

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/dhsr/

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

June 27, 2012

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 an existing CT scanner / Presbyterian Hospital / Replace an

existing 4-slice CT scanner / Mecklenburg County

FID # 943501

Dear Ms. Griffin:

In response to your letter of June 7, 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 Optima CT580 W 16-slice CT scanner to replace the existing Light Speed QXi 4-slice CT scanner, serial number 255358CN4 to be relocated to Presbyterian Hospital's Emergency Department. Presbyterian Hospital will not be increasing the number of CT scanners in the Mecklenburg County CT inventory nor will Presbyterian Hospital be concurrently operating both CT scanners. This determination is based on your representations that the existing CT scanner will be removed by GE Healthcare. 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. In addition, you should contact the Construction Section 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,

Fatimah Wilson Project Analyst

Construction Section, DHSR

Medical Facilities Planning Section, DHSR

Ahhs HAAA

cc:

A D

Certificate of Need Section



Fatival

Remarkable People. Remarkable Medicine.

June 7, 2012

Fatimah Wilson, 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 Presbyterian Hospital (PH); FID # 943501 / Mecklenburg County

Dear Ms. Wilson:

This letter outlines Presbyterian Hospital's (PH's) project to replace an existing 4-slice CT scanner located at the Presbyterian Imaging Center–Midtown (PIC-Midtown) location with a new 16-slice CT scanner to be relocated to Presbyterian Hospital's Emergency Department. See Attachment A for the vendor quote. The estimated total cost to acquire and implement the project is \$889,609 of which the equipment cost is \$597,425. 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 as PH 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 PH staff is covered by the vendor quote on Page 11. The existing equipment is to be removed by GE Healthcare for an estimated \$6,000 (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 PH"s Emergency Department. 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

Fatimah Wilson June 7, 2012 Replacement Equipment Request - PH CT Scanner Page 2

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).

PH'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 \$889,609. 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 PH'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.

Fatimah Wilson June 7, 2012 Replacement Equipment Request – PH 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,

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: PH ED CT REER Cover Letter 06 04 12.doc

Attachment A

Presbyterian Hospital 200 Hawthorne Ln Charlotte NC 28204-2515

Attn: Shelly Hall 200 Hawthorne Ln Charlotte NC 28204

Date: 05-18-2012

ltem No.	Qty
1	1

Description

The GE Optima CT580 W** system is a new multi-purpose wide bore CT scanner that meets your needs in diagnostic, interventional and bariatric settings.

Optima CT580 W is built on a platform with GE's microVoxel(TM) imaging and 100kW Performix(TM) Pro VCT 100 tube, to deliver the image quality you expect from GE CT. When combined with a 650-lb high capacity table*, the system is ideal for obese patients and bariatric imaging. The system also delivers the optional ASiR(TM)*, (Adaptive Statistical Iterative Reconstruction) dose reduction technology.

- ASiR reconstruction technology may enable reduction in pixel noise standard deviation (a measurement of image noise). The ASIR reconstruction algorithm may allow for reduced mA in the acquisition of diagnostic images, thereby reducing the dose required+.
- A reconstruction technology that may enable improvement in low contrast detectability+.

+ In clinical practice, the use of ASiR may reduce CT patient dose depending on the clinical task, patient size, anatomical location and clinical practice. A consultation with a radiologist and a physicist should be made to determine the appropriate dose to obtain image quality for the particular clinical task.

The Optima CT580 W also meets your interventional* CT priorities: 1)high image quality to see the anatomy to guide your devices, 2) at extremely low dose for you and your patient, and 3) with flexible in-room controls for fast procedures. You can complete simple procedures quickly and accurately with GE's SmartStep* or tap mode. And manage complex procedures with advanced SmartView(TM) fluoroscopy.* They are the ultimate duo for all your interventional needs.

* Option ** Optima CT580 W is a configuration of Optima CT580.

Key Features

Excellent Image Quality: Exclusive SmartSpeed allows full 360-degrees 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. - Exclusive Pro 100kW generator and 8.0MHU tube designed to deliver the mA needed to support routine faster gantry rotation times. - Routine thin slice scanning, as thin as 0.625 optimizing lesion detection and facilitating the use of thinner images for sagittal, coronal, oblique, and volume image presentation and review. - GE proprietary, non-linear interpolation algorithms, balance slice profile, helical pitch, image noise, and required technique. Image decomposition to: - Create



Item No. Qty

Description

retrospective thin images from data sets where thicker images were initially reconstructed. - Facilitate more detailed image analysis - Improve 3D and reformat visualization

Fast Easy Simultaneous Workflow: - Xtream FX Workflow Platform, the next evolution of GE's workflow platform built to help you maximize productivity - Delivering 6 (16 optional) full fidelity images per second (fps) reconstruction - Up to 10 fps 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. - Data Export and Interchange that allow you easily share images with referring physicians and patients. - Includes a set of reference protocols and the ability to customize your own for a total of 4000 protocols - Remote tilt from the operator console to

increase exam speed - Built-in breathing lights with a countdown times, to 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 2880 scan seconds of scan data storage capacity

Dose Check - provides the user with tools to help them manage CT dose in clinical practice and is based on the standard XR-25-2010 published by The Association of Electrical and Medical Imaging Equipment Manufacturers (NEMA). Dose Check provides the following:

- Checking against a Notification Value if the estimated dose for the scan is above your site established dose value
- Checking against an Alert Value where the user needs specific authority to continue the scan at the current estimated dose without changing the scan parameters if the estimated dose exceeds the alert value
- The ability to define Alert Values for Adult and Pediatric with age threshold
- Audit logging and review capabilities
- Protocol Change Control capabilities

System Components:

• Gantry: Advanced slip ring design continuously rotates the generator, Performix(TM) Pro VCT 100 tube, Matrix II detector and Volara digital data acquisition system around the patient. - Aperture: 80 cm - Maximum SFOV: 50 cm - Maximum DFOV: 65 cm (interpolated data beyond 50cm) - 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 - Remote tilt from operator's console - Integrated breathing lights and countdown timer - Integrated start scan button with countdown timer to



Item No. Qty

Description

indicate when x-ray will turn on

Laser Alignment Lights: - Defined internal and external scan planes to +/- 1mm accuracy - Operate over full range of gantry tilt, Coronal light remains perpendicular to axial light as gantry tilts making visual readout easy from tableside or the operator console.

Table: VT 1700 table with maximum 500 lbs is standard. Optional High Capacity table has loading capacity up to 650 lbs. - Table automatically recenters on scan plane with changes in vertical position (after setting internal landmark with alignment lights on). IV Pole integrated at the foot-end of the table prevents IV lines from becoming crossed and tangled, and ensures that the lines stay securely in place on the patient.

• X-ray Tube: Performix(TM) Pro VCT 100 metal-ceramic tube unit offers an optimized design for exams requiring a large number of scans without tube cooling. Performix(TM) Pro VCT 100 tube with 8.0 MHU of storage and capability of 100kW at 140kV operation provides increased helical performance with greater patient throughput and virtually no tube cooling. 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 superior helical performance. Wide range of technique (10mA to 800mA in 5mA 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 of examinations. - Heat storage capacity of 8.0 MHU - Heat dissipation: Anode (Max) 1783 KHU/min, tube unit at 8 kW Continuous - Dual Focal Spots:

- Small Focal Spot:
 - 0.7 x 0.6 per IEC60336/1993, Loading factors: 120kV, 125mA
 - 0.9 x 0.7 per IEC60336/2005, Loading factors: 120kV, 168mA
- Large Focal Spot:
 - 0.9×0.9 per IEC60336/1993, Loading factors: 120kV, 250mA
 - 1.2 x 1.1 per IEC60336/2005, Loading factors: 120kV, 400mA
- Maximum power: 100 kW Beam collimated to 56 degrees fan angle
 - High Voltage Generator: High Frequency on-board generator allows for continuous operation during scan. - 100 kW Output Power - kV: 80, 100, 120, 140 kV
- mA: 10 to 800 mA, 5 mA Increments.

HiLight Matrix II Detector: The HiLight Matrix II detector was designed for high



Item No. Qty

Description

performance imaging. The Optima CT580 W allows up to 16 slices per rotation per second. The HiLight Matrix II detector benefits are: - 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. Leveraging over 12 years of GE HiLight detector production. - 24 detector rows, each containing 888 active patient elements, 18 reference elements. - 7 Modes of Data Output:

- 16 x 0.625 mm or 1.25 mm
- 8 x 1.25 mm or 2.5 mm
- 4 x 3.75 mm
- 4 x 1.25 mm
- 2 x 0.625 mm

Volara Digital DAS(Data Acquisition System): The Volara digital DAS dramatically reduces noise in low dose exams, large patient, or areas of the anatomy that are difficult to image such as shoulder and hips. - 12,288 available input channels - 1968Hz maximum sample rate - Effective analog to digital conversion range greater than 8,000,000:1

Operator Console: 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.

Xtream (TM) FX, the next evolution of GE's workflow platform built on the LINUX operating system and delivering fast reconstruction of 6 fps with full fidelity images and fast network transfer rates of up to 10 fps. The 19-inch color LCD monitors support scan and and recon, as well as image. - Size: 48in wide X 40.5in deep X 49.5in high

Image Networking: Exams can be selected and moved between the Optima CT580 W CT system and any imaging system supporting the DICOM protocol for network send, receive and pull/inquiry. - Standard Auto-configuring Ethernet - Direct Network Connection - Supports 1GB or 10/100 BaseT - Supported Protocols - DICOM Network - Advantage Net - InSite Point-to-Point - TCP/IP (for System Administration)

DICOM Conformance Standards: - DICOM Storage Service Class - Service Class User (SCU) for image send - Service Class Provider (SCP) for receive - DICOM Query/Retrieve Service Class - DICOM MOD Media Service Class - DICOM Storage Commitment Class Push - DICOM Modality Worklist (incl: Performed Procedure Step) (through ConnectPro) - DICOM Print - DICOM Structured Dose Report

Image Quality: - Low Contrast Detectability (LCD) Statistical LCD: on 8 Inch (20cm) CATPHAN Phantom - 5 mm @ 0.3% at 13.3 mGy - 3 mm @ 0.3% at 37.2 mGy - Noise - on an AAPM Water Phantom or GE



4/12

Item No. Qty

Description

Quality Assurance Phantom - 0.32% +/- 0.03% at 28.5 mGy - High Contrast Spatial Resolution - on GE Performance Phantom

- Standard Algorithm 8.5 lp/cm @ 0% MTF
- Hi-res Algorithm 15.4 lp/cm @ 0% MTF

The Optima CT580 W provides outstanding performance with flexible collimation modes, extended helical pitches, fast rotation speeds. - Pitches: 0.5625:1, 0.9375:1, 1.375:1, and 1.75:1 Helical Pitches for 16 Slice Modes. - Exclusive SmartSpeed allows full 360-degree rotation in 0.5, 0.6, 0.7, 0.8, 0.9, 1, 2 seconds, ensuring short breath holds, comfortable exams and flexibility to customize protocols for unique patient needs with minimal coverage impact.

Exam Speed: As a multi-slice scanner, the Optima CT580 W delivers flexible and fast scan speeds by combining 16 slice acquisition, 1.75:1 helical pitch and 0.5 s rotation. Because of these 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: - Scan Setup - Image Reconstruction - Reformat and 3D Processing - Networking, Archiving, Filming

The Optima CT580 W with Xtream FX workflow platform is designed to deliver high performance in each of these tasks: - SmartTools Simplifies Scan Setup and includes All Reconstructions, Filming, Archiving, Transferring Prospectively and Reducing Exam Time by up to 40%. Xtream (TM) FX, the next evolution of GE's workflow platform built on the LINUX operating system delivers fast 6 fps (optional 16 fps) reconstruction of full fidelity images and fast network transfer rates of up to 10 fps. Data Export and Interchange allow you to easily share images with referring physicians and patients. Direct MPR enables the move from 2D review to 3D image review of axial, sagittal, coronal and oblique planes automatically. Exam Split (optional) delivers the capability to "split" a series of patient images into separate groups for networking. Exam Rx desktop environment provides the clinical tools necessary fast, efficient control of patient studies. Exam Rx tools include patient scheduling and data entry, exam protocol selection, protocol viewing and editing, scan data acquisition, image reconstruction, image display and routine analysis, AutoTransfer, AutoStore, and AutoFilm. ImageWorks is a desktop environment designed to take advantage of the Optima CT580 W CT advanced computer system. Standard features include archive, network and manual film control, as well as advanced image processing such as Direct multi-projection volume rendering (MPVR) and display. The ImageWorks desktop also provide a gateway for DICOM 3.0 image transactions, either through a local area network,or via DICOM-formatted media. Five flexible Image Review Layouts are provided. Each image window can be further subdivided increasing the total number of images that can be displayed at once to 16. Multi-Projection Volume Reconstruction (MPVR) is a quick and easy way to generate volumetric images for CT



Item No. Qty

Description

angiography without thresholding data or removing unwanted anatomy. An entire volume is used to generate images in any plane, creating real-time frames of reference at the same time; Clinical utility is extended via two additional modes: - MPIS enhances contrast and improves visualization of calcifications - Average - generates 2D radiographic images VariViewer is an interactive axial review mode that can change the slice thickness

reconstruction instantaneously. - Other Exam Rx Image display features:

- Zoom/Roam
- Explicit Magnify
- Flip/Rotate
- Ellipse ROI
- Measure Distance
- Grid On/Off
- Cross Reference
- User Annotation
- Hide Graphics
- Erase
- Screen Save
- Gray Scale Enhancement

Scan Modes: The Optima CT580 W scanner system can perform virtually any clinical application due to its wide variety of scan modes. Helical scan mode offers continuous 360-degrees scanning with table incrementation and no interscan delay. Axial scan mode allows for up to 16 contiguous axial planes to be acquired simultaneously.

Helical Scans: Reference helical protocols allow for fast and efficient patient set up.

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 (70mm per second) enabling scan speeds that are more than 20 times faster than single slice helical scanners.

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. The images can be reconstructed at any of the defined nominal image thicknesses available for a given



Item No. Qtu

Description

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.

Helical scan parameters: - Scan Speed: Full 360-degrees rotational scans in 0.5, 0.6, 0.7, 0.8, 0.9, and 1.0.

Scan Technique: - kV: 80, 100, 120, 140 kV - mA: 10 to 800 mA (5 mA increments) - Power: 0.8 to 100kW - Focal Spot Selection (at 140 kVp):

- Small spot for up to 46.9 kW
- Larger spot for greater than 46.9 kW
- Max. Helical Scan Time: 120 sec
- Multiple scan can be acquired in one series to produce up to 3000 contiguous helical images
- Minimum Inter-group Delay (IGD): 5 sec

Helical Scan Enhancements: - 6 fps reconstruction even while scanning Xtream FX workflow allows, image reconstruction, display, processing and analysis, as well as networking, archival and filming all while scanning.

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 8460 protocol storage available. – 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 DMPR. Any scan parameters may be edited for each scan or all scans – either before or during and 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 scanning - Trauma Patient: Allows patient scans and image display/analysis without entering patient data before scanning

Axial Scans: Multi-slice axial acquisitions and short interscan delays significantly reduce potential mis-registration between scans by increasing the number of scans in a single breath hold.

Reference protocols allow for fast and efficient patient set up.

Axial Multi-slice Modes: The Optima CT580 W system acquires axial scans in sets of up to 16 contiguous images in one 360-degrees rotation. For each rotation of the gantry



Item No. Qty	Description
	the system collects 16 rows of scan data. There are five reconstruction modes available for creating images from the multi-slice axial scan data.
	Axial Scan Parameters: - Scan Speed: Full 360-degrees rotational scans in 0.5, 0.6, 0.7 0.8, 0.9, 1.0, 2.0, 3.0 and 4.0
	Scan Techniques: - Same as Helical
	Scan Plane Geometry: - +/- 30 Degrees Angulation in .5 mm increments - Longitudina Positioning in 0.01 mm per Slice Increment
	Interscan Delay (ISD): - Minimum ISD:Table Moves of 0-10mm:1.0 sec - Minimum ISD:Table Moves of > 10mm: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 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.
	Axial Image Reconstruction: Reconstruction algorithms:Soft Tissue, Standard, Detail, Bone, Bone Plus, Chest, Lung and Edge. Axial Image Reconstruction Speed: 6 images per second.
	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 Full System Warranty Coverage (Excluding X-Ray Tube) will be Provided for 12 Months from Date of Installation. The Less of 12 Months or 100,000 Scans Pro-Rate X-Ray Tube Warranty Coverage Included.
	Regulatory Compliance:
	This product is designed to comply with applicable standards under the radiation control for Health and Safety Act of 1968. Laser alignment devices contained within this product are appropriately labeled according to the requirements of the Center for Devices and Radiological Health.
	This product is a CE-compliant device satisfying regulations regarding Electro-Magnetic Compatibility (EMC), Electro-Magnetic Interference (EMI), and IEC-60601-1 and all applicable collateral and particular standards.
	Must add to quote; Table preference & Cable kit
2 1	English Keyboard Kit

Standard cable set for RT product



1

3

8/12

Item No.	. Qty	Description
4	1	The High Capacity Table for WideBore systems
		Key features of the High Capacity table include: 650 lb weight capacity, 1600 mm scannable range, 125 mm/sec travel time, real-time Z-axis position feedback between gantry and table. Vertical movement: 52.5 - 99.1 cm
5	1	ASiR(TM)(Adaptive Statistical Iterative Reconstruction) dose reduction technology*
		 ASiR reconstruction technology may enable reduction in pixel noise standard deviation (a measurement of image noise). The ASiR reconstruction algorithm may allow for reduced mA in the acquisition of images, thereby reducing the dose required*.
		 A reconstruction technology that may enable improvement in low contrast detectability*.
		* In clinical practice, the use of ASiR may reduce CT patient dose depending on the clinical task, patient size, anatomical location and clinical practice. A consultation with a radiologist and physicist should be made to determine the appropriate dose to obtain diagnostic image quality for the particular clinical task.
6	1	2 Phase 10 KVA Partial UPS for CT Lightspeed and Lightspeed PRO
		The 2 Phase 10 KVA Partial System UPS kit has been specifically designed to coordinate with the BrightSpeed, LightSpeed and LightSpeed PRO 16 families of CT scanners. In the event of a power outage, a partial system UPS provides continuous back-up power to the scanner host and control computers, thus assuring no loss of usable scan data. In addition, critical circuits in the gantry and table remain powered which facilitate the safe removal of the patient from the scanner. If power is restored within the battery hold-up time, the operator can continue scanner operations without the need to reboot the system. When longer power outages are anticipated, the UPS provides time for the operator to complete an orderly shutdown of the system software.
		FEATURES/BENEFITS
		 True double-conversion, online technology provides reliable operation and uninterrupted glitch free power. Automatic voltage and frequency selection eases startup, i.e., 50 or 60 Hz compatible Integral Static Bypass switch means zero transfer time Integral Manual Bypass switch facilitates continued company of the servers of the
		UPS is being serviced
		 Single input connect utilized for both UPS input and static switch



Item No. Qty

Description

- Maintains system electronics and allows critical scanner operations to continue for 10 minutes (typical) after loss of power
- Advanced Battery Management (ABM) software monitors / indicates battery health and doubles battery service life

SPECIFICATIONS

- Dimensions (H x W x D): 32.7" x 12" x 32"
- Weight: 350 lbs.
- Rating: 10 kVA
- Input Voltage Range: 85-144V / ph; 2 Phase
- Output Frequency: 50 or 60 Hz, auto-sensing

COMPATIBILITY

 HiSpeed Advantage-RP, CT/I, Lightspeed QXi, LightSpeed Plus, LightSpeed Ultra, LightSpeed 16, BrightSpeed Systems, LightSpeed Pro 16 and RT Systems, Discovery NM 670 (Nuc)

NOTES:

- Customer is responsible for rigging and arranging for installation with a certified electrician
- ITEM IS NON-RETURNABLE AND NON-REFUNDABLE

CT Main Disconnect Panel - 125 Amp with Auto Restart

FEATURES/BENEFITS

- Custom panel serves as the main power disconnect between the CT system and the facility 400-480V power source Panel provides short circuit, overload, undervoltage release, automatic restart, and emergency shut down for the CT system
- Reduces installation time and cost by providing a single-point power connection eliminating the need to mount and wire a number of individual components
- Standardized design and testing assures high product quality and system reliability
- On systems where the optional 12.5 kVA partial system UPS is ordered, the Main Disconnect Panel also provides mandated emergency power off control via a UPS output disconnect function included in the panel design
- Provides a standardized platform for future UPS or other GE engineered modifications or upgrades



7

1

Item No. Qtu

8

1

Description

SPECIFICATIONS

- Dimensions (H x W): 30.24 in. x 19.78 in.
- Enclosure Depth: 7.05 in.
- Handle Depth: 10.3 in.
- Weight: 110 lbs.
- UL, cUL and CE labeled
- Panel disconnect provides OSHA lockout/tagout provisions
- Surface or semi-flush mounting
- Partial system UPS sold separately (E4502F)

COMPATIBILITY

CT LS Pro 16, LS Pro 32, RT Systems, LS VCT, CT 750HD, Discovery 690 VCT

NOTES:

- Customer is responsible for rigging and arranging for installation with a certified electrician
- ITEM IS NON-RETURNABLE AND NON-REFUNDABLE

6 Day CT TiP Onsite System Training

CT Onsite Training for a new CT system

- One 4 day onsite visit to coincide with system start-up.
- One 2 day onsite follow-up visit 6-8 weeks post system start up.

During the first visit, the applications specialist will work with the medical and technical staff on system operation and patient procedures. The training produces the best results when a dedicated core group of 2-4 CT technologists complete the session with a modified patient schedule. It is suggested that key physicians are available to participate in the protocol implementation and image quality review sessions. By the end of this visit, the core group should be able to perform the routine patient procedures.

The 2 day revisit is suggested after the staff has run the system for 6-8 weeks, however this is flexible based on the site needs. The training will focus on the intermediate and advanced functions of the system or special needs of the customer. The training produces the best results when the same dedicated core group of 2-4 CT technologists from the initial visit complete the session with a modified patient schedule.

This training program must be scheduled and completed within 12 months after the



11/12

Item No.	Qty	Description	
		date of product delivery.	
9	1	4 Days CT TiP Onsite Training	
		Four Days CT Onsite Training provided from 8AM to 5PM, Includes T&L expenses. Days provided consecutively.	Monday through Friday.
		This training program must be scheduled and completed date of product delivery.	within 12 months after the
		Quote Summary:	
		Total Extended Selling Price: LS Qx/i Trade-in, Deinstall, and Removal Total Quote Net Selling Price	\$603,424.50 (\$12,000.00)
		(Quoted prices do not reflect state and local taxes if applic	\$591,424.50 cable)

Installation of new equipment included per section 1.4 of GE Healthcare Product Terms and Conditions.

If you would like to place an order for this equipment, a formal contract document will be prepared for your consideration. This quote is for budgetary use only; only a GE contract can become a binding order.



Attachment B



May 29, 2012

Mr. Craig Smith, Chief Certificate of Need Section Division of Health Service Regulation 701 Barbour Drive Raleigh, NC 27603

Re: Presbyterian Hospital Main - CT

Dear Mr. Smith:

Ec,a Architecture has reviewed the proposal submitted by Revels Contracting Services, Inc. for the remedial construction of a 290 square foot CT suite in the existing Presbyterian Hospital building in Charlotte, North Carolina.

It is our opinion, that the scope of the work is adequate to complete the project as discussed and outlined by this proposal. Furthermore, the construction estimate of \$238,834 is reasonable, for the proposed scope of work for the project, when compared to other similar projects in North Carolina. The construction is estimated at \$238,834 and \$16,750 for A&E drawings for a total cost of \$255,584.

If you should have any questions regarding this project, please do not hesitate to contact me. Thank you.

Sincerely,

Eric Cebula, AIA

Ec,a Architecture, PC

Eric J. Cebula, AIA PO Box 30183 Charlotte, NC 28230

704.849.6748 (tel) 800.652.0689 (fax) 704.906.6752 (cell) eca-cebula@carolina.rr.com

Attachment C

PROPOSED CAPITAL COSTS

Project Name:

PHC ED CT

4-Jun-12

	_
Proponent:	Pro

Presbyterian Hospital (Novant Health, Inc.)

A.	Site C	Costs		
	(1) (2) (3) (4) (5)	Full purchase price of land Acres Price per Acre Closing Costs Site Inspection and Survey Legal fees and subsoil investigation Site Preparation Costs \$ Soil Borings \$ Clearing Earthwork \$		\$ N/A \$ N/A \$ N/A \$ N/A \$ N/A
	(6) (7)	Fine Grade For Slab Roads Paving Sconcrete Sidewalks Water and Sewer Footing Excavation Footing Backfill Termite Treatment Sub-Total Site Preparation Costs Other (specify) Sub-Total Site Costs		\$ N/A \$ N/A \$ 0.00
В.	(9) (10) (11)	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 Cost of Labor GC Labor Other Sub-Total Construction Contract	95,534.00	\$ \$95,534.00 \$ 143,300.00 \$ 238,834.00
C.	Misce (12) (13) (14) (15)	llaneous Project Costs Building Purchase Fixed Equipment Purchase/Lease Other: Old Equipment Removal ろピーのWovable Equipment Purchase/Lease Furniture	TE 6	\$ N/A \$ 597,424.50 (Q) -591,424 Price
	(16) (17) (18) (19) (20) (21) (22)	Landscaping Consult Fees Architect and Engineering Fees Legal Fees Market Analysis Other (contingency) Sub-Total Consultant Fees Financing Costs (e.g. Bond Loan, etc) Interest During Construction Other: IT, signage, cleaning Sub-Total Miscellaneous Total Capital Cost of Project (Sum A-C above)	\$2,100.00 \$16,750.00 N/A N/A \$24,000.00	\$

Attachment D

Presbyterian Hospital (PH) – CT Scanner	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/Name	Light Speed QXi	Optima CT580 W
Serial Number	255358CN4	TBD
Provider's Method of Identifying Equipment (RRMC uses an internal numbering system to identify equipment.)	Internal Asset Numbering System	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	2/2006	TBD
Does Provider Hold Title to Equipment or Have a Capital Lease?	Title	Will hold title once purchased
Specify if Equipment Was/Is New or Used When Acquired	New	New
Total Capital Cost of Project (Including Construction, etc.) < Use Attached Form for New Equip>	\$ 110,618	\$ 889,609
Total Cost of Equipment	\$ 110,618	\$ 597,425
Fair Market Value of Equipment	n/a	\$ 597,425
Net Purchase Price of Equipment	n/a	\$ 597,425
Locations Where Operated	PIC Midtown	РН ЕD
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