



North Carolina Department of Health and Human Services  
Division of Health Service Regulation  
Certificate of Need Section

2704 Mail Service Center • Raleigh, North Carolina 27699-2704  
<http://www.ncdhhs.gov/dhsc/>

Drexdal Pratt, Director

Beverly Eaves Perdue, Governor  
Albert A. Delia, Acting Secretary

Craig R. Smith, Section Chief  
Phone: (919) 855-3873  
Fax: (919) 733-8139

July 18, 2012

Per Normark  
Med Quest Associates  
3480 Preston Ridge Suite #600  
Alpharetta, GA 30005

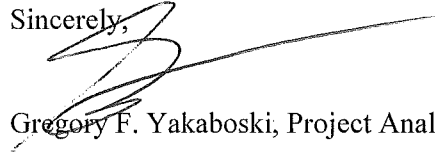
RE: Exempt from Review - Replacement Equipment / Carolina Imaging / Replace MRI Scanner/  
Cumberland County

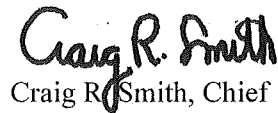
Dear Mr. Normark:

In response to your letter of May 16, 2012 and email of July 17, 2012 the above referenced proposal is exempt from certificate of need review in accordance with N.C.G.S 131E-184(a)(7). Therefore, you may proceed to acquire, without a certificate of need, the Hitachi Oasis 1.2T MRI scanner to replace the existing Hitachi Altaire 0.7T MRI Scanner. This determination is based on your representations that the existing unit will be removed from North Carolina and will not be used again in the State without first obtaining a certificate of need. Further please be advised that as soon as the replacement equipment is acquired, you must provide the CON Section and the Medical Facilities Planning Section with the serial number of the new equipment to update the inventory, if not already provided. In addition, you should contact the Construction Section, DHSR to determine if they have any requirements for development of the proposed project.

It should be noted that this 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 Agency and a separate determination. If you have any questions concerning this matter, please feel free to contact this office.

Sincerely,

  
Gregory F. Yakaboski, Project Analyst

  
Craig R. Smith, Chief  
Certificate of Need Section

cc: Medical Facilities Planning Section, DHSR  
Construction Section, DHSR



## Yakaboski, Greg

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**From:** Brooks, Tiffany [tbrooks@medquestmail.com]  
**Sent:** Tuesday, July 17, 2012 11:33 AM  
**To:** Yakaboski, Greg  
**Subject:** Fw: Carolina Imaging - clarification

----- Original Message -----

**From:** Brooks, Tiffany  
**Sent:** Tuesday, July 17, 2012 10:53 AM  
**To:** 'greg.yakabowski@dhhs.nc.gov' <greg.yakabowski@dhhs.nc.gov>  
**Subject:** Carolina Imaging - clarification

Greg-

Please accept this as clarification that the Hitachi Altaire 0.7T that will be replaced at Carolina Imaging will be removed from North Carolina. The costs associated with the removal of the Altaire 0.7T scanner are included in the purchase price of the replacement MR scanner.

Tiffany Brooks  
Manager, Certificate of Need

# MedQuest

ASSOCIATES

May 16, 2012



**VIA HAND DELIVERY**

Craig R. Smith, Chief  
Martha J. Frisone, Assistant Chief  
North Carolina Department of Health and Human Services  
Division of Health Service Regulation  
Certificate of Need Section  
809 Ruggles Drive  
Raleigh, North Carolina 27603

Re: Notice of Replacement Equipment for Health Service Area V, Cumberland County/Carolina Imaging, 3628 Cape Center Drive, Fayetteville, North Carolina

Dear Craig and Martha:

On behalf of Carolina Imaging and in accordance with N.C. Gen. Stat. § 131E-184(a)(7), I am writing to notify the Department of Carolina Imaging's intention to acquire a replacement MRI scanner for its existing outpatient imaging center in Cumberland County.

Carolina Imaging owns a Hitachi Altaire 0.7T MRI scanner ("Altaire") that is over seven (7) years old. *See* Exhibit A, attached replacement equipment comparison form. This MRI scanner now needs to be replaced. Carolina Imaging intends to replace the existing Altaire with a Hitachi Oasis 1.2T MRI scanner ("Oasis").

The estimated construction costs, including architect's fees and project contingency, for the proposed replacement equipment total \$363,350. The purchase price of the Oasis is \$1,345,000. Carolina Imaging will also acquire an injector for contrast studies for \$25,819. The total equipment cost including tax is \$1,466,776. The total capital expenditure for the proposed replacement equipment project is \$1,830,126.

This proposal meets the definition of "replacement equipment" as set forth in N.C. Gen. Stat. § 131E-176(22a) because:

1. The cost of the equipment and the cost of all activities essential to acquiring and making operational the replacement equipment are less than \$2 million; and
2. The sole purpose of this proposal is to replace comparable medical equipment currently in use, which will be sold or otherwise disposed of when replaced.

Further, this proposal meets the requirements of 10A NCAC 14C .0303(d) because:

Craig R. Smith  
Martha J. Frisone  
May 16, 2012  
Page 2

- The Hitachi Oasis has the same technology as the Altaire although it may possess expanded capabilities due to technological improvements;
- The Hitachi Oasis is functionally similar and is used for the same diagnostic or treatment purposes as the Altaire and is not used to provide a new health service; and
- The acquisition of the Oasis will not result in more than a 10% increase in patient charges or per procedure operating expenses within the first twelve months after the replacement equipment is acquired.

None of the exclusions in 10A NCAC 14C .0303(e) applies here.

Based on the foregoing, Carolina Imaging respectfully requests that the CON Section confirm, in writing that the above referenced proposal is exempt from CON review pursuant to N.C. Gen. Stat. § 131E-184(a)(7). Please address any correspondence to:

Per B. Normark  
MedQuest Associates  
3480 Preston Ridge Suite #600  
Alpharetta, GA 30005

Thank you for your time and attention.

Sincerely,



Tiffany Brooks  
Manager, Certificate of Need

Enclosure



## **Equipment Comparison Form**

**EQUIPMENT COMPARISON -- MR**

CAROLINA IMAGING	EXISTING EQUIPMENT	REPLACEMENT EQUIPMENT
Type of Equipment (List Each Component)	Hitachi Altaire	Hitachi Oasis
Manufacturer of Equipment	Hitachi	Hitachi
Tesla Rating for MRIs	NA	NA
Model Number	Altaire	Oasis
Serial Number	LO191	NA
Provider's Method of Identifying Equipment	Serial #	Serial #
Specify if Mobile or Fixed	Fixed	Fixed
Mobile Trailer Serial Number/VIN #	NA	NA
Mobile Tractor Serial Number/VIN #	NA	NA
Date of Acquisition of Each Component	01/2005	3/2012
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.) <Use Attached Form>		
Total Cost of Equipment	\$1,300,000	\$1,345,000
Fair Market Value of Equipment	\$150,000	\$1,345,000
Net Purchase Price of Equipment		\$1,345,000
Locations Where Operated	3628 Cape Center Drive, Fayetteville, NC	3628 Cape Center Drive, Fayetteville, NC
Number Days In Use/To Be Used in N.C. Per Year	255	255
Percent of Change in Patient Charges (by Procedure)	NA	NA
Percent of Change in Per Procedure Operating Expenses (by Procedure)	NA	NA
Type of Procedures Currently Performed on Existing Equipment	General Outpatient MR Scans of the Body/ Extremities	General Outpatient MR Scans of the Body/ Extremities + MRA Carotid, Renal, Faster Acquisition Times
Type of Procedures New Equipment is Capable of Performing	General Outpatient MR Scans of the Body/ Extremities	General Outpatient MR Scans of the Body/ Extremities + MRA Carotid, Renal, Faster Acquisition Times

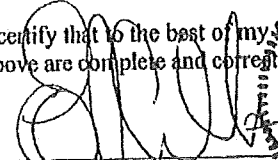
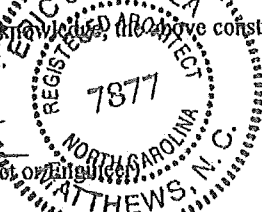
## **Project Capital Cost Form**

**PROJECT CAPITAL COST**

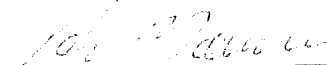
**Project Name: Carolina Imaging MRI Upgrade – Fayetteville, NC**  
**Proponent: Carolina Imaging, LLC**

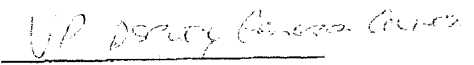
<b>A. Site Costs</b>			
(1)	Full purchase price of land		<u>\$Not Applicable</u>
	# Acres _____ Price per Acre \$ _____		
(2)	Closing costs		<u>\$Not Applicable</u>
(3)	Site Inspection and Survey		<u>\$Not Applicable</u>
(4)	Legal fees and subsoil investigation		<u>\$Not Applicable</u>
(5)	Site Preparation Costs [Include]		
	Soil Borings		
	Clearing and Grading		
	Roads and Parking		
	Sidewalks		
	Water and Sewer		
	Excavation and Backfill		
	Termite Treatment		
	<b>Sub-Total Site Preparation Costs</b>	<u>\$Not Applicable</u>	
(6)	Other (Specify)		<u>\$Not Applicable</u>
(7)	<b>Sub-Total Site Costs</b>		<u>\$ Not Applicable</u>
<b>B. Construction Contract</b>			
(8)	Cost of Materials [Include]		
	General Requirements		
	Concrete/Masonry		
	Woods/Doors & Windows/Finishes		
	Thermal & Moisture Protection		
	Equipment/Specialty Items		
	Mechanical/Electrical		
	<b>Sub-Total Cost of Materials</b>	\$ _____	
(9)	Cost of Labor	\$ _____	
(10)	Other	\$ _____	
(11)	<b>Sub-Total Construction Contract (MRI construction, Shielding, Mechanical, Electrical, Plumbing</b>		
	<b>\$275,000 GC&amp; \$21,350 Shielding)</b>	<u>\$296,350</u>	
<b>C. Miscellaneous Project Costs</b>			
(12)	Building Purchase	\$ _____	
(13)	Fixed Equipment Purchase/Lease	<u>\$1,466,776</u>	
(14)	Movable Equipment Purchase/Lease	\$ _____	
(15)	Furniture	\$ _____	
(16)	Landscaping	\$ _____	
(17)	Consultant Fees		
	Architect/Engineering Fees	<u>\$17,000</u>	
	Legal Fees	\$ _____	
	Market Analysis	\$ _____	
	Other	\$ _____	
	<b>Total Consultant Fees</b>	<u>\$17,000</u>	
(18)	Financing Costs (e.g. Bond, Loan, etc.)	<u>\$Not Applicable</u>	
(19)	Interest During Construction	<u>\$Not Applicable</u>	
(20)	Other (Contingency)	<u>\$ 50,000</u>	
(21)	<b>Sub-Total Miscellaneous</b>	<u>\$1,533,766</u>	
D.	<b>Total Capital Cost of Project (Sum A-C above)</b>		<u>\$1,830,126</u>

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)  


I assure that, to the best of my knowledge, the above capital costs for the proposed project are complete and correct and that it is my intent to carry out the proposed project as described.

  
 (Proponent – signature of officer)

  
 (Title of officer)

## **Equipment Quote**

**HITACHI MEDICAL SYSTEMS AMERICA, INC.**

1959 Summit Commerce Park, Twinsburg, Ohio 44087-2371  
Tel: 330.425.1313 Fax: 330.405.8079

Quotation Number: CM1152

Revision Number: 2

Quotation Date: 02/09/2012

**HITACHI**  
Inspire the Next

***HMSA Quotation for:***

Carolina Imaging, LLC of Fayetteville  
3628 Cape Center Dr  
Fayetteville, NC 28304

This quotation constitutes Hitachi Medical Systems America, Inc.'s offer to sell the products described herein. Purchaser's agreement to be bound by this offer shall be indicating acceptance of the Terms and Conditions of Sale printed on the reverse side of this page.

**This agreement shall not bind Hitachi Medical Systems America, Inc. until it has been countersigned by an authorized representative in its corporate offices in Twinsburg, Ohio.**

This Quotation is valid: 180 Days  
Quote Expires: 11/06/2012  
Sales Representative: Craig Micciche  
Phone: (330) 425-1313 x4156  
Email: miccichec@hitachimed.com

**OASIS HIGH-FIELD BORE-LESS MR**



**Customer Acceptance**

**Hitachi Medical Systems America, Inc.**

<p>By: _____ (signature)</p> <p>Name/Title: _____</p> <p>Date: _____</p> <p>Projected Delivery: _____</p>	<p>Submitted by: _____ Date: _____</p> <p>Accepted: _____ Date: _____</p>
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HMSA is currently scheduling systems for delivery a minimum of 120 days after satisfaction of any contingencies contained in a signed order that has been received and accepted by the President of HMSA.

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

ALTRADE ALTAIRE TRADE-IN CREDIT - s/n TBD

Used Hitachi Altiare Magnetic Resonance Imaging System, Serial No. XXXX, and all additions and accessions thereto (the "Equipment"). This includes all coils that are shown on HMSA records as being part of the Equipment.

This option specifically includes only the following items:

**DEINSTALLATION**

- a. Disconnecting all Cables.
- b. Preparation of System for Shipment.
- c. 8:00 a.m. - 5:00 p.m. Monday - Sunday at a specific time to be reasonably determined by customer.

**TRANSPORTATION**

Transportation of the MR system from the trade-in location to HMSA inventory is the responsibility of HMSA.

**RIGGING**

Reasonable and Customary Rigging Costs for removal of the MR system are included.

**SITE CONSTRUCTION**

Site Construction Costs for removal of MR system are NOT included and are the responsibility of the Customer.

Quoted trade values are good for units received by HMSA within 150 days of the quote. Trade value may be reduced for units received by HMSA after 150 days and the invoice amount for the new order may be increased so that the gross selling price remains the same.

All outstanding debt with HMSA related to the trade in unit must be satisfied prior to the return of any monies on deposit with HMSA.

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-INT3 Oasis: High-field Bore-Less MR Imaging**

For You and Hitachi, It's About the Patient. Day in. Day out. High throughput diagnostic performance with uncompromised patient comfort.

Oasis brings high speed gradients, multi-channel RF technology and unmatched Zenith™ RF Coils to the only truly open architecture high-performance systems ever installed-Hitachi Systems.

This powerful 1.2T vertical field MRI delivers image quality for today's high-field applications. Combines uncompromised MR imaging with Hitachi's legendary reliability and responsive service. And offers these advancements on the established Hitachi easy-to-learn and use platform.

Patient comfort. Diagnostic confidence. And investment value. The Oasis ownership opportunity is a powerful way to position your imaging abilities as the best in patient care.

Unique Oasis features

- PACT™ - Patient Active Comfort Technology
- 1.2T Hitachi High Field Bore-Less Superconducting Magnet
- HOAST™ - Higher Order Active Shimming Technology
- High Output Gradient System
- Zenith™ Radiofrequency System and Zenith Coils
- Vertex™ Computer System
- Origin™ MR Operating System
- NeuroSuite
- OrthoSuite
- BodySuite
- VascularSuite
- Hitachi UltraPlus Customer Support



Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-PAC3 PACT™ - Patient Active Comfort Technology**

Like you, the Hitachi focus is on the patient. Our mastery of patient-focused MR imaging is demonstrated in the PACT feature, delivering patient comfort and operator convenience benefits in concert with diagnostic confidence. The Hitachi-exclusive PACT feature set includes:

- Unobstructed view offered by our truly Open MRI design and 30 degree rotated table - magnet alignment - patients will always have a clear lateral view
- 660 lbs. patient weight limit - the highest in the industry
- 82cm wide table with 20cm lateral (in bore), 222cm longitudinal and 40cm vertical motor driven movement control (lowers to 51cm for easy wheelchair transfer)
- Multiple simultaneous coil connections to minimize setup time
- Patient area lighting to further reduce anxiety
- SoftSound™ Gradient Technology reduces gradient noise without compromising clinical performance
- Constant two-way communication system reduces patient anxiety
- Operator alert (patient initiated) brings attention to the patient even without speaking

The quadrature T/R Body coil provides the transmit capability for the system, as well as offering an alternative receiver coil when surface and volumetric coils cannot be employed.

A full set of custom pads and straps promotes patient comfort and consistent image quality, with a wide range of patients and body habitus'.

The benefits that flow from PACT and the other Oasis patient management features include minimized patient non-compliance, access to MRI for patients who cannot be managed in other scanners, and high patient volumes.

**OAS-MAG3 1.2T Hitachi High Field Bore-Less Superconducting Magnet with HOAST**

At 1.2 Tesla, Oasis is the highest field strength, whole body vertical field magnet. And only the proven experience of Hitachi could bring this high-field performance to you. Hitachi expertise in vertical field magnet design and solenoid coil signal detection delivers outstanding image quality-with no compromise on patient comfort.

The high uniformity of the magnetic field established during installation is maintained by per patient electronic shimming in two stages. Gradient shimming is applied to reduce linear terms, and in addition to this linear shimming Oasis also includes HOAST™ per patient Higher Order Active Shimming Technology and regional shimming. The two levels of shimming enable exquisite RF fat saturation.

Important Oasis magnet features include:

- 1.2T vertical field strength for high SNR
- Iron core for high field strength, uniformity and stability
- Homogeneity: 0.3ppm@35cm DSV(VRMS) for excellent general image quality and RF fat saturation
- 45cm FOV in all axes
- Shimming features including Computer-modeled passive shims placement and per-patient Higher Order Active Shim Technology
- Active magnetic shielding to minimize the 5 Gauss footprint
- Helium only cryogen design (single cryocooler) with refill once every two years with HMSA approved maintenance

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-HGS3 High Output Gradient System**

Recognizing that a high performance gradient system is key to meeting today's expectations for image quality and resolution, Hitachi equipped Oasis with a powerful gradient system. Capable of strength up to 33 mT/m and slew rate of up to 100 T/m/sec, Oasis' gradient system enables selection of low TR, TE and IET in combination with small FOV, and thin slices. This level of gradient capability also positions Oasis to adapt to changing MR technology and widening applications far into the future. Note that all gradient measurements represented here are single axis (not "effective") and represent x, y and z axis capabilities. Hitachi's SoftSound gradient coil mounting technique reduces acoustic noise without compromising image quality or capability.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-ZEN3 Zenith™ Radiofrequency System and Zenith Coils**

The Hitachi Zenith System is a powerful combination of multi-channel RF technology and Hitachi exclusive Zenith RF coils. Zenith drives excellent image quality, seamless workflow, wide clinical capability and optimized patient comfort. This multi-channel RF system allows simultaneous coil connection for patient comfort and efficiency. And includes RAPID (Hitachi's parallel imaging feature) to reduce scan times and optimize the most comprehensive collection of vertical field RF coils.

**Transmit System:** An 18kW solid state transmit amplifier ensures sufficient power is available for the broadest range of patient sizes. Oasis' additional power also leaves room for future expansion of MR technology that may require additional RF power. SAR is closely monitored and limited to protect the patient while not needlessly constraining the operator. Oasis' transmit and receiver system is designed for interactive, realtime parameter changes and motion compensation techniques.

**Receiver System:**

- 8 channel RF receiver system
- 2 coil connection points on the table. Users can plug coils in simultaneously for maximum convenience and patient comfort
- Automatic coil detection ensures the correct coil is in operation for each step of the examination.

**Receiver Coils:** Oasis' Zenith receiver coils support RAPID parallel imaging as well as conventional imaging modes for maximum clinical flexibility and image quality. These are all Hitachi designs and include features that drive imaging time and quality benefits not available on other equipment.

**The standard Zenith receiver coils include:**

- 5 Channel RAPID Head - Patient comfort is complemented by an ultra fast, high-resolution Brain imaging capability that drives image quality and workflow benefits.
- 6 Channel RAPID Body - The multi-channel design enables applications from dynamic abdominal scans to cardiac imaging with RAPID parallel imaging.
- 8 Channel RAPID Cervical spine - Volumetric solenoid coil sensitivity and RAPID parallel imaging provide excellent C-spine imaging capability. Even with kyphotic patients.
- 8 Channel RAPID CTL - Optimized to provide the SNR and signal uniformity essential for high quality images of the entire spine. The multi-mode design (C, C-T, T, L) supports RAPID and conventional imaging.
- 6 Channel RAPID Shoulder - The inclusion of a through-arm loop with comfort pads delivers an outstanding axillary penetration capability and coil stability.
- 6 Channel RAPID Knee - The 6-channel Knee coil supports high-resolution acquisitions and provides excellent patient comfort in a compact design. The coil's volumetric solenoid technology enables exquisite orthopedic anatomic detail.

**Additional standard Quadrature, Multiple Array and Solenoid coils include:**

- MA Flexible Body Large - The quadrature design of this coil delivers excellent abdomen, torso and spine imaging for larger patients.
- MA Flexible Body Extra Large - The industry's largest body receiver coil at 190cm circumference enables collection of diagnostic images from patients at the extreme of the demographic spectrum.
- Integrated transmit/receive - The transmit coil for the system also provides receive capability delivering good imaging results for patients that cannot be imaged with other Oasis RF coils.
- General Purpose Solenoid (Halo coil) - The Solenoid design of this coil delivers good SNR for large joint imaging. The coil can also be used as a Brain coil.

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-VTX3 Vertex Computer System and Origin MR Operating Software**

From patient registration, through scan planning, scanning, image processing and image management, Oasis' Vertex computer and Origin MR operating Software deliver seamless workflow. The Origin Clinical Study Library, Graphical User Interface (GUI), Intelligent Parameter Guidance and Real-time Image Quality Calculator make scan planning a breeze for even the most complex examinations. Simultaneous scan, reconstruction, and multi-tasked image processing keep patient volume high. With Oasis, your operational efficiency is assured.

Vertex Computer/ Origin MR Operating System Features:

- Minimal operator interaction - fewer mouse clicks
- Wide 24 inch LCD workspace
- User customized protocols combining multiple sequences and post processing steps are provided, ensuring efficient, easy completion of the most complex imaging tasks
- Permanent Hitachi protocol recommendations are provided for reference or everyday use
- Intelligent Parameter Guidance for quick resolution of parameter selection conflicts
- Basic and Advanced control modes adapt to user experience
- Real time Image Quality Calculator shows impact of parameter changes on relative CNR (Contrast to Noise Ratio) and SNR (Signal to Noise Ratio) prior to scanning
- Real time spatial resolution update shows impact of parameter changes prior to scanning
- Simultaneous scan and reconstruction for seamless workflow
- CD burner combines patient images with auto launching viewer for patient and referring physician convenience
- Patient data security features including audit trail and user authentication

Interoperability features:

DICOM 3.0 compliance is a cornerstone of Oasis' Origin software. Image Storage (SCP/SCU), Query/Retrieve (SCP/SCU), Storage Commitment and Print are all provided. Automatic transfer of image series (transfer on scan or exam completion) is basic to Oasis' Storage feature.

Oasis supports the DICOM Enhanced MR Image Object which provides more standardized information about the images when transferred to compatible receiving nodes like PACS or workstations. For each DICOM receiving node, Oasis can be configured for MR Image Object, or Enhanced MR Image Object. Secondary capture and transfer of color image data is also supported

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

OAS-IMG3 Imaging Suites

Imaging Suites

The powerful, cutting edge Oasis imaging architecture delivers its outstanding clinical imaging benefits through the Imaging Suites. The Oasis standard Imaging Suites include a broad range of acquisition sequences, sequence enhancements and post processing tools. Scanning and processing features are available to meet the clinical challenge in Neuro, Orthopedic, Body, Vascular, Breast, Cancer, Cardiac, and Pediatric imaging.

Unique Imaging Suite Features

**RAPID and RAPID 3D:** Oasis's RAPID Parallel imaging software enables acceleration in slice and/or phase directions, allowing increases in temporal resolution for dynamic imaging, shortened scan times and reduced susceptibility effects for DWI, among many other benefits. The user can employ either a RAPID pre-scan calibrated technique for the fastest possible imaging (typically Brain) or RAPID self calibrating technique that collects calibration data intra-scan for excellent image quality even with physiological motion (typically for abdominal acquisitions). RAPID parallel imaging capable receiver coils are the Oasis standard as well - virtually all of the Oasis coils are designed for use with this cutting edge MR imaging advantage.

**RADAR:** (RADial Acquisition Regime) is a powerful tool for collecting motion suppressed images without sedation or excessive patient restraint. RADAR relies on a radial k-space filling technique and its 2D and 3D modes, combinability with fat saturation, T2, FLAIR, STIR, SE, or BASG type contrast plus its application to all coils, anatomy and slice planes nets the most broadly applicable radial feature available in MR imaging.

**BASG - Balanced SARGE:** Hitachi's BASG pulse sequence is available in 2D and 3D modes, and can be combined with RF fat saturation. BASG delivers high signal to noise bright fluid images, and is ideal for high spatial resolution cardiac, body, orthopedic and neuro imaging applications.

**WE - Water Excitation:** An alternative to CHES type fat suppression, useful for dynamic studies and cartilage imaging applications in combination with BASG (Balanced SARGE) or RSSG (RF spoiled SARGE).

**H-SINC RF fat saturation:** Hitachi proprietary RF fat saturation technique. The HOAST feature plus H-SINC Light and Heavy modes ensure users can deliver excellent RF fat suppression uniformity from large to small field of view for a broad range of clinical applications. Heavy mode is designed to address the challenges of Breast and Body applications in particular, while the Light mode is useful in Neuro and orthopedic applications.

**TIGRE™ Fast T1 weighted 3D Gradient Echo** sequence with fat suppression enables the combination of high spatial and high temporal resolution for outstanding dynamic liver and breast imaging.

**TIGRE C:** TIGRE T1 Fat suppressed volume imaging capability for dynamic imaging can be combined with Fluoro triggering and TPEAKS centric k-space ordering. TIGRE C simplifies arterial phase capture for breathhold liver imaging, shortens breathhold time as much as 20% and boosts SNR for Body and Breast dynamic imaging applications.

**FLUTE™:** Fluoro triggered MRA enables easy, consistent capture of the arterial phase. Users monitor the artery of interest for bolus arrival using real time scanning mode, switching instantly to the 3D diagnostic scan upon arrival. FLUTE with TPEAKS k-space ordering ensures minimal venous contamination.

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-IMG3 Imaging Suites**

**PEAKS, RPEAKS, TPEAKS:** Hitachi's centric k-space ordering techniques for MRA ensure easy, consistent capture of the critical arterial phase. Three different implementations provide for maximum clinical flexibility.

**TRAQ™:** Time resolved MRA (4D imaging) provides insight into the dynamics of blood flow, enabling effortless depiction of arterial and venous phases, without consideration of bolus timing.

**Diffusion Imaging:** The high slew rate gradient system, SS-EPI (Single Shot Echo Planar Imaging), pre-programmed multiple axes acquisitions, and automatic creation of ADC and isotropic images make the Oasis Diffusion imaging capability powerful and workflow oriented.

**HOAST™ (Higher Order Active Shimming Technology):** The magnet shim is adjusted on each patient with Oasis to promote excellence in large FOV and off-isocenter RF fat suppression. Body and orthopedic imaging benefit in particular from this important Oasis feature.

**VASC™ Non contrast MRA:** For cases complicated by renal insufficiency, users can employ Hitachi's VASC pulse sequence, netting excellent renal and peripheral vessel image quality without a bolus.

**Driven Equilibrium FSE:** Provides a method to shorten TR for 2D/3D fast spin echo sequences while maintaining excellent target contrast. The net result is shorter scan time and better patient compliance. The Driven Equilibrium technique also applies to FIR (Fast Inversion Recovery) imaging sequences and can be combined with the RADAR motion compensating technique.

**primeFSE and FIR:** Oasis delivers user adjustable bandwidth and direct TE selection for ultimate Fast Spin Echo flexibility. Bandwidth selection enables excellent depiction of anatomy in the presence of prostheses.

**NATURAL™:** Patient-specific image quality enhancement algorithm for optimal image uniformity.

**3D-GEIR:** Volume gradient echo sequence, delivers enhanced T1 contrast with high grey-white matter differentiation. Isotropic acquired images can be reconstructed in arbitrary planes with the MPR feature with excellent image quality.

**Image Stitching:** Contiguous sagittal or coronal images can be joined to provide a seamless extended field of view single image. Stitched images may be exported in a DICOM compliant format.

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-NST2 NeuroSuite Features**

The vital pulse sequences, acquisition features and post processing tools for high-quality imaging of the brain, head/neck and spinal structures are standard on Oasis. Oasis' powerful gradient system drives short neuro scan times for high throughput.

- Preprogrammed and user customized Head and Spine Protocols
- 5 Channel RAPID Head coil for high SNR and signal uniformity
- Multiple coil plug-in feature promotes patient comfort and technologist efficiency
- RADAR motion compensated imaging technique (all plane, all coil) for uncooperative or infirm patients
- High resolution - 1024 imaging
- Large 45cm FOV (all axes) complemented by HOAST features ability to deliver excellent large FOV RF fat suppression
- Image Centering - places center of prescribed slab at magnet isocenter automatically for best neuro image quality
- Fat Suppression - RF Fat saturation, STIR, Water Excitation
- 3D BASG (Balanced SARGE) sequences for IAC imaging with bright fluid
- High resolution 3D-FSE and Driven Equilibrium 3D FSE for IAC imaging
- Volume acquired datasets can be reconstructed in any plane with MPR (Multi-Planar Reconstruction)
- FLAIR, Fast FLAIR and RADAR FLAIR for CSF suppression
- MR Myelography with 3D-FSE and 3D BASG (with fat suppression)
- Multi-slice Fast Spin Echo supports up to 256 echo train
- Diffusion Weighted Imaging with fat suppressed single shot and high resolution multi-shot techniques and ADC mapping capabilities
- 3D-GEIR volume gradient echo sequence, delivers enhanced T1 contrast with high grey-white matter differentiation. Isotropic acquired images can be reconstructed in arbitrary planes with the MPR feature with excellent image quality.
- Image Stitching: contiguous sagittal or coronal spine images can be joined to provide a seamless extended field of view single images. Stitched images may be exported in a DICOM compliant format.

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-OST2 OrthoS uite Features**

Only Oasis delivers the very high field strength and truly open architecture enabling exquisite orthopedic MR imaging. Its inherent high SNR potential promotes high spatial resolution critical for orthopedic imaging, and permitting all anatomy to be imaged at isocenter delivers remarkable RF fat saturation.

- Preprogrammed and user customized Upper and Lower Extremity Protocols
- 2D/3D pulse sequences
- RADAR motion compensated imaging technique for uncooperative or infirm patients also minimizes popliteal flow artifacts for knee imaging applications
- Excellent off-isocenter Fat Suppression with the HOAST feature's Regional Shimming capability. Patient's enjoy comfortable wrist and shoulder positioning with no compromise on RF fat saturation
- 6 Channel RAPID Shoulder demonstrates excellent image quality including high SNR labrum depiction with unique "under the arm" loop and RAPID parallel imaging capability
- 6 Channel RAPID Knee coil supports high-resolution acquisitions providing exceptional orthopedic anatomic detail
- Driven Equilibrium FSE enables heavy T2 weighting (increased CNR) with limited scan time
- Fast STIR fat suppression
- Cartilage imaging excels using Water Excitation and BASG (Balanced SARGE) 3D Gradient Echo sequences
- primeFSE's user selectable receiver bandwidth enables exquisite FSE image quality in the presence of prostheses or implants and delivers multi-echo FSE for PD and T2 weighted acquisitions in one sequence
- MR arthrograms benefit from excellent RF fat suppression
- Kinematic imaging support for TMJ studies using RAPID Head coil
- Isocenter positioning promoted by lateral table movement and the extra wide table ensure excellent shoulder and extremity fat saturation and general image quality.
- H-SINC RF fat saturation technique delivers uniform suppression over large to small FOVs



Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-BST2 BodySuite Features**

The exceptional power of Oasis is demonstrated in this demanding and fastest-growing group of applications. High SNR from the 1.2T magnet and Zenith RF coil technology is complemented by the TIGRE fast, fat suppressed imaging sequence and Hitachi's all coil/all plane motion compensating RADAR technique. 2D and 3D protocols for abdomen, pelvis, MRCP and dynamic liver imaging techniques are all standard.

- Preprogrammed and user customized Body Protocols
- 2D/3D pulse sequences
- Breathing artifact is suppressed for abdominal imaging using Hitachi's RADAR motion compensated imaging technique
- Respiratory triggered techniques benefit from expiratory phase sensing
- Breath hold and free breathing acquisitions supported
- RAPID parallel imaging with 6 Channel Torso/Abdomen coil for fastest scanning while maintaining excellent SNR
- 4 total standard Body imaging coils: Large, Extra Large, RAPID and the T/R Body coil deliver high SNR and broadest patient population support available
- In/Out of phase multi-echo Gradient Echo technique
- Abdominal diffusion weighted imaging (DWI)
- T2 Echo Factor Compensation provides very fast high quality ss FSE imaging
- T/R Body Coil Shim Scan provides consistent image quality for abdominal and cardiac regions
- HOAST - Higher Order Active Shimming Technology drives excellent large FOV fat suppression in all planes.
- TIGRE™ standard fast T1 weighted 3D Gradient Echo sequence with fat suppression enables the combination of high-spatial and high temporal resolution for outstanding dynamic liver and breast imaging.
- TIGRE C: TIGRE T1 Fat suppressed volume imaging capability for dynamic imaging can be combined with Fluoro triggering and TPEAKS centric k-space ordering. TIGRE C simplifies arterial phase capture for breath-hold liver imaging, shortens breathhold time as much as 20% and boosts SNR for Body and Breast dynamic imaging applications.
- Dynamic Liver studies benefit from Oasis's large FOV, uniform fat suppression from the HOAST higher order active shimming feature, and the highly sensitive 6 Channel Torso/Abdomen coil.
- Volume acquired datasets can be post processed with MPR to yield images from any plane.

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-VST2 VascularSuite Features**

Conventional 2D/3D TOF and advanced acquisition techniques such as Time Resolved MRA (TRAQ™) and 3D vessel post-processing features provide the tools you need in this fast-growing application segment.

- Preprogrammed and user customized Vascular Protocols
- 2D/3D inflow and bolus methods
- RAPID parallel imaging for fastest scanning while maintaining excellent SNR
- Sloped Slab Profile (SSP) and Magnetization Transfer Contrast (MTC) methods for uniform signal intensity and background suppression
- MRA benefits from 100 T/m/sec slew rate - short TE's are available to minimize intravoxel dephasing
- ECG gating is standard to maximize image quality
- VASC™ Non contrast MRA - Non contrast MRA sequence provides an excellent alternative to bolus MRA for patients with renal insufficiency.
- TRAQ Time resolved MRA provides insight into the dynamics of blood flow, enabling effortless depiction of arterial and venous phases, useful when flow direction is uncertain
- FLUTE Fluoro triggering for easy, consistent arterial phase capture
- PEAKS, RPEAKS, TPEAKS: Hitachi's centric k-space ordering techniques ensure easy, consistent capture of the critical arterial phase. Three different implementations provide for maximum clinical flexibility
- MIP (Maximum Intensity Projection) and Volume Rendered MIP for excellent 3D vessel depiction

**OAS-BAT2 Bariatric Imaging Features**

Oasis provides unmatched positioning flexibility and accommodation for bariatric patients; delivering the optimal combination of comfort and quality for larger patients.

- Widest patient table (82cm)
- Highest patient weight limit (660lbs)
- Largest Flex Body coil (190cm)
- Large vertical patient gap
- Unlimited lateral opening
- Bariatric scanning protocols optimize image quality

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-CAR2 Cardiac Imaging Features**

Basic cardiac imaging is supported by standard dark blood and bright blood sequences and the standard, 6-channel Body coil.

- Preprogrammed and user customized Cardiac Protocols
- Cardiac, Peripheral and Respiratory gating system
- Interactive Scan Control (I-Scan) enables efficient imaging plane selection and real-time image collection with slice position and scan parameter change and update during MR Fluoro acquisition
- Double/Triple IR FSE pulse sequences for black blood morphological imaging.
- 2D/3D BASG (Balanced SARGE) bright blood sequences support functional analysis
- RADAR motion compensated imaging technique enables artifact suppressed free breathing acquisitions for uncooperative or infirm patients
- RAPID parallel imaging with 6 Channel Torso/Abdomen coil for fastest scanning while maintaining excellent SNR
- Multiphase bright blood imaging
- Real-time cine review

**OAS-BRT2 Breast Imaging Features - complemented by the Optional 7 Channel Breast coil**

When coupled with the optional Breast coil, Oasis's standard suite of Breast imaging features delivers excellent image quality and broad capability required for this fast growing and differentiating clinical application.

- Preprogrammed and user customized Breast Protocols
- RADAR motion compensated imaging technique enables artifact suppressed free breathing acquisitions
- RAPID parallel imaging for fastest scanning while maintaining excellent SNR
- TIGRE fast T1 weighted 3D Gradient Echo sequence with fat suppression enables the combination of high-spatial and high temporal resolution for outstanding dynamic bilateral breast imaging.
- Dynamic Breast studies benefit from Oasis's large FOV and uniform fat suppression from the HOAST higher order active shimming feature.
- DICOM exportable time intensity curves for Dynamic studies.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-PED2 Pediatric Imaging Features**

Constant patient contact sets Oasis pediatric imaging apart. Parents and technologist can see and communicate with the patient throughout the exam making them more comfortable. Fast scanning and motion reduction acquisitions provide excellent image quality.

- Preprogrammed and user customized Pediatric Protocols
- PACT and the Oasis Open MR geometry provide an ideal pediatric imaging environment, while Oasis' powerful imaging architecture provides high quality and fast scanning
- RADAR motion compensated imaging technique enables artifact suppressed free breathing acquisitions for uncooperative or infirm patients
- General Purpose Solenoid coil (Halo coil) delivers quality imaging and an all around view
- SoftSound™ mechanical gradient noise damping minimizes acoustic noise without constraining acquisition parameters
- RAPID parallel imaging for fastest scanning while maintaining excellent SNR
- Multiple coil plug-in feature promotes patient comfort and technologist efficiency

**OAS-MAGS Magnet Specifications**

Hitachi designed and manufactured for high performance and reliability

- Magnet Type: Superconducting Iron Core
- Field Strength: 1.2 Tesla
- Field Orientation: Vertical
- Shielding: Active self shielding
- 5G Fringe field from isocenter
  - Horizontal: 4.2 m
  - Vertical: 3.3 m
- Gantry Size (L x W x H): 2.7m x 2.5m x 2.1m
- Patient Aperture: 44cm
- Gantry Weight: 34,200 lbs
- Static Field Homogeneity: 0.3ppm @ 35cm DSV (VRMS)
- Shimming:
  - Installation: Computer placed iron shims
  - Patient: Linear plus Higher Order Active Shim Technology (HOAST)
- Cryogen: Helium only
- Refill Frequency: Once every two years with HMSA approved maintenance, without power interruption

**OAS-HGSS Gradient Specifications**

Hitachi amplifiers and proprietary eddy current compensation technology delivers imaging excellence in general to advanced applications

- Peak Amplitude: 33 mT/m
- Peak Slew Rate: 100 T/m/s
- Cooling method: Water
- Shielding: Active
- Eddy Current compensation: Computer optimized, with B0 compensation
- Gradient noise reduction: SoftSound mechanical gradient noise dampening

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-ZENS Zenith RF System Specifications**

Powerful transmitter and sensitive receiver electronics ensure the high SNR potential of the Oasis magnet is realized in your imaging results

- Quadrature transmitter
- 18 kW Peak Envelope Power
- Quadrature Radial type Transmit and Receive Coil

Digital Receiver

- Eight Independent Channels Standard
- Two table-top connection points enable simultaneous coil connections
- Ultra low noise figure (0.5dB) coil mounted preamplifiers
- Variable Receive Bandwidth (manual or automatic)
- RAPID™ parallel imaging capability

Custom Coil and Accessories cabinet

A custom designed cabinet providing organization and in-room storage for all standard and optional coils, as well as other accessories such as table pads, straps and test phantoms.

**OAS-PTBL Patient Table**

The Oasis patient table width and capacity helps you efficiently manage the most challenging patients

- Industry best 660 lbs. weight limit
- Industry best 82cm wide (moving portion)
- 2 coil plug-in points
- 3 axes motorized movement
- In-bore lateral movement
- Lowers to wheelchair height (19")

**OAS-VTXS VERTEX Workstation**

Fast GUI, simultaneous scan and reconstruction drive high workflow efficiency

- Host CPU: Core2Duo
- RAM: 3 GB
- Operating System: Windows XP based, mouse driven intuitive GUI
- Ethernet Interface: 10/100/Gigabit Auto-sensing
- High Resolution monitor: 24 inch LCD color monitor
- Operator input: Mouse and QWERTY keyboard
- Magnetic disk: 3.5 inch 250 GB storage capacity, capable of holding 400,000 images at 256x256 matrix
- Image storage: DVD writer for image data storage low cost, reliable DVD-RAM 9.4GB media stores up to 60,000 256x256 images
- CD writer: Includes auto-launching image viewer application for patients and referring physician convenience
- Intercom: Two way patient - operator
- System controls: Start scan, pause scan, abort scan, emergency stop
- Security Features: User Authentication, Automatic Logout and Audit Log

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-PS3 Pulse Sequences**

General to advanced, the acquisition sequences you need to meet the clinical challenge

- Spin Echo (SE) with up to 4 echoes
- RADAR-SE for motion compensated T1 imaging
- 2D/3D Gradient Echo (GE) and Multi-Echo Gradient Echo
- Inversion Recovery (IR)
  - FLAIR
  - STIR
- 2D/3D Fast Spin Echo (FSE)
  - Echo Factors (ETL): 2-256
  - User defined Inter Echo Spacing, TE
  - User defined Echo allocation including Centric, Anti-centric, ADA, and Sequential
  - Single Shot FSE-Ultra fast acquisition, Ultrahigh Echo Factor for MRCP, MR Urography, and MR Myelography
  - Driven Equilibrium- Increases SNR and Contrast over conventional FSE without increasing TR.
  - RADAR radial k-space acquisition
  - primeFSE - uses centric k-space ordering feature enables an SNR increase over conventional methods, user selectable receiver bandwidth and excellent multi-echo (PD and T2 weighted) FSE imaging
- Fast Inversion Recovery (FIR)
  - Echo Factors: 2-256
  - Inversion Time: 20-8000 enables Fast STIR, Fast FLAIR imaging
  - Driven Equilibrium
  - primeFIR
  - RADAR radial k-space acquisition
  - Double and Triple IR Black Blood acquisitions
- Steady-State Acquisition Rewound Gradient Echo (SARGE SG)
  - RF-Spoiled SG- (RSSG) provides T1 weighting
  - Rephased SG -Flow compensation for reduced artifacts
  - Balanced SG (BASG) -Completely balanced SG provides high SNR and bright fluids in a rapid acquisition.
    - RF fat saturation
    - Phase-cycled fat suppression cardiac imaging
    - RADAR - BASG for motion compensated abdominal and cervical spine imaging
  - Time Reversed SG (TRSG)- T2 weighted Fluoro acquisition
- Diffusion Weighted Imaging (DWI)
  - Single Shot SE EPI
  - B-Factor: 0-2000
  - RF Fat Saturation
  - IR pulse
- TIGRE - 3D T1 Gradient Echo
  - Fast gradient echo with optimized fat suppression for dynamic breast and abdomen imaging
- TIGRE C - combined with Fluoro triggering and TPEAKS for liver imaging
- 2D/3D TOF
  - High contrast blood flow visualization
  - Combine with pre-saturation to image arteries or veins
  - Single slab or multi-slab (3D)

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-ACQ3 Acquisition Features and Protocol Enhancements**

Scan fast and deliver excellent results using these pulse sequence enhancements and features designed to minimize artifacts and increase ease-of use

- Image Plane Selection
  - Transverse, Sagittal and Coronal
  - Single and Double Oblique
  - Multi-slice, Multi-angle
  - Radial for simplified MRCP, Knee acquisition planning
  - Multi-plane for combined Sagittal, Coronal, Axial acquisition (SC, SCA, CA, or SA)
  - Interactive Scan Control (I-Scan) enables efficient imaging plane selection and real-time image collection with slice position and scan parameter change and update during MR Fluoro acquisition
- Prescan
  - RF power adjustment
  - Center Frequency
  - Volume Shim adjust
- User Defined Regional Shim
- Fat Suppression Techniques
  - Water Excitation (Binomial technique)
  - Graphical presentation of fat-water peaks
  - Graphical prescription of RF fat suppression frequency
  - RF fat saturation (conventional SINC pulse)
  - H-SINC RF Fat Saturation (Light mode for lipid only, Heavy for lipid and olefinic suppression)
  - STIR, Fast STIR (FIR)
  - In/out of phase GE
- Motion Compensation
  - RADAR Radial Acquisition (FSE, FIR, FLAIR, SE, BASG)
  - Gradient Rephasing
  - Presaturation Pulses-up to eight
  - Walking Presaturation
  - Cardiac Gating with Arrhythmia Rejection
  - Peripheral Pulse Gating with Arrhythmia Rejection
  - Respiratory Gating
  - Diaphragm Navigation Echo
  - Intermittent Presaturation
- User defined Variable Bandwidth
- Dual Slice Acquisition
- Rectangular Field of View
- Anti-aliasing
- User defined inter-echo spacing
- Half Scan and 3/4 scan
- Half Echo
- Asymmetric Measurement Imaging (AMI)
- Real time image quality indicator (relative CNR, SNR)
- Real time spatial resolution update shows impact of parameter changes prior to scanning
- Silent Mode gradient noise reduction scan mode
- Image Centering - places center of prescribed slab at magnet isocenter automatically for optimal image quality
- Auto Voice
- Coil mode search optimizes SNR when multiple coils are used simultaneously
- NATURAL™ image quality enhancement algorithm
- Dynamic Scan Time Table Window provides graphical review of dynamic scan procedure (steps and timing) for easy and efficient study planning

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**OAS-IPT3 Image Processing Tools**

Maximize image quality and workflow efficiency with these multi-tasked tools and features. Most are combinable with scanning keep interaction requirements to a minimum

- Maximum/Minimum/Average Intensity Projection (MIP)
  - Sliding and expanding MIP capabilities
  - MRA post processing tool
  - Freehand, Elliptical, and Rectangular Cropping
  - Include/Exclude mode
  - Sliding, Expanding mode
- Multiplanar Reconstruction (MPR)
  - Parallel cut
  - Parallel slant cut
  - Radial cut
  - Curved
- Vascular Volume Rendering
  - Radial, Sliding, and Expanding Projection modes
  - Opacity setting
- Filtering Tools
  - Adaptive imaging filter
  - Edge Enhancement
  - Image Mask
  - IQ2 k-space signal processing
- Image addition and subtraction
- Calculated Images (Proton Density, T1 and T2)
- Dynamic analysis
  - Multiple graph modes include: Normalized Signal Intensity time graph, Multiplicative Signal Intensity-time graph, and Signal Intensity change rate-time graph
  - Multi-slice support
  - DICOM exportable
- Diffusion Analysis
  - ADC map
  - Isotropic DWI map
  - DICOM exportable
- Image Review Tools
  - Unlimited series review
  - Flexible window layout
- Filming Tool with configurable layouts



MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

OAS-IPT3 Image Processing Tools

- Viewport Tools
  - Maximize/Resize
  - WWWL
  - Magnify
  - Rotate/Reverse
  - Cine Tool
  - Comment/Annotate
  - ROI (circular or rectangular)
  - Measuring functions
  - Statistics
  - Overlay
  - Layout
- Protocol/Task management
  - Windows Explorer style
  - Protocol editing without loaded study
  - Categorized Anatomic Protocol Library
- System Tools
  - Job Queue
  - Stopwatch
  - Waveform Display
  - Patient Table settings
  - System Settings

OAS-HE3 Echelon/Oasis Heat Exchanger

Provides isolation of Oasis and Echelon gradient coil, gradient amplifier and magnet cryocooler cooling loops from the chilled water source for maximum reliability. Monitoring circuits and signals for flow and temperature condition are provided and interfaced with the MR imaging system.

OPTIONAL  
ITEMS

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HF.COILCABINE HIGH FIELD COIL CABINET

T

Echelon and Oasis include an attractive custom designed cabinet that provides organization and in-room storage for all standard and optional coils, as well as other accessories such as table pads, straps and test phantoms

HF.CHILLER.PL HASKRIS CHILLER

Oasis-Echelon Chiller:

Provides a chilled water source for Oasis and Echelon's in those cases where no chilled water source is available. A compact design and outdoor installation minimizes installation requirements.

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**1.2- WORKFLOW PLUS  
WORKFLOW.PL**

The Workflow Plus interoperability suite enhances productivity by promoting seamless integration of Oasis with a DICOM compliant HIS/RIS. Workflow Plus gives Oasis IHE Scheduled Workflow/Patient Information Reconciliation profile support, enabling study status flagging to and query of a patient worklist from the HIS/RIS. Data entry errors are thus minimized, promoting operational efficiency.

WORKFLOW PLUS™ adds the following DICOM Service Classes:

-Modality Worklist Management (MWL)

Support of this service class enables the MR system to access scheduled patient information from a DICOM 3.0 compliant hospital or radiology information system, potentially enhancing patient throughput and reducing data entry errors.

-Performed Procedure Step

Works in concert with Modality Worklist Management to update study status from the MR system to the hospital or radiology information system (HIS/RIS).

**1.2- OASIS AUTO TABLE STEP  
AUTOSTEP.PL**

Enables user program of table increment for multi-stage imaging. Complete spine studies are programmable and can be executed from the operator console.

**1.2- OASIS ADVANCED NEUROSUITE SOFTWARE  
ADVNEURO.PL**

Advanced NeuroSuite delivers additional clinical capabilities with ultra fast sequences to probe tissue intensity dynamics. Post processing analysis tools yield mean transit time, relative cerebral blood flow, and relative cerebral blood volume maps.

Pulse Sequences

Multislice 2D Susceptibility Acquisition

Multislice 2D SE EPI pulse

Multislice 2D RSSG EPI pulse sequence for FLAIR contrast

Processing

Mean Transit Time (MTT) Map

Relative Cerebral Blood Flow (rCBF) Map

Relative Cerebral Blood Volume (rCBV) Maps

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

**1.2-PCMRA.PL OASIS PHASE CONTRAST MRA**

Phase Contrast MRA

The Phase Contrast acquisition and Analysis tool further expands Oasis's clinical utility. 2D and 3D Phase Contrast acquisitions with a velocity encoding range of 5 cm/s to 400 cm/s are available to meet a wide range of clinical needs.

**PULSE SEQUENCES**

2D/3D Phase Contrast  
Velocity Encoding: 5-400 cm/s  
Cine

**IMAGE PROCESSING TASKS**

Statistical Analysis  
Average flow velocity (cm/s)  
Mean pixel value  
Standard deviation  
Area of ROI (mm<sup>2</sup>)  
Number of pixels

Dynamic Analysis  
Velocity (Absolute)-Delay time graph  
Acceleration-Delay time graph

**1.2-WRIST.PL OASIS RAPID Multi Array Wrist Coil**

3 Channel RAPID Wrist  
Large enough to support a broad patient demographic, the wrist coil's solenoid design delivers very high spatial resolution at high SNR. This coil supports RAPID and conventional imaging modes.

**1.2-NEURO.PL OASIS RAPID 8 Channel NeuroVascular Coil**

Provides the flexibility needed to image cranio-cervical anatomy. Multiple coil applications include Head, Cervical, and Head/Neck minimizing patient repositioning. This coil supports RAPID and conventional imaging modes.

**SHIP-1.2.PL SHIPPING AND INSURANCE TO CUSTOMER SITE**

SHIPPING AND INSURANCE TO CUSTOMER SITE

**1.2-RIGGING OASIS RIGGING EXPENSES**

**OASIS RIGGING EXPENSES**  
A Rigging Allowance for Reasonable and Customary Rigging Costs (not to exceed the quoted LIST PRICE) is included. Provided no monies are then due and owing to HMSA, upon receipt by HMSA of final system payment, HMSA will promptly pay the Rigging invoice on behalf of the Customer, up to the LIST PRICE quoted herein.  
(Note: construction and shoring costs associated with providing a clear rigging path are the responsibility of the Customer)

**WAR-1.2-12.PL 12 MONTH ADDITIONAL WARRANTY FOR A TOTAL OF 24 MONTHS**

12 MONTH ADDITIONAL WARRANTY

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

MR MR Sales Terms & Conditions  
SALES TERMS

1. Acceptance; Modifications.

1.1 Definitions of Products. "Products" means those magnetic resonance imaging instruments sold to Purchaser under this Agreement.

1.2 Final Acceptance; Entire Agreement. All orders placed pursuant to this Quotation shall be subject to the final acceptance in writing by a duly authorized representative of Hitachi Medical Systems America, Inc. ("HMSA") at its office address as set forth on the first page of this Quotation. The terms and conditions of this Quotation and HMSA's written acceptance thereof (the "Agreement") shall constitute the complete agreement between the parties, reflecting their entire understanding as to matters related hereto and supersedes any prior oral or written statement or agreement. No term or condition of the Purchaser's order which is different from or in addition to the terms and conditions as set forth in the Agreement shall be binding on HMSA unless, and only to the extent, such different or additional term or condition is expressly accepted by HMSA in writing. In the event of any inconsistency between the terms set forth in any of Purchaser's documents and these terms and conditions, the terms and conditions set forth in this Agreement shall control.

2. Price; Terms of Payment.

2.1 Quotes Prices; Transportation. All quoted prices are F.O.B. Port of Entry stated shipping point, unless otherwise specified, and include domestic packaging and are subject to correction for error. Transportation shall be by means that are commercially reasonable and customary and at the Purchaser's expense.

2.2 Taxes. Prices do not include local, state or federal taxes. Consequently, the amount of any sales, use or similar tax applicable to the sale of the Products herein or to the use of such goods by the Purchaser shall be paid by the Purchaser. If HMSA is required to collect or pay any such tax, Purchaser shall reimburse HMSA promptly after demand for such tax payment and for any associated expenses.

2.3 Payment. Unless otherwise agreed in writing, Payment is due within 30 days of customer's receipt of invoice with no discount allowed for early payment. Invoices shall be issued upon shipment. In the event shipment is delayed beyond the date (if any) stated in the Quotation for any reason not attributable to HMSA's ability to ship the Product, any payment due upon shipment, delivery, or installation shall be made on the originally scheduled shipping date. Past due invoices are subject to a monthly service charge at a rate equal to the lesser of 1- 1/2% per month or the maximum rate from time to time permitted by applicable law. Should any terms of payment provide for either full or partial payment upon installation or completion of installation or thereafter, and installation is delayed for any reason for which HMSA is not responsible, the Products shall be deemed installed upon delivery. In no event shall Purchaser be entitled to withhold payment for undelivered accessories or options in an amount which exceeds the lesser of (a) the quoted purchase price for the subject option or accessory and (b) in the event the purchase price for such accessory is not separately quoted, HMSA's published price for such item.

3. Limited Purchaser Default

3.1 The Purchaser hereby grants HMSA a purchase money security interest in the Oasis only and the Purchaser with prior written notice to purchaser authorizes HMSA to file a Uniform Commercial Code financing statement with respect to the Oasis prior to shipment; provided that HMSA shall terminate, cancel or release the UCC financing statement within 10 days of purchase and final payment hereunder and HMSA shall send purchaser a copy of said release.

3.2 Deposits. Any deposit made by the Purchaser with respect to Products is nonrefundable except to the extent HMSA fails to deliver the Products and such failure does not result from a breach of Agreement by the Purchaser.

3.3 Purchaser Default. If default (after notice and opportunity to cure) is made in any of the payments herein, the Purchaser agrees that HMSA shall be entitled to the prompt possession of the Products and shall, with reasonable prior written notice to purchaser, be free to enter the premises where the Products may be located and reasonably remove same as HMSA's property, without prejudice to its right to recover any further actual out of pocket expenses or damages it actually suffered by reason of such nonpayment.

MedQuest Associates Inc.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

MR MR Sales Terms & Conditions  
SALES.TERMS

4. Warranty

4.1 Warranty. Except as hereinafter provided, HMSA warrants all Products and parts supplied by HMSA to be free of defects in design, material and workmanship for a period of 24 months. The warranty period shall begin upon first clinical use, whichever occurs first. If a failure occurs during the warranty period, and there is no evidence of misuse, abuse, neglect or unauthorized alteration or repair as Purchaser's sole and exclusive remedy, HMSA will repair, replace or correct, at its option, the defective item without charge for parts and labor. THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. HMSA'S WARRANTY DOES NOT APPLY (i) IF PRODUCTS HAVE BEEN SUBJECT TO MISUSE, MISHANDLING, MISAPPLICATION, NEGLIGENCE (INCLUDING, WITHOUT LIMITATION, IMPROPER MAINTENANCE), ACCIDENT OR MODIFICATION NOT EXPRESSLY AUTHORIZED BY HMSA (INCLUDING, WITHOUT LIMITATION, USE OF UNAUTHORIZED PARTS OR ATTACHMENTS) OR IF ANY ADJUSTMENT OR REPAIR HAS BEEN PERFORMED BY ANYONE OTHER THAN HMSA OR AN AUTHORIZED SERVICE REPRESENTATIVE OF HMSA AND (ii) TO PERISHABLE AND OTHER MATERIAL SUBJECT TO CONSUMPTION AND WEAR INCLUDING, WITHOUT LIMITATION, RADIO SENSITIVE FILM AND PAPERS, WHICH ITEMS BEING SUBJECT ONLY TO SUCH WARRANTIES AS MAY BE SPECIFIED IN WRITING BY HMSA AT THE TIME OF DELIVERY TO THE PURCHASER. HMSA makes no warranty with respect to the accessory items set forth as "third party accessory" on the face hereof. The warranty for such items shall be as provided by the manufacturer thereof.

4.2 Sole Obligation; Notice. HMSA's sole and exclusive obligation under this warranty is limited to the repair or replacement of defective parts. This warranty is made on condition that prompt notice of any defect is given in writing within the warranty period and that HMSA's inspection does not disclose any invalid claim.

4.3 Returned Products. Goods shall not be returned to HMSA without written authorization. All authorized returns must be properly packaged with transportation charges prepaid by the Purchaser.

5. Damages; Limitation of Action

5.1 Damages. Except for any negligence or intentional misconduct by HMSA, HMSA's liability arising out of or relating to this agreement shall not exceed the amounts paid by Purchaser to HMSA for the Products. HMSA shall not be liable for special, incidental or consequential damages. Consequential damages shall include, without limitation, loss of use, income or profit or loss of or damage to persons or property.

5.2 Limitation of Action. No suit or other proceeding may be brought on an alleged breach of warranty of HMSA set forth in this Agreement more than twenty four (24) months after termination of such warranty.

6. Shipment and Risk of Loss

Unless otherwise specified in writing by a duly authorized representative of HMSA, delivery shall be made F.O.B. Port of entry shipping point, and any reference in these terms and conditions to "deliver" shall refer to such delivery. Except for obligations stated under 4.2, HMSA's responsibility ceases upon delivery to the carrier at the stated shipping point, and risk of loss, damage, injury or destruction to any of the goods shall pass to the Purchaser upon such delivery to the carrier. In no event shall any loss, damage, injury or destruction operate in any manner to release the Purchaser from the obligation to make payments required herein. Unless otherwise agreed in writing, HMSA reserves the right to make partial shipments and to submit invoices for partial shipments.

7. Changes and Cancellations

Orders accepted by HMSA are not subject to changes or cancellation by the Purchaser except with HMSA's written consent. If Purchaser cancels this Agreement within thirty (30) days prior to delivery of the Products, Purchaser shall pay HMSA a cancellation charge of five percent (5%) of the Total System Price. HMSA shall retain as credit all progress payments made to that point towards this cancellation charge. If Purchaser cancels this Agreement prior to this thirty (30) day period described above, all progress payments which have been made to that date, but not to exceed five percent (5%) of the Total System Price, will be held as cancellation charge.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

MR MR Sales Terms & Conditions  
SALES.TERMS

8. Delivery and/or Installation Dates

Delivery and/or installation schedules are approximate and are based on conditions at the time of acceptance. HMSA will make every reasonable effort to complete shipment and/or installation as indicated but assumes no liability of any kind by reason of delay or inability to ship or install where such is caused by acts of God, fires, floods, war, beyond HMSA's reasonable control. In such event, HMSA may extend delivery and/or installation schedules and either party may, at its option, cancel the order in full or in part without liability other than for HMSA to return any deposit or prepayment which is unearned by reason of the cancellation.

9. Installation; Additional Charges

9.1 Installation by HMSA. Unless otherwise expressly stipulated, the Products shall be installed at the expense of HMSA. HMSA shall cause the products to be installed and connect same to the requisite safety switches and power lines to be installed by the Purchaser. Prices shown include the cost of installation and connection, provided that the installation and connection can be performed during normal business hours as HMSA, in its sole discretion, shall determine. Any overtime charges or other special expenses as required by the Purchaser will be subject to additional charges. The Purchaser shall be responsible for all necessary arrangements with the trade union, or unions, involved to permit HMSA to install the Products. If for any reason, assembly or installation must be performed by other than HMSA service personnel or agents, additional charges will be made for the cost of such outside labor. The cost of rigging and any cranes necessary to move or install the Products and the cost of disposal of all packing materials associated with the Products shall be borne by the Purchaser.

9.2 Materials; Labor; Access to Premises. Purchaser shall, at its own expense, provide all site preparation, including without limitation, necessary labor and materials, plumbing service, carpentry work, conduit wiring and other electrical service required for such installation and connection. All such labor and materials shall be completed and available at the time of delivery of the Products by HMSA. Additionally, the Purchaser shall provide unrestricted access to the Purchaser's premises for installation, and, if necessary, safe space thereon for storage of the Products prior to installation by HMSA. If special work of any type must be performed in order to comply with requirements of any governmental authority, including procurement of special certificates, the same shall be performed and/or procured by the Purchaser at the Purchaser's expense.

10. Title. Except as otherwise agreed in writing, title to the Products or any part thereof shall pass from HMSA when all payments for the Oasis due herein have been fully made. The Products shall be and remain personal or moveable property, notwithstanding their mode of attachment to realty or property.

Product Description

**OASIS OASIS HIGH-FIELD BORE-LESS MR**

MR MR Sales Terms & Conditions  
SALES TERMS

11. Indemnification. Provided that the Products are being used for its intended use and in accordance with HMSA's operator manual, HMSA agrees to indemnify and hold harmless Purchaser from claims (including reasonable attorneys fees) by third persons asserted against Purchaser that the Products have caused damage to property or bodily injury and that such damages or injury was proximately caused by the negligent act or omission of HMSA regardless of whether it is determined by a court of competent jurisdiction to be a legal liability of HMSA, provided that Purchaser furnishes to HMSA prompt written notice and requisite authority, information and assistance to defend.

Purchaser agrees to indemnify and hold harmless HMSA from claims (including reasonable attorneys fees) by third persons asserted against HMSA that the Products have caused damage to property or bodily injury and that such damages or injury was proximately caused by the negligent act or omission of Purchaser regardless of whether it is determined by a court of competent jurisdiction to be a legal liability of Purchaser, provided that HMSA furnishes to Purchaser prompt written notice and requisite authority, information and assistance to defend.

12. Notice. Any notice required or permitted to be given under this Agreement shall be considered sufficient if delivered personally or mailed via certified mail. Such notices directed to HMSA shall be delivered or sent to its office address set forth on page one of this Agreement to the attention of the President. Notices to the Purchaser shall be sent to the address shown on the first page of the Quotation. Notices to either HMSA or the Purchaser may be sent to such other address as either party may give to the other from time to time pursuant to this provision.

13. Severability. If any provision in the agreement shall be found to be void or unenforceable, that provision only shall be deemed stricken to the extent of its invalidity or unenforceability, and all other terms and conditions shall remain in full force and effect.

14. Assignment. This Agreement shall be binding upon HMSA and the Purchaser and shall inure to their benefit and to their successors and permitted assigns. This Agreement may be assigned by Purchaser in whole, or in part, to any third party without the express written consent of HMSA.

15. Construction; Jurisdiction. Any suit directly or indirectly involving this Agreement, including but not limited to the actions of HMSA's employees, representatives or agents, whether arising before, during or after the term of this Agreement, must be filed solely in a federal or state court located in Ohio. This is a mandatory forum selection clause. Jurisdiction over claims arising, directly or indirectly, from the matters covered by this Agreement is proper exclusively in Ohio courts. Venue is proper only in courts located in Cleveland, Ohio. The parties to this Agreement consent to Ohio courts exercising: (a) personal jurisdiction over the parties; and (b) subject matter jurisdiction over any dispute arising from this Agreement. All parties further consent to venue exclusively in Cleveland, Ohio, even if one or more parties to the Agreement have no contact with the selected forum in Cleveland, Ohio. Consent to Ohio courts having sole jurisdiction and venue over disputes involving HMSA is a material inducement for HMSA to enter into this Agreement and, without this consent HMSA would not enter into this Agreement because HMSA's contact with forums outside Ohio is more limited and less convenient than HMSA's contact with Ohio. By entering into this Agreement, the parties acknowledge that they are conducting business in the State of Ohio. Ohio law shall control, govern, and apply in all disputes arising from this Agreement, which shall be construed in accordance with the laws of the State of Ohio. Headings used throughout this Agreement are used for the convenient reference of the parties and are not intended to limit or modify the express terms of the Agreement. Each party hereby appoints each officer of HMSA as its agent for accepting any process in Ohio.

16. Export Restrictions. This sale concerns products and/or technical data that may be controlled under U.S. Export Administration Regulations and may be subject to the approval of the U.S. department of Commerce prior to export. Any export or re-export by the purchaser directly or indirectly in contravention of the U.S. Export Administration Regulations is prohibited.

REV. 6/27/07

## STANDARD QUOTATION TERMS AND CONDITIONS

1. Refer to Sales Terms and Conditions section in the Specifications portion of the quotation for complete terms and conditions.
2. Quotation is valid for 45 days from the date of issue.
3. Customer is responsible for providing all site preparation (i.e., RF shielding, electrical power, support structure, etc.) necessary for installation of the equipment.
4. Oasis system includes monitoring electronics and heat exchanger for system cooling. An optional chiller is available based on specific site needs.
5. While HMSA will use its best effort to deliver all purchased options with the system, Purchaser agrees that availability, or lack thereof, of a specific option will not hold up acceptance or any progress payments on the remainder of the system.
6. The customer is responsible for its compliance with any applicable local or state laws and regulations that may be applicable to the purchase and/or installation of the equipment quoted herein.

## MODIFICATIONS/ADDITIONS TO STANDARD TERMS AND CONDITIONS:

7. Prices are F.O.B. Destination. Freight and Insurance charges are Included.
8. Payment Terms:
  - A) Balance equaling a total of 80% is due upon delivery
  - B) 20% is due 30 days after clinical acceptance
9. This quotation prepared in reference to Novation contract number XR50063.
10. Any discrepancies between this quotation and the Novation contract, the Novation contract will supercede the quotation.
11. Pricing is valid only if purchaser is a registered Novation alliance member at time of quotation acceptance.
12. This order is contingent on the following:
  - MedQuest/Novant Board Approval
  - State CON Approval
  - Landlord Approval
13. All Service and Warranty falls under Master Service Agreement VPA-11-16.
14. Deinstall and Rig-Out will take place on the week-end.

## VALUE ADDING SUPPORT BENEFITS

Echelon and Oasis customers covered by an Ultra Plus Customer Support or warranty agreement enjoy exclusive benefits from a range of value adding support features. From maximizing equipment uptime, through maintaining optimal image quality from patient to patient, to helping you market your MR imaging service, you'll find Hitachi delivers benefits not found anywhere else:

## CLINICAL SUPPORT



## On-site Applications Training

Echelon and Oasis customers will receive two weeks of initial training (Monday through Friday, including travel time). Hitachi applications personnel will be present on Monday of the first week with your local Customer Service representative to confirm the performance of your system prior to starting applications training. Formal training of your technologists will begin on Tuesday morning.

Training topics include:

- MR magnet safety
- Hitachi MR System operation
- Patient positioning
- RF coils

ASRT Continuing education credits (CEUs) will be awarded to all technologists that are involved in at least 24 hours of scanning procedures during applications training.

## Follow-up Applications Training

Follow-up applications training visits will be provided during the warranty period at no additional charge. The first follow-up applications visit is usually scheduled to occur within 8-12 weeks after initial training. The follow-up applications training visit will provide additional system training along with advanced applications such as MRA refinements, cardiac imaging and site specific special applications. Additional no-charge visits throughout the warranty period will be scheduled at the customer's request.

## Applications Helpline

Hitachi provides an MRI applications helpline service for warranty and Ultra Plus Customer Support customers. This U.S. based dedicated line for applications assistance is available from 8:00 a.m. to 9:00 p.m. EST, Monday through Friday, and is staffed by Hitachi-experienced MRI technologists, ready to help you with your clinical challenge. The Hitachi Applications team can further assist you by taking advantage of the Sentinel remote support feature to review images in real time -with you. Our experts can see what you are seeing - expediting resolution of clinical challenges.

## HITS (Hitachi Institute for MR Technologists)

This program is designed to prepare technologists for initial on-site training, educate new users to MRI principles or to assist experienced personnel with Hitachi MR System's capabilities. Hitachi offers this educational program at scheduled intervals at our headquarters throughout the year to warranty and Ultra Plus Customer Support customers, at no additional charge. Customers are only responsible for T&L expenses.

Detailed information can be found on our website:

[www.hitachimed.com/OurServiceProgram/HitachiInstituteforTechnologists/index.html](http://www.hitachimed.com/OurServiceProgram/HitachiInstituteforTechnologists/index.html)

## MRI Accreditation Support

While we cannot guarantee success with ACR or ICAMRL (American College of Radiology or Intersocietal Commission for the Accreditation of Magnetic Resonance Laboratories) accreditation, Hitachi provides accreditation support benefits at no additional charge to warranty and UltraPlus Customer Support agreement customers. These key benefits ensure the best possible performance of Hitachi MRI equipment, and help you put together the best possible submission. We provide a highly informative Hitachi specific Accreditation Guidebook, we will assist you in phantom data collection, and we are available to advise you on all aspects of the accreditation programs via the Applications Helpline.

## MARKETING SUPPORT

## Customer Marketing

Hitachi knows to have a commercially successful MR business, you have to do much more than simply open your doors. That's why we provide an array of marketing tools to promote your facility to both referring physicians and patients alike. This marketing program has been highly effective for Hitachi customers nationwide.

Some of the materials and tools we provide at no charge:

- Marketing Guide with explanatory materials to further your understanding of marketing plans, medical imaging marketing, physician relationship building, and MRI.
- Sample Copy for Press releases, Physician letters, Fact Sheets that speak to features of the Hitachi products to help you promote your Hitachi equipped service
  - Advertising templates
  - Sample customizable printed brochures for patients and referring physicians ready for your facility information
  - Digital MR images, PowerPoint presentation, Equipment photography, Patient information video, web banner samples

You will also have access to our web portal site for marketing support at [www.hitachimed.com](http://www.hitachimed.com).

Hitachi will also provide marketing consultation or training on request, delivered by our staff of imaging experts.

## Echelon and Oasis Advanced Marketing Program (AMP)

In addition to basic marketing support, Hitachi also offers the Advanced Marketing Program (AMP) to Echelon and Oasis customers covered by warranty or Ultra Plus agreements at no additional charge. Some of the Hitachi AMP benefits are:

- Print Ad Creation
- Billboard Design
- Mailer Design
- Product Introduction Materials
- Open House Materials
- Copy writing assistance
- Referring Physician Sheets
- Product Banners for Web site
- Flash Ads
- Poster Design
- Patient Downloads for Web site

## EQUIPMENT SUPPORT

### Sentinel Remote Customer Support

Sentinel enhances both clinical and equipment support for the Oasis or Echelon. Sentinel continuously monitors key systems and maintains a secure, high speed link to Hitachi providing for:

- Automatic detection of operational problems
- Automatic notification of Hitachi Service Dept.
- Remote diagnostics run from Hitachi's National Technical Support Center
- Help with challenging clinical cases from Hitachi's National Customer Support Center

## NON-DISCLOSURE STATEMENT

THE CONTENTS OF THIS QUOTATION SHALL NOT BE DISCLOSED TO ANYONE EXCEPT TO EMPLOYEES OF CUSTOMER WITH A LEGITIMATE NEED TO KNOW SUCH INFORMATION WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN CONSENT OF HMSA.

## Service and Warranty

1. Prices include installation and 24 month warranty including Preventative Maintenance and all parts and labor.
2. The HMSA warranty will begin upon Purchaser's first clinical use of the Oasis.
3. During the warranty period, and extended warranty period, in addition to the warranty service coverage provided under this agreement, HMSA shall provide warranty service under the same terms and conditions (e.g. coverage hours, down events, discounts, etc.) as set forth in the existing service agreement between HMSA and Purchaser.
4. Should equipment not provide 99% uptime during the warranty and extended warranty period coverage hours as defined above over a three (3) month period, then HMSA will extend the term warranty period by one (1) month for each quarter below the 99% guarantee level.

MedQuest Associates Inc.

**System:**

Qty	Description	Unit Price	Customer Price
1	OASIS HIGH-FIELD BORE-LESS MR		1,345,000
1	ALTAIRE TRADE-IN CREDIT - s/n TBD		-125,000

**Included:**

Qty	Description	Unit Price	Customer Price
1	HASKRIS CHILLER		INCLUDED
1	WORKFLOW PLUS		INCLUDED
1	OASIS AUTO TABLE STEP		INCLUDED
1	OASIS ADVANCED NEUROSUITE SOFTWARE		INCLUDED
1	OASIS PHASE CONTRAST MRA		INCLUDED
1	OASIS RAPID Multi Array Wrist Coil		INCLUDED
1	OASIS RAPID 8 Channel NeuroVascular Coil		INCLUDED
1	SHIPPING AND INSURANCE TO CUSTOMER SITE		INCLUDED
1	OASIS RIGGING EXPENSES		INCLUDED
1	12 MONTH ADDITIONAL WARRANTY (Beyond Initial 12 Month Warranty)		INCLUDED

*System Package:* \$1,220,000

*Invoice Total:* \$1,220,000



One Medrad Drive  
Indianola, PA 15051-0780  
Phone: (412) 767-2400  
Fax: (412) 767-4120  
www.medrad.com

## Quotation

Quote No : 20137586

Page: 1 of 5  
Date: 02/06/2012

Customer No: 1004279D

**Quote To:**

CAROLINA IMAGING CENTER  
3628 CAPE CENTER DRIVE  
FAYETTEVILLE NC 28304-4406

**Validity Period:** 02/06/2012 *until* 04/06/2012

**We deliver according to the following terms and conditions:**

**Terms of payment:** Net 30 from date of invoice  
**Terms of delivery:** Prepaid FOB DESTINATION

**Currency:** USD

Greg Guarino  
Corporate Accounts Manager, Eastern Region  
Radiology and Interventional  
gregory.guarino@bayer.com

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<i>Item</i>	<i>Description</i>	<i>Qty</i>	<i>Extended Price</i>
1	3012011 SPECTRIS SOLARIS EP MR INJECTOR 1 EA		
2	SSI 300 INSTALLATION, SPECTRIS SOLARIS MR INJECT 1 EA		

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**Please reference the quote number on your PO and fax to 412-767-4120 for domestic orders or 412-767-1312 for international orders**



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Quote No: 20137586

Page: 2 of 5  
Date: 02/06/2012

**Quote To:**  
CAROLINA IMAGING CENTER  
3628 CAPE CENTER DRIVE  
FAYETTEVILLE NC 28304-4406

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<b>Sub Total</b>	25,819.00
<b>Total</b>	<hr/> 25,819.00

**NOTE: If using signed quote as a purchase order please complete the following information:**

Print Name: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Title: \_\_\_\_\_  
PO #: \_\_\_\_\_  
Phone #: \_\_\_\_\_



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Quote No: 20137586

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Date: 02/06/2012

#### MEDRAD PRODUCT TERMS AND CONDITIONS

If Customer is a member of a group purchasing organization ("GPO") who has a contract with MEDRAD, the terms of that GPO Agreement will supercede the terms herein.

1. Modifications. The prices and terms on this Quote are not subject to verbal changes or other agreements unless approved in writing by MEDRAD's Home Office.

2. Acceptance. MEDRAD's products and services are sold only under the terms and conditions stated on this quotation. Acceptance of any Purchase Order is expressly and exclusively made conditional on your assent to these terms and conditions. Any different or additional terms and conditions that may appear in your Purchase Order or any other document sent by you, shall have no effect. MEDRAD expressly objects to and rejects all inconsistent or additional terms, conditions and limitations contained on any of your forms or other writings. If you do not communicate your objection to these terms and conditions in writing and within a reasonable time, or if you accept the goods covered by this Quote, you will be deemed to have accepted these terms and conditions and they will control in all instances. If the Products include embedded software or if you are purchasing software, BY HAVING THE SOFTWARE INSTALLED AND USING THE SOFTWARE PURCHASED HEREUNDER, YOU AGREE TO BE BOUND BY THE TERMS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THE TERMS OF THIS QUOTE, DO NOT INSTALL OR USE THE SOFTWARE AND NOTIFY MEDRAD IMMEDIATELY.

3. Pricing. Prices are based on costs and conditions existing on the date of this Quote and may be changed by MEDRAD before final acceptance. The pricing for products provided pursuant to this Quote may reflect or be subject to discounts, rebates, or other price reduction programs. Please be advised that you are obligated to: a) fully and accurately disclose the amount of any such discounts, rebates, or other price reductions in your cost reports or claims for reimbursement to Medicare, Medicaid, or health care programs requiring such disclosure and b) provide such documentation to representatives of the Secretary of the Department of Health and Human Services and state agencies upon request. Unless noted otherwise, the value of any product listed as \$0.00 on this Quote may constitute a discount that you should evaluate when filing such reports. You may request additional information from MEDRAD in order to meet your reporting or disclosure obligations, by writing to the address set forth in this Quote. All payments are due net thirty (30) days on the total invoiced amount. For all new customers MEDRAD requires a thirty percent (30%)\_pre-payment for all capital equipment orders, unless otherwise agreed to by MEDRAD's Home Office. MEDRAD's Home Office must approve any payment terms other than net thirty (30) days.

4. Shipping. All shipping dates are tentative. MEDRAD will make every reasonable effort to meet shipping dates referenced in this Quote. However, MEDRAD will not be liable for its failure to meet any such date.

5. Installation. The cost of installation is not included in the product price and is your responsibility unless otherwise stated. For details on equipment installation, you should consult with your MEDRAD Sales Representative or refer to your Products Manual, which is included with your equipment.

If this Quote includes installation of an overhead counterpoise system (OCS) it is your responsibility to ensure a suitable mounting location for the system. The counterpoise ceiling plate is required to be installed prior to MEDRAD installation of the counterpoise system and installed in accordance with the specifications listed in the installation manual. The OCS ceiling plate should always be installed by a qualified Structural Engineer and/or Architect. In addition, if applicable building codes require the use of a conduit, you are responsible for ensuring that a conduit is available prior to MEDRAD's installation.

If this Quote includes a Certo wireless network it is your responsibility to ensure the approval of the Information Technology Department to allow the operation of the wireless network at your site.

If this Quote includes a Solaris with an Integrated Continuous Battery Charging System (iCBC), installation will require a standard power outlet in the scan room, or authorization to install a filter through the penetration panel.

6. License. If the Products include embedded software, or if you are purchasing software, MEDRAD grants to you a non-exclusive license to use such software provided by MEDRAD, solely in connection with, or to operate, the Products. Use of the software for any other purpose is strictly prohibited.

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This license is effective on the date you begin using the Products and software and will continue in effect unless you return the Products or software or if the license is terminated because you breach any provision of these Terms. Upon termination you shall immediately cease use of all software and shall return the Products and software to MEDRAD. The software copyright is owned by MEDRAD and is protected by United States copyright laws and international treaty provisions. MEDRAD does not transfer title to the software to you, but retains the rights to make and license the use of all copies. You shall not copy, translate, disassemble, or decompile nor create or attempt to create, by reverse engineering or otherwise, the source code from the object code of the software. You are not permitted to modify or make derivative works of the software and ownership of any unauthorized modification or derivative work shall vest in MEDRAD.

7. Warranty. MEDRAD warrants that all new MEDRAD products are free from defects in workmanship or material under proper, normal use and service for a period of one year (12 months) from shipment, unless a longer period is provided on the warranty with the products, or as otherwise provided herein.

MEDRAD warrants that all refurbished MEDRAD products shall perform in accordance with the documentation provided, under proper, normal use and service for a period of the shorter of a) 90 days from installation or b) six months from shipment, unless a longer period is provided on the warranty with the products, or as otherwise provided herein.

If this Quote includes an XDS unit which is sold as an upgrade to your existing Stellant unit, the warranty on the XDS will extend for the longer of: a) the warranty (including any extended warranty) on your existing Stellant unit or b) ninety (90) days from the date of installation, but not to exceed six months from the date of shipment.

If this Quote includes a Monitor, peripheral accessories on the Monitor such as pulse oximeter sensors, extension cables, power cables, fiber optic cables, ECG leads, capnography accessories (excluding patient connections), blood pressure cuffs, batteries, and extension tubing are warranted for a period of 90 days from the date of installation, but not to exceed six months from the date of shipment.

If this Quote includes disposable products or angiographic catheters, MEDRAD's warranty shall be limited to repair or replacement of any defective disposable product or angiographic catheter upon receipt of the defective product and a MEDRAD Return Goods Authorization. You acknowledge that the disposables and the equipment are a system and your actions regarding your equipment may invalidate your warranty on the disposables.

During the warranty period, there shall be no charge for any action deemed necessary by MEDRAD, including parts, travel, or labor to fulfill the terms of the warranty, during local business hours of 8:30 a.m. to 5:00 p.m., Monday through Friday, except holidays.

Your actions may invalidate this warranty. If MEDRAD determines that an equipment or disposable problem is due to any of the following, you agree to pay MEDRAD for all labor, travel, material handling and shipping at MEDRAD's, or MEDRAD's agents, standard rates:

- a) Malfunction or damage due to spillage of any type of fluid in or on the unit.
- b) Malfunction due to operator error, including failing to follow specified provisions of the Operations Manual.
- c) Malfunction or damage due to unauthorized modification or repair. Unauthorized actions may jeopardize functionality, reliability, or operator and patient safety. Therefore any unauthorized modification or repair shall render this warranty void and relieve MEDRAD from any further obligation. MEDRAD must review and authorize all modifications and repairs. This service may be obtained by contacting the MEDRAD Service Department.
- d) Malfunction or damage due to the use of non-MEDRAD or non-approved accessories. The use of accessories in connection with the equipment may jeopardize functionality, reliability or operator and patient safety. Therefore any use of non-MEDRAD or non-approved accessories (such as non-MEDRAD disposables or in the case of any PET/CT product, the use of vials or vial shields that are not approved by MEDRAD) shall render this warranty void and relieve MEDRAD from any further obligation.
- e) Damage by fire, floods, or other disaster commonly known as "Acts of God".

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Quote No: 20137586

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f) If the Products include any Counterpoise system, any system malfunction, damage or failures due to improper installation or not meeting MEDRAD's specific requirements for level and plumb and/or loading as specified in the MEDRAD manuals.

g) If the Products include any Counterpoise system, any ceiling or wall support structure used to mount or support an Injector Head Counterpoise System is excluded from MEDRAD's warranty. MEDRAD does not in any way warrant such structure.

8. Warranty Exclusions. EXCEPT AS PROVIDED IN THE ABOVE WARRANTY SECTION, MEDRAD EXPRESSLY DISCLAIMS ALL WARRANTIES OR CONDITIONS OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, NONINFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE (WHETHER OR NOT MEDRAD IS AWARE OF YOUR INTENDED USE OF THE PRODUCT), AND ALL SUCH WARRANTIES ARE EXPRESSLY EXCLUDED. IN NO EVENT SHALL MEDRAD BE LIABLE FOR ANY LOST PROFITS OR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE USE OR OPERATION OF MEDRAD's PRODUCT OR SERVICE. Some states do not allow the exclusions on limitation of incidental or consequential damages, so the above limitations may not apply. This Limited Warranty gives you specific legal rights and you may also have other rights.

9. Software Warranty. If the Products include embedded software or if you are purchasing software, MEDRAD warrants that the software will substantially conform to the functional specifications contained in the Operations Manual for one year following delivery. This warranty shall not apply if you use the software in a manner that is not authorized or not in accordance with the user instructions or if you modify the Products or the software or if a party other than MEDRAD provides service to the Products or software. MEDRAD does not warrant that the software will operate uninterrupted or that it will be free from minor defects or errors that do not materially affect its performance. Your sole and exclusive remedy for any damages or loss in any way connected with the software whether due to MEDRAD's negligence or breach of any other duty shall be, at MEDRAD's option: i) to bring the performance of the software into substantial compliance with the functional specifications or ii) return of an appropriate portion of any payment by you with respect to the portion of the software that is not functioning.

10. Indemnification. MEDRAD agrees to indemnify, defend and hold you harmless from any liability, loss, expense, cost, claim or judgment (including attorneys fees), arising out of any claim for property damage, or personal injury or death where the product is alleged to have caused or contributed to the damage, injury or death, provided that this indemnification does not extend to injuries, damages or death to the extent caused by the negligence, reckless disregard or intentional acts of you or any third party.

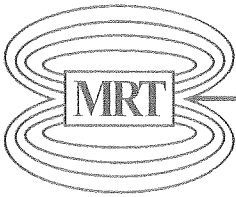
11. Force Majeure. MEDRAD will not be responsible for delays or non-performance directly or indirectly caused by any acts of God, fire, explosion, flood, war, accident, action by governmental authority, inability to procure supplies and raw materials, delays in transportation, work stoppage, court order, and other causes beyond MEDRAD's reasonable control.

12. Compliance With Laws/Export. In addition to any rights and remedies specifically identified here in this Quote, MEDRAD shall have all rights and remedies conferred by law. MEDRAD shall not be required to perform its obligations under this Quote if you have defaulted (e.g. failed to pay) under this Quote or any other contract involving MEDRAD. This Agreement shall be construed in accordance with the laws of the Commonwealth of Pennsylvania, United States of America. You warrant that you are and will remain in compliance with all export and reexport requirements, laws and regulations of the United States of America and any other applicable export and reexport laws and regulations.

13. HIPAA. MEDRAD represents that it is not a Business Associate as defined in the Health Insurance Portability and Accountability Act ("HIPAA"). The functions MEDRAD is required to perform hereunder do not require the use or disclosure of Protected Health Information ("PHI"). To the extent any disclosure of PHI does occur, it is incidental and covered under the incidental disclosure rule found in 45 CFR 164.502(a)(1). In addition, to the extent any such incidental disclosure does occur, MEDRAD agrees to keep all such information confidential.

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## **Construction Quotes**



# Magnetic Resonance Technologies Inc.

4261 Hamann Parkway • Willoughby, OH 44094 Phone: 440.942.2922 • Fax: 440.942.2167  
www.mritechnologies.com • sales@mritechnologies.com

MedQuest Associates, Inc  
3480 Preston Ridge Road  
Suite 600  
Alpharetta, Georgia 30005  
Attention: Chris Murphy

April 2, 2012

## \*\*\*\*AGREEMENT\*\*\*\*

This Agreement is between Magnetic Resonance Technologies Inc. (Seller), and MedQuest Associates, Inc. (Buyer) for the required services and materials defined below to install RF shielding at the Fayetteville MRI facility. Work to be performed TBD.

### SCOPE OF WORK:

1. Provide open shop labor dispatched from our Willoughby Ohio facility to perform the work.
2. Provide two RF shielding effectiveness tests. One prior to any of the work and a second after the delivery of the new magnet. Along with a written report of the results.
3. Provide labor and materials to install RF door gaskets as required.
4. Provide labor and materials to open up the existing suite wall to facilitate the removal of the magnet.
5. Provide labor and materials to increase the size of the magnet opening to facilitate the delivery of the new magnet. New opening 8'6" x 8'
6. Provide labor and materials to patch exiting filter panel opening
7. Provide labor and materials to cut and prepare new openings in the RF shield wall to facilitate the installation of (3) new Hitachi filter panels.
8. Provide labor and materials to install 6 waveguide pipes required by the new MRI system
9. Provide labor and materials to install 6"x24" Helium waveguide pipe
10. Provide labor and material to install raceway hanger bolts. Assumption is made that the top of the RF shield is accessible and ceiling panels do not need to be removed to gain access.
11. Provide labor and materials to install 3 Electrical 30 amp filters.
12. Provide labor and materials to make a second trip to close up the room after the new magnet delivery and perform the final RF room test.
13. Provide all travel and living expenses.
14. Provide all shipping and handling expenses

### End of Scope of Work

**Items Not Included:**

- HVAC, Plumbing, or Electrical labor and materials.
- Architectural or Engineering drawings
- Computer flooring or Cable raceways.
- Bonding, Permits, or License fees.
- Any finish work
- Concrete or excavation work
- Mandatory Union Assistance
- All carpentry labor and materials
- Repairs to the shield deemed necessary from the initial RF room test.

**Cost and Terms**

Labor:	\$ 8,000
Material:	\$ 5,050
Testing Services	\$ 3,600
Travel and Living expenses	\$ 4,700
<b><u>TOTAL:</u></b>	<b><u>\$ 21,350</u></b>

Due upon completion.

**\*\*ALTERNATE 1** **Add: \$7540** **Estimated Budget**

Provide all Cryogen Pipe Installation Labor and Materials (minus roofing)

Installation Labor	\$ 1,440
Materials	\$ 4,200
Shipping	\$ 450
Quench Pipe Insulation Labor	\$ 900
Insulation Materials	\$ 550

**\*\*This is an estimated budget. Actual cost to be supplied after review of jobsite conditions and architectural and engineering plans.**

**General Terms and Conditions**

**1) TAXES**

BUYER shall be responsible for payment of all sales tax and any other excise taxes that are owed to any State, County, or Government entity arising out of this transaction. Buyer shall hold SELLER harmless for any claims arising in connection with such taxes.

**2) DELAYS**

SELLER shall not be liable for delays in performance or failure to perform due to causes beyond its reasonable control, such as acts of God, acts of Customer, fires, strikes, or other labor disturbances, floods, delays in transportation or inability due to causes beyond its reasonable control to obtain necessary labor, materials, components, services, manufacturing facilities, or any other commercial impracticality.

**3) LIMITATIONS OF LIABILITY**

In no event, whether as a result of breach of contract, warranty, tort (including negligence and strict liability) or otherwise, shall SELLER's liability to BUYER for any loss or damage arising out of, or resulting from this Agreement, or from its performance or breach, or from the products or services furnished hereunder, exceed the price of the specific product or service which give rise to the claim. Except as to title, any such liability shall terminate upon expiration of the Agreement.

In no event, whether as a result of breach of contract, warranty, tort (including negligence and strict liability) or otherwise, shall SELLER be liable for any special, consequential, incidental or penal damages including, but not limited to, loss of use of the products or any associated equipment, damage to associated equipment, cost of capital, cost of substitute products, cost of cryogens or delivery cost, facilities, services, or replacement power, downtime costs, or claims of BUYERS customers for such damages.

**4) WARRANTY DISCLAIMER LIMITATIONS OF LIABILITY**

Any extended warranty or service agreement is not part of this agreement. SELLER shall have no liability for any consequential, incidental or special damages by reason of any act or omission or arising out of or in connection with the equipment or its sale, delivery, installation, maintenance, operation, performance, or use including without limitation any loss of use, lost revenues, lost profits, damages to associated equipment or to facility cost of capital, cost of substitute product, facility, support services, cost of replacement, power costs, associated with downtime in any similar and dissimilar loss, costs or damages. SELLER shall have no liability for any consequential, incidental or special damages by reason of any act of omission or arising out of or in connection with the magnet system, quenches, or its sale, delivery, installation, maintenance, operation, performance, or use including without limitation any loss of use, lost revenues, lost profits, cost of cryogens, cost of trans fill labor damages to associated equipment or to facility cost of capital, cost of substitute product, facility, support services, cost of replacement, power costs, associated with downtime in any similar and dissimilar loss, costs or damages.

**5) ENTIRE AGREEMENT**

SELLER and BUYER hereby acknowledge and agree that the foregoing terms and conditions and any attachments and modifications hereto signed by both parts, shall constitute the entire agreement and understanding between SELLER and BUYER concerning the subject matter contained in this Agreement.

**6) INDEMNIFICATION**

The Customer shall fully and without limitation indemnify, defend and hold harmless Magnetic Resonance Technologies, Inc., its agents, employees, officers, directors, successors, contractors and subcontractors, assigns and any other person or entity associated with Magnetic Resonance Technologies, Inc. from and against any and all liabilities, damages, claims, costs, and expenses, of any nature whatsoever arising out of or relating to the to this contract by any person, party or entity. This indemnification and hold harmless shall also make the Customer responsible to Magnetic Resonance Technologies, Inc. for any and all attorney's fees.

Magnetic Resonance Technologies, Inc. shall select and choose said attorney.

**7) JURISDICTION AND VENUE OF ALL DISPUTES**

The parties agree that any and all disputes on this agreement shall be in the jurisdiction/venue as solely determined by Magnetic Resonance Technologies, Inc. It shall be the sole decision of Magnetic Resonance Technologies, Inc. as to whether any and/all disputes on this agreement shall be submitted to binding arbitration in Cleveland, Ohio or through Lake County Common Pleas Court of Ohio. Jurisdiction and venue in any other forum is hereby prohibited. Magnetic Resonance Technologies, Inc. shall declare the jurisdiction and/or venue to be either by arbitration in Cleveland, Ohio or in Lake County Common Pleas by giving written notice through the Customer within 45 days after any claim, demand, or dispute is brought to Magnetic Resonance Technologies, Inc's attention. The parties agree consent and/or waive venue/jurisdiction in any other forum other than arbitration in Cleveland, Ohio or Lake County Common Pleas Court.

**8) AUTHORITY TO EXECUTE**

In executing this agreement, the parties hereto acknowledge that they have read each of the terms and conditions attached hereof on behalf of their respective interests, that they know and understand the same, and have signed this agreement as their own respective free acts and with the express authority to do so.

\_\_\_\_\_  
Authorized Agent

\_\_\_\_\_  
Date

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

\_\_\_\_\_  
Magnetic Resonance Technologies, Inc., an Ohio corporation by and through its authorized agent, Michael Profeta, President, and not individually.

Fax copies acceptable

Magnetic Resonance Technologies, Inc.  
4261 Hamann Pkwy., Willoughby, Ohio 44094  
Ph. 440.942.2922 Fax: 440.942.2167

Agreement Number: MRT-120402-RFS

 **AIA** Document A107™ - 2007

**Standard Form of Agreement Between Owner and Contractor  
for a Project of Limited Scope**

**AGREEMENT** made as of the 26<sup>th</sup> day of March in the year 2012  
(*In words, indicate day, month and year.*)

**BETWEEN** the Owner:

(*Name, address and other information*)

**Carolina Imaging Center**  
3628 Cape Center Dr.  
Fayetteville, NC

**ADDITIONS AND DELETIONS:**

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

and the Contractor:

(*Name, address and other information*)

**Femco Contractors**  
7302 Cessna Dr.  
Greensboro, NC 27409

for the following Project:

(*Name, location and detailed description*)

**MRI equipment Replacement**  
**Carolina Imaging Center**  
3628 Cape Center Dr.  
Fayetteville, NC.

The Architect:

(*Name, address and other information*)

**Ec,A Architecture**  
PO Box 30183  
Charlotte, NC 28230

The Owner and Contractor agree as follows.

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#### **ARTICLE 1 THE WORK OF THIS CONTRACT**

The Contractor shall execute the Work described in or reasonably inferable from, the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

#### **ARTICLE 2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION**

**§ 2.1** The date of commencement of the Work shall be the date of this Agreement unless a different date is stated below or provision is made for the date to be fixed in a notice to proceed issued by the Owner.

*(Insert the date of commencement, if it differs from the date of this Agreement or, if applicable, state that the date will be fixed in a notice to proceed.)*

Contractor shall make application for permits within 3 days of notice to Proceed given by the Owner  
Date of Commencement shall be the date of Building Permit approval

§ 2.2 The Contract Time shall be measured from the date of commencement.

§ 2.3 The Contractor shall perform the Work in accordance with the schedule attached hereto as **Exhibit** and shall achieve Substantial Completion of the entire Work on or before 90 Calendar days ("Target Substantial Completion Date"), subject to adjustments of this Contract Time as provided in the Contract Documents.

### ARTICLE 3 CONTRACT SUM

§ 3.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be **Two Hundred and Seventy five Thousand Dollars (\$275,000.00)**

§ 3.2 The Stipulated Sum shall be subject to additions and deletions as provided in the Contract Documents. The Contract Sum is based upon the Assumptions and Qualifications attached as **Exhibit A** and **Exhibit B**. The Contract Sum includes the cost of all governmental permits and approvals necessary for the performance of the Work.

§ 3.2.2 Unit prices, if any:

*(Identify and state the unit price, and state the quantity limitations, if any, to which the unit price will be applicable.)*

Floor Covering Carpet, VCT etc.. at \$2.50 per SF installed

### ARTICLE 4 PAYMENTS

#### § 4.1 PROGRESS PAYMENTS

§ 4.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, but subject to approval of the Work by the Owner, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents. Each Application for Payment will include current affidavits of payment and lien waivers in forms reasonably required by the Owner or the Owner's lender, and a monthly status report of the progress of the Work. This report will include, in addition to the other documentation required pursuant to the Contract Documents, the following: a narrative description of the work performed; a progress bar chart indicating the precedence of the remaining portions of the Work; a report of all substantive matters (i.e. pending changes); and any other reports requested by the Owner. All reports shall be in forms satisfactory to the Owner.

§ 4.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

§ 4.1.3 Provided that an Application for Payment is received by the Architect not later than the first day of a month, the Owner shall make payment of the certified and approved amount to the Contractor not later than the last day of the month. If an Application for Payment is received by the Architect after the date fixed above, payment shall be made by the Owner not later than thirty (30) days after the Architect receives the Application for Payment.  
*(Federal, state or local laws may require payment within a certain period of time.)*

§ 4.1.5 Payments due and unpaid under the Contract for a period of more than fifteen (15) days after the due date shall bear interest from the date payment is due at the rate stated below,  
*(Insert rate of interest agreed upon, if any.)*

Interest Rate of 1% per month beginning 45 days after payment is due on all unpaid Balances



## **§ 4.2 FINAL PAYMENT**

**§ 4.2.1** Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Section 18.2, and to satisfy other requirements, if any, which extend beyond final payment;
- .2 the Owner has approved the Work;
- .3 a final Certificate for Occupancy has been issued by the Inspector

**§ 4.2.2** The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows: within 30 days after The Certificate of Occupancy has been issued by Building Inspector and after the completion of all Punch List items.

## **ARTICLE 5 DISPUTE RESOLUTION**

### **ARTICLE 6 ENUMERATION OF CONTRACT DOCUMENTS**

**§ 6.1** The Contract Documents are defined in Article 7 and, except for Modifications issued after execution of this Agreement, are enumerated in the sections below.

**§ 6.1.1** The Agreement is this executed AIA Document A107-2007, Standard Form of Agreement Between Owner and Contractor for a Project of Limited Scope.

**§ 6.1.2** Additional documents, if any, forming part of the Contract Documents: See List of Contract Documents attached hereto as **Exhibit B Attached**

### **ARTICLE 7 GENERAL PROVISIONS**

#### **§ 7.1 THE CONTRACT DOCUMENTS**

The Contract Documents are enumerated in **Exhibit** and consist of this Agreement (including, if applicable, Supplementary and other Conditions of the Contract), Drawings, Specifications, Addenda issued prior to the execution of this Agreement, other documents listed in this Agreement and Modifications issued after execution of this Agreement. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive or (4) a written order for a minor change in the Work issued by the Architect. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

#### **§ 7.2 THE CONTRACT**

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind between any persons or entities other than the Owner and the Contractor.

#### **§ 7.3 THE WORK**

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

#### **§ 7.4 INSTRUMENTS OF SERVICE**

All documents, including original drawings, specifications, estimates, field notes and data (collectively referred to herein as "Documents") are and shall remain the property of the Owner. All copies of the Documents, except the Contractor's record set, shall be returned or suitably accounted for to the Owner, on request, upon completion of the Work. The Documents, and copies thereof furnished to the Contractor, are for use solely with respect to the Project.

The Documents shall not be used by the Contractor or any Subcontractor, sub-subcontractor or material or equipment supplier on other projects without the consent of the Owner.

## **ARTICLE 8 OWNER**

### **§ 8.1 INFORMATION AND SERVICES REQUIRED OF THE OWNER**

**§ 8.1.1** The Owner shall furnish all necessary surveys and a legal description of the site.

**§ 8.1.2** The Contractor shall be entitled to rely on the accuracy of information provided by the Owner, except to the extent that the Contractor knows, or has reason to know, that such information is inaccurate or incomplete.

**§ 8.1.3** Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 9.6.1, the Owner shall secure and pay for other necessary approvals, easements, assessments and charges required for the construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

### **§ 8.2 OWNER'S RIGHT TO STOP THE WORK**

If the Contractor fails to correct Work which is not in accordance with the requirements of the Contract Documents, or repeatedly fails to carry out the Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order is eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity.

### **§ 8.3 OWNER'S RIGHT TO CARRY OUT THE WORK**

If the Contractor at any time defaults in its obligations under the Contract Documents or neglects to carry out the Work in accordance with the Contract Documents or fails to supply a sufficient number of properly skilled workers or materials of the proper quality and quantity, the Owner may, without prejudice to any other remedy he may have, make good such deficiencies, provided, however, that the Owner shall not take any action to make good such deficiencies, except in the event of an emergency, unless the Contractor shall have failed, within three (3) days after receipt of written notice from the Owner of such default or neglect, to commence and continue correction of such default or neglect with diligence and promptness. If the Owner undertakes to make good such deficiencies, the Owner may deduct from the payments then or thereafter due the Contractor the cost of correcting such deficiencies, including compensation for the Architect's or other additional services made necessary by such default, neglect or failure, and the Contract Sum shall be likewise reduced. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the Owner within thirty (30) days receipt of an invoice therefore.

## **ARTICLE 9 CONTRACTOR**

### **§ 9.1 REVIEW OF CONTRACT DOCUMENTS AND FIELD CONDITIONS BY CONTRACTOR**

**§ 9.1.1** By executing the Contract, the Contractor represents that he has visited the Site, familiarized himself with the local conditions under which the Work is to be performed, verified to his satisfaction the nature and quantity of the work involved, is familiar with all conditions which may be encountered, correlated his observations with the requirements of the Contract Documents, and the Contractor hereby acknowledges his satisfaction with the same. The Contractor hereby agrees to perform the Work, without increase in the Contract Sum, irrespective of the conditions encountered by the Contractor at the Site, unless the conditions encountered by the Contractor at the Site were not known to the Contractor at the time of execution of the Contract and could not have been reasonably anticipated by an experienced contractor.

**§ 9.1.2** Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as the information furnished by the Owner pursuant to Section 8.1.1, shall take field measurements of any existing conditions related to that portion of the Work and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies, or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional unless otherwise specifically provided in the Contract Documents. If the Contractor performs any construction activity knowing it involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the Architect, the Contractor shall assume responsibility for such performance and shall bear an appropriate amount of the attributable costs for correction.

**§ 9.1.3** The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

## **§ 9.2 SUPERVISION AND CONSTRUCTION PROCEDURES**

**§ 9.2.1** The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences or procedures, the Contractor shall be fully and solely responsible for the jobsite safety thereof unless the Contractor gives timely written notice to the Owner and Architect that such means, methods, techniques, sequences or procedures may not be safe.

**§ 9.2.2** The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for or on behalf of the Contractor or any of its Subcontractors, or anyone else claiming through the Contractor.

## **§ 9.3 LABOR AND MATERIALS**

**§ 9.3.1** Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

**§ 9.3.2** The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

**§ 9.3.3** The Contractor may make a substitution only with the consent of the Owner, after evaluation by the Architect and in accordance with a Modification.

## **§ 9.4 WARRANTY**

The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation or normal wear and tear under normal usage.

## **§ 9.5 TAXES**

The Contractor shall pay sales, consumer, use and other similar taxes that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

## **§ 9.6 PERMITS, FEES, NOTICES, AND COMPLIANCE WITH LAWS**

**§ 9.6.1** Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as other permits, fees, licenses and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

**§ 9.6.2** The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules, and regulations, and lawful orders of public authorities applicable to performance of the Work. If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and

regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

#### **§ 9.7 ALLOWANCES**

The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. The Owner shall select materials and equipment under allowances with reasonable promptness. Allowance amounts shall include the costs to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts. Allowance amounts shall not include the Contractor's costs for unloading and handling at the site, labor, installation, overhead, and profit.

#### **§ 9.9 SUBMITTALS**

**§ 9.9.1** The Contractor shall review for compliance with the Contract Documents and submit to the Architect Shop Drawings, Product Data, Samples and similar submittals required by the Contract Documents in coordination with the Contractor's construction schedule and in such sequence as to allow the Architect reasonable time for review. By submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them; (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so; and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents. The Work shall be in accordance with approved submittals.

**§ 9.9.2** Shop Drawings, Product Data, Samples and similar submittals are not Contract Documents.

#### **§ 9.10 USE OF SITE**

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

#### **§ 9.11 CUTTING AND PATCHING**

The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make its parts fit together properly.

#### **§ 9.12 CLEANING UP**

The Contractor shall keep the premises and surrounding area free from accumulation of waste materials or rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery and surplus material from and about the Project.

#### **§ 9.13 ROYALTIES, PATENTS AND COPYRIGHTS**

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for such defense or loss when a particular design, process or product of a particular manufacturer or manufacturers is required by the Contract Documents or where the copyright violations are contained in Drawings, Specifications or other documents prepared by the Owner or Architect. However, if the Contractor has reason to believe that the required design, process or product is an infringement of a copyright or a patent, the Contractor shall be responsible for such loss unless such information is promptly furnished to the Architect.

#### **§ 9.14 ACCESS TO WORK**

The Contractor shall provide the Owner and Architect access to the Work in preparation and progress wherever located.

## **§ 9.15 INDEMNIFICATION**

**§ 9.15.1** To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, the Owner's partners (and the parent and subsidiaries of Owner's partners, if any), the Owner's managing agent, Architect, Architect's consultants and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that: (i) such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder, or (ii) such claim, damage, loss or expense arises from any violation of law, ordinance or regulation by the Contractor, or by anyone performing any portion of the Work. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this Section 9.15.1.

**§ 9.15.2** In claims against any person or entity indemnified under this Section 9.15 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under Section 9.15.1 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or Subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

## **ARTICLE 10 ARCHITECT**

**§ 10.1** The Architect will provide administration of the Contract and will be an Owner's representative during construction, until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents, unless otherwise modified in writing in accordance with other provisions of the Contract.

**§ 10.2** The Architect will visit the site at intervals appropriate to the stage of the construction to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general, if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for, the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

**§ 10.3** On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and report to the Owner (1) known deviations from the Contract Documents and from the most recent construction schedule submitted by the Contractor, and (2) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

**§ 10.4** Based on the Architect's evaluations of the Work and of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

**§ 10.5** The Architect has authority to reject Work that does not conform to the Contract Documents and to require inspection or testing of the Work.

**§ 10.6** The Architect will review and approve or take other appropriate action upon the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 10.7 The Architect will be the initial interpreter of the Drawings and Specifications and any modifications of the Drawings and Specifications and matters in question relating to whether the Contractor's performance of the Work complies with the Drawings and Specifications or any such Modifications. The Architect will not be liable for the results of any interpretations rendered in good faith.

§ 10.8 Duties, responsibilities and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified or extended without written consent of the Owner, Contractor and Architect. Consent shall not be unreasonably withheld.

#### **ARTICLE 11 SUBCONTRACTORS**

§ 11.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site.

§ 11.2 Unless otherwise stated in the Contract Documents or the bidding requirements, the Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner through the Architect the names of the Subcontractors or suppliers for each of the principal portions of the Work. The Contractor shall not contract with any Subcontractor or supplier to whom the Owner or Architect has made reasonable written objection within ten days after receipt of the Contractor's list of Subcontractors and suppliers. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor's Work. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 11.3 Contracts between the Contractor and Subcontractors shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by the terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of

the Subcontractor's Work, which the Contractor, by the Contract Documents, assumes toward the Owner and Architect.

§ 11.4 The Owner reserves the right to make payment to the Contractor by joint check or by direct check to the Contractor's Subcontractors and suppliers or to any person who files a lien against the Project or makes a claim against the Owner which is not bonded over or discharged by the Contractor in accordance with Section 9.17. Any payment made by the Owner pursuant to this Section 11.4 shall be credited against any balance due under this Contract.

§ 11.5 The Contractor hereby agrees that, in the event that this Contract is terminated for any reason, the Contractor shall be deemed to have assigned to the Owner, or the Owner's designee, any subcontracts and purchase orders designated for assignment by the Owner in a written notice given by the Owner to the Contractor on or before the termination of this Contract. The Subcontractors and vendors under such subcontracts and purchase orders shall recognize the Owner, or its designee, as the Contractor and shall perform all work and/or deliver all materials as required under such subcontracts and purchase orders, provided that the Owner, or its designee, as the case may be, pays to such subcontractors and vendors such amounts as may become due and payable after the date of termination of this Contract. The Contractor shall require each subcontractor and vendor to expressly agree to its obligations under this Section 11.5.

#### **ARTICLE 12 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS**

§ 12.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project or other construction or operations on the site under conditions of the contract identical or substantially similar to these, including those portions related to insurance and waiver of subrogation. If the Contractor claims that delay or additional cost is involved because of such action by the Owner, the Contractor shall make such claim as provided in Article 21.

§ 12.2 The Contractor shall afford the Owner and separate contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's activities with theirs as required by the Contract Documents.

§ 12.3 The Owner shall be reimbursed by the Contractor for costs incurred by the Owner which are payable to a separate contractor because of delays, improperly timed activities or defective construction of the Contractor. The Owner shall be responsible to the Contractor for costs incurred by the Contractor because of delays, improperly

timed activities, damage to the Work or defective construction of a separate contractor.

#### **ARTICLE 13 CHANGES IN THE WORK**

**§ 13.1** By appropriate Modification, changes in the Work may be accomplished after execution of the Contract. The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, with the Contract Sum and Contract Time being adjusted accordingly. Such changes in the Work shall be authorized by written Change Order signed by the Owner, Contractor and Architect, or by written Construction Change Directive signed by the Owner and Architect.

**§ 13.2** Except as otherwise provided in this Contract, adjustments in the Contract Sum and Contract Time resulting from a change in the Work shall be determined by mutual agreement of the parties or, in the case of a Construction Change Directive signed only by the Owner and Architect, by the Contractor's cost of labor, material, equipment, and reasonable overhead and profit, unless the parties agree on another method for determining the cost or credit. Pending final determination of the total cost of a Construction Change Directive, the Contractor may request payment for Work completed pursuant to the Construction Change Directive. The Architect will make an interim determination of the amount of payment due for purposes of certifying the Contractor's monthly Application for Payment. When the Owner and Contractor agree on adjustments to the Contract Sum and Contract Time arising from a Construction Change Directive, the Architect will prepare a Change Order.

**§ 13.2.1** Notwithstanding anything to the contrary herein contained, if the parties do not reach mutual agreement as to the cost or credit to the Owner from a Change in the Work, then the cost or credit to the Owner for a Change in the Work shall be limited to the following items: cost (including sales tax and delivery charges) of materials; cost of labor (including Social Security, old age, unemployment insurance, fringe benefits required by this Agreement or custom and overtime wages'); subcontractors' overhead and profit, not to exceed ten (10%) percent of the cost of the Change to the Owner; Worker's Compensation insurance; and rental value of equipment and machinery. Pending final determination of the cost to the Owner, payments on account thereof shall be made based upon the Architect's Certificate of Payment, as approved by the Owner.

**§ 13.2.2** Where possible, the Contractor shall receive price quotations from Subcontractors for Changes in the Work which include only those items enumerated in Section 13.2.1. To those specific costs, the Contractor shall add a fee equal to percent of the amount by which the sum of: (i) such costs and (ii) the Subcontractors' overhead and profit, exceed Dollars, and the Contractor shall bill the Owner appropriate in accordance with this Article 13 (i.e. the Contractor shall be paid no fee for the first Dollars of Changes in the Work). Except as provided in Section 14.6 hereof, the fee payable by the Owner under this Section 13.2.2 shall be in full compensation for any additional costs of supervision by field personnel and other extended general conditions incurred by the Contractor in connection with any Change in the Work.

**§ 13.3** The Architect will have authority to order minor changes in the Work not involving adjustment in the Contract Sum or extension of the Contract Time and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by written order and shall be binding on the Owner and Contractor. The Contractor shall carry out such written orders promptly.

**§ 13.4** If concealed or unknown physical conditions are encountered at the site that differ materially from those indicated in the Contract Documents or from those conditions ordinarily found to exist, the Contract Sum and Contract Time shall be equitably adjusted as mutually agreed between the Owner and Contractor; provided that the Contractor provides notice to the Owner and Architect promptly and before conditions are disturbed.

#### **ARTICLE 14 TIME**

**§ 14.1** Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

**§ 14.2** Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

**§ 14.3** The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

**§ 14.4** The date of Substantial Completion is the date certified by the Architect in accordance with Section 15.4.3.

**§ 14.5** If the Contractor is delayed at any time in the commencement or progress of the Work by changes ordered in the Work, by labor disputes which are of an area-wide or region-wide nature and are not directed at either the Contractor of the Project, fire, unusual delay in deliveries, abnormal adverse weather conditions not reasonably anticipatable, unavoidable casualties or any causes beyond the Contractor's control (other than causes arising out of Contractor's financial condition) or by other causes which the Architect determines may justify delay, then the Contract Time shall be extended by Change Order for such reasonable time as the Architect may determine, subject to the provisions of Article 21.

**§ 14.6** The Contractor agrees that he shall have no claim against the Owner for money damages for delay, no matter how such delay is caused; provided however, that in the event of a delay caused by the fault of the Owner or the Architect, the Contractor shall be permitted to recover for extended field supervision costs incurred by the Contractor as the direct result of such delay.

## **ARTICLE 15 PAYMENTS AND COMPLETION**

### **§ 15.1 APPLICATIONS FOR PAYMENT**

**§ 15.1.1** Payments shall be made as provided in Article 4 of this Agreement. Applications for Payment shall be in a form satisfactory to the Architect.

**§ 15.1.2** With each Application for Payment where the Contract Sum is based upon the Cost of the Work, or the Cost of the Work with a Guaranteed Maximum Price, the Contractor shall submit payrolls, petty cash accounts, receipted invoices or invoices with check vouchers attached, and any other evidence required by the Owner to demonstrate that cash disbursements already made by the Contractor on account of the Cost of the Work equal or exceed (1) progress payments already received by the Contractor, less (2) that portion of those payments attributable to the Contractor's Fee; plus (3) payrolls for the period covered by the present Application for Payment. In any event, each Application for payment will include lien waivers in a form acceptable to the Owner the Owner's lender, and a monthly status report of the progress of the Work. Such monthly status report shall be current through the date of

the preceding Application for Payment. This report will include, in addition to the other documentation required pursuant to Article 15, the following: a narrative description of the work performed; a progress bar chart indicating the precedence of the remaining portions of the Work; a report of all substantive matters (i.e. pending changes); and, any other reports requested by the Owner. All reports shall be in forms satisfactory to the Owner.

**§ 15.1.3** Payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment stored, and protected from damage, off the site at a location agreed upon in writing.

**§ 15.1.4** The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, security interests or other encumbrances adverse to the Owner's interests.

### **§ 15.2 CERTIFICATES FOR PAYMENT**

**§ 15.2.1** The Architect will, within seven days after receipt of the Contractor's Application for Payment, either issue to the Owner a Certificate for Payment, with a copy to the Contractor, for such amount as the Architect determines is properly due, or notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in whole or in part as provided in Section 15.2.3.

**§ 15.2.2** The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluations of the Work and the data comprising the Application for Payment, that, to the best of the Architect's knowledge, information and belief, the Work has progressed to the point indicated and that the quality of the Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous onsite



inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

**§ 15.2.3** The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 15.2.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 15.2.1. If the Contractor and the Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 9.2.2, because of

- .1 defective Work not remedied;
- .2 third party claims filed or reasonable evidence indicating probable filing of such claims unless security acceptable to the Owner is provided by the Contractor;
- .3 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
- .5 damage to the Owner or a separate contractor;
- .6 reasonable evidence that the Work will not be completed within the Contract Time and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;  
or
- .7 failure to carry out the Work in accordance with the Contract Documents.

**§ 15.2.4** When the above reasons for withholding certification are removed, certification will be made for amounts previously withheld.

### **§ 15.3 PROGRESS PAYMENTS**

**§ 15.3.1** The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to sub-subcontractors in similar manner.

**§ 15.3.2** Neither the Owner nor Architect shall have an obligation to pay or see to the payment of money to a Subcontractor except as may otherwise be required by law.

**§ 15.3.3** A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

### **§ 15.4 SUBSTANTIAL COMPLETION**

**§ 15.4.1** Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use, the Owner has agreed in writing that Substantial Completion has occurred, and the Contractor has delivered to the Owner an unconditional and permanent Certificate of Occupancy from the applicable municipal authorities permitting the Owner to legally utilize the Work (provided however, that if the Contractor is unable to obtain an unconditional Certificate of Occupancy due solely to the fault of the Owner, the delivery of such Certificate of Occupancy shall not be deemed to be a condition to Substantial Completion).

**§ 15.4.2** When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

**§ 15.4.3** Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work

or designated portion thereof is substantially complete. When the Architect determines that the Work or designated portion thereof is substantially complete, the Architect will issue a Certificate of Substantial Completion which shall establish the date of Substantial Completion, establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 15.4.4 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Upon such acceptance and consent of surety, if any, the Owner shall make payment of retainage applying to such Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

#### § 15.5 FINAL COMPLETION AND FINAL PAYMENT

§ 15.5.1 Upon receipt of the Contractor's written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection and, when the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions stated in Section 15.5.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 15.5.2 Final payment shall not become due until the Contractor has delivered to the Owner a complete release of all liens arising out of this Contract or receipts in full covering all labor, materials and equipment for which a lien could be filed, or a bond satisfactory to the Owner to indemnify the Owner against such lien, and upon delivery to the Owner of all close-out documentation specifically required by the Contract Documents, and/or specifically requested by

the Owner. If such lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such lien, including costs and reasonable attorneys' fees.

§ 15.5.3 The making of final payment shall constitute a waiver of claims by the Owner except those arising from

- .1 liens, claims, security interests or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents; or
- .3 terms of special warranties required by the Contract Documents.
- .4 Claims of which the Contractor is advised in writing as of the time of final payment; or
- .5 Claims based upon Claims of third parties which are unknown to the Owner as of the date of final payment.
- .6 any indemnification obligations of the Contractor expressly set forth in the Contract Document.

§ 15.5.4 Acceptance of final payment by the Contractor, a Subcontractor or material supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

### ARTICLE 16 PROTECTION OF PERSONS AND PROPERTY

#### § 16.1 SAFETY PRECAUTIONS AND PROGRAMS

The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the performance of the Contract. The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to

- .1 employees on the Work and other persons who may be affected thereby;
- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors or Subsubcontractors; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities bearing on safety of persons and property and their protection from damage, injury or loss. The Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor, a Subcontractor, a sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 16.1.2 and 16.1.3, except for damage or loss attributable to acts or omissions of the Owner or Architect or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 9.15.

## **§ 16.2 HAZARDOUS MATERIALS**

**§ 16.2.1** The Contractor is responsible for compliance with the requirements of the Contract Documents regarding hazardous materials. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents, and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and report the condition to the Owner and Architect in writing. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased in the amount of the Contractor's reasonable additional costs of shutdown, delay and start-up.

**§ 16.2.2** To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area, if in fact, the material or substance presents the risk of bodily injury or death as described in Section 16.2.1 and has not been rendered harmless, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent that such damage, loss or expense is due to the fault or negligence of the Owner.

**16.2.3** If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall indemnify the Contractor for all cost and expense thereby incurred.

**§ 16.3** In any emergency affecting the safety of persons or property, the Contractor shall act, at his discretion, to prevent threatened damage, injury or loss, and shall, as promptly as conditions permit, notify insurance carriers, the Owner, and the Architect of the nature of the emergency and circumstances related thereto. Any additional compensation or extension of time claimed by the Contractor on account of emergency work shall be determined as provided in Article 13 for Changes in the Work.

**§ 16.4** To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner from and against claims, damages, losses and expenses, including but not limited to reasonable attorneys' fees, arising out of or resulting from the introduction of any hazardous materials to the Project site, and the exacerbation of any environmental conditions at the Project site caused by the negligence or willful misconduct of the Contractor, any Subcontractor, or anyone else for whom the Contractor may be legally responsible.

## **ARTICLE 17 INSURANCE AND BONDS**

**§ 17.1** The Contractor shall purchase from, and maintain in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, insurance for protection from claims under workers' compensation acts and other employee benefit acts which are applicable, claims for damages because of bodily injury, including death, and claims for damages, other than to the Work itself, to property which may arise out of or result from the Contractor's operations and completed operations under the Contract, whether such operations be by the Contractor or by a Subcontractor or anyone directly or indirectly employed by any of them. This insurance shall be written for not less than limits of liability specified in the Contract Documents or required by law, whichever coverage is greater, and shall include contractual liability insurance applicable to the Contractor's obligations under Section 9.15. Certificates of insurance acceptable to the Owner shall be filed with the Owner prior to commencement of the Work. Each policy shall contain a provision that the policy will not be canceled or allowed to expire until at least 30 days' prior written notice has been given to the Owner. The Contractor shall cause the commercial liability coverage required by the Contract Documents to include: (1) the Owner, the Architect and the Architect's Consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent

acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's completed operations.

#### § 17.1.1 Contractor's Insurance

The Contractor shall maintain the following insurance with companies having an AM Best rating of at least AVIII:

1. Worker's Compensation and Employer's Liability Insurance shall be maintained in accordance with applicable laws.
2. Commercial General Liability Insurance on an occurrence form with a limit of not less than \$1,000,000.00, including Owner's and contractor's protective, contractual, liability, and products and completed operations coverage for six (6) years after final acceptance of the Work by the Owner. The aforementioned are to include explosion, collapse, and underground (XCU) hazards and coverages.
3. Comprehensive Automobile Liability Insurance, with a limit of not less than \$1,000,000.00 shall cover all vehicles (whether owned or rented) used by the Contractor in connection with the Work.
4. Umbrella Liability Insurance shall be maintained with a limit of not less than \$2,000,000.00

Such insurance shall be primary and non contributory, name the Contractor, the Owner, and all parties who are required to be indemnified by the Contractor pursuant to Section 9.15, as additional insured parties. Additional Insured requirement shall apply to all liability including products and completed operations coverage on the primary and excess policies for the full coverage term required including 6 years after acceptance of work. Certificates of insurance evidencing all coverages required of the Contractor must be provided prior to commencement of work. Each certificate must properly add the Owner, and others as required by Owner, as additional insured parties.

#### § 17.1.2 Subcontractor's Insurance

The Contractor shall cause each Subcontractor to maintain the following primary insurance with companies having an AM Best rating of at least A- VIII:

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1. Worker's Compensation and Employer's Liability Insurance shall be maintained in accordance with applicable laws.
2. Commercial General Liability Insurance on an occurrence form with a limit of not less than \$1,000,000.00, including Owner's and contractor's protective, contractual, liability, and products and completed operations coverage for six (6) years after final acceptance of the Work by the Owner. The aforementioned are to include explosion, collapse, and underground (XCU) hazards and coverages.
3. Comprehensive Automobile Liability Insurance, with a limit of not less than \$1,000,000.00, shall cover all vehicles (whether owned or rented) used by the Contractor in connection with the Work.
4. Umbrella Liability Insurance shall be maintained with a limit of not less than \$3,000,000.00.

Such insurance shall be primary and non contributory, name such Subcontractor, the Contractor, the Owner, and all parties who are required to be indemnified by the Contractor pursuant to Section 9.15, as additional insured parties. Additional Insured requirement shall apply to all liability including products and completed operations coverage on the primary and excess policies for the full coverage term required including 6 years after acceptance of work. The Contractor will be responsible for obtaining prior to commencement of each Subcontractor's work, certificates of insurance from each and every Subcontractor evidencing coverages required above and each certificate must properly add the Owner, and others as required by Owner, as additional insured parties.

#### § 17.2 OWNER'S LIABILITY INSURANCE

The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance.

### **§ 17.3 PROPERTY INSURANCE**

**§ 17.3.1** Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance on an "all-risk" or equivalent policy form, including builder's risk, in the amount of the initial Contract Sum, plus the value of subsequent modifications and cost of materials supplied and installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 15.5 or until no person or entity other than the Owner has an insurable interest in the property required by this Section 17.3.1 to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and sub-subcontractors in the Project.

**§ 17.3.2** The Owner shall file a copy of each policy with the Contractor before an exposure to loss may occur. Each policy shall contain a provision that the policy will not be canceled or allowed to expire until at least 10 days' prior written notice has been given to the Contractor.

**§ 17.3.3** The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, subsubcontractors, agents and employees, each of the other, and (2) the Architect, Architect's consultants, separate contractors described in Article 12, if any, and any of their subcontractors, sub-subcontractors, agents and employees for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to Section 17.3 or other property insurance applicable to the Work, except such rights as they have to proceeds of such insurance held by the Owner as fiduciary. The Owner or Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 12, if any, and the subcontractors, sub-subcontractors, agents and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise,

did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

**§ 17.3.4** A loss insured under the Owner's property insurance shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause. The Contractor shall pay Subcontractors their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors to make payments to their sub-subcontractors in similar manner.

### **§ 17.4 PERFORMANCE BOND AND PAYMENT BOND**

**§ 17.4.1** The Owner shall have the right to require the Contractor to furnish bonds covering faithful performance of the Contract and payment of obligations arising thereunder as stipulated in bidding requirements or specifically required in the Contract Documents on the date of execution of the Contract.

**§ 17.4.2** Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

### **ARTICLE 18 CORRECTION OF WORK**

**§ 18.1** Without limiting any other rights and remedies which Owner may have, the Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, whether discovered before or after Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

**§ 18.2** In addition to the Contractor's obligations under Section 9.4, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 15.4.3, or by terms of an applicable special warranty required by the Contract Documents, any of the

Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty.

**§ 18.3** If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct it in accordance with Section 8.3.

**§ 18.4** The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

**§ 18.5** The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Article 18.

## **ARTICLE 19 MISCELLANEOUS PROVISIONS**

### **§ 19.1 ASSIGNMENT OF CONTRACT**

Neither party to the Contract shall assign the Contract without written consent of the other, except that the Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the

Project if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate such assignment.

### **§ 19.2 GOVERNING LAW**

The Contract shall be governed by the law of the place where the Project is located.

### **§ 19.3 TESTS AND INSPECTIONS**

Tests, inspections and governmental approvals of portions of the Work required by the Contract Documents or by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities shall be made at an appropriate time. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and governmental approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections and governmental approvals. The Contractor shall give the Architect timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of (1) tests, inspections or approvals that do not become requirements until after bids are received or negotiations concluded, unless the defects or deficiencies in the Work are discovered in connection with such tests, inspections, or governmental approvals, in which event the Contractor shall be responsible for the cost of such tests, inspections or governmental approvals, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the Owner from delegating the costs to the Contractor.

## **ARTICLE 20 TERMINATION OF THE CONTRACT**

### **§ 20.1 TERMINATION BY THE CONTRACTOR**

If the Architect fails to certify payment as provided in Section 15.2.1 for a period of 30 days through no fault of the Contractor, or if the Owner fails to make payment as provided in Section 4.1.3 for a period of 30 days, the Contractor may, upon seven additional days' written notice to the Owner and the Architect, terminate the Contract and recover from the Owner payment for Work executed, and for proven loss with respect to materials, equipment, tools, and construction equipment and machinery, including reasonable overhead, profit and damages applicable to the Project.

### **§ 20.2 TERMINATION BY THE OWNER FOR CAUSE**

**§ 20.2.1** The Owner may terminate the Contract if the Contractor

- .1 refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of a public authority; or

.4 otherwise is guilty of material breach of a provision of the Contract Documents.

**§ 20.2.2** When any of the above reasons exists, the Owner may, without prejudice to any other remedy the Owner may have and after giving the Contractor seven days' written notice, terminate the Contract and take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor and may finish the Work by whatever reasonable method the Owner may deem expedient. Upon request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

**§ 20.2.3** When the Owner terminates the Contract for one of the reasons stated in Section 20.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

**§ 20.2.4** If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Architect, upon application, and this obligation for payment shall survive termination of the Contract.

### **§ 20.3 TERMINATION BY THE OWNER FOR CONVENIENCE**

Upon seven (7) days' written notice, the Owner shall have the right to cancel the Contract at any time whether or not a default exists hereunder, and the Owner shall incur no liability to the Contractor or any other person by reason of such

cancellation. Notwithstanding the foregoing, if the cancellation is not due to any fault of the Contractor, the Owner shall pay to the Contractor: (i) a sum equal the amount by which a pro-rata (i.e. in proportion to the percentage of the Work which is complete as of the date of termination) portion of the Contract Sum exceeds the amount paid by the Owner to the Contractor through the date of termination, plus (ii) all reasonable costs and expenses incurred by Contractor in the cancellation of any Subcontract. The Contractor shall use his best efforts to minimize any such cancellation costs and expenses

### **ARTICLE 21 CLAIMS AND DISPUTES**

Except for matters relating to the interpretation of the Drawings and Specifications or any Modifications of the Drawings and Specifications and matters in question relating to whether the Contractor's performance of the Work complies with the Drawings, Specifications or any Modifications thereof (which shall be initially referred to the Architect in accordance with Section 10.7, as modified hereby) all claims, disputes and other matters in question between parties in this Agreement arising from or relating to this Agreement or the breach thereof shall be decided by any court having jurisdiction thereof. No such action shall be brought, however, until the completion of all Work under this Agreement, or earlier termination of this Agreement. All such claims, disputes and matters in question (including without limitation, any claims, disputes and matters in question which are initially referred to the Architect in accordance with Section 10.7, as modified hereby) shall be aggregated for trial in a single law suit. The Contractor shall be deemed to have waived any claim against the Owner unless the Contractor gives the Owner written notice of such claim within fourteen (14) days of the time that the Contractor has knowledge of the facts giving rise to such claim. Such written notice shall state in detail the nature of the event and the Contractor's estimate of the effect of such event on the Contract Sum and the date for Substantial Completion. Such notice shall be given by the Contractor before proceeding to execute any Work required by such event except in an emergency endangering life or property, in which case the Contractor shall proceed in accordance with Section 16.3 The Contractor shall proceed with the work as directed by the Owner notwithstanding any claim, dispute or matter in question with the Owner or the Architect.

### **ARTICLE 22 CLAIMS FOR CONSEQUENTIAL DAMAGES**

The Contractor and Owner waive claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 20. Nothing contained in this Section 22 shall be deemed to preclude an award of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

**ARTICLE 23 OTHER CONDITIONS OR PROVISIONS**

**§ 23.1 Non-Recourse**

No General or Limited Partner, stockholder, member, officer, director, joint venturer, manager, beneficiary, trustee, employee, or other principals, agents or representatives (whether disclosed or undisclosed) of the Owner shall be personally liable to the Contractor hereunder, for the Owner's payment obligations or otherwise, the Contractor hereby agreeing to look solely to the interest of the Owner in the Project for the satisfaction of any liability of the Owner hereunder.

**§ 23.2 Publicity**

The Contractor shall not, without the Owner's prior written consent, release or disclose any information relating to the Project to anyone except as necessary to perform his duties hereunder.

**§ 23.3 Owner's Right to Suspend the Work**

The Owner may, without cause, order the Contractor in writing to suspend, delay, or interrupt the Work in whole or in part for such period of time as the Owner may determine. An adjustment shall be made for increase in the cost of performance of the Contract, including profit on the increased costs of performance, caused by such suspension. No adjustment shall be made to the extent that:

1. Performance is, was or would have been so suspended by another cause for which the Contractor is responsible; or
2. An equitable adjustment is made or denied under another provision of this Contract.

List of Exhibits  
Exhibit "A"

This Agreement entered into as of the day and year first written above.

\_\_\_\_\_  
**OWNER** *(Signature)*

\_\_\_\_\_  
**CONTRACTOR** *(Signature)*

« \_\_\_\_\_ »  
*(Printed name and title)*

« \_\_\_\_\_ »  
*(Gary Burkart Manager)*