



## ADDENDUM No. 1

03/27/2025

PROJECT: BSA Hospital PET/CT Infill 1600 Wallace Blvd. Amarillo, TX 79106 DATE: PROJECT NO.: 03/07/2025 22418

The following items take precedence over the drawings and project manual for the above-named project and in closing a contract shall become a part of the contract documents.

Where any item called for in the specifications or indicated on the drawings, is supplemented here, the original requirements remain in effect. Consider all supplemental conditions as added to the specifications and drawings.

Where any original item is amended, voided or superseded here, the provisions of such items not specifically amended, voided or superseded remain in effect.

ITEM #1: Sign-In Sheet – The sign in sheet from the Pre-Bid Meeting is attached for reference.

**ITEM #2: Taxes** – To clarify, this project is NOT tax exempt. The Contractor shall include all applicable taxes for the project.

**ITEM #3: Wall Panels** – On the Drawings, on elevations 16/A5 and 20/A5, replace "FRP" with "WP1". In the Project Manual, Section 102600,2.6,A,2 change ".06" to ".04". All WP# material to be .04" thick. In Holding Rooms 112, 113 and Dose Rooms 115, 117, 119, and 120 install WP3, which is to be added to the Finish Schedule as indicated below. In these rooms WP3 is to be installed up to 50-1/4" a.f.f. except at millwork/sink walls where it shall extend higher. Refer to the extent of WP3 on these walls in the attached, revised A6 Sheet. In Toilet Rooms, the Wall Panel is to be WP2 as indicated on the ID Sheets, not WP1 as indicated in the Finish Schedule.

Wall Protection	WP1	Inpro, Rigid Plastic Wall Panel, Eggshell #0111, .04" thickness (install railroaded with 1/8" seams sealed with caulk to match Eggshell #0111) (trim with J-trim in Eggshell #0111 color)
WP2 WP3		Inpro, Rigid Plastic Wall Panel, Woodland Sugar Maple #0548, .04" thickness (install railroaded with 1/8" seams sealed with caulk to match Camelback #0253) (trim with J-trim in Camelback #0253 color)
		Inpro, Rigid Plastic Wall Panel, Glimpse #5Z112, .04" thickness (install railroaded with 1/8" seams sealed with caulk to match Khaki Brown #0118) (trim with J-trim in Khaki Brown #0118 color)

**ITEM #4: Lead Shielding** – To clarify, lead shielding on the walls is only required to extend to 7'-0" per the physicist's report. It is noted in the drawings to extend the 1" thick shielding around the dosing rooms to 8'-0", but that was based on our understanding that plywood lead shielding came in standard 4'x8' sheets. It would be permissible to install that shielding to 7'-0" and furrout above this if it is more economical. Additionally, the design team would be open to other methods of providing the 1" lead shielding along these walls (lead-bricks) as long as the Contractor takes all responsibility for that lead shielding design ensuring that it meets all the same criteria of what is in the Contract Documents. This would include at a minimum, providing the 1-hour rating where required, the overall thickness of the wall and location of the wall does not change, the Contractor would take all responsibility for providing Sealed Engineered Drawings for a delegated design, and the overall design intent does not change. This would need to be submitted as a Substitution Request. Engineered Drawings would not be required for the initial substitution request but would be required to be provided during the submittal phase.

**ITEM #5: Vendor Drawings** – The vendor drawings for the GE Imaging equipment have been included in the Addendum for reference.

**ITEM #6: Fire Alarm Vendor Information** – The hospital's vendor for Fire Alarm services is Vitel Communications. This Work identified for this project will need to be performed by this Contractor and included in submitted proposals.

**ITEM #7: Security Contractor** – The hospital's vendor for Security services, including access controls is IdeaComm. They will be providing the Tap Badge Readers (devices only, backbox and conduit to above ceiling by Contractor), cabling to Access Controls system, and tie-in to access controls system directly to the Owner under separate contract. Contractor shall coordinate with IdeaComm on schedule for install.

**ITEM #8: Roofing Patch Back** – Please note that the existing roof above this area is NOT TPO as indicated. The existing is a Mod Bit system with a coating over it (not to be matched). Patch back for roof curbs or penetrations shall be made using modified bitumen system materials and coated with Certainteed SmartCoat Silicone system using SmartCoat 200 Asphalt Bleed Blocker and SmartCoat 450 High Solids Silicone Coating to patch back into existing materials. Use other SmartCoat system components (primers, flashing adhesives, mastic, etc.) as necessary for a complete and proper installation.

**ITEM #9: Revised Drawings** – Refer to the attached, revised sheets CR2, A2, A3, A6 & A8. These sheets are to be incorporated into the Contract Documents and take the place of previously issued versions.

**ITEM #10: Contractor Access and vehicle access** – Refer to the attached drawings providing information on Contractor Access and vehicular access to deliver materials to the basement.

**ITEM #11: Qualification Statement and Management Plan** – As part of the Bid submission, Contractors shall provide a Qualification Statement, this could be an AIA A305 Document or some other proprietary information that provides similar information about the Company. Contractor shall also provide a Management Plan to include Project Manager and Superintendent and any assistants to these if applicable.

Refer to attached MPE Addendum Items.

End of Addendum

Project No.: 22418 BSA PET/CT Infill

# Pre-Bid Sign-In Sheet



		NAME	COMPANY/DEPARTMENT	EMAIL ADDRESS:
1		DAUSZ WRIGHT	Kel-Tex Electric	DAVID @Keitexelectric.co.m
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3		JAMES SMITH SARAL DEGROOD	INGRAMS FLOORING	saraheingrams flooking, down
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24	C	SIMMECALLAHANV	ERAC SERVICES	SIMMIER ERACSERVICE, COM
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<b>REVDATE</b> 01 - C1 - Cover Sheet02 - C2 - Disclaimer - Site Read03 - A1 - General Notes04 - A2 - Equipment Layout05 - A3 - Radiation Protection06 - A4 - Radiation Protection I07 - A5 - Equipment Dimension08 - A6 - Equipment Dimension09 - A5 - Delivery10 - S1 - Structural Notes11 - S2 - Structural Layout12 - S3 - Structural Details (1)	ness Details Is (1) Is (2)	MODIFICATIONS 16 - E1 - Electrical Notes 17 - E2 - Electrical Layout 18 - E3 - Electrical Elevations 19 - E4 - Power Requirements 20 - E5 - Details - Interconnections	eg	GE	HealthCa	omni le
A mandatory component of t	his drawing set is the GE HealthCare Pre Insta	Ilation manual. Failure to reference the Pre Installation manual will result in red for site design and preparation.	Dra	iwn by	Verified by	Concession
Pre Installation docum	ents for GE HealthCare products can be acces	ised on the web at: https://www.gehealthcare.com/support/manuals		KGK	CRM	-
GE HealthCare does not take r the complete set of final issue drawings, however caused. All	esponsibility for any damages resulting from drawings. GE HealthCare cannot accept resp dimensions are in millimeters unless otherv	changes on drawings made by others. Errors may occur by not referring to consibility for any damage due to the partial use of GE HealthCare final issue vise specified. Do not scale from printed pdf files. GE HealthCare accepts no	Format	Scale		File Name
		vork due to scaling from these drawings.		1/1-0		1717555-1111-00-A



## Katrina Schoepf 682-249-7024

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GEND TUDY		
GON/Quote	PIM Manual	Rev
2007601759.16	5881677-1EN	5
	Date	Sheet
DWG	12/Feb/2025	01/20

## DISCLAIMER

## **CUSTOMER SITE READINESS REQUIREMENTS**

### **GENERAL SPECIFICATIONS**

- GE is not responsible for the installation of developers and associated equipment, lighting, cassette trays and protective screens or derivatives not mentioned in the order.
- The final study contains recommendations for the location of GE equipment and associated devices, electrical wiring and room arrangements. When preparing the study, every effort has been made to consider every aspect of the actual equipment expected to be installed.
- The layout of the equipment offered by GE, the dimensions given for the premises, the details provided for the pre-installation work and electrical power supply are given according to the information noted during on-site study and the wishes expressed by the customer.
- The room dimensions used to create the equipment layout may originate from a previous layout and may not be accurate as they may not have been verified on site. GE cannot take any responsibility for errors due to lack of information.
- Dimensions apply to finished surfaces of the room.
- Actual configuration may differ from options presented in some typical views or tables.
- If this set of final drawings has been approved by the customer, any subsequent modification of the site must be subject to further investigation by GE about the feasibility of installing the equipment. Any reservations must be noted.
- The equipment layout indicates the placement and interconnection of the indicated equipment components. There may be local requirements that could impact the placement of these components. It remains the customer's responsibility to ensure that the site and final equipment placement complies with all applicable local requirements.
- All work required to install GE equipment must be carried out in compliance with the building regulations and the safety standards of legal force in the country concerned.
- These drawings are not to be used for actual construction purposes. The company cannot take responsibility for any damage resulting therefrom.

### CUSTOMER RESPONSIBILITIES

- It is the responsibility of the customer to prepare the site in accordance with the specifications stated in the final study. A detailed site readiness checklist is provided by GE. It is the responsibility of the customer to ensure all requirements are fulfilled and that the site conforms to all specifications defined in the checklist and final study. The GE Project Manager of Installation (PMI) will work in cooperation with the customer to follow up and ensure that actions in the checklist are complete, and if necessary, will aid in the rescheduling of the delivery and installation date.
- Prior to installation, a structural engineer of record must ensure that the floor and ceiling is designed in such a way that the loads of the installed system can be securely borne and transferred. The layout of additional structural elements, dimensioning and the selection of appropriate installation methods are the sole responsibility of the structural engineer. Execution of load bearing structures supporting equipment on the ceiling, floor or walls are the customer's responsibility.

### **RADIO-PROTECTION**

Suitable radiological protection must be determined by a qualified radiological physicist in conformation with local regulations. GE does not take responsibility for the specification or provision of radio-protection.

THE UNDERSIGNED, HEREBY CERTIFIES THAT I HAVE READ AND APPROVED THE PLANS IN THIS DOCUMENT.								
DATE NAME SIGNATURE								

### **REQUIRED MANUALS FOR SYSTEM PRE-INSTALLATION**

Description	
Product specific Pre-installation Manual	
*documents can be accessed in multiple languages	+ h++

- A mandatory component of this drawing set is the GE HealthCare Pre-installation manual. Failure to reference the Pre-installation manual will result in incomplete documentation required for site design and preparation.
- The items on the GE HealthCare Site Readiness Checklist DOC2949061 and Worksheet DOC2949068 are REQUIRED to facilitate equipment delivery to the site. Equipment will not be delivered if these requirements are not satisfied.
  - Any deviation from these drawings must be communicated in writing to and reviewed by your local GE • HealthCare installation project manager prior to making changes.
  - Make arrangements for any rigging, special handling, or facility modifications that must be made to ٠ deliver the equipment to the installation site. If desired, your local GE HealthCare installation project manager can supply a reference list of rigging contractors.
  - New construction requires the following;
    - Secure area for equipment, 1.
    - 2. Power for drills and other test equipment,
    - 3. Restrooms.
  - Provide for refuse removal and disposal (e.g. crates, cartons, packing) ٠
  - It is required to minimize vibrations within the scan room. It is the customer's responsibility to contract a vibration consultant/engineer to implement site design modifications to meet the GE vibration specification. Refer to the system Pre-installation manual for vibration specifications.

**Document Number\*** 

Refer to cover page

documents can be accessed in multiple languages at https://www.gehealthcare.com/support/manuals

## **ENVIRONMENT**

### ALTITUDE

Operating altitude: from -150 m [-492 ft] (below) to 3000 m [9843 ft] (above) sea level.

### **MAGNETIC FIELD SPECIFICATIONS**

Limit the magnetic interference to guarantee specified imaging performance.

#### GANTRY

- Ambient static magnetic fields less than 1 Gauss.
- Ambient AC magnetic fields less than 0.01 Gauss.

**OPERATOR CONSOLE, PARC4.X and Computer Equipment** 

Ambient static magnetic fields less than 10 Gauss.

### SYSTEM COMPONENT NOISE LEVEL

- Maximum Gantry Audible Noise Level: The maximum ambient noise level is produced by the gantry during a CT scan acquisition. It is less than 68 dBA when measured at a distance of 1 m [3.3 ft] from the nearest gantry surface in any direction.
- Maximum Console Audible Noise Level: The maximum ambient noise levels is less than or equal to 54 dBA when measured at a distance of 1 m [3.3 ft] from nearest console surface in any direction.

### **BACKGROUND RADIATION**

- It is important that background radiation be kept to a minimum. The coincidence detection used in a PET system allows a moderate amount of external singles events. The PET/CT system has been found to have less than 1% deadtime if the external field is below 1 mR/hr from a single source.
- Because area background can be more general than a single source, a lower limit is appropriate. If the area dose rate is maintained to less than 0.2 mR/hr (due to 511 or lower energy gamma rays) at the covers, detector deadtime should not exceed 1%.
- Radioactive sources must be stored in approved shielded containers or be stored in a separate room (hot lab) adjacent to, and accessible from, the Scan Room. This hot lab should be near the cyclotron (if used). Doses should be prepared in the same area.

### **VIBRATION SPECIFICATIONS**

- Shock Restrictions: The system cannot tolerate shock or vibration. System components cannot be tipped, dropped, or hoisted.
- The scanning facility shall be isolated from vibration such as; hospital power plants, pumps, motors, air handling equipment, air conditioning units, nearby rooms with exercise equipment or where exercise occurs, hallway foot traffic, elevators, parking lots, roads, subways, trains, and heliports; otherwise, vibration will affect the image quality of the scanner.
- PET/CT systems are sensitive to vibration and may display limited performance if exceeding the vibration limits listed below. The band of frequencies in which systems exhibit the most sensitivity appears at or near the resonant frequencies of the gantry and the patient table, the latter of which varies depending on patient mass and location. These frequencies fall within the following ranges:
  - Patient Table: 2 10 Hz
  - Gantry: 8 14 Hz
- It is the customer's responsibility to contract a vibration consultant or qualified engineer to verify that these specifications are met and implement an appropriate solution.

## **IMPORTANT CUSTOMER READINESS ALERT**

- This equipment involves the use of radioactive isotopes, including those sources necessary for equipment calibration. Appropriate regulatory compliance and licensing must be arranged by the customer early in the planning process and then demonstrated/available for equipment installation.
- Note: delivery path down corridors for gantry's and table must be evaluated prior to construction, as 90 degree turns require specific corridor width.



LEGEND							
	D AVAILABLE FROM GE						
OR INSTALLED	Е	E EQUIPMENT EXISTING IN ROOM					
R SUPPLIED AND	*	ITEM TO BE REINSTALLED FROM ANOTHER SITE					
RIPTION	MAX HEAT OUTPUT (BTU/h)		WEIGHT (lbs)	MAX HEAT OUTPU (W)	WEIGHT JT (kg)		
	21257		6192	6230	2808		
	102	24	1813	300	822		
SITIONING DEPTH	-		7	-	3.2		
	-		-	-	-		
	-		-	-	-		
ING	-		79	-	36		
	-		309	-	140		
TRIGGER MONITOR	-		19	-	8.54		
TION UNIT (PDU)	97	24	816	2850	370		
KVA	51	22	609	1501.3	1 276		
	-		66	-	30		
T PANEL (MDP)	-		46	-	21		
I MINI CABINET	12966		497	3800	225.2		
	9724		485	2850	220		
SOLE	-		-	-	-		
ORS	-		14	-	6.4		
	32	07	142	940	64.5		
DL	-		-	-	-		
	-		8	-	3.5		
R	-		-	-	-		
NET	-		150	-	68		
R EQUIPMENT- PROVID	e gro	MME	TED OPENING	GS AS RE	QUIRED TO		
O CEILING WITH LEAD	GLASS	VIEWI	NG WINDOW	/			
NG FOR EQUIPMENT DI	ELIVER	Y IS 10	067 mm x 203	32 mm [4	l2 in x 80 in],		
EXAM ROOM H	EIGHT						
IT	11'-0"						
9'-(							



## **RADIATION PROTECTION LAYOUT**

SHIELDING REQUIREMENTS SCALING						
CHANGED PARAMETER (mAs)	MULTIPLICATION FACTOR (new mAs/100)					
80 kV	0.24					
100 kV	0.45					
120 kV	0.71					
140 kV	1.00					
1 mm aperture	0.20					
3 mm aperture	0.22					
5 mm aperture	0.27					
10 mm aperture	0.38					
15 mm aperture	0.48					
20 mm aperture	0.59					
30 mm aperture	0.79					
40 mm aperture	1.00					

## SHIELDING REQUIREMENTS:

requirements, taking into consideration:

- Equipment placement. •
- •
- ٠
- Activities in surrounding scan room areas. ٠
- •
- •

The Illustrations on this page depict measured radiation levels within the scanning room, while scanning a 32 cm CTDI phantom with the technique shown: -

- 140 kV
- 100 mA 1 sec

-

-

-

- 40 mm

levels to the scan technique used at the site.

equals ±40%.

Engage a qualified radiological health physicist to review your scan room shielding

Scatter radiation levels within the scanning room

Weekly projected work-loads (number of patients/day technique (kvp\*ma))

Materials used for construction of walls, floors, ceiling, doors, and windows.

Equipment in surrounding scan room areas (e.g., film developer, film storage) Room size and equipment placement within the room relative to room size.

Use the mAs, kV and aperture scaling factors in the table shown here to adjust exposure

**NOTE:** Actual measurements can vary. Expected deviations equals ±15%, expect for the 5 mA and 1 mm techniques, where variations may be greater (up to a factor of 2), due to the inherent deviation in small values. The maximum deviation anticipated for tube output

## **RADIATION SCATTER - BODY PHANTOM**

## **RADIOACTIVE ISOTOPES**

#### NOTE: 140 kV

100 mAs/scan 1 sec

40mm aperture

The iso-countour dose levels are in µGy/sec (micrograys/sec) to measure radiation levels. The conversion factor from mR to  $\mu$ Gy (micrograys) is: 1 mR = 8.69  $\mu$ Gy.





## **RADIOACTIVE ISOTOPES AND RADIOPROTECTION**

Since the system produces X-ray radiation and involves the use of radioactive isotopes, compliance with Nuclear Regulatory Commission regulations (or country similar regulatory requirements), must be adhered to and all permissions obtained well in advance.

It is Customer's responsibility consult a qualified radiological health physicist for radiation protection requirements for the walls, floor, ceiling, doors, window glass, etc.(lead content and thickness) and warning lights and signs, in accordance with local requirements.

It is essential that regulatory compliance and preparations are completed early so that required source materials can be obtained prior to installation, including calibration sources and isotopes. These sources and isotopes may have fairly long delivery lead times and a short half-life, so that it may not be advisable to store them over long periods of time.

## **RADIOACTIVE SOURCE - ISOTOPE**

wing radioactive sources during calibration	on and the Daily QA Check.	
Isotope	Germanium-68	
Activity level	55 MBq ± 20%	
Isotope	Germanium-68	
Activity level	3.5 MBq	
Fluorine 18		
Carbon 11		
Nitrogen 13		
Oxygen 15		
	wing radioactive sources during calibration Isotope Activity level Isotope Activity level Fluor Carb Nitro Oxyg	

DETAIL NOT TO SCALE





## DELIVERY

### • THE CUSTOMER/CONTRACTOR SHOULD:

- Provide an area adjacent to the installation site for delivery and unloading of the GE equipment.
- Ensure that the dimensions of all doors, corridors, ceiling heights are sufficient to accommodate the movement of GE equipment from the delivery area into the definitive installation room.
- Ensure that access routes for equipment will accommodate the weights of the equipment and any transportation, lifting and rigging equipment.
- Ensure that all necessary arrangements for stopping and unloading on public or private property not belonging to the customer have been made.

### DIMENSIONS OF DELIVERY WITH DOLLY TRANSPORT EQUIPMENT

Below dimensions shown with side rails on. The minimum unobstructed hallway width is 1803 mm [71 in], the minimum clear doorway openings is 1067 mm [42 in] to accommodate delivery of the system.

EQUIPMENT	DIMENSIONS			WEIGHT	
	LENGTH	3836 mm	151 in	1165 kg	2568 lbs
PATIENT TABLE (Blue dollies)	WIDTH	864 mm	34 in		
	HEIGHT	1410 mm	55.5 in		
	LENGTH	2775 mm	109 in		
CT GANTRY	WIDTH	1291 mm	51 in	1835 kg	4045 lbs
	HEIGHT	2000 mm	79 in		
	LENGTH	2775 mm	109 in	1490 kg 328	
PET IMAGE RING	WIDTH	926 mm	36.5 in		3285 lbs
	HEIGHT	1713 mm	67.4 in		

## SHIPPING DOLLY DIMENSIONS FOR GANTRY

PET IMAGE RING

### **CT GANTRY**



A5 - Delivery



## **STRUCTURAL NOTES**

- Methods of support for the steelwork that will permit attachment to structural steel or through bolts in concrete construction should be favored. Do not use concrete or masonry anchors in direct tension.
- All units that are wall mounted or wall supported are to be provided with supports where necessary. Wall supports are to be supplied and installed by the customer or his contractors. See plan and detail sheets for suggested locations and mounting hole locations.
- All ceiling mounted fixtures, air vents, sprinklers, etc. To be flush mounted, or shall not extend more than 6,35mm (1/4") below the finished ceiling.
- Floor slabs on which equipment is to be installed must be level to 6.00mm (1/4") in 3050mm (10'-0")
- Dimensions are to finished surfaces of room.
- Customers contractor must provide all penetrations in post tension floors.
- Customers contractor must provide and install any non-standard anchoring. Documents for standard anchoring methods are included with GE equipment drawings for geographic areas that require such documentation.
- Customers contractor must provide and install hardware for "through the floor" anchoring and/or any bracing under access floors. This contractor must also provide floor drilling that cannot be completed because of an obstruction encountered while drilling by the GE installer such as rebar etc.
- It is the customer's responsibility to perform any floor or wall penetrations that may be required. The customer is also responsible for ensuring that no subsurface utilities (e.g., electrical or any other form of wiring, conduits, piping, duct work or structural supports (i.e. post tension cables or rebar)) will interfere or come in contact with subsurface penetration operations (e.g. drilling and installation of anchors/screws) performed during the installation process. To ensure worker safety, GE installers will perform surface penetration operations only after the customer's validation and completion of the "GE surface penetration permit"

| 10/20



DESCRIPTION

#### (CONTRACTOR SUPPLIED & INSTALLED)

Floor contact area for gantry and patient table. See Structural Details.

Floor penetrations not allowed in temporary service rail area.

Unistrut or equivalent for mounting patient positioning camera mounting plate on ceiling. Support designed and supplied by customer. Supports to be at least 2' [610mm] in length and located per dimensions on Positioning Camera Mounting Plate structural detail.

Structural supports for fastening the overhead counterpoised suspension. Support should run continuous with no fittings extending below face of channel, be parallel, square, and in the same horizontal plane, above finished ceiling. Ensure mounting surface is installed level or plumb within +/- 1 degree, and is structurally sufficient to maintain a level or plumb condition under 110 lb (50kg) system load and maximum system moment of 4400 in-lb (500n-m). Methods of support that will permit attachment to structural steel or through bolts in concrete construction should be favored. Do not use screw anchors in direct tension. 14" x 14" x 1/2" thick steel plate provided by manufacturer. See detail on structural detail sheets.

RCK-AVIMOS Camera Mount locate as shown. See Structural Detail

**Camera Position Note:** Position of camera(s) must be calculated and verified by GEHC PMI or Field Engineer for final location accuracy.

**Dimension Precision Note:** Metric dimensions should be referenced when positioning the CT gantry alignment tool.

## **ANCHORING AND FLOOR REQUIREMENTS**

## **ANCHORING/LOADING DISTRIBUTION TO THE FLOOR**



### **GE SUPPLIED GANTRY ANCHORS (5867778)**



## **FINISHED FLOOR REQUIREMENTS**

- Installation requires a finished floor in the scan and control rooms.
- The floor surface in the scan room directly under the gantry and table must be level. The floor shall be no greater than 6 mm [0.25 in] out of level over a 3048 mm [10 ft] range,
- with level defined as the horizontal surface between the highest and lowest points. The floor shall have a minimum concrete thickness of 102 mm [4 in].
- Shims should not be used to compensate for a floor that does not meet this requirement. ٠
- These requirements apply to all installation types.

## NOT TO SCALE

If the concrete floor has a floor covering installed over it (such as floor tile), 17 openings 101.6 mm [4 in] in diameter will be cut into the floor covering to ensure the table and gantry rest on the concrete. (Openings are cut during installation.)

## **POSITIONING CAMERA MOUNTING PLATE**

#### JUNCTION PLATE SUPPLIED BY GE



GE will provide a Junction Plate, shipped with the system. If the Material: Steel material with a min. tensile strength of 375 MPa Junction Plate supplied by GE can not meet the requests of the customer or the building structure, the customer's architect can design and install the Junction Plate (refer to the right side of the detail) with sufficient strength to hold the camera assembly.



Plate thickness: 2.5 mm [0.10 in]

Welding Nut: Meet GB-T 13681-1992 requirement or equivalent				
M5-0.8 mm M6-1.0 mm				
Thickness (mm [in])	3.7-4 [0.15-0.16]	4.7-5 [0.19-0.20]		
Pledge load (N)	11000	15500		

NOTE: The system manufacturer will NOT inspect and test that the fixing methods between the Junction Plate and the building structure meet the loading capacity specified (recommend a 6x safety factor), which is the customer's responsibility. The weight of the camera assembly is approximately 3.2 kg [7.05 lbs], suggest the safety load on the Junction Plate is no less than 20 kg [44.09 lbs]. If the Anchor Bolt is not applicable for site requirement, the customer's architect can consider other methods (such as welding...) to fix the Junction Plate. Presetting for site preparation of the Camera installation, customer had better install the Junction Plate in advance before the system installation. NOT TO SCALE

# **POSITIONING CAMERA INSTALLATION POSITION**





If a structural contractor designed an equivalent flat plate, the thickness should be 15 mm [0.59 in] or more, three (3) M4 mounting holes are required to anchor the camera bracket to the junction plate and one (1) M5 hole is used to anchor the safety chain. Please consider the loading capacity of the junction plate, the total weight of the camera and bracket provided by GE is 0.34 kg [0.74 lbs].



Plede NOTE: GE will provide two junction plates (Standard and Pipe). If the junction plates supplied by GE can not meet the requests of the building structure, the customer's architect can design and install the equivalent junction plate with sufficient strength to hold the camera. The customer's architect is responsible for installing of junction plate. The system manufacturer will NOT inspect and test that the fixing methods between the Junction Plate and the building structure meet the loading capacity specified (recommend a 4x safety factor).

NOT TO SCALE

## **AVIMOS INSTALLATION POSITION**



The junction plates installed on the wall structural is the customer's responsibility, so the junction plate must be installed by customer in advance, and then field engineer

## **AVIMOS MOUNTING PLATES**





If a structural contractor designed an equivalent flat plate, the thickness should be 15 mm [0.59 in] or more, four (4) M6 mounting holes are required to anchor the camera bracket to the junction plate and one (1) M5 hole is used to anchor the safety chain. Please consider the loading capacity of the junction plate, the total weight of the camera and extendable pipe provided by GE is 0.67 kg [1.47 lbs].

Iding Nut: Meet GB-T 13681-1992 requirement or equivalent			
	M5	M6	
ess (mm [in])	3.7-4 [0.15-0.16]	4.7-5 [0.19-0.20]	
e load (N)	11000	15500	

PIPE CONFIGURATION



The junction plates are installed on the ceiling structural is the customer's responsibility, so the junction plate must be installed by customer in advance, and then field engineer installs camera.

The extendable pipe B-cat must be purchased in advance after PMI checked room size and layout. There are two extendable pipe B-cats for selection, one is for ceiling mount 40-60 cm [15.74-23.62 in], the other is for ceiling mount 85-150 cm [33.46-59.06 in].

S4 - Structural Details (2)

| 13/20

## **CUSTOMER/CONTRACTOR SUPPLIED MOUNTING PLATE**



The exact location of all five drill holes for MAVIG column has to be kept, otherwise installation can't be accomplished. Column flange and safety chain fixings to concrete or to structure other than MAVIG anchoring plate or MAVIG bridge shall be defined by a structural company.

All design and pre-installation activity must be done in accordance of the MAVIG Installation manual.

Contact your GE Project Manager for OEM documentation. Installation of mounting plate performed by GE or a GE sub-contractor.

NOT TO SCALE



- All design and pre-installation activity must be done in accordance of the MAVIG Installation manual
- Contact your GE Project Manager for OEM documentation
- Installation of mounting plate performed by GE or a GE sub-contractor

NOT TO SCALE

### Safety and precautionary comments:

Only qualified, licensed technicians can perform electrical connections, installation, removal and repair. It is strongly recommended that at least two persons perform the installation.

Installing the system: Prior to installation, a structural engineer must confirm that the mounting structure is strong enough to provide proper support for the entire system and any attached end devices. Installation must be completed according to local building codes.

Determination of required installation hardware and torque values for installation of the ceiling column and ceiling track is the sole responsibility of the structural engineer.

Ceiling mounted systems must be installed properly. Failure to follow the instructions provided may lead to a potentially dangerous and unstable condition of the system.

GE and/or MAVIG is not responsible for unauthorized modifications made to the system or use of the system for unintended purposes. GE and/or MAVIG cannot be held liable for improper operation and modifications. Since improper modifications may impair proper operation, safety or reliability of the system, product modifications require written authorization from MAVIG.

Under GE responsibility or under Customer responsibility, for all pre-installations, whatever is the supporting structure (bridge, chair, Unistrut channel, other channels, direct anchorage in concrete, transversal beam, etc. ...) a certificate must be obtained from a structural engineer.

This certificate shall include the definition of fasteners and of their tightening torque, especially for the non-standard cases described in MAVIG PIM and for which the standard anchoring/screws delivered with product shall not be used but shall be defined (and implemented in most cases) by the structural company.

### WARNING:

It is prohibited to alter the length of the ceiling column or remove any securing screws.



## PORTEGRA2 COLUMN ASSEMBLY

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• Safety chain shall be always attached.

• Do not use shims between column and mounting surface. All design and pre-installation activity must be done in accordance of the MAVIG Installation manual. Contact your GE Project Manager for OEM documentation. Installation of mounting plate performed by GE or a GE sub-contractor.

BSA Health System

PET-M417959-FIN-00-A.DWG

## **CEILING SUSPENSION DISCLAIMER**

	mounting plate safety anchor
	fastening for safety anchor
	safety latch
	safety chain
	electrical connection
	installation hardware specified and provided by structural engineer (each corner)
	canopy flange cover
)	threaded pins

| 14/20

## **TEMPERATURE AND HUMIDITY SPECIFICATIONS**

### **IN-USE CONDITIONS**

<b>T</b>	Min	Recommended	Max	
[7874 ft])	18°C	22°C	26°C	
[	64°F	72°F	79°F	
Temperature (up to 3000 m	18°C	22°C	25°C	
[9842 ft])	64°F	72°F	77°F	
Temperature (up to 4000 m	18°C	22°C	23°C	
[13123 ft])	64°F	72°F	73.4°F	
Temperature gradient	≤ 3°C/h			
Temperature gradient	≤ 5.4°F/h			
Relative humidity (1)	30% to 60%			
Humidity gradient	≤ 5%/h			

## **STORAGE CONDITIONS**

Temperature	0°C to +30°C +32°F to +86°F		
Relative humidity (1)	≤ 70% RH		
Temperature gradient	≤ 3°C/h ≤ 5.4°F/h		
Humidity gradient	≤ 5%/h		

Material should not be stored for more than 6 month.

(1) Non-condensing

### **AIR RENEWAL**

According to local standards. The HVAC system should be designed to provide 5 air changes per hour to maintain adequate air quality and temperature.

NOTE : In case of using air conditioning systems that have a risk of water leakage it is recommended not to install it above electric equipment or to take measures to protect the equipment from dropping water.

ROOM	DESCRIPTION	
	PET Gantry	
Evam Boom	CT Gantry	
	Patient table	
	TOTAL	
	Power Distribution Unit (CT PDU)	
	PARC 4.X (Reconstruction Mini Cabinet)	
Exam room or Technical room*	CT Partial UPS	
100111	Chiller	
	TOTAL	
	Standalone Console	
Control Room or Reporting Room	LCD Monitor (2 units, 170 BTU/50 Watts each)	
	TOTAL	
*Technical Room is not m	andatory, the placements of these elements are re	
WARNING This chart cont equipment.	ains only the principal components of the PET/CT s	

## **HEAT DISSIPATION**

	HEAT DISSIPATION (kW)	HEAT DISSIPATION (BTU/hr)
	MAX	MAX
	0.73	2500
	5.50	18700
	0.30	1050
	7	22250
	2.85	9700
	3.80	13000
	1.5	5122
	2.85	9700
	11	37522
	0.84	2860
	0.10	340
	1	3200
commende	d in the Exam Room.	

system and does not include information about non-GE supplied

## **CONNECTIVITY REQUIREMENTS**

## **ELECTRICAL NOTES**

Your new GE Healthcare imaging modality will require local and remote connectivity to enable our full range of digital support:

- Local connectivity This allows your system to connect to local devices such as PACS and modality worklist. We will require network information to configure the system(s), and a live ethernet port(s) prior to the delivery of the system(s).
- Remote connectivity Your GE Healthcare service warranty includes InSite<sup>™</sup> (applicable to InSite capable products), a powerful broadband-based service which enables digital tools that can help guard your hospital against equipment downtime and revenue loss by quickly connecting you to a GE Healthcare expert.

Depending on product family and software version, imaging systems can be connected in one of the following methods:

- 1. TLS over TCP Port 443 (Preferred method for new products) via:
  - a. DNS resolution
  - b. Customer-provided Proxy or
  - c. GE Proxy (Available in some regions)
- 2. Site-to-Site IPsec VPN tunnel

Please provide the GE project manager with the contact information for the resource that can provide information required to set up these connections. GEHC will send out communication to these contacts, which will include the project's Connectivity requirements, and a Connectivity form. This form will need to be completed and returned to GEHC prior to delivery of the system to ensure the system is tested and connectivity is enabled prior to the completion of the installation.

- 1. Aluminum or solid wires are not allowed.
- Wire sizes given are for use of equipment. Larger sizes may be required by local codes. 2.
- It is recommended that all wires be color coded, as required in accordance with national and local electrical codes. 3.
- Conduit sizes shall be verified by the architect, electrical engineer or contractor, in accordance with local or national 4. codes.
- 5. Convenience outlets are not illustrated. Their number and location are to be specified by others. Locate at least one convenience outlet close to the system control, the power distribution unit and one on each wall of the procedure room. Use hospital approved outlet or equivalent.
- General room illumination is not illustrated. Caution should be taken to avoid excessive heat from overhead spotlights. 6. Damage can occur to ceiling mounting components and wiring if high wattage bulbs are used. Recommend low wattage bulbs no higher than 75 watts and use dimmer controls (except MR). Do not mount lights directly above areas where ceiling mounted accessories will be parked.
- 7. Routing of cable ductwork, conduits, etc., must run direct as possible otherwise may result in the need for greater than standard cable lengths (refer to the interconnection diagram for maximum usable lengths point to point).
- Conduit turns to have large, sweeping bends with minimum radius in accordance with national and local electrical 8 codes
- 9 In some cases GEHC will specify ground wires to be sized larger than code. In these situations, the GEHC specification must be followed.
- 10. A special grounding system is required in all procedure rooms by some national and local codes. It is recommended in areas where patients might be examined or treated under present, future, or emergency conditions. Consult the governing electrical code and confer with appropriate customer administrative personnel to determine the areas requiring this type of grounding system.
- 11. The maximum point to point distances illustrated on this drawing must not be exceeded.
- 12. Physical connection of primary power to GEHC equipment is to be made by customers electrical contractor with the supervision of a GEHC representative. The GEHC representative would be required to identify the physical connection location, and insure proper handling of GEHC equipment.
- 13. GEHC conducts power audits to verify quality of power being delivered to the system. The customer's electrical contractor is required to be available to support this activity.
- 14. Every installation is unique. The electrical contractor will be required to support the installation of the GEHC equipment by providing knockouts, grommeted openings, bushings, etc. as required. All power connections to be performed by the electrician.

- All junction boxes, conduit, duct, duct dividers, switches, circuit breakers, cable tray, etc., are to be supplied and installed by customers electrical contractor. All junction boxes shall be provided with covers.
- Conduit and duct runs shall have gradual sweep radius bends.
- Conduits and duct above ceiling or below finished floor must be installed as near to ceiling or floor as possible to reduce run length.
- Ceiling mounted junction boxes illustrated on this plan must be installed flush with finished ceiling.
- All ductwork must meet the following requirements:
- 1.Ductwork shall be metal with dividers and have removable, accessible covers.
- 2. Ductwork shall be certified/rated for electrical power purposes.
- 3. Ductwork shall be electrically and mechanically bonded together in an approved manner.
- 4. PVC as a substitute must be used in accordance with all local and national codes.
- All openings in raceway and access flooring are to be cut out and finished off with grommet material by the customers contractor.
- Electrical contractor to provide measured pull strings in all conduit and raceway runs.
- Provide 10 foot pigtails at all junction points.
- Grounding is critical to equipment function and patient safety. Site must conform to wiring specifications shown on this plan.

E1 - Electrical Notes

16/20



Electrical Layout Item List
(MDP)
k nuts (Gantry)
k nuts (Operator's Console)
ARC)
k nuts / grommeted opening (Chiller)
100] box (Partial UPS)
face wall duct with minimum 2 dividers
Suitable bushings & lock nuts (Power Distribution Unit)
oor for water lines
pw floor
pw floor
hiller PDB)
g (Express Camera)
100] box above ceiling (injector)
100] box (Operator's Console - Injector Control/Express Camera)
100] box (CCTV Camera), TYP 7'-0" AFF to cl of box, final location per
100] box (CCTV Monitor), TYP 4'-0" AFF to cl of box, final location per
100] box (RCK-AVIMOS Camera), 6" TYP below finished clg to cl of box
100] box (RCK-AVIMOS Console)
surface wall duct with minimum 2 dividers
surface wall duct with minimum 2 dividers
Electrical Outlet Legend stomer/contractor supplied and installed items unless otherwise specified. Height above floor determined by local codes unless otherwise specified.
one line(s)
rade, dedicated wall outlet 120-v, single phase power
cy off (SEO), (recommended height 1.2m [48"] above floor)

Door interlock switch (needed only if required by state/local codes)

(Contractor Supplied and Installed)						
	То		Otv	Size		
		(Bubble # / Item)	~.,	In.	mm	
	1	Main Disconnect Panel	1	As req'd	As req'd	
		Emergency Off	1	1/2	13	
	7	Power Distribution Unit	1	As req'd	As req'd	
		Door Switch	1	1/2	13	
			1	1/2	13	
		Warning Light Control	1	1/2	13	
			1	1/2	13	
	15	Operator's Console	1	1 1/2	38	
	6	Dortial LIDC	1	1 1/4	30	
- 6		Partial UPS	1	2	50	
	15	Injector Control	1	2 1/2	64	
	16	CCTV Camera	1	1	25	
	18	RCK-AVIMOS Camera (x3)	1	1	25	
		E2 - Electrical Layou	ut		17/20	

## Additional Conduit Runs



## POWER REQUIREMENTS

#### **POWER SUPPLY**

POWER SUPPLY	3 PHASES+G 380V/400V/420V/440V/460V/480V ±10%
FREQUENCIES	50/60Hz ± 3Hz
POWER FACTOR	0.85
MAXIMUM POWER DEMAND	100 kVA
AVERAGE POWER	30 kVA

Power supply should come into a Main Disconnect Panel (MDP) containing the protective units and controls.

- Governing electrical codes may require a neutral wire. If present, neutral must be terminated in MDP.
- The section of the supply cable should be calculated in accordance with its length and the maximum permissible voltage drops, equal to 3.4% max. of regulation for feeder size.
- There must be discrimination between supply cable protective material at the beginning of the installation (main low-voltage transformer side) and the protective devices in the MDP.
- TNC neutral point connection must not be used.

Potential future upgrade may require a Maximum Power Demand of up to 140 kVA to be compatible.

### SUPPLY CHARACTERISTICS

- Power input must be separate from any others which may generate transients (elevators, air conditioning, radiology rooms equipped with high speed film changers...).
- All equipment (lighting, power outlets, etc...) installed with GE system components must be powered separately.
- The minimum recommended size for a dedicated distribution transformer is: 125 kVA, rated 2.4% regulation at unity power factor.
- Phase imbalance 2% maximum.
- Maximum voltage variation at full load 6% (Including line impedance).
- Transients must be less than 1500V peak. (on a 380V line)
- A record of power input disturbances over a continuous two-weeks period (prior to delivery) enables determination of the frequency and degree of these disturbances and can be used to ascertain the need to provide line conditioning equipment.

### **GROUND SYSTEM**

- System of equipotential grounding.
- Equipotential: The equipotential link will be by means of an equipotential bar. This equipotential bar should be connected to the protective earth conductors in the ducts of the non GE cableways and to additional equipotential connections linking up all the conducting units in the rooms where GE system units are located.
- The impedance of the earth bar should be less than or equal to 2  $\Omega$  (ohm).

#### CABLES

- Power and cable installation must comply with the distribution diagram.
- All cables must be isolated and flexible of HO7RNF type, cable color codes must comply with standards for electrical installation.
- The cables from signaling and remote control (Y,SEO,L...) will go to A1 Main Disconnect with a pigtail length of 1.5m, and will be connected during installation. Each conductor will be identified and isolated (screw connector).

#### CABLEWAYS

The general rules for laying cableways should meet the conditions laid down in current standards and regulations, with regard to:

- Protecting cables against water (cableways should be waterproof).
- Protecting cables against abnormal temperatures (proximity to heating pipes or ducts).
- Protecting cables against temperature shocks.
- Replacing cables (cableways should be large enough for cables to be replaced)
- Metal cableways should be grounded.

For Main Supply (3 phases) Feeder and Ground wire size Refer to Table2 SEO1 (1) **Emergency OFF** 24 V T (Control room) Emergency OFF SEO2 (1) (Exam room) 24 V T If applicable MDP Emergency OFF (Technical room) SEO3 (1) Refer to Table1 24 V T If applicable Remote ON/OFF Y (2) (Control room) 24 V 01 If applicable PDU For Sub-Feeder and Ground For Scan Room wire size refer to Table2 (3) Warning Light and Door Interlock **Connections Detail** refer to the next page

Table2:

#### **Feeder Table**

The information below assumes the use of copper wire, rated 75 C and run in steel conduit. All ampacity is determined in accordance with the National Electrical Code (NFPA 70), Table 310-16 (2002). The ampacity of the circuit protection device listed above determines the minimum feeder size, except where total source regulation limits require a larger size. If the wire size does not match the lists below, please select the nearest wire size as per to local standards.

Feeder length from Power	Minimum Wire Size, AWG or MCM (mm <sup>2</sup> )/VAC					
Substation to MDP - ft (m)	380 VAC	400 VAC	420 VAC	440 VAC	460 VAC	480 VAC
50 (15)	2 (35)	2 (35)	3 (30)	3 (30)	3 (30)	3 (30)
100 (30)	2 (35)	2 (35)	3 (30)	3 (30)	3 (30)	3 (30)
150 (46)	2 (35)	2 (35)	3 (30)	3 (30)	3 (30)	3 (30)
200 (61)	2 (35)	2 (35)	3 (30)	3 (30)	3 (30)	3 (30)
250 (76)	1 (45)	1 (45)	2 (35)	2 (35)	2 (35)	3 (30)
300 (91)	1/0 (50)	1/0 (50)	1 (45)	1 (45)	2 (35)	2 (35)
350 (107)	2/0 (70)	1/0 (50)	1/0 (50)	1 (45)	1 (45)	1 (45)
400 (122)	2/0 (70)	2/0 (70)	1/0 (50)	1/0 (50)	1/0 (50)	1 (45)
Sub-Feeder length from MDP to PDU - ft (m)						
32 (9.7536)	2 (35)	2 (35)	3 (30)	3 (30)	3 (30)	3 (30)

#### Grounding

Run a dedicated 1/0 [50 mm<sup>2</sup>] or larger insulated copper ground wire from the power source to the MDP and from MDP to the PDU. Run the ground wire in the same raceway with the three-phase wires.

Notes :	
(1)	Wire size: 4x2mm <sup>2</sup> [14AWG] and 1x2mm <sup>2</sup> [14AW
(2)	Power control cable: 3 m [10 ft], multi-conductor,
(3)	GE supplied MDP option E45021BB includes a 10

meter long power cable (H07RN-F) with wire size 4x50mm<sup>2</sup> and a 50 meter long control cable with wire size 2x1.5mm<sup>2</sup>

**POWER DISTRIBUTION** 



3 (30)	3 (30)	3 (30)	3 (30)
--------	--------	--------	--------

- 'Gl GND
- . 24V DC





SCALE: 1/8" = 1'-0"

#### CONDRAY HOSPITAL LICENSING RULES NUCLEAR MEDICINE SUITE 6 (s)(1)(B) Radioisotope room (Hot Lab). When radiopharmaceutical preparation is performed on site, the room shall include sufficient space for equipment, storage of radionuclides, chemicals for preparation, dose calibrators, and record keeping. When prepared materials are used, storage and calculation area may be smaller than for on-site preparation. DESIGN GROU (s)(1)(B)(i) The room and isotope handling areas within the room ARCHITECTURE shall have appropriate radiation shielding. & INTERIOR DESIGN (s)(1)(B)(ii) There shall be a shielded area or enclosed shielded cabinet for long-term storage of decaying radioisotopes. 3708 UPLAND AVE. LUBBOCK, TX 79407 (s)(1)(C) Positron emission tomography (PET). When Pet Services 806.748.6190 are provided, scanner and cyclotron rooms shall be in condray.com compliance with the manufacturer's recommendations and provide a minimum of three feet of clear and $-\infty$ unobstructed working space on all sides of equipment accessible to staff and patient. (s)(1)(C)(i) A control alcove shall be provided with a view window permitting view of the patient. (s)(1)(C)(ii) An equipment area large enough to contain necessary electronic and electrical gear shall be provided. (s)(1)(C)(iii) A dose administration room(s) with radiation shielding 20000 shall be located near treatment room. Patients in route 03/21/2025 to procedure rooms shall not pass through public corridors and waiting rooms after injection with radioisotope. (s)(1)(C)(iv) A patient toilet with radiation shielding shall be provided with or adjacent to dose administration room(s). The patient toilet rooms shall contain a hand washing fixture FINCHER with hands-free operable controls. ENGINEERING, LLC (s)(1)(D)(i) Patient waiting area. The area shall be out of traffic FINCHER ENGINEERING, LLC TX FIRM #F-16408 5621 114TH ST., SUITE 100 and under direct staff visual control. When the waiting area serves both outpatients and inpatients, separate LUBBOCK, TX 79424 areas shall be provided and include visual privacy PH 806-701-5109 WWW.FINCHERENG.COM between the waiting areas. (s)(1)(D)(ii) Control desk and reception area. A control desk and reception area shall be provided. (s)(1)(D)(iii) Dictation and report preparation area. The dictation and report preparation area may be incorporated with the control station. (s)(1)(D)(iv) Holding Area. The holding area shall be under direct staff control, out of the direct line of traffic, and have Nieman Engineering, LL space for stretchers. The holding area shall 1500 Broadway St. Suite 1210 Lubbock, Texas 79401 T: 806-589-3340 TBPE Firm accommodate two stretchers for the first procedure room with one additional station for each additional egistration No: F- 14148 procedure room. (s)(1)(D)(v) Patient toilet facilities. A toilet room with a hand washing fixture with hands—free operable controls shall be provided convenient to the waiting room and procedure room. (s)(1)(D)(vi) Staff toilet facilities. Toilets and hand washing fixtures with hands—free operable controls may be outside the suite but shall be convenient for staff office. \_\_\_\_\_\_ (s)(1)(D)(vii) Patient dressing rooms or cubicles. Dressing rooms or cubicles shall be provided convenient to the waiting areas and procedure rooms. Each room or cubicle shall include a seat or bench, a mirror, and provisions for hanging patients' clothing and for securing valuables. At least one dressing room shall be provided to accommodate a wheelchair. (s)(1)(D)(xvii) Offices for physicians, oncologist, physicists, and assistants. Offices shall include provisions for individual consultation, viewing, and charting of film. (s)(1)(D)(xviii) Clerical office(s) spaces. Clerical office(s) spaces shall be provided. (s)(1)(D)(xix) Consultation room. A consultation room shall be provided. (s)(1)(D)(xx) Clean storage room. A clean storage room shall be provided for clean supplies and linens. A hand washing fixture shall be provided with hands-free operable controls. When conveniently located, the clean storage room may be shared with another. (s)(1)(D)(xxi) Soiled workroom. The soiled workroom shall not have 1600 WALLACE BLVD AMARILLO, TEXAS 79106 direct connection to the nuclear medicine procedure or BSA HOSPITAL PET/CT INFILL diagnostic rooms and sterile activity rooms. The room shall contain a clinical sink or equivalent flushing type fixture, work counter, hand washing fixture with hands—free operable controls, waste receptacle, and soiled linen receptacle. When contaminated soiled material or fluid waste is not handled, only a soiled holding room is required. TRUE NORTH (s)(1)(D)(xxii) Housekeeping room. The housekeeping room shall be located within the suite. (s)(2)(A)(i) Radiation protection shall be designed, tested and approved by a medical physicist licensed under the Texas Medical Physics Practice Act, Occupations Code Chapter 602. (s)(2)(B)(i) Flooring used in the nuclear medicine procedure room, any work or treatment areas where radioactive material is handled, and soiled workroom shall be of the seamless monolithic type as required by REVISIONS: *§133.162(d)(2)(B)(iii)(III) of this title.* 03/21/2025 (s)(2)(B)(ii) Ceilings in radiopharmacy, hot laboratory, and soiled workrooms shall be monolithic as required by COPYRIGHT © 2025 CONDRAY DESIGN \$133.162(d)(2)(B)(vi)(III) of this title. GROUP, INC. THESE DRAWINGS, OR PARTS THEREOF, MAY NOT BE REPRODUCED IN ANY FORM, BY ANY METHOD, FOR ANY PURPOSE, WITHOUT PRIOR WRITTEN CONSENT FROM CONDRAY DESIGN GROUP, INC. PROJECT NO. 22418 03/14/2025 DATE: SHEET NO.

OF

2

2





1/8" = 1'-0"





## GENERAL NOTES

- 1). ALL DIMENSIONS ARE ACTUAL DIMENSIONS TO FACE OF METAL STUDS, OR FACE OF EXISTING WALL FINISH UNLESS NOTED OTHERWISE.
- 2). FIELD VERIFY ALL DIMENSIONS, NEW OR EXISTING, PRIOR TO CONSTRUCTION AND ADJUST WHERE REQUIRED TO PROVIDE A PROPER AND COMPLETE INSTALLATION. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WITH EXISTING OR NEW CONDITIONS.
- CONTRACTOR SHALL COORDINATE ALL LAYOUT WORK WITH EQUIPMENT MANUFACTURER'S DIMENSIONAL REQUIREMENTS. THIS INCLUDES CONTRACTOR AND OWNER PROVIDED EQUIPMENT.
- 4). \* = 3 5/8" MTL. STUDS @ 16" O.C.
- 5). THE STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS ARE SUPPLEMENTARY TO THE ARCHITECTURAL DRAWINGS. SHOULD THERE BE A DISCREPANCY BETWEEN THE ARCHITECTURAL DRAWINGS AND THE CONSULTANT DRAWINGS, SUCH DISCREPANCY IS TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE CONTRACTOR SHALL RECEIVE INSTRUCTION PRIOR TO INSTALLATION OR PERFORMANCE OF SAID WORK. ANY WORK PERFORMED IN CONFLICT WITH THE DRAWINGS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- 6). ALL CONSTRUCTION SHALL COMPLY WITH APPLICABLE ACCESSIBILITY CODE REQUIREMENTS. THE CONTRACTOR SHALL BE AWARE OF ALL DIMENSIONALLY CRITICAL AREAS AND COMPLY WITH APPLICABLE STANDARDS. IF THERE ARE ANY DISCREPANCIES, THESE ARE TO BE BROUGHT TO THE ARCHITECTS ATTENTION IMMEDIA TEL Y.
- 7). AT ALL NEW FLOOR DRAIN LOCATIONS, THE SLAB IS TO BE RECESSED AND SLOPED FOR POSITIVE DRAINAGE. UNLESS NOTED OTHERWISE, SLOPE IS TO BE 1/8":1'-0" WITH A 1/4"-3/8" OVERALL RECESS. EXISTING SLABS ARE TO BE CHIPPED OUT TO ACCOMMODATE.
- 8). ALL WALLS ARE TO BE PARTITION TYPE 'P1' UNLESS NOTED OTHERWISE.

## **KEYED NOTES**

DESIGNATED BY: 🗕 🗍

- 1 THIS WALL TO RECEIVE (2) LAYERS OF 3/4" LEAD-LINED PLYWOOD WITH 1/2" LEAD SHEET (1" TOTAL LEAD) ON THE ROOM SIDE OF THE WALL UP TO 8'-0" A.F.F. RUN LEAD LINING CONTINUOUSLY WHERE PERPENDICULAR WALLS ABUT. ABOVE 8'-0", INSTALL 2 1/2" FURRING STUDS. INSTALL 5/8" GYPSUM BOARD ON BOTH OUTSIDE FACES OF THE WALL. RÉFER TO STRUCTURAL FOR WALL FRAMING.
- 2 THIS WALL TO RECEIVE (2) LAYERS OF 3/4" LEAD-LINED PLYWOOD WITH 1/2" LEAD SHEET (1" TOTAL LEAD) ON THE ROOM SIDE OF THE WALL UP TO 8'-0" A.F.F. RUN LEAD LINING CONTINUOUSLY WHERE PERPENDICULAR WALLS ABUT. ABOVE 8'-0", INSTALL 2 1/2" FURRING STUDS. INSTALL 5/8" GYPSUM BOARD ON NEW OUTSIDE FACE OF THE WALL. REFÉR TO STRUCTURAL FOR WALL FRAMING. NEW FRAMING TO RUN PARALLEL ON THE INSIDE OF EXISTING WALL FRAMING.
- (3) THIS WALL TO RECEIVE (2) LAYERS OF 3/4" LEAD-LINED PLYWOOD WITH 1/2" LEAD SHEET (1" TOTAL LEAD) ON THE ROOM SIDE OF THE WALL UP TO 8'-0" A.F.F. RUN LEAD LINING CONTINUOUSLY WHERE PERPENDICULAR WALLS ABUT. ABOVE 8'-0", INSTALL 2 1/2" FURRING STUDS. INSTALL 3 5/8" FURROUT WALL IN FRONT OF LEAD-LINED WALL FOR PLUMBING CHASE. INSTALL 5/8" GYPSUM BOARD ON NEW OUTSIDE FACE OF THE WALL. REFER TO STRUCTURAL FOR WALL FRAMING.
- (4) THIS FACE OF THIS WALL TO RECEIVE (1) LAYERS OF 5/8" LEAD-LINED GYPSUM BOARD WITH 1/8" LEAD SHEET. RUN LEAD-LINING CONTINUOUS AND WRAP BEHIND ANY MEMBRANE PENETRATIONS WITH LEAD. REFER TO RADIATION PROTECTION SPECIFICATIONS FOR REQUIREMENTS.
- (5) THIS FACE OF THIS WALL TO RECEIVE (1) LAYERS OF 1/2" LEAD-LINED PLYWOOD WITH 1/4" LEAD SHEET. INSTALL 5/8" GYPSUM BOARD OVER THIS. RUN LEAD-LINING CONTINUOÚS AND WRAP BEHIND ANY MEMBRANE PENETRATIONS WITH LEAD. REFER TO RADIATION PROTECTION SPECIFICATIONS FOR REQUIREMENTS.
- 6 THIS FACE OF THIS WALL TO RECEIVE (1) LAYERS OF 5/8" LEAD-LINED GYPSUM BOARD WITH 1/16" LEAD SHEET. RUN LEAD-LINING CONTINUOUS AND WRAP BEHIND ANY MEMBRANE PENETRATIONS WITH LEAD. REFER TO RADIATION PROTECTION SPECIFICATIONS FOR REQUIREMENTS.
- ALIGN FINISHES.
- 8 4" SHAFTWALL FRAMING WITH 2 HOUR FIRE RATED CONSTRUCTION FROM THE SLAB TO ROOF STRUCTURE ABOVE. SHAFT SHALL BE SIZED APPROPRIATELY TO CONTAIN INSULATED MECHANICAL DUCTS WITH MIN. 8" CLEARANCE ON ALL SIDES. ALL JOINTS AND PENETRATIONS TO BE SEALED WITH UL RATED SYSTEMS FOR A COMPLETE ASSEMBLY.

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27/A3	ANNOTATED PLAN
SCALE:	1/8'' = 1' - 0''

TRUE NORTH



- 1). ON ALL WALLS SCHEDULED TO REMAIN. PATCH ANY EXISTING HOLES, CRACKS, OR OTHERWISE DAMAGED AREAS AND RE—TEXTURE AND PAINT AS SCHEDULED.
- 2). THE STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS ARE SUPPLEMENTARY TO THE ARCHITECTURAL DRAWINGS. SHOULD THERE BE A DISCREPANCY BETWEEN THE ARCHITECTURAL DRAWINGS AND THE CONSULTANT DRAWINGS, SUCH DISCREPANCY IS TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE CONTRACTOR SHALL RECEIVE INSTRUCTION PRIOR TO INSTALLATION OR PERFORMANCE OF SAID WORK. ANY WORK PERFORMED IN CONFLICT WITH THE DRAWINGS SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- 3). REFER TO PROJECT MANUAL FOR ROOM FINISH SCHEDULE.
- 4). ALL NEW WALLS TO RECEIVE FULL BATT INSULATION FROM FLOOR TO THE FULL HEIGHT OF THE WALL, INCLUDING ABOVE CEILING.

## **KEYED NOTES**

- DESIGNATED BY: 🗕 🕌
- (1) NO WORK IN THIS AREA.
- (2) PET/CT EQUIPMENT. REFER TO MPE AND/OR VENDOR DRAWINGS FOR MORE INFORMATION.
- (3) WALL MOUNTED FLAT SCREEN T.V. OWNER FURNISHED, CONTRACTOR INSTALLED. INSTALL MIN. 24"x24" AREA OF 3/4" PLYWOOD BLOCKING IN WALL. COORDINATE EXACT LOCATION WITH OWNER.
- (4) INSTALL 36" HIGH BY 16" WIDE SECTION OF 3/4" IN-WALL BLOCKING STARTING AT 36" A.F.F. FOR WALL MOUNTED BRACKET FOR COMPUTER AND MONITOR TO BE PROVIDED AND INSTALLED BY OTHERS.
- (5) ACCESS CONTROL CARD READER. REFER TO ELECTRICAL.
- 6 ACCESS CONTROL CARD READER CONNECTED TO POWER OPERATOR. REFER TO ELECTRICAL AND DOOR HARDWARE SCHEDULE.
- (7) REFRIGERATOR. OWNER FURNISHED AND INSTALLED.
- (8) 12"x12" LEAD-LINED, STAINLESS-STEEL PASS-THROUGH BOX WITH 1/4" LEAD-LINING.
- (9) CONTRACTOR TO PROVIDE APPROPRIATE TPO SYSTEM DETAILS TO FLASH IN NEW CURBS AND PATCH BACK MATERIALS AS REQUIRED AT NEW ROOF PENETRATIONS.
- 10 INFILL ABANDONED OPENING WITH CRASHRAIL TO MATCH EXISTING FOR A CONTINUOUS RUN.
- 1) ACCESSIBLE CHANGING BENCH. OWNER PROVIDED, CONTRACTOR INSTALLED. BENCH SHALL BE ATTACHED TO THE WALL WITH A METAL BRACKET.
- ACCESSIBLE LOCKER. OWNER PROVIDED, CONTRACTOR INSTALLED.
   CONTRACTOR SHALL PROVIDE ALL PLUMBING FIXTURES INDICATED IN THIS ROOM ON PLUMBING PLAN SHEETS AND DELIVER THOSE
- MATERIALS TO THE OWNER. ALL PLUMBING ROUGH-IN, INCLUDING SINK CARRIER, IN THIS ROOM SHALL BE INSTALLED AS INDICATED AND CAPPED IN THE WALL. ALL TOILET ACCESSORIES SCHEDULED FOR THIS ROOM SHALL BE PROVIDED AND DELIVERED TO THE OWNER.



# FLOOR PLAN LEGEND



NEW DOOR - REFER TO DOOR SCHEDULE

 HM1
 WINDOW DESIGNATION - REFER TO FRAME SCHEDULE

 Image: Second state
 NEW FIRE EXTINGUISHER AS SPECIFIED

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 NEW FIRE EXTINGUISHER AS SPECIFIED









# **KEYED NOTES**

DESIGNATED BY: 🗕 🕌

- () SOAP DISPENSER WITH CONTROLS MOUNTED @ 47" A.F.F. OWNER FURNISHED, CONTRACTOR INSTALLED.
- 2 PAPER TOWEL DISPENSER WITH CONTROLS MOUNTED @ 47" A.F.F. OWNER FURNISHED, CONTRACTOR INSTALLED.
- (3) UNDERCABINET LIGHT FIXTURE. REFER TO ELECTRICAL DRAWINGS.
- (4) UNDERCOUNTER RAKKS SUPPORT BRACKET AS SPECIFIED.
- (5) REMOVABLE ACCESS PANEL, FINISH AS SCHEDULED.
- (6) PROVIDE CAM LOCK AS SPECIFIED. TYPICAL FOR ALL LOCATIONS INDICATED WITH SYMBOL.
- (7) REFRIGERATOR. OWNER FURNISHED, CONTRACTOR INSTALLED.
- (8) BASE AS SCHEDULED.
- (9) PAINTED GYPSUM BOARD FURRDOWN.
- (10) MED GAS OUTLETS. REFER TO MPE FOR MORE INFORMATION.
- (1) NURSE CALL. REFER TO MPE FOR MORE INFORMATION.
- (12) STAINLESS STEEL COUNTERTOPS AND BACKSPLASH AS SPECIFIED.
- (13) FIELD VERIFY SPACE REQUIRED FOR EXISTING EQUIPMENT AND ADJUST MILLWORK LENGTH TO ACCOMMODATE.
- (14) CLOSURE PANEL AT OPEN ALCOVE. OPEN ALCOVE IS FOR OWNER PROVIDED MATERIALS STORAGE CABINET. CONFIRM SIZE OF ALCOVE.
- 15 12"x12" LEAD-LINED, STAINLESS-STEEL PASS-THROUGH BOX WITH 1/4" LEAD-LINING.
- (16) EQUIPMENT OWNER FURNISHED, OWNER INSTALLED. Świerowskie w start w start with the (1) WALL PROTECTION PANELS ON THIS WALL SHALL BE IN THE HATCHED AREAS.
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BSA HOSPITAL  $\frac{\text{PET/CT INFILL CONTRACTOR ACCESS AND MINIMUM TEMPORARY BARRIER REQUIREMENTS.}{\text{SCALE: } 3/32'' = 1'-0''}$ 

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BSA HOSPITAL PET/CT INFILL EQUIPMENT AND MATERIAL TRAVEL PATH TO MECHANICAL ROOM. SCALE: NO SCALE

CONDRAY DESIGN GROUP, INC.

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# ADDENDUM #1

Page 1 of 1

March 27, 2025

**BSA Hospital PET/CT Infill** 1600 Wallace Blvd Amarillo, TX



## NOTICE TO BIDDERS:

The following shall be incorporated in and become a part of the original Drawings and Specifications of the above identified project. Please acknowledge receipt of this Addendum by noting it on your Proposal.

## **Electrical Items:**

- Item 1. Drawing Sheet E3:
  - a. Receptacle and data outlet serving EMR shall be relocated to adjacent wall near TV. Coordinate exact device locations with EMR equipment and architect.
  - b. Provide 120v circuit to serve new fire alarm equipment, power supplies, batteries, etc. Extend and connect to nearest 120v "life safety" emergency panel with available capacity. Coordinate location with fire alarm contractor.
- Item 2. Drawing Sheet E4:
  - a. EF-1, EF-2, AHU-1, and CU-1 shall be connected to panel "ERHZA" in 1<sup>st</sup> floor electrical room near gift shop.
  - b. Provide extension of existing lightning protection system for coverage of new roof mounted HVAC equipment. Contractor shall provide and install air terminals, conductors, terminations, conduit, and connectors for complete system as required by NFPA 780 and UL96A. Lightning protection system shall match existing. Lightning protection contractor shall provide "Letter of Findings" certificate/UL master label as required by NFPA 780 and UL96A. Field verify existing conditions

End of Fincher Engineering, LLC Addendum

Fincher Engineering, LLC TX Firm #F-16408 5621 114<sup>th</sup> St., Suite 100, Lubbock, TX 79424 Ph: (806)701-5109 www.finchereng.com