



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

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June 27, 2012

Ms. Lisa Griffin
Manager, Certificate of Need
Financial Planning and Analysis
Novant Health, Inc.
2085 Frontis Plaza Boulevard
Winston-Salem, NC 27103


RE: Exempt from Review-Replacement of one (1) GE CT 4-Slice Scanner (Serial Number-6Y108569YA) at Novant Health's Franklin Regional Medical Center (FRMC) with one (1) GE CT 16-Slice Scanner (Serial Number-TBD). To be located in the FRMC Radiology Department/ Franklin County


Dear Ms. Griffin:

In response to your letter of June 22, 2012 (Received by e-mail at the CON Office on June 22, 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, one (1) GE 16 Slice CT Scanner to replace the existing GE 4 Slice CT Scanner (Serial Number-6Y108569YA) 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.

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,


F. Gene DePorter, Project Analyst
Certificate of Need Section


Craig R. Smith, Chief
Certificate of Need Section

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





Remarkable People. Remarkable Medicine.

June 22, 2012

Gene DePorter, Project Analyst
North Carolina Division of Health Service Regulation
Certificate of Need (CON) Section)
809 Ruggles Drive
Raleigh, North Carolina 27603

Re: Replacement Equipment Exemption Request - CT Scanner at Novant Health's
Franklin Regional Medical Center (FRMC); FID # 943178/ Franklin County

Dear Mr. DePorter:

This letter outlines Franklin Regional Medical Center's (FRMC's) project to replace an existing 4-slice CT scanner with a new 16-slice CT scanner to be located at the hospital in the Radiology Department. See Attachment A for the vendor quote. The estimated total cost to acquire equipment and implement the project is \$463,976 of which the equipment cost is \$400,876. Please note that the vendor pays the freight cost and this is included as part of the total equipment cost in the quote. This project cost does not include: sales, property or excise taxes since FRMC is a non-profit, tax-exempt organization and is not subject to these taxes. In addition, the expense for on-site training on the new unit for the radiology staff is covered by the vendor quote on Page 13. The existing equipment is to be removed by GE Healthcare for an estimated \$ 19,000 (see the quote in Attachment A). Both the existing equipment and the replacement equipment are comparable medical equipment as explained on the following page. This project should be approved by the Agency as exempt pursuant to N.C.G.S. Section 131E-184(a)(7).

This exempt project will replace a functionally similar equipment item and will not increase the inventory of approved CT scanners in Mecklenburg County. The existing CT scanner is used for diagnostic CT scans and the replacement CT scanner will be used for diagnostic CT scans at FRMC. The proposed new CT scanner is consistent with the replacement equipment definition at 10 NCAC 03R.0214 (d) which states that the replacement equipment is comparable to the equipment being replaced if it has the same technology as the equipment currently in use, although it may possess expanded capabilities due to technological improvements.

Pursuant to 10A NCAC 14C.0303 the proposed CT scanner constitutes replacement equipment because:

1. It is comparable to the equipment currently in use. It has the same technology as

the equipment currently in use, although it does possess expanded capabilities due to the technological improvements.

2. It is functionally similar and is used for the same diagnostic or treatment purposes as the equipment currently in use and is not used to provide a new health service.
3. The acquisition of the new equipment 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.
4. The existing equipment was not purchased second-hand nor was the existing equipment leased.
5. The replacement equipment is not capable of performing procedures that will result in the provision of a new health service or type of procedure that has not been provided with the existing equipment.

Attached for your convenience please find:

- 1) a vendor equipment price quote (Attachment A);
- 2) project/capital cost schedule which identifies the components of the project costs (Attachment B);
- 3) a certified estimate of related construction costs from an independent licensed North Carolina architect (Attachment C); and,
- 4) the NC CON equipment comparison form summarizing essential information about the proposed equipment purchase (Attachment D).

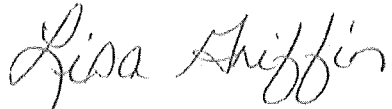
FRMC's acquisition of the replacement CT scanner does not require a certificate of need because none of the definitions of "new institutional health service" set forth in N.C.GS Section 131E-176(16) is implicated. As discussed above, the total cost for the project is \$463,976. This is below the \$2 million dollar statutory exemption threshold for replacement equipment. This includes the cost of the equipment, as well as studies, surveys, designs, plans, working drawings, specifications, construction installation and other activities essential to making the equipment operational (such as staff training).

In conclusion, based on the information described above, please confirm that FRMC's replacement equipment request does not constitute a "new institutional health service" and does fit within the replacement equipment exemption definition. Therefore, the project is not subject to certificate of need review.

Gene DePorter
June 22, 2012
Replacement Equipment Request – FRMC CT Scanner
Page 3

Please let us know as soon as possible if you need additional information to assist in your consideration of this request. Thank you for your prompt consideration of this request.

Sincerely,

A handwritten signature in cursive script that reads "Lisa Griffin".

Lisa Griffin
Manager, Certificate of Need
Financial Planning and Analysis
Novant Health, Inc.

Enclosures

cc: Barbara Freedy, Director, CON, Novant Health
Laura MacFadden, Senior Director, Design & Construction, Novant Health

File: FRMC CT REER Cover Letter 06 22 12.doc

Attachment A

Quotation Number: P5-C130657 V 14

Franklin Regional Medical Center
100 Hospital Dr
Louisburg NC 27549-2256

Attn: Ms. Diane Gibbs MS RT
Director of Radiology
100 Hospital Dr
Louisburg NC 27549

Date: 05-18-2012

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

- 1) This Quotation that identifies the Product offerings purchased or licensed by Customer;
- 2) The following documents, as applicable, if attached to this Quotation: (i) GE Healthcare Warranty(ies); (ii) GE Healthcare Additional Terms and Conditions; (iii) GE Healthcare Product Terms and Conditions; and (iv) GE Healthcare General Terms and Conditions.

In the event of conflict among the foregoing items, the order of precedence is as listed above.

This Quotation is subject to withdrawal by GE Healthcare at any time before acceptance. Customer accepts by signing and returning this Quotation or by otherwise providing evidence of acceptance satisfactory to GE Healthcare. Upon acceptance, this Quotation and the related terms and conditions listed above for the Governing Agreement, if any, shall constitute the complete and final agreement of the parties relating to the Products identified in this Quotation. The parties agree that they have not relied on any oral or written terms, conditions, representations or warranties outside those expressly stated or incorporated by reference in this Agreement in making their decisions to enter into this Agreement. No agreement or understanding, oral or written, in any way purporting to modify this Agreement, whether contained in Customer's purchase order or shipping release forms, or elsewhere, shall be binding unless hereafter agreed to in writing by authorized representatives of both parties. Each party objects to any terms inconsistent with this Agreement proposed by either party unless agreed to in writing and signed by authorized representatives of both parties, and neither the subsequent lack of objection to any such terms, nor the delivery of the Products, shall constitute an agreement by either party to any such terms.

By signing below, each party certifies that it has not made any handwritten modifications, Manual changes or mark-ups on this Agreement (except signatures in the signature blocks and an indication in the form of payment section below) will be void.

- Terms of Delivery: FOB Destination
- Quotation Expiration Date: 08-15-2012
- Billing Terms: 80% delivery / 20% Installation
- Payment Terms: UPON RECEIPT
- Governing Agreement: None

Each party has caused this agreement to be signed by an authorized representative on the date set forth below. Please submit purchase orders to GE Healthcare
3200 N. Grandview Blvd., Mail Code WT-897, Waukesha, WI 53188

GE HEALTHCARE

James Benecki _____ Date
 Product Sales Specialist
 5901 Hollyholm Trace
 Wilmington, NC 28409
 US
 Phone: (615) 390-3634
 Fax: (910) 401-1049
 Jim.Benecki@ge.com

INDICATE FORM OF PAYMENT:

(If there is potential to finance with a lease transaction, GE HFS or otherwise, select lease.)

___ Cash * ___ Lease ___ HFS Loan

If financing please provide name of finance company below*:

CUSTOMER

Authorized Customer _____ Date

Print Name and Title _____

PO # _____

Desired Equipment First Use Date _____

GE Healthcare will use reasonable efforts to meet Customer's desired equipment first use date. The actual delivery date will be mutually agreed upon by the parties.

*Selecting Cash or not identifying GE HFS as the finance company declines option for GE HFS financing.

Quotation Number: P5-C130657 V 14

Item No.	Qty	Description
	1	<p>BrightSpeed Elite with Enhanced Pkg BrightSpeed Elite with Enhanced Pkg</p>
1	1	<p>The BrightSpeed* Elite with the True In One(TIO) console allows for ASiR * (Adaptive Statistical Iterative Reconstruction) dose reduction technology as an option on BrightSpeed Elite. This system offers a Freedom Workspace with a smaller footprint, allowing 6fps reconstruction speed as a standard and a 16fps option.</p> <p>Key Features:</p> <ul style="list-style-type: none"> • Exclusive VariSpeed allows full 360 degree rotation in 0.5, 0.6, 0.7, 0.8, 0.9, 1, 2, 3, 4 seconds, ensuring short breath holds, comfortable exams and flexibility. • Routine thin slice scanning, as thin as 0.625mm optimizing lesion detection and facilitating the use of thinner images for sagittal, coronal, oblique, and volume image presentation and review • Efficient compact geometry design delivering optimized performance of the x-ray tube and generator • GE proprietary, non-linear interpolation algorithms, balance slice profile, helical pitch, image noise, and required technique • Image decomposition to: <ul style="list-style-type: none"> - Retrospective thin images from data sets where thicker images were initially reconstructed - Facilitates more detailed image analysis. - Improves 3D and reformat visualization. • ASiR* (Adaptive Statistical Iterative Reconstruction) dose reduction technology can now be purchased as an option on BrightSpeed Elite. • Dose Check, a tool that helps the user to estimate and check the dose delivered in clinical practice. It is based on the standard XR-25-2010 published by the Association of Electrical and Medical Imaging Equipment Manufacturers (NEMA). • IQ Enhance (IQE) reconstruction reduces helical Artifact Index in thin slice helical scanning. This reduction in artifacts makes it possible to scan at faster helical pitches. # <p>Key Features for Intelligent, versatile and User-Friendly Workflow:</p> <p>Xtream(TM*) FX Workflow Platform built to help you maximize productivity</p> <ul style="list-style-type: none"> - Delivers 6(16 optional) full fidelity images per second (ips) reconstruction - Up to 10 ips network transfer rates - Direct Multiplanar Reformats (DMPR) that enables the move from 2D review to prospective 3D review of sagittal, coronal and oblique planes automatically

Item No.	Qty	Description
		<ul style="list-style-type: none"> - Data Export and Interchange that allow you easily share images with referring physicians and patients • Includes reference protocols and the ability to customize your own for a total of 6840 protocols • Remote tilt from the operator console to increase exam speed. • Built-in breathing lights with a countdown timer, so the patient does not have to guess how much longer to hold their breath. • In room start button mounted on gantry with countdown display, facilitates single technologist operation and improved departmental productivity. • GE software allows you to automate or build every task into the protocols to increase throughput. • 250,000 uncompressed 512 image files storage capacity, and 9600 scan seconds of scan data storage capacity • Chest Kernel can let the user perform only one reconstruction (instead of twice-using lung kernel and standard kernel separately) for chest exams, which may speed up the image review process. Filter sharpness is automatically adapted to the lung or mediastinum when the user adjusts window width or window level. • IQE enables faster anatomical coverage using faster pitch helical scanning at similar Artifact Index level compared to slower helical scanning without IQE. This coverage speed is equivalent to that of wider detectors (50 slice equivalent) at same table speed. # <p># Helical Artifact Index is defined as: $((SD \text{ value at ROI1})^2 - (SD \text{ value at ROI2})^2)^{1/2}$. Two helical data sets were acquired to compute a Helical Artifact Index. Both helical acquisitions were acquired using kV:120, Gantry Rotation: 0.8S, Slice thickness: 1.25mm, SFOV: Large, DFOV: 32cm, Start/End:S200-I370 and reconstructed using 512 matrix. One data set was acquired at 1.75:1 pitch with table speed of 37.5mm per rotation with IQ Enhance ON at 260mA and the other using 0.562:1 pitch with table speed of 11.25mm per rotation with IQ Enhance OFF at 160mA.</p> <p>Dose Management Leadership: -Dose Check includes the following functions:</p> <ul style="list-style-type: none"> • Notification Value(NV): Dose Check provides the user to set up a notification value for each type of CT procedure. The user will be notified if the estimated dose value of the scan is beyond the NV. • Alert Value (AV): Dose Check allows the user to set up an alert value for each type of CT procedure. When the estimated dose value of a scan is beyond the alert value, a specific authorization will be required (user name and password) if the user would like to continue the scan without changing the scan parameters.

Item No.	Qty	Description
		<ul style="list-style-type: none">• Defining Alert Values for Adult and Pediatric with age threshold• Audit logging and review• Protocol Change Control <p>- ASiR * (Adaptive Statistical Iterative Reconstruction) dose reduction technology can now be purchased as an option on BrightSpeed Elite. - Neuro 3D filter provides the user the capability to filter head acquisition data using specially designed and optimized 3D filter - 3D mA modulation acquisitions may reduce dose compared with fixed mA acquisitions \$ - The short geometry design of the BrightSpeed Elite system enables equivalent imaging flux compared to a system with longer geometry and higher generator power. - DLP (dose length product), and dose efficiency display during scan prescription provides patient dose information to the operator</p> <p>\$ mA modulation is designed to optimize the dose for the user prescribed noise index. Its effect on dose depends on the patient body habitus, and prescribed noise setting.</p> <p>Clinical Benefits:</p> <ul style="list-style-type: none">• Coronary artery calcification imaging with retrospective and prospective gating-option• CTA runoffs• More thin slices faster; routine use of thin slices without compromising diagnostic IQ, coverage or throughput• Full organ coverage in arterial phase• IQ Enhance (IQE) reconstruction reduces helical Artifact Index in thin slice helical scanning. This reduction in artifacts makes it possible to scan at faster helical pitches. #• Multi-phase organ studies• Multi-planar reformats with isotropic microvoxel imaging• Fast scanning with outstanding image quality and GE's proprietary cross beam and hyperplane reconstruction algorithms <p>System components:</p> <ul style="list-style-type: none">• Gantry with advanced slip ring design continuously rotates the generator• Performix Ultra X-ray tube, Matrix II detector and Volara digital data acquisition system around the patient.• Aperture: 70 cm• Maximum SFOV: 50 cm• Rotational speeds: 360 degrees in 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 2.0, 3.0, and 4.0 Seconds• Tilt: +/- 30 degrees, speed: 1 degree/second

Item No.	Qty	Description
		<ul style="list-style-type: none">• Remote tilt from operator's console• Integrated breathing lights & countdown timer• Integrated start scan button with countdown timer to indicate when x-ray will turn on
		Laser Alignment Lights: <ul style="list-style-type: none">• Defined internal and external scan planes to +/- 1 mm accuracy• Operate over full range of gantry tilt• Coronal light remains perpendicular to axial light as gantry tilts making visual readout easy from table side or the operator console.
		Table: Cantilever design for access and stability <ul style="list-style-type: none">• Vertical range: 49.0 cm to 99.1 cm• Vertical scannable range: 79.1 cm to 99.1 cm• Horizontal range: up to 170 cm• Horizontal scannable range: up to 173cm(axial) and up to 163 cm(helical) and up to 160 cm (Scout)• Horizontal speed: up to 125mm/sec (150mm/sec at ISD)• Table automatically re-centers on scan plane with changes in vertical position under Alignment light turned on condition• Table load capacity:<ul style="list-style-type: none">- 227kg (500 lbs) +/-0.25mm position repeatability
		X-ray Tube: Performix Ultra X-ray tube unit offers an optimized design for exams requiring a large number of scans without tube cooling delays. <ul style="list-style-type: none">• Performix Ultra X-ray tube with 6.3 MHU of storage and capability of 53.2 kW operation provides increased helical performance with greater patient throughput and virtually no tube cooling delays. Advanced technology in the tube includes a metal ceramic frame and high speed bearing for long life at sub-second scanning, a high efficiency motor to accelerate the anode and efficient cooling for high throughput and helical performance.• Wide range of technique (10mA to 440 mA, in 5 mA increments) gives technologist and physician flexibility to tailor protocols to specific patient needs, while optimizing patient dose, and providing the power needed to perform a broad spectrum examinations.• Heat storage capacity: 6.3 MHU• Heat dissipation:<ul style="list-style-type: none">- Anode (Max) 840 KHU/min- Casing (cont) 300 KHU/min

Item No.	Qty	Description
		<ul style="list-style-type: none">- Tube unit: 6.9 kW Continuous for 10 min.• Dual Focus Spots:<ul style="list-style-type: none">- Small Focal Spot: 0.9 x 0.7 (IEC60336/2005) or 0.7 x 0.6 (IEC60336/1993) Loading Factors: 120kV, 125mA- Large Focal Spot: 1 x 1 (IEC60336/2005) or 0.9 x 0.9 (IEC60336/1993) Loading Factors: 120kV, 250mA• Maximum power: 53.2 kW• Beam collimated to 56 degree fan angle. <p>High Voltage Generator: High Frequency on-board generator allows for continuous operation during scan.</p> <ul style="list-style-type: none">• 53.2 kW Output Power• kV: 80, 100, 120, 140 kV• mA: 10 to 440 mA, 5 mA Increments.• Maximum mA for Each kV Selection:<ul style="list-style-type: none">- 400mA @ 80kV- 420mA @ 100kV- 440mA @ 120kV- 380mA @ 140kV <p>HiLight Matrix II Detector: The HiLight Matrix II detector was designed for high performance imaging. The BrightSpeed Elite allows up to 16 slices per rotation, and up to 32 slices per second. The HiLight Matrix II detector benefits are:</p> <ul style="list-style-type: none">• Increased coverage per rotation with thinner slices routine• Solid Image Quality from the use of GE's patented HiLight material, a ceramic scintillator specifically engineered for CT applications.• 16 detector rows, each containing 888 active patient elements, 15 reference elements.• 4 Modes of Data Output:<ul style="list-style-type: none">- 16 x 0.625 mm or 1.25mm- 8 x 1.25 mm or 2.5 mm <p>Volara Digital DAS (Data Acquisition System): The Volara digital DAS dramatically reduces noise and improves image quality, especially in low dose exams, large patient, or areas of the anatomy that are difficult to image such as shoulder and hips</p> <ul style="list-style-type: none">• 14,592 available input channels• 1968Hz maximum sample rate• Effective analog to digital conversion range greater than 2,000,000:1

Item No.	Qty	Description
		<p data-bbox="537 426 764 453">TIO Operator Console:</p> <ul data-bbox="557 464 1425 1377" style="list-style-type: none"><li data-bbox="557 464 992 491">• 6fps comes standard, 16fps is optional<li data-bbox="557 501 1252 529">• Freedom Workspace-ergonomically designed Operator console<li data-bbox="557 539 1425 1377">• This table design enables the efficient use of space while enhancing clinical workflow and technologist comfort. Attributes:<ul data-bbox="618 615 1081 1024" style="list-style-type: none"><li data-bbox="618 615 821 642">- Depth reduction<li data-bbox="618 653 964 680">- Fully adjustable monitor arms<li data-bbox="618 690 837 718">- Adjustable height<li data-bbox="618 728 1081 756">- Flexible location of OC hardware Benefits:<li data-bbox="618 766 906 793">- Improve patient visibility<li data-bbox="618 804 906 831">- Clear path to the patient<li data-bbox="618 842 1008 869">- More comfortable for technologist<li data-bbox="618 879 1057 907">- Improved ergonomics for technologists<li data-bbox="618 917 932 945">- Sitting or Standing position<li data-bbox="618 955 1052 982">- Easy height adjustment Requirements:<li data-bbox="618 993 943 1020">- Xstream FX operator console<li data-bbox="557 1035 1425 1129">• Split tabletop allows unrestricted patient viewing while supporting 2 19 inch color LCD monitors. Each work surface can be adjusted to accommodate operator preferences and a wide variety of site requirements<li data-bbox="557 1140 1425 1234">• Xstream* FX, built on the LINUX operating system and delivering fast reconstruction of 6 ips with full fidelity images and fast network transfer rates of up to 16 ips<li data-bbox="557 1245 1425 1308">• The 19 inch color LCD monitors support scan and recon, as well as image display, processing, analysis, and management.<li data-bbox="557 1318 1425 1377">• FW(Std)Size: 1300mm Wide x 620mm Deep x 683-912mm adjustable height 44 kg in weight <p data-bbox="532 1398 1406 1493">Image Networking: Exams can be selected and moved between the BrightSpeed Elite CT Scanner and any imaging system supporting the DICOM 3.0 protocol for network send, receive and pull/query.</p> <ul data-bbox="552 1503 987 1759" style="list-style-type: none"><li data-bbox="552 1503 959 1530">• Standard Auto-configuring Ethernet<li data-bbox="552 1541 867 1568">• Direct Network Connection<li data-bbox="552 1579 987 1606">• Supports 10/100/1000 BaseT Ethernet<li data-bbox="552 1617 857 1759">• Supported Protocols<ul data-bbox="613 1654 857 1759" style="list-style-type: none"><li data-bbox="613 1654 857 1682">- DICOM 3.0 Network<li data-bbox="613 1692 808 1719">- Advantage Net<li data-bbox="613 1730 857 1759">- InSite Point-to-Point

Item No.	Qty	Description
		<p>- TCP/IP (for System Administration)</p> <p>InSite Broadband includes: Hardware essential for systems to be connected to highspeed internet. Enables customer to access services designed to help: improve quality, enhance performance, increase productivity, reduce costs, reduce downtime, expand imaging capabilities, and increase privacy and security of data transmissions</p> <p>Applications and Clinical Performance: When selecting a CT scanner to meet your needs the primary concern should be the clinical performance of the system, not specifications. Specifications alone don't tell you how the scanner will perform. To understand true clinical performance of the system, you have to consider how well the scanner delivers three things - image quality, coverage, exam speed - and whether it can deliver all three at once. The BrightSpeed Elite CT Scanner offers a balanced design enabling it to deliver clinical performance.</p> <p>Image Quality</p> <ul style="list-style-type: none"> • Axial Low Contrast Detectability (LCD) Statistical LCD: on 8 Inch CATPHAN Phantom <ul style="list-style-type: none"> - 5 mm @ 0.3% at 13.3 mGy - 3 mm @ 0.3% at 37.2 mGy • Helical Noise -on an AAPM Water Phantom or GE Quality Assurance Phantom = < 0.32% nominal +/- 0.03% at 28.5 mGy • High Contrast Spatial Resolution - on GE Performance Phantom <ul style="list-style-type: none"> - Standard Algorithm - 8.5 lp/cm @ 0% MTF - Hi-res Algorithm - 15.4 lp/cm @ 0% MTF <p>Coverage: IQ Enhance (IQE) enables reconstruction reduces helical Artifact Index in thin slice helical scanning. This reduction in artifacts makes it possible to scan at faster helical pitches. #</p> <ul style="list-style-type: none"> • IQE enables faster anatomical coverage using faster pitch helical scanning at similar Artifact Index level compare to slower helical scanning without IQE. This coverage speed is equivalent to that of wider detectors (50 slice equivalent) at same table speed. # • IQ Enhance (IQE) enables accelerated helical pitch, up to 70% (e.g. 0.562 to 1.75, @16 slice) at the same Artifact Index level #. <p># Helical Artifact Index is defined as: $\frac{((SD \text{ value at ROI1})^2 - (SD \text{ value at ROI2})^2)^{1/2}}$. Two helical data sets were acquired to compute a Helical Artifact Index. Both helical acquisitions were acquired using kV:120, Gantry Rotation: 0.8S, Slice Thickness: 1.25mm, SFOV: Large, DFOV: 32cm, Start/End: S200-I370 and reconstructed using 512 matrix. One data set was acquired at 1.75:1 pitch with table speed of 37.5mm per</p>

Item No.	Qty	Description
		<p>rotation with IQ Enhance ON at 260mA and the other using 0.562:1 pitch with table speed of 11.25mm per rotation with IQ Enhance OFF at 160mA.</p> <p>The key to MDCT is coverage, not slices. The key measure of coverage performance is coverage per second:</p> <ul style="list-style-type: none">• Coverage/sec = (Collimation x Pitch) / Rotation Speed <p>The BrightSpeed Elite with True In One Console provides outstanding performance with flexible collimation modes, extended helical pitches, fast rotation speeds.</p> <p>Pitches</p> <ul style="list-style-type: none">• 0.562:1, 0.938:1, 1.375:1, and 1.75:1 Helical Pitches for 16 Slice Modes• 0.625:1, 0.875:1, 1.35:1, and 1.675:1 Helical Pitches for 8 Slice Modes• Exclusive VariSpeed allows full 360 degree rotation in 0.5, 0.6, 0.7, 0.8, 0.9, 1, 2, 3, 4 seconds, ensuring short breath holds, more comfortable exams and flexibility to customize protocols for unique patients needs with minimal coverage impact <p>Exam Speed: The BrightSpeed Elite CT Scanner delivers flexible and fast scan speeds by combining 16 slice acquisition, 1.75:1 helical pitch and 0.5 s rotation. Because of these very quick exam speeds, scan speed is no longer what determines the systems throughput of a multi-slice scanner. Other tasks are equally important to determine the real performance of the CT scanner:</p> <ul style="list-style-type: none">• Scan Setup• Image Reconstruction• Reformat and 3D Processing• Networking, Archiving, Filming <p>Scan Modes: Helical scan mode offers continuous 360 degree scanning with table incrementation and no interscan delay. Axial scan mode allows for up to 16 contiguous axial planes to be acquired simultaneously.</p> <p>Helical Multi-slice Modes: Helical scanning has been simplified by grouping all critical acquisition parameters within helical pitches optimized for image quality and speed - 0.5625:1, 0.9375:1, 1.375:1, 1.75:1 for 16 slice acquisition. These clinically derived helical scan modes offer a wide range of selections that carefully balance acquisition speed, image thickness, and provide table speeds up to 35 mm per rotation enabling scan speeds that are up to 12 times faster than 4 slice helical scanners.</p> <p>Prospective Multiple Thickness Reconstruction: For any helical scan modes, the operator can choose to reconstruct images prospectively in any of 7 nominal image thicknesses 0.625, 1.25, 2.5, 3.75, 5, 7.5, and 10 mm. The operator may also prospectively specify additional image sets to be reconstructed. These images can be reconstructed at any of the defined nominal image thicknesses available for a given</p>

Item No.	Qty	Description
		<p>table speed and scan mode. Direct MPR may also be prospectively specified which quickly enables the move from 2D review to prospective 3D image review of axial, sagittal, coronal and oblique planes automatically.</p> <p>Helical scan parameters: Scan speeds: 0.5, 0.6, 0.7, 0.8, 0.9 and 1.0 full 360 degree rotational scans</p> <p>Scan Technique:</p> <ul style="list-style-type: none"> • kV: 80, 100, 120, 140 kV • mA: 10 to 440 mA, 5 mA Increments • Focal Spot Selection: <ul style="list-style-type: none"> - Small Spot for Up to 24 kW - Larger Spot for Greater Than 24 kW • Max. Helical Scan Time: 120 sec • Multiple scans can be acquired in one series to produce upto 3000 contiguous helical images • Minimum Inter-group Delay (IGD): 5 sec • Scan Fields-of-view: <ul style="list-style-type: none"> - 25 cm for Adult Head - 25, 50 cm for Body - 25 cm for Pediatric Head - 35 cm for cardiac (Small SFOV) <p>Helical Scan Enhancements: 6 ips (16 optional) reconstruction even while scanning Xtream FX workflow allows, image reconstruction, display, processing and analysis, as well as networking, archival and filming all while scanning.</p> <p>Anatomical programmer: a ten region anatomical selector allows quick and easy access to user programmable protocols. Separate selector for adult and pediatric exams with greater than 4000 protocol storage available.</p> <ul style="list-style-type: none"> • Ten user-defined regions. Each region has reference protocols displayed with the anatomical selector for fast access to frequently used protocols. • Protocols include preset scan time, kV, mA, scan mode, image thickness and spacing, table speed, scan FOV, display FOV and center, recon algorithm, and special image acquisition and processing options like DMPPR • Any scan parameters may be edited for each scan or all scans - either before or during an exam. The number of scans may also be easily changed. • AutoScan: Automates table movement and start of each scan. • AutoVoice: 3 preset (English) and 17 user defined messages automatically deliver patient breathing instructions, especially useful for multiple helical

Item No.	Qty	Description
		<p>scanning.</p> <ul style="list-style-type: none"> • Trauma Patient: Allows patient scans and image display/analysis without entering patient data before scanning. <p>Axial Scans: Multi-slice axial acquisitions and short interscan delays significantly reduce potential misregistration between scans by increasing the number of scans in a single breath hold. Reference protocols make the BrightSpeed Elite fast and efficient.</p> <p>Axial Multi-slice Modes The BrightSpeed Elite CT scanner system acquires axial scans in sets of up to 16 contiguous images in one 360 degree rotation. For each rotation of the gantry the system collects 16 rows of scan data. There are five reconstruction modes available for creating images from the multi-slice axial scan data. Example- 8i Mode:</p> <ul style="list-style-type: none"> • Produces 8 Images per Rotation • Nominal Thickness: 1.25, 2.5 mm Example- 16i Mode: • Produces 16 Images per Rotation • Nominal Thickness: 0.625, 1.25 mm <p>Axial Scan Parameters: Scan Time:</p> <ul style="list-style-type: none"> • Same as Helical, plus 2.0, 3.0 and 4.0 sec Full Scans (360 Degree Acquisition) <p>Scan Techniques:</p> <ul style="list-style-type: none"> • Same as Helical Scan Plane Geometry; • +/- 30 Degree Angulation in .5 mm degree increments • Longitudinal Positioning in 0.01 mm per Slice Increment. Interscan Delay (ISD): • Minimum ISD:Table Moves of 0-10 mm: 1.0 sec • Minimum ISD:Table Moves of > 10 mm: 1.3 sec Intergroup Delay (IGD); • Minimum IGD is the Same as Minimum ISD; Scan-to-scan Cycle: • Minimum Scan-to-scan Cycle of 1.5 sec possible for 0.5 sec Scan Speed with Minimum ISD's. Scan with zero table increment, contiguous image location, or skipped image location. Overlapped axial scans are not possible. <p>Axial Image Reconstruction Reconstruction Algorithms: Soft, Standard, Detail, Bone, Bone Plus, Lung, and Edge and Chest. Axial Image Reconstruction Speed:</p> <ul style="list-style-type: none"> • 6 (16 optional) image per second <p>Configuration also includes VolumeViewer and ConnectPro on the Operators console.</p> <p>Warranty The published Company warranty in effect on the date of shipment shall apply. The Company reserves the right to make changes. All specifications are subject to change. Regulatory compliance: this product is designed to comply with applicable</p>

Item No.	Qty	Description
		<p>standards under the Radiation Control for Health and Safety act of 1968. Laser alignment devices contained within this product are appropriately labeled according to requirements of the Center for Devices and Radiological Health. This product is a CE-compliant device and satisfies IEC 60601-1 and applicable collateral and particular standards, including regulations regarding Electro-Magnetic Capability (EMC) and Electro Magnetic Interference (EMI), pursuant to IEC 60601-2:2004.</p> <p>* Trademark of General Electric Company</p>
2	1	English Keyboard (Black) for CT systems and system labels
3	1	Standard cable set for H Power systems
4	1	<p data-bbox="537 802 1122 829">Slicker - CT HD750 and VCT w/GT 1700 Table (2 Piece Set)</p> <p data-bbox="537 850 748 877">FEATURES/BENEFITS</p> <ul data-bbox="557 905 1422 1178" style="list-style-type: none"> • Two-piece, sealed slicker cushion set has comfort pads enclosed inside the slicker cover and extender cover • Durable, clear PVC plastic cover facilitates faster, more thorough cleanup of blood and fluids • Increase system uptime by protecting table from spills and particulate contaminants • Thermo-sealed seams and flaps prevent contaminate buildup in hard to clean areas <p data-bbox="537 1199 691 1226">COMPATIBILITY</p> <ul data-bbox="557 1253 948 1281" style="list-style-type: none"> • VCT with GT 1700 Table, CT HD750
5	1	<p data-bbox="537 1310 1049 1337">Footswitch Slicker for CT HD750 and VCT Systems</p> <p data-bbox="537 1358 1406 1484">The footswitch slicker for CT VCT 2000 and 1700 systems is made of durable, clear PVC plastic that protects the footswitch and facilitates faster, more thorough cleanup of contamination caused by blood and other body fluids. Cover is held securely in place with Velcro...H</p>
6	1	<p data-bbox="537 1514 1040 1541">TiP CT Basic Training 6 Days Onsite 10 Hours TVA</p> <p data-bbox="537 1562 1378 1625">TiP Applications CT Basic Training for LightSpeed, LightSpeed VCT and BrightSpeed Systems includes:</p> <ul data-bbox="557 1646 932 1709" style="list-style-type: none"> • 6 onsite days covered in two site • 10 hrs. TVA <p data-bbox="537 1730 1414 1757">All elements of the programs are completed within 36 months post installation. Onsite</p>

Item No.	Qty	Description
		training and TVA are delivered Monday through Friday between 8AM and 5PM. T&L expenses are included.
	1	AW VOLUMESHARE5 AND APPLICATIONS AW VOLUMESHARE5 AND APPLICATIONS
7	1	<p>Upgrade from XW8200 or Below Hardware to Z800 with VolumeShare 5. Also includes Two Flat Panel Monitors and 6GB of RAM.</p> <p>AW VolumeShare 5 is a multi-modality image review, comparison and post processing workstation built with simplicity and power at its core. Powerful software is optimized to take advantage of state of the art 64 bit technology and multiple cores to ensure leading edge performance.</p> <p>AW VolumeShare 5 features include:</p> <p>Hardware:</p> <ul style="list-style-type: none"> • HP Z800 Workstation with Intel x5650 Six Core Xeon 2.66 GHz CPU with 8MB Shared L2 Cache / 1333 MHz Dual FSB • 6GB DDR-3 1333 ECC DIMM • 300GB SAS 15,000rpm Hard Disk for OS and Apps. • 600GB SAS 15,000rpm Hard Disks for Image Data • 2 x 19" EIZO MX191 monitors <p>Software:</p> <ul style="list-style-type: none"> • Fast access to information you need through optional RIS integration & priors post-fetch • Efficient workflow through dynamic load, end review and Key Image Notes features • Optional productivity package to pre-process exams and allow up to 8 simultaneous sessions • Applications usage monitor to track usage of your system • Smart layouts with Volume Viewer General review protocol that optimizes comparison and single exam layouts • Enhanced multi-modality contouring tool with support for PET SUV's • Support for external DICOM USB media and preference management tool to exchange preferences across users • Support for optional, broad suite of multi-modality advanced applications <p>NOTE: The AW Workstation that is to be Upgraded with this purchase becomes the Property of GE Healthcare. Upon Installation of the New AW Workstation, the current</p>

Item No.	Qty	Description
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8 1

AW Unit must be De-Installed and Returned to GE Healthcare.

Note: A Signed Trade-in Addendum Required at Order Entry.

Upgrade AutoBone and Advanced Vessel Analysis to VessellQ Xpress and AutoBone Xpress for AW VolumeShare 5.

CT VessellQ Xpress & AutoBone Xpress Software is for AW VolumeShare5.

VessellQ Xpress provides an optimized non-invasive application to analyze vascular anatomy and pathology and aid in determining treatment plans from a set of CTA images. This software supports the physician in:

- Assessment of aneurysms with or without thrombus (false lumen) for size and volume measurements with the capability to track the size and volume over time, stenosis analysis, pre/post stent and surgical planning and directional vessel tortuosity visualization.
- Automatic tools for the segmentation of bony structures in the brain and neck and other vascular areas for accurate identification of the vessels, single or double click vessel analysis.
- Sizing the vessel, analyzing calcified and non-calcified plaque to determine the densities of plaque within a vessel, measure areas of abnormalities within a vessel (like stenosis, plaque, thrombus, dissection or leakage).
- Semi-automated detection and segmentation of thrombus for subsequent measurements within the application.
- Dedicated anatomy based protocols for improved workflow.
- Compare a patient's previous exam to their current exam in order to measure and track any changes over time of their vascular structures.
- After review of the exams, there are multiple ways to film, archive and capture information for future review.

System Requirements:

- AW VolumeShare5

Note: All software are Non-Transferable to other hardware and are Non-Returnable.

Quote Summary:

LS Trade In - removal deinstall ** \$19,000 Trade In* *19,000 Removal* ① (\$38,000.00)
 Total Quote Net Selling Price \$381,876.00

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

① Net Price \$ 381,876
 + Trade-in 19,000*
\$400,876

Worksheet
 to Capcosts w/s, line 12

Attachment B

PROPOSED CAPITAL COSTS

Project Name: CT-SCANNER

June 21, 2012

Proponent: FRANKLIN REGIONAL MEDICAL CENTER

A. Site Costs

(1)	Full purchase price of land		\$		-
	Acres _____ Price per Acre		\$		-
(2)	Closing Costs		\$		-
(3)	Site Inspection and Survey		\$		-
(4)	Legal fees and subsoil investigation		\$		-
(5)	Site Preparation Costs	\$			-
	Soil Borings	\$			-
	Clearing Earthwork	\$			-
	Fine Grade For Slab	\$			-
	Roads Paving	\$			-
	Concrete Sidewalks	\$			-
	Water and Sewer	\$			-
	Footing Excavation	\$			-
	Footing Backfill	\$			-
	Termite Treatment	\$			-
	Sub-Total Site Preparation Costs		\$		-
(6)	Other (specify)		\$		-
(7)	Sub-Total Site Costs		\$		-

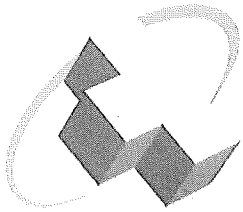
B. Construction Contract

(8)	Cost of Materials				
	General Requirements	\$			-
	Concrete/Masonry	\$			-
	Woods/Doors & Windows/Finishes	\$			-
	Thermal & Moisture Protection	\$			-
	Equipment/Specialty Items	\$			-
	Mechanical/Electrical	\$			-
	Other	\$			-
	Sub-Total Cost of Materials		\$		20,928.00
(9)	Cost of Labor GC Labor		\$		15,788.00
(10)	Other - Construction Contingency		\$		4,384.00
(11)	Sub-Total Construction Contract		\$		41,100.00

C. Miscellaneous Project Costs

(12)	Building Purchase		\$		-
(13)	Fixed Equipment Purchase/Lease		\$		400,876.00
	Other - Removal of Existing Equipment		\$		19,000.00
(14)	Movable Equipment Purchase/Lease		\$		-
(15)	Furniture		\$		-
(16)	Landscaping		\$		-
(17)	Consult Fees				
	Architect and Engineering Fees	\$		3,000.00	
	Legal Fees	\$			-
	Market Analysis	\$			-
	Other (Test and Balance)	\$			-
	Sub-Total Consultant Fees		\$		3,000.00
(18)	Financing Costs (e.g. Bond Loan, etc)		\$		-
(19)	Interest During Construction		\$		-
(20)	Other (SPECIFY)		\$		-
	Other (SPECIFY)		\$		-
(21)	Sub-Total Miscellaneous		\$		422,876.00
(22)	Total Capital Cost of Project (Sum A-C above)		\$		463,976.00

Attachment C



peterson
associates

giving shape to healthcare™

architecture

June 12, 2012

engineering

Mr. Nick Eller, Construction Manager (nreller@novanthealth.org)

Corporate Design and Construction

interior design

Novant Health

1980 S. Hawthorne Road

planning

Second Floor

Winston-Salem, North Carolina 27103

Re: Novant Health, Inc.
Franklin Regional Medical Center
CT Room Equipment Replacement
Louisburg, North Carolina

Dear Nick:

We have reviewed the construction cost as prepared by Revels Contracting Services, Inc. and concur that the construction cost for this project is \$41,100.00.

Architectural/engineering fees and reimbursable expenses for this project will be \$3,000.00. Therefore, the total cost for construction and the architectural/engineering fees is \$44,100.00.

If I can be of further assistance, please contact me directly.

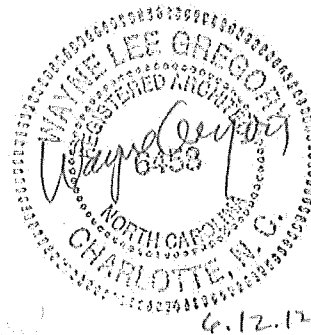
Sincerely,

PETERSON ASSOCIATES, p.a.

Wayne Gregory, AIA
Vice President

WLG/jtj

90/H.O



2115 Rexford Road
Suite 500
Charlotte, NC 28211
P704.364.3400
F704.364.7080
www.peterson-ae.com

Attachment D

CT Scanner at Franklin Regional Medical Center (FRMC)

EXISTING EQUIPMENT REPLACEMENT EQUIPMENT

Type of Equipment (List Each Component)	CT Scanner	CT Scanner
Manufacturer of Equipment	GE	GE
Tesla Rating for MRIs	n/a	n/a
Model Number	1990ski-bk	TBD
Serial Number	6Y108569YA	TBD
Provider's Method of Identifying Equipment	FRMC utilizes an internal asset numbering system	FRMC utilizes an internal asset numbering system
Specify if Mobile or Fixed	Fixed	Fixed
Mobile Trailer Serial Number/VIN #	n/a	n/a
Mobile Tractor Serial Number/VIN #	n/a	n/a
Date of Acquisition of Each Component	2/2003	TBD
Does Provider Hold Title to Equipment or Have a Capital Lease?	Title	FRMC will hold title upon purchase
Specify if Equipment Was/Is New or Used When Acquired	New	New
Total Capital Cost of Project (Including Construction, etc.) <Use Attached Form for Replacement Equipment>	\$ 413,557	\$ 463,976
Total Cost of Equipment	\$ 413,557	\$ 400,876
Fair Market Value of Equipment	n/a	\$ 400,876
Net Purchase Price of Equipment	n/a	\$ 400,876
Locations Where Operated	FRMC	FRMC
Number Days In Use/To be Used in N.C. Per Year	365	365
Percent of Change in Patient Charges (by Procedure)	None	None
Percent of Change in Per Procedure Operating Expenses (by Procedure)	None	None
Type of Procedures Currently Performed on Existing Equipment	CT Imaging	-----
Type of Procedures New Equipment is Capable of Performing	-----	CT Imaging