



DEPARTMENT OF HEALTH AND HUMAN SERVICES  
DIVISION OF HEALTH SERVICE REGULATION

ROY COOPER  
GOVERNOR

MANDY COHEN, MD, MPH  
SECRETARY

MARK PAYNE  
DIRECTOR

November 29, 2017

Lisa Griffin  
Novant Health, Inc.  
2085 Frontis Plaza Boulevard  
Winston-Salem, NC 27103

**Exempt from Review – Replacement Equipment**

**Record #:** 2445  
**Facility Name:** Novant Health Forsyth Medical Center  
**FID #:** 923174  
**Business Name:** Novant Health, Inc.  
**Business #:** 1341  
**Project Description:** Replace existing cardiac catheterization equipment  
**County:** Forsyth

Dear Ms. Griffin:

The Healthcare Planning and Certificate of Need Section, Division of Health Service Regulation (Agency), determined that based on your letter of November 27, 2017, the above referenced proposal is exempt from certificate of need review in accordance with N.C. Gen. Stat. §131E-184(a)(7). Therefore, you may proceed to acquire without a certificate of need the GE Healthcare Innova-IQ cardiac catheterization equipment to replace the Siemens Axion Artis cardiac catheterization equipment, Serial # 1172. This determination is based on your representations that the existing unit will be sold or otherwise disposed of and will not be used again in the State without first obtaining a certificate of need if one is required.

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

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

Sincerely,

Celia C. Inman  
Project Analyst

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

cc: Construction Section, DHSR  
Sharetta Blackwell, Healthcare Planning, DHSR  
Acute and Home Care Licensure and Certification Section, DHSR

**HEALTHCARE PLANNING AND CERTIFICATE OF NEED SECTION**

WWW.NCDHHS.GOV

TELEPHONE 919-855-3873

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

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

AN EQUAL OPPORTUNITY/ AFFIRMATIVE ACTION EMPLOYER

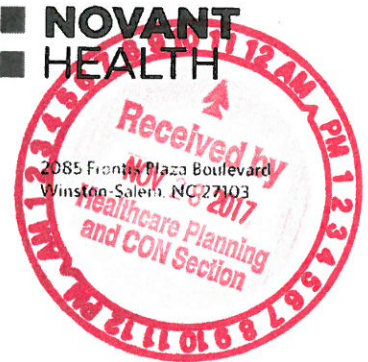


November 27, 2017

**Via Email**

Celia Inman, Project Analyst, Certificate of Need  
N.C. Department of Health Service Regulation  
809 Ruggles Drive  
Raleigh, North Carolina 27603

**NOVANT  
HEALTH**



Re: Novant Health Forsyth Medical Center  
Replacement of Cardiac Catheterization Lab #4  
Winston-Salem, NC (Forsyth County)

Dear Ms. Inman:

Novant Health Forsyth Medical Center (“NHFMC”) intends to replace an existing cardiac catheterization equipment currently located at the main campus of NHFMC in Winston-Salem, North Carolina. The existing cardiac catheterization equipment is past its useful life. Therefore, NHFMC will acquire a new GE Healthcare Innova-IQ system. See **Attachment A** for the Equipment Quote and Addendum for the trade-in of the existing unit. As part of the equipment cost, the vendor will provide onsite clinical training for the equipment. The total capital cost for the proposed replacement equipment project is estimated to be \$1,242,360<sup>1</sup>. See **Attachment B** – Project Capital Cost.

The proposed project meets the definition of “replacement equipment” found in G.S. 131E-176(22a) and 10A N.C.A.C 14C.0303 for the following reasons:

- (1) NHFMC will replace the existing cardiac catheterization equipment with the proposed equipment that is functionally similar and will be used for the same diagnostic purposes, although it possesses expanded capabilities due to technological improvements.
- (2) The proposed equipment will not be used to provide a new health service.
- (3) The acquisition of the proposed 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) NHFMC seeks to replace comparable medical equipment currently in use at project cost less than \$2 million.
- (5) The existing equipment was not purchased second-hand nor was the existing equipment leased.
- (6) The existing equipment will be removed from North Carolina.

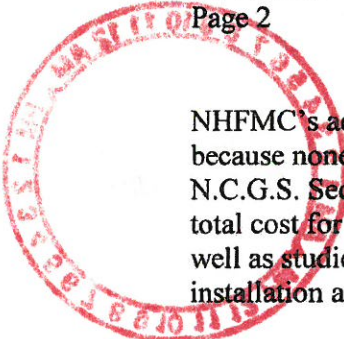
In support of our request, please find attached:

**Attachment A** – Vendor Equipment Quote & Addendum  
**Attachment B** – Project Capital Cost  
**Attachment C** – NC CON Equipment Comparison chart

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<sup>1</sup> The project cost does not include sales, property or excise taxes as NHKMC is not subject to these taxes as a non-profit, tax-exempt organization.

Ms. Celia Inman  
Re: NHFMC Replacement of Cardiac Catheterization Lab #4  
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NHFMC's acquisition of the replacement equipment does not require a certificate of need because none of the definitions of "new institutional health services" set forth in N.C.G.S. Section 131E-176(16) apply to the proposed project. As outlined above, the total cost for the project is \$1,242,360. The proposed capital cost includes equipment, as well as studies, surveys, designs, plans, working drawings, specifications, construction installation and other activities essential to making the equipment operational.

Based on the information provided, please confirm that NHFMC's replacement equipment request does not constitute a new institutional health service and is exempt from certificate of need review.

If you need additional information, please do not hesitate to contact me.

Sincerely,



Lisa Griffin  
Manager, Certificate of Need  
Novant Health, Inc.

Enclosures

Cc: Barbara Freedy, Director, CON, Novant Health

**ATTACHMENT A –  
Equipment Quote**



Item No.	Qty	Catalog No.	Description
	1		<b>IGS 520</b>
1	1	S18921TG	<p>INNOVA IGS 520 with INNOVA-IQ table with Tilt</p> <p><b>INNOVA IGS 520 with IR table</b>  The Innova IGS 520 (20,5 cm x 20,5 cm and 29 cm diagonal) unites image quality, an optimal panel size and built-in protocols for imaging versatility, making it suitable for cardiac, electrophysiology, angiography, peripheral angiography, and intervention.</p> <p><b>Innova IGS 520 Positioner</b>  The Innova IGS 520 combines GE's exclusive Innova LC Positioner with an ergonomically designed tableside user interface to provide easy access and control of critical features during an exam. Its patented three-axis isocentric positioner design with floor mounted L-arm and offset C-arm provides maximum positioning flexibility and excellent patient access in all views. The rigid, floor-mounted construction provides minimum vibration and deflection during acquisitions. The three motor-driven axes make even the most complex angulations easy to achieve.</p> <p>The Innova IGS 520 system unites image quality, optimal panel size (20.5 cm x 20.5 cm/8 in x 8 in) for cardiac procedures and built-in protocols for imaging versatility, making it suitable for a wide range of minimally invasive procedures.</p> <p><b>GE Revolution digital flat panel detector</b>  The digital detector uses an amorphous silicon photodiode array on a continuous-substrate, single-piece panel with no inherent seams.</p> <p>The digital detector (20.5 cm x 20.5 cm/8 in x 8 in), is comprised of a 1024 x 1024 array of imaging elements or pixels on a 200- micron pitch. Scintillator thickness and electronic noise are optimized to produce extremely high detective quantum efficiencies, both at high exposures and at fluoroscopic doses.</p> <p><b>Image Processing</b>  The detector can translate the widest possible range of X-ray exposure intensities into digital signals without saturation. The system is configured with a removable anti-scatter grid to maximize image quality during routine imaging.</p> <p>Proprietary DRM image processing transforms this information for display without loss of detail over a wide range of anatomical densities. Moreover, organs in motion generate image blurring but thanks to High contrast fluoro we overcome this challenge in delivering an efficient dose with significantly reduce the blurring in the image.</p> <p>With excellent performance in low-dose fluoroscopy as well as high-dose exposures, the Innova IGS 520 advances GE's leadership in flat-panel imaging. The wide dynamic range of the detector, coupled with 14-bit acquisition and patented image processing, enables excellent visualization of low- contrast objects. Detective Quantum Efficiency</p>





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			<p>(DQE), an important measurement of information capture, is taken to a new level with the Innova detector design.</p> <p>X-RAY Tube</p> <p>The Innova IGS 520 uses a 100 kW high-frequency Jedi three-phase power unit that provides grid pulsed fluoroscopy capability.</p> <p>Automatic X-ray technique calculation provides a tube-rating chart that calculates maximum exposure time based on the selected protocol, kV, mA, focal spot and available heat units.</p> <p>Fluoroscopy and radiography exposure times and mA are automatically controlled by the dynamic exposure optimization system. The range of mA is limited by X-ray tube ratings and regulatory limits. A fluoroscopic timer captures the fluoroscopic procedure time (reset time is every five minutes).</p> <p>The Omega IQ table</p> <p>The Omega IQ table is a tilting table, long version and motorized table. This memory foam imaging table pad is radiolucent and offers the most comfortable surface possible for patients without compromising image quality. It supports a load up to 320 kg and allows imaging coverage with table panning up to 187cm with table dimension: 333cm in length and 46cm in width.</p> <p>Tableside User interface</p> <ul style="list-style-type: none"> <li>• The SmartBox provides a simple control of the positioner and the table. A second SmartBox can be added at tableside or in the control room.</li> <li>• The TSSC provides simple access to key acquisition and review parameters throughout the exam. A second TSSC can be added at tableside or in the control room.</li> <li>• The Central Touch Screen lets the user control the Discovery IGS 520 system functions as well as integrated equipment.</li> <li>• Smart Nav is an innovative solution to control some Discovery IGS system functionalities from tableside and from the control room. It allows fast function access in displaying menu controls on the reference monitor upon user request. With Smart Nav, the user can keep his/her attention on the screen monitors where clinical images are also displayed. Smart Nav is controlled from the Central Touch Screen, local keypad or remote keypad, providing intuitive and context-based navigation.</li> <li>• Fluorostore store displays, and plays loops of the last 450 fluoro images at the push of a button for streamlined image review, helping to avoid extra images and exposure.</li> <li>• Dynamic acquisition package: 30 fps and 15 fps</li> <li>• InnovaChase is a dynamic, unsubtracted acquisition at a fixed frame rate of 5 fps with manual and remote panning of the table. It is optimized for visualization of a run off.</li> </ul> <p>The Innova IGS 520 system facilitates image management and workflow using</p>



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			<p>standard format and communication protocols.</p> <p>It also features close integration with the AW and CA1000 workstations to provide advanced image review and processing capabilities.</p> <ul style="list-style-type: none"> <li>• Acquisition of data at 14 bits</li> <li>• Cardiac images stored in 8 bits, maximum 450 images per sequence. Storage capacity: 136,000 cardiac images</li> <li>• Images with 12 bits data stored in 16 bits, maximum 450 images per sequence. Storage capacity: 68,000 DSA images</li> <li>• DICOM image output on 100Mbit Ethernet with Autosend and background transfer for fast transmission with minimal user interaction.</li> <li>• Capability to do full resolution 1024 x 1024 DICOM push to retain image quality at acquisition (configurable to 512 x 512 for cardiac acquisitions and 512 x 512 x 512 or 256 x 256 x 256 for 3D imaging)</li> <li>• Patient Worklist capability provides a single point of entry of patient data, increasing staff productivity and eliminating clerical errors: patient information can easily be imported into the digital system from information systems that support DICOM Worklist Service Class Provider.</li> <li>• Multi-destination Push enables images to be sent to multiple remote DICOM destinations sequentially (one after another). Multi-destination helps to support a clinical scenario of handling post processing and archival activities in multiple destinations independently of each other (workstation, PACS). Multi-destination provides a seamless integration of the Innova IGS 520 into clinical workflow.</li> <li>• MPPS: Modality Performed Procedure Step allows the Innova IGS 520 to share the main exam parameters with the hospital information system.</li> <li>• For the Innova 3D option, users can direct-push the 3D acquisition directly to the pre-configured AW, even if the images of the exam are pushed to a PACS or another archiving system.</li> </ul>
2	1	S18061HZ	<p>2nd SmartBox for InnovalQ Table with Tilt</p> <p>Additional SmartBox for InnovalQ Table with Tilt</p> <ul style="list-style-type: none"> <li>• One SmartBox is included with the IGS system.</li> </ul>
3	1	S18061FW	<p>2nd Footswitch and Covers for Control Room</p> <p>Second Footswitch with Cover for the Control Room, Single Plane Configuration</p>
4	1	S18351AN	<p>In-Room AW mouse interface kit</p> <p>In-Room AW mouse interface kit</p>



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Item No.	Qty	Catalog No.	Description
5	1	S1876PE	<p>Main Power Disconnect Panel - UPS Ready</p> <p>Innova Main Disconnect Panel - UPS Ready</p> <p>This main disconnect panel provides emergency shut down, undervoltage protection, overcurrent protection, OSHA lockout tag provisions, and serves as a local disconnect for the GEHC Innova system. It reduces installation time and cost by providing a single-point power connection, eliminating the need to mount and wire a number of individual components, and its standardized design and testing assures high product quality and system reliability. It is UL and cUL listed for compliance with National Electric Code, and it can be either surface or semi-flush mounted. Customer is responsible for rigging and arranging for installation with a certified electrician.</p>
6	1	S18101CH	<p>UL Coolix SMC Auto Transformer</p> <p>UL Coolix SMC Auto Transformer</p>
7	1	S18761PN	<p>INNOVA-IQ 20KVA UPS FOR U</p> <p>INNOVA-IQ 20KVA UPS FOR U</p>
8	1	S18811PA	<p>Quantitative Analysis Package</p> <p>Quantitative Analysis Package</p> <p>Stenosis Analysis Package on DL Digital System</p> <p>The Stenosis Analysis Package is an application designed for estimating vessel dimensions and relevant parameters of the arterial Stenosis morphology in X-Ray angiography. The system is capable of automatic detection of vessel edges and display of stenosis severity.</p> <p>Left Ventricular Analysis Package</p> <p>The Left Ventricular Analysis Package is an expert reporting tool designed to estimate wall motion dynamics of the left ventricle, and to perform Global Ejection Fraction Analysis in X-Ray angiography. The system is capable of providing Wall Motion and Global Ejection Fraction measurements. Wall Motion is built on the centerline method. GEF analysis is calculated using both Simpson's rule method and the Dodge-Sandler area-length method</p> <p>Cardiovascular Analysis Package (on DL system)</p> <p>The Cardiovascular Analysis Package includes both the Stenosis Analysis Package and the Left Ventricular Analysis Package.</p> <p>The Stenosis Analysis Package is an application designed to estimate vessel dimensions and relevant parameters of the arterial Stenosis morphology in X-Ray angiography. The system is capable of automatic detection of vessel edges and display of stenosis severity.</p> <p>The Left Ventricular Analysis Package is an expert reporting tool designed to estimate</p>





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			wall motion dynamics of the left ventricle, and to perform Global Ejection Fraction analysis in X-Ray angiography. The system is capable of providing Wall Motion and Global Ejection Fraction measurements (GEF). Wall Motion is built on the centerline method. GEF analysis is calculated using both Simpson's rule method and the Dodge-Sandler area-length method.
9	1	S18921LE	<p>PCI ASSIST</p> <p>PCI ASSIST is a commercial package that includes the following features:</p> <ul style="list-style-type: none"> <li>• High Contrast Fluoro - Organs in motion generate image blurring, which can make it difficult to assess the size of the lesion as well as stent deployment. To overcome this challenge, we increased the mA peak up to 36%, and decreased the pulse width by 25%. While the dose is equivalent, it is delivered in an efficient way that helps significantly reduce the blurring in the image due to organ motion.</li> <li>• StentViz - StentViz enhances visibility of the stent structure. It is particularly useful in verifying placement and deployment of stents during coronary interventions where moving arteries could make visibility challenging. StentViz processing is fully automated and can be launched at the press of a button on the Central Touch Screen at tableside. The result is automatically displayed on the reference monitor and shows two zoomed and enhanced images of the stent: One with the guidewire in view and a second one with the guidewire subtracted out in the area between the two balloon markers to allow excellent visualization of the stent struts or borders.</li> <li>• StentVesselViz - StentVesselViz Being able to see the position of stent into the vessel is especially critical in cases of complex clinical situations such as bifurcations or calcified lesions. A complete apposition of stent onto vessel wall can contribute to prevent stent thrombosis &amp; restenosis. StentVesselViz improves the user confidence in the assessment of the position, correct deployment and shape of the stent in relation with the vessel in 2D versus cine. Thanks to an intuitive workflow, StentVesselViz is operated smoothly and can help the user position and expand stent. The StentVesselViz option delivers from a single acquisition a StentViz image and then the fusion of this one with an image of the injected vessel. Those two images are automatically fading together for optimized and simultaneous visualization of stent into the vessel pre and post deployment.</li> </ul>
10	1	S18461ND	<p>Large Display In Room 19 inputs</p> <p>The GE Large Display Monitor (LDM) is an in-room primary monitor designed to</p>



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			streamline procedure workflow. It includes a video server solution and is fully integrated with the Central Touch Screen at tableside. GE Large Display Monitor specifications: Display matrix - 8 megapixels and 3840 x 2160-pixel array Video inputs - 19 video inputs for Live, Reference, AW and optional subtracted Fluoro monochrome signals as well as for a wide variety of other video signals usually used in an interventional environment - including 3 free open inputs compatible with VGA and DVI video formats Layouts - over 120, organized into user or application groups, digital zoom User Interface - 48 cm (19 in) live and reference monitors attached at the back of the LDM or on another's suspension Additional HD output - For HD video compatible solutions (second 8MP monitor, 2MP HD monitor, recorder); an optional open monitor suspension allows users to install another third-party suspension instead of the standard GE Healthcare monitor suspension offering.
11	1	S18391MP	Large Display Solution Mavig Suspension on Rails Large Display Solution Mavig Suspension on Rails
12	1	S18461FX	19 Inch Monochrome Flat (LCD) Reference Monitor 19 Inch Monochrome Flat (LCD) Reference Monitor All Components Required for Viewing of High Quality Images. The Kit Includes: <ul style="list-style-type: none"> <li>• 19 Inch Monochrome LCD Control Room Monitor</li> <li>• All Required Cabling</li> </ul>
13	1	S18751PY	3KVA UPS for LDM, 110 volt UPS for Large Display Monitor, 3KVA, 110 volt
14	1	S18461LV	Link Set for IVUS Volcano Link Set for IVUS Volcano
15	1	S18461LG	Link Set for Digital and Analog Ultrasound Link Set for Digital and Analog Ultrasound
16	1	S18461LY	Link Set for Open 2 Link Set Open 2 Suitable for anesthesia monitors, camera, etc.



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17	1	S18461AD	Analog to Digital Converter Kit Analog to Digital Converter Kit
18	1	S18921LA	Dose & IQ Optimization Package for IGS520 Dose & IQ Optimization Package Dose & IQ Optimization Package Dose & IQ Optimization Package is a package that includes the following features: InnovaSense - InnovaSense is an advanced patient contouring technology that uses an intelligent algorithm during gantry motion to select the optimal position for the image receptor relative to the patient. By reducing the distance from receptor to patient, the system optimizes imaging geometry and helps reduce radiation exposure. The user also can position both the gantry and detector with one integrated operation. Capacitive sensor technology and optimized collision avoidance software enable a speed of pivot and C-arm, of up to 20 per second. Dose Map - Dose Map is a feature used to calculate, display and record an estimated local cumulated dose during procedures done on the GE X-Ray angiographic system. It is designed to provide to the user a visualization of the distribution of the local cumulated dose all throughout the exam as well as the current projection of the beam. The local dose is calculated depending on the estimated air kerma, the gantry position, the table position, the table estimated attenuation, the estimated backscatter correction and the system settings. Calculation and cumulated local dose are updated for each acquisition and displayed upon user request or upon configured threshold. The cumulated air kerma display remains the reference for dose management.
19	1	M81521KC	AW VolumeShare 7 for Interventional Base System AW VolumeShare 7 for Interventional with 32GB of RAM. DOES NOT include Volume Viewer. AW VolumeShare 7 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. AW VolumeShare 7 features include: Hardware:



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			<ul style="list-style-type: none"><li>o HP Z440 Workstation</li><li>o CPU: Intel Xeon E5-1660v3 (Haswell) Eight-Core @ 3.0 GHz with 20MB L3 Shared Cache each with Dual QPI @ 8 GT/s</li><li>o RAM: 32GB (8x4GB) Four-channel DDR4 ECC RSIMM @ 2133 MHz</li><li>o GRAPHICS: NVIDIA Quadro NVS310 with 1 GB Video RAM</li><li>o 1x 256GB SATA3 SSD for OS and Apps</li><li>o 2x 512GB SATA3 SSD in RAID 0 for 1TB data storage</li><li>o VGA Video Convert Kit</li></ul> Software: <ul style="list-style-type: none"><li>o GE Healthcare HELIOS 6 operating system</li><li>o Demo Exams for training and exploration</li><li>o Fast access to information you need through optional RIS integration &amp; priors post-fetch</li><li>o Efficient workflow through dynamic load, end review and Key Image Notes features</li><li>o Productivity package to pre-process exams and allow up to 8 simultaneous sessions</li><li>o Applications usage monitor to track and view usage of your system</li><li>o Smart layouts with Volume Viewer General review protocol that optimizes comparison and single exam layouts</li><li>o Enhanced multi-modality contouring tool with support for PET SUVs</li><li>o Support for external DICOM USB media and preference management tool to exchange preferences across users</li><li>o Support for optional, broad suite of</li></ul>



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			multi-modality advanced applications
20	1	M80281AA	<p>AW VolumeShare 7 Monitors</p> <p>AW VolumeShare 7 Monitor are two high-quality monitors offering bright and high contrast imagery suited to the display of medical images per the AW VolumeShare Indications for Use. Each provides a 19" 1280x1024 (5:4 aspect ratio) display that complies with international medical and patient safety standards and offers the following specifications:</p> <ul style="list-style-type: none"> <li>• Maximum luminance (panel typical) : 330 nit</li> <li>• DICOM Part 14 calibrated luminance: 215 nit</li> <li>• Contrast ratio (panel typical) : 900:1</li> <li>• An ambient light sensor</li> <li>• Brightness non-uniformity (measured as per DIN6868-157) : +/-25%</li> </ul>
21	1	S18021SE	<p>AW Stenosis Analysis Software Package</p> <p>Stenosis Analysis Package for AW</p> <p>The Stenosis Analysis Package is an application designed for estimating vessel dimensions and relevant parameters of the arterial Stenosis morphology in X-Ray angiography. The system is capable of automatic detection of vessel edges and display of stenosis severity.</p>
22	1	S18121VA	<p>Valve Assist 2 Software Package</p> <p>Valve Assist 2 is a software package providing planning and guidance applications for cardiac procedures.</p> <p>It includes HeartVision 2 and TAVI Analysis.</p> <p>HeartVision 2 overlays prepared 3D datasets on live fluoroscopy to support guidance and deployment of devices such as the one used during structural heart procedures. The Calcification Visualization Enhancement is a mode that allows the user to enhance moving contrasted structures in the image to improve the visualization. TAVI</p>



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			Analysis is a post-processing planning tool used for TAVI/TAVR procedures. It automatically segments the aorta and displays the aortic valve in multiple views for quick and easy measurements of the annulus. TAVI Analysis provides guided workflow and semi-automated tools to help evaluate appropriate access pathways and can communicate directly with the interventional suite.
23	1	E7016NH	<p>ACIST CVI Table Mounted Injector (Interface included)</p> <p>ACIST CVi Table Mounted Injector</p> <p>The ACIST CVi System enhances ease of use, reliability and flexibility in contrast delivery. The adjustable control panel arm, X-ray synchronization capability, and easy-to-use, multi-procedure disposables increase both workflow and productivity. Responsive Angiotouch hand controller puts variable control of contrast volumes and flow rate at your fingertips. Responsive, variable rate delivery of contrast provides quality imaging with less contrast usage, which has been demonstrated to provide cost savings to the lab.</p>
24	1	E4502SS	<p>NR - X-Ray Warning and Room Lighting Control Panel</p> <p>The X-Ray in use Warning and Room Lighting Control Panel provides an interface between the X-Ray in use warning lights, interior room general lighting, and the X-Ray system. The X-Ray in use portion of the panel provides low voltage control of the X-Ray in Use Warning Lights and the room general lighting is controlled by a pre-wired foot switch</p> <ul style="list-style-type: none"> <li>• Designed and tested for GEHC products, for use in CT, PET/CT and X-Ray applications</li> <li>• Can eliminate procurement inconveniences and delivery delays often associated with acquiring individual components</li> <li>• Improves servicing safety by the eliminating of the warning light/room general lighting circuit from the imaging control system cabinet.</li> </ul> <p>NOTES:</p> <ul style="list-style-type: none"> <li>• Customer is responsible for rigging and arranging for installation with a certified electrician</li> <li>• ITEM IS NON-RETURNABLE AND NON-REFUNDABLE</li> </ul>





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Item No.	Qty	Catalog No.	Description
25	1	E7018JZ	<p>Mavig 2.5m Track without Cable Spooler</p> <p>Mavig 2.5m Ceiling Track without Cable Spooler</p> <p>The Ceiling Track is suited for use of ceiling guided accessories, including radiation protective shields, lamps, injectors, monitors, and other equipment.</p> <p>FEATURES AND BENEFITS</p> <ul style="list-style-type: none"> <li>• The unique structure profile ensures smooth running of the carriage</li> <li>• With little force, the installed system can be moved and positioned</li> <li>• The carriage glides smoothly, even after many years of routine use</li> <li>• Adjustable cross-struts simplifies the system installation</li> </ul>
26	1	E3053CC	<p>2.5m Cable Spooler (requires E3053CM)</p> <p>Mavig 2.5m Cable Spooler for R-96 &amp; Mach 3 Lamp</p> <p>This Mavig cable spooler is used when the R-96 or Mach 3 lamp is track-mounted. The spooler yields and retracts the electrical cable as the lamp travels along the track, eliminating all dangling and tangled power supplies. Warranty Period- 6 months-Exchange of non conforming products, which are returned to GE during warranty period Note: Installation,parts,application training and on-site service are the buyer's responsibility</p>
27	1	E3053CM	<p>Cable Holders and Stoppers for Ceiling Track</p> <p>Mavig Cable Holders and Stoppers for Ceiling Track (used with Cable Spoolers E3053CC, E3053LT)</p>
28	1	E3053BC	<p>Portegra2 360 Ceiling Column w/ Carriage - 58 cm</p> <p>Portegra2 3600 Ceiling Column w/ Carriage 58 cm</p> <ul style="list-style-type: none"> <li>• Lower post allows 3600 rotation</li> <li>• Upper fixed post is electric with 3300 rotation</li> <li>• Each has a load capacity of 18 kg (40 lbs.)</li> </ul>
29	1	E3053CH	<p>Contour Shield 76 x 61 cm (with center connect)</p> <p>Contour Shield 76 x 61 cm (with center connect)</p>
30	1	E3053HF	<p>LED3MC, multi color LED surgical lamp (130,000 Lux)</p> <p>The tasks in examination and operating rooms are varied and require precision and efficiency. Lights from Mavig provide up to 130,000 Lux for an optimum illumination of</p>



Item No.	Qty	Catalog No.	Description
			<p>the surgical field and at least 40,000 hours of life span.</p> <p>The LED light technology of the color composition inside the light source features the merging of the different colored LEDs by a computer calculated optical system with a light guide and faceted lens. The result is light composed of bright white or multi-color as it is dispersed homogeneously over the wound/surgical field. The advantages of this LED technology include excellent color rendition, tissue differentiation and shadow reduction with a goal to reduce surgeon eye strain.</p> <p>The LED 3 MC features the ability to choose the optimum OR light according to the tissue type and the wound field. Five different color temperature values can be set: 3750, 4000, 4250, 4500, 4750 Kelvin. The setting can be adjusted either at the keypad or the handle.</p>
31	2	E3053JA	<p>Mavig Single Pivot Lower Body Protector</p> <p>Mavig Single Pivot Lower Body Protector Provides convenience, flexibility and enhanced protection for medical personnel. Helps shield technicians against scatter radiation from sources beneath the tabletop and also helps to protect the lower extremities. Flexible 0.5 mm lead equivalent curtains attached to aluminum alloy pivoting arm. The entire lower body protector can be easily and quickly removed from the table. Warranty Code H- 6 Months: Exchange of non-conforming products, which you return to us during the warranty period. Note: Installation, parts, applications training and on-site service is the buyer's responsibility. o One-piece economical model offers enhanced protection o Comes with single joint adapter o Measures 45 cm W W 73 cm L (18 W 29 in.) Upper portion is 17 cm H (7 in.)</p>
32	2	E7058A	<p>GE Anti-Fatigue Floor Mat (Blue 3x5 x 5/8")</p> <p>GE Anti-Fatigue Floor Mat</p> <p>FEATURES/BENEFITS</p> <ul style="list-style-type: none"> <li>• Ingenious device for those who spend a lot of time on their feet on concrete or tile surfaces</li> <li>• Cradles feet in cushiony comfort, minimizing stress and fatigue</li> <li>• Sealed to prevent moisture absorption and facilitate cleanup - ideal for medical environments</li> </ul> <p>SPECIFICATIONS</p> <ul style="list-style-type: none"> <li>• Dimensions (L x W x D): 60" x 36" x 0.5"</li> <li>• Weight: Approx 22 lbs.</li> <li>• Blue/White Marble Color</li> </ul>



GE Healthcare

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Item No.	Qty	Catalog No.	Description
			<p>COMPATIBILITY</p> <ul style="list-style-type: none"> <li>• Cath Labs, Angiography, R&amp;F rooms</li> <li>• Mammography</li> <li>• Ultrasound</li> </ul>
33	2	W0100CV	<p>6 Days Interventional X-ray On-site System Training</p> <p>6 Days Interventional X-ray On-site System Training</p> <p>Six full days (1 day = 8 hours) of on-site training for an Innova X-ray system. Includes one 3-day on-site visit to coincide with system go-live and one 3-day on-site follow-up visit to be scheduled Monday through Friday. Training cannot be scheduled as single day events. Training expires 12 months from the date of go-live of equipment or purchase, whichever is the latest.</p>
34	2	W4011CV	<p>HQ Class for Innova Single Plane or Biplane with AW, No Lodging</p> <p>HQ Class for Innova Single Plane or Biplane with AW, No Lodging</p> <p>Tuition for one student to attend one three-day class for Innova Single Plane or Innova Biplane at the GE Healthcare Institute in Waukesha, WI. Tuition includes lunch while at the GE Healthcare Institute. Airfare, lodging and transportation are not included. Training expires 12 months from the date of go-live of equipment or purchase whichever is the latest.</p> <p>This course will focus on both the Innova IGS and Advantage Workstation and is intended for the customer who desires training on both systems to include Innova 3D/3DCT. All Vision applications are discussed in this course as only a high level overview.</p> <p>This course is not recommended for customers who have purchased an Innova IGS System without the purchase and/or use of the Advantage Workstation.</p>
35	1	S18101SP	<p>Installation Template</p> <p>Installation Template</p>
36	1	S18101SM	<p>Vascular Base Plate Assembly</p> <p>Vascular Base Plate Assembly</p>
37	1	S18741TP	<p>Table Plate</p> <p>Table Plate</p>
38	1	S18101SF	<p>Above Grade and Through Bolts</p>



GE Healthcare

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Item No.	Qty	Catalog No.	Description
			Anchor Kit - Above Grade and Through Bolts, 25 mm
39	1	S18121RD	In Board Rails, 228 inch/579 cm In Board Rails, 228 inches long, to be used with LCD Monitor Suspensions
40	1	S18461DB	INTEGRATED VIVID E9 SM AD INTEGRATED VIVID E9 SM AD
41	1	S18111BD	Long In Board Monitor Bridge 9'6- INBOARD MONITOR BRIDGE

**Quote Summary:**

**Total Quote Net Selling Price** **\$774,881.62**

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

**Trade-in Addendum to GE Healthcare Quotation**

THIS ADDENDUM, dated this November 7, 2017 of this Addendum, between Select GEHC Entity Name ("GE Healthcare") and Novant Health Forsyth Medical Center ("Customer"), is made a part of Quotation # PR2-C101468 v11 dated November 6, 2017 ("Quotation") between GE Healthcare and Customer and modifies the Quotation as follows:

- A. Customer warrants and represents to GE Healthcare that Customer has full legal title to the equipment listed below ("Equipment") and/or mobile vehicle in which the Equipment is contained ("Vehicle"), free and clear of all liens and encumbrances and conveys such title, and any registration and license documents (as applicable), to GE Healthcare effective as of the date of the removal or receipt by GE Healthcare of the Equipment and/or Vehicle (as applicable).

*Trade-In* →

<u>Equipment/Vehicle Mfr.</u>	<u>Model &amp; Description</u>	<u>Quantity</u>	<u>ID / Serial #</u>	<u>Trade-In Amount (\$)</u>
Siemens	Axiom-Artis	1	35125	15,000 *

- B. In cases where GE Healthcare will be removing the Equipment, GE Healthcare will, at its expense, arrange for removal of the Equipment during Customer's normal business hours or on a mutually agreed schedule. Customer will be responsible for (i) any required rigging, construction or demolition expenses; (ii) any facility reconditioning (unless expressly stated otherwise in the Quotation); and (iii) providing GE Healthcare and/or its contractor(s) with timely, unrestricted access to remove the Equipment. Prior to removal or return to GE Healthcare (as applicable), Customer will ensure that the site where the Equipment is located and the Equipment itself are clean and free of bodily fluids. Customer must also inform GE Healthcare of work-area related safety risks to GE Healthcare employees. Until safety risks are appropriately addressed and the Equipment is removed or returned to GE Healthcare (as applicable), Customer is responsible for risk of loss and damage to the Equipment.
- C. Customer is responsible for the proper management, transportation and disposal of the following materials that may be located at Customer's site in accordance with applicable legal requirements: radioactive sources; PET radioactive pins; biohazard filled bags; pharmaceuticals; and all other materials considered hazardous under U.S. Department of Transportation shipping regulations.
- D. Prior to removal or return to GE Healthcare (as applicable), Customer will remove all Protected Health Information ("PHI") (as defined by the Health Insurance Portability and Accountability Act) from the Equipment and agrees to indemnify GE Healthcare for any loss whatsoever resulting from any PHI that is not removed. The parties agree that GE Healthcare shall have no obligations whatsoever in connection with any PHI that is not properly removed from the Equipment by Customer.
- E. If any of the conditions in this Addendum are not fulfilled, or if the Equipment is missing any components or is inoperable at the time of removal or return to GE Healthcare (as applicable), GE Healthcare may at its option reduce the trade-in amount or decline to purchase the Equipment. All other terms and conditions of the Quotation remain unmodified and in full force and effect.

Once this Addendum has been attached to the signed Quotation, this Addendum shall be deemed executed by GE Healthcare and Customer effective as of the date set forth above.

**CUSTOMER NAME.**

**GE HEALTHCARE**

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

<p><b>Optional: Customer Pickup Contact Information</b></p> <p>Name: _____</p> <p>Phone: _____</p> <p>Pickup Location: _____</p>
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**ATTACHMENT B –  
Project Capital Cost Form**



## PROPOSED CAPITAL COSTS

Project Name: **Cath Lab #4 Equipment Replacement**

November 27, 2017

Proponent: **Novant Health Forsyth 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		0.00
(6)	Other (specify)		
(7)	<b>Sub-Total Site Costs</b>		<b>0.00</b>

**B. Construction Contract**

(8)	Sub-Total Cost of Materials		139,500.00
(9)	Cost of Labor GC Labor		170,500.00
(10)	Other -		
(11)	<b>Sub-Total Construction Contract</b>		<b>310,000.00</b>

**C. Miscellaneous Project Costs**

(12)	Building Purchase		
(13)	Fixed Equipment Purchase/Lease		774,882.00
	Other: Add Trade-In Value of Old Equipment		15,000.00
(14)	Movable Equipment Purchase/Lease		
(15)	Furniture		
(16)	Landscaping		
(17)	Consult Fees		
	Architect and Engineering Fees	26,900.00	
	Legal Fees		
	Market Analysis		
	Other (Test and Balance )	1,500.00	
	Sub-Total Consultant Fees		28,400.00
(18)	Financing Costs (e.g. Bond Loan, etc)		
(19)	Interest During Construction		
(20)	Other: DHSR Inspection Fees		2,500.00
	Other: Contingency		111,578.00
(21)	<b>Sub-Total Miscellaneous</b>		<b>932,360.00</b>
(22)	<b>Total Capital Cost of Project (Sum A-C above)</b>		<b>1,242,360.00</b>

# ksqdesign

2115 Rexford Road, Suite 500  
Charlotte, North Carolina 28211

704.364.3400 Office

ksqdesign

November 3, 2017

Ms. Amanda Lautermilch  
Novant Health, Inc.  
3600 Country Club Road, Suite 201  
Winston-Salem, North Carolina 27104

Re: Novant Health | Forsyth Medical Center | Cath Lab 4 Equipment Replacement  
Winston-Salem, North Carolina

Dear Amanda:

We have prepared our estimate for the Cath Lab 4 Equipment Replacement at Forsyth Medical Center. We estimate the construction labor cost will be \$170,500.00 and the construction material cost will be \$139,500.00. Therefore, we estimate the total construction cost to be \$310,000.00.

The architectural and engineering design fees shall be \$26,900.00 and estimated project reimbursables are \$2,000.00. The DHSR review fee is estimated to be \$1,695.00. Therefore, the total estimated cost of construction, including A&E fees and reimbursables, and DHSR review fee is \$340,595.00.

If we can be of further assistance, please do not hesitate to contact me.

Sincerely,



Nelson C. Soggs, AIA, LEED® AP, Associate  
Senior Project Manager  
KSQ Architects, PC dba KSQ Design

nsoggs@ksqdesign.com



11/03/17

**ATTACHMENT C –  
NC Equipment Comparison Form**

NHIFMC Replacement of Cardiac Catheterization Lab #4

	EXISTING EQUIPMENT	REPLACEMENT EQUIPMENT
Type of Equipment	Angiography – Cardiac Cath lab	Angiography – Cardiac Cath lab
Manufacturer of Equipment	Siemens	GE Healthcare
Tesla Rating for MRIs	n/a	n/a
Model Number	Axiom Artis	Innova-IQ
Serial Number	SN 1172	To Be Determined
Provider's Method of Identifying Equipment	Internal Number System	Internal 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	2004	To Be Determined
Does Provider Hold Title to Equipment of Have a Capital Lease?	Title	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>	\$ 1,051,015	\$ 1,242,360
Total Cost of Equipment	\$ 655,000*	\$ 774,882
Fair Market Value of Equipment	\$ 15,000	\$ 774,882
Net Purchase Price of Equipment	---	\$ 774,882
Locations Where Operated	FMC Cath Lab #4	FMC Cath Lab #4
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	Angiography -Cardiac Caths	---
Type of Procedures New Equipment is Capable of Performing	---	Angiography-Cardiac Caths