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.

Pre installation documents for GE Healthcare products can be accessed on the web at: www.gehealthcare.com/siteplanning

GE does not take responsibility for any damages resulting from changes on drawings made by others. Errors may occur by not referring to the complete set of final issue drawings. GE cannot accept responsibility for any damage due to the partial use of GE final issue drawings, however caused. All dimensions are in millimeters unless otherwise specified. Do not scale from printed pdf files. GE accepts no responsibility or liability for defective work due to scaling from these drawings.
GLOBAL SITE READINESS CHECKLIST (DI)

Customer Name:  
Customer On-Site Name:

GDN/ISO Number:  
Field Service Name:

Equipment:  
Country/City or City/State:

Site Visit Date for SRC:  
SRC Status:

Site Ready Checks at Installation

General Site Planning

- Room dimensions, including ceiling height, for all Exam, Equipment/Technical & Control rooms meets GE specifications.
- Ceiling support structure, if on the GE drawing, is at correct location and height according to the drawing specifications. Levelness and spacing has been measured. Overhead support structure has been confirmed with contractor to meet GE criteria.
- Rooms that will contain equipment, including staging areas if applicable, are construction debris free. Precautions must be taken to prevent debris from entering rooms containing equipment.
- Delivery route from truck to installation space has been reviewed, all communications have occurred, arrangements made for special handling (if needed). Floors along delivery route will support weight of the equipment, reinforcements arranged if needed.
- System power & grounding (PDB/MDP) is available as per GE specifications, installed at point of final connection and ready to use. Lock Out Tag Out is available.
- System power and grounded audit has been scheduled to be completed during installation of equipment. (If Required) GEHC PM to confirmed if needed.

- Adequate room illumination installed and working.
- Cableways (floor, wall, ceiling, etc.) ready for GE cables and are of correct length and diameter. Cableways routeg per GE Final drawings and access openings installed as determined by GEHC. PM. Surface floor duct installed at time of system installation.
- HVAC systems installed, and the site meets minimum environmental operational system requirements.
- Network outlets installed and computer network available and working.
- Hospital IT/connectivity contacts have been engaged and information has been added to Project management tool. (If Required)
- Floor levelness/flattness is measured and within tolerance, and there are no visible defects per GEHC specifications. Floor Strength and thickness have been discussed with customer/contractor and they have confirmed GE requirements are met.
- Customer supplied countertops where GE equipment will be installed are in place.

Specific for Vascular

- Vascular baseplates preparation complete per GE requirements.
- For IGS 730/740: Floor finish is according to the GE Specifications and protection is installed. Specifications for concrete substrate & Monopur 7 mm flooring have been met. Table baseplate installed and flush to the finished floor.
- For IGS 730/740: Room Interventional Reference Point (RIRP) value has been defined with the customer. Either 1120mm, 1278 mm or 1508 mm.
- Ensure that all third party suppliers are identified and have been informed about the project dates and how they need to proceed in accordance with their needs for interfacing to our equipment.
- Doors and windows complete or scheduled to be installed. If applicable, radiation protection (shielding) finished & radioprotection regulatory approval for installation obtained.
- PMI Signature:
- Customer Signature:
- FS Signature: optional

Typical

DISCOVERY IGS 7

EN-VAS-TYP-IGS-7-WEB.DWG

Rev A | Date 23/Apr/2020

C2 - Disclaimer - Site Readiness

02/23

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 conformance with local regulations. GE does not take responsibility for the specification or provision of radio-protection.

ALL DETAILS OF EQUIPMENT AND TECHNICAL DATA ARE SUBJECT TO CHANGE.

The undersigned, hereby certifies that I have read and approved the plans in this document.

<table>
<thead>
<tr>
<th>DATE</th>
<th>NAME</th>
<th>SIGNATURE</th>
</tr>
</thead>
</table>

Customer Name:  
PMI Name:  
Field Service Name:  
Country/City or City/State:  
 SRC Status:  
GEHC PM to confirmed if needed.
### CUSTOMER SITE READINESS REQUIREMENTS

- 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 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:
  1. Secure area for equipment,
  2. Power for drills and other test equipment,
  3. Capability for image analysis,
  4. Restrooms.
- Provide for refuse removal and disposal (e.g. crates, cartons, packing)
- 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 preinstallation manual for the vibration specification.

### ELECTROMAGNETIC INTERFERENCE

The IGS System is intended for use in the electromagnetic environment specified below. The customer or user of the system should assure that it is used in such an environment.

<table>
<thead>
<tr>
<th>EMISSIONS</th>
<th>TEST COMPLIANCE</th>
<th>ELECTROMAGNETIC ENVIRONMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio–Frequency Emissions</td>
<td>Group 1 Class A limits</td>
<td>The IGS system uses RF energy only for its internal function. Therefore, its RF emission is very low and not likely to cause any interference in nearby electronic equipment.</td>
</tr>
<tr>
<td>CISPR11</td>
<td></td>
<td>The IGS system uses RF energy only for its internal function. Therefore, the RF emission is very low and not likely to cause any interference in nearby electronic equipment.</td>
</tr>
<tr>
<td>Harmonic emissions</td>
<td>Not applicable</td>
<td>The IGS system is suitable for use in all establishments other than domestic and those directly connected to the low voltage power supply network that supplies buildings used for domestic purposes.</td>
</tr>
<tr>
<td>IEC 61000–3–2</td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>Voltage fluctuations/ f/licker emissions</td>
<td>Not applicable</td>
<td>The IGS system is suitable for use in all establishments other than domestic and those directly connected to the low voltage power supply network that supplies buildings used for domestic purposes.</td>
</tr>
<tr>
<td>IEC 61000–3–3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITEM</td>
<td>DESCRIPTION</td>
<td>MAX HEAT OUTPUT (W)</td>
</tr>
<tr>
<td>------</td>
<td>-------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>D 1</td>
<td>Advantage workstation</td>
<td>2019</td>
</tr>
<tr>
<td>A 2</td>
<td>Operator console</td>
<td>341</td>
</tr>
<tr>
<td>A 3</td>
<td>C.FRT Cabinet</td>
<td>2388</td>
</tr>
<tr>
<td>A 4</td>
<td>System Interface Cabinet (PDU)</td>
<td>1365</td>
</tr>
<tr>
<td>A 5</td>
<td>Detector conditioner</td>
<td>717</td>
</tr>
<tr>
<td>A 6</td>
<td>COOLIX 4100 water chiller</td>
<td>23646</td>
</tr>
<tr>
<td>D 7</td>
<td>Main disconnect panel (MDP)</td>
<td>205</td>
</tr>
<tr>
<td>D 8</td>
<td>20kVA Fluoro UPS UL</td>
<td>6756</td>
</tr>
<tr>
<td>A 9</td>
<td>Xray buzzer</td>
<td>-</td>
</tr>
<tr>
<td>A 10</td>
<td>Bolus Chase</td>
<td>-</td>
</tr>
<tr>
<td>A 11</td>
<td>Gantry</td>
<td>5528</td>
</tr>
<tr>
<td>A 12</td>
<td>Tiling table</td>
<td>614</td>
</tr>
<tr>
<td>A 13</td>
<td>Cable management system</td>
<td>-</td>
</tr>
<tr>
<td>A 14</td>
<td>Positioning targets (x11)</td>
<td>-</td>
</tr>
<tr>
<td>D 15</td>
<td>Monitor suspension short bridge</td>
<td>-</td>
</tr>
<tr>
<td>A 16</td>
<td>Longitudinal stationary rail for XT suspension</td>
<td>-</td>
</tr>
<tr>
<td>D 17</td>
<td>Large Display Monitor with two backup monitors</td>
<td>-</td>
</tr>
<tr>
<td>D 18</td>
<td>Mavig rad shield with 2.5m ceiling track</td>
<td>-</td>
</tr>
<tr>
<td>D 19</td>
<td>Injector on pedestal</td>
<td>-</td>
</tr>
<tr>
<td>D 20</td>
<td>Vitaling speaker</td>
<td>-</td>
</tr>
<tr>
<td>D 21</td>
<td>Vitaling console</td>
<td>-</td>
</tr>
<tr>
<td>D 22</td>
<td>Vitaling microphone</td>
<td>-</td>
</tr>
<tr>
<td>D 23</td>
<td>Vitaling microphone (one on monitor bridge in exam room)</td>
<td>-</td>
</tr>
<tr>
<td>D 24</td>
<td>Warning light controller</td>
<td>-</td>
</tr>
<tr>
<td>C 25</td>
<td>Cable drape rail</td>
<td>-</td>
</tr>
<tr>
<td>C 26</td>
<td>Storage cabinet</td>
<td>-</td>
</tr>
<tr>
<td>C 27</td>
<td>Counter top with base and wall cabinets</td>
<td>-</td>
</tr>
<tr>
<td>C 28</td>
<td>Control wall to ceiling with lead glass viewing window</td>
<td>-</td>
</tr>
<tr>
<td>C 29</td>
<td>Counter top for equipment - provide grommeted openings as required to route cables</td>
<td>-</td>
</tr>
<tr>
<td>C 30</td>
<td>Minimum door opening for equipment delivery is 44 in, w x 83 in. h [1118mm x 2108mm], contingent on a 96 in. [2438mm] corridor width</td>
<td>-</td>
</tr>
<tr>
<td>C 31</td>
<td>Doors to be easily removable and clear of any floor mounted obstructions</td>
<td>-</td>
</tr>
</tbody>
</table>

**Note:**
- Reflectors to be located above cabinet top; minimum height from finished floor 80.7" [2.05m]
- Ensure the surfaces to be non-reflective and non-mobile for the positioning targets

---

For Accessory Sales: [866] 281-7545 Options 1, 2, 2 or mail to: gehaccessorysales@ge.com
### PARKING POSITIONS

<table>
<thead>
<tr>
<th>NAME</th>
<th>RIRP* 59.4&quot;</th>
<th>FEASIBLE DISTANCE</th>
<th>PROPOSED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park Head 1</td>
<td>19.7&quot;</td>
<td>154.7&quot;</td>
<td>YES</td>
</tr>
<tr>
<td>Park Left 2</td>
<td>19.7&quot;</td>
<td>160.6&quot;</td>
<td></td>
</tr>
<tr>
<td>Park Left 3</td>
<td>19.7&quot;</td>
<td>105.9&quot;</td>
<td></td>
</tr>
<tr>
<td>Park Left 4</td>
<td>19.7&quot;</td>
<td>52.8&quot;</td>
<td></td>
</tr>
<tr>
<td>Park Right 2</td>
<td>19.7&quot;</td>
<td>144.9&quot;</td>
<td></td>
</tr>
<tr>
<td>Park Right 3</td>
<td>19.7&quot;</td>
<td>123.6&quot;</td>
<td></td>
</tr>
<tr>
<td>Park Right 4</td>
<td>19.7&quot;</td>
<td>98.0&quot;</td>
<td></td>
</tr>
</tbody>
</table>

A maximum of two parking positions can be selected.

### BACKOUT POSITIONS

<table>
<thead>
<tr>
<th>TYPE</th>
<th>NAME</th>
<th>RIRP* 59.4&quot;</th>
<th>TYPICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backouts</td>
<td>Head Long</td>
<td>19.7&quot;</td>
<td>169.7&quot;</td>
</tr>
<tr>
<td></td>
<td>Left 1</td>
<td>19.7&quot;</td>
<td>169.7&quot;</td>
</tr>
<tr>
<td></td>
<td>Right 1</td>
<td>19.7&quot;</td>
<td>169.7&quot;</td>
</tr>
<tr>
<td></td>
<td>Head Left</td>
<td>19.7&quot;</td>
<td>106.3&quot;</td>
</tr>
<tr>
<td></td>
<td>Head Right</td>
<td>19.7&quot;</td>
<td>141.7&quot;</td>
</tr>
<tr>
<td></td>
<td>Left Lat</td>
<td>19.7&quot;</td>
<td>55.1&quot;</td>
</tr>
<tr>
<td></td>
<td>Left Feet</td>
<td>19.7&quot;</td>
<td>43.3&quot;</td>
</tr>
<tr>
<td></td>
<td>Right Lat</td>
<td>19.7&quot;</td>
<td>94.5&quot;</td>
</tr>
<tr>
<td></td>
<td>Right Feet</td>
<td>19.7&quot;</td>
<td>82.7&quot;</td>
</tr>
<tr>
<td>Arm backouts</td>
<td>Left Inter</td>
<td>19.7&quot;</td>
<td>137.8&quot;</td>
</tr>
<tr>
<td></td>
<td>Right Inter</td>
<td>19.7&quot;</td>
<td>31.5&quot;</td>
</tr>
<tr>
<td></td>
<td>Left Swivel</td>
<td>19.7&quot;</td>
<td>35.5&quot;</td>
</tr>
<tr>
<td></td>
<td>Right Swivel</td>
<td>19.7&quot;</td>
<td>67.0&quot;</td>
</tr>
</tbody>
</table>

* RIRP: Room Interventional Reference Point
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, and 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.

**THE TECHNICAL ROOM NEED EXTRA SPACE FOR TOOLS AND DOCUMENTATION**

- GE recommend an extra area of 1.0 x 1.0 m (39.4 x 39.4 in) for storage of tools and documentation for the system.
- This area doesn't need to be inside the technical room, but in a closer space from the system.

**EQUIPMENT**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>mm/in</td>
<td>kg</td>
</tr>
<tr>
<td>Gantry (on dolly)</td>
<td>Length 1410</td>
</tr>
<tr>
<td>Width 2890</td>
<td>113.7</td>
</tr>
<tr>
<td>Height 2060</td>
<td>81.1</td>
</tr>
<tr>
<td>Tilting Table base assembly (on pallet)</td>
<td>Length 1000</td>
</tr>
<tr>
<td>Width 2150</td>
<td>84.6</td>
</tr>
<tr>
<td>Height 1360</td>
<td>45.7</td>
</tr>
<tr>
<td>Tilting Table covers (on pallet)</td>
<td>Length 940</td>
</tr>
<tr>
<td>Width 940</td>
<td>37</td>
</tr>
<tr>
<td>Height 600</td>
<td>23.6</td>
</tr>
</tbody>
</table>

**SHIPPING DOLLY FOR DISCOVERY GANTRY**

- Dimensions:
  - Full configuration: 2060 mm (81.1 in) x 1410 mm (55.5 in) x 2890 mm (113.7 in)
  - Left top handle removed and right top handle inside: 2060 mm (81.1 in) x 1280 mm (50.4 in) x 2890 mm (113.7 in)
  - Short lifts configuration: 2120 mm (83.5 in) x 1280 mm (50.4 in) x 2300 mm (90.5 in)
  - No dolly configuration: 2000 mm (78.7 in) x 1260 mm (49.6 in) x 2150 mm (84.6 in)

- **Dimensions**:
  - Full configuration: 2060 mm (81.1 in) x 1410 mm (55.5 in) x 2890 mm (113.7 in)
  - Left top handle removed and right top handle inside: 2060 mm (81.1 in) x 1280 mm (50.4 in) x 2890 mm (113.7 in)
  - Short lifts configuration: 2120 mm (83.5 in) x 1280 mm (50.4 in) x 2300 mm (90.5 in)
  - No dolly configuration: 2000 mm (78.7 in) x 1260 mm (49.6 in) x 2150 mm (84.6 in)

- **NOTE**: Dolly can be removed to facilitate movement of Discovery gantry in the hospital only. However, if moving the gantry without shipping dolly, there is a risk of damaging the floor surface.

**POSITIONING TARGETS**

- Dimensions: [Diagram showing target positioning]

- **NOTE**: The minimum distance between two targets is 400 mm (15.7 in) center to center.
  - The maximum angle between two adjacent targets is 70°.
  - Targets are mounted at the time of the gantry installation.
  - Targets should be visible to the laser source of the AGV.
  - Shouldn't be mounted on a surface that could be hidden in operation by door or movable component.
  - Shouldn't be mounted on or near a reflective surface.
• All steel work and parts necessary to support ceiling mounted tube hanger or other equipment are to be supplied by the customer or his contractors. The structural support should run continuous with no fittings extending below face of structural support channel, run wall to wall, be parallel, square and in the same horizontal plane flush with finished ceiling. The system is to be cross braced vertically, horizontally and diagonally to allow no movement and a maximum of 1,58mm (1/16") deflection. 12.7mm (1/2") dia. X 38.1mm (1 1/2
”) long bolts with unistrut 12.7mm (1/2") nuts with springs are to be provided by customer or his contractors for each stationary and auxiliary support rail. Closure strips shall be provided for areas of unistrut exposed and without mounting units.

• 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.

• Control walls with tube hanger passage above shall be constructed to 2130mm (7'-0") high.

• Floor slabs on which equipment is to be installed must be level to 3,17mm (1/8") 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”
1. Area occupied by GE supplied table baseplate.


3. Support backing, locate as shown.

4. Structural support in ceiling for fastening ceiling supported equipment. Supports to run continuous with no fittings extending below face of channel, run wall to wall, be parallel, square, and in the same horizontal plane, flush with the finished ceiling. Rails are mounted to these supports every 2'-2" and require 350 lbs. (597 lbs in seismic regions) per bolt load. Methods of support that permit attachment to structural steel or through bolts in concrete should be favored. Do not use screw anchors in direct tension.

5. Components flush with ceiling. Structural support in ceiling for fastening cable drape rail. Supports to run continuous with no fittings extending below face of channel, run wall to wall, be parallel, square, and in the same horizontal plane, flush with the finished ceiling. Rails are mounted to these supports every 2'-2" and require 50 lbs. per bolt load. Methods of support that permit attachment to structural steel or through bolts in concrete should be favored. Do not use screw anchors in direct tension.

6. Customer supplied plate (250x503 [20.5\"x19.8\"]).

7. Structural supports for fastening the overhead counterpoised suspension. Support to be located as shown. Suspension boom requires 102 lbs/bolt support. 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.

8. 600 x 600 [24\"x24\"] Service access in ceiling.

IF ACCESS IS NOT READILY AVAILABLE IT IS RECOMMENDED TO PROVIDE A TRAPDOOR IN THE CEILING TO ALLOW SERVICE ACCESS FOR CABLE MANAGEMENT.
FLOOR SPECIFICATION

IMPORTANT

THE FLOOR SYSTEM COMPATIBLE WITH THE DISCOVERY IGS EQUIPMENT IS THE “MONOPUR 4+3” MONOLITHIC FLOORING SYSTEM INSTALLED BY A CERTIFIED APPLICATOR.

CONTACT YOUR LOCAL GE REPRESENTATIVE FOR THE LIST OF APPLICATORS.

EXAM ROOM FLOOR ACCEPTANCE SPECIFICATION FOR SUBSTRATE BEFORE MONOPUR APPLICATION

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUBSTRATE FLATNESS</td>
<td>&lt; 3 mm/2 m [0.12 in/6 ft]</td>
</tr>
<tr>
<td>SUBSTRATE LEVELNESS</td>
<td>&lt; 2 mm/m [0.04 in/ft]</td>
</tr>
<tr>
<td>PULL-OUT STRENGTH (i.e. Elcometer Adhesion Testor)</td>
<td>&gt; 1.5 Mpa [218 PSI]</td>
</tr>
<tr>
<td>HARDNESS (i.e. Schmidt Hammer Sclerometer)</td>
<td>&gt; 30 N/mm² [4300 PSI]</td>
</tr>
<tr>
<td>SUBSTRATE HYGROMETRY</td>
<td>&lt; 6% surface [pin method]</td>
</tr>
</tbody>
</table>

FINISHED FLOOR SURFACE SPECIFICATIONS

<table>
<thead>
<tr>
<th>SPECIFICATION</th>
<th>REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLATNESS</td>
<td>&lt; 3 mm/2 m [0.12 in/6 ft]</td>
</tr>
<tr>
<td>LEVELNESS</td>
<td>&lt; 1 mm/m [0.04 in/ft]</td>
</tr>
</tbody>
</table>

- (Bare) Concrete floor preparation and floor resin application falls under the customer’s contractor responsibility.
- No expansion joint shall be present in the concrete in the area where the flooring system will be applied.
- Electrical connection of the conductive flooring falls under customer’s responsibility.

XT RADIOGRAPHIC SUSPENSION, INBOARD MOUNTING

**Diagram**

- Structural Support system is not supplied or installed by GE Healthcare

**Detail 1**
- Contractor supplied and installed structural supports flush with finished ceiling
- GE supplied - longitudinal stationary rail
- GE supplied spring nuts with bolts

**Detail 2**
- Contractor supplied and installed structural supports flush with finished ceiling
- GE supplied - cable drape support
- GE supplied - self-tapping screws

GANTRY WEIGHT

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>NET WEIGHT</th>
<th>LOAD BEARING AREA</th>
<th>WEIGHT/OCCUPIED AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>GANTRY</td>
<td>990 kg [2183 lb]</td>
<td>1 m² [10.76 ft²]</td>
<td>990 kg/m² [220.7 lb/ft²]</td>
</tr>
<tr>
<td>TOTAL WEIGHT (IGS 740)</td>
<td>1000 kg [2205 lb]</td>
<td>1 m² [10.76 ft²]</td>
<td>1000 kg/m² [204.8 lb/ft²]</td>
</tr>
<tr>
<td>REAR ISOLATED LOAD</td>
<td>350 kg [772 lb]</td>
<td>640 mm² [0.09 in²]</td>
<td>5.5 Mpa [798 lb/in²]</td>
</tr>
<tr>
<td>FRONT ISOLATED LOAD</td>
<td>120 kg [264 lb]</td>
<td>135 mm² [0.02 in²]</td>
<td>8.1 MPA [1175 lb/in²]</td>
</tr>
</tbody>
</table>

CMS MOUNTING

**Diagram**

- Anchoring by 4 screws M12
- Max. axial effort = 153 daN
- Max. shear force = 11.5 daN

**Table**

<table>
<thead>
<tr>
<th>Table Longitudinal Axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1030 [40.55 in]</td>
</tr>
<tr>
<td>700 [27.6 in]</td>
</tr>
<tr>
<td>900 [35.4 in]</td>
</tr>
<tr>
<td>500 [19.7 in]</td>
</tr>
<tr>
<td>800 [31.5 in]</td>
</tr>
<tr>
<td>1100 [43.3 in]</td>
</tr>
</tbody>
</table>

**Table Rotation Axis**

<table>
<thead>
<tr>
<th>CMS cover 330x344 mm [21x29 in]</th>
<th>(under false ceiling)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening in the false ceiling 100x25 mm [4x1 in]</td>
<td></td>
</tr>
</tbody>
</table>

**Table**

<table>
<thead>
<tr>
<th>LOAD BEARING AREA</th>
<th>WEIGHT/OCCUPIED AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 kg/m²</td>
<td>0 lb/in²</td>
</tr>
<tr>
<td>3370 kg/m² [798 lb/in²]</td>
<td>204.8 lb/ft²</td>
</tr>
<tr>
<td>790 kg/m² [1775 lb/in²]</td>
<td>344.5 lb/ft²</td>
</tr>
<tr>
<td>990 kg/m² [2205 lb/in²]</td>
<td>560 lb/ft²</td>
</tr>
<tr>
<td>1100 kg/m² [2430 lb/in²]</td>
<td>798 lb/ft²</td>
</tr>
</tbody>
</table>

**Diagram**

- CMS cover 330x344 mm [21x29 in]
- Plate 1: 320x90x12 mm [10.5 x 3.5 x 0.5 in] (above false ceiling)
**Material legend** (customer supplied and installed)

<table>
<thead>
<tr>
<th>Letter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>PLATE 2 [12MM] - SIZED BY CUSTOMER (ATTACH TO STRUCTURE ABOVE CEILING)</td>
</tr>
<tr>
<td>B</td>
<td>PLATE 1 [12MM] 20.5&quot; [520MM] x 19.8&quot; [502MM]</td>
</tr>
<tr>
<td>C</td>
<td>HARDENED THREADED Rods [50x50MM] (WELD &amp; GRIND FLUSH TO BOTTOM PLATE 1) (DOUBLE NUT ADJUSTABLE TO PLATE 2)</td>
</tr>
<tr>
<td>D</td>
<td>ACCESS PANEL - 24&quot; x 24&quot; [600x600MM]</td>
</tr>
<tr>
<td>E</td>
<td>ANCHORED BY (4) M12 GRADE 8.8 BOLTS or ANCHORED BY (4) 1/2&quot; GRADE 5 BOLTS</td>
</tr>
<tr>
<td></td>
<td>(8) NORD WASHERS (8) NYLOC NUTS</td>
</tr>
<tr>
<td></td>
<td>MAX. MAX. AXIAL EFFORT 153daN</td>
</tr>
<tr>
<td></td>
<td>MAX. SHEAR FORCE 125daN</td>
</tr>
<tr>
<td>F</td>
<td>8.5&quot; [210MM] DIA. OPENING IN FALSE CEILING (CABLE ACCESS, KEEP CLEAR NO OBSTRUCTIONS)</td>
</tr>
<tr>
<td>G</td>
<td>4&quot; [100MM] x 1&quot; [25MM] OPENING (FOR CABLE GUIDE BRACKET IN FALSE CEILING)</td>
</tr>
</tbody>
</table>

**Important Note:** CUSTOMER/CONTRACTOR INSTALLED AND DESIGNED BY STRUCTURAL ENGINEER

- FIRE DETECTION, LIGHTING, VENTILATION, ETC. NOT TO EXCEED FINISHED CEILING
- EACH MOUNTING BOLT MUST NOT "PULL OUT" OR OTHERWISE FAIL UNDER A VERTICALLY DOWNWARD DEAD LOAD OF 635daN

**Design Details:**

- CMS STRUCTURAL SUPPORT PLATE INFORMATION
- CMS ELEVATION SUPPORT STRUCTURE
MAVIG SUSPENSION MOUNTING METHOD

2.5m CEILING TRACK

- Weight up to: 94 kg (207 lb) (75 kg (165 lb) system + 19 kg (42 lb) track)
- The required factor of safety is “4” for attaching to Unistrut or equivalent rails and “6” for attaching to the concrete ceiling.

CONSULT MAVIG INSTALLATION MANUAL REV: POR03001 TO DESIGN AND MOUNT THE CEILING SUPPORT.

SCALE 1:20

SUSPENSION COLUMN LENGTHS AND INSTALLATION DETAILS

- Concrete ceiling
- Mounting structure (MAVIG options or customer supplied)
- False ceiling
- Suspension column
- Extension arm
- Adaptable elements

For rooms with higher mounting point than 3200 mm [126 in], a ceiling construction between structural ceiling and vertical column is suggested which needs to be designed by a structural engineer.

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

CEILING SUSPENSION DISCLAIMER

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 mounting structure and/or MAVIG cannot be held liable for improper operation and modifications.

WEARING:

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

MONITOR SUSPENSION RAIL MOUNTING SPECIFICATIONS

When a 23 daN force is applied vertically upward, downward or horizontally at any stationary rail mounting point, the attachment interface must not deflect more than 1.5 mm (0.06 in)

Auxiliary support rail mounting points

All mounting point must be located on a common centerline (tolerance ±1.5 mm [0.06 in])

Each stationary rail must be mounted by bolts supplied or by 12 mm [0.47 in] as metric bolts. Maximum load per bolt is 160 daN, however each mounting bolt must not "PULL OUT" or otherwise fail under a vertically downward dead load of 635daN.

When a 135 daN force is applied vertically downward, or horizontally at any stationary rail mounting point, the attachment interface must not deflect more than 660.4 ±1.5 mm [26 ±0.06 in]

Stationary rail mounting points must be parallel (tolerance ±3 mm [0.12 in])

When a 45 daN force is applied vertically upward at any stationary rail mounting point, the attachment interface must not deflect more than 1.5 mm [0.06 in]

Diagonals lengths must be equal (tolerance ±6 mm [0.24 in])

883 ±6 mm [35 ±0.24 in]

1422 ±3 mm [56 ±0.12 in]

1.5 mm [0.06 in]

All mounting points must lie in the same horizontal plane (tolerance ±2 mm [0.08 in])
**TABLE MOUNTING WITH TABLE BASEPLATE**

**BASEPLATE COVER - SECTION A-A’**

- Table baseplate cover
  - Depth: 4 mm [0.16 in]

- Table baseplate
  - Depth: 25 mm [1.00 in]

- "MONOPUR 4 + 3 SYSTEM" monolithic flooring
  - Depth: 7 mm [0.28 in]

- 750x600x25 mm [29.53x23.62x1 in] baseplate - supplied by GE
- 770x620 mm [30.31x24.41 in], 25 mm [1 in] deep floor cut for table base plate flush mounting
- 8 bolts for table mounting (1)
- Cable inlet Ø100 [Ø4.00 in] - Ø270 [Ø10.63 in] opening in the floor
- 10 bolts for baseplate mounting (2)
- 810x650x4 mm [31.89x25.59x0.16 in] baseplate cover - supplied by GE
- Cable inlet for options, size as required

(1) Tilting table mounting location: 8 piece of M16x40 mm bolts - supplied by GE
(2) Tilting table baseplate mounting location: 10 piece of M20 bolts - plate and bolts are supplied by GE.

Pull out strength on each bolt: 1120 daN

---

**BASEPLATE MOUNTING REQUIREMENTS**

- The maximum pullout force per provided anchor was calculated assuming:
  - A concrete compression strength of 30 MPa at 28 days (which is the minimum required compression strength).
  - Anchors installed to the required hole depth of 165.1 mm [6.50 in] minimum.
  - The distance between the center of anchor hole and the edge of the concrete is 79.4 mm [3.13 in].

- Make sure to obtain data on compression strength of the concrete before using floor anchors.
- Chemical anchors can be used as well: HILITHVU adhesive capsule + HAS Anchor rod.
- The fixation screws shall not jut out of the table baseplate, plate has to be level.

---

**PATIENT TABLE**

- The Utility box under the table is not recommended for the surgical configuration.
- It is forbidden to place or install objects under the head end of the table that could interfere with AGV motion.

---

**TABLE MOUNTING WITH TABLE BASEPLATE**

- Scale 1:50

---

**BASEPLATE COVER - SECTION A-A’**

- Table baseplate cover
  - Depth: 4 mm [0.16 in]

- Table baseplate
  - Depth: 25 mm [1.00 in]

- "MONOPUR 4 + 3 SYSTEM" monolithic flooring
  - Depth: 7 mm [0.28 in]

- 750x600x25 mm [29.53x23.62x1 in] baseplate - supplied by GE
- 770x620 mm [30.31x24.41 in], 25 mm [1 in] deep floor cut for table base plate flush mounting
- 8 bolts for table mounting (1)
- Cable inlet Ø100 [Ø4.00 in] - Ø270 [Ø10.63 in] opening in the floor
- 10 bolts for baseplate mounting (2)
- 810x650x4 mm [31.89x25.59x0.16 in] baseplate cover - supplied by GE
- Cable inlet for options, size as required

(1) Tilting table mounting location: 8 piece of M16x40 mm bolts - supplied by GE
(2) Tilting table baseplate mounting location: 10 piece of M20 bolts - plate and bolts are supplied by GE.

Pull out strength on each bolt: 1120 daN

---

**BASEPLATE MOUNTING REQUIREMENTS**

- The maximum pullout force per provided anchor was calculated assuming:
  - A concrete compression strength of 30 MPa at 28 days (which is the minimum required compression strength).
  - Anchors installed to the required hole depth of 165.1 mm [6.50 in] minimum.
  - The distance between the center of anchor hole and the edge of the concrete is 79.4 mm [3.13 in].

- Make sure to obtain data on compression strength of the concrete before using floor anchors.
- Chemical anchors can be used as well: HILITHVU adhesive capsule + HAS Anchor rod.
- The fixation screws shall not jut out of the table baseplate, plate has to be level.

---

**TABLE MOUNTING WITH TABLE BASEPLATE**

- Scale 1:50

---

**BASEPLATE COVER - SECTION A-A’**

- Table baseplate cover
  - Depth: 4 mm [0.16 in]

- Table baseplate
  - Depth: 25 mm [1.00 in]

- "MONOPUR 4 + 3 SYSTEM" monolithic flooring
  - Depth: 7 mm [0.28 in]

- 750x600x25 mm [29.53x23.62x1 in] baseplate - supplied by GE
- 770x620 mm [30.31x24.41 in], 25 mm [1 in] deep floor cut for table base plate flush mounting
- 8 bolts for table mounting (1)
- Cable inlet Ø100 [Ø4.00 in] - Ø270 [Ø10.63 in] opening in the floor
- 10 bolts for baseplate mounting (2)
- 810x650x4 mm [31.89x25.59x0.16 in] baseplate cover - supplied by GE
- Cable inlet for options, size as required

(1) Tilting table mounting location: 8 piece of M16x40 mm bolts - supplied by GE
(2) Tilting table baseplate mounting location: 10 piece of M20 bolts - plate and bolts are supplied by GE.

Pull out strength on each bolt: 1120 daN

---

**BASEPLATE MOUNTING REQUIREMENTS**

- The maximum pullout force per provided anchor was calculated assuming:
  - A concrete compression strength of 30 MPa at 28 days (which is the minimum required compression strength).
  - Anchors installed to the required hole depth of 165.1 mm [6.50 in] minimum.
  - The distance between the center of anchor hole and the edge of the concrete is 79.4 mm [3.13 in].

- Make sure to obtain data on compression strength of the concrete before using floor anchors.
- Chemical anchors can be used as well: HILITHVU adhesive capsule + HAS Anchor rod.
- The fixation screws shall not jut out of the table baseplate, plate has to be level.

---

**TABLE MOUNTING WITH TABLE BASEPLATE**

- Scale 1:50

---

**BASEPLATE COVER - SECTION A-A’**

- Table baseplate cover
  - Depth: 4 mm [0.16 in]

- Table baseplate
  - Depth: 25 mm [1.00 in]

- "MONOPUR 4 + 3 SYSTEM" monolithic flooring
  - Depth: 7 mm [0.28 in]

- 750x600x25 mm [29.53x23.62x1 in] baseplate - supplied by GE
- 770x620 mm [30.31x24.41 in], 25 mm [1 in] deep floor cut for table base plate flush mounting
- 8 bolts for table mounting (1)
- Cable inlet Ø100 [Ø4.00 in] - Ø270 [Ø10.63 in] opening in the floor
- 10 bolts for baseplate mounting (2)
- 810x650x4 mm [31.89x25.59x0.16 in] baseplate cover - supplied by GE
- Cable inlet for options, size as required

(1) Tilting table mounting location: 8 piece of M16x40 mm bolts - supplied by GE
(2) Tilting table baseplate mounting location: 10 piece of M20 bolts - plate and bolts are supplied by GE.

Pull out strength on each bolt: 1120 daN

---

**BASEPLATE MOUNTING REQUIREMENTS**

- The maximum pullout force per provided anchor was calculated assuming:
  - A concrete compression strength of 30 MPa at 28 days (which is the minimum required compression strength).
  - Anchors installed to the required hole depth of 165.1 mm [6.50 in] minimum.
  - The distance between the center of anchor hole and the edge of the concrete is 79.4 mm [3.13 in].

- Make sure to obtain data on compression strength of the concrete before using floor anchors.
- Chemical anchors can be used as well: HILITHVU adhesive capsule + HAS Anchor rod.
- The fixation screws shall not jut out of the table baseplate, plate has to be level.

---

**BASEPLATE MOUNTING REQUIREMENTS**

- The maximum pullout force per provided anchor was calculated assuming:
  - A concrete compression strength of 30 MPa at 28 days (which is the minimum required compression strength).
  - Anchors installed to the required hole depth of 165.1 mm [6.50 in] minimum.
  - The distance between the center of anchor hole and the edge of the concrete is 79.4 mm [3.13 in].

- Make sure to obtain data on compression strength of the concrete before using floor anchors.
- Chemical anchors can be used as well: HILITHVU adhesive capsule + HAS Anchor rod.
- The fixation screws shall not jut out of the table baseplate, plate has to be level.
**TEMPERATURE AND HUMIDITY SPECIFICATIONS**

### IN-USE CONDITIONS

<table>
<thead>
<tr>
<th></th>
<th>EXAM ROOM</th>
<th>CONTROL ROOM</th>
<th>TECHNICAL ROOM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Temperature</strong></td>
<td>Min 15 °C</td>
<td>Min 15 °C</td>
<td>Min 15 °C</td>
</tr>
<tr>
<td></td>
<td>Recommended 22 °C</td>
<td>Recommended 22 °C</td>
<td>Recommended 22 °C</td>
</tr>
<tr>
<td></td>
<td>Max 32 °C</td>
<td>Max 35 °C</td>
<td>Max 35 °C</td>
</tr>
<tr>
<td><strong>Relative humidity</strong></td>
<td>≤ 10%</td>
<td>≤ 10%</td>
<td>≤ 10%</td>
</tr>
<tr>
<td><strong>Temperature gradient</strong></td>
<td>≤ 10 °C/h</td>
<td>≤ 10 °C/h</td>
<td>≤ 10 °C/h</td>
</tr>
<tr>
<td><strong>Humidity gradient</strong></td>
<td>≤ 10%/h</td>
<td>≤ 10%/h</td>
<td>≤ 10%/h</td>
</tr>
</tbody>
</table>

### STORAGE CONDITIONS

- Temperature: +10 °C [50 °F] to +40 °C [104 °F]
- Relative humidity: 10% to 80%
- Pressure: 700 hPa to 1030 hPa

### HEAT DISSIPATION

**Exam room**
- LC gantry and table: 0.41 kW
- Large Display Monitor (LDM): 0.50 kW
- TOTAL: 0.91 kW

**Control room**
- DL console and live monitor: 0.10 kW
- AW Workstation: 0.59 kW
- TOTAL: 0.69 kW

**Technical room**
- C-FRT cabinet: 0.70 kW
- Coolix tube chiller: 2.53 kW
- Detector Conditioner: 0.21 kW
- Fluoro UPS UL: 1.98 kW
- TOTAL: 5.88 kW

**WARNING**
- The list contains only the principal components of the system and doesn't contain any non-GE supplied equipment.
- ¹ Moderate Use corresponds to 8 cases in 10 hours.
- ² Typical Use corresponds to 11 cases in 10 hours.
- ³ Maximum Use is during the case.

---

**HEAT DISSIPATION**

<table>
<thead>
<tr>
<th>ROOM</th>
<th>DESCRIPTION</th>
<th>HEAT OUTPUT (kW)</th>
<th>HEAT OUTPUT (BTU/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>STAND BY</td>
<td>MODERATE¹</td>
</tr>
<tr>
<td>Exam room</td>
<td>LC gantry and table</td>
<td>0.41</td>
<td>0.55</td>
</tr>
<tr>
<td></td>
<td>Large Display Monitor (LDM)</td>
<td>0.50</td>
<td>0.50</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>0.91</td>
<td>1.05</td>
</tr>
<tr>
<td>Control room</td>
<td>DL console and live monitor</td>
<td>0.10</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td>AW Workstation</td>
<td>0.59</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>0.69</td>
<td>0.10</td>
</tr>
<tr>
<td>Technical room</td>
<td>C-FRT cabinet</td>
<td>0.70</td>
<td>0.70</td>
</tr>
<tr>
<td></td>
<td>PDU</td>
<td>0.40</td>
<td>0.40</td>
</tr>
<tr>
<td></td>
<td>Coolix tube chiller</td>
<td>2.53</td>
<td>4.49</td>
</tr>
<tr>
<td></td>
<td>Detector Conditioner</td>
<td>0.21</td>
<td>0.21</td>
</tr>
<tr>
<td></td>
<td>MDP (Mains Disconnect Panel)</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td></td>
<td>Fluoro UPS UL</td>
<td>1.98</td>
<td>1.98</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>5.88</td>
<td>7.84</td>
</tr>
</tbody>
</table>

---

**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.
CONNECTIVITY REQUIREMENTS

Broadband Connections are necessary during the installation process and going forward to ensure full support from GE for the customer's system. Maximum performance and availability for the customer's system is maintained and closely monitored during the lifetime of the system. Proactive and reactive maintenance is available utilizing the wide range of digital tools using the connectivity solutions listed below:

- Site-to-Site VPN/GE Solution
- Site-to-Site VPN/Customer Solution
- Connection through Dedicated Service Network
- Internet Access - connectivity for InSite 2.0

The requirements for these connectivity solutions are explained in the broadband solutions catalogue (separate document).

ELECTRICAL NOTES

1. All wires specified shall be copper stranded, flexible, thermo-plastic, color coded, cut 10 foot long at outlet boxes, duct termination points or stubbed conduit ends. All conductors, power, signal and ground, must be run in a conduit or duct system. Electrical contractor shall ring out and tag all wires at both ends. Wire runs must be continuous copper stranded and free from splices.
   1.1. Aluminum or solid wires are not allowed.
   2. Wire sizes given are for use of equipment. Larger sizes may be required by local codes.
   3. It is recommended that all wires be color coded, as required in accordance with national and local electrical codes.
   4. Conduit sizes shall be verified by the architect, electrical engineer or contractor, in accordance with local or national 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.
   6. General room illumination is not illustrated. Caution should be taken to avoid excessive heat from overhead spotlights. 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).
   8. Conduit turns to have large, sweeping bends with minimum radius in accordance with national and local electrical codes.
   9. 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.
   10. The maximum point to point distances illustrated on this drawing must not be exceeded.
   11. Physical connection of primary power to GE equipment is to be made by customers electrical contractor with the supervision of a GE representative. The GE representative would be required to identify the physical connection location, and insure proper handling of GE equipment.
   12. 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.

- All junction boxes, conduit, duct, duct dividers, switches, circuit breakers, cable tray, etc., are to be supplied and installed by customers electrical contractor.
- Conduit and duct runs shall have 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.
- PVC as a substitute must be used in accordance with all local and national codes.
- All openings in access flooring are to be cut out and finished off with grommet material by the customers contractor.
- General contractor to insert pull cords for all cable run conduits between the equipment room and the operators control room.
- 10 foot pigtales at all junction points.
- Grounding is critical to equipment function and patient safety. Site must conform to wiring specifications shown on this plan.
**ELECTRICAL LAYOUT ITEM LIST**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QTY</th>
<th>Outlet Legend for GE Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>450 x 450 x 150 [18&quot; x 18&quot; x 6&quot;] box below floor</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>250 x 250 x 150 [10&quot; x 10&quot; x 6&quot;] box below floor</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>300 x 300 x 150 [12&quot; x 12&quot; x 6&quot;] pull box above ceiling</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Cable management system (cms)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>600 x 600 x 300 [24&quot; x 24&quot; x 12&quot;] box above ceiling</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>450 x 450 x 150 [18&quot; x 18&quot; x 6&quot;] box above ceiling</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>100 x 100 x 100 [4&quot; x 4&quot; x 4&quot;] flush junction box 300 [12&quot;] below finished ceiling (xrb)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>150 x 150 x 150 [6&quot; x 6&quot; x 6&quot;] flush junction box in ceiling for 75 [3&quot;]dia flexible pipe for water lines</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>250 x 100 [10&quot; x 3 1/2&quot;] surface wall duct with minimum 2 dividers</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>450 x 100 [18&quot; x 3 1/2&quot;] surface wall duct with minimum 2 dividers</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>600 x 600 [24&quot; x 24&quot;] Service access in ceiling</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Area of conduit stubs for patient monitoring</td>
<td></td>
</tr>
</tbody>
</table>

**Additional Conduit Runs** (Contractor Supplied and Installed)

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Qty</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable Management system</td>
<td>CFRT Cabinet</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Table</td>
<td>CFRT Cabinet</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Control Room</td>
<td>CFRT Cabinet</td>
<td>1 and 2</td>
<td>3/8 and 2 3/16</td>
</tr>
<tr>
<td>Breaker Box</td>
<td>Table</td>
<td>1</td>
<td>3 1/2</td>
</tr>
<tr>
<td>Water line</td>
<td>Cable Management system</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Warning light controller</td>
<td>Warning light</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Warning light controller</td>
<td>Power distribution unit</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Warning light controller</td>
<td>120-V 1 phase power</td>
<td>1</td>
<td>As Required</td>
</tr>
<tr>
<td>X-R-Buzzer</td>
<td>CFRT Cabinet</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>X-R-Buzzer</td>
<td>Control Room</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Monitor</td>
<td>Control Room</td>
<td>1</td>
<td>2 1/2</td>
</tr>
<tr>
<td>Large Display Monitor</td>
<td>CFRT Cabinet</td>
<td>1</td>
<td>3 and 4</td>
</tr>
<tr>
<td>CFRT Cabinet</td>
<td>Control Room</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>CFRT Cabinet</td>
<td>Tram/PDM</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Main Disconnect Panel</td>
<td>20/8/1 KVA UPS</td>
<td>2</td>
<td>As Required</td>
</tr>
<tr>
<td>System Interface Cabinet (POU)</td>
<td>Emergency off</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>System Interface Cabinet (POU)</td>
<td>Emergency off</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Main Disconnect Panel</td>
<td>System Interface Cabinet (POU)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Main Disconnect Panel</td>
<td>480-V 3 phase power</td>
<td>1</td>
<td>As Required</td>
</tr>
<tr>
<td>Patient Monitoring</td>
<td>Monitor</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Patient Monitoring</td>
<td>TRAM/PDM/PDM</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**ITEM**

1. **System emergency off (SEO), (Recommended height 1.2m [48"] above floor)**
2. X-Ray ON lamp (L1) - 24 V
3. System ON lamp (L) - 24 V (only if needed per local codes)
4. Duplex hospital grade, dedicated wall outlet 120-v, single phase power
5. Duplex hospital grade, dedicated ceiling outlet 120-v, single phase power
6. Network outlet
7. Duplex hospital grade, dedicated outlet 120-v emergency, single phase power, 15a
8. 6-Gang hospital grade, dedicated wall outlet 115-V, single phase power
9. 5-15R NEMA Receptacle, dedicated outlet 120-V, single phase power

**Additional Conduit Runs** (Contractor Supplied and Installed)

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Qty</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable Management system</td>
<td>CFRT Cabinet</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Table</td>
<td>CFRT Cabinet</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Control Room</td>
<td>CFRT Cabinet</td>
<td>1 and 2</td>
<td>3/8 and 2 3/16</td>
</tr>
<tr>
<td>Breaker Box</td>
<td>Table</td>
<td>1</td>
<td>3 1/2</td>
</tr>
<tr>
<td>Water line</td>
<td>Cable Management system</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Warning light controller</td>
<td>Warning light</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Warning light controller</td>
<td>Power distribution unit</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Warning light controller</td>
<td>120-V 1 phase power</td>
<td>1</td>
<td>As Required</td>
</tr>
<tr>
<td>X-R-Buzzer</td>
<td>CFRT Cabinet</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>X-R-Buzzer</td>
<td>Control Room</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Monitor</td>
<td>Control Room</td>
<td>1</td>
<td>2 1/2</td>
</tr>
<tr>
<td>Large Display Monitor</td>
<td>CFRT Cabinet</td>
<td>1</td>
<td>3 and 4</td>
</tr>
<tr>
<td>CFRT Cabinet</td>
<td>Control Room</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>CFRT Cabinet</td>
<td>Tram/PDM</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Main Disconnect Panel</td>
<td>20/8/1 KVA UPS</td>
<td>2</td>
<td>As Required</td>
</tr>
<tr>
<td>System Interface Cabinet (POU)</td>
<td>Emergency off</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>System Interface Cabinet (POU)</td>
<td>Emergency off</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Main Disconnect Panel</td>
<td>System Interface Cabinet (POU)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Main Disconnect Panel</td>
<td>480-V 3 phase power</td>
<td>1</td>
<td>As Required</td>
</tr>
<tr>
<td>Patient Monitoring</td>
<td>Monitor</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Patient Monitoring</td>
<td>TRAM/PDM/PDM</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Typical**

**DISCOVERY IGS 7**

**EN-VAS-TYP-IGS-7-WEB.DWG**

**[4’-0”x4’-0”]** Rev A Date 23/Apr/2020

**E2 - Electrical Layout**
**FEEDER TABLE**

<table>
<thead>
<tr>
<th>MIN. FEEDER WIRE SIZE, AWG OR MCM (sq. mm)/VAC</th>
<th>MINIMUM FEEDER WIRE LENGTH - ft (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>480 VAC</td>
<td>50 (15)</td>
</tr>
<tr>
<td></td>
<td>*1/0 (55)</td>
</tr>
</tbody>
</table>

**GENERAL NOTES**

- In all cases qualified personnel must verify that the feeder (at the point of take-off) and the run to the GE system meet all the requirements stated in the PIM.
- For a single unit installation, the minimum transformer size is 225kva, with 2.4% rated regulation at unity power factor. Resultant maximum allowable feeder regulation is 3.6%.
- The ground wire to earth shall be a minimum of AWG 2 (UL) OR 35 mm² (CE) or the same size (100%) as feeder wires, whichever is larger.
- When a fluoro ups is or will be installed, a neutral line is mandatory. If it is phase earthing system is used, an isolation transformer is required with delta-wye or delta-star connection.

* Minimum wire size for circuit breaker, based on recommended overcurrent protection.
**POWER REQUIREMENTS**

<table>
<thead>
<tr>
<th>POWER SUPPLY</th>
<th>3 PHASES+G 380/400/415V/480 V ±10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREQUENCIES for 380/400/415V</td>
<td>50/60 Hz ± 3 Hz</td>
</tr>
<tr>
<td>FREQUENCY for 480V</td>
<td>60 Hz ± 3Hz</td>
</tr>
<tr>
<td>PEAK POWER CONSUMPTION</td>
<td>150 kVA</td>
</tr>
<tr>
<td>MOMENTARY POWER CONSUMPTION</td>
<td>100 kVA</td>
</tr>
<tr>
<td>LONG TIME POWER CONSUMPTION</td>
<td>18 kVA</td>
</tr>
<tr>
<td>MINIMUM PROTECTION</td>
<td>100 A (D curve or equivalent)</td>
</tr>
<tr>
<td>MAXIMUM LINE IMPEDANCE PHASE TO PHASE</td>
<td>380 V : 0.09 Ω / 400 V : 0.096 Ω / 415 V : 0.102 Ω / 480 V : 0.12 Ω</td>
</tr>
</tbody>
</table>

- Power supply should come into a Mains Disconnect Panel (MDP) containing the protective units and controls.
- The section of the supply cable should be calculated in accordance with its length and the maximum line impedance phase to phase and rating of protection.

**SUPPLY CHARACTERISTICS**

- Power input must be separated from any others which may generate transients (elevators, air conditioning, radiology rooms equipped with high speed film changers ...)
- All equipment installed with IGS system components must be powered separately (e.g. lighting, power outlets)
- Transients must be less than 2,000 V peak in common mode and 1,000 V in differential mode, with a duration limited to a few microseconds.

**GROUND SYSTEM**

- At least 35 mm² copper from main ground point to the MDP.
- 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 IGS cableways and to additional equipotential connections linking up all the conducting units in the rooms where IGS units are located.

**CABLES**

- Power and cable installation must comply with the distribution diagram.
- MDP to PDU cable shall be copper cable and cable insulation temperature shall be 90°C.
- All cables must be isolated and flexible, cable color codes must comply with standards for electrical installation.
- The cables from signalling and remote control (SEO, L..) will go to PDU with a pigtail length of 2.0 m, 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),
- Only GE cables are running inside cableways.
- Metal cableways should be grounded.

**LOTTO DEVICES**

- The MDP shall provide means of disconnecting the mains power from the system, with LOTO capability to ensure safe service operation. It can be done by the input breaker if it has disconnecting capability, or by a separate disconnection device.
- LOTO device is installed on the MDP input breaker or on the disconnecting device, there shall be no voltage at the output of the MDP.

**NOTES:**

- Power supply should be into a Mains Disconnect Panel (MDP) containing the protective units and controls.
- The section of the supply cable should be calculated in accordance with its length and the maximum line impedance phase to phase and rating of protection.

**GROUND SYSTEM**

- At least 35 mm² copper from main ground point to the MDP.
- 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 IGS cableways and to additional equipotential connections linking up all the conducting units in the rooms where IGS units are located.

**CABLES**

- Power and cable installation must comply with the distribution diagram.
- MDP to PDU cable shall be copper cable and cable insulation temperature shall be 90°C.
- All cables must be isolated and flexible, cable color codes must comply with standards for electrical installation.
- The cables from signalling and remote control (SEO, L..) will go to PDU with a pigtail length of 2.0 m, 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),
- Only GE cables are running inside cableways.
- Metal cableways should be grounded.

**LOTTO DEVICES**

- The MDP shall provide means of disconnecting the mains power from the system, with LOTO capability to ensure safe service operation. It can be done by the input breaker if it has disconnecting capability, or by a separate disconnection device.
- LOTO device is installed on the MDP input breaker or on the disconnecting device, there shall be no voltage at the output of the MDP.
### POWER REQUIREMENTS (LIGHT SIGNALING)

**FOR ELECTRICAL BOX LIGHT SIGNALING**

<table>
<thead>
<tr>
<th>POWER DEMAND</th>
<th>10 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOLTAGE</td>
<td>Single Phase 100V - 240V ± 10%</td>
</tr>
<tr>
<td>FREQUENCY</td>
<td>50/60 Hz ± 3Hz</td>
</tr>
</tbody>
</table>

### POWER DISTRIBUTION (LIGHT SIGNALING)

- **L**: System ON light - Located near access doors (3)(4)
- **L1**: XRay ON light - 24 V, Located near access doors and inside the exam room (3)(4)
- **PDU**: Power Distribution Unit/System Interface Cabinet

NOTES:
1. Three dry contacts: “System ON”, “X-Ray ON” and Room lights control are released by PDU. Max. voltage = 24 V
2. Cable with 2m [6.6ft] extra length on the floor behind the back of PDU
3. Location and/or quantity: refer to layout

---

**INTERCONNECTIONS**

- **Technical Room**
  - Cable supplied by the client
  - Cable supplied by GE
  - Room wall
  - Total length
  - Usable length
  - *Can be positioned on the back of LDM or on separate suspension boom*

- **Exam Room**
  - Main supply 100V-240 V and Ground cable
  - **24 V**
  - **10 A**
  - **3 x 1.5 [14 AWG]**

- **Control Room**
  - **24 V**
  - **24 V**
  - **3 x 1.5 [14 AWG]**

---

**SPECIFICATIONS OF POWER INPUT**

<table>
<thead>
<tr>
<th>POWER DISTRIBUTION UNIT</th>
<th>SYSTEM INTERFACE CABINET</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>24 V</strong></td>
<td><strong>24 V</strong></td>
</tr>
<tr>
<td><strong>10 A</strong></td>
<td><strong>10 A</strong></td>
</tr>
<tr>
<td><strong>3 x 1.5 [14 AWG]</strong></td>
<td><strong>3 x 1.5 [14 AWG]</strong></td>
</tr>
</tbody>
</table>

---

- **Main supply 100V-240 V and Ground cable**

---

**DISCOVERY IGS 7**

**EN-VAS-TYP-IGS-7-WEB.DWG**

**Rev A | Date 23/Apr/2020 | E6 - Interconnections - Light Signaling | 22/23**
DETAILED SCHEMATIC ELECTRICAL BOX (LIGHT SIGNALING)

POWER SUPPLY
100-240V
SINGLE PHASE

N
L

CB1

CB2

TR1
100-240V
24V

H1: System ON lamp voltage control
L: System ON Lamp
L1: X-Ray ON Lamp

TR1: Transformer

R1/R2/R3: 24 VAC 50/60 Hz auxiliary relay

SYMBOLS LEGEND

- Circuit breaker
- Relay coil
- Relay contact - normally open (de-energized state)
- Relay contact - normally closed (de-energized state)
- Control power transformer
- Indication light
- Cable/conductor termination
- External lock-out/tag-out capability
- Ground

IG: Lockable interruptor
CB1/CB2: Circuit breaker
R1/R2/R3: 24 VAC 50/60 Hz auxiliary relay
TR1: Transformer

H1: White 24VAC

PDU: Power requirements (Light Signaling)

H1: System ON lamp voltage control
L: System ON Lamp
L1: X-Ray ON Lamp

Room Light control

TERMINAL

X1

1 2 3 4 5 6

PDU ON/OFF BOARD

J15 J6 J10

System on light

X-Ray on light

100-240V
SINGLE PHASE

CONTROL POWER TRANSFORMER

CABLE/CONDUCTOR TERMINATION

EXTERNAL LOCK-OUT/TAG-OUT

GROUND

CONTROL POWER TRANSFORMER