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.
CUTSHEET FOR TYPICAL PAGE of 5

TYPICAL ROOM PLAN

14049
REV 10

SIEMENS MEDICAL SOLUTIONS USA, INC.

FOR REFERENCE ONLY, NOT FOR CONSTRUCTION.

TYPICAL PLAN

SCALE: 1/8" = 1'-0"
### SYMBIA EVO EXCEL SPECIFICATIONS

#### EQUIPMENT LEGEND

<table>
<thead>
<tr>
<th>NO</th>
<th>DESCRIPTION</th>
<th>SMS</th>
<th>WEIGHT (LBS)</th>
<th>BTU/HR TO AIR</th>
<th>DIMENSIONS (INCHES)</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SYMBIA EVO EXCEL GANTRY WITH COLLIMATORS</td>
<td>☑</td>
<td>6,114</td>
<td>5,123</td>
<td>89</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
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<td>83</td>
<td>89</td>
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<tr>
<td>2</td>
<td>FRONT PHS.</td>
<td>☑</td>
<td>1,065</td>
<td></td>
<td>27</td>
<td>97 1/2</td>
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<tr>
<td>3</td>
<td>PHS CABLE ON THE FLOOR STANDARD</td>
<td>☑</td>
<td></td>
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<tr>
<td>4</td>
<td>REAR PHS WITH SNAC (SEISMIC)</td>
<td>☑</td>
<td>331</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>PATIENT ROOM SWING ARM</td>
<td>☑</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6</td>
<td>COLLIMATOR CART (EMPTY) (OPTION)</td>
<td>☑</td>
<td>400</td>
<td></td>
<td>47 1/2</td>
<td>32 5/8</td>
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<tr>
<td>7</td>
<td>UPS FOR SYMBIA CAMERA SYSTEMS (OPTION)</td>
<td>☑</td>
<td>125</td>
<td>931</td>
<td>9 13/16</td>
<td>29 1/2</td>
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<tr>
<td>8</td>
<td>TVSS SURGE PROTECTION UPS FOR SPECT (OPTION)</td>
<td>☑</td>
<td>11</td>
<td>8</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>9</td>
<td>SYMBIA EVO SYNGO ACQUISITION WORKSPACE CPU</td>
<td>☑</td>
<td>38.2</td>
<td>3,037</td>
<td>6 3/4</td>
<td>17 1/2</td>
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<tr>
<td>10</td>
<td>SYMBIA EVO SYNGO ACQUISITION WORKSPACE MONITOR</td>
<td>☑</td>
<td>31</td>
<td></td>
<td>20 1/4</td>
<td>19 1/2</td>
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<tr>
<td>11</td>
<td>UPS FOR E.SOFT/C.CAM (OPTION)</td>
<td>☑</td>
<td>45</td>
<td>148</td>
<td>6 13/16</td>
<td>13 3/16</td>
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<td>12</td>
<td>TVSS SURGE PROTECTION UPS FOR E.SOFT/C.CAM (OPTION)</td>
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<td>8</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>13</td>
<td>DVO (OPTION)</td>
<td>☑</td>
<td></td>
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<tr>
<td>14</td>
<td>SYMBIA.NET WORKPLACE CPU (OPTION)</td>
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<td>70</td>
<td>2,724</td>
<td>8 1/2</td>
<td>21 3/4</td>
</tr>
<tr>
<td>15</td>
<td>SYMBIA.NET WORKPLACE KEYBOARD AND MONITOR (OPTION)</td>
<td>☑</td>
<td>31</td>
<td></td>
<td>17 5/8</td>
<td>18 5/16</td>
</tr>
</tbody>
</table>

#### CASEWORK & ACCESSORY NOTES

1. ALL CASEWORK IS EITHER EXISTING OR IS TO BE DESIGNED, DETAILLED, FURNISHED AND INSTALLED BY THE CUSTOMER AND/OR CONTRACTOR. FOLLOW DESIGN RECOMMENDATIONS INCLUDED MERIDITH, 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.

#### FINISHED ROOM HEIGHT

FOR THE SYMBIA EVO EXCEL SYSTEM, MINIMUM CEILING HEIGHT 8'-0"
ENVIROMENTAL 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/H) WITH A RELATIVE HUMIDITY OF 20-80%, NON-CONDENSING.

CONTROL ROOM:
THE CONTROL ROOM SHOULD MAINTAIN 75°F (± 8°F/H) 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/H) WITH A RELATIVE HUMIDITY OF 20-80%, NON-CONDENSING.

VENTILATION AND AIR FILTERS:
FOR EXTERNAL AIR SUPPLY (FRESH AIR) IT IS RECOMMENDED THAT COURSE FILTERS OF THE CLASS E10 TO E14 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.

POWER REQUIREMENTS

ITEM 1 (R1) - 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) - 100 VAC TO 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.

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:

- 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 OR SUB CONSTRUCTION.

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) FOR THE MINIMUM EXTRACCTION FORCE REFER TO THE ANCHOR REQUIREMENTS DETAIL.

- INSTALLATION ON A FLOATING FLOOR WITHOUT SUB-CONSTRUCTION IS PROHIBITED.

6) FLOOR LEVELNESS REFER TO THE PREPARATION/PROCEDURE FLOOR LEVELING AND FLATTENING DETAIL.

7) EXISTING MOUNTING FRAME ATTACHED TO THE CONCRETE FLOOR WITH SCREWS, HAVE TO BE REMOVED. REWORK THE FLOORING (WITH THE RESPECT TO BEING LEVEL, MATERIAL), IF REQUIRED.

8) THE BASE FRAME PLATE-FOOT ARE MOUNTED TO THE FLOOR USING (4) 3/4" X 8" ANCHORS.

9) THE MINIMUM REQUIREMENTS FOR COMPRRESSIVE 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>63.2</td>
</tr>
<tr>
<td>PHIS</td>
<td>62.1</td>
</tr>
</tbody>
</table>

**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.

![Diagram showing maximum distances between components](image)

**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 SPECT 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.

**RADIOACTIVE SOURCES**

The following radioactive sources are required at the time of delivery for calibration:

- Sheet source should measure
  - >10 mCi Co57 (Cobalt 57)
  - 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 the 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.
### TRANSPORT AND DELIVERY NOTES

<table>
<thead>
<tr>
<th>Specification</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYMBIA Evo Excel Gantry with Transport Device</td>
<td>4,118 lbs.</td>
</tr>
<tr>
<td>SYMBIA Evo Excel Gantry Without Transport Device</td>
<td>3,979 lbs.</td>
</tr>
<tr>
<td>Excel Front PHS</td>
<td>1,243 lbs.</td>
</tr>
<tr>
<td>Rear PHS</td>
<td>506 lbs.</td>
</tr>
</tbody>
</table>

**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:**

- **8'-0" Hallway Configuration:** Shows the gantry with the trunnions in the factory shipped position. 5'-9" configuration shows the gantry with the trunnions relocated to the top and bottom center position. This allows for greater flexibility in movement and the use of a narrower hallway.

- **4'-7" Minimum with Trunnions Relocated:**
- **2'-10 1/2" Minimum:**

**Hallway Transport for Front PHS:**

- **4'-7" Minimum:**
- **2'-10 1/2" Minimum:**

**Hallway to Door Transport:**
Transports may have to be swiveled in narrow areas. Once system has passed through narrow area, the transport rollers must be swiveled out again for stability.

**Transporting Gantry Floor Load:**
Access floors must be laid 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 distribute the floor load.