The intended use for this Cut Sheet is to communicate the spatial requirements as well as the basic architectural, electrical, structural, and mechanical requirements for this piece of imaging equipment. The information provided in this document is for reference only, during the pre-planning stage, and therefore does not contain any site specific detailed requirements. This information is subject to change without notice. Federal, state and/or local requirements may impact the final placement of the components. It is the customer’s responsibility to ensure that the final layout and placement of the equipment complies with all applicable requirements.
SYMBIA S
TYPICAL ROOM PLAN
SIEMENS MEDICAL SOLUTIONS USA, INC.

SYMBIA S SPECIFICATIONS

CASEWORK & ACCESSORY NOTES

1. ALL CASEWORK IS EITHER EXISTING OR IS TO BE DESIGNED, DETAILED, FURNISHED AND INSTALLED BY THE CUSTOMER AND/OR CONTRACTOR. FOLLOW DESIGN RECOMMENDATIONS INCLUDED HEREWITH, AS THEY ARE ESSENTIAL FOR THE SUCCESSFUL INSTALLATION & OPERATION OF THE SIEMENS EQUIPMENT.
2. THE SOUND SYSTEM AND INTERCOM BETWEEN THE EXAMINATION AND CONTROL ROOMS ARE TO BE LOCATED, FURNISHED AND INSTALLED BY THE CUSTOMER/CONTRACTOR.
3. ALL FURNITURE (CHAIRS, ETC.) FOR THE CONTROL ROOM ARE TO BE PROVIDED BY THE CUSTOMER.

REMOTE SYSTEM DIAGNOSTICS

SIEMENS REMOTE SERVICES (SRS) REQUIRES A CONNECTION BETWEEN THE SRS REMOTE SERVER AND SIEMENS SYSTEMS VIA REMOTE LOCAL AREA NETWORK ACCESS, TO ENSURE THE UPTIME OF YOUR SYSTEM. A CUSTOMER VPN CAPABLE FIREWALL OR OTHER VPN APPLIANCE IS PREFERRED.

FOR MORE INFORMATION

FOR MORE DETAILED PLANNING REQUIREMENTS FOR THIS SYSTEM, SEE THE TYPICAL FINAL DRAWING SET NUMBER: TYPICAL #06112
SIEMENS SYMBIA S SPECIFICATIONS

UPGRADE TO SYMBIA T, T2, T6 OR T16

IF THE CUSTOMER SITE PLANS TO UPGRADE TO A SYMBIA T, T2, T6 OR T16 SYSTEM IN THE NEAR FUTURE, THE FOLLOWING REQUIREMENTS SHOULD BE CONSIDERED.

RADIATION SCATTER:
SYMBIA S SPEC ONLY SYSTEMS DO NOT HAVE RADIATION SCATTER DIAGRAMS. SYMBIA T, T2, T6 AND T16 SYSTEMS DO HAVE RADIATION SCATTER DIAGRAMS DUE TO ADDITION OF THE CT COMPONENT. AN UPGRADE MAY REQUIRE ADDITIONAL LEAD SHELLING.

ROOM PLANNING:
SYMBIA S SYSTEMS ARE COMPOSED OF A SPEC ONLY CAMERA. UPGRADES TO SYMBIA T, T2, T6 AND T16 REQUIRE MORE SPACE BEHIND THE GANTRY OF THE CAMERA DUE TO THE ADDITION OF THE CT COMPONENT. UPGRADES ALSO MAY REQUIRE STRUCTURAL REINFORCEMENT DUE TO THE ADDITIONAL WEIGHT OF THE CT COMPONENT. IF THE POSSIBILITY OF AN UPGRADE IS PROBABLE, PLEASE REQUEST SIEMENS PLANNING TO PLACE THE SYMBIA S SPEC ONLY SYSTEM SO IT CAN BE EASILY UPGRADED TO A SYMBIA T, T2, T6 OR T16 SYMBIA. CUSTOMER MAY ALSO REQUEST TYPICALS FOR AN UPGRADED SYSTEM IF SO DESIRED.

A SEPARATE CONTROL AREA IS ALSO RECOMMENDED WHEN UPGRAADING TO A SYMBIA T, T2, T6 OR T16 SYSTEM.

FLOOR REQUIREMENTS

THE ENGINEER OF RECORD OF THE BUILDING SHALL PROVIDE SUPPORT STRUCTURE DESIGNED TO SUPPORT ALL WEIGHTS AND FORCES.

THE ENGINEER OF RECORD FOR THE BUILDING AND SIEMENS ENGINEERING SHALL JOINTLY REVIEW DEVIATIONS FROM THE FOLLOWING REQUIREMENTS.

IT IS THE CUSTOMER'S RESPONSIBILITY TO CONTRACT A QUALIFIED SPECIALIST TO IMPLEMENT SITE MODIFICATIONS THAT MEET THESE SPECIFIC LIMITS, AND TO DESIGN STRUCTURAL SOLUTIONS IN CASE OF DEVIATIONS.

1) THE MINIMUM ALLOWABLE CONCRETE THICKNESS FOR NONSEISMIC REGIONS OF THE SCANNER ROOM FLOOR IS 6".
2) CONDITIONS OF FLOORING:
   VIBRATION FREE LOCATION AS FOUND IN A TYPICAL CLINICAL ENVIRONMENT.
   INSTALLATION OF THE GANTRY AND PATIENT TABLE ON:
   CONCRETE FLOORING CLASS C20/25 TO C50/60, COMPOSITE FLOORING OR ACCESS FLOOR WITH SUITABLE ON SITE MOUNTING FRAME, SUB CONSTRUCTION OR EQUIVALENT STRUCTURE.

3) WEIGHT CAPACITY OF FLOORING SHOULD BE TESTED BY A STRUCTURAL ENGINEER.
4) ANY FLOORING OTHER THAN LISTED ABOVE REQUIRES AN ON SITE FRICTION FREE SUB CONSTRUCTION MADE FROM STEEL IN THE AREAS OF SUPPORT. PLEASE CONSULT STRUCTURAL ENGINEER.
5) THE MINIMUM EXTRACTION FORCE FOR THE POINTS WHERE THE PATIENT TABLE IS ATTACHED, IS 610 LBF PER ANCHOR.
   INSTALLATION ON A FLOATING FLOOR WITHOUT SUB-CONSTRUCTION IS PROHIBITED.
6) FLOOR LEVELNESS REFER TO THE PREPARATION/PROCEDURE FLOOR LEVELING AND FLATTENING DETAIL.
7) THE BASE FRAME PLATE-FOOT ARE MOUNTED TO THE FLOOR USING (4) 3/4" X 8" ANCHORS.
8) THE MINIMUM REQUIREMENTS FOR COMpressive STRENGTH FOR THE FLOOR COVERING BASED ON SYMBIA COLLIMATOR CART SHALL BE 375 PSI. THIS IS BASE ON WORSE CASE LOADING WITH 2-HIGH ENERGY AND 2-MEDIUM ENERGY COLLIMATORS PLACED ON THE COLLIMATOR CART.

NOISE LEVEL

<table>
<thead>
<tr>
<th>SYSTEM COMPONENT</th>
<th>DECIBEL LEVEL (APPROXIMATELY AT 2'-0&quot; DISTANCE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GANTRY</td>
<td>&lt;63.2</td>
</tr>
<tr>
<td>PHS</td>
<td>&lt;59.4</td>
</tr>
</tbody>
</table>

ENVIRONMENTAL REQUIREMENTS

PLEASE SEE EQUIPMENT LEGEND TO GET SPECIFIC COMPONENT HEAT DISSIPATION.

SCANNER ROOM:
THE SCANNER ROOM SHOULD MAINTAIN BETWEEN 65°F-86°F (± 8°F/HR.) WITH A RELATIVE HUMIDITY OF 20-80%, NON-CONDENSING.

CONTROL ROOM:
(REQ'D IF UPGRAADING TO SYMBIA T, T2, T6 OR T16) THE CONTROL ROOM SHOULD MAINTAIN 75°F (± 8°F/HR.) WITH A RELATIVE HUMIDITY OF 20-80%, NON-CONDENSING.

COMBINED CONTROL AND SCANNER ROOM:
THE COMBINED ROOM AREA SHOULD MAINTAIN BETWEEN 65°F-86°F (± 8°F/HR.) WITH A RELATIVE HUMIDITY OF 20-80%, NON-CONDENSING.

VENTILATION AND AIR FILTERS:
FOR EXTERNAL AIR SUPPLY (FRESH AIR) IT IS RECOMMENDED THAT COARSE FILTERS OF THE CLASS E03 TO E04 BE USED ON-SITE TO FILTER OUT DUST PARTICLES >10μm.

THE VENTILATION SHOULD ENSURE THAT AGGRESSIVE POLLUTANTS ARE PREVENTED FROM ENTERING THE ROOM. THE ROOM AIR SHOULD BE PROTECTED AGAINST CONTAMINATION BY HYDROGEN SULFIDE, EVEN IN SMALL AMOUNTS. THE MOST WELL KNOWN SOURCES OF HYDROGEN SULFIDE INCLUDE EXHAUST FUMES AND WASTE WATER FROM DEVELOPERS, EXPOSED SEWER DRAINS, EXHAUST FUMES FROM DIESEL POWER UNITS. IF A DANGER OF SUCH CONTAMINATION EXISTS, CORRECTIVE ACTIONS HAVE TO BE TAKEN E.G.: EXTRACTOR FANS, SIPHON, AND MODIFICATION OF VENTILATION INTAKE.
SIEMENS
SYMBIA S
SPECIFICATIONS

POWER REQUIREMENTS

ITEM 1 (R) = 208 VAC SINGLE PHASE; 30 AMPS. DEDICATED OUTLET FOR SYMBIA EVO EXCEL SYSTEM. INSTALL A TWIST-LOCK NEMA L6-30 R RECEPTACLE TO RECEIVE L6-30P PLUG FOR INSTALLATION OF THE SIEMENS GANTRY POWER CABLES. LOCATED 12" ABOVE FINISHED FLOOR.

ITEM 2 (R1) = 120 VAC SINGLE PHASE; 20 AMPS. DEDICATED DOUBLE DUPLEX OUTLET FOR COMPUTERS.

NOTE: THE SPECT UPS (OPTION) IS RATED FOR 200-240 VAC INPUT VOLTAGE. THE SPECT UPS AUTO-CONFIGS OUT TO THE SPECT SYSTEM AT 208 VAC.

POWER SUPPLIED FOR SIEMENS MEDICAL SOLUTIONS EQUIPMENT SHALL BE DEDICATED SERVICES KEPT ENTIRELY FREE AND INDEPENDENT OF ALL OTHER BUILDING WIRING AND EQUIPMENT SUCH AS: ELEVATORS, GENERATORS, PUMPS, HVAC SYSTEMS, ETC.

RADIOACTIVE SOURCES

THE FOLLOWING RADIOACTIVE SOURCES ARE REQUIRED AT THE TIME OF DELIVERY FOR CALIBRATION:

- SHEET SOURCE SHOULD MEASURE >10 mCi Cs137 (Cobalt 60)
- AT THE TIME OF INSTALLATION SOURCE SHOULD BE NO MORE THAN 4 MONTHS FROM REFERENCE DATE (THE DATE SOURCE WAS FILLED).
- 30 mCi Tc99m (Technetium 99)

IT IS CUSTOMER'S RESPONSIBILITY TO OBTAIN THESE SOURCES.

SOURCE PROVIDERS WILL NOT SHIP SOURCES TO SITE WITHOUT A VALID RAM LICENSE.

RAM LICENSE

A VALID RAM LICENSE IS REQUIRED 4 WEEKS BEFORE SYSTEM DELIVERY.

SOURCE PROVIDERS WILL NOT SHIP THE SOURCES TO THE SITE WITHOUT A RAM LICENSE.

IT IS THE CUSTOMER’S RESPONSIBILITY TO WORK WITH THEIR RADIATION SAFETY OFFICER AND THE GOVERNMENT AGENCY TO SECURE THE RAM LICENSE.

MAXIMUM DISTANCES

THE MAXIMUM DISTANCE BETWEEN COMPONENTS IS CALCULATED AS THE DISTANCE FROM CABLE OUTLET TO CABLE OUTLET. VARIOUS ARRANGEMENTS OF COMPONENTS ARE POSSIBLE AS LONG AS THE DISTANCES SHOWN BELOW ARE NOT EXCEEDED.

1) SYMBIA S GANTRY TO THE SYNGO SYMBIA S SYNGO MI WORKPLACE (ACQUISITION) OVERALL LENGTH OF THE CABLE IS 99'-0".
2) SYMBIA S UPS FOR SPECT (OPTION) TO THE GANTRY OVERALL LENGTH OF CABLE 15'-0".
3) SYMBIA S UPS FOR SPECT (OPTION) TO THE WALL OUTLET OVERALL CABLE LENGTH 10'-0".
TRANSPORT AND DELIVERY NOTES

TOTAL SYMBIA S GANTRY WITH TRANSPORT DEVICE 4,118 LBS.
SYMBIA S GANTRY WITHOUT TRANSPORT DEVICE 3,979 LBS.
FRONT PHS 2,742 LBS.
REAR PHS 506 LBS.

NORMAL TRANSPORT REQUIREMENTS:
DURING THE MOVEMENT OF THE GANTRY THROUGH CORRIDORS THE TRANSPORT CASTERS ARE SWIVELED OUT FOR STABILITY.
FRONT PHS Requires THE SAME HALLWAY TRANSPORT ROUTE AS THE GANTRY AS SHOWN BELOW.
PLEASE CONSULT PLANNING GUIDE FOR ELEVATOR CLEARANCES FOR GANTRY AND FRONT PHS.

HALLWAY TRANSPORT:

HALLWAY TRANSPORT FOR FRONT PHS:

RADIATION SAFETY

LEAD OR EQUIVALENT SHIELDING MAY BE REQUIRED IN THE WALLS OF THE SCANNER ROOM, HOTLAB AND/OR PATIENT PREPARATION AREAS. IT IS THE RESPONSIBILITY OF THE CUSTOMER TO VERIFY WITH THE SITE'S RADIATION SAFETY OFFICER THAT RADIATION DOSE RATES FROM THE SPECIFIC PATIENT AND/OR ISOTOPE WILL NOT EXCEED LOCAL RADIATION SAFETY GUIDELINES IN THE ROOM ADJACENT TO SCANNER, HOTLAB, AND/OR PATIENT PREPARATION AREAS.
IMPROPER SHIELDING MAY AFFECT CAMERA'S PERFORMANCE.