



DEPARTMENT OF HEALTH AND HUMAN SERVICES  
DIVISION OF HEALTH SERVICE REGULATION

ROY COOPER  
GOVERNOR

MANDY COHEN, MD, MPH  
SECRETARY

MARK PAYNE  
DIRECTOR

March 22, 2018

Elizabeth V. Kirkman  
2709 Water Ridge Parkway, Suite 200  
Charlotte, NC 28217

**Exempt from Review – Replacement Equipment**

**Record #:** 2555  
**Facility Name:** CHS University  
**FID #:** 923516  
**Business Name:** The Charlotte-Mecklenburg Hospital Authority  
**Business #:** 1770  
**Project Description:** Replace existing MRI scanner  
**County:** Mecklenburg

Dear Ms. Kirkman:

The Healthcare Planning and Certificate of Need Section, Division of Health Service Regulation (Agency), determined that based on your letter of March 16, 2018, the above referenced proposal is exempt from certificate of need review in accordance with N.C. Gen. Stat. §131E-184(f). Therefore, you may proceed to acquire without a certificate of need the GE Signa Artist 1.5T MRI scanner to replace the Philips Intera 1.5T MRI scanner. This determination is based on your representations that the existing unit will be sold or otherwise disposed of and will not be used again in the State without first obtaining a certificate of need if one is required.

Moreover, you need to contact the Agency's Construction and Acute and Home Care Licensure and Certification Sections to determine if they have any requirements for development of the proposed project.

It should be noted that the Agency's position is based solely on the facts represented by you and that any change in facts as represented would require further consideration by this office and a separate determination. If you have any questions concerning this matter, please feel free to contact this office.

Sincerely,

Handwritten signature of Julie M. Faenza in black ink.

Julie M. Faenza  
Project Analyst

Handwritten signature of Martha J. Frisone in blue ink.

Martha J. Frisone  
Chief, Healthcare Planning and  
Certificate of Need Section

cc: Construction Section, DHSR  
Amy Craddock, Assistant Chief, Healthcare Planning, DHSR  
Acute and Home Care Licensure and Certification Section, DHSR

**HEALTHCARE PLANNING AND CERTIFICATE OF NEED SECTION**

WWW.NCDHHS.GOV

TELEPHONE 919-855-3873

LOCATION: EDGERTON BUILDING • 809 RUGGLES DRIVE • RALEIGH, NC 27603

MAILING ADDRESS: 2704 MAIL SERVICE CENTER • RALEIGH, NC 27699-2704

AN EQUAL OPPORTUNITY/ AFFIRMATIVE ACTION EMPLOYER





March 16, 2018

Carolinus HealthCare System



Ms. Martha Frisone, Chief  
Healthcare Planning and Certificate of Need Section  
Division of Health Service Regulation  
N.C. Department of Health & Human Services  
809 Ruggles Drive  
Raleigh, NC 27603

RE: The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinus HealthCare System  
University – Exemption Notice for Acquisition of Replacement Magnetic Resonance Imaging  
Equipment (“MRI”)

Dear Ms. Frisone:

The Charlotte-Mecklenburg Hospital Authority d/b/a Carolinus HealthCare System University (“CHS University”), seeks to acquire a GE Signa Artist 1.5T MR System (“Replacement Equipment”). Please see Attachment A for a copy of CHS University’s current hospital license. The Replacement Equipment will replace CHS University’s current Phillips Intera 1.5T MRI (“Existing Equipment”). The Existing Equipment is currently housed on the first floor of CHS University’s main hospital building located at 8800 North Tryon Street in Charlotte, NC 28262 (see Attachment B).

The purpose of this letter is to provide the Agency with notice and to request a determination that CHS University’s purchase of the Replacement Equipment is exempt from Certificate of Need (“CON”) review under the replacement equipment exemption provisions contained in Session Law 2013-360, Section 12G.3(b) and Session Law 2013-363, Section 4.6 (which are codified at N.C. Gen. Stat. 131E-184(f)(1)-(3)).

The General Assembly has chosen to exempt certain, otherwise reviewable events from CON review. Among those exemptions is the acquisition of “replacement equipment,” defined as follows in the CON law:

“Replacement equipment” means equipment that costs less than two million dollars (\$2,000,000) and is purchased for the sole purpose of replacing comparable medical equipment currently in use which will be sold or otherwise disposed of when replaced.

See N.C. Gen. Stat. 131E-176(22a). Under the new provisions found at N.C. Gen. Stat. 131E-184(f)(1)-(3), the CON law provides:

- (f) The Department shall exempt from certificate of need review the purchase of any replacement equipment that exceeds the two million dollar (\$2,000,000) threshold set forth in G.S. 131E-176(22) if all of the following conditions are met:
- (1) The equipment being replaced is located on the main campus.
  - (2) The Department has previously issued a certificate of need for the equipment being replaced. This subdivision does not apply if a certificate of need was not required at the time the equipment being replaced was initially purchased by the licensed health service facility.
  - (3) The licensed health service facility proposing to purchase the replacement equipment shall provide prior written notice to the Department, along with supporting documentation to demonstrate that it meets the exemption criteria of this subsection.

See Session Law 2013-360, Section 12G.3(b) and Session Law 2013-363, Section 4.6. The term “main campus” was defined in Session Law 2013-360, Section 13G.3(a) (codified N.C. Gen. Stat. 131E-176(14n)) as follows:

- (14n) “Main campus” means all of the following for the purposes of G.S. 131E-184(f) and (g) only:
- a. The site of the main building from which a licensed health service facility provides clinical patient services and exercises financial and administrative control over the entire facility, including the buildings and grounds adjacent to that main building.
  - b. Other areas and structures that are not strictly contiguous to the main building but are located within 250 yards of the main building.

The Existing Equipment is currently located on the first floor of CHS University’s main campus (see Attachment B). The main hospital building from which Carolinas HealthCare System exercises financial and administrative control over Carolinas HealthCare System University is located at 8800 North Tryon Street, Charlotte, NC 28262 (see Attachment B). Carolinas HealthCare System University President’s office is located on the first floor of the main hospital building.

In addition to the foregoing, to qualify for this exemption, the replacement equipment must be “comparable” to the equipment it replaces and the equipment being replaced must be “sold or otherwise disposed of when replaced.” CHS University’s proposal qualifies for this exemption.

#### **A. Cost of the Replacement Equipment**

The purchase price of the Replacement MRI Equipment is \$1,447,376 (\$1,346,398 MRI & Injector + \$100,979 Tax). Quotes for the MRI Replacement Equipment from GE and supporting equipment are provided in Attachment C. The projected total capital cost of the project is \$2,721,676 (including taxes and freight) and includes the removal of the existing equipment and installation of the Replacement Equipment as



well as the cost to lease a temporary mobile while the new equipment is being installed (\$160,000). The total capital cost schedule and the certified cost estimate of the renovation required to install the new equipment are provided in Attachment D.

**B. Equipment Being Replaced is Located on the Main Campus**

The Existing Equipment is currently located on the first floor of CHS University's main hospital building (see Attachment B). The Replacement Equipment will be located in the same location as the Existing Equipment (see Attachment B).

**C. Certificate of Need Issued for Equipment Being Replaced**

This proposal also fits within the new exemption criterion in Section 131E-184(f)(2) because the Department issued a Certificate of Need for the Existing Equipment (see Attachment E). The Existing Equipment was purchased in 2002.

**D. Comparable Equipment**

The CON rule codified as 10A N.C.A.C. 14C.0303 (the "Regulation") defines "comparable medical equipment" in subsection (c) as follows:

"Comparable medical equipment" means equipment which is functionally similar and which is used for the same diagnostic or treatment purposes.

CHS University intends to use the Replacement Equipment for substantially the same MRI procedures for which it currently uses the Existing Equipment. The Existing Equipment is a Phillips Intera 1.5T that was installed new in 2002. This Existing Equipment has been used for MRI procedures since installation.

The Replacement Equipment will perform all procedures currently performed on the Existing Equipment. Although it possesses some expanded capabilities due to technological improvements, the Replacement Equipment will perform the same MRI procedures (see Attachment F for the Equipment Brochure). The Replacement Equipment is therefore "comparable medical equipment" as defined in Subsection (c).

Furthermore, CHS University does not intend to increase patient charges or per procedure operating expenses within the first 12 months after equipment acquisition. For further equipment comparison, please refer to Attachment G, the Equipment Comparison Chart.

Subsection (d) of the regulation further provides:

- (1) it has the same technology as the equipment currently in use, although it may possess expanded capabilities due to technological improvements; and



- (2) it is functionally similar and is used for the same diagnostic or treatment purposes as the equipment currently in use and is not used to provide a new health service; and
- (3) the acquisition of the equipment does not result in more than a 10.0 percent increase in patient charges or per procedure operating expenses within the first twelve months after the replacement equipment is acquired.

The Replacement Equipment will meet all three of tests set out in Subsection (d). The Replacement Equipment satisfies the technology and functionality tests in Subsection (1) and (2) as discussed above and identified in the Comparison Chart (Attachment G). Moreover, CHS University represents the use of the Replacement Equipment will not result in the types of expense or charge increases described in Subsection (d)(3).

Documentation provided in Attachment H indicates that 5,569 procedures were performed from February 2017 to January 2018 on the fixed existing equipment.

#### **E. Disposition of Equipment**

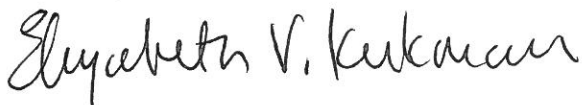
Please see Attachment I for a letter documenting the Existing Equipment will be taken out of service and will not be re-sold or re-installed in North Carolina without appropriate certificate of need approval.

#### **CONCLUSION:**

Based on the foregoing information, CHS University hereby requests that the Agency provide a written response confirming that the acquisition of the Replacement Equipment described herein is exempt from CON review. If the Agency needs additional information to assist in its consideration of this request, please let us know.

Thank you for your consideration of this notice.

Sincerely,



Elizabeth V. Kirkman  
Assistant Vice President  
CHS Strategic Services Group

Attachments

cc: William H. Leonard, President, Carolinas HealthCare System University

# Attachment A

# State of North Carolina

Department of Health and Human Services  
Division of Health Service Regulation

*Effective January 01, 2018, this license is issued to  
The Charlotte-Mecklenburg Hospital Authority*

*to operate a hospital known as  
Carolinas HealthCare System University  
located in Charlotte, North Carolina, Mecklenburg County.*

*This license is issued subject to the statutes of the  
State of North Carolina, is not transferable and shall remain  
in effect until amended by the issuing agency.*

*Facility ID: 923516*

*License Number: H0255*

***Bed Capacity: 100***

*General Acute 100*

**Dedicated Inpatient Surgical Operating Rooms: 1**

**Dedicated Ambulatory Surgical Operating Rooms: 2**

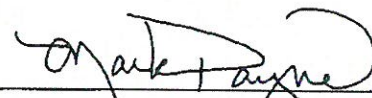
**Shared Surgical Operating Rooms: 9**

**Dedicated Endoscopy Rooms: 1**

Authorized by:



Secretary, N.C. Department of Health and  
Human Services



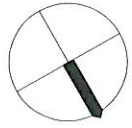
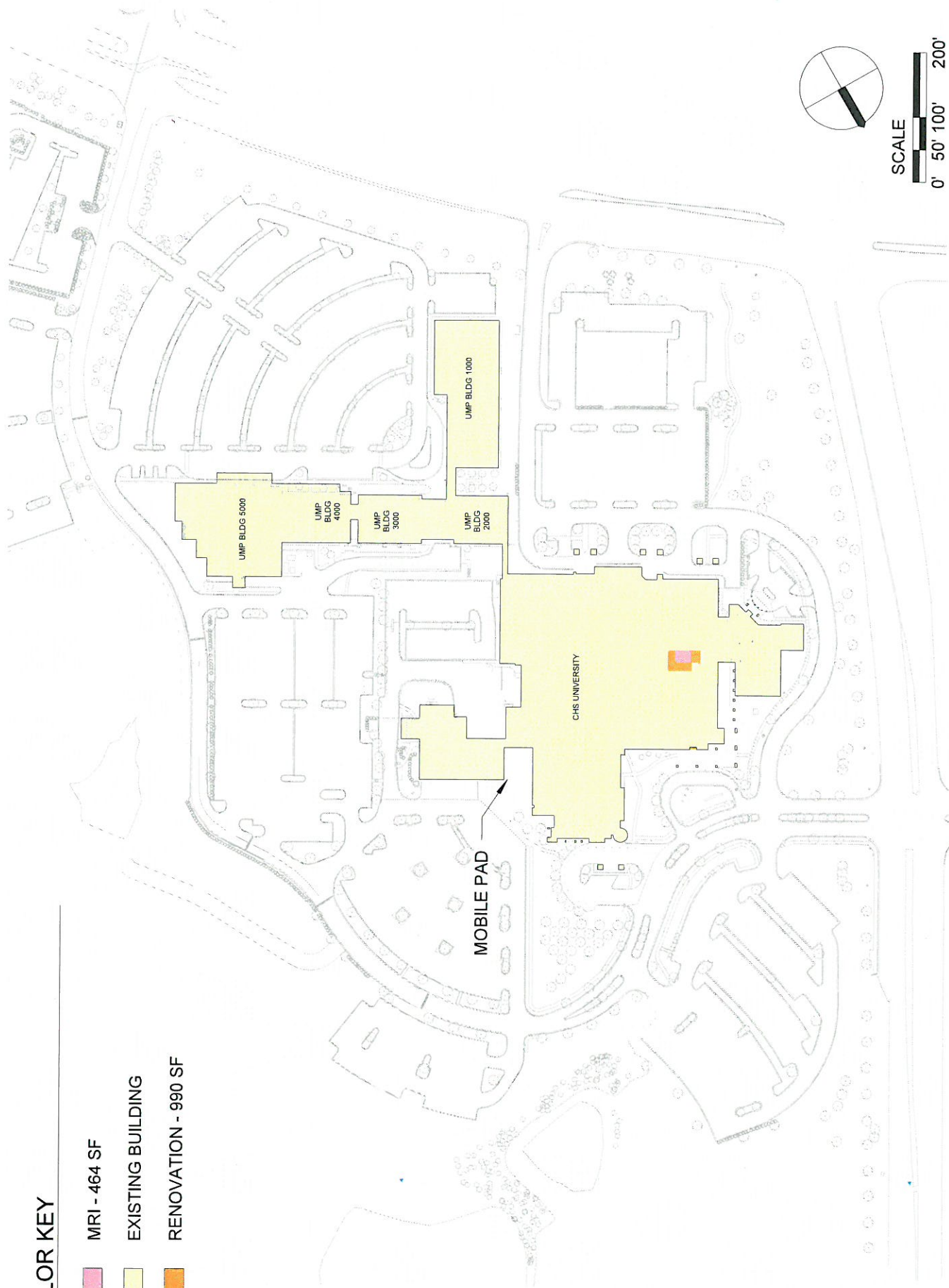
Director, Division of Health Service Regulation



# Attachment B

**COLOR KEY**

-  MRI - 464 SF
-  EXISTING BUILDING
-  RENOVATION - 990 SF



SCALE  
0' 50' 100' 200'

**SITE PLAN**

**CHS University MRI Replacement**

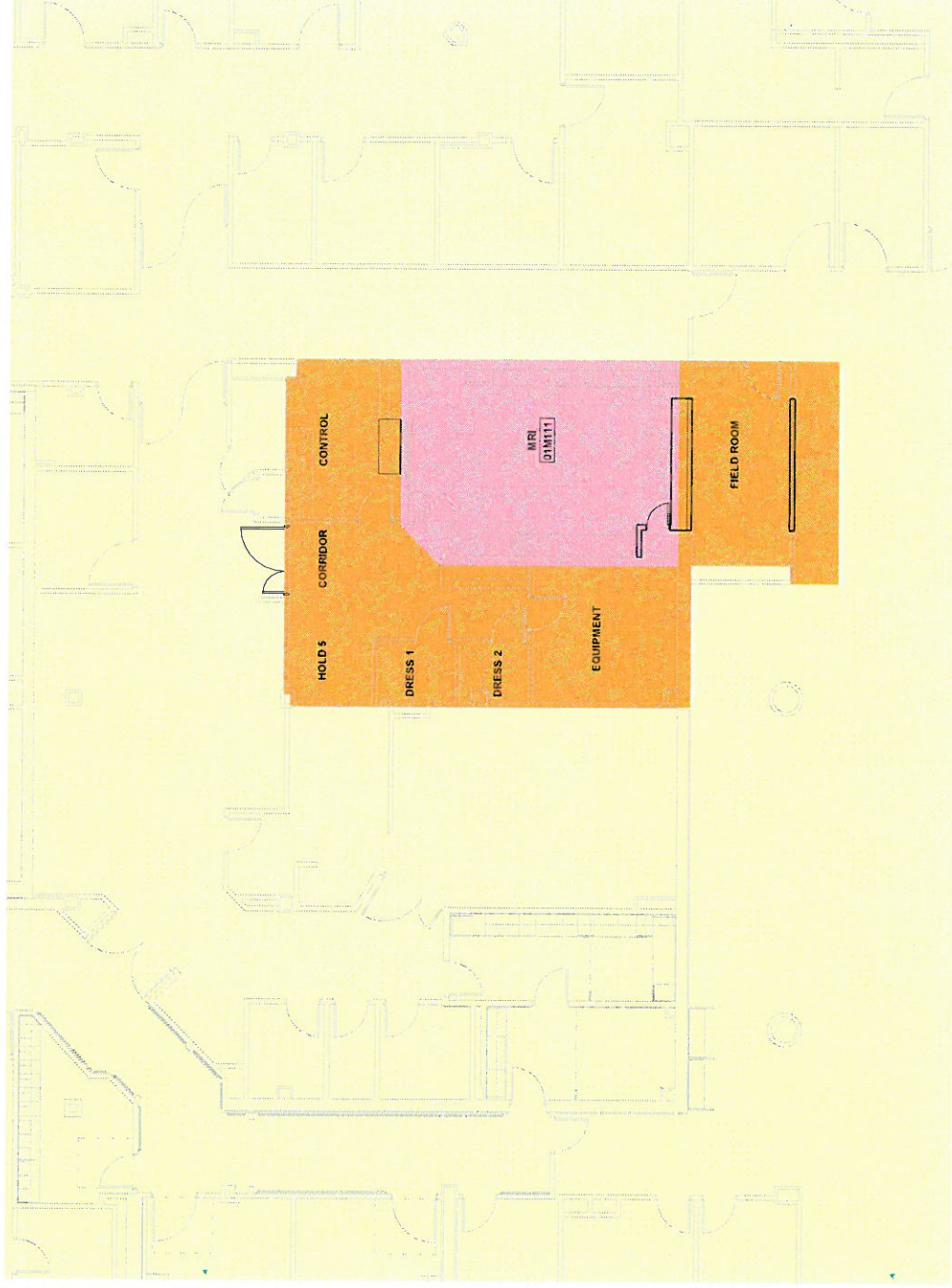
Carolinas HealthCare System 2/27/2018

CHS University



**COLOR KEY**

-  MRI - 464 SF
-  EXISTING BUILDING
-  RENOVATION - 990 SF



**PROPOSED PLAN**

**CHS University MRI Replacement**

Carolinas HealthCare System 2/27/2018

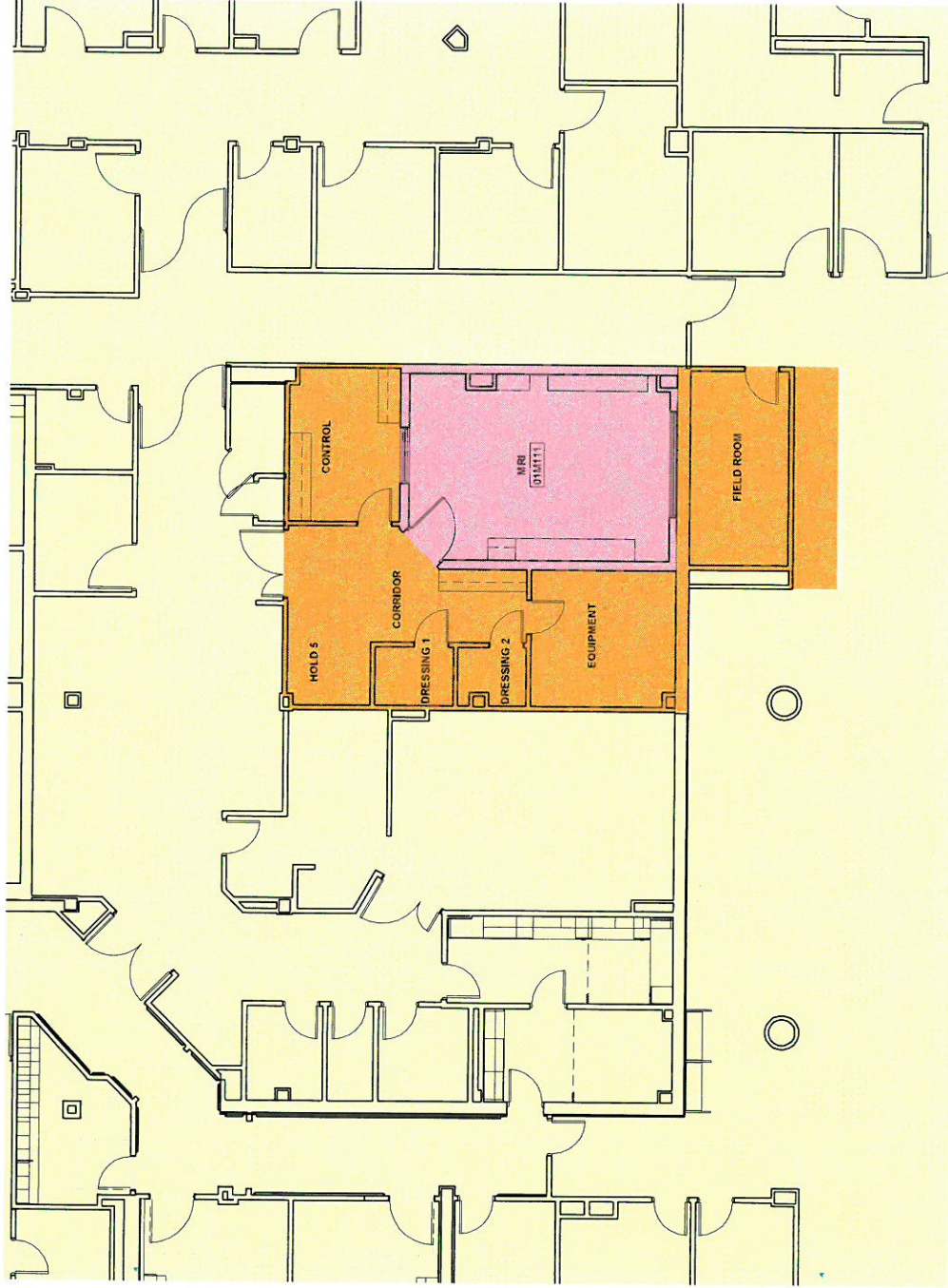
CHS University





**COLOR KEY**

-  MRI - 464 SF
-  EXISTING BUILDING
-  RENOVATION - 990 SF



**EXISTING PLAN**

**CHS University MRI Replacement**



# Attachment C



GE Healthcare

Date: 03-07-2018  
Quote #: PR14-C28808  
Version #: 35  
Q-Exp-Date: 06-04-2018

**Issued By:**  
GE Healthcare  
FEIN: 14-0689340

**Customer Address:**  
Carolinas Medical Center University  
8800 N Tryon St  
Charlotte NC 28262-3300

**Attention:**  
John Kreps Shaw

This Agreement (as defined below) is by and between the Customer and the GE Healthcare business ("GE Healthcare"), each as identified herein. "Agreement" is defined as this Quotation and the terms and conditions set forth in either (i) the Governing Agreement identified below or (ii) if no Governing Agreement is identified, the following documents:

- 1) This Quotation that identifies the Product offerings purchased or licensed by Customer;
- 2) The following documents, as applicable, if attached to this Quotation: (i) GE Healthcare Warranty(ies); (ii) GE Healthcare Additional Terms and Conditions; (iii) GE Healthcare Product Terms and Conditions; and (iv) GE Healthcare General Terms and Conditions. In the event of conflict among the foregoing items, the order of precedence is as listed above.

This Quotation is subject to withdrawal by GE Healthcare at any time before acceptance. Customer accepts by signing and returning this Quotation or by otherwise providing evidence of acceptance satisfactory to GE Healthcare. Upon acceptance, this Quotation and the related terms and conditions listed above (or the Governing Agreement, if any) shall constitute the complete and final agreement of the parties relating to the Products identified in this Quotation.

No agreement or understanding, oral or written, in any way purporting to modify this Agreement, whether contained in Customer's purchase order or shipping release forms, or elsewhere, shall be binding unless hereafter agreed to in writing by authorized representatives of both parties.

<b>Governing Agreement:</b>	CSS-GEHC MVA July 15 2011
<b>Customer Number:</b>	1-2314US
<b>Terms of Delivery:</b>	FOB Destination
<b>Billing Terms:</b>	100% billing at Ship Completion (Fulfillment) / Delivery
<b>Payment Terms:</b>	60 DAYS NET
<b>Total Quote Net Selling Price:</b>	\$1,296,397.65
<b>Sales And Use Tax Status:</b>	No Exemption Certificate on File

INDICATE FORM OF PAYMENT:

If "GE HEF Loan" or "GE HEF Lease" is NOT selected at the time of signature, then you may NOT elect to seek financing with GE Healthcare Equipment Finance (GE HEF) to fund this arrangement after shipment.

Cash/Third Party Loan/Check       GE HEF Loan

GE HEF Lease       Third Party Lease(please identify financing company) \_\_\_\_\_

By signing below, each party certifies that it (i) has received a complete copy of this Quotation, including the GE Healthcare terms, conditions and warranties, and (ii) has not made any handwritten or electronic modifications. Manual changes or mark-ups on this Agreement (except signatures in the signature blocks and an indication in the form of payment section below) will be void.

Each party has caused this agreement to be executed by its duly authorized representative as of the date set forth below.

CUSTOMER

\_\_\_\_\_  
Authorized Customer Signature      Date

\_\_\_\_\_  
Print Name      Print Title

\_\_\_\_\_  
Purchase Order Number (if applicable)

GE HEALTHCARE

Herbert Klann      03-15-2018

\_\_\_\_\_  
Signature      Date

Imaging Account Manager

Email: Herb.Klann@ge.com  
Office: +1 724 504 8778  
Mobile: 724-504-8778





GE Healthcare

Date: 03-07-2018  
Quote #: PR14-C28808  
Version #: 35  
Q-Exp-Date: 06-04-2018

<b>Total Quote Selling Price</b>	<b>\$1,346,397.65</b>
Trade-In and Other Credits	\$50,000.00
<b>Total Quote Net Selling Price</b>	<b>\$1,296,397.65</b>

**To Accept this Quotation**

Please sign and return this Quotation together with your Purchase Order To:

**Herbert Klann**  
Office: +1 724 504 8778  
Mobile: 724-504-8778  
Email: Herb.Klann@ge.com

**Payment Instructions**

Please **Remit** Payment for invoices associated with this quotation to:

**GE Healthcare**  
**P.O. Box 96483**  
**Chicago, IL 60693**

**To Accept This Quotation**

- Please sign the quote and any included attachments (where requested).
- If requested, please indicate, your form of payment.
- If you include the purchase order, please make sure it references the following information
  - The correct Quote number and version number above
  - The correct Remit To information as indicated in "**Payment Instructions**" above
  - The correct SHIP TO site name and address
  - The correct BILL TO site name and address
  - The correct Total Quote Net Selling Price as indicated above

"Upon submission of a purchase order in response to this quotation, GE Healthcare requests the following to evidence agreement to contract terms. Signature page on quote filled out with signature and P.O. number.

\*\*\*\*\*OR\*\*\*\*\*

Verbiage on the purchase order must state one of the following: (i) Per the terms of Quotation #\_\_\_\_\_; (ii) Per the terms of GPO#\_\_\_\_\_; (iii) Per the terms of MPA #\_\_\_\_\_; or (iv) Per the terms of SAA #\_\_\_\_\_. Include the applicable quote/agreement number with the reference on the purchase order.

In addition, source of funds (choice of: Cash/Third Party Loan or GE HEF Lease or GE HEF Loan or Third Party Lease through \_\_\_\_\_), must be indicated, which may be done on the quote signature page (for signed quotes), on the purchase order (where quotes are not signed) or via a separate written source of funds statement (if provided by GE Healthcare)."



Item No.	Qty	Catalog No.	Description
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	<b>1</b>		<b>SIGNA Artist 1.5T</b>
1	1	S7526ZS	SIGNA™ Artist 1.5T 96-Channel MR System for Orthopedic Imaging

SIGNA™ Artist 1.5T from GE Healthcare, fueled by our new SIGNA™Works productivity platform, is a harmonious design of form and function, crafted to energize your productivity, enhance security, improve diagnostics and boost your bottom line.

The Artist configuration for Orthopedic imaging includes the system electronics, operating software, imaging software, post-processing software and RF coil suite:

- RF-Receive Technology
- RF Coil Suite
- eXtreme Gradient Technology
- ART Quiet Technology
- Computing Platform and DICOM
- eXpress Detachable Table
- SIGNA™Flow and READYView Workflow
- SIGNA™Works Applications Toolkit for Orthopedic imaging

Total Digital Imaging: SIGNA™ Artist features the 96-channel Total Digital Imaging RF architecture. This technology delivers images with enhanced clarity and high SNR performance. The TDI RF architecture includes:

- Direct Digital Interface (DDI) employs an independent analog-to-digital converter to digitize inputs from each of the 96 RF channels. Thus, very element translates to a digitized signal to deliver high quality images.
- SIGNA™ Artist is prepared for Digital Surround Technology (DST). DST delivers the ability to simultaneously acquire signal from the integrated body coil and the surface coil by combining the independently digitized signal from each. The superior SNR and sensitivity of the high-density surface coils are combined with the superior homogeneity and deeper signal penetration of the integrated RF Body Coil to deliver enhance image quality.

RF Coil Suite: The Artist coil suite is designed to enhance patient comfort and image quality while simplifying workflow by ensuring that the geometry of the surface coil matches the geometry of the patient. The suite includes:

- (1) Integrated T/R Body Coil
- (1) T/R Head Coil
- (1) Posterior Array



Item No.	Qty	Catalog No.	Description
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- (1) Head-Neck Unit
- (1) Anterior Array

The Posterior Array is designed to provide optimal element geometry for each targeted anatomy by using different element geometries for the cervical-to-thoracic spine transition, thoracic and lumbar spine, and the body. The PA coil is designed to be used in conjunction with the HNU, 1 or 2 AA coils combined (2nd is sold separately), Small AA (sold separately), and the PV Array (sold separately). The PA coil is embedded in the Express detachable table and is invisible to additional surface coils when they are placed directly on top of the surface.

- Elements: 40
- Length: 100 cm; Width: 40cm
- S/I coverage: 100cm head-first or feet-first
- Parallel imaging in all three scan planes
- Head-first or feet-first positioning

The Head and Neck Unit comprises the head base-plate and three anatomically optimized anterior arrays: the anterior Neuro-vascular array, the anterior cervical spine array, the anterior open-face array. The HNU may be positioned at either end of the Express table to support head-first or feet-first imaging and may remain in place for all body, vascular, spine, and most MSK exams. The HNU base plate supports the patient's head, and the Comfort Tilt variable-degree ramp can be positioned under the HNU base plate to elevate the coil to match the patient's head and neck position.

- Elements: up to 28 combined with PA and AA
- Length: 49.5 cm; Width: 38.8 cm
- Height with NV Array: 35.4 cm
- Height with Cervical Array: 32.6 cm
- Height with Open Array: 25.9 cm
- S/I coverage: up to 50 cm with PA and AA
- Parallel imaging in all three scan planes
- Head-first or feet-first positioning

The Anterior Array is designed for large field of view imaging for chest, abdomen, pelvis, and cardiac imaging. The AA coil is lightweight, thin and flexible, and pre-formed to conform to the patient's size and shape. With 54 cm of S/I coverage, the AA permits upper abdomen and pelvis imaging without repositioning the coil. In addition, two of AA's can be combined to perform extended coverage for Oncologic





Item No.	Qty	Catalog No.	Description
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imaging.

- Elements: up to 36 combined with PA
- Length: 55.6 cm; Width: 67.4 cm
- S/I coverage: 54 cm
- R/L coverage: up to the full 50 cm FOV
- Parallel imaging in all three scan planes
- Head-first or feet-first positioning

eXtreme Gradient Technology (XRM): SIGNA™ Artist delivers high temporal resolution through 3-axis gradient amplifier power supply and efficient gradient coil design as well as high spatial integrity through excellent magnet homogeneity and gradient linearity over a large FOV. The XRM gradients are non-resonant and actively shielded to minimize eddy currents, and use an innovative digital control architecture design to deliver high fidelity, accuracy and reproducibility.

- Peak amplitude per axis: 44 mT/m
- Up to 200 T/m/s instantaneous peak slew rate per axis
- Peak current & voltage: 830 Amps, 1650 Volts
- Digital PI feedback loop control
- Maximum FOV: 50cm
- Duty Cycle: 100%

Quiet Technology (ART): SIGNA™ Artist features Acoustic Reduction Technology (ART) designed to deliver an enhanced patient experience by significantly addressing both vibrational noise and airborne sound through 5 levels of technology.

- Gradient & RF coil isolation – isolates the resonance module from the magnet
- Vibro-acoustic isolation – isolated the magnet from the building
- Mass-damped acoustic barriers – further mute sound
- Gradient waveform optimization – user selectable

Computing Platform: SIGNA™ Artist utilizes a parallel, multi-processor design to enable simultaneous scanning, reconstruction, filming, post-processing, archiving, and networking.

Host PC Platform – Intel Xeon E501620 3.5Ghz (4 core)

- Memory: 32 GB
- Hard Disk Storage: 2 x 512 GB SSD
- Media Drives: CD/DVD



Item No.	Qty	Catalog No.	Description
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- Operating System: Scientific Linux

Reconstruction Engine – Intel Xeon E5-2680 (2 x12 core)

- Memory: 96 GB
- Hard Disk Storage: 2 x 400 GB SSD
- 2D FFT/second (256 x 256 Full FOV): 62,000 2DFFT/second
- Operating System: Scientific Linux

The Host PC includes a keyboard assembly with an integrated intercom speaker, microphone, volume controls, and emergency stop switch. Start scan, pause scan, stop scan and table advanced to center hot keys are also included.

DICOM: The SIGNA™ Artist generates MR Image, Secondary Capture, Structured Report, and Gray Scale Softcopy Presentation State DICOM objects. The DICOM networking supports both send and query retrieve as well as send with storage commit to integrate with PACS archive. Please refer to the DICOM Compliance Statement for SIGNA™ Artist for further details.

SIGNA™Works clinical applications and SIGNA™Flow are the latest software platform from GE with core pulse sequences, specialized clinical applications, workflow enhancements and visualization tools designed to enable high productivity with exceptional quality and outcomes with SIGNA™ Artist.

SIGNA™Flow is designed to standardize and accelerate workflow from patient set-up to scanning to review. Workflow can begin before the patient enters the magnet room and exams can be completed within a few mouse clicks – delivering quality and consistency for all patients and from all technologists. At the same time, SIGNA™Flow maintains the flexibility needed to rapidly adapt and optimize exams for patient specific situations.

- Express Detachable Table
- IntelliTouch Land-marking
- In-Room Operator Console
- Protocol Libraries & Management Tools
- Workflow Manager & Auto Functions
- Inline Processing, Networking & Viewing
- ReadyView post processing (on console)

Express Docking Table: The Express table is a mobile patient transport device that



Item No.	Qty	Catalog No.	Description
			<p>includes the Posterior RF Array and touch sensitive IntelliTouch land-marking. The fully detachable table is easily docked and undocked by a single operator and simple to move in and out of the exam room for patient transport and preparation. The Express table and embedded PA coil are designed to accommodate head-first or feet-first imaging for all supported exams.</p> <ul style="list-style-type: none"> <li>• Coil Connection Ports: 3; one at each end; one for embedded PA</li> <li>• Maximum patient weight for scanning: 500 lbs</li> <li>• Maximum patient weight mobile: 500 lbs</li> <li>• Maximum patient weight for lift: 500 lbs</li> <li>• 205 cm symmetrical scan range</li> <li>• Automated vertical and longitudinal power drive</li> <li>• Fast longitudinal speed: 30 cm/second</li> <li>• Slow longitudinal speed: 0.5 cm/second</li> <li>• Integrated arm boards &amp; non-ferrous IV pole</li> <li>• IntelliTouch &amp; laser land-marking</li> <li>• Laser alignment land-marking</li> </ul> <p>SIGNA™Flow Modality Worklist delivers an automated method to obtain patient, exam and protocol information from a DICOM work-list server. For sites with full DICOM connectivity, once a patient has been selected from the Modality Worklist, a new session can be started and the In-Room Operator Console will automatically highlight the relevant exam details. The Modality Worklist enables complete control of the MR protocol prescription, but also reduces work by allowing the MR protocol to be selected and linked to the patient record in advance of the patient's arrival.</p> <p>SIGNA™Flow Protocol Tools enable exam automation while also giving the user complete control of protocols for prescription, saving, searching, and sharing. Protocols are organized into two libraries: GE Optimized (preloaded protocols) and Site Authored (customized and saved). Protocols can be saved based on patient demographics, anatomy, scan type, or identification number for rapid search and selection, and commonly used protocols can be flagged as favorites for quick selection from the Modality Work-list. ProtoCopy enables a complete exam protocol to be shared with the click of a mouse and provides a process for managing protocols across multiple systems as well as saving protocols for back-up.</p> <p>GE protocols provided with the system include Protocol Notes designed to guide the user through the procedure. For special applications, Protocol Notes also include video guides with step-by-step video-based demonstration and instruction. Protocol</p>



Item No.	Qty	Catalog No.	Description
			<p>Notes can be edited by the user to reflect protocol modifications to aid communication among users.</p> <p>SIGNA™Flow Workflow Manager and Linking: Upon selection a protocol automatically loads into the Workflow Manager for implementation. The Workflow Manager controls location prescription, acquisition, processing, visualization and networking, and can fully automate these steps, if requested by the user. Once the target anatomy has been prescribed, the Linking feature can be used to translate appropriate parameters to all subsequent series that have been linked, eliminating the need for further action by the user.</p> <p>Auto Functions when selected can automatically initiate the localizer, coil selection, series-to-series scanning, multi-station scanning, prescription of scan plans for brain exams, as well as delivered instructions to the patient. Pause and Resume allows the user to pause a scan in progress (even in automated mode), to respond to a patient need, and then resume mid-scan (without starting the scan over) helping to address rescans.</p> <p>Auto Protocol Optimization (APx) is designed to optimize breath-hold exams by enabling rapid adjustment of imaging parameters for patient circumstances. APx automatically calculates alternative protocol parameters, to either optimize scan time or resolution, for one click selection.</p> <p>Auto Navigators enable free-breathing (respiratory compensated) body imaging for patients unable to breath-hold. The diaphragm tracker pulse automatically places and updates to streamline workflow and eliminate the set-up time associated with respiratory bellows. Auto Navigators can be use with a broad range of imaging techniques including dynamic contrast enhanced T1-weighted imaging.</p> <p>SIGNA™Flow Inline Processing automatically completes post-processing steps for the user after the images have been reconstructed and saved into the database. For certain tasks, such as vascular segmentation, the user must accept the results, or complete additional steps prior to saving the images to the database. These automated processing steps can be saved to the (scan) protocol to ensure consistent output and workflow:</p> <ul style="list-style-type: none"><li>• Diffusion weighted series: automatic compute and save</li><li>• Diffusion tensor series: automatic compute and save</li><li>• eDWI: automatic compute and save</li><li>• Image filtering: automatic compute and save</li></ul>





Item No.	Qty	Catalog No.	Description
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- Maximum/Minimum Intensity Projection: automatic compute and save
- Pasting: automatic compute and save
- Reformat to orthogonal plane: automatic compute and save
- T2 map for cartilage: automatic compute and save
- 3D Volume Viewer: automatic load
- Image Fusion: automatic load
- Interactive Vascular Imaging: automatic load
- FiberTrak: automatic load
- Spectroscopy: automatic load

SIGNA™Flow Advanced Visualization: READYView is an advanced visualization tool designed to simplify the quantitative analyses of multiple data sets. READYView automatically selects the most relevant post-processing protocol for the user and provides guided workflow and general assistance for the processing algorithms. In addition, the user can customize workflows with adjustable layouts, personalized parameter settings, and custom review steps. Key capabilities of READYView include the ability to analyze, export and save:

- Time series
- Diffusion weighted series
- Diffusion tensor series
- Variable echo series
- Blood oxygen level dependent series (functional data)
- Spectroscopy data (single voxel and 2D or 3D CSI)
- Elastography series

SIGNA™Works applications tools are designed to complement SIGNA™Flow to standardize and accelerate workflow from patient set-up to scanning to review. The clinical imaging tools are organized to address six clinical areas: NeuroWorks, OrthoWorks, BodyWorks, OncoWorks, CVWorks and PaedWorks. The SIGNA™ Artist configuration for Orthopedic imaging provides the enhanced OrthoWorks XT toolkit and MAVRIC SL.

OrthoWorks, OrthoWorks XT and MAVRIC SL together delivers applications and imaging options optimized for the challenges of MSK and Spine imaging. Please refer to the product data sheet for SIGNA™ Artist for complete details.

- MARS High Bandwidth distortion reduction for FSE
- PROPELLER MB motion robust radial FSE now with T1 and Fat Suppression (STIR and



Item No.	Qty	Catalog No.	Description
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ASPIR)

- 3D Cube FSE-based imaging
- 3D COSMIC modified steady state imaging
- 2D/3D MERGE T2\* multi-echo fast gradient echo imaging
- FLEX fat-water separation imaging for FSE and Cube
- IDEAL fat-water separation imaging for FSE and GRE
- DTI diffusion tensor imaging
- FiberTrak processing for diffusion tensor imaging
- CartiGram T2 cartilage assessment
- MAVRIC SL MR-Conditional implant imaging
- READYView post-processing

While optimized for Orthopedic imaging the SIGNA™ Artist system is also fully configured for whole body MR imaging:

- NeuroWorks delivers applications and imaging options optimized for the challenges of Neuro imaging. Please refer to the product data sheet for SIGNA™ Artist for complete details.
- BodyWorks delivers applications and imaging options optimized for the challenges of Body imaging. Please refer to the product data sheet for SIGNA™ Artist for complete details.
- OncoWorks delivers applications and imaging options optimized for the challenges of Oncology imaging. Please refer to the product data sheet for SIGNA™ Artist for complete details.
- CVWorks delivers applications and imaging options optimized for the challenges of Vascular and Cardiac imaging. Please refer to the product data sheet for SIGNA™ Artist for complete details.
- PaedWorks delivers applications and imaging options optimized for the challenges of Vascular and Cardiac imaging. Please refer to the product data sheet for SIGNA™ Artist for complete details.

2      1      M7006HD

SIGNA Artist 1.5T Magnet Design

To improve the patient experience and provide high image quality, no other component of an MRI system has greater impact than the magnet. The Artist system features a short, wide bore magnet that delivers a large field of view. The magnet geometry has been optimized to reduce patient anxiety by providing more space in the bore and more exams with the patient's head outside of the magnet. The 50cm



Item No.	Qty	Catalog No.	Description
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field of view provides uniform image quality and can reduce exam times since fewer acquisitions may be necessary to cover large areas of anatomy. Complemented by GE's active shielding technology, the Artist has very flexible installation specifications to provide easy siting. And with zero-boil-off magnet technology, helium refills are effectively eliminated, thus reducing operating costs and maximizing uptime.

Magnet:

- Manufactured by GE Healthcare.
- Operating field strength 1.5T (63.86 MHz).
- Active magnet shielding.
- Zero boil-off Cryogen.
- Magnet length 145cm.
- Patient Aperture 76 cm.
- Patient Bore Diameter 70cm.
- Patient Bore Length 105cm.
- Maximum Field of View 50 cm x 50 cm x 50 cm.

Magnet Homogeneity: Typical ppm and Guaranteed ppm shown.

- 10cm DSV 0.007 and 0.02.
- 20cm DSV 0.035 and 0.06.
- 30cm DSV 0.11 and 0.18.
- 40cm DSV 0.5 and 0.7.
- 45cm DSV 1.2 and 1.6.
- 50x50x45cm 2.3 and 3.6.
- 50cm DSV 3.3.

DSV = Diameter Spherical Volume. Homogeneity for an elliptical volume of 50cm (x,y) by 45cm (z) dimension volume is shown for reference. Fringe field (axial x radial):

- 5 Gauss = 4.0 m x 2.5 m.
- 1 Gauss = 6.2 m x 3.7 m.

Quiet Technology:

GE has implemented Quiet Technology on critical components of the Optima MR system to reduce

acoustic noise and improve the patient environment. This technology enables full use of the eXtreme Gradient Platform for excellent image quality, while maintaining a safe environment for the patient. The technology

encompasses the gradient coil, RF body coil, and magnet mounting.



GE Healthcare

Date: 03-07-2018  
Quote #: PR14-C28808  
Version #: 35  
Q-Exp-Date: 06-04-2018

Item No.	Qty	Catalog No.	Description
3	1	S7505EK	<p>Preinstallation Collector and Cable Concealment Kit</p> <p>The Preinstallation Collector delivers to the site in advance of the magnet and main electronic components. This facilitates the later delivery and installation of supporting electronics. The following are the main components in the Preinstallation collector:</p> <ul style="list-style-type: none"><li>• Heat exchange cabinet for distribution of chilled water.</li><li>• Primary Penetration wall panel for support of the penetration cabinet.</li><li>• Secondary Penetration wall panel for support of gradient filters, helium cables, and chilled air and water.</li><li>• Helium cryocooler hose kit.</li></ul> <p>The Cable Concealment Kit accommodates a wide-range of scan room ceiling heights and is designed to provide a clean-look installation by concealing the overhead cabling from view.</p>
4	1	M3335CB	<p>1.5T Calibration Phantom Kit</p> <p>This 1.5T calibration kit contains a large volume shim phantom, a daily quality assurance phantom, an echo-planar calibration phantom, and the associated loader shells.</p>
5	1	M7000VA	<p>Vibroacoustic Dampening Kit</p> <p>Material in the Vibroacoustic Dampening Kit can significantly attenuate the transmission of gradient-generated acoustic noise through the building structure to nearby areas, including adjacent rooms and floors above or below the MR suite. If this kit is applied during the installation of a new magnet, no additional service charges are necessary. However, installation of the Vibroacoustic Dampening kit under an existing magnet requires special steps. The steps to prepare the site and steps to install, such as modifications to the RF screen room, and other magnet rigging, modifications to the RF screen room, and other finishing work, are not covered in the pricing.</p>
6	1	M7006CF	Artist 1.5T Cable Collector - A
7	1	M7000YS	Gradient Cable Collector - A
8	1	M7000WL	<p>Main Disconnect Panel</p> <p>The Main Disconnect Panel safeguards the MR system's critical electrical components, by providing complete power distribution and emergency-off control.</p>
9	1	M3335CA	Calibration Kit Phantom Holder Cart





Item No.	Qty	Catalog No.	Description
10	1	M1000MW	<p>Operator's Console Table</p> <p>Wide table designed specifically for the color LCD monitor and keyboard.</p>
11	1	M3335JZ	<p>English Keyboard</p> <p>Required for our operator console. This keyboard is ergonomically designed to keep your staff comfortable even through the longest shifts. The scan control keyboard assembly has an intercom speaker, microphone, volume controls and emergency stop switch.</p>
12	1	R32052AC	<p>Standard Service License</p> <p>GE Healthcare has reclassified its service tools, diagnostics and documentation into various classes (please refer to the Service Licensing Notification statement at the beginning of this Quotation). The Standard License provides access to service tools used to perform basic level service on the Equipment and is included at no charge for the warranty period.</p>
13	1	S7526ZP	<p>SIGNA Artist MSK Package</p> <ul style="list-style-type: none"> <li>• 1.5T 16 Channel Shoulder Array</li> <li>• 1.5T 16 Channel T/R Knee Array</li> <li>• 1.5T 8 Channel Foot/Ankle Array</li> <li>• 1.5T 16 Channel Flex Array</li> </ul> <p>The Shoulder Array is a rigid shell with anterior adaptable paddle which delivers 16 channel performance optimized for high resolution shoulder imaging with lateral coverage to ensure large field of view imaging.</p> <p>The 16-channel Knee Array is a transmit/receive coil that produces high resolution images of the knee and is optimized for parallel imaging in all three directions to reduce acquisition times.</p> <p>The Foot/Ankle Array produces high-resolution images of the foot and ankle by incorporating an 8-channel phased array design in a unique "ski" boot design. The unique coil design has excellent distal coverage and supports multiple foot positions for optimizing studies. Parallel imaging is supported to reduce acquisition times.</p> <p>The Small Flex Coil is a versatile high density 16-channel receive coil designed to give high quality images in a wide range of applications. It is optimized for the reduced field of view and improved image quality needed in hand, wrist, and elbow imaging</p>



Item No.	Qty	Catalog No.	Description
			applications. Together with an extra interface assembly, this coil is ideal for MR sites doing a higher volume of musculoskeletal scans.
14	1	E8911CG	<p>GE MR Heat Exchanger Manual Cryogen Compressor Water Bypass Option</p> <p>Add a level of magnet protection with a Manual Cryogen Compressor Bypass. In case of a power failure, you can cycle municipal or facility water through the cryogen compressor and reduce cryogen loss and reduce the likelihood of quenching.</p> <p>FEATURES AND BENEFITS</p> <ul style="list-style-type: none"> <li>• Easy to install and simple to use</li> <li>• Helps switch over water supply to your cryogen compressor in the event of loss of power to reduce cryogen loss</li> <li>• Includes fluid supply pressure gauge, temperature gauge and flow rate meter for easy verification of operation</li> <li>• Manual operation reduces unintentional switch-overs and coolant dumping during brown-outs and supply power glitches</li> </ul> <p>COMPATIBILITY</p> <p>Must be used with a GE MR Heat Exchanger:</p> <ul style="list-style-type: none"> <li>• E8911CA</li> <li>• E8911CB</li> <li>• E8911CC</li> <li>• E8911CD</li> <li>• E8912CA</li> <li>• E8912CB</li> <li>• E8912CC</li> <li>• E8912CD</li> </ul> <p>NOTES:</p> <ul style="list-style-type: none"> <li>• Item is NON-RETURNABLE and NON-REFUNDABLE</li> </ul>
15	1	E8912CA	<p>GE Heat Exchangers</p> <p>- 49kW (20Tons)</p> <p>Cooling for your GE Healthcare MR system has never been so easy. GE Healthcare has partnered with the Glen Dimplex Group, a world leader in cooling systems, to offer heat exchangers designed to meet the needs of your MR System. Now you can look to GE Healthcare for your entire MR purchase and support.</p> <p>This heat exchanger is highly reliable and the only unit verified to perform with the</p>



Item No.	Qty	Catalog No.	Description
			<p>new platform of GE Healthcare MR systems. As part of your integrated GE Healthcare solution, you'll work with a single contact throughout the whole installation. A Project Manager of Installation will help with building layout, room designs, delivery and installation - every step until your system is ready to scan. Our team will work seamlessly with architects, contractors and your internal team to help ensure timely, cost-effective completion.</p> <p>Once your cooling system is running, you'll get fast, highly-skilled service support managed through GE Healthcare - with the same quality and response time you expect from your MR system.</p> <p><b>FEATURES AND BENEFITS</b></p> <ul style="list-style-type: none"> <li>o Designed to provide stable fully dedicated cooling for your MR system's needs</li> <li>o Water/glycol outdoor-air-cooled heat exchangers to support your highest exam volumes and your full range of diagnostic procedures</li> <li>o Redundant fluid pumps with automatic switchover let you keep operating with no loss of cooling even if one pump goes down</li> <li>o Quad compressor, dual tandem refrigeration circuit design saves on energy while your system smoothly transitions through the 10% to 100% heat load capacity cycles of patient scanning and idling</li> <li>o Quiet operation between patient exams and overnight - ideal for facilities in residential areas</li> <li>o Comes with installation support, installation visits, preventative maintenance visit and 1 full year of parts and labor warranty</li> <li>o Installation support includes: support through GE's Project Manager of Install, GE's Design Center, technical support from the Glen Dimplex company, two (2) installation visits</li> <li>o Comprehensive and quality service rapidly delivered through our CARES service solution</li> <li>o 65 gallons of 100% glycol concentrate for complete system filling and diluting</li> <li>o Wall mounted remote display panel provides the ability to monitor the system's operation and indicates possible system errors</li> <li>o Filter kit with flow meter helps to ensure purity of water prior to entry to the MR system</li> <li>o Highly recommended that Vibration Isolation Spring Kit (E8911CJ) be added for systems that will be roof top mounted</li> </ul> <p><b>SPECIFICATIONS</b></p> <ul style="list-style-type: none"> <li>o Net Cooling Capacity: 49 kW / 20 Ton</li> </ul>



GE Healthcare

Date: 03-07-2018  
 Quote #: PR14-C28808  
 Version #: 35  
 Q-Exp-Date: 06-04-2018

Item No.	Qty	Catalog No.	Description
			<ul style="list-style-type: none"> <li>o Maximum Coolant Flow: 35 gpm (132 l/m)</li> <li>o Coolant Outlet Temperature: 48 F (8.9 C)</li> <li>o Coolant Temp Stability: E 1.8 F ( E1.0 C)</li> <li>o Max Coolant Pressure : 70 Psi (4.8 Bar)</li> <li>o Refrigerant: R407C</li> <li>o Ambient Temp Range: -20 to 120 F (-30 to 50 C)</li> <li>o Condenser Air Flow (Approx): 18,000 Cfm</li> <li>o Tank Capacity: 100 gal (378 l)</li> <li>o Flow Meter Range: 4-40 gpm</li> <li>o Filters: 50 micron cartridge filters</li> <li>o Supply Voltage: 460v / 3 phase / 60 Hz</li> <li>o Coolant Connections: 2" NPTF</li> <li>o Overall Size (L x W x H) 44" x 136" x 84.5"</li> </ul> <p>COMPATIBILITY:</p> <ul style="list-style-type: none"> <li>o GE MR450w or MR System</li> </ul> <p>NOTES:</p> <ul style="list-style-type: none"> <li>o Item is NON-RETURNABLE and NON-REFUNDABLE</li> </ul>
16	1	W0138MR	<p>MR DV25 to DV26 Base Upgrade Package</p> <p>Base upgrade training of DV25 to DV26 that includes onsite and online training options. Training package includes 3 days of onsite training and access to online training modules. Program concludes one year after the initial start date. Instruction is provided from 8 AM to 5 PM on three days from Monday to Friday and includes T&amp;L expenses.</p>
17	1	Y0000NC	<p>Renovate to SIGNA Artist 1.5T</p> <p><b>MR Accessories - SIGNA Artist 1.5T</b></p>
18	1	E8823NA	<p>MRI Audio 1505 Complete music system for Premium MRI systems.</p> <p>The MRI Audio premium sound system is designed for comfort and allows the patient to listen to music while being scanned in an MRI. The technologist is in full control of the system headphones, microphone, sound source and volume controls. Standard 3.5 mm plug for music source allows any compatible music player, tablet or phone. In-ear headphones work with any head coil.</p> <p>Package includes:</p> <ul style="list-style-type: none"> <li>• Digital amplifier</li> </ul>





Item No.	Qty	Catalog No.	Description
			<ul style="list-style-type: none"> <li>• iPad Mini</li> <li>• iPad Mini mount with lock</li> <li>• 3G transducer</li> <li>• In-ear headphones, 29dB noise reduction</li> <li>• Disposable ear tips (300 pairs)</li> <li>• Technologist's speakers</li> <li>• 6 ft RCA 3.5 mm cable</li> <li>• Auto-voice/MIC adapter</li> </ul>
19	1	E8823NB	<p>MRI Audio In-ear Headphone (29dB NRR)</p> <p>Headphones specifically designed to fit into head coils as well as any other MRI exam. Easy to use design with 29dB noise reduction rating (NRR) to provide clear, consistent sound quality when paired with the MRI Audio music system.</p>
20	1	E8823NC	<p>MRI Audio 29dB Ear plugs - 250 pairs per bag</p> <p>Replacement ear plugs compatible with MRI Audio in-ear headphone (E8823NB). Comprised of a flexible inner tube and surrounded by soft, comfortable foam. These ear plugs are rated at 29dB NRR when used in conjunction with in-ear headphone. 250 pairs per bag, 500 total pieces.</p>
21	1	E8823NE	<p>MRI Audio Over-ear headphone (29dB NRR)</p> <p>Premium over ear headphone with a one size fits all adjustable headband. Works for all MRI procedures except head coil exams. Rigorously tested to a 29dB noise reduction rating (NRR) and provides excellent sound quality when paired with the MRI Audio music system.</p>
22	1	E4504FM	<p>The Eaton single phase, 700 VA partial UPS is designed to support a variety of GE MR imaging systems.</p> <p>Maintain productivity, improve reliability</p> <ul style="list-style-type: none"> <li>• Maintains system's host computer and operators work station power for ~8 minutes after loss of power</li> <li>• Minimizes loss of data</li> <li>• Provides clean constant voltage power</li> <li>• Host computer and operators work station electronics unaffected by under voltage, brownouts, line sags, over voltage, transients, periodic emergency generator testing or automatic transfer switch operation.</li> <li>• Host computer and operators work station electronics protected from utility power factor capacitor switching spikes and ring waves</li> </ul>



Item No.	Qty	Catalog No.	Description
			<ul style="list-style-type: none"> <li>• Host computer and operators work station electronics protected from utility re-closer operations common during thunderstorms</li> <li>• Regulates output voltage to meet and exceed system electronics requirements</li> <li>• Allows time for an orderly system shutdown in the event of an extended power outage</li> <li>• Reduces maintenance costs</li> <li>• Helps increase system uptime</li> <li>• Suitable for engine generator applications</li> <li>• Suitable for mobile applications (other optional equipment may be needed)</li> </ul> <p>Built for investment protection</p> <ul style="list-style-type: none"> <li>• Sealed valve regulated lead acid batteries.</li> <li>• Advanced Battery Management (ABM) software monitors /indicates battery health and improves battery service life.</li> <li>• Hot-Swappable Batteries</li> <li>• Graphical Display &amp; Lighted Indicators for easy set up and configuration, and for quick access to history and alarm logs</li> <li>• Overload, over temperature, alarm and service conditions</li> <li>• Safety Standards: IEC 62040-1-1, UL1778, CUL, IEC 60950-1</li> <li>• EMC Compliance per IEC 62040-2.EMC Certifications: FCC Class B, VCCI Class B, EN 55022 Class B</li> <li>• 2-year parts &amp; labor limited warranty on UPS</li> </ul> <p>Specifications</p> <ul style="list-style-type: none"> <li>• Rating: 700 VA, 630 W</li> <li>• Input Voltage Range: Single Phase; 80-138V @ 100% Load</li> <li>• Input Frequency Range: 47-70 Hz</li> <li>• Input Power Factor: &gt;95% typ.</li> <li>• Output Frequency: 50 or 60 Hz, auto-sensing</li> <li>• Voltage Regulation: +/-3% steady state for all conditions of line and load</li> <li>• Voltage Distortion: &lt;5% THD</li> <li>• Load Crest Factor: 3 to 1</li> <li>• Overload Capacity: <ul style="list-style-type: none"> <li>o 102 - 129% for 12 seconds</li> <li>o 130 - 149% for 2 seconds</li> <li>o &gt;150% for 100 milliseconds</li> <li>o Normal Mode: Load transfers to Bypass Mode after times specified.</li> </ul> </li> </ul>



Item No.	Qty	Catalog No.	Description
			<ul style="list-style-type: none"> <li>o Battery Mode: UPS shuts down after times specified</li> <li>• Efficiency: &gt;88% typ.</li> <li>• Battery backup time: &gt;8 minutes typical</li> <li>• Recharge Time: &lt;3 hrs. to 90% capacity typical</li> <li>• Operating Temperature: 10-40°C typical</li> <li>• Humidity: 5-90% RH Non-Condensing</li> <li>• Storage Temperature: -20°C (-4°F) to +40°C (104°F) with batteries, -25°C (-13°F) to +55°C (131 °F) without batteries</li> <li>• Audible noise (Norm Mode): &lt;50 dBA @ 1 meter</li> <li>• UPS dimensions: Width 6.30 inches (160 mm), Depth 13.94 inches (354 mm), Height 9.09 inches (231 mm)</li> <li>• UPS Weight: 26 lbs (12 kg)</li> </ul> <p>NOTES</p> <p>This is a partial system UPS - it covers only the computer, not the entire MR imaging system. After a power event portions of the system will have to be reset before operation can resume.</p> <p>Customer is responsible for rigging and is to contact GEHC field engineer for installation and start-up of the UPS.</p> <p>ITEM IS NON-RETURNABLE AND NON-REFUNDABLE</p>
23	1	E88221XA	<p>The Medrad® MRXperion™ MR Injection System is a smart performer in the MR suite, delivering contrast fluid and data management.</p> <p>Streamlined Injection Workflow</p> <ul style="list-style-type: none"> <li>• Less time preparing for the injection and more</li> <li>• time to focus on the patient and optimize</li> <li>• procedure management.</li> </ul> <p>Convenience at Point of Care</p> <ul style="list-style-type: none"> <li>• On-board eGFR and Weight Based Dosing</li> <li>• Calculators, an Injection Pressure Graph,</li> <li>• Independent Test Inject and KVO functions.</li> </ul> <p>Real-time Support</p> <ul style="list-style-type: none"> <li>• Connect to VirtualCare® Remote Support* for</li> <li>• advanced injector system diagnostics, seamless</li> </ul> <p>Improved Efficiencies</p> <ul style="list-style-type: none"> <li>• Snap-on/Twist-off Syringe Design</li> <li>• Auto plunger advance and retract when attaching and detaching syringes</li> </ul>



Item No.	Qty	Catalog No.	Description
			<ul style="list-style-type: none"> <li>• Automatic filling and priming</li> <li>• Injection/post-injection reminders</li> <li>• Injection pressure graph</li> </ul> <p>Reproducible Quality</p> <ul style="list-style-type: none"> <li>• Proven track record of design and performance</li> <li>• On-site field service and VirtualCare® Remote Support* for advanced injection system diagnostics and real-time support</li> </ul> <p>Personalized Care</p> <ul style="list-style-type: none"> <li>• Patient-Centric workflow design</li> <li>• Protocol storage/retrieval</li> <li>• On-board eGFR and Weight Based Dosing Calculators</li> <li>• Injection enabled when head is tilted down</li> </ul> <p>The MRXperion™ Injector package includes:</p> <ul style="list-style-type: none"> <li>• Dual injector head on pedestal with integral double hook IV pole</li> <li>• Scan room unit power supply with 40 ft. (12 m) DC cable</li> <li>• Scan room fiber optic cable – 40 ft. (12 m)</li> <li>• Control room fiber optic cable - 150 ft. (45 m)</li> <li>• Fiber optic quick disconnect panel</li> <li>• Fiber optic penetration panel kit</li> <li>• Control room unit (display and pod) with hand-switch</li> <li>• Display and pod power supplies</li> <li>• CAT5 cable (display to pod) - 1 ft. (0.3m)</li> <li>• CAT5 cable (pod to hospital network) - 25 ft. (7.6m)</li> <li>• Power cords - North America and Japan (3 each), 10 ft. (3 m)</li> <li>• Power cords - International (3 each), 10 ft. (3 m)</li> <li>• Operators manual (English)</li> <li>• Multi-lingual Operators manual CD</li> <li>• Quick guides (English) for injector and hanger</li> <li>• Installation manual (English)</li> <li>• Service manual and schematics manual CDs (English)</li> <li>• Warranty packet</li> <li>• Installation, customer’s operational training at time of installation, and one year full on-site warranty in Bayer service countries</li> <li>• LAN port for VirtualCare Remote Service</li> </ul>





Item No.	Qty	Catalog No.	Description
			<p>An optional penetration panel filter kit E88221XC is intended to be used for an alternate installation of the power supply of the MEDRAD® MRXperion™ Injection System outside of a MR scan room.</p> <p>System Specifications</p> <p>System Capabilities</p> <ul style="list-style-type: none"> <li>o Syringe Capacities:           <ul style="list-style-type: none"> <li>• Syringe A: 65ml</li> <li>• Syringe B: 115ml</li> </ul> </li> <li>o Programmable volume range (ml):           <ul style="list-style-type: none"> <li>• Syringe A: 0.5 ml to max syringe volume in 0.1 ml increments from 0.5 ml to 31 ml, 1ml increments above 31 ml</li> <li>• Syringe B: 1 ml to max syringe volume in 1 ml increments</li> </ul> </li> <li>o Programmable flow rate range (ml/sec)           <ul style="list-style-type: none"> <li>• 0.01 to 10 ml/s in 0.01 ml/s increments between 0.01 and 3.1 ml/s</li> <li>• 0.1 ml/s increments between 3.1 and 10 ml/s</li> </ul> </li> <li>o KVO (Keep Vein Open): 6 factory presets of 0.25 ml every 15, 20, 30, 45, 60 or 75 sec</li> <li>o Test Inject: configurable from 0.5 ml to 20 ml in 0.1 ml increments</li> <li>o Pressure range (psi): 6 factory presets from 100 to 325 PSI (690 to 2240 kPa)</li> <li>o Injection / Post Injection Reminders: up to 5 settings of 1 sec to 20 minutes in 1 sec increments</li> <li>o Injection protocol storage: 60 protocols up to 6 phases each</li> <li>o Injection Hold / Pause: up to 20 minutes in 1 sec increments</li> <li>o eGFR Calculator           <ul style="list-style-type: none"> <li>• For adults: MDRD, Cockcroft-Gault, Modified Cockcroft-Gault and CKD-EPI methods</li> <li>• For children: Bedside Schwartz method</li> </ul> </li> <li>o Weight Based Dosing Calculator: user Configurable</li> <li>o Remote Service Capability: with optional VirtualCare Remote Support</li> </ul> <p>Dimensions and Weight</p> <ul style="list-style-type: none"> <li>o Control Room Unit           <ul style="list-style-type: none"> <li>• 15.58" (39.58 cm) W</li> <li>• 12.71" (32.28 cm) H</li> <li>• 10.23" (25.98 cm) D</li> <li>• 17.6 lbs (8.0 kg)</li> </ul> </li> <li>o Scan Room Unit</li> </ul>



GE Healthcare

Date: 03-07-2018  
 Quote #: PR14-C28808  
 Version #: 35  
 Q-Exp-Date: 06-04-2018

Item No.	Qty	Catalog No.	Description
			<ul style="list-style-type: none"> <li>• 23.30" (59.0 cm) W</li> <li>• 71.40" (181.0 cm) H</li> <li>• 23.30" (59.0 cm) D</li> <li>• 95.7 lbs (43.4 kg)</li> <li>o Power Supply</li> <li>• 7.60" (19.0 cm) W</li> <li>• 3.40" (9.0 cm) H</li> <li>• 15.40" (39.0 cm) D</li> <li>• 5 lbs (2.3 kg)</li> </ul> Electrical o Voltage Requirements <ul style="list-style-type: none"> <li>• 100-240 VAC</li> <li>• 50/60 Hz</li> <li>• 120VA - 210VA</li> </ul>
	<b>1</b>		<b>NonProducts</b>
24	1		ProPac Rigging Interra out of CMC University NTE \$9,999
	<b>1</b>		<b>NonProducts</b>
25	1		ProPac Rigging Signa Artist into CMC University NTE \$9,999

**Quote Summary:**

**2003 Philips Intera 16ch 1.5T MRI**

**Total Quote Net Selling Price \$1,296,397.65**

(Quoted prices do not reflect state and local taxes if applicable. Total Net Selling Price Includes Trade In allowance, if applicable.)



## GE Healthcare Terms & Conditions with Magnetic Resonance Additional Terms & Conditions

**1. Definitions.** As identified in this Agreement, "Equipment" is hardware and embedded software that is licensed with the purchase of the hardware delivered to Customer in GE Healthcare's packaging and with its labeling; "Software" is software developed by GE Healthcare and/or delivered to Customer in GE Healthcare's packaging and with its labeling, and Documentation associated with the software; "Third Party Software" and "Third Party Equipment" are respectively software developed by a third party, and hardware and embedded software that is licensed with the purchase of the hardware, that is delivered to Customer in the third party's packaging and with its labeling (collectively, "Third Party Product"); "Product" is Equipment, Software and Third Party Product; and "Services" is Product support or professional services. "Healthcare IT Products" are: (i) Software identified in the Quotation as "Centricity"; (ii) Third Party Software licensed for use in connection with Centricity Software; (iii) hardware used to operate Centricity or Third Party Software; (iv) Services provided for implementation, installation or support and maintenance of Centricity or Third Party Software; and/or (v) any Product or Service that is identified in a Healthcare IT Quotation. "Specifications" are GE Healthcare's written specifications and manuals as of the date the Equipment is shipped. "Documentation" is the online help functions, user instructions and manuals regarding the installation and operation of the Product as made available by GE Healthcare to Customer.

**2. Term and Termination.** Services and/or Software licenses will have individual term lengths identified in the Quotation. If there is a material breach of this Agreement that is not cured by the breaching party within 60 days from receipt of written notice, the non-breaching party can terminate it. Other than as set forth in this Agreement, neither party can unilaterally terminate this Agreement. Any remaining undisputed, unpaid fees become immediately due and payable on expiration or termination.

**3. Software License.** Other than as identified in the Quotation, GE Healthcare grants Customer a non-exclusive, non-transferable, non-sublicensable, perpetual license to use the Software for Customer's internal business purposes only. Customer's employees, agents and independent contractors may use the Software, but Customer is responsible for their acts. Customer-controlled entities may use the Software, but these entities will agree to these terms and pay additional license fees. Independent contractors that supply products comparable to the Software cannot be provided access to the Software unless GE Healthcare has provided its prior written consent. Customer may make a reasonable number of copies of the Software in machine-readable form for backup, testing or archival purposes. If GE Healthcare provides Third Party Software, Customer will comply with the relevant license terms, and licensors are third-party beneficiaries of this Agreement.

Customer must not: (i) display or make available the Software to any other entity; (ii) transfer the Software outside the United States or Customer's network; (iii) decompile, disassemble or reverse engineer the Software or attempt to learn its source code, structure or algorithms; (iv) modify, translate or create derivative works based on the Software; (v) modify markings, labels or notices of proprietary rights of the Software or Documentation; (vi) release results of testing or benchmarking of the Software; or (vii) use the Software outside of the scope defined in this Agreement or the Quotation.

Software and Documentation is licensed to Customer, but no title or other ownership interest passes. No rights are granted except as expressly provided in this Agreement or the Quotation. If the parties enter into a statement of work related to a Quotation ("SOW"), GE Healthcare owns all deliverables and intellectual property developed during performance. Customer assigns, and will cause its employees and independent contractors to assign, to GE Healthcare all of its rights to the SOW deliverables and intellectual property. GE Healthcare grants to Customer a non-exclusive, non-transferable, non-sublicensable license to use the SOW deliverables subject to the limitations in this Agreement.

#### **4. Commercial Logistics.**

##### **4.1. Order Cancellation and Modifications.**

**4.1.1. Cancellation.** If Customer cancels an order prior to shipment without GE Healthcare's written consent, GE Healthcare may charge: (i) a fee of up to 10% of the Product price; and (ii) for site evaluations performed prior to cancellation. GE Healthcare will retain, as a credit, payments received up to the amount of the cancellation charge. Customer must pay applicable progress payments (other than final payment) prior to final calibration, and GE Healthcare may delay calibration until those payments are received. If Customer does not schedule a delivery date within 6 months after order entry, GE Healthcare may cancel on written notice. This Section does not apply to Software Quotations, Third Party Products and/or professional or installation services included on those Quotations; those orders are non-cancellable.

**4.1.2. Used Equipment.** Equipment identified as pre-owned, refurbished, remanufactured or demonstration Equipment has been previously used ("Used Equipment"); it is not new. When delivered, Used Equipment may have received reconditioning, as necessary, to meet Specifications. Since Used Equipment may be offered simultaneously to several customers, its sale is subject to availability. If it is no longer available, (i) GE Healthcare will attempt to identify other Used Equipment in its inventory that meets Customer's needs, and (ii) if substitute Used Equipment is not acceptable, GE Healthcare will cancel the order and refund any deposit Customer paid for the Used Equipment.

**4.2. Site Preparation.** Customer must, at its expense, prepare the site and network where the Product will be installed, ensuring that its site and network are adequate for proper Product operation and performance and meet GE Healthcare's written requirements and applicable laws. GE Healthcare may refuse to deliver or install if the site has not been properly prepared or there are other impediments.

**4.3. Transportation, Title and Risk of Loss.** Unless otherwise identified in the Quotation, shipping terms are FOB Destination. Title and risk of loss to Equipment and Third Party Equipment passes to Customer on delivery to Customer's designated delivery location.

**4.4. Delivery, Returns and Installation.** Delivery dates are approximate. Products may be delivered in installments. GE Healthcare may invoice multiple installment deliveries on a consolidated basis, but this does not release Customer's obligation to pay for each installment delivery. Delivery occurs: (i) for Product, on electronic or physical delivery to Customer; and (ii) for Services, on performance.

Products cannot be returned for refund or credit if they match the Quotation.

Delivery and installations will be performed from 8am to 5pm local time, Monday-Friday, excluding GE Healthcare holidays, and outside those hours for an additional fee. Customer will: (i) install cable and assemble products not provided by GE Healthcare; (ii) enable connectivity and



interoperability with products not provided by GE Healthcare; (iii) pay for construction and rigging costs; and (iv) obtain all licenses, permits and approvals for installation, use and disposal of Products. For Equipment requiring installation, if GE Healthcare delivers the Equipment but does not perform the installation, Customer will pay GE Healthcare the quoted selling price less: (a) the installation price, if separately identified in the Quotation; or (b) if no installation price is identified, the fair market value for the installation as determined by an independent third party. For upgrades and revisions to non-Healthcare IT Products, Customer must return replaced components to GE Healthcare at no charge.

4.5. Information Technology Professional Services ("ITPS"). ITPS must be completed within 12 months of the later of the ITPS order date or Product delivery. If not done within this time period, other than because of GE Healthcare's failure to perform, ITPS performance obligations expire without refund. ITPS includes applications training, project management, HL7/HIS system integration, database conversion, network design and integration and separately cataloged software installations. This Section does not apply to Healthcare IT Products.

#### 4.6. Acceptance.

4.6.1. Equipment Acceptance. Beginning on completion of installation (not to exceed 30 days from shipment) or delivery (if installation is not required), Customer will have 5 days to determine if the Equipment operates substantially in accordance with Specifications ("Equipment Test Period"). If the Equipment fails to perform accordingly, Customer will provide to GE Healthcare: (i) written notice; (ii) access to the Equipment; and (iii) a reasonable time to bring the Equipment into compliance. After correction by GE Healthcare, Customer will have the remainder of the Equipment Test Period or 3 days, whichever is greater, to continue testing. Equipment is accepted on the earlier of expiration of the Equipment Test Period or the date the Equipment is first used for non-acceptance testing purposes.

4.6.2. Software Acceptance. Beginning on completion of Software implementation, Customer will have 30 days to determine if the Software operates substantially in accordance with the Documentation ("Software Test Period"). If the Software fails to perform accordingly, Customer will provide to GE Healthcare: (i) written notice; (ii) access to the Software; and (iii) a reasonable time to bring the Software into compliance. After correction by GE Healthcare, Customer will have the remainder of the Software Test Period or 5 days, whichever is greater, to continue testing. Software is accepted on the first to occur of: (a) expiration of the Software Test Period; (b) the date Software is first used to process actual data; or (c) the "Go-Live Date" as defined in the Quotation.

4.6.3. Third Party Product Acceptance. Third Party Products are accepted 5 days after delivery.

4.7. Third Party Products and Services. If GE Healthcare provides Third Party Products and/or Services, then (i) GE Healthcare is acquiring them on Customer's behalf as its agent and not as a supplier; (ii) GE Healthcare provides no warranties or indemnification, express or implied; and (iii) Customer is responsible for all claims resulting from or related to their acquisition or use.

4.8. Mobile Equipment. GE Healthcare will assemble Equipment it has approved for mobile use at the vehicle location identified by Customer. Customer will comply with the vehicle manufacturer's planning requirements and arrange for delivery of the vehicle.

4.9. Audit. GE Healthcare may audit Customer's use of Software and Healthcare IT Products to verify Customer's compliance with this Agreement. Customer will provide reasonable assistance and unrestricted access to the information. Customer must pay underpaid or unpaid fees discovered during the audit, and GE Healthcare's reasonable audit costs, within 30 days of written notification of the amounts owed. If Customer does not pay, or the audit reveals that Customer is not in compliance, GE Healthcare may terminate Customer's Software license or use of the Healthcare IT Product.

### 5. **Security Interest and Payment.**

5.1. Security Interest. Customer grants GE Healthcare a purchase money security interest in all Products in the Quotation until full payment is received, and Customer will perform all acts and execute all documents necessary to perfect GE Healthcare's security interest.

5.2. Failure to Pay. If, after Product delivery, Customer is more than 45 days past due on undisputed payments, GE Healthcare may, on 10 days' prior written notice, disable and/or remove the Products.

5.3. Late Payment. Customer must raise payment disputes before the payment due date. For any undisputed late payment, GE Healthcare may: (i) suspend performance under this Agreement until all past due amounts are paid; (ii) charge interest at a rate no more than the maximum rate permitted by applicable law; and (iii) use unapplied funds due to Customer to offset any of Customer's outstanding balance. If GE Healthcare suspends performance, any downtime will not be included in the calculation of any uptime commitment. If Customer fails to pay when due: (a) GE Healthcare may revoke its credit and designate Customer to be on credit hold; and (b) all subsequent shipments and Services must be paid in full on receipt.

5.4. Taxes. Prices do not include applicable taxes, which are Customer's responsibility.

5.5. Lease. If Customer leases a Product, it continues to be responsible for payment obligations under this Agreement.

6. **Trade-In Equipment**. Trade-in equipment identified in a Quotation will be subject to separate trade-in terms and conditions.

### 7. **Magnetic Resonance ("MR").**

7.1. Magnetic Maintenance and Cryogenics. Customer is responsible for: (i) cryogen loss due to power loss or water chiller failure for the MR's shield cooler or condenser system during installation; (ii) costs for cryogen replacement plus transfill labor at GE Healthcare's then-applicable rates; (iii) post-assembly supply and installation of cryogenics, unless cryogen loss is caused by a defect in material or workmanship within the scope of GE Healthcare's warranty. MR magnetic fields attract ferro-magnetic articles and are capable of rapidly accelerating them toward the magnet, creating danger to persons in the vicinity and possible system damage. Magnetic and radio frequency fields may adversely affect the operation of pacemakers, equipment containing magnetic reed switches and aneurysm or surgical clips.

7.2. MR Uptime Commitment. GE Healthcare will provide an uptime commitment during warranty for MR Equipment (excluding peripherals) if Customer provides GE Healthcare with: (i) access to the MR Equipment through a secure connection meeting Specifications and industry best practices; (ii) notice of changes that impact Customer's connection; and (iii) prompt and unencumbered access to the MR Equipment. The "Uptime Commitment" for MR Equipment is 97%. Other Products may be eligible for an uptime commitment if identified in the Quotation.

If GE Healthcare fails to meet the Uptime Commitment over a 26-week period, it will extend the warranty as follows:



<u>% Less than Uptime Commitment</u>	<u>Warranty Extension</u>
0.1 - 3.0	1 week
3.1 - 8.0	2 weeks
8.1 - 13.0	4 weeks
> 13.0	6 weeks

Uptime is calculated as follows:

$$\left( \frac{\text{UptimeBase} - \text{Downtime}}{\text{UptimeBase}} \right)$$

"Uptime Base" = ("a" hours per day X "b" days per week X 26 weeks) - (Planned Maintenance ("PM") hours during prior 26 weeks), where "a" hours per day and "b" days per week are determined by the standard warranty for the MR Equipment. "Downtime" is the number of hours during which the MR Equipment is subject to a Critical Malfunction. Downtime starts when Customer notifies GE Healthcare that the MR Equipment is inoperable and unavailable for use due to GE Healthcare's design, manufacturing, material or performance failure ("Critical Malfunction"). Downtime ends when the MR Equipment is available for clinical use. To be eligible for the Uptime Commitment, Customer must maintain a performance log that includes data required to calculate Downtime.

## 8. General Terms.

8.1. Confidentiality. Each party will treat this Agreement and the other party's proprietary information as confidential, meaning it will not use or disclose the information to third parties unless permitted in this Agreement or required by law. Customers are not prohibited from discussing patient safety issues in appropriate venues.

8.2. Governing Law. The law of the State where the Product is installed or the Service is provided will govern this Agreement.

8.3. Force Majeure. For non-monetary obligations, performance time will be reasonably extended for delays beyond a party's control.

8.4. Assignment; Use of Subcontractors. Rights and obligations under this Agreement cannot be assigned without the other party's prior written consent, unless: (i) it is to an entity (except to a GE Healthcare competitor) that (a) is an affiliate or parent of the party or (b) acquires substantially all of the stock or assets of such party's applicable business, Product line or Service thereof; and (ii) the assignee agrees in writing to be bound by this Agreement, including payment of outstanding fees. GE Healthcare may hire subcontractors to perform work under this Agreement but will remain responsible for its obligations.

8.5. Waiver; Survival. If any provision of this Agreement is not enforced, it is not a waiver of that provision or of a party's right to later enforce it. Terms in this Agreement related to intellectual property, compliance, data rights and terms that by their nature are intended to survive its end will continue in full effect after its end.

## 9. Compliance.

9.1. Generally. Each party will comply with applicable laws and regulations. Customer is only purchasing or licensing Products for its own medical, billing and/or non-entertainment use in the United States. GE Healthcare will not deliver, install, service or train if it discovers Products have been or are intended to be used contrary to this Agreement. This Agreement is subject to GE Healthcare's ongoing credit review and approval. Customer is aware of its legal obligations for cost reporting, including 42 C.F.R. § 1001.952(g) and (h), and will request from GE Healthcare any information beyond the invoice needed to fulfill Customer's cost reporting obligations. GE Healthcare will provide safety-related Equipment and Software updates required by applicable laws and regulations at no additional charge.

9.2. Security. Customer must provide network and Product security, virus protection, backup, data integrity, and recovery of data, images, software or equipment; GE Healthcare is not responsible for recovery of lost or damaged data or images. NEITHER PARTY WILL BE LIABLE FOR DAMAGES CAUSED BY UNAUTHORIZED ACCESS TO THE NETWORK OR PRODUCT IN SPITE OF A PARTY'S COMPLIANT SECURITY MEASURES.

9.3. Environmental Health and Safety. GE Healthcare has no obligation to provide Products and/or Services until Customer: (i) provides and maintains a safe, hazard-free environment in material compliance with applicable Federal, State, and local requirements and written requirements provided by GE Healthcare; (ii) provides to GE Healthcare onsite personnel with a list of chemical/hazardous materials with which these personnel may come into contact, related safety data sheets and its written safety procedures; (iii) performs GE Healthcare recommended routine maintenance and operator adjustments; and (iv) ensures that service not provided by GE Healthcare is performed, and Products are used, in accordance with applicable documentation. Before Customer sends a Product to GE Healthcare (e.g., for repair, loaner return) or GE Healthcare services a Product, Customer will remove bodily fluids and remediate hazardous conditions that may cause injury or illness, and be responsible for managing, storing and disposing of all waste material, unless GE Healthcare is legally required to take back the materials. Customer is responsible, at its expense, for: (a) controlling access to, and all operations and protocols of, the Product and the site, as well as ensuring compliance with environmental and health and safety regulations; (b) obtaining required permits and licenses, including any required to handle or produce radioactive materials; (c) decommissioning and disposal requirements of its facilities; and (d) as applicable, complying with GMP and/or pharmaceutical regulations. Customer will provide radioactive materials for calibration and testing of the Product.

9.4. Parts and Tubes. GE Healthcare: (i) recommends the use of parts it has validated for use with the Product; (ii) is not responsible for the quality of parts supplied by third parties to Customer; and (iii) cannot assure Product functionality or performance when non-GE Healthcare parts are used. Certain Products are designed to recognize GE Healthcare-supplied tubes and report the presence of a non-GE Healthcare tube; GE Healthcare is not responsible for the use of, or effects from, non-GE Healthcare supplied tubes.

9.5. Training. GE Healthcare's training does not guarantee that: (i) Customer trainees are fully trained on Product use, maintenance or operation or (ii) training will satisfy any licensure or accreditation. Customer must ensure its trainees are fully qualified in the use and operation of the Product. Unless otherwise identified in the training catalog, Customer will complete training within 12 months after: (a) if with a Product purchase, the date of Product delivery; (b) if with a Services purchase, the start date for Services; or (c) if with a training-only purchase, the date training is ordered. If not done within this time period (other than because of GE Healthcare's fault), training expires without refund.



9.6. Medical Diagnosis and Treatment. All clinical and medical treatment, diagnostic and/or billing decisions are Customer's responsibility.

9.7. Connectivity. If a Product has remote access capability, Customer must provide GE Healthcare with, and maintain, remote access to the Product by a GE Healthcare-validated connection to permit GE Healthcare to perform Services. If remote access is not provided, GE Healthcare reserves the right to charge Customer for onsite support at GE Healthcare's then-current billing rate. The remote connection and collection of machine data (e.g., temperature, helium level) will continue after the end of this Agreement unless Customer requests in writing that GE Healthcare disable it.

9.8. Use of Data.

9.8.1. Protected Health Information. If GE Healthcare creates, receives, maintains, transmits or otherwise has access to Protected Health Information as such term is defined in 45 C.F.R. § 160.103 ("PHI") under this Agreement, it will only use and disclose the PHI as permitted by law and by the Business Associate Agreement between the parties.

9.8.2. Data Rights. GE Healthcare and its subcontractors may access, collect, maintain, analyze, prepare derivatives from and otherwise use information about Products and/or Services that is not PHI, including, but not limited to, machine, technical, systems, usage and related information ("Source Data") to facilitate the provision of Products and/or Services to Customer and for research, development and continuous improvement of GE Healthcare's products, software and services. GE Healthcare will own all discoveries, ideas, improvements, products, services, software, data, intellectual property and other rights arising from and/or related to GE Healthcare's and its subcontractors' use, analysis, research and/or development of the Source Data.

9.9. Customer Policies. GE Healthcare will use reasonable efforts to respect Customer-provided policies that apply to GE Healthcare, and do not materially contradict GE Healthcare policies. Failure to respect Customer policies is not a material breach unless it is willful and adversely affects GE Healthcare's ability to perform its obligations.

9.10. Insurance. GE Healthcare will maintain coverage in accordance with its standard certificate of insurance.

9.11. Excluded Provider. To its knowledge, neither GE Healthcare nor its employees performing Services under this Agreement have been excluded from participation in a Federal Healthcare Program. If an employee performing Services under this Agreement is excluded, GE Healthcare will replace that employee within a reasonable time; if GE Healthcare is excluded, Customer may terminate this Agreement upon written notice to GE Healthcare.

## **10. Disputes, Liability and Indemnity.**

10.1. Dispute Resolution. The parties will first attempt to resolve in good faith any disputes related to this Agreement. Violation of GE Healthcare's license, confidentiality or intellectual property rights will cause irreparable harm for which the award of money damages alone is inadequate. GE Healthcare may: (i) seek injunctive relief and any other available remedies; and/or (ii) immediately terminate the license grant and require Customer to cease use of and return the Software and Third Party Software. Other than these violations or collection matters, unresolved disputes will be submitted to mediation prior to initiation of other means of dispute resolution.

10.2. Limitation of Liability. GE HEALTHCARE'S ENTIRE LIABILITY, AND CUSTOMER'S EXCLUSIVE REMEDY, FOR DIRECT DAMAGES INCURRED BY CUSTOMER FROM ANY CAUSE, REGARDLESS OF THE FORM OF ACTION, ARISING UNDER THIS AGREEMENT OR RELATED HERETO, WILL NOT EXCEED: (I) FOR PRODUCTS, THE PRICE FOR THE PRODUCT THAT IS THE BASIS FOR THE CLAIM; OR (II) FOR SERVICE OR SUBSCRIPTIONS, THE AMOUNT OF THE SERVICE OR SUBSCRIPTION FEES FOR THE 12 MONTHS IMMEDIATELY PRECEDING THE ACTION THAT IS THE BASIS FOR THE CLAIM. THIS LIMITATION OF LIABILITY WILL NOT APPLY TO GE HEALTHCARE'S DUTIES TO INDEMNIFY CUSTOMER IN ACCORDANCE WITH THIS AGREEMENT. THE LIMITATION OF LIABILITY WILL APPLY EVEN IF THE LIMITED REMEDIES FAIL OF THEIR ESSENTIAL PURPOSE.

10.3. Exclusion of Damages. NEITHER PARTY WILL BE LIABLE FOR INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL, CONSEQUENTIAL OR REPUTATIONAL DAMAGES, OR FOR LOSS OF PROFITS, REVENUE, TIME, OPPORTUNITY OR DATA, REGARDLESS OF THE FORM OF ACTION OR BASIS OF THE CLAIM. THE EXCLUSION OF DAMAGES WILL APPLY EVEN IF THE LIMITED REMEDIES FAIL OF THEIR ESSENTIAL PURPOSE.

10.4. IP Indemnification. GE Healthcare will indemnify and hold Customer harmless from third-party claims for infringement of United States intellectual property rights caused solely by Customer's use of the Equipment and Software in accordance with the Documentation and license. GE Healthcare will control the defense. Customer may retain counsel but at Customer's expense.

10.5. General Indemnification. GE Healthcare will indemnify and hold Customer harmless for third party damages that Customer becomes legally obligated to pay related to bodily injury or damage to real or tangible personal property to the extent the damages are caused by a manufacturing or design defect, negligent failure to warn, negligent installation, or negligent Service with respect to Products manufactured by GE Healthcare and supplied under this Agreement. GE Healthcare has no obligation to indemnify and hold Customer harmless for damages caused by: (i) Customer's fault or legal expenses incurred by Customer in defending itself against suits seeking damages caused by Customer's fault or (ii) any Product modification not authorized in writing by GE Healthcare.

Customer will indemnify and hold GE Healthcare harmless from third party damages that GE Healthcare becomes legally obligated to pay related to bodily injury or damage to real or tangible personal property to the extent the damages are caused by Customer's: (a) medical diagnosis or treatment decisions; (b) misuse or negligent use of the Product; and/or (c) use of the Product in a manner or environment, or for any purpose, for which GE Healthcare did not design it, or in violation of GE Healthcare's recommendations or instructions.

The above obligations are conditional on the indemnified party providing the indemnifying party prompt written notice of the claim after receiving notice of it, allowing the indemnifying party the option to control defense and disposition of the claim, and reasonably cooperating with the indemnifying party in the defense. The indemnifying party will not be responsible for any compromise made without its consent.

**11. Notices.** Notices will be in writing and considered delivered when received if sent by certified mail, postage prepaid, return receipt requested, by overnight mail, or by fax. Notice to Customer will be directed to the address on this Agreement, and notice to GE Healthcare to General Counsel, 9900 Innovation Dr., Wauwatosa, WI 53226.





## 1. Warranty.

1.1. **Equipment.** For non-customized Equipment purchased from GE Healthcare or its authorized distributors, unless otherwise identified in the Quotation, GE Healthcare warrants that Equipment will be free from defects in title, and, for 1 year from Equipment Acceptance, it will: (i) be free from defects in material and workmanship under normal use and service; and (ii) perform substantially in accordance with the Specifications. The warranty covers parts and labor and only applies to end-users that purchase Equipment from GE Healthcare or its authorized distributors.

1.2. **Software.** For Software licensed from GE Healthcare, GE Healthcare warrants that: (i) it has the right to license or sublicense Software to Customer; (ii) it has not inserted Disabling Code into Software; (iii) it will use efforts consistent with industry standards to remove viruses from Software before delivery; and (iv) unless otherwise identified in the Quotation, for 90 days from Software Acceptance, Software will perform substantially in accordance with the Documentation. "Disabling Code" is code designed to interfere with the normal operation of Software, but code that prohibits use outside of the license scope is not Disabling Code.

1.3. **Services.** GE Healthcare warrants that its Service will be performed by trained individuals in a professional, workman-like manner.

1.4. **Used Equipment.** Certain Used Equipment is provided with GE Healthcare's standard warranty for the duration identified in the Quotation, but in no event more than 1 year. If no warranty is identified, the Used Equipment is not warranted by GE Healthcare.

1.5. **Accessories and Supplies.** Warranties for accessories and supplies are in GE Healthcare's catalog and at [www.gehealthcare.com](http://www.gehealthcare.com).

1.6. **Third Party Product.** Third Party Product is covered by the third party's warranty and not GE Healthcare's warranties.

2. **Remedies.** If Customer promptly notifies GE Healthcare of its claim during the warranty and makes the Product available, GE Healthcare will: (i) at its option, repair, adjust or replace the non-conforming Equipment or components; (ii) at its option, correct the non-conformity or replace the Software; and/or (iii) re-perform non-conforming Service. Warranty service will be performed from 8am to 5pm local time, Monday-Friday, excluding GE Healthcare holidays, and outside those hours at GE Healthcare's then-current service rates and subject to personnel availability. GE Healthcare may require warranty repairs to be performed via a secure, remote connection or at an authorized service center. If GE Healthcare replaces Equipment or a component, the original becomes GE Healthcare property and Customer will return the original to GE Healthcare within 5 days after the replacement is provided to Customer. Customer cannot stockpile replacement parts. Prior to returning Equipment to GE Healthcare, Customer will: (a) obtain a return to manufacturer authorization; and (b) back up and remove all information stored on the Equipment (stored data may be removed during repair). Customer is responsible for damage during shipment to GE Healthcare. The warranty for a Product or component provided to correct a warranty failure is the unexpired term of the warranty for the repaired or replaced Product.

GE Healthcare may provide a loaner unit during extended periods of Product service. If a loaner unit is provided: (i) it is for Customer's temporary use at the location identified in the Quotation; (ii) it will be returned to GE Healthcare within 5 days after the Product is returned to Customer, and if it is not, GE Healthcare may repossess it or invoice Customer for its full list price; (iii) it, and all programs and information pertaining to it, remain GE Healthcare property; (iv) risk of loss is with Customer during its possession; (v) Customer will maintain and return it in proper condition, normal wear and tear excepted, in accordance with GE Healthcare's instructions; (vi) it will not be repaired except by GE Healthcare; (vii) GE Healthcare will be given reasonable access to it; (viii) Customer is not paying for its use, and Customer will ensure charges or claims submitted to a government healthcare program or patient are submitted accordingly; and (ix) prior to returning it to GE Healthcare, Customer will delete all information, including PHI, from it and its accessories, in compliance with industry standards and instructions provided by GE Healthcare.

NO OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WILL APPLY. SERVICE MANUALS AND DOCUMENTATION ARE PROVIDED "AS IS". GE HEALTHCARE DOES NOT GUARANTEE PRODUCTS WILL OPERATE WITHOUT ERROR OR INTERRUPTION.

3. **Limitations.** GE Healthcare has no obligation to Customer for warranty claims if Customer uses the Product: (a) for non-medical or entertainment use or outside the United States; (b) in combination with software, hardware, or services not recommended in writing by GE Healthcare; and (c) in a manner or environment for which GE Healthcare did not design or license it, or in violation of GE Healthcare's recommendations or instructions.

In addition, these warranties do not cover: (i) a defect or deficiency from improper storage or handling, inadequate backup or virus protection, cyber-attacks, failure to maintain within Specifications power quality, grounding, temperature, humidity and repairs due to power anomalies, or any cause external to the Products or beyond GE Healthcare's control; (ii) payment or reimbursement of facility costs arising from repair or replacement of the Products or parts; (iii) adjustment, alignment, calibration, or planned maintenance; (iv) network and antenna installations not performed by GE Healthcare or its subcontractors; (v) lost or stolen Products; (vi) Products with serial numbers altered, defaced or removed; (vii) modification of Product not approved in writing by GE Healthcare; (viii) Products immersed in liquid; and (ix) consumable/replaceable items.

## 4. Exceptions to Standard Warranty.

**DoseWatch Explore:** DOSEWATCH EXPLORE SOFTWARE, SERVICES AND INFORMATION IS PROVIDED "AS IS" WITH NO WARRANTY

**Partial System Equipment Upgrades for CT, MR, X-Ray, PET (Scanners, Cyclotrons and Chemistry Labs) and Nuclear systems:** 6 months (only applies to the upgraded components)

**Cyclotron and Radiopharmacy:** Warranty starts on the earlier of (i) 3 months after the date GE Healthcare completes mechanical installation, or (ii) the date Product testing is successfully completed

**MR Systems:** Warranty does not cover: (i) a defect or deficiency from failure of water chillers supplied or serviced by Customer, and (ii) for MR systems with LHe/LN or shield cooler configured superconducting magnets (except for MR Systems with LCC magnets), any cryogen supply, cryogenic service or service to the magnet, cryostat, coldhead, shield cooler compressor or shim coils unless the need for supply or service is caused by a defect in material or workmanship covered by this warranty.

**Proteus XR/a, Definium and Precision 500D X-Ray Systems:** Warranty does not cover collimator bulbs

**MX150 Vascular and Performix 160A (MX160) Tubes:** 3 years

**X-Ray High Voltage Rectifiers and TV Camera Pick-Up Tubes:** 6 months

**X-Ray Wireless Digital Detectors:** In addition to the standard warranty, GE Healthcare will provide coverage for detector damage due to accidental dropping or mishandling. If accidental damage occurs, GE Healthcare will provide Customer with 1 replacement detector during warranty at no additional charge. If subsequent accidental damage occurs during warranty, each additional replacement will be provided for \$30,000 per replacement. This additional coverage excludes damage caused by any use that does not conform to OEM guidelines, use that causes fluid invasion, holes, deep scratches or the detector case to crack, and damage caused by abuse, theft, loss, fire, power failures or surges. If the warranty is voided by these conditions, repair or replacement is Customer's responsibility.

**Bone Mineral Densitometry:** Alpha Source, Inc. will perform installation, application support and warranty services. Direct warranty claims to Alpha Source, Inc. at 1-800-654-9845. Upgraded computer, printer and monitor components include a 1 month warranty. Customer will not be credited the value of this warranty against pre-existing warranties or service agreements.

**GE OEC New or Exchange Service/Maintenance Parts:** 3 months

**GE OEC Refurbished C-Arms:** 1 year after installation

**HealthNet Lan, Advantage Review – Remote Products:** 3 months

**Vivid T8:** 3 years, includes TEE probes purchased with the Vivid T8

**Vivid i, Vivid e, Vivid q, Vivid iq and Voluson i:** Warranty includes (i) repair at GE Healthcare facilities, (ii) 3 business day turnaround repair for Products shipped via overnight delivery (where available), measured from shipment date (GE Healthcare is not responsible for delays in overnight shipment), (iii) 72-hour loaner unit or probe replacement service via Fed Ex, and (iv) phone support from 7am to 7pm Central Time, Monday-Friday, excluding GE Healthcare holidays. For an additional charge, GE Healthcare may provide field support/service, planned maintenance, and/or coverage for damage due to accidental dropping or mishandling with a maximum of 2 replacement systems during warranty.

**LOGIQ e, Venue, Vivid iq and related transducers and peripherals purchased with them:** 5 years (3 years for Vivid iq), except the following have a 1 year warranty:

Transducers: 6Tc-RS, i739-RS, t739-RS, and i12L

Carts: Venue Docking Cart, LOGIQ e Isolation Cart and Tall Docking Carts

Other Accessories: Venue & LOGIQ e batteries (internal & external), TEE cleaning & storage system and printers

Warranty includes: (i) repair at a GE Healthcare Service Depot, (ii) phone support from 7am to 7pm Central Time, Monday-Friday, excluding GE Healthcare holidays, and (iii) a loaner Product when available (shipping charges included).

**Vscan:** 3 years, except Vscan Version 1.1 Demonstration systems, which are warranted for 1 year. Warranty includes: (i) repair at a GE Healthcare Service Depot; (ii) repair within 5 days after receipt of the Vscan, excluding GE Healthcare holidays (GE Healthcare is not responsible for delays in shipment); and (iii) phone support from 7am to 7pm Central Time, Monday-Friday, excluding GE Healthcare holidays.

**Ultrasound Partial System Equipment Upgrades:** 3 months (only applies to the upgraded components). Customer will not be credited the value of the warranty against pre-existing warranties or service agreements.

**Batteries:** 3 months, except for x-ray nickel cadmium or lead acid batteries and Vscan batteries, which are warranted for 1 year

**CARESCAPE Monitors B450, B650 and B850:** 3 years parts, 1 year labor (excluding displays, which are standard)

**B40 Monitors:** 2 years parts, 1 year labor (excluding displays, which are standard)

**MAC 800, 1200, 1600, 2000 and 3500:** 3 years

**CARESCAPE V100 and VC150 Vital Signs Monitors:** 2 years

**Exergen:** 4 years

**Panda® iRes Warmers, Giraffe® Warmer and Giraffe® Carestation OmniBed:** 7 year parts warranty on heater cal rod

**Microenvironment and Phototherapy consumable components:** 1 month

**Corometrics® Fetal Monitoring:** Warranty includes: (i) warranty starting on the earlier of (a) if GE Healthcare or Customer installs, 5 days after installation or (b) 40 days after shipment; and (ii) 2 years parts, 1 year labor

**Corometrics® Nautilus Transducers:** 2 years

**Lullaby Phototherapy System:** 3 years on lamp assembly

**Oximeters:** 3 years from installation, or 39 months from date of GE Healthcare invoice, whichever occurs first.

**Anesthesia Monitor Mounting Solutions:** If purchased directly from GE Healthcare, it will be warranted as a GE Healthcare Product

**Tec 7 Vaporizers:** 3 years

**Tec 6 Plus Vaporizers:** 2 years

# Attachment D



**PROPOSED TOTAL CAPITAL COST OF PROJECT**

**Project name:** CHS University MRI Replacement

**Provider/Company:** Carolinas HealthCare System

(1) Purchase price of land	\$0
(2) Closing costs	\$0
(3) Site Preparation	\$0
(4) Construction/Renovation Contract	\$796,200
(5) Landscaping	\$0
(6) Architect/Engineering Fees	\$103,000
(7) Medical Equipment	\$1,447,376
(8) Non Medical Equipment	\$0
(9) Furniture	\$0
(10) Consultant Fees (CON Fees, Legal Fees, Design Fees)	\$0
(11) Financing Costs	\$0
(12) Interest During Construction	\$0
(13) Other (IS, Security, Internal Allocation, Mobile MRI Rent, Contingency)	\$375,100
(14) <b>Total Capital Cost</b>	<b>\$2,721,676</b>

*I certify that, to the best of my knowledge, the above construction related costs of the proposed project named above are complete and correct.*



(Signature of Licensed Architect or Engineer)

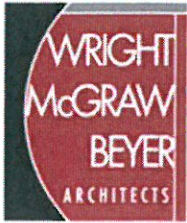
03.02.18

DATE



Sales taxes have been included in these equipment costs. However, because CHS is entitled to a sales tax refund under N.C. Gen. Stat. § 105-164.14(b) and 105-467, the sales tax that CHS initially incurs for this medical equipment purchase will be refunded to CHS, and thus will reduce the capital costs that CHS actually incurs for the equipment by \$100,979.





March 2, 2018

Ms. Martha Frisone, Chief  
Healthcare Planning and Certificate of Need Section  
Division of Health Service Regulation  
809 Ruggles Drive  
Raleigh, NC 27603

Re: CHS University MRI  
Charlotte, North Carolina

Ms. Frisone,

Wright McGraw Beyer Architects, p.a. is pleased to provide the cost certification letter. The probable cost is based on the drawings included with the CON submittal. The estimated construction cost reflects our experience with similar healthcare project. Wright McGraw Beyer Architects, p.a. certifies to the best of our knowledge the construction cost of \$796,200.00.

Please call me if you have any questions or comments.

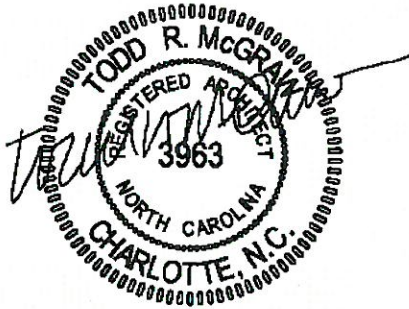
Sincerely,

Wright McGraw Beyer Architects, p.a.

Todd R. McGraw, AIA, NCARB, LEED AP

Managing Principal

North Carolina License #3963



2105 Water Ridge  
Parkway Suite 450  
Charlotte, NC  
28217  
704.535.6374  
www.vmba.net

# Attachment E

# STATE OF NORTH CAROLINA

Department of Health and Human Services

Division of Facility Services

## CERTIFICATE OF NEED

for

**Project Identification Number F-5919-98**

FID# 923516

**ISSUED TO: The Charlotte-Mecklenburg Hospital Authority d/b/a University Hospital**  
8800 North Tryon Street  
Charlotte, NC 28262

Pursuant to N.C. Gen. Stat. § 131E-175, et. seq., the North Carolina Department of Health and Human Services hereby authorizes the person or persons named above (the "certificate holder") to develop the certificate of need project identified above. The certificate holder shall develop the project in a manner consistent with the representations in the project application and with the conditions contained herein and shall make good faith efforts to meet the timetable contained herein. The certificate holder shall not exceed the maximum capital expenditure amount specified herein during the development of this project, except as provided by N.C. Gen. Stat. § 131E-176(16)e. The certificate holder shall not transfer or assign this certificate to any other person except as provided in N.C. Gen. Stat. § 131E-189(c). This certificate is valid only for the scope, physical location, and person(s) described herein. The Department may withdraw this certificate pursuant to N.C. Gen. Stat. § 131E-189 for any of the reasons provided in that law.

**SCOPE: Purchase and install one fixed magnetic resonance imaging (MRI) scanner/Mecklenburg County**

**CONDITIONS: See Reverse Side**

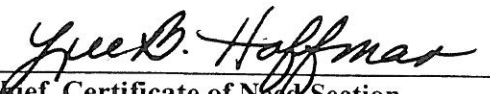
**PHYSICAL LOCATION: The Charlotte-Mecklenburg Hospital Authority d/b/a University Hospital**  
8800 North Tryon Street  
Charlotte, NC 28262

**MAXIMUM CAPITAL EXPENDITURE: \$3,374,000**

**TIMETABLE: See Reverse Side**

**FIRST PROGRESS REPORT DUE: October 1, 1999**

This certificate is effective as of the 23<sup>rd</sup> day of July, 1999.

  
\_\_\_\_\_  
Chief, Certificate of Need Section  
Division of Facility Services

## CONDITIONS

1. The Charlotte-Mecklenburg Hospital Authority d/b/a University Hospital ("University") shall materially comply with all representations made in its Certificate of Need Application except as amended by supplemental information submitted June 11, 1999.
2. The approved capital expenditure for this project is \$3,374,000.

## TIMETABLE

### Financing:

Obtaining Funds necessary to undertake project \_\_\_\_\_ July 1, 1999

### Design:

Completion of preliminary drawings \_\_\_\_\_ August 1, 1999

Completion of final drawings and specifications \_\_\_\_\_ October 1, 1999

Approval of final drawings and specification by the  
Construction Section, DFS \_\_\_\_\_ January 1, 2000

### Construction:

Contract award (Notice to Proceed) \_\_\_\_\_ January 15, 2000

25% completion of construction \_\_\_\_\_ April 1, 2000

50% completion of construction \_\_\_\_\_ June 1, 2000

75% completion of construction \_\_\_\_\_ July 1, 2000

Completion of construction \_\_\_\_\_ August 1, 2000

Occupancy/offering of services \_\_\_\_\_ September 1, 2000

### Acquisition of Medical Equipment (repeat as needed for each major project component):

Ordering equipment \_\_\_\_\_ December 1, 1999

Arrival of equipment \_\_\_\_\_ July 1, 2000

Operation of equipment \_\_\_\_\_ September 1, 2000

# Attachment F



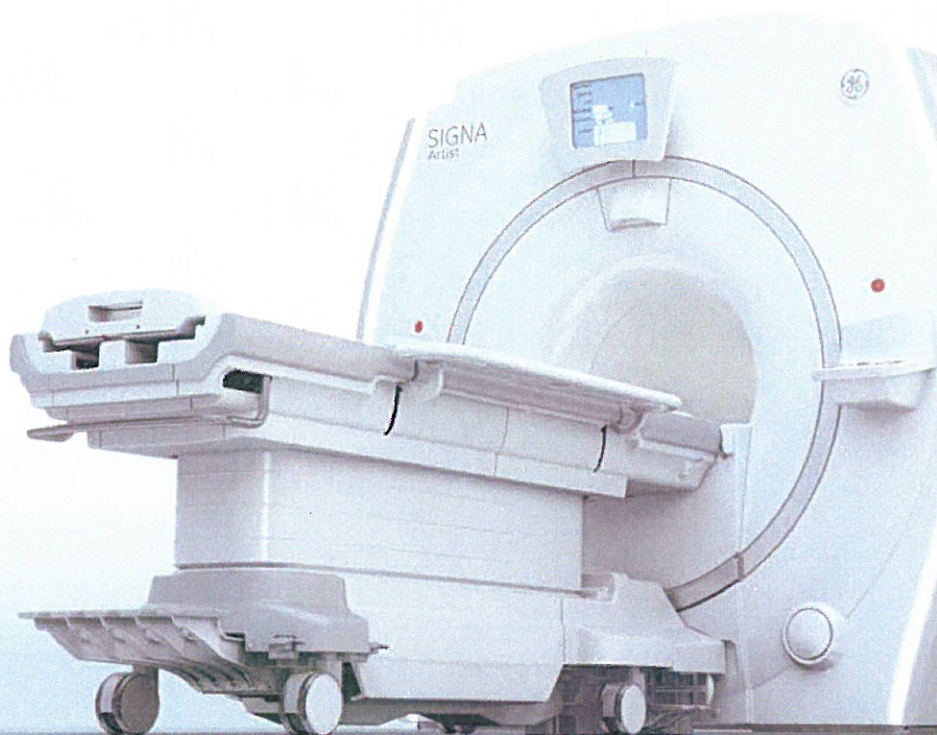
GE Healthcare

# Surpass

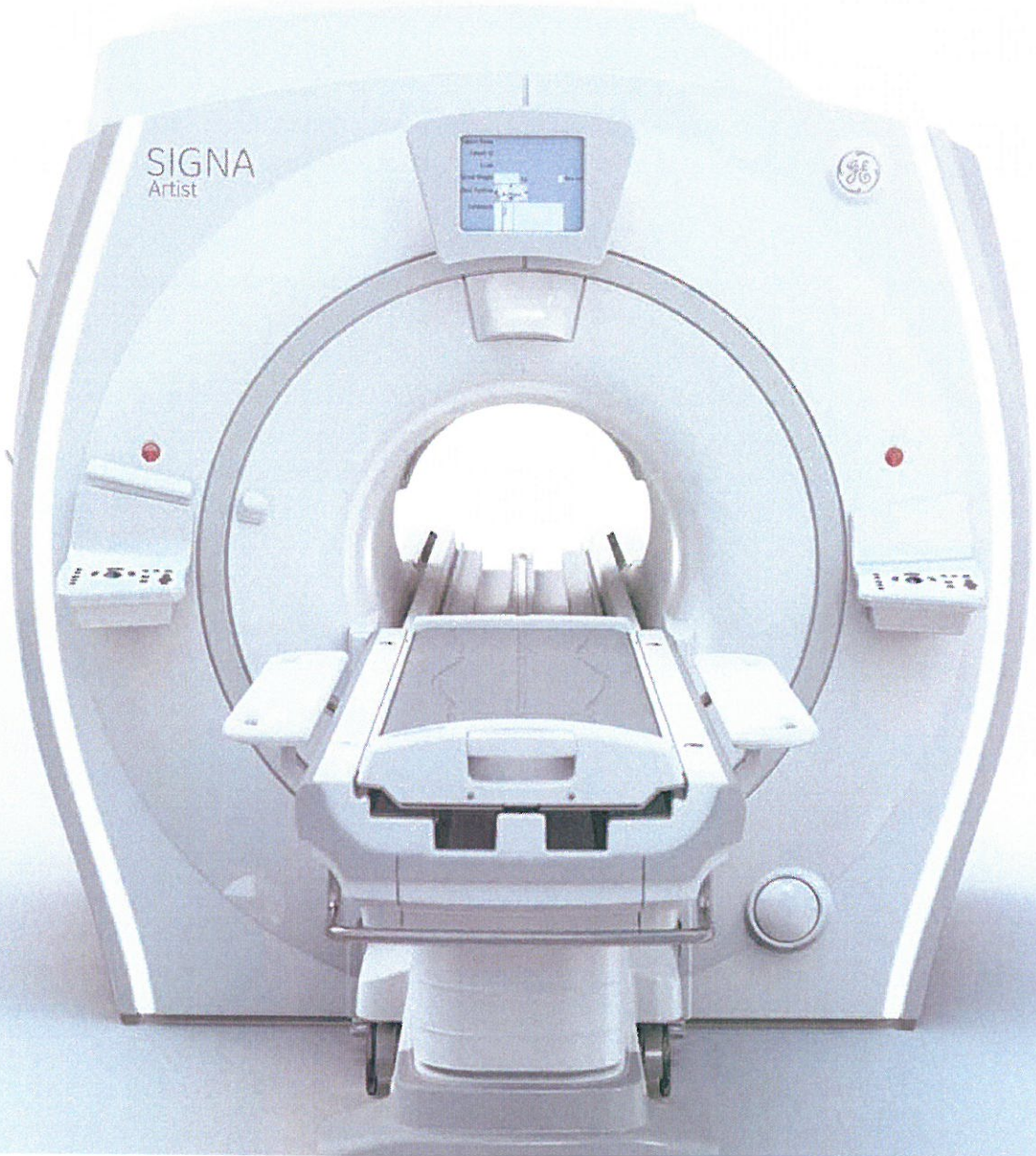
the unimaginable and make it the expected.

SIGNA™ Artist

Imagine what MR can be.



Artist is CE-marked.








# Unleash

Clear advances with clear advantages.

Now the potential for MR is even more astonishing with the SIGNA™ Artist, the most advanced and intuitive 1.5T engineering in MR technology from GE Healthcare. Fueled by our new SIGNA™Works productivity platform, the SIGNA™ Artist is a harmonious design of form and function. Everything in its blueprint is crafted to significantly energize your productivity, enhance security, improve diagnostics and boost your bottom line.

Welcome to the future of MR. Surpass the unimaginable with SIGNA™ Artist.





**SIGNA™ Works**  
fueling the future of MR

# SIGNA™ Works

The new standard is extraordinary.

Our new SIGNA™ Works platform redefines productivity across the breadth of our core imaging techniques with solutions. The SIGNA™ Works standard applications portfolio is an extensive set of high quality and efficient imaging capabilities that enables you to achieve desired outcomes across your entire practice area.

SIGNA™ Works is the lifeblood, the soul and the muscle – literally the fuel that drives your imaging to the next level and beyond. SIGNA™ Works standard applications come pre-loaded with the SIGNA™ Artist as a fully integrated solution. It's value-added technology that's upgradeable and can be customized further, giving you the flexibility to add applications to suit the needs of your growing practice.

SIGNA™ Works takes full advantage of TDI (Total Digital Imaging), further advancing diagnostics and quickening throughput, while simultaneously improving patient outcomes and your ROI.





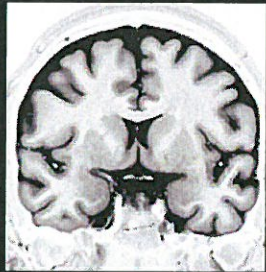
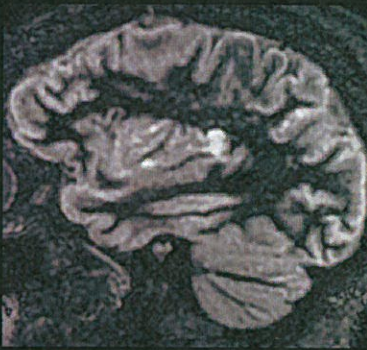
# Energize

Phenomenal exams to meet your clinical needs.

The SIGNA™Works applications portfolio contains NeuroWorks, OrthoWorks, BodyWorks, OncoWorks, CVWorks and PaedWorks. These imaging solutions cover a wide variety of contrasts, 2D and 3D volumetric data, including motion correction capabilities. SIGNA™Works provides all the tools you need to complete a clinical exam.







Cube DIR  
1.6 x 1.6 x 1.6mm

T2 STIR PROPELLER  
Axial 0.77 x 0.77 x 2mm  
Coronal 0.77 x .077 x 3mm

## NeuroWorks

This one-stop solution enables you to image brain, spine, vascular and peripheral nerve anatomy with exceptional tissue contrast. These motion-insensitive techniques feature single-click auto alignment, providing the complete neuro solution from scanning to post processing.

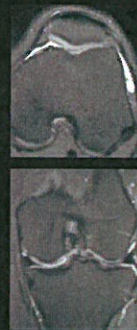
NeuroWorks also includes Cube, our 3D volumetric imaging suite, standard with every system. This application allows you to suppress CSF and either white or gray matter to increase lesion conspicuity.

PROPELLER MB, our latest PROPELLER enhancement, is a multi-shot approach that preserves tissue contrast regardless of weighting while also reducing motion artifacts. Additionally, this new technique introduces new contrasts such as T1 FSE.

## OrthoWorks

This extensive library of musculoskeletal imaging techniques enables you to image bone, joint and soft tissue with remarkable tissue contrast.

OrthoWorks also includes 3D volumetric Cube with proton-density, combined with ASPIR, which enables improved fat suppression uniformity, which is routinely done as three separate 2D scans. With one 3D acquisition and multi-planar reformats, Cube may replace individual 2D scans.



PD FatSat Cube Sagittal  
0.6 x 0.6 x 0.6mm

PROPELLER PD Coronal  
0.4 x 0.4 x 3mm



## BodyWorks

With BodyWorks, we address one of the fastest growing areas in MR. This all-inclusive library allows you to image abdominal and pelvic anatomy with user flexibility to adapt to different patient types.

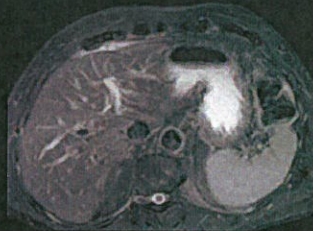
PB Navigators are GE's solution to combat respiratory motion in abdominal imaging. This free-breathing approach is compatible with multiple pulse sequences including diffusion, PROPELLER MB, MRCP and dynamic T1 imaging.



Navigated Turbo LAVA for Pancreas  
1.6 x 1.6 x 2mm



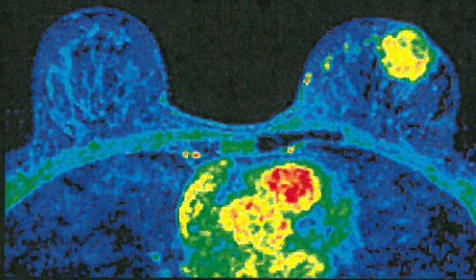
3D MRCP  
1 x 1 x 1.6mm



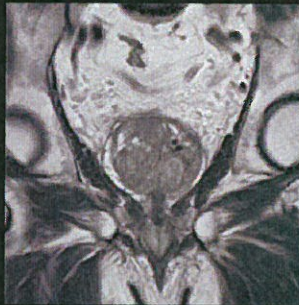
Axial T2 FatSat PROPELLER Navigated



Coronal T2 SSFSE Large FOV



Axial T1 Dynamic Contrast  
Positive Enhancement Integral Map



Coronal T2 PROPELLER  
0.6 x 0.6 x 4mm

## OncoWorks

This extensive library of techniques captures anatomic and morphologic data to uniquely enable oncological assessment of the anatomy. OncoWorks includes robust tissue contrast, motion-insensitive, high temporal and spatial resolution imaging.

3D volumetric imaging with an optimized adiabatic fat suppression, combined with ARC or ASSET, provides high spatial and temporal resolution capture contrast uptake patterns. The images on the left show lesion characteristics generated using AW V57's positive enhancement map. The T2 PROPELLER image demonstrates small FOV and motion-correction through the prostate.



## CVWorks

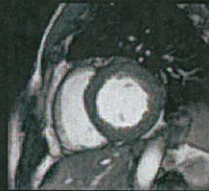
With our intuitive cardiac techniques, you can assess morphology, flow, function and tissue viability plus gain crucial insights into vascular structure and flow dynamics. CVWorks provides the flexibility to adapt to different patient types with exams that vastly simplify workflow.

With CVWorks, multi breath-hold imaging can be a thing of the past. Our latest Single Shot MDE and Black Blood techniques provide patient-friendly alternatives to uncomfortable breath-holds.

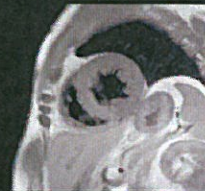
With our workflow-simplified QuickStep protocols, scanning whole body vasculature can be done in less than 6 minutes. High-performance gradients allow bright blood pool and myocardial tissue contrast on FIESTA Cine while preserving spatial resolution.



QuickStep MRA



Short Axis 2D  
FIESTA Cine



Black Blood - T1



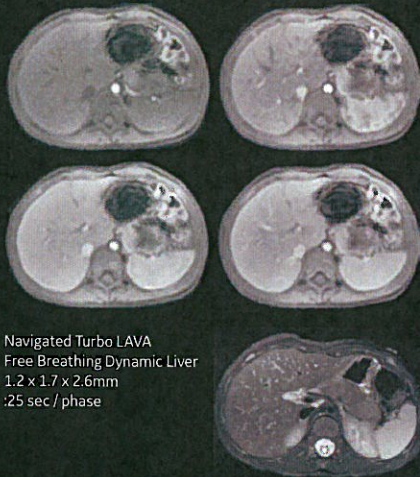
Black Blood - SSFSE T2  
ASPIR



PS MDE

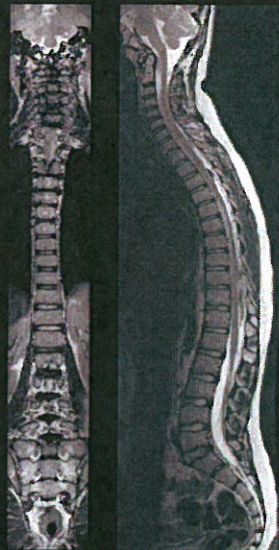


4ch FIESTA Cine



Navigated Turbo LAVA  
Free Breathing Dynamic Liver  
1.2 x 1.7 x 2.6mm  
.25 sec / phase

Axial T2 FatSat  
FOV 24cm  
0.9 x 1.1 x 5mm



Sagittal T2 Cube Pasted  
1 x 1 x 1.4mm

## PaedWorks

PaedWorks provides specialized protocols to simply address the needs of your smallest, most fragile patients. Techniques such as PB Navigators combined with PROPELLER MB are used with advanced techniques like diffusion imaging, allowing for patient-friendly, entirely free-breathing exams. Additionally, cardiac exams using Single Shot MDE provide faster, more reliable results.

Images on the left demonstrate dynamic T1 imaging with PB Navigator, which enables the patient to breathe freely while capturing contrast in fast temporal phases. Whole spine evaluation can be obtained simply with routine T2 frFSE imaging.





HyperWorks

ViosWorks

ImageWorks

SilentWorks

# Expand

Broaden your areas of expertise.

Take your expertise to the next level when you move beyond the standard with SIGNA™Works innovative applications. Improved image quality, higher efficiency and a more streamlined workflow help you perform better than ever before.

#### **HyperWorks**

HyperWorks means hyper scanning with astonishing imaging and impressive speed. Exclusively introduced on SIGNA™ Artist's hardware and TDI platform, HyperWorks includes HyperSense, which delivers up to 8x faster results.\*

\* When used in combination with ARC.

#### **ViosWorks**

For the first time, all 7 dimensions of information; 3D in space, 1D in time and 3D in velocity can be captured in a 10-minute or less cardiovascular scan. ViosWorks includes a cloud-based, real-time visualization tool, powered by Arterys™. ViosWorks is truly groundbreaking as it reduces the complexity and cost of cardiac imaging with improved results in a shorter amount of time.

#### **SilentWorks**

SilentWorks is GE's most advanced noise-reducing technology and strengthens our promise to transform the patient experience. Traditional exams can be as loud as a rock concert, but our innovative SilentWorks technology reduces sound levels to roughly the same as ambient noise.

#### **ImageWorks**

ImageWorks boosts your overall MR performance through automation and advanced post-processing capabilities. READYView visualization and MAGIC one-and-done scanning help ensure consistent and clear results.





## HyperWorks HyperCube

HyperCube expands the capabilities of 3D imaging, allowing you to significantly reduce scan times and eliminate artifacts such as motion and aliasing by reducing the phase field of view without the presence of aliasing artifacts.



Axial T2 HyperCube Flex Orbits  
Water Image  
0.6 x 0.8 x 1.00mm<sup>3</sup>  
3:19 min



Sagittal T1 HyperCube Flex  
Water Image  
1 x 1 x 1.4mm<sup>3</sup>  
3:01 min

## HyperSense

With HyperSense, you can obtain images with significantly fewer samples, thereby reducing the overall scan time without compromising spatial resolution or image quality. HyperSense is not dependent on coil geometry and is less sensitive to image artifacts or SNR loss at higher accelerations when compared to conventional parallel imaging techniques.



Sagittal PD Cube FatSat  
16ch T/R Knee Coil  
0.5 x 0.5 x 0.5mm<sup>3</sup>  
5:18 min



Sagittal 3D Cube DIR  
(Coronal Reformat)  
1.3 x 1.3 x 1.4mm<sup>3</sup>  
4:02 min

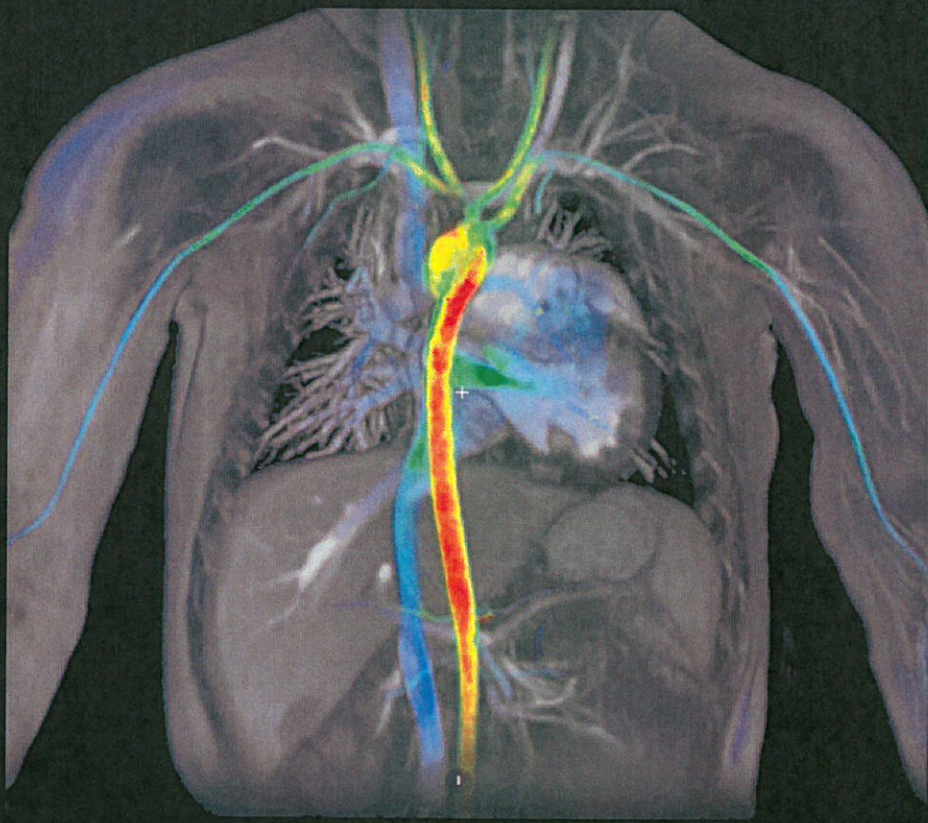


Time of Flight  
0.7 x 0.8 x 1.00mm<sup>3</sup>  
2:38 min



Coronal T2 HyperCube Flex  
Water Image  
1.2 x 1.2 x 1.4mm<sup>3</sup>  
4:56 min





## ViosWorks

ViosWorks, powered by Arterys™, provides detailed quantitative flow, regurgitant measurements and stroke volume. Thickness and mass and ejection fractions can be obtained with this precise and non-invasive solution.



## SilentWorks

SilentWorks is available across all anatomies and can be done with multiple weightings and coils, including DWI. Zero TE techniques enable imaging in vasculature structures with less artifacts that are commonly seen on traditional scans. And with new enhancements like 3D Silenz and PROPELLER MB, your exam time is shortened without compromise.



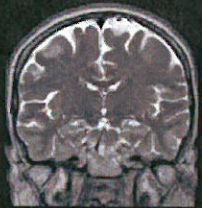
Axial T2 Silent PROPELLER  
<11dB  
0.8 x 0.8 x 5mm



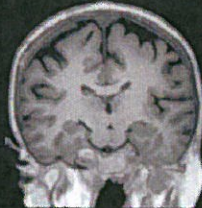
Axial T2 FLAIR Silent PROPELLER <11dB  
0.9 x 0.9 x 5mm



Axial DWI Silent PROPELLER <11dB  
2.1 x 2.1 x 5mm



Coronal T2 Silent PROPELLER <11dB  
0.8 x 0.8 x 4mm



Coronal Reformat (Sagittal T1 Silenz <3dB)  
1.2 x 1.2 x 1.2mm

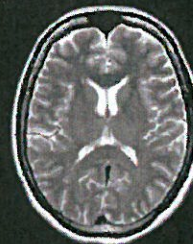
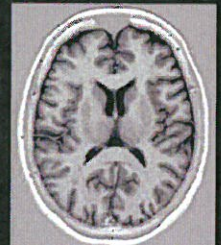
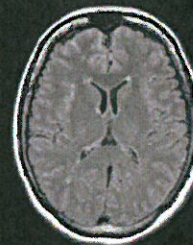
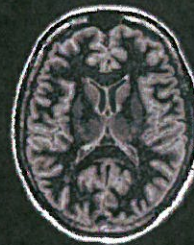


Sagittal T2 PROPELLER FatSat Silent

## ImageWorks

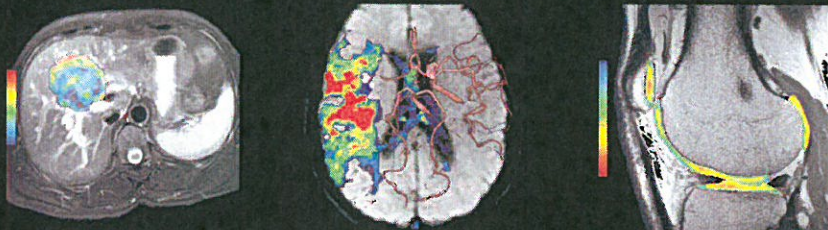
### MAGiC

The secret of MAGiC lies in its unique ability to make possible multiple image contrasts in a single neuro scan. MAGiC delivers enhanced clinical flexibility by freeing up time for advanced imaging. MAGiC goes beyond the routine, providing complementary parametric data for a more complete picture. Image contrast can be changed by applying simple adjustments after acquisition.



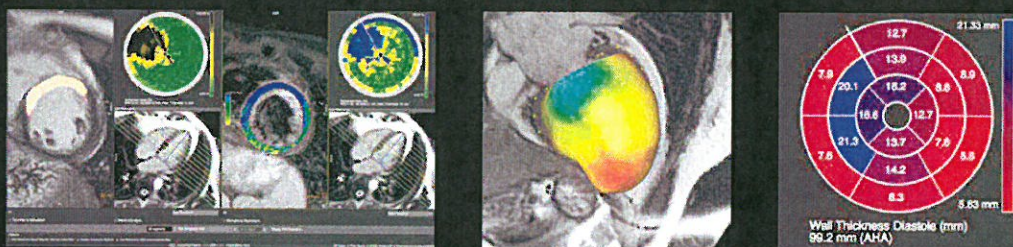
DIR, FLAIR, PSIR (top), T1, T2, and T1 map (bottom) were acquired in one scan in about 5 minutes.





## READYView

READYView helps simplify complex exams by providing a visualization platform that gives you access to advanced post processing technology. With READYView being directly available on the MR operator console, it accelerates workflow and reading readiness by eliminating time consuming post processing steps.

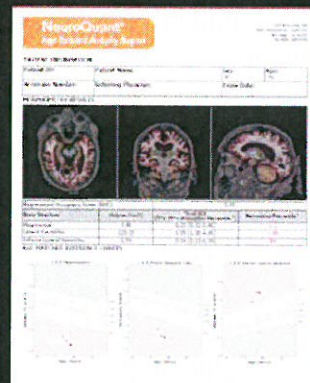


## cmr<sup>42</sup>

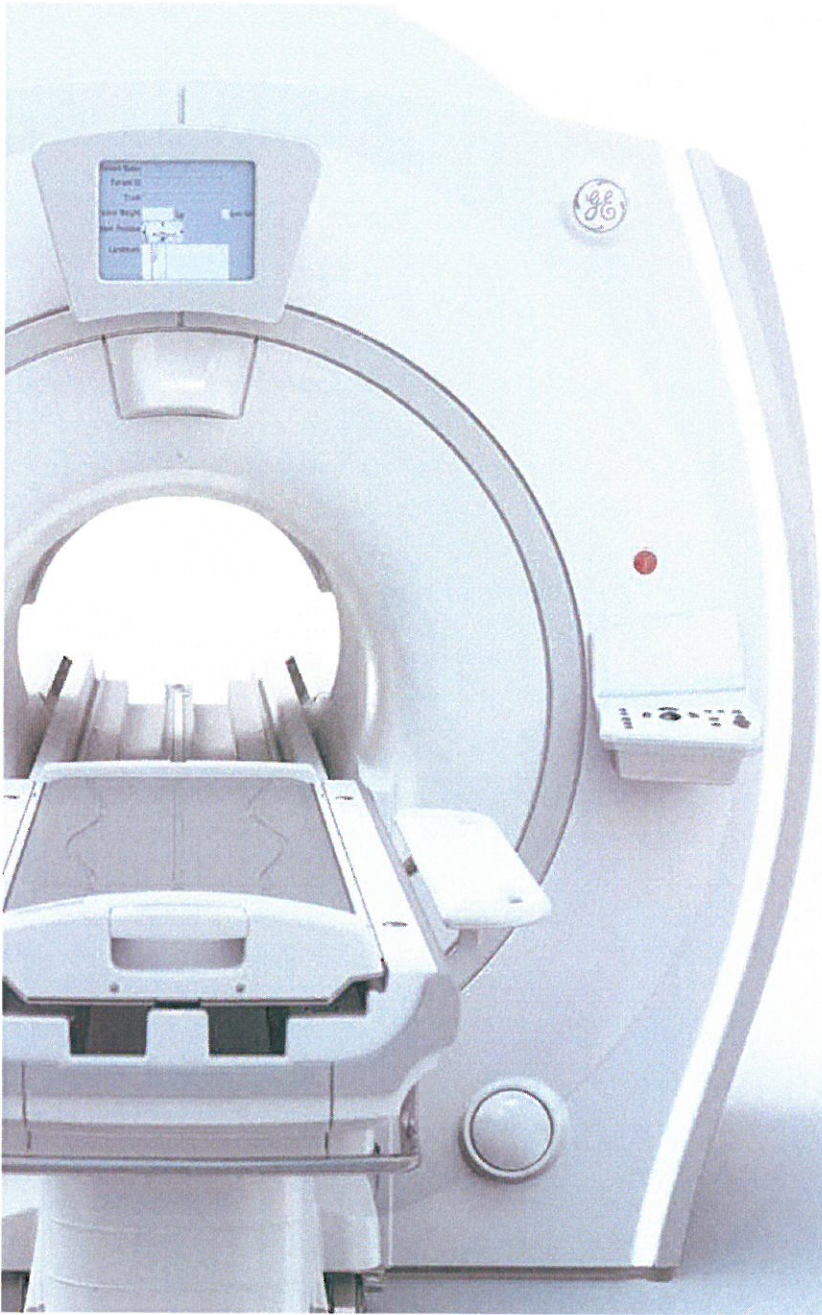
cmr<sup>42</sup> is a comprehensive cardiovascular post processing solution that uses automated algorithms to assess tissue characterization, mapping, flow and function.

## NeuroQuant

NeuroQuant automatically segments and measures volumes of brain structures and compares these volumes to norms. This information helps make a diagnosis and follow the progression of a disease. NeuroQuant can provide reports for a variety of clinical impressions, including Age Related Atrophy, Hippocampal Volume Asymmetry, Multi-Structure Atrophy, Triage Brain Atrophy, Brain Development and General Morphometry.







# Elevate

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Raise your MR performance to new heights with groundbreaking technology.

The SIGNA™ Artist is designed to overcome barriers that held you back. The cutting-edge platform makes it the most versatile, adaptable and powerful 1.5T system available from GE to date. Now, feet-first, whole body coverage is made easy. Dynamic yet insightful, the SIGNA™ Artist is MR built to work for you, not the other way around.

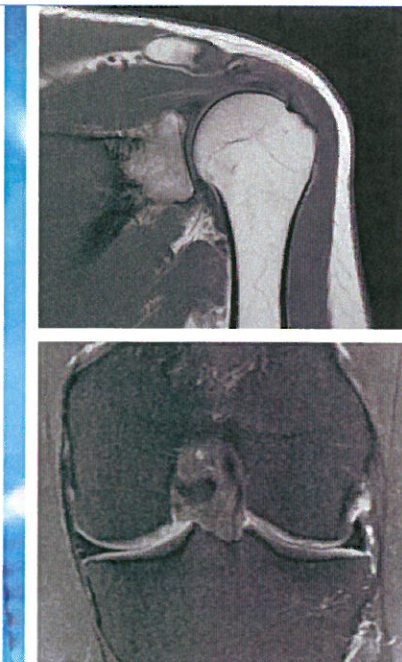
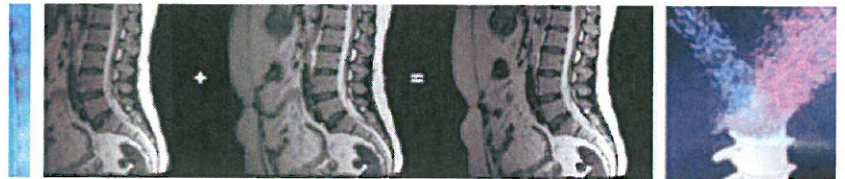


## Total Digital Imaging (TDI)

The SIGNA™ Artist offers startling advances in imaging and a total imaging win with TDI.

GE's **Direct Digital Interface (DDI)** employs an independent analog-to-digital converter to digitize inputs from each of up to 128 RF channels, eliminating unnecessary noise enhancement. In other words, every element translates to a digitized signal. The result? Not only does DDI technology improve the SNR of our images but it also works with legacy GE coils for unmatched flexibility.

**Digital Micro Switching (DMS)** technology represents a revolutionary advance in RF coil design by replacing analog blocking circuits with intelligent Micro Electro-Mechanical Switches (MEMS). The result? Coil design supports ultrafast coil switching times for further expansion of zero TE imaging capabilities and reduced power consumption.



## 16 Channel Shoulder and T/R Knee Coils

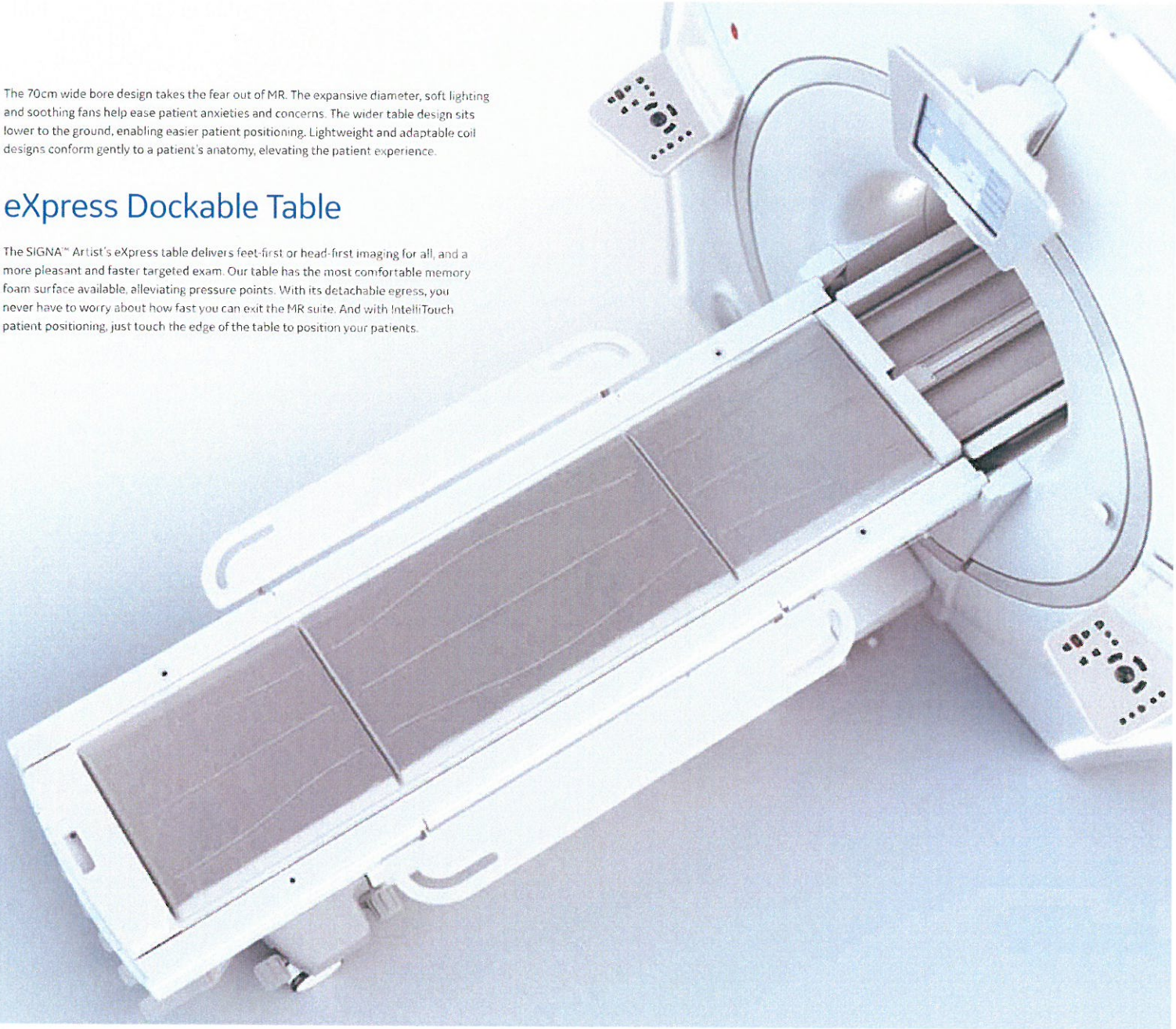
The 16 channel shoulder coil is a novel anatomy-adaptive coil design that provides efficient positioning workflow and outstanding patient comfort. The flexibility of the anterior paddle makes it possible to get closer to the patient to maximize SNR and improve imaging outcomes.

The 16 channel transmit/receive (T/R) knee coil delivers high-resolution knee imaging. The T/R design provides improved  $B_1$  performance with the potential for higher resolution results, lower SAR and elimination of image backfolding. The larger diameter accommodates a wider range of patients and allows for simplified patient setup and higher patient comfort. The new design supports image acceleration in all directions for faster and enhanced clinical outcomes.

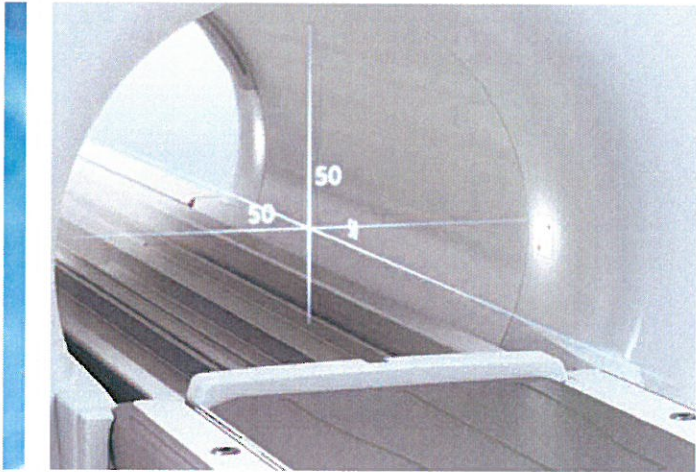
The 70cm wide bore design takes the fear out of MR. The expansive diameter, soft lighting and soothing fans help ease patient anxieties and concerns. The wider table design sits lower to the ground, enabling easier patient positioning. Lightweight and adaptable coil designs conform gently to a patient's anatomy, elevating the patient experience.

## eXpress Dockable Table

The SIGNA™ Artist's eXpress table delivers feet-first or head-first imaging for all, and a more pleasant and faster targeted exam. Our table has the most comfortable memory foam surface available, alleviating pressure points. With its detachable egress, you never have to worry about how fast you can exit the MR suite. And with IntelliTouch patient positioning, just touch the edge of the table to position your patients.





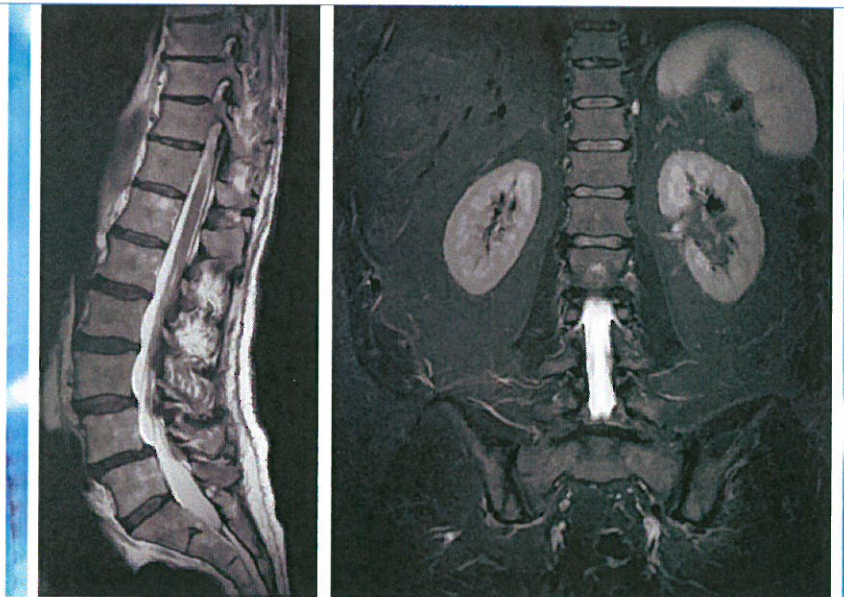


## FOV

In addition to accommodating larger patients, full 50x50x50cm FOV in a 70cm wide bore allows you to properly image off-center anatomy such as shoulders and hips. The SIGNA™ Artist's phenomenal homogeneity enables our largest FOV ever, with higher gradient specifications. Additionally, excellent spatial integrity is provided by 3D GradWarp distortion correction, so no body part is left behind.

## deFINE

deFINE takes the results of SIGNA™ Artist to the next level by enhancing the image appearance with integrated, in-line, optimizable settings. These settings can be generated for each individual sequence or for the entire exam. With deFINE, you meet your high quality image needs and go beyond the normal.



#### About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our "healthymagination" vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality around the world. Headquartered in the United Kingdom, GE Healthcare is a unit of General Electric Company (NYSE: GE). Worldwide, GE Healthcare employees are committed to serving healthcare professionals and their patients in more than 100 countries. For more information about GE Healthcare, visit our website at [www.gehealthcare.com](http://www.gehealthcare.com).

[www.gehealthcare.com](http://www.gehealthcare.com)



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MIR-0504-01.17-EN-US  
JB46119US



# Attachment G

## 2018 CHS University MRI Replacement Equipment Comparison Chart

	Existing Equipment	Replacement Equipment
Type of Equipment (List each component)	MRI Scanner	MRI Scanner
Manufacturer of Equipment	Philips Medical Systems	GE Medical Systems
Tesla Rating for MRIs	1.5T	1.5T
Model Number	Intera	Signa
Serial Number	522948	TBD
Provider's Method of Identifying Equipment	Serial Number	Serial Number
Specify if Mobile or Fixed	Fixed	Fixed
Mobile Trailer Serial Number/VIN #	N/A	N/A
Mobile Tractor Serial Number/VIN #	N/A	N/A
Date of Acquisition of Each Component	2002	2018
Does Provider Hold Title to Equipment or Have a Capital Lease?	Title	Title
Specify if Equipment Was/Is New or Used When Acquired	New	New
Total Capital Cost of Project (Including Construction, etc.)	\$3,291,416	\$2,768,000
Total Cost of Equipment (MRI & Injector)	\$1,914,400	\$1,493,626
Fair Market Value of Equipment (MRI & Injector)	\$80,708	\$1,493,626
Net Purchase Price of Equipment (MRI & Injector)	\$1,914,000	\$1,493,626
Locations Where Operated	First floor, CHS University	First floor, CHS University
Number Days in Use/To Be Used in N.C. per Year	365	365
Percent of Change in Patient Charges (by procedure)	0%	0%
Percent of Change in Per Procedure Operating Expenses (by procedure)	0%	0%
Type of Procedures Currently Performed on Existing Equipment	Routine MRI, limited MRA and specialty work	N/A
Type of Procedures New Equipment is Capable of Performing	N/A	Routine MRI, MRA, Abdominal, and specialty work

# Attachment H



**CHS University MRI Volumes**

<b>Feb-17</b>	444
<b>Mar-17</b>	455
<b>Apr-17</b>	503
<b>May-17</b>	510
<b>Jun-17</b>	432
<b>Jul-17</b>	454
<b>Aug-17</b>	536
<b>Sep-17</b>	469
<b>Oct-17</b>	458
<b>Nov-17</b>	435
<b>Dec-17</b>	407
<b>Jan-18</b>	466
<b>Total:</b>	5,569

# Attachment I

February 20<sup>th</sup>, 2018

**Janna Riley**  
Imaging Director  
Atrium Health University  
8800 North Tryon Street  
Charlotte, NC 28262

**RE: Philips Achieva 1.5T MRI**

Dear Janna,

Thank you for allowing General Electric Healthcare (GEHC) the opportunity to earn your business. Atrium Health University is a valued customer and we truly appreciate the partnership we share.

The purpose of this letter is to inform you that General Electric Healthcare will be responsible for removing your existing Philips Achieva 1.5T MRI Scanner as part of your upcoming GE Signa Artist 96ch 1.5T MRI purchase and estimate the de-installation and removal will be completed at no additional charge to Atrium Health University. Atrium Health University will be responsible for the cost of any scan room construction, renovation, clearing the rig path, rigging costs, and opening the scan room access panel. We will work closely with your facilities planning department to insure proper timing of the de-installation. The system will be de-installed, removed, and shipped by our GE team to our Goldseal business in Waukesha, WI. We understand and confirm that this unit may not be returned to the State of North Carolina without proper authorization from the North Carolina Certificate of Need (CON) section of DHSR.

Thank you again for the opportunity to earn your business. If you have any additional questions, feel free to call me at any time.

Sincerely,



Scott

**F. Scott Ramsey**  
MR Product Manager, NC  
General Electric Healthcare  
919-621-1657  
scott.ramsey@ge.com