT. MATCH AND EXTEND EXISTING CONDUIT AND WIRE, USE MINIMUM 2#12 & 1#12 EGC IN 3/4" C.
5. CONNECT NEW LUMINAIRE TO EXISTING 277V LIFE SAFETY LIGHTING CIRCUIT LOCATED IN THE CORRIDOR. MATCH AND EXTEND EXISTING CONDUIT AND WIRE, USE MINIMUM 2#12 AND 1#12 EGC IN 3/4" C.

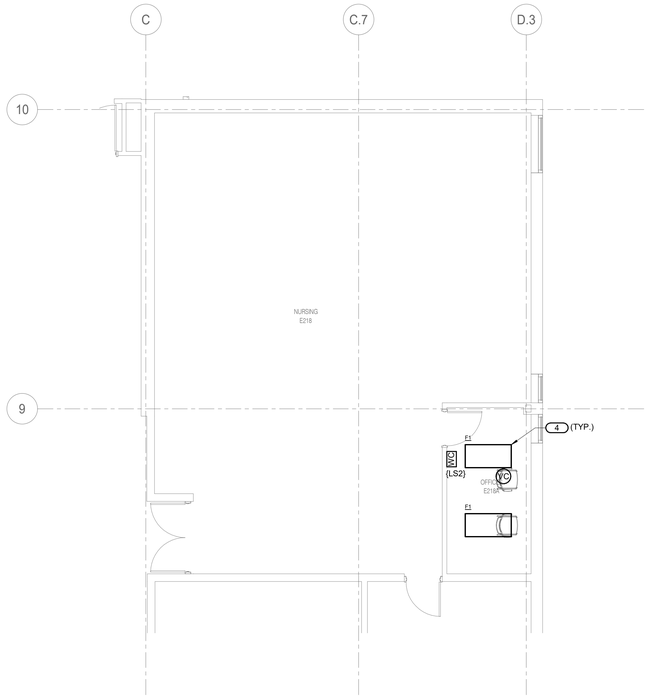
WC BD/#

on/off	AMBIENT
on/off	READING
on/off	EXAM
▽△	UP/DOWN DIMMING

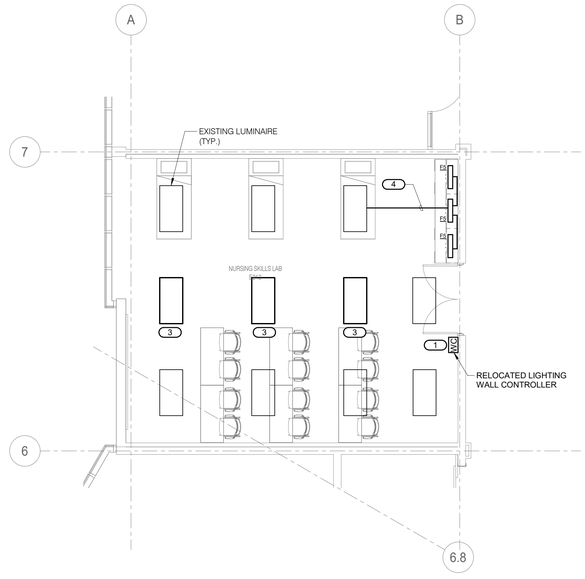
WC CM/#

on/off	ALL ZONES (AMBIENT)
on/off	ZONE - a
▽△	UP/DOWN DIMMING

5 LIGHTING CONTROLLER DETAIL FOR ROOM E114
NO SCALE



3 LEVEL 02 - LIGHTING - NURSING
3/16" = 1'-0"



4 LEVEL 02 - LIGHTING - NURSING SKILLS LAB
3/16" = 1'-0"

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

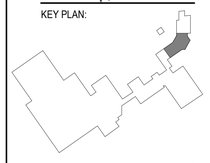
S / MEP / FP / T ENGINEERS:
IMEG CORP.
253 SHUMAN BOULEVARD, SUITE 550 NAPERVILLE, IL 60563
P: 630.527.2320

McHenry County College HEALTH SCIENCE 2024 RENOVATIONS

8600 ROUTE 14, SUITE 205
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24-032

JEFFREY M. LEESMAN
062-060380
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS
EXP 11/30/2025
02/18/2025

KEY PLAN:



SHEET STATUS: 02/28/2025
ISSUED FOR BID

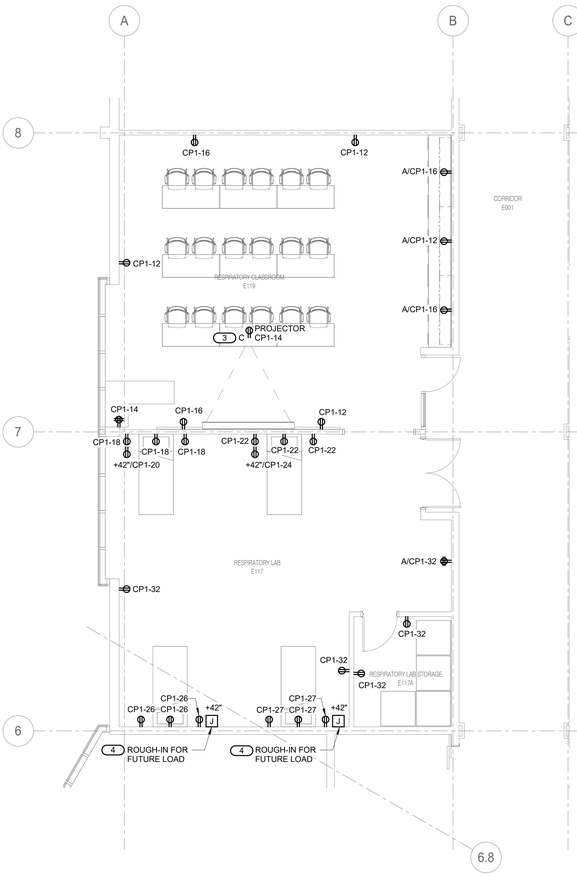
NO:	DESCRIPTION:	DATE:
1	ADDENDUM 2	03/07/25

SHEET TITLE:
FLOOR PLANS - LIGHTING

SHEET NUMBER:
E1.10

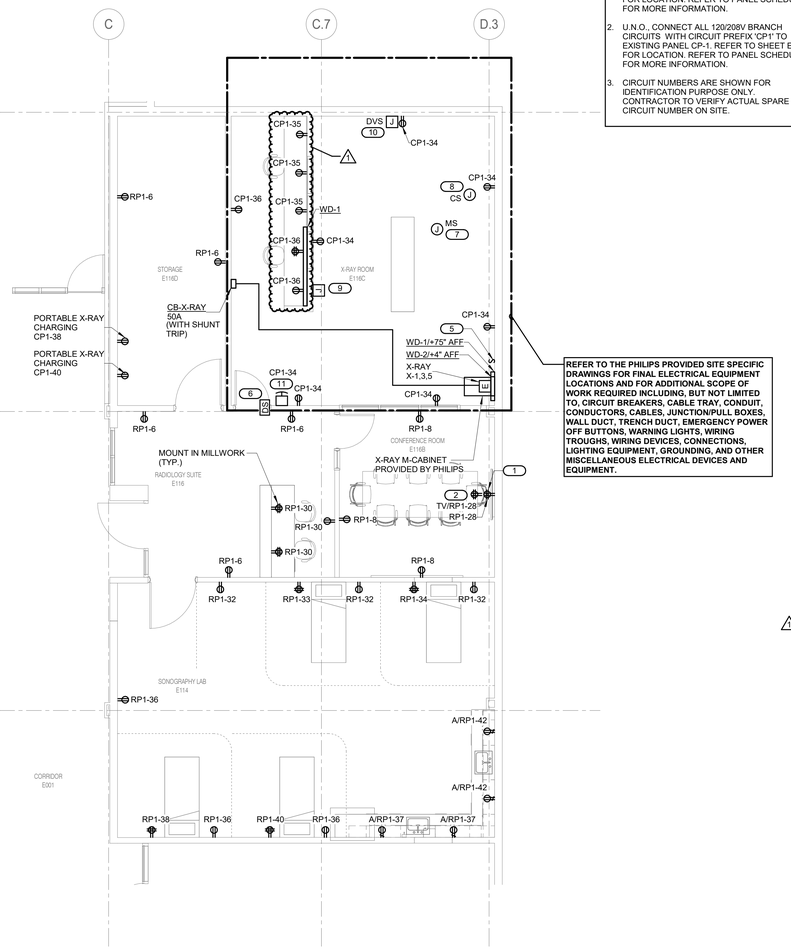
3/5/2025 4:29:23 PM

0 1 2 3
REF. SCALE IN INCHES
PROJECT #24007530.00



1 LEVEL 01 - POWER - RESPIRATORY CLASSROOM

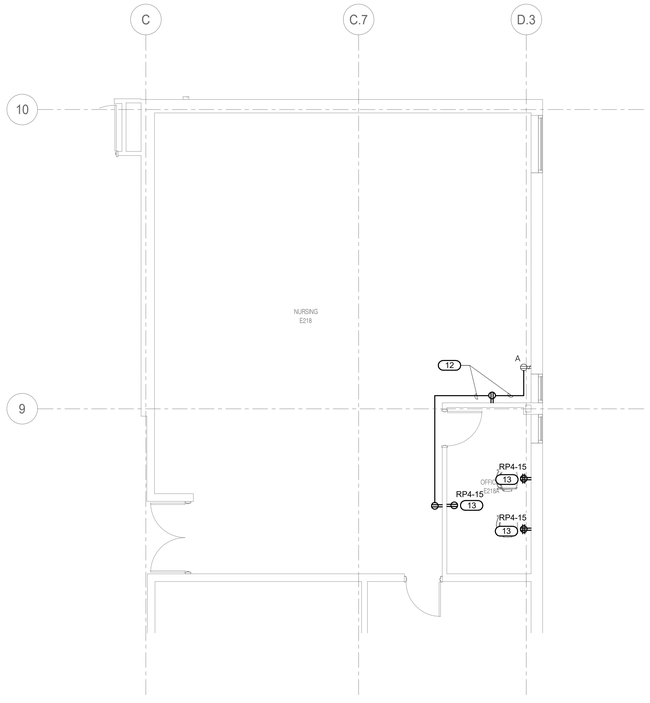
3/16" = 1'-0"



REFER TO THE PHILIPS PROVIDED SITE SPECIFIC DRAWINGS FOR FINAL ELECTRICAL EQUIPMENT LOCATIONS AND FOR ADDITIONAL SCOPE OF WORK REQUIRED INCLUDING, BUT NOT LIMITED TO, CIRCUIT BREAKERS, CABLE TRAY, CONDUIT, CONDUCTORS, CABLES, JUNCTION/PULL BOXES, WALL DUCT, TRENCH DUCT, EMERGENCY POWER OFF BUTTONS, WARNING LIGHTS, WIRING TROUGHS, WIRING DEVICES, CONNECTIONS, LIGHTING EQUIPMENT, GROUNDING, AND OTHER MISCELLANEOUS ELECTRICAL DEVICES AND EQUIPMENT.

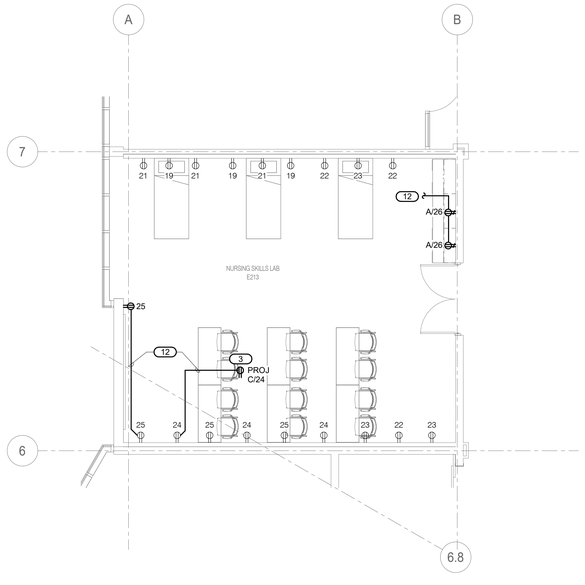
2 LEVEL 01 - POWER - RADIOLOGY

3/16" = 1'-0"



3 LEVEL 02 - POWER - NURSING

3/16" = 1'-0"



4 LEVEL 02 - POWER - NURSING SKILLS LAB

3/16" = 1'-0"

BRANCH CIRCUITING NOTES:

1. U.N.O., CONNECT ALL 120/208V BRANCH CIRCUITS WITH CIRCUIT PREFIX 'RP1' TO EXISTING PANEL RP-1. REFER TO SHEET E1.00 FOR LOCATION. REFER TO PANEL SCHEDULE FOR MORE INFORMATION.
2. U.N.O., CONNECT ALL 120/208V BRANCH CIRCUITS WITH CIRCUIT PREFIX 'CP1' TO EXISTING PANEL CP-1. REFER TO SHEET E1.00 FOR LOCATION. REFER TO PANEL SCHEDULE FOR MORE INFORMATION.
3. CIRCUIT NUMBERS ARE SHOWN FOR IDENTIFICATION PURPOSE ONLY. CONTRACTOR TO VERIFY ACTUAL SPARE CIRCUIT NUMBER ON SITE.

GENERAL SHEET NOTES:

1. REFER TO SHEET E0.00 FOR GENERAL ELECTRICAL NOTES, SYMBOL LISTS, ELECTRICAL INSTALLATION NOTES AND OTHER MISCELLANEOUS INFORMATION.
2. REFER TO SHEET E3.00 FOR ONE LINE DIAGRAM AND PANEL SCHEDULES.
3. REFER TO SHEET E4.00 FOR ELECTRICAL SCHEDULES.
4. EC SHALL REVIEW ALL ARCHITECTURAL DRAWINGS INCLUDING INTERIOR ELEVATIONS TO ENSURE DEVICES/RECEPTACLES ARE INSTALLED AT THE PROPER LOCATIONS.
5. DEVICES SHOWN ON EXISTING CMU WALLS SHALL BE INSTALLED IN SURFACE RACEWAY (WIREMOLD 700 OR APPROVED EQUAL, COLOR SELECTION BY ARCHITECT) DEVICES SHOWN ON GYP WALL SHALL BE RECESSED MOUNTED. CONTRACTOR TO CHANNEL THE WALL AS REQUIRED TO INSTALL BACK BOX AND CONDUIT. PATCH AND REPAIR TO MATCH EXISTING CONDITIONS.

KEYNOTES:

1. INSTALL RECEPTACLE BELOW TV AND ABOVE THE TABLE. COORDINATE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN.
2. COORDINATE RECEPTACLE LOCATION FOR TV WITH ARCHITECT PRIOR TO ROUGH-IN.
3. COORDINATE LOCATION WITH PROJECTOR INSTALLER AND ARCHITECT.
4. INSTALL DOUBLE GANG BOX WITH 3/4" CONDUIT ROUTED ABOVE THE CEILING.
5. SINGLE POLE SAFETY SWITCH FOR PHILIPS SERVICE. REFER TO SITE SPECIFIC DRAWINGS FOR WIRING DETAILS.
6. ROUTE 2#12 IN 1/2" CONDUIT FROM DOOR SWITCH TO THE PHILIPS CABINET. REFER TO MANUFACTURER SUPPLIED SITE SPECIFIC DRAWINGS FOR ADDITIONAL INFORMATION.
7. 8"WX8"LX4"D FLOOR BOX [MS], FLUSH MOUNTED WITH REMOVABLE GASKETED SCREW-TYPE COVER PLATE. SAW CUT EXISTING FLOOR AS REQUIRED FOR FLOOR BOX AND CONDUIT INSTALLATION. ROUTE CONDUITS AS SHOWN ON THE SITE SPECIFIC DRAWINGS. PATCH AND REPAIR FLOOR TO MATCH EXISTING CONDITIONS.
8. 8"WX8"LX6"D CEILING BOX [CS], FLUSH MOUNTED WITH REMOVABLE SCREW-TYPE COVER PLATE.
9. 4"Wx4"Lx4"D FLUSH MOUNTED WALL BOX [WAP] 10" BELOW CEILING WITH REMOVABLE SCREW-TYPE COVER PLATE.
10. 6"Wx6"Lx4"D FLUSH MOUNTED WALL BOX [DVS] +36" AFF WITH REMOVABLE SCREW-TYPE COVER PLATE.
11. CONNECT THE EPO SWITCH TO THE SHUNT TRIP IN CB-X-RAY USING 2#12 IN 3/4" C. PROVIDE LABEL, "EMERGENCY POWER OFF."
12. CONNECT NEW RECEPTACLE TO EXISTING RECEPTACLE CIRCUIT. MATCH AND EXTEND EXISTING CONDUIT AND WIRING, USE MINIMUM 2#12 & 1#12 GND IN 3/4" C.
13. ROUTE CONDUIT AND WIRE (2#12 & 1#12 GND IN 3/4" C.), TO EXISTING PANEL RP-4. PROVIDE NEW 120V, 20A/1P CIRCUIT BREAKER AND MAKE FINAL CONNECTION. MATCH EXISTING CIRCUIT BREAKER TYPE AND RATING.

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

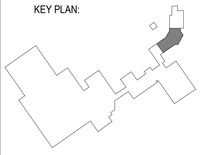
S / MEP / FP / T ENGINEERS:
IMEG CORP.
253 SHUMAN BOULEVARD, SUITE 550
NAPERVILLE, IL 60563
P: 630.527.2320

McHenry County College
HEALTH SCIENCE 2024 RENOVATIONS

8600 ROUTE 14, SUITE 205
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24-032

EXP 11/30/2025
02/18/2025

KEY PLAN:



SHEET STATUS: 02/28/2025
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 2	03/07/25

SHEET TITLE:
FLOOR PLANS - POWER

SHEET NUMBER:
E1.20

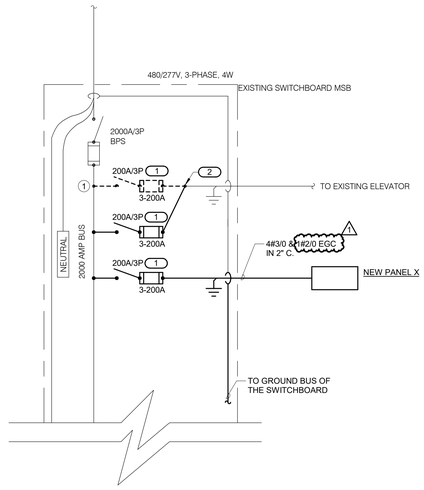
3/5/2025 4:29:25 PM

IMEG
253 SHUMAN BOULEVARD
SUITE 550
NAPERVILLE, IL 60563
P: 630.527.2320
www.imegcorp.com

Illinois Design Firm Registration #184008976-0014

REF. SCALE IN INCHES 0 1 2 3

PROJECT #24007530.00



1 ONE LINE DIAGRAM
NO SCALE

ONE LINE DIAGRAM NOTES

1. AIC RATINGS LISTED FOR EQUIPMENT ARE MINIMUM REQUIREMENTS FOR BUS BRACING AND DEVICE RATING. ALL EQUIPMENT SHALL BE FULLY RATED UNLESS SPECIFICALLY NOTED AS SERIES RATED.
2. CONDUCTOR AND CONDUIT SIZES ON THE LINE AND LOAD SIDES OF STARTERS, VFD'S AND DISCONNECT SWITCHES SHALL BE IDENTICAL UNLESS NOTED OTHERWISE.
3. INDICATES DIRECT CONNECTION OF GROUND CONDUCTOR TO GROUND BUS.
4. INDICATES O.Z. GEDNEY OR EQUAL GROUND BUSHING BONDED TO GROUND BUS WITH CONDUCTOR SIZED TO MAXIMUM FEEDER GROUND CAPACITY.
5. INDICATES FUSED DISCONNECT SWITCH, SIZE AS SPECIFIED.

KEYNOTES:

1. DISCONNECT AND REMOVE EXISTING 200A/3P FUSED DISCONNECT SWITCH FEEDING EXISTING ELEVATOR. INSTALL TWO NEW 200A/3P, 480V FUSED DISCONNECT SWITCHES (SIEMENS VACU-BREAK SWITCH TWIN UNIT CAT. NO. V7F3644J) AND FUSES IN THE EXISTING SPACE. PROVIDE ALL REQUIRED HARDWARE AND ACCESSORIES TO MAKE COMPLETED AND FUNCTIONAL INSTALLATION. NEW FUSES SHALL MATCH EXISTING TYPE AND RATING.
2. RE-CONNECT EXISTING ELEVATOR TO NEW FUSE DISCONNECT SWITCH AS SHOWN.

NEW PANEL X

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: EXISTING SWITCHBOARD MSB
LOCATION: ELECTRICAL ROOM E109

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 200 A MLO
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 42 kA

NOTES:

KEY	CKT NO	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1							21.67	0.05								2	
	3	X-RAY	50	3	2/0	--	2/0		21.67	0	10	4	4	3	60	SPD-480	4	
	5									21.67	0						6	
	7							0	--		--	--	--	1	--	SPACE	8	--
--	9	SPARE	50	3	--	--	--		0	--	--	--	--	1	--	SPACE	10	--
	11									0	--	--	--	--	1	--	12	--
--	13	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	14	--
--	15	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	16	--
--	17	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	18	--
--	19	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	20	--
--	21	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	22	--
--	23	SPACE	--	1	--	--	--				--	--	--	1	--	SPACE	24	--
--	25	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	26	--
--	27	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	28	--
--	29	SPACE	--	1	--	--	--				--	--	--	1	--	SPACE	30	--
		Total Load:	21.72 kVA					21.67 kVA		21.67 kVA								
		Total Amps:	78.40					78.22		78.22								

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Power	0.05 kVA	100.00%	0.05 kVA		
NEC 517.73 Imaging	65 kVA	50.00%	32.5 kVA	**TOTAL CONNECTED LOAD:**	65.05 kVA
				TOTAL ESTIMATED DEMAND LOAD:	32.55 kVA
				TOTAL CONNECTED AMPS:	78.24 A
				TOTAL ESTIMATED DEMAND AMPS:	39.2

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

EXISTING PANEL CP-1

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: EXISTING
LOCATION: ELECTRICAL ROOM E109

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 250 MLO
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: EXISTING

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
--	CP1-1	EXISTING LOAD	20	1	--	--	--	0	0		--	--	--	1	20	EXISTING LOAD	CP1-2	--
--	CP1-3	EXISTING LOAD	20	1	--	--	--		0	0	--	--	--	1	20	EXISTING LOAD	CP1-4	--
--	CP1-5	EXISTING LOAD	20	1	--	--	--			0	0	--	--	1	20	EXISTING LOAD	CP1-6	--
--	CP1-7	EXISTING LOAD	20	1	--	--	--	0	0		--	--	--	1	20	EXISTING LOAD	CP1-8	--
--	CP1-9	EXISTING LOAD	20	1	--	--	--		0	0	--	--	--	1	20	EXISTING LOAD	CP1-10	--
--	CP1-11	EXISTING LOAD	20	1	--	--	--			0	0.72	**10**	**10**	1	20	**Receptacles**	**CP1-12**	
--	CP1-13	EXISTING LOAD	20	1	--	--	--	0	0.54			**10**	**10**	1	20	**Receptacles**	**CP1-14**	
--	CP1-15	EXISTING LOAD	20	1	--	--	--		0	0.72		**10**	**10**	1	20	**Receptacles**	**CP1-16**	
--	CP1-17	EXISTING LOAD	20	1	--	--	--			0	0.54	**12**	**12**	1	20	**Receptacles**	**CP1-18**	
--	CP1-19	EXISTING LOAD	20	1	--	--	--	0	0.18			**12**	**12**	1	20	**Receptacles**	**CP1-20**	
--	CP1-21	EXISTING LOAD	20	1	--	--	--			0	0.54	**12**	**12**	1	20	**Receptacles**	**CP1-22**	
--	CP1-23	EXISTING LOAD	20	1	--	--	--			0	0.18	**10**	**10**	1	20	**Receptacles**	**CP1-24**	
--	CP1-25	EXISTING LOAD	20	1	--	--	--	0	0.54			**12**	**12**	1	20	**Receptacles**	**CP1-26**	
	CP1-27	**Receptacles**	20	1	**12**	**12**	**12**			0.54	0			1	20	EXISTING LOAD	CP1-28	--
--	CP1-29	EXISTING LOAD	20	1	--	--	--				0	0	--	--	1	20	EXISTING LOAD	CP1-30	--
--	CP1-31	EXISTING LOAD	20	1	--	--	--	0	1.08			**12**	**12**	1	20	**Receptacles**	**CP1-32**	
--	CP1-33	EXISTING LOAD	20	1	--	--	--			0	1.08	**10**	**10**	1	20	**Receptacles**	**CP1-34**	
	CP1-35	**Receptacles**	20	1	**10**	**10**	**10**				0.54	0.72	**10**	**10**	1	20	**Receptacles**	**CP1-36**	
	CP1-37							0	0.8				**10**	**10**	1	20	**Receptacles (X-RAY CHARGING)**	**CP1-38**	
--	CP1-39	EXISTING LOAD	30	3	--	--	--			0	0.8		**10**	**10**	1	20	**Receptacles (X-RAY CHARGING)**	**CP1-40**	
	CP1-41											0	0	--	--	1	20	EXISTING LOAD	CP1-42	--
		Total Load:	3.14 kVA					3.68 kVA		2.70 kVA								
		Total Amps:	26.73					31.25		22.50								

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Lighting	0.002 kVA	100.00%	0.002 kVA		
Power	0 kVA	0.00%	0 kVA	**TOTAL CONNECTED LOAD:**	9.52 kVA
Receptacles	9.52 kVA	100.00%	9.52 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	9.522 kVA
				TOTAL CONNECTED AMPS:	26.43 A
				TOTAL ESTIMATED DEMAND AMPS:	26.4

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

EXISTING PANEL RP-1

MOUNTING: SURFACE
ENCLOSURE: NEMA 1
FED FROM: EXISTING
LOCATION: ELECTRICAL ROOM E109

SINGLE TUB
SOLID NEUTRAL
GROUND BUS

MAIN: 250 MLO
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: EXISTING

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
--	RP1-1	EXISTING LOAD	20	1	--	--	--	0	0		--	--	--	1	20	EXISTING LOAD	RP1-2	--
--	RP1-3	EXISTING LOAD	20	1	--	--	--		0	0	--	--	--	1	20	EXISTING LOAD	RP1-4	--
--	RP1-5	EXISTING LOAD	20	1	--	--	--			0	0.9	**10**	**10**	1	20	**Receptacles**	**RP1-6**	
--	RP1-7	EXISTING LOAD	20	1	--	--	--	0	0.54			**10**	**10**	1	20	**Receptacles**	**RP1-8**	
--	RP1-9	EXISTING LOAD	20	1	--	--	--		0	0		--	--	1	20	EXISTING LOAD	RP1-10	--
--	RP1-11	EXISTING LOAD	20	1	--	--	--			0	0	--	--	1	20	EXISTING LOAD	RP1-12	--
--	RP1-13	EXISTING LOAD	20	1	--	--	--	0	0			--	--	1	20	EXISTING LOAD	RP1-14	--
--	RP1-15	EXISTING LOAD	20	1	--	--	--		0	0		--	--	1	20	EXISTING LOAD	RP1-16	--
--	RP1-17	EXISTING LOAD	20	1	--	--	--			0	0	--	--	1	20	EXISTING LOAD	RP1-18	--
--	RP1-19	EXISTING LOAD	20	1	--	--	--	0	0			--	--	1	20	EXISTING LOAD	RP1-20	--
--	RP1-21	EXISTING LOAD	20	1	--	--	--		0	0		--	--	1	20	EXISTING LOAD	RP1-22	--
--	RP1-23	EXISTING LOAD	20	1	--	--	--			0	0	--	--	1	20	EXISTING LOAD	RP1-24	--
--	RP1-25	EXISTING LOAD	20	1	--	--	--	0	0			--	--	1	20	EXISTING LOAD	RP1-26	--
--	RP1-27	EXISTING LOAD	20	1	--	--	--			0	0.72	**10**	**10**	1	**20**	**Receptacles**	**RP1-28**	
--	RP1-29	EXISTING LOAD	20	1	--	--	--			0	0.9	**10**	**10**	1	20	**Receptacles**	**RP1-30**	
--	RP1-31	EXISTING LOAD	20	1	--	--	--	0	0.54			**10**	**10**	1	20	**Receptacles**	**RP1-32**	
	RP1-33	**Receptacles**	20	1	**10**	**10**	**10**			0.36	0.36	**10**	**10**	1	20	**Receptacles**	**RP1-34**	
--	RP1-35	EXISTING LOAD	20	1	--	--	--			0	0.54	**10**	**10**	1	20	**Receptacles**	**RP1-36**	
***N**	**RP1-37**	**Receptacles**	**20**	**1**	**10**	**10**	**10**	0.36	0.36			**10**	**10**	1	20	**Receptacles**	**RP1-38**	
--	RP1-39	EXISTING LOAD	20	1	--	--	--		0	0.36		**10**	**10**	1	20	**Receptacles**	**RP1-40**	
--	RP1-41	EXISTING LOAD	20	1	--	--	--			0	0.36	**10**	**10**	**1**	**20**	**Receptacles**	**RP1-42**	***N**
		Total Load:	1.80 kVA					1.80 kVA		2.70 kVA								
		Total Amps:	15.00					15.00		22.50								

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Receptacles	6.3 kVA	100.00%	6.3 kVA		
				TOTAL CONNECTED LOAD:	6.30 kVA
				TOTAL ESTIMATED DEMAND LOAD:	6.3 kVA
				TOTAL CONNECTED AMPS:	17.49 A
				TOTAL ESTIMATED DEMAND AMPS:	17.5

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES: *N= PROVIDE NEW CIRCUIT BREAKER AS SHOWN. MATCH EXISTING CIRCUIT BREAKER TYPE AND RATING.

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

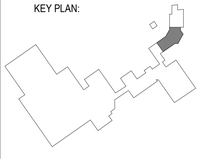
S / MEP / FP / T ENGINEERS:
IMEG CORP.
253 SHUMAN BOULEVARD, SUITE 550 NAPERVILLE, IL 60563
P: 630.527.2320

McHenry County College HEALTH SCIENCE 2024 RENOVATIONS

8600 ROUTE 14, SUITE 205
CRYSTAL LAKE, IL 60012
DKA PROJECT NO: 24-032

JEFFREY M. LEESMAN
062-060380
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS
EXP 11/30/2025
02/18/2025

KEY PLAN:



SHEET STATUS: 02/28/2025
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 2	03/07/25

SHEET TITLE:
ELECTRICAL ONE LINE DIAGRAM

SHEET NUMBER:
E3.00

3/5/2025 4:29:28 PM

IMEG
263 SHUMAN BOULEVARD
SUITE 550
NAPERVILLE, IL 60563
P: 630.527.2320
www.imegcorp.com

0 1 2 3
REF. SCALE IN INCHES
PROJECT #24007530.00