PET/CT SITE PLANNING
& INSTALLATION GUIDE

Hot Lab, Uptake Rooms, Shielding & Patient Workflow

Medical Imaging Equipment Buyer's Guide | AmberUSA.com

PET/CT site planning is the most complex of any imaging modality. Unlike a standalone CT or MRI installation, a PET/CT facility must accommodate three intersecting realities at once: the scanner itself with its powerful CT subsystem, the radiopharmaceuticals that make positron imaging possible, and the unique fact that injected patients themselves become temporary radiation sources for 6 to 8 hours after administration.

That third reality is what makes PET/CT site planning fundamentally different. A CT room shields against radiation produced by a switchable X-ray tube — when the scanner is off, the radiation is gone. A PET/CT facility, by contrast, has live radioactive material on the premises every operating day: in the hot lab, in the syringe being carried to the patient, in the patient themselves during the uptake period, and lingering in the scanner room well after the patient leaves. Every space in the facility must be designed and shielded around this continuous radioactive workflow.

This guide walks through the complete PET/CT site plan — the four critical spaces, the radiation shielding required for 511 keV photons, hot lab and radiopharmacy design, uptake room considerations, patient prep and recovery workflow, electrical and HVAC requirements, IT integration, and the full project timeline. Where the CT or MRI site planning guides cover only part of these topics, PET/CT requires all of them at once.

HIGHER ENERGY, HEAVIER SHIELDING

PET imaging uses 511 keV annihilation photons — substantially more penetrating than the 120 to 150 kVp X-rays produced by the CT subsystem. Shielding thickness for PET/CT rooms is typically two to three times what a standalone CT room requires. A site planner who has only designed CT facilities will underestimate PET/CT shielding by a large margin.

1. The Four Critical Spaces

A complete PET/CT facility is built around four functionally distinct spaces, each with its own shielding, ventilation, workflow, and equipment requirements. Understanding how these spaces relate to one another — and how patients, staff, and radioactive material move between them — is the foundation of every other site planning decision.

SPACE 1

Scanner Room

Houses the PET/CT gantry, patient bed, and supporting equipment. Lead-lined doors, lead-glass viewing windows, and structural shielding protect the technologist and adjacent spaces. The room must accommodate substantial floor loads from both the equipment and the lead shielding mass.

SPACE 2

Hot Lab / Radiopharmacy

The radiopharmacy where unit doses are received, assayed, drawn, and dispensed. Contains the dose calibrator, shielded fume hood, L-blocks, syringe carriers, and a pass-through window to the scanner suite. Typically requires the heaviest shielding in the entire facility on a per-square-foot basis.

SPACE 3

Uptake / Patient Resting Rooms

Where patients rest quietly for 60 to 90 minutes after injection while the radiotracer distributes through the body. Because the injected patient is a radiation source, uptake rooms require substantial wall and door shielding to protect adjacent staff, patients, and the public.

SPACE 4

Control & Equipment Rooms

The control room contains the operator console, image-viewing workstations, and PACS terminals. The equipment room houses the system electronic cabinets, cooling components, and image processing hardware. Both must be located adjacent to the scanner with clear sight lines to the patient on the table.

2. Scanner Room Design

The PET/CT scanner room is the largest single space in the facility. Beyond the equipment footprint, the room must accommodate technologist work area, patient positioning maneuvers, gurney access, anesthesia or sedation equipment for pediatric patients, and the substantial floor load imposed by the shielded walls.

Room Dimensions & Clearances

Space	Recommended
Scanner Room — Minimum Interior	18' x 20' (approximately 360 sq ft)
Scanner Room — Typical Interior	20' x 24' to 24' x 32' for larger facilities
Clearance — Sides of Patient Bed	Minimum 4 feet on each side
Clearance — Foot of Patient Bed	Minimum 4 feet for table travel
Ceiling Height	Minimum 8'-6" clear; 9'-0" preferred
Access Route — Width	Minimum 8'-0" clear along the entire delivery path
Access Route — Ceiling	Minimum 9'-0" clear along the entire delivery path

Equipment Footprint

A modern PET/CT gantry is significantly larger than a standalone CT — the combined PET detector ring and CT components extend the gantry depth, and the patient table requires more axial travel to cover the full body scan length. Plan for a gantry footprint of roughly 7 feet wide by 8 feet deep, plus the table extension which adds another 6 to 8 feet in length.

Floor Loading

Floor structural capacity is a meaningful constraint for PET/CT installations. The scanner itself typically weighs between 6,000 and 9,000 pounds — heavier than a comparable CT — and the lead shielding on the walls and floor of the room can add another 5,000 to 15,000 pounds depending on the shielding plan. Total dead load on the slab can exceed 25,000 pounds before any patient or staff weight is added.

For ground-floor installations on slab-on-grade, this is usually within standard structural capacity. For elevated floors, a structural engineer must verify capacity and may require slab reinforcement before installation can proceed.

Operator-Patient Sight Lines

The control room is positioned adjacent to the scanner room with a lead-glass viewing window large enough to give the technologist a clear view of the patient on the gantry table. The viewing window should be sized to allow simultaneous observation of the patient's head and the gantry display, with the lead equivalence of the glass determined by the medical physicist's shielding report.

A two-way audio intercom and an in-room video monitoring system supplement direct visual observation. During the scan itself, the technologist communicates with the patient through the intercom for breath-hold instructions and reassurance.

3. Hot Lab / Radiopharmacy Design

The hot lab is the operational heart of a PET/CT facility. This is where radiopharmaceuticals — most commonly fluorodeoxyglucose (FDG, F-18) — are received from the supplying radiopharmacy, assayed for activity, drawn into unit-dose syringes, and dispensed for patient administration. Every dose that enters a patient passes through this room.

Because the hot lab handles the highest concentrations of unshielded radioactivity in the facility, it typically requires the most intensive shielding per square foot of any space in the building. The design and equipment selection in the hot lab also have an outsized impact on staff occupational dose — a well-designed lab keeps technologist exposure well below regulatory limits, while a poorly designed one can push the same staff close to those limits over a year of operation.

Hot Lab Layout

A typical hot lab includes the following functional areas, each with its own shielding and ventilation requirements:

- Dose receipt and storage area, where shipping containers from the supplying radiopharmacy are received and stored until use.
- Dose assay station with the dose calibrator, where each unit dose is measured before administration.
- Dispensing area where doses are drawn into shielded syringes and prepared for the patient.
- Shielded fume hood for any manipulation of unsealed radioactive materials, particularly during quality control testing.
- Decay-in-storage area for short-half-life waste (F-18 has a 110-minute half-life, so most waste decays to background within 24 hours).
- Sink and handwashing station for staff decontamination.
- Pass-through window to the scanner suite or control room, allowing doses to be transferred without carrying syringes through public corridors.

Essential Hot Lab Equipment

Item	Description
Dose Calibrator	Capintec CRC-15 or equivalent; mounted with integrated shielding
Shielded Fume Hood	Lead-lined with lead-glass viewing window, optional dose calibrator mount

Item	Description
L-Block Shields	Tabletop lead shields for drawing and labeling doses
Syringe Carriers	Lead-lined transport containers for moving doses from hot lab to patient
Syringe Shields	Tungsten or lead shields fitted around the syringe during injection
Sharps Disposal	Lead-shielded sharps containers for contaminated needles and syringes
Survey Meter	Calibrated radiation detector for area surveys and contamination checks
Decay Storage	Lead-shielded waste containers with decay-in-storage protocol

Hot Lab Shielding

The hot lab requires the heaviest shielding in the facility on a per-square-foot basis. The dose calibrator is internally shielded, but the rest of the room — walls, doors, ceiling, and any pass-through openings — needs lead shielding sized for the activity levels handled. Typical PET hot lab shielding ranges from 0.5 inch to 1 inch lead equivalent for walls and doors, with the exact specification calculated by the medical physicist based on workload.

Tabletop L-block shields provide a secondary line of defense during dose drawing and labeling. These are typically 2 inches of lead with a leaded glass viewing window, configured in an L-shape to surround the work area while still allowing manipulation of syringes behind the shield.

Pass-Through Window

A shielded pass-through window between the hot lab and the scanner room (or control room) allows technologists to transfer doses without carrying them through public corridors. This is more than a convenience — it shortens the time the technologist is in close proximity to the dose and eliminates the radiation exposure to anyone in adjacent hallways. The pass-through is typically a small lead-lined cabinet with shielded doors on either side that interlock so both sides cannot be open at once.

Dose Calibrator Quality Control

The dose calibrator is the most important quality assurance device in the entire facility, because every patient dose passes through it. Standard QC requirements:

- Constancy check — performed each day the dose calibrator is used
- Linearity check — performed quarterly
- Accuracy check — performed annually with traceable reference sources
- Geometry check — performed at installation and after any service work

All QC measurements must be logged and retained as part of the radiation safety program documentation. State and federal regulators review these logs during inspections.

RADIOACTIVE WASTE HANDLING

FDG (F-18) has a half-life of 110 minutes, which means most radioactive waste from a PET/CT operation decays to background activity within 24 hours. The decay-in-storage method — holding waste in shielded containers until activity drops below regulatory thresholds — is the standard disposal approach. Plan for adequate shielded waste storage volume; even a small PET/CT operation accumulates several gallons of decaying waste each day.

4. Uptake & Patient Resting Rooms

The uptake phase is unique to PET imaging and is one of the most overlooked aspects of facility planning. After the patient receives the FDG injection, they sit quietly in a darkened, comfortable room for 60 to 90 minutes while the radiotracer distributes through the body and is taken up by metabolically active tissues. Only then is the patient moved to the scanner.

During this uptake period, the patient is the most concentrated radiation source in the facility. The room they sit in must be shielded to protect adjacent staff, other patients, and the public — and it must also be designed to maximize the diagnostic quality of the eventual scan, which means keeping the patient calm, quiet, and as physically still as possible.

How Many Uptake Rooms Do You Need?

Uptake room capacity is the throughput bottleneck for most PET/CT facilities. Each patient occupies an uptake room for about an hour, plus 10 to 15 minutes for prep and another 10 to 15 minutes for transfer to the scanner. A facility scanning 8 to 10 patients per day typically needs at least 3 uptake rooms; higher-volume facilities need 4 to 6. Skimping on uptake room count creates scheduling pinch points that compress patient throughput well below scanner capacity.

Environmental Design

FDG distribution to muscle tissue is suppressed when the patient is calm and physically inactive. Anything that increases muscle activity — talking, fidgeting, shivering, anxiety — introduces background FDG uptake into the muscles, which obscures the actual lesions you are trying to image. The uptake room environment is engineered to keep patients relaxed and motionless:

- Reclining chair or stretcher that allows the patient to lie back comfortably.
- Dimmed ambient lighting; no overhead fluorescent glare.
- Temperature comfortable on the warm side (cold causes shivering, which causes brown fat uptake).
- Blankets and pillows for patient comfort.
- Entertainment system — small screen, headphones, or soft music — to keep the patient mentally occupied without requiring physical movement.
- No active reading, phone use, or vigorous talking during the uptake period.

Uptake Room Shielding

Wall and door shielding requirements for uptake rooms are calculated against the activity injected into the patient, the duration the patient occupies the room, the occupancy of adjacent spaces, and the standard 1 mSv per year public dose limit. Typical uptake room shielding falls between 0.25 inch and 0.75 inch lead equivalent, but always defer to the physicist's report.

Private Shielded Toilet

FDG is excreted through the urinary system over the course of several hours. A private toilet inside or directly adjacent to the uptake suite is strongly recommended for two reasons. First, it eliminates the need for an injected patient to walk through public corridors to a shared restroom, which would expose anyone they pass to unnecessary radiation. Second, FDG-contaminated urine is itself a low-level radioactive waste; routing it through a dedicated toilet keeps that waste isolated from the general building plumbing.

Patient Monitoring

Each uptake room should be equipped with audio and video monitoring so the technologist can keep an eye on the patient without entering the room (which would add unnecessary occupational dose). A two-way intercom allows the patient to call for assistance if needed, and a visual monitor at the technologist station lets staff confirm the patient is comfortable and still.

5. Patient Preparation & Recovery

Around the uptake rooms and the scanner itself sit the patient preparation and recovery areas — spaces that are easy to undersize during the initial site plan and frustratingly hard to expand once the facility is operational.

Patient Prep Area

The prep area is where patients arrive after check-in and before injection. It typically includes:

- Changing rooms with secure lockers for personal items.
- Blood glucose testing station (FDG uptake is glucose-dependent and elevated glucose distorts the scan; fasting and pre-scan glucose check are standard).
- IV access cart or workstation, since most FDG doses are administered intravenously.
- Patient warming blankets and a quiet seating area.
- Workstation for the technologist to record vitals, glucose, weight, and pre-scan questionnaire.
- Easy access to the hot lab so the technologist can retrieve the prepared dose without walking through public spaces.

Recovery Area

After the scan, most patients leave the facility directly — there is no formal recovery period for an awake adult patient. However, for pediatric studies under sedation, contrast-enhanced cardiac PET/CT, or patients with significant comorbidities, a brief recovery period under observation is appropriate. A small recovery area with one or two beds, vital sign monitors, and direct sight from the technologist station handles these cases.

Handwashing & Decontamination

Handwashing sinks must be installed at every point where staff handle radiopharmaceuticals or could potentially contact contamination — at the hot lab entrance, at the uptake room exit, and at the scanner room exit. Local plumbing codes typically require sensor-operated faucets in radiopharmacy areas to minimize contamination from contact with hand-operated controls.

6. Radiation Shielding for PET/CT

PET/CT shielding is fundamentally different from CT shielding for one critical reason: the 511 keV photons produced by positron annihilation are substantially more penetrating than diagnostic-energy X-rays. A CT room may be adequately shielded by 1/16 inch of lead; the same room used for PET/CT may require five to ten times that thickness to achieve the same dose attenuation. Concrete and steel are also viable shielding materials and are sometimes more cost-effective than lead at PET/CT thicknesses.

Typical Shielding Specifications

Shielding specifications must be calculated by a qualified medical physicist based on workload, room geometry, and adjacent occupancy. The following are typical ranges, not authoritative specifications:

Element	Typical PET/CT Range
Scanner Room — Walls	0.5" – 1.0" lead equivalent (or 8" – 12" concrete)
Scanner Room — Doors	0.5" – 0.75" lead equivalent
Scanner Room — Viewing Window	≥ 4 mm lead-equivalent glass

Element	Typical PET/CT Range
Hot Lab — Walls & Doors	0.5" – 1.0" lead equivalent (heaviest in facility per sq ft)
Uptake Rooms — Walls & Doors	0.25" – 0.75" lead equivalent
Floor & Ceiling	Required when adjacent occupied space above or below
Pass-Through Windows	Lead-lined cabinet with interlocked shielded doors

Shielding Material Selection

Three primary materials are used for PET/CT facility shielding, sometimes in combination:

- Lead — Highest density per unit thickness; ideal for retrofits where wall depth is constrained. Most expensive per unit area. Lead-lined drywall and lead-backed plywood are common forms.
- Concrete — Standard-density concrete provides shielding at approximately 6 inches per 1/16 inch lead-equivalent; high-density concrete reduces this thickness. Cost-effective for new construction where wall depth is not a constraint.
- Steel — Steel plates provide shielding at intermediate density; useful for doors and specialized applications where lead is not practical.

The Patient as Radiation Source

The most subtle aspect of PET/CT shielding design is accounting for the patient as a radiation source. Unlike CT, where radiation only exists while the X-ray tube is energized, a PET/CT facility has live radioactive material — in the form of patients — moving through the building all day. The site plan must account for:

- Injected patients walking from prep to uptake rooms (corridor shielding)
- Patients in uptake rooms (wall shielding to adjacent occupied spaces)

- Patients moving from uptake to scanner (transfer corridor design)
- Patients on the scanner table (room shielding)
- Patients post-scan walking to the exit (recovery and egress path)

THE PHYSICIST'S REPORT DRIVES EVERYTHING

Every state radiation control program requires a stamped shielding plan from a qualified medical physicist before a PET/CT installation can be authorized for patient use. The physicist will need the scanner specifications, expected weekly workload, dose levels handled, and detailed room drawings to produce the report. Budget 4 to 8 weeks for this process, and complete it before construction begins.

7. Patient Flow & One-Way Workflow Design

PET/CT facilities are designed around a one-way patient flow loop. The goal is simple: once a patient has been injected with radiotracer, they should never share corridor space with patients who have not yet been injected, with the general public, or with staff who do not need to be in their vicinity. This protects everyone in the building from unnecessary radiation exposure and dramatically reduces the cumulative dose to facility staff over a year of operation.

The Standard PET/CT Flow

A typical patient flow through a PET/CT facility looks like this:

- Patient arrives, checks in at reception (public area)
- Prep — changes into gown, blood glucose check, IV access placed
- Injection — FDG dose administered, typically in the prep area
- Uptake — patient walks (or is wheeled) to assigned uptake room, rests 60–90 minutes
- Voids bladder in private shielded toilet immediately before scanning
- Transfer — patient walks short, shielded path from uptake to scanner room
- Scanning — 20 to 30 minutes on the gantry
- Discharge — exits through a corridor that does not loop back past pre-injection patients

Designing for One-Way Flow

The one-way principle is what drives the relative placement of rooms in the floor plan. Reception, prep, and uptake rooms should be progressively deeper into the radiologically controlled zone. The scanner sits at the deepest point. The exit path should bypass the prep area entirely so that a recently scanned patient does not pass anyone who has not yet been injected.

Where building constraints make a strict one-way loop impossible, the next-best design uses time separation — scheduling injections, uptake periods, and scans so that patients at different stages of the workflow do not cross paths in shared corridors.

8. Electrical & Grounding Requirements

PET/CT scanners combine the substantial electrical demands of a modern multi-slice CT with the additional power requirements of the PET detector and processing systems. Electrical service must be sized, isolated, and grounded to OEM specification.

Typical Electrical Specifications

Item	Typical Requirement
Main Service	480V three-phase, dedicated branch from main switchgear (some platforms 208V)
Continuous Load	50 – 90 kVA depending on system and configuration
Peak Load	Up to 150 kVA during high-power CT acquisitions
Grounding	Equipotential grounding system per OEM specification
UPS	Strongly recommended for the host computer and image archive
Emergency Power Off	Required in scanner room and at the control console
Power Quality	Dedicated transformer or active power conditioner recommended

Equipotential Grounding

PET/CT systems require strict equipotential grounding — all metal surfaces in the scan room, equipment cabinets, and patient table must be tied to the same ground reference at the same potential. Even small ground potential differences can introduce electrical noise into the sensitive PET detector electronics, degrading image quality, and in extreme cases create patient safety hazards. The electrical contractor and the OEM service engineer should jointly verify equipotential grounding during commissioning.

Emergency Power Off

Like CT, PET/CT installations require an Emergency Power Off button accessible to the operator. The button disconnects power to the scanner immediately when activated. Location, signage, and reset procedure are reviewed during the medical physicist's commissioning inspection and state radiation control survey.

9. HVAC & Environmental Controls

PET/CT facilities have more demanding HVAC requirements than standalone CT for two reasons. The combined scanner and IT cabinets generate substantial heat that must be removed continuously, and the hot lab and uptake rooms have specific ventilation requirements driven by radioactive material handling.

Scanner Suite Climate

Parameter	Recommended
Scanner Room Temperature	64°F – 75°F (18°C – 24°C)
Control & Equipment Room Temperature	59°F – 75°F (15°C – 24°C)
Relative Humidity	30% – 70%, non-condensing
Temperature Stability	±2°F over 24-hour period
Operating Schedule	24 hours a day, 365 days a year
Heat Load — Equipment Room	Plan for 40,000 – 70,000 BTU/hr
Filtration	MERV 13 or better at the air handler

Hot Lab Ventilation

The hot lab has unique ventilation needs beyond standard climate control. The shielded fume hood must be ducted directly to an exterior exhaust point, with continuous airflow that captures any airborne radioactive vapors during dose preparation. Hot lab ventilation should:

- Maintain slight negative pressure relative to adjacent corridors (prevents contamination.
- Provide sufficient air changes per hour for the room volume (typically 10 to 15 ACH)
- Route exhaust through HEPA filtration before discharge to the building exterior
- Avoid recirculating hot lab air back into other parts of the facility

Cyclotron Considerations

Facilities with on-site cyclotrons — where radiopharmaceuticals are produced locally rather than ordered from an external radiopharmacy — have additional ventilation requirements driven by airborne activation products. Cyclotron vaults require negative pressure, HEPA filtration of exhaust air, and continuous radiation monitoring of effluent. Most PET/CT facilities operate without an on-site cyclotron, sourcing FDG from regional commercial radiopharmacies; if a cyclotron is part of your project, expect substantially more complex site planning and licensing.

10. IT, PACS & Network Integration

PET/CT studies produce some of the largest image datasets in diagnostic imaging. A typical whole-body PET/CT exam generates between 800 MB and 2 GB of image data, and high-resolution oncology studies can exceed that. The IT infrastructure supporting the scanner must move that volume of data reliably between the scanner, the image archive, the reading stations, and the hospital network.

Connectivity Requirements

- Fiber optic or CAT6 connections from the scanner console to the central IT network
- Gigabit (or faster) network speed end-to-end between scanner and PACS
- DICOM compliance for both CT and PET image storage and transfer
- Modality worklist integration with RIS for patient scheduling

- Direct connection to the dose tracking system (if applicable)
- Local image cache on the scanner for rapid review of recent exams

Image Archive Considerations

PET/CT studies typically retain longer than other modalities — oncology patients return for follow-up scans over years, and image comparison is essential to clinical interpretation. The PACS archive needs to be sized for long-term retention of full-volume PET/CT studies, with fast retrieval for prior-exam comparison. Most hospital PACS infrastructure handles this without modification, but smaller imaging centers should verify storage capacity before adding PET/CT to their service line.

11. Project Timeline — What to Expect

PET/CT installation timelines are longer than CT and comparable to MRI, driven by the complexity of shielding work, hot lab construction, and the regulatory approval process for the radiopharmaceutical license. From signed contract to first patient scan, expect 10 to 16 weeks for a refurbished PET/CT installation. New construction can extend significantly longer.

1	Week 1–3: Final site survey, physicist's shielding report ordered, radiopharmaceutical license application submitted, architectural drawings completed.
2	Week 3–6: Demolition and structural modifications, slab preparation, long-lead items ordered (shielding materials, hot lab equipment, fume hood, dose calibrator, doors, viewing windows).
3	Week 5–10: Construction phase — lead shielding installation, hot lab built out, uptake rooms constructed, electrical rough-in, HVAC modifications, plumbing for water-cooled CT subsystem.
4	Week 8–11: Construction finishes, equipment room buildout, IT and PACS infrastructure installed. Site is ready for scanner delivery once shielding inspection passes.

5	Week 10–13: Scanner delivery, rigging into final position, system installation by the OEM or vendor service team. Hot lab equipment installed, dose calibrator commissioned.
6	Week 12–15: Medical physicist commissioning inspection, state radiation control survey, dose calibrator QC baseline established, radioactive materials license activated.
7	Week 14–16: ACR accreditation phantom scanning (if required), applications training for technologists, first patient scan. Ongoing service plan kicks in.

12. Site Readiness Checklist

Before scanner delivery, every PET/CT project should pass through a final readiness review. This checklist captures the items that must be confirmed before the truck arrives:

STRUCTURAL & ARCHITECTURAL

- Access route measured and verified end-to-end
- Scanner room, hot lab, uptake rooms, and control room dimensions confirmed
- Floor load capacity verified for scanner plus shielding mass
- Ceiling heights clear of obstructions along delivery path
- One-way patient flow path documented and signed off

SHIELDING

- Medical physicist's shielding report received, stamped, and on site
- Lead, concrete, or steel shielding installed per physicist's specification

- Lead-equivalent viewing windows installed and inspected
- Pass-through window between hot lab and scanner suite installed and functional
- Shielding continuity verified at joints, doors, and penetrations
- State radiation control program notified, radiopharmaceutical license active

HOT LAB & RADIOPHARMACY

- Dose calibrator installed and undergoing daily constancy QC
- Shielded fume hood installed and ducted to exterior
- L-blocks, syringe carriers, and syringe shields in place
- Decay-in-storage waste receptacles installed and labeled
- Sink and handwashing stations installed and tested
- Pass-through window operational with interlocked doors

UPTAKE ROOMS

- Wall and door shielding installed per physicist's specification
- Reclining chair or stretcher installed in each uptake room
- Entertainment system and audio monitoring installed
- Private shielded toilet installed and operational
- Video monitoring installed at technologist station

MECHANICAL & ELECTRICAL

- Dedicated electrical service installed, tested, and code-compliant
- Equipotential grounding verified throughout the scan room
- Emergency Power Off button installed and labeled
- HVAC running and maintaining specified temperature and humidity
- Hot lab ventilation tested with negative pressure verified
- UPS or backup power provisions in place for host computer and PACS

OPERATIONAL

- Radiation Safety Officer designated and trained
- Dosimetry program active for all radiation workers
- Radiation warning signage posted at all controlled-area entries
- Pregnancy notification signage posted at all patient-facing entries
- Patient flow protocols documented and staff trained
- Lead aprons, thyroid shields, and survey meters delivered and staged
- PACS, RIS, and modality worklist integration tested end-to-end

Putting Together Your PET/CT Project

PET/CT site planning sits at the intersection of more specialties than any other modality — architecture, structural engineering, radiation physics, electrical, HVAC, plumbing, IT, regulatory compliance, and clinical workflow. The facilities that consistently hit their go-live dates do so by engaging the right experts early, building a coordinated site plan that addresses all of these threads at once, and treating the radiopharmaceutical license and shielding report as gating items that must be in hand before construction begins.

Amber Diagnostics has been involved in PET/CT installations across North America for years, working alongside hospitals, imaging centers, oncology programs, and cancer centers. Our project management team works alongside your facilities, IT, clinical, and radiation safety staff from the first site survey through first patient scan. Whether you are buying a refurbished PET/CT, expanding a service line, or evaluating a new build, we are glad to be a resource at any stage of the process.

READY TO PLAN YOUR PET/CT PROJECT?

Our project management team will walk through your site with you, identify the considerations specific to your space and clinical program, and build a realistic timeline and budget around your facility. Contact us today at AmberUSA.com or call our Orlando headquarters at 407-509-6739 to schedule a site planning conversation. Refurbished PET/CT scanners from Amber typically save 40 to 60 percent versus new pricing — without compromising image quality or clinical capability.

All technical specifications in this guide are general reference figures and should be verified against the specific OEM siting documentation for your selected PET/CT system. Local building codes, state radiation control program requirements, radiopharmaceutical licensing, ACR accreditation standards, and facility-specific conditions may impose additional requirements not covered here. Final shielding specifications must be calculated and stamped by a qualified medical physicist.