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.
## Equipment Legend

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<th>No</th>
<th>Description</th>
<th>SMS Sym</th>
<th>Weight (Lbs)</th>
<th>BTU/HR to Air</th>
<th>Dimensions (Inches)</th>
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</table>

## Finished Room Height

For the SYMBIA E System:
- Recommended ceiling height 8'-0''
- Minimum ceiling height 7'-0''

## 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 herein, 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.

## For More Information

For more detailed planning requirements for this system, see the typical final drawing set number: typical 07130.
**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.

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**ENVIRONMENTAL REQUIREMENTS**

SYMBIA E ELECTRONIC AND MECHANICAL COMPONENTS ARE SENSITIVE TO EXTREME TEMPERATURES, HUMIDITY, DIRT, AND AIR POLLUTION. THE OPERATIONAL ENVIRONMENT OF THE SYMBIA E SYSTEM INEVITABLY HAS A NOTICEABLE EFFECT ON ITS RELIABILITY. HIGH TEMPERATURES INCREASES THE FAILURE RATE OF ALMOST ANY ELECTRONIC EQUIPMENT AND OR MECHANICAL COMPONENTS CAN INFLUENCE THE PERFORMANCE OF THE SYMBIA E SYSTEM. FAST TEMPERATURE CHANGES CAN CAUSE DAMAGE TO THE SYMBIA E SYSTEM.

THE SYMBIA E SHOULD BE INSTALLED ONLY IN A CLEAN, DUST FREE, TEMPERATURE-CONTROLLED ENVIRONMENT. PLEASE SEE EQUIPMENT LEGEND TO GET SPECIFIC COMPONENT HEAT DISSIPATION.

COMBINED CONTROL AND SCANNER ROOM:
THE COMBINED SCANNER/CONTROL ROOM SHOULD MAINTAIN BETWEEN 60°F TO 95°F (+3°F/HR.) WITH A RELATIVE HUMIDITY OF 15-80%, NON-CONDENSING.

VENTILATION AND AIR FILTERS:
FOR EXTERNAL AIR SUPPLY (FRESH AIR) IT'S RECOMMEND THAT COARSE FILTERS OF THE CLASS EU3 TO EU4 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 SYSTEMS, 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.

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**RADIOACTIVE SOURCES**

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

- SHEET SOURCE SHOULD MEASURE
- >10 mCi Cs137 (COBALT 57)
- AT THE TIME OF INSTALLATION
- SOURCE SHOULD BE NO MORE THAN 6 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.

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**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.

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**POWER REQUIREMENTS**

**ITEM 1 (R1) - 208VAC SINGLE PHASE: 30 AMPS. DEDICATED OUTLET FOR SYMBIA E SYSTEM. INSTALL A TWIST-LOCK NEMA L6-30P RECEPACLE TO RECEIVE L6-30P PLUG FOR INSTALLATION OF THE SIEMENS GANTRY POWER CABLES. LOCATED 12" ABOVE FINISHED FLOOR.**

**ITEM 2 (R1) - 115VAC SINGLE PHASE: 20 AMPS. DEDICATED DOUBLE DUPLEX OUTLET FOR COMPUTERS.**

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.

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**RADIATION BACKGROUND**

IT IS THE CUSTOMER RESPONSIBILITY TO DETERMINE RADIATION SHIELDING REQUIREMENTS FOR THE SCANNER ROOM, INJECTION ROOM, HOT ROOM (WHERE THE TECHNOLOGISTS PREPARE ISOPTES), PATIENT WAITING AREA, ETC.

IMPROPER SHIELDING MAY AFFECT THE SYSTEM'S PERFORMANCE OUTSIDE SOURCES OF RADIATION (EX. INJECTION ISOPTES, HOT ROOM, INJECTION ROOM, PATIENT WAITING AREA, PATIENT, ETC.) MUST MEASURE LESS THAN 0.1 mR/H WITHIN A DISTANCE OF 0 TO 4" AND A HEIGHT OF BETWEEN 1"-7 ½" TO 4"-11" OUTSIDE THE SCANNER ROOM WALL.
FLOOR REQUIREMENTS

1) THE MINIMUM ALLOWABLE CONCRETE THICKNESS FOR NONSEISMIC REGIONS OF THE SCANNER ROOM FLOOR IS 4".

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.
   CAST CONCRETE 8-300 OR STRONGER.
   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) EXISTING MOUNTING FRAMES THAT ARE ATTACHED TO THE CONCRETE FLOORING WITH SCREWS, HAVE TO BE REMOVED. REWORK TO THE FLOORING WITH RESPECT TO BEING LEVEL, MATERIAL, IF REQUIRED.

6) NO FILL MATERIAL SHOULD BE USE TO COMPENSATE FOR HOLES OR DEPRESSIONS IN THE FLOOR SURFACE. IF NECESSARY, LEVEL AND FLATTEN THE ENTIRE FLOOR AREA.

THE FLOOR MUST BE LEVELLED AND ITS SURFACE SMOOTH.
ANY DEVIATION IN LEVELS WILL HAVE A DETERIMENTAL EFFECT ON THE TABLE TO GANTRY ALIGNMENT WHICH MAY EFFECT COLLIMATOR CHANGE.

IT IS RECOMMENDED THAT THE FLOOR IN THE ENTIRE ROOM WILL BE LEVELLED AND FLATTENED ACCORDING TO THE FOLLOWING:

FLOOR LEVELING AREA - 11' x 16' MINIMUM
SLOPE - WITHIN +/- 1.187" (1 3/16") OVER 170" (14' 2")
FLATNESS - SURFACE SHOULD BE SMOOTH AND HAVE NOT MORE THAN .187" (3/16") DEVIATION IN ANY 60" (5'-0") (THROUGHOUT THE ROOM OR SYSTEM INSTALLATION AREA.
FLOOR SURFACE - FLOOR SHOULD HAVE ONE SINGLE POURED SURFACE.

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) ELECTRONICS ENCLOSURE (TOWER) WITH SNAC TO SYMBA E WORKPLACE (ACQUISITION) OVERALL LENGTH OF THE CABLE IS 99'-0".

2) ELECTRONICS ENCLOSURE (TOWER) WITH SNAC TO GANTRY OVERALL LENGTH OF CABLE 2'-6".

3) ELECTRONICS ENCLOSURE (TOWER) WITH SNAC TO THE PATIENT HANDLING SYSTEM OVERALL LENGTH 9'-8".

4) ELECTRONICS ENCLOSURE (TOWER) WITH SNAC TO WALL OUTLET OR SYMBA E UPS (OPTION) CABLE LENGTH 11'-0".

5) SYMBA E UPS (OPTION) TO WALL OUTLET OVERALL CABLE LENGTH 4'-0".
TRANSPORT AND DELIVERY NOTES

NORMAL TRANSPORT REQUIREMENTS:
- DURING THE MOVEMENT OF THE GANTRY THROUGH CORRIDORS
- THE TRANSPORT CASTERS ARE SWIVELED OUT FOR STABILITY.
- PATIENT HANDLING SYSTEM Requires Same TRANSPORT ROUTE MINIMUMS AS GANTRY.

PLEASE CONSULT PLANNING GUIDE FOR MANEUVERING TRANSPORTED GANTRY AND ELEVATOR CLEARANCES.

TRANSPORTING GANTRY FLOOR LOAD:
- ACCESS FLOORS MUST BE LAYED OUT TO SUPPORT A LOAD MINIMUM 1296 LBS. DURING TRANSPORT OF THE GANTRY, HIGHER LOADS CAN OCCUR AT INDIVIDUALS POINTS.
- IF THE FLOOR IS NOT LEVEL, COVER THE TRANSPORT PATH WITH SHEET METAL TO DISTIBUTE THE FLOOR LOAD.

DUAL DETECTORS SYSTEM (YOKES ON):
- GANTRY WITH BOTH YOKES AND ADJUSTABLE TRANSPORTERS.
- TRANSPORT WEIGHTS:
  - SYMBIA E 2160 LBS.
  - PATIENT HANDLING 620 LBS.
  - SYSTEM

DUAL DETECTORS SYSTEM (YOKES OFF):
- GANTRY WITH NO YOKES AND ADJUSTABLE TRANSPORTERS.
- TRANSPORT WEIGHTS:
  - SYMBIA E 1515 LBS.
  - PATIENT HANDLING 620 LBS.
  - SYSTEM